

Greater Toronto Area Cordon Count Summary

Analysis of Peak Periods - 2009

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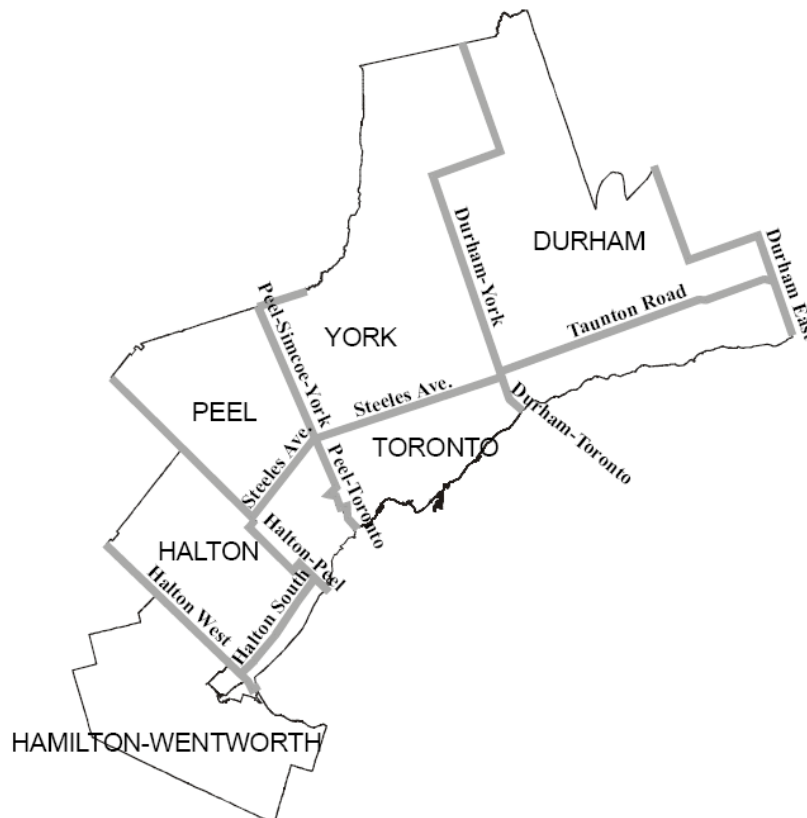
The collection of traffic counts taken by various Regional Governments and the Province of Ontario at various locations in the Greater Toronto Area over the last several years have been assembled in one data base. This report presents a summary of conditions during the periods of maximum traffic flow at a collection of screenlines for the most recent counts in 2009. The data is presented without alteration or corrections as provided by the City of Toronto, the Regional Municipalities of Durham, Halton, Peel and York and the Ministry of Transportation Ontario. The data was collected in the May and June period of 2009.

Each Regional Municipality has their own set of needs and priorities for the data. Therefore, the data collection methods are somewhat different in each jurisdiction. The level of commonality

in the data bases, which makes this report possible, is the result of efforts by the Transportation Research and Data Management Group (TRADMAG). TRADMAG is a technical committee with representatives from the Regional Municipalities mentioned above plus the City of Hamilton, GO Transit, Toronto Transit Commission and the Ministry of Transportation Ontario.

Eleven screenlines were chosen to illustrate the variation in vehicular counts. Common morning (6:00 to 10:00 A.M.) and evening (3:00 to 7:00 P.M.) time windows are used to represent the periods of peak travel and to provide a common frame for comparison. The screenlines are chosen to represent the interests of each jurisdiction in addition to providing information on the development of north-south travel within some Regional Municipalities.

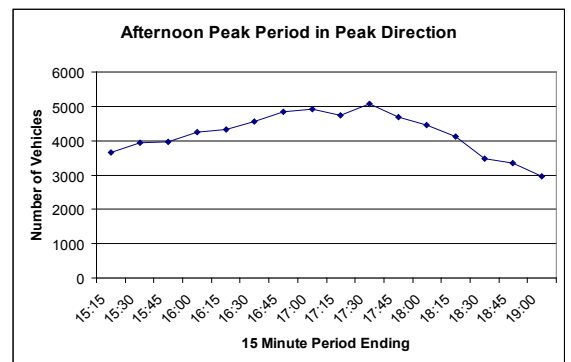
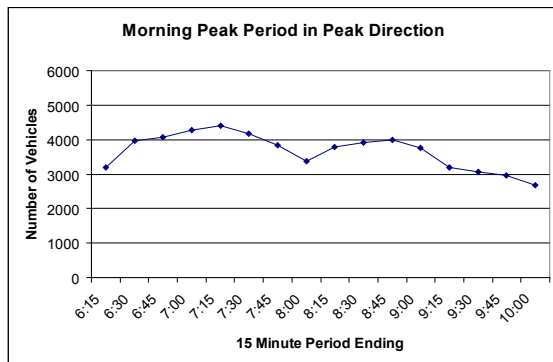
Screenline Definitions



