



Office of the Commissioner  
Transportation Services Department

## MEMORANDUM

To: Members of Committee of the Whole

From: Paul Jankowski  
Commissioner of Transportation Services

Date: May 22, 2020

Re: Initial Travel Observations in York Region during COVID-19 Pandemic

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This memo summarizes observed travel impacts in the Region as a result of measures implemented by all levels of government to mitigate the spread of the COVID-19 virus.

### **Approximately 600,000 commuters used their personal vehicles for travel on a typical weekday prior to COVID-19 pandemic**

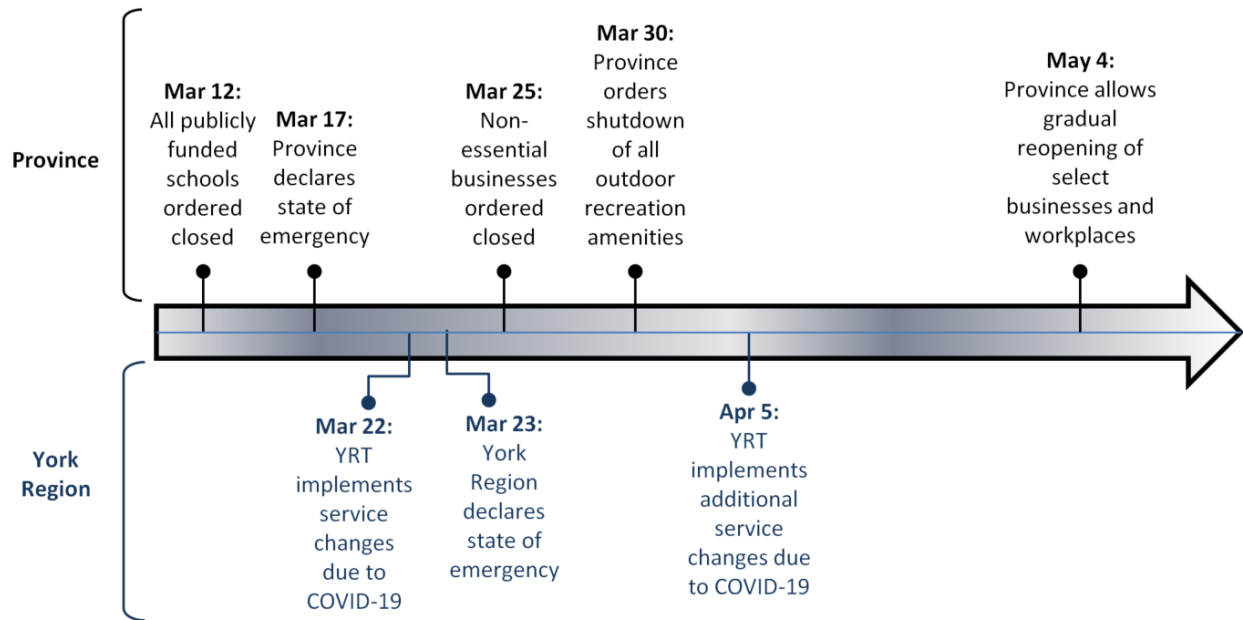
On a typical weekday prior to the COVID-19 pandemic (“pandemic”), about 600,000 commuters used their personal vehicles for travel on the Regional road network. Approximately 35,000 daily commuters used York Region Transit services and GO Rail served about 14,000 daily. Approximately 6,000 commuters chose to cycle or walk to work.

About 29,000 heavy trucks travelled daily in York Region, carrying \$550 million worth of goods per day.

### **Measures implemented to mitigate the spread of COVID-19 have been in place since mid-March and have impacted travel patterns**

Various physical distancing measures have been implemented at all levels of government since mid-March in order to mitigate the spread of COVID-19. The timeline of measures implemented at the Provincial and Regional levels is summarized in Figure 1.

**Figure 1**  
**COVID-19 Timeline of Key Developments**



Observations for travel by all modes during the pandemic are gathered using various Region-wide data collection tools.

There are a number of ongoing data collection programs in place across the Region to monitor trends and changes in travel patterns and to help guide Regional service decisions. Traffic volumes, including vehicle types, are collected through the Region’s Permanent Counting Stations and Automatic Traffic Recorder programs. Travel time and travel speed information is gathered by over 400 Bluetooth sensors located at signalized intersections across the Region. York Region Transit (YRT) uses an Automated Passenger Counting system to collect real-time transit boarding information. The Region also works in partnership with York Regional Police to collect and summarize collision data on Regional roads.