Halton West Screenline

This screenline is located at the western edge of the Regional Municipality of Halton as an extension of the common boundary between Halton and the City of Hamilton to intersect the Burlington Skyway. The screenline follows this straight path rather than the Regional boundary to minimize the influence of trips double crossing the line. The dominant direction is east-west although the direction of the Burlington Skyway is north-south. Northbound traffic on this bridge is assumed to be destined to eastbound routes, while the reverse is assumed for southbound traffic. East(north)bound is the peak direction in the morning peak period and west(south)bound is the peak direction in the afternoon. Contraflow (flow in the opposite direction during the peak 3 hour period) represents 53% of the peak direction in the morning and 70% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

East(north)bound		West(south)bound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	46712	15:00 to 18:00	53398
6:15 to 9:15	46729	15:15 to 18:15	53876
6:30 to 9:30	45825	15:30 to 18:30	53416
6:45 to 9:45	44710	15:45 to 18:45	52809
7:00 to 10:00	43117	16:00 to 19:00	51521

The absolute peak three hour window in the morning occurs from 6:15 to 9:15 A.M., although the total number of vehicles in this three hour window is very similar to the time window beginning 15 minutes earlier. In the afternoon, the peak three hours occur from 3:15 to 6:15 P.M.. The number of vehicles in the peak three hours in the afternoon is 15% higher than the number in the morning peak, which reflects the sustained higher 15 minute traffic volumes over an extended period.

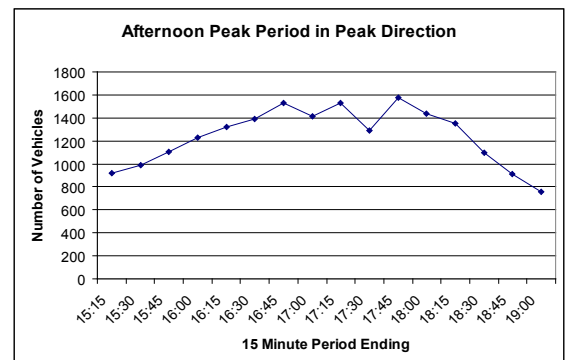
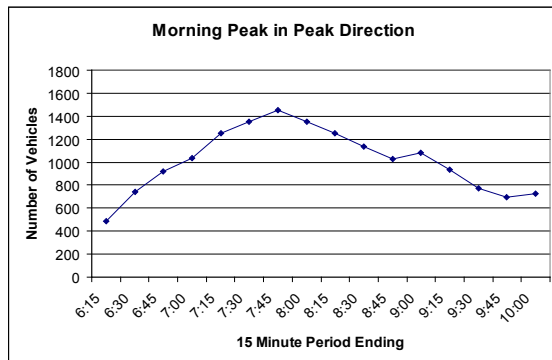
Morning and Afternoon Peak Hour

The peak one hour window occurred between 6:30 and 7:30 A.M. with a total of 16,921 vehicles representing 36% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:30 and 5:30 P.M. with a total of 19,579 vehicles representing 36% of the afternoon peak three hours. The afternoon peak hour is 16% larger than the morning peak hour.

Halton South Screenline

This screenline consists of all major streets crossing Dundas Street (Regional Road 5) in the northern sections of Burlington. Historically, this screenline has included stations in both Burlington and Oakville, but no traffic counts were available for Oakville in the 2009 count. Thus, the analysis presented here is restricted to the Burlington portion of the screenline. Although the actual direction are northeast and southwest, the screenline is considered to be east-west from Orchard Rd West to Indian Creek. The traffic directions are considered to be north and south. Northbound is the peak direction in the morning peak period and southbound is the peak direction in the afternoon. Contra-flow represents 65% of the peak direction in the morning and 66% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

Northbound		Southbound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	13097	15:00 to 18:00	15731
6:15 to 9:15	13549	15:15 to 18:15	16163
6:30 to 9:30	13578	15:30 to 18:30	16271
6:45 to 9:45	13352	15:45 to 18:45	16084
7:00 to 10:00	13044	16:00 to 19:00	15612

The absolute peak three hour window in the morning occurs from 6:30 to 9:30 A.M., although the total number of vehicles is very similar in the three hour window beginning 15 minutes earlier and 15 minutes later. In the afternoon, the peak three hours occur from 3:30 to 6:30 P.M. The number of vehicles here are very similar in the three hour time window beginning 15 minutes earlier and 15 minutes later. The number of vehicles in the peak three hours in the afternoon is 20% higher than the number of vehicles in the morning peak three hours.