**Typical weekday traffic volumes have reduced by almost 50% since the implementation of measures to mitigate the spread of COVID-19**

There are six Permanent Counting Stations located across the Region. Daily traffic volumes from early March to early April on Woodbine Avenue, at a location north of Steeles Avenue in the City of Markham are shown on Attachment 1. Traffic volume patterns at the other five counting stations are consistent with this.

Based on the figure in the attachment, the impacts of COVID-19 on traffic volumes can be observed as early as March break (March 15<sup>th</sup> to March 21<sup>st</sup>, 2020), with traffic volume decreases stabilizing after the Provincial order to close non-essential businesses. Typical weekday traffic volumes observed during the pandemic have decreased by approximately 50%

compared to typical weekday traffic volumes prior. Traffic volumes on a typical weekend have decreased by approximately 42% when compared to pre-COVID-19 conditions. These patterns continued through the full closure of non-essential businesses. A 12% increase in daily traffic was observed in advance of the May 4<sup>th</sup> opening of garden centres, landscaping services, car dealerships (by appointment), and additional construction projects.

### **With fewer cars on Regional roads, motorists are experiencing less delay and travelling at higher speeds**

With fewer cars on Regional roads, motorists are experiencing significantly less delay during the pandemic. Travel delays would typically increase travel times by 30% during peak hours on weekdays. Based on the Bluetooth sensors, these delays have been reduced to approximately 10%.

With fewer cars on the road, vehicles are able to travel at higher speeds. The Bluetooth sensor traffic speed data map (Attachment 2) shows a comparison of vehicle travel speeds across southern York Region before and during the pandemic. A similar comparison of vehicle travel speeds before and during the pandemic for travel on the highway network across the Greater Toronto Area using Google Maps is shown on Attachment 3.

Almost all Regional roads show significant improvement in travel speed. On average, travel speed on all Regional roads has increased from 45 km/h to 55 km/h, or 22%. While increased travel speeds may be desirable for vehicle drivers, this does raise safety concerns. York Regional Police are aware of this and are working with the community to ensure vehicles are travelling at appropriate speeds.

### **Truck volumes across the Region are comparable to pre-pandemic volumes although the distribution of trucks has changed**

An assessment of 13 Automatic Traffic Recorder locations across the Region indicates daily heavy truck volumes are generally comparable with pre-pandemic volumes. As there has been a substantial decrease in vehicle traffic overall, the proportionate volume of heavy trucks on Regional roads has increased from approximately 3% to 8%.

Although total heavy truck daily volumes observed during the pandemic are consistent with 2019 daily counts, truck counts at individual locations have significantly shifted. The re-distribution of heavy trucks may reflect changing trip purposes since non-essential businesses and schools have closed, and the altering of travel routes due to reduced congestion on Regional roads.

### **Traffic collisions have reduced by more than 60% during the COVID-19 pandemic as a result of significantly reduced traffic volumes**

Traffic collision data is collected by York Regional Police. A comparison of collisions during the pandemic with data from the same time period in 2019 is shown in Table 1.

**Table 1**  
**Collisions Before and During the COVID-19 Pandemic**

Total Collisions	2019	2020	Decrease
March 1-16	549	436	21%
March 17-31	434	179	59%
April 1-17	522	181	65%
March 17-April 17	956	360	62%

The data shows a reduction in collisions of 62% for March and early April compared to the same time last year. With fewer cars traveling on the roads following the closure of schools and non-essential businesses, there are fewer conflict points between vehicles. Vehicle conflict points occur when vehicles need to cross each other’s paths at intersections or when they change lanes. With fewer cars on the road, there are fewer conflict points reducing the likelihood of vehicle collisions.

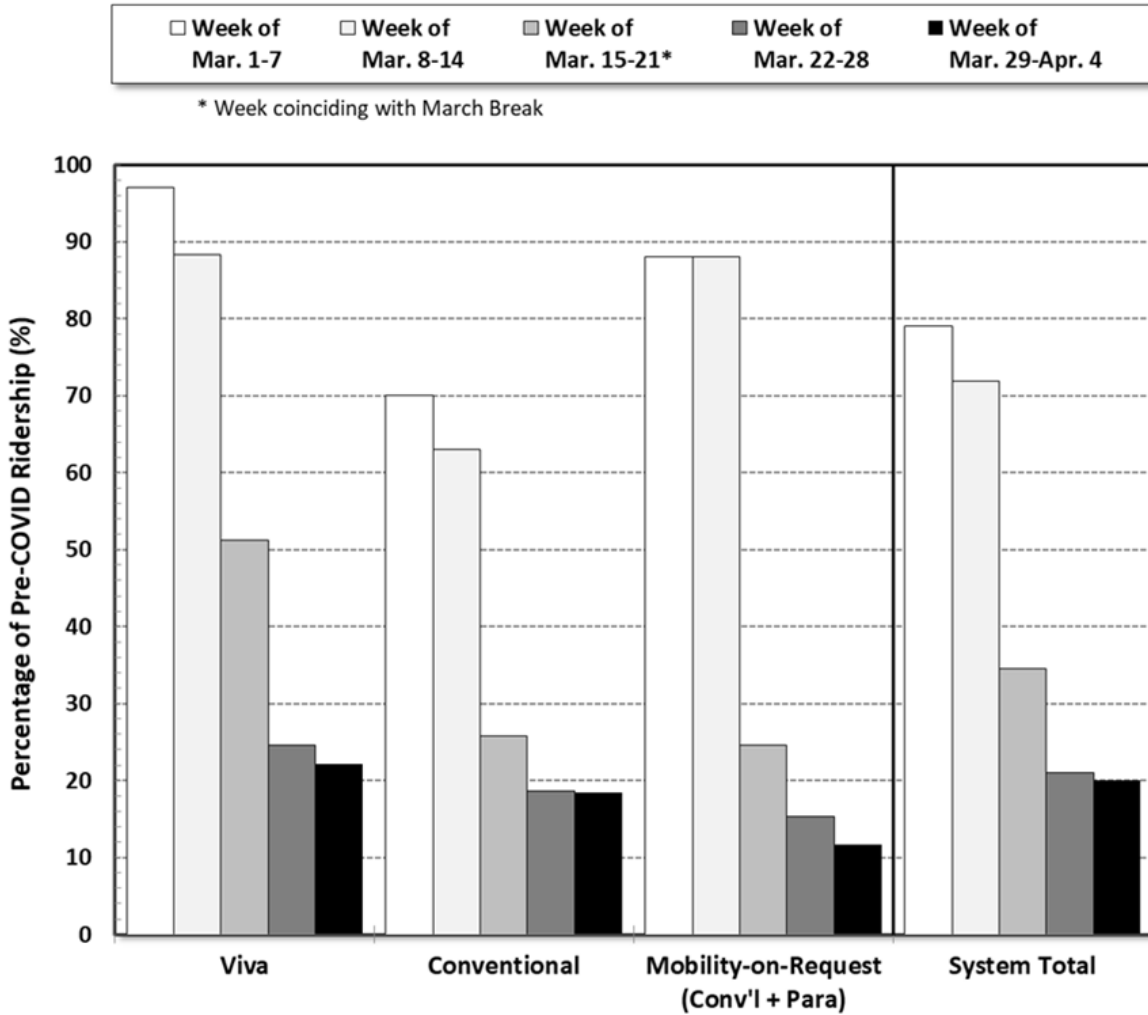
**Reduced traffic volumes have allowed for extended working hours for road construction projects on Regional Roads**

Temporary lane closures required for construction projects were typically permitted during off peak periods only (i.e. 9:30 am to 3:30 pm). Given the significant reduction in vehicles on Regional roads, the window for lane closures has been extended to allow work to occur between 7:00 am and 7:00 pm. This extension allows for work to be completed faster and reduces the need for delays when traffic volumes increase. 29 road projects, including utilities and telecommunications projects, are taking advantage of working during the extended hours. Staff is monitoring traffic volumes and construction progress to better understand the impacts of extended lane closure hours. Standard lane closure hours will be reinstated as traffic volumes increase.

**Measures to mitigate the impacts of the COVID-19 pandemic have reduced the number of travellers using all York Region Transit Services**

The number of travellers using all YRT services has significantly decreased with the closure of all publicly-funded schools and non-essential businesses. Cumulative impacts to weekday ridership on conventional, Viva and Mobility-On-Request services are shown in Figure 2.