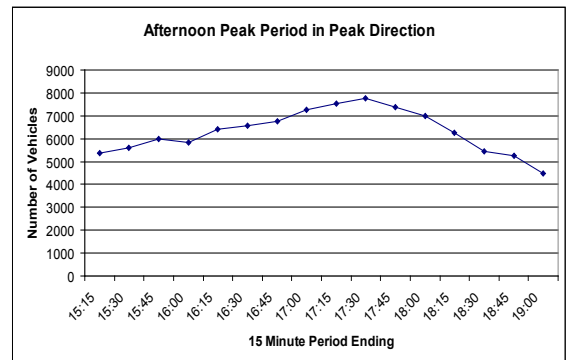
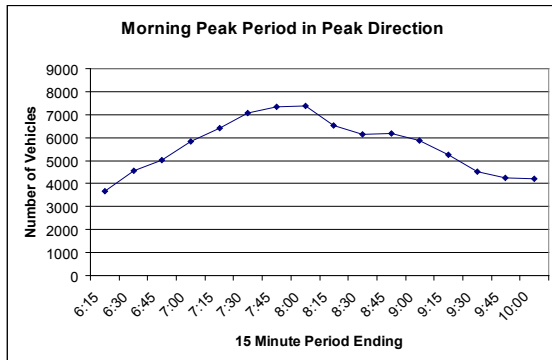
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:00 and 8:00 A.M. with a total of 5,413 vehicles representing 40% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 5:00 and 6:00 P.M. with a total of 5,862 vehicles representing 36% of the afternoon peak three hours.

Halton Peel Screenline

This screenline follows the western boundary of the Regional Municipality of Peel, including the full length of the common boundary with the Regional Municipality of Halton. The screenline follows the jurisdictional boundary and includes all major roads crossing the boundary in the east-west direction. Eastbound traffic is the dominant direction in the morning peak period and westbound traffic is the dominant direction in the afternoon peak period. Contra-flow represents 54% of the peak direction in the morning and 64% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

Eastbound		Westbound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	71998	15:00 to 18:00	79454
6:15 to 9:15	73567	15:15 to 18:15	80336
6:30 to 9:30	73540	15:30 to 18:30	80176
6:45 to 9:45	72760	15:45 to 18:45	79448
7:00 to 10:00	71129	16:00 to 19:00	78111

The absolute peak three hour window in the morning occurs from 6:15 to 9:15 A.M. but is very similar to the three hour window beginning 15 minutes after. In the afternoon, the peak three hours occur from 3:15 to 6:15 P.M. but is very similar to the three hour window beginning 15 minutes after. The number of vehicles in the peak three hours in the afternoon is 9% higher than the number of vehicles in the morning peak.

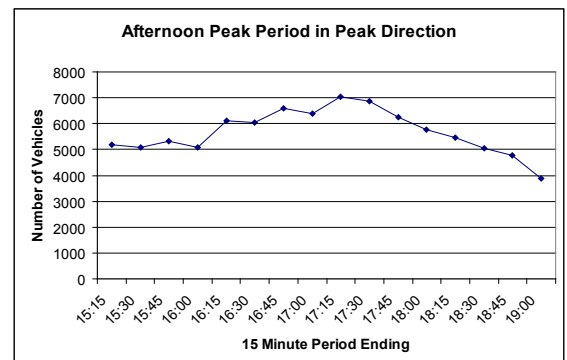
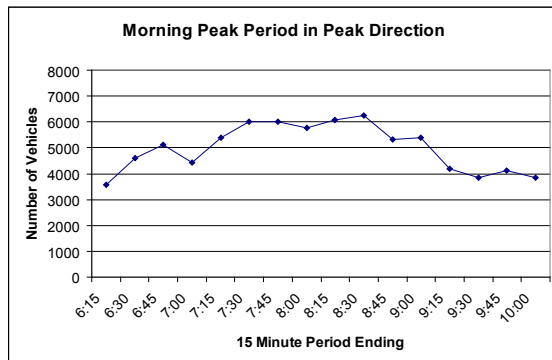
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:15 and 8:15 A.M. with a total of 28,308 vehicles representing 38% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:45 and 5:45 P.M. with a total of 29,927 vehicles representing 37% of the afternoon peak three hours. The afternoon peak hour is 6% larger than the morning peak hour.