**Figure 2**  
**YRT/Viva Weekday Service – Ridership Impact of COVID-19**



**Viva and conventional transit services experienced ridership declines throughout March and into April 2020**

By the end of March 2020, ridership on the Viva and conventional system decreased by approximately 80%. With significantly reduced passenger demands, transit service reductions were implemented on March 23 and again on April 5, 2020. YRT introduced an “enhanced Saturday service” on weekdays where Saturday schedules are used as YRT’s base service. Early morning trips and routes that do not normally operate on Saturday were added to accommodate the current demand for transit services. Maintenance of service on most routes is necessary within our communities for those who need to travel to essential service providers and businesses.

To address physical distancing requirements, temporary traveller boarding standards have been implemented. These standards allow only 30% of available vehicle capacity to be used. This equates to approximately 13 to 16 travellers permitted to be on-board a bus at any one time.

### **Mobility On-Request services have also experienced significant ridership loss**

Mobility On-Request services saw a decrease in ridership similar to the Viva and conventional services by the end of March 2020. On average, ridership decreased by 85% as day programs were cancelled and residents asked to stay home during the pandemic.

A temporary one-traveller-per-vehicle policy was implemented to address physical distancing in Mobility On-Request vehicles. Mobility On-Request services are being made available to travellers during the morning to address early opening of essential services, such as grocery stores. Most Community Bus routes were replaced with Mobility On-Request services with earlier start times that enable travellers to use these services when regular conventional services are not operational.

### **GO Rail ridership has decreased significantly as travellers remain at home during the COVID-19 pandemic**

On April 13, 2020 Metrolinx announced that ridership on the GO bus and rail network has decreased by 90% since the start of the pandemic. Prior to the pandemic, ridership on GO Transit was approximately 165,000 commuters per day assuming most commuters make a round trip. With the closure of non-essential businesses and recommended physical distancing measures, ridership has gone down to approximately 16,500 commuters per day as people are working from home or not working at all.

### **More people are walking and cycling on Regional roads to improve mental and physical health with the closure of gyms, parks and other recreational facilities**

The Region currently does not have any automated collection tools to obtain pedestrian data. There are a limited number of automated cycle counters; however, we have had challenges obtaining the data remotely. With school and non-essential business closures, walking and cycling as a means of commuting to work or school likely saw similar decreases as vehicle and transit trips.

With the closure of a variety of recreational facilities due to the pandemic, residents are looking to walk and cycle as a way to improve their mental and physical well-being.

This can be problematic in more dense urban areas where limited pedestrian space may make it difficult to achieve proper physical distancing. This has not been a significant issue on Regional roads as these generally have adequate boulevard space to accommodate current demands of pedestrian and cycling activity. Pedestrians and cyclists may need to use grassy portions of the boulevard for short distances but generally; an adequate amount of space between the roadside curb and private property is available.

**Travel during COVID-19 pandemic has significantly reduced across all transportation modes**

Measures implemented to mitigate the spread of the COVID-19 virus have had significant impacts on travel by all modes in the Region. The most significant impact has been the reduction in daily travel, especially by commuters during rush hours. A summary of the changes in travel by road, YRT and GO Rail users is shown in Table 2, and provides insight into observed pedestrian and cyclist changes.

**Table 2  
Travel Patterns Before and During COVID-19**

Modes	Before COVID-19	During COVID-19	Change*
Roads			
Commuters/day	600,000	300,000	-50%
Traffic speed	45 km/h	55 km/h	22%
Collisions/month	956	360	-62%
Heavy trucks/day	29,000	29,000	0%
YRT/Viva/Mobility On-Request commuters/day	35,000	7,000	-80%
GO Rail commuters/day	14,000	1,400	-90%

**Data is continuing to be assessed to identify any longer-term travel pattern changes once travel measures associated with the COVID-19 pandemic are eased**

Staff is continuing to collect and assess travel data to understand what long-term transportation impacts there might be. Although it is too early to identify any long-term travel pattern changes due to the pandemic, ongoing data collection and monitoring programs will help to better understand which trends may continue post-pandemic. Some current trends in how and where people work and shop during the pandemic may result in different transportation demands