Peel Steeles Avenue Screenline

This screenline follows Steeles Avenue in the southern portion of the City of Brampton close to its common boundary with the City of Mississauga all within the Regional Municipality of Peel. The line extends in an east-west direction from the common boundary with the City of Toronto to the common boundary with the Regional Municipality of Halton. The screenline includes all major roads crossing the screenline in the north-south direction. Southbound traffic is the dominant direction in the morning peak period and northbound traffic is the dominant direction in the afternoon peak period. Contra-flow represents 57% of the peak direction in the morning and 60% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

Southbound		Northbound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	63890	15:00 to 18:00	71726
6:15 to 9:15	64522	15:15 to 18:15	72001
6:30 to 9:30	63762	15:30 to 18:30	71960
6:45 to 9:45	62769	15:45 to 18:45	71411
7:00 to 10:00	62194	16:00 to 19:00	70236

The absolute peak three hour window in the morning occurs from 6:15 to 9:15 A.M. In the afternoon, the peak three hours occur from 3:15 to 6:15 P.M., although the total number of vehicles is very similar in the three hour windows beginning 15 minutes after. The number of vehicles in the peak three hours in the afternoon is 12% higher than the number in the morning period.

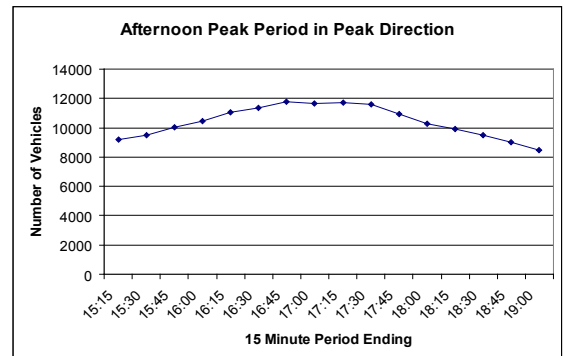
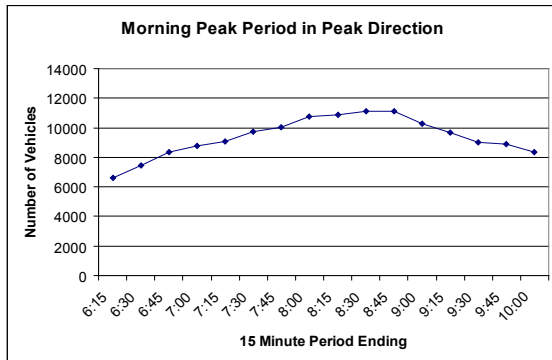
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:30 and 8:30 A.M. with a total of 24,102 vehicles representing 37% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:30 and 5:30 P.M. with a total of 26,908 vehicles representing 37% of the afternoon peak three hours. The afternoon peak hour is 12% larger than the morning peak hour.

Peel-Toronto Screenline

This screenline is located at the western boundary of the City of Toronto and coincides with a portion of the eastern boundary of the Regional Municipality of Peel. The potential for vehicles double crossing the jurisdictional boundary is very high in the areas of the south and east of Toronto International Airport. For the sake of consistency, the stations included in the analysis are the same used by the Region of Peel. The screenline includes all major roads crossing the boundary in the east-west direction. Eastbound traffic is the dominant direction in the morning peak period and westbound traffic is the dominant direction in the afternoon peak period. Contra-flow represents 88% of the peak direction in the morning and 88% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

Eastbound		Westbound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	114196	15:00 to 18:00	129664
6:15 to 9:15	117262	15:15 to 18:15	130399
6:30 to 9:30	118863	15:30 to 18:30	130411
6:45 to 9:45	119394	15:45 to 18:45	129373
7:00 to 10:00	118971	16:00 to 19:00	127339

The absolute peak three hour window in the morning occurs from 6:45 to 9:45 A.M., however, the number of vehicles is similar in the three hour window starting 15 minutes earlier and 15 minutes later. In the afternoon, the peak three hours occur from 3:30 to 6:30 P.M., however, the number of vehicles is similar in the three hour time window starting 15 minutes earlier. The number of vehicles in the peak three hours in the afternoon is 9% higher than the number in the morning peak.

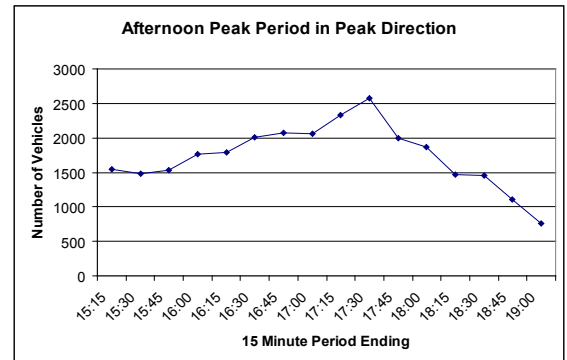
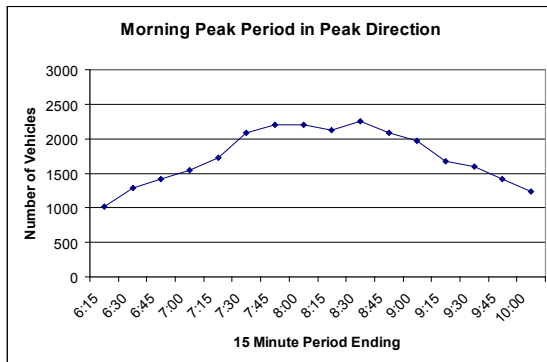
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:45 and 8:45 A.M. with a total of 43,827 vehicles representing 37% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:30 and 5:30 P.M. with a total of 46,813 vehicles representing 36% of the afternoon peak three hours. The afternoon peak hour is 7% larger than the morning peak hour.

Peel-Simcoe-York Avenue Screenline

This screenline is located at the western boundary of the Regional Municipality of York where it is coincident with the eastern boundary of the Regional Municipality of Peel and a portion of the south-eastern boundary of the County of Simcoe. Because it is a combination of directions, the screenline includes all major roads crossing the boundary regardless of the direction of the road. This analysis combines the eastbound with the southbound traffic and the westbound with the northbound traffic, which is consistent with travel entering or leaving the Greater Toronto Area. The Peel-Simcoe-York screenline is unique because the morning and afternoon peak period both move in the same direction: east(south)bound. Contra-flow represents 82% of the peak direction in the morning and 95% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

East(south)bound		East(south)bound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	21905	15:00 to 18:00	23035
6:15 to 9:15	22558	15:15 to 18:15	22962
6:30 to 9:30	22871	15:30 to 18:30	22939
6:45 to 9:45	22873	15:45 to 18:45	22507
7:00 to 10:00	22563	16:00 to 19:00	21504

The absolute peak three hour window in the morning occurs from 6:45 to 9:45 A.M. although the total number of vehicles in the period starting 15 minutes and 30 minutes earlier and 15 minutes later is very similar. In the afternoon, the peak three hours occur from 3:00 to 6:00 P.M. although the total number of vehicles are very similar to those in the three hour period starting 15 and 30 minutes later. The number of vehicles in the peak three hours in the afternoon is less than 1% higher than the number in the morning peak.

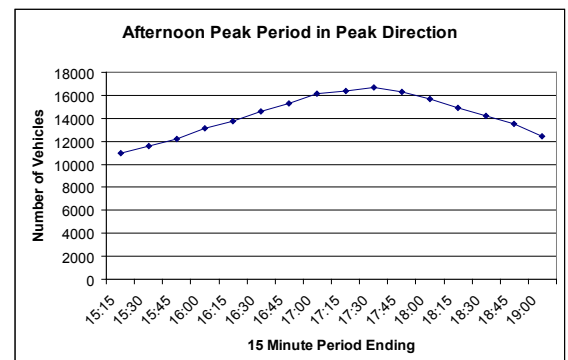
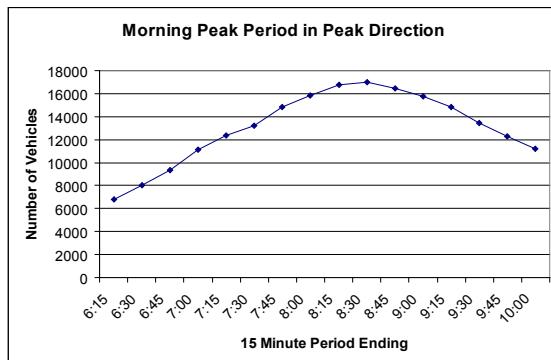
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:30 and 8:30 A.M. with a total of 8,770 vehicles representing 38% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:30 and 5:30 P.M. with a total of 9,049 vehicles representing 39% of the afternoon peak three hours. The afternoon peak hour is 3% higher than the morning peak hour.

Steeles Avenue Screenline

This screenline is located along Steeles Avenue at the northern boundary of the City of Toronto and coincides with the southern boundary of the Regional Municipality of York. The screenline includes all major roads crossing the boundary in the north-south direction. Southbound traffic is the dominant direction in the morning peak period and northbound traffic is the dominant direction in the afternoon peak period. Contra-flow represents 71% of the peak direction in the morning and 83% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

Southbound		Northbound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	157442	15:00 to 18:00	172719
6:15 to 9:15	165494	15:15 to 18:15	176672
6:30 to 9:30	170930	15:30 to 18:30	179331
6:45 to 9:45	173863	15:45 to 18:45	180655
7:00 to 10:00	173978	16:00 to 19:00	179963

The absolute peak three hour window in the morning occurs from 7:00 to 10:00 A.M., although the number of vehicles is very similar in the three hours time window 15 minutes earlier. In the afternoon, the peak three hours occur from 3:45 to 6:45 P.M. although the number of vehicles is very similar in the three hour time windows starting 15 minutes later and 15 minutes earlier. The number of vehicles in the peak three hours in the afternoon is 4% higher than the number in the morning.

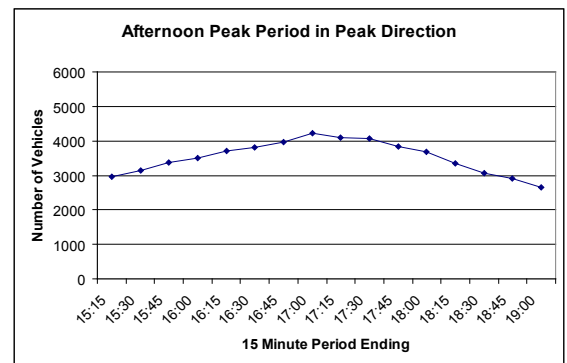
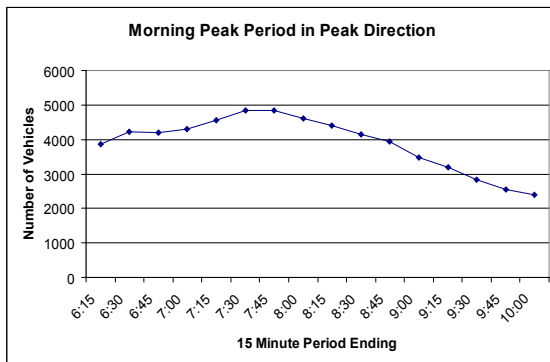
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:45 and 8:45 A.M. with a total of 66,014 vehicles representing 38% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:45 and 5:45 P.M. with a total of 65,526 vehicles representing 36% of the afternoon peak three hours. The morning peak hour is less than 1% larger than the afternoon peak hour.

Durham-Toronto Screenline

This screenline follows the eastern boundary of the City of Toronto and is coincident with a portion of the western boundary of the Regional Municipality of Durham. The screenline follows the jurisdictional boundary and includes all major roads crossing the boundary in the east-west direction. Westbound traffic is the dominant direction in the morning peak period and eastbound traffic is the dominant direction in the afternoon peak period. Contra-flow represents 38% of the peak direction in the morning and 53% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

Westbound		Eastbound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	51420	15:00 to 18:00	44331
6:15 to 9:15	50764	15:15 to 18:15	44717
6:30 to 9:30	49375	15:30 to 18:30	44660
6:45 to 9:45	47723	15:45 to 18:45	44194
7:00 to 10:00	45823	16:00 to 19:00	43350

The absolute peak three hour window in the morning occurs from 6:00 to 9:00 A.M. In the afternoon, the peak three hours occur from 3:15 to 6:15 P.M., and is similar to the total traffic in the three hour period starting 15 minutes later and 15 minutes earlier. The number of vehicles in the peak three hours in the morning is 15% higher than the number in the afternoon.

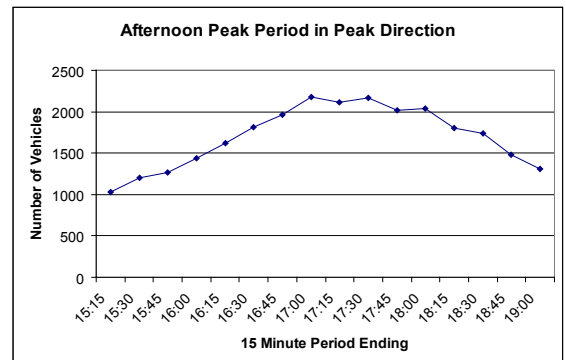
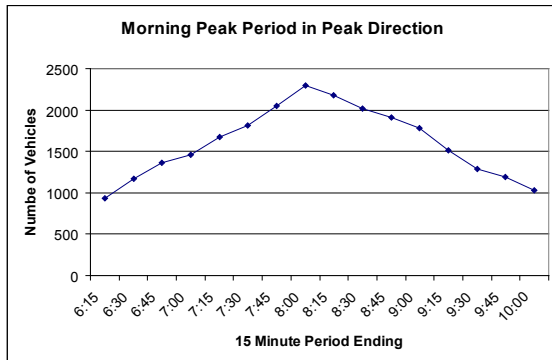
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:00 and 8:00 A.M. with a total of 18,864 vehicles representing 37% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:30 and 5:30 P.M. with a total of 16,330 vehicles representing 37% of the afternoon peak three hours. The morning peak hour is 16% larger than the afternoon peak hour.

Durham-York Screenline

This screenline is located at the eastern boundary of the Regional Municipality of York where it coincides with the western boundary of the Regional Municipality of Durham. Because it is a combination of directions, the screenline includes all major roads crossing the boundary regardless of the direction of the road. This analysis combines the eastbound with the southbound traffic and the westbound with the northbound traffic. Although this combination of directions is somewhat arbitrary, it is consistent with traffic moving between Durham and York. In addition, the definition is consistent with peak directions of traffic flow. West and northbound traffic is the dominant direction in the morning peak period and east and southbound traffic is the dominant direction in the afternoon peak period. Contra-flow represents 49% of the peak direction in the morning and 50% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

West(north)bound		East(south)bound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	20637	15:00 to 18:00	20855
6:15 to 9:15	21215	15:15 to 18:15	21622
6:30 to 9:30	21329	15:30 to 18:30	22160
6:45 to 9:45	21157	15:45 to 18:45	22373
7:00 to 10:00	20733	16:00 to 19:00	22244

The absolute peak three hour window in the morning occurs from 6:30 to 9:30 A.M., however, the number of vehicles is very similar in the three hour time window beginning 15 minutes earlier. In the afternoon, the peak three hours occur from 3:45 to 6:45 P.M., although the number of vehicles is very similar in the three hour windows 15 minutes after and 15 minutes earlier. The number of vehicles in the peak three hours in the afternoon is 5% higher than the number in the morning peak.

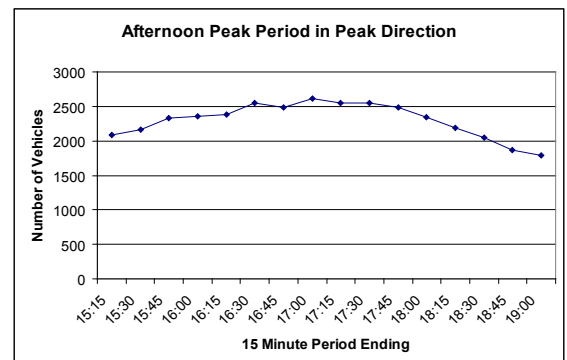
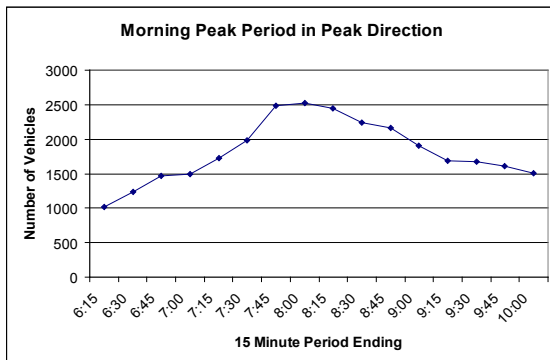
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:30 and 8:30 A.M. with a total of 8,534 vehicles representing 40% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:45 and 5:45 P.M. with a total of 8,478 vehicles representing 38% of the afternoon peak three hours. The morning peak hour is less than 1% larger than the afternoon peak hour.

Durham South (Taunton Road) Screenline

This screenline consists of all major streets crossing Taunton Road, or a continuation of the alignment of this road, in the northern sections of the local municipalities of Pickering, Ajax, Whitby, Oshawa and Clarington. The screenline runs east-west from the eastern boundary of the Regional Municipality of Durham to the common boundary between Durham and the City of Toronto. The traffic directions on the intersecting roads are north and south. Contra-flow represents 88% of the peak direction in the morning and 96% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

Southbound		Northbound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
6:00 to 9:00	22688	15:00 to 18:00	28896
6:15 to 9:15	23354	15:15 to 18:15	29005
6:30 to 9:30	23783	15:30 to 18:30	28893
6:45 to 9:45	23923	15:45 to 18:45	28425
7:00 to 10:00	23938	16:00 to 19:00	27860

The absolute peak three hour window in the morning occurs from 7:00 to 10:00 A.M., however, the number of vehicles is very similar in the three hour time window starting 15 minutes before. In the afternoon, the peak three hours occur from 3:15 to 6:15 P.M. however, the number of vehicles is very similar in the three hour time window starting 15 minutes earlier and 15 minutes later. The number of vehicles in the peak three hours in the afternoon is 21% higher than the number in the morning peak.

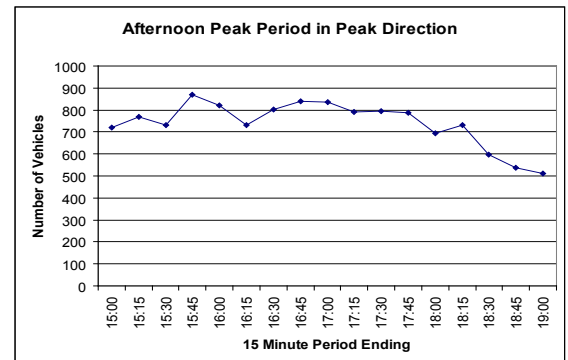
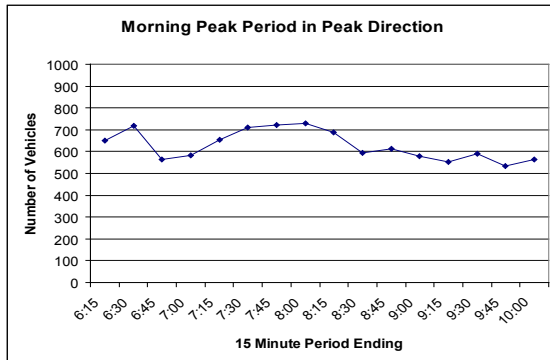
Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:30 and 8:30 A.M. with a total of 9,701 vehicles representing 41% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:15 and 5:15 P.M. with a total of 10,206 vehicles representing 35% of the afternoon peak three hours. The afternoon peak hour is 5% larger than the morning peak hour.

Durham East Screenline

This screenline follows the eastern boundary of the Regional Municipality of Durham. The screenline is north-south in some portions and east-west in others. This analysis combines eastbound with northbound traffic on intersecting roads as a representation of traffic leaving the Greater Toronto area. Conversely, westbound and southbound traffic are combined to represent traffic entering the GTA. West(south)bound traffic is the dominant direction in the morning peak period and east(north)bound traffic is the dominant direction in the afternoon peak period. Contra-flow represents 78% of the peak direction in the morning and 79% of the peak direction in the afternoon.

Peak Period Analysis



Peak Three Hours

West(south)bound		East(north)bound	
Time of Day	Total Number of Vehicles	Time of Day	Total Number of Vehicles
		14:45 to 17:45	9493
6:00 to 9:00	7805	15:00 to 18:00	9468
6:15 to 9:15	7706	15:15 to 18:15	9381
6:30 to 9:30	7579	15:30 to 18:30	9245
6:45 to 9:45	7548	15:45 to 18:45	8915
7:00 to 10:00	7530	16:00 to 19:00	8604

The absolute peak three hour window in the morning occurs from 6:00 to 9:00 A.M., however, the number of vehicles is very similar in the three hour window starting 15 minutes later. In the afternoon, the peak three hours actually occurs just outside our usual time frame in the 2:45 to 5:45 P.M window. The number of vehicles in this window is very similar in the 15 minute window starting 15 minutes later. The number of vehicles in the peak three hours in the afternoon is 22% higher than the number in the morning peak.

Morning and Afternoon Peak Hour

The peak one hour window occurred between 7:15 and 8:15 A.M. with a total of 2,850 vehicles representing 37% of the morning peak three hours. In the afternoon, the peak one hour window occurred between 4:15 and 5:15 P.M. with a total of 3,266 vehicles representing 34% of the afternoon peak three hours. The afternoon peak hour is 15% larger than the morning peak hour.

Cordon Count Information

pages 2,3

- Halton West Screenline
- Halton Dundas Screenline

Data on these pages were extracted from records from the cordon count program carried out by the Regional Municipality of Halton. For more information on counts in this Region, please contact:

Jeffrey Reid (905) 825-6000 X7920

pages 4,5

- Halton-Peel Screenline
- Peel Steeles Avenue Screenline

Data on these pages were extracted from records from the cordon count program carried out by the Regional Municipality of Peel. For more information on counts in this Region, please contact:

Tina Detaramani (905) 791-7800 X4554

pages 6, 8, 9

- Peel-Toronto Screenline
- Steeles Avenue Screenline
- Durham-Toronto

Data on these pages were extracted from records from the cordon count program carried out by the City of Toronto (previously the Municipality of Metropolitan Toronto). For more information on count in the Region, please contact:

Edmond Wu (416)338-2176

pages 7, 10

- Peel-Simcoe-York Screenline
- Durham-York Screenline

Data on these pages were extracted from records from the cordon count program carried out by the Regional Municipality of York. For more information on counts in this Region, please contact:

Omeed El-Zabet (905) 830-4444 X5028

pages 11, 12

- Durham South (Taunton Road) Screenline
- Durham East Screenline

Data on these pages were extracted from records from the cordon count program carried out by the Regional Municipality of Durham. For more information on counts in this Region, please contact:

Michael Blake (905) 668-7711 X2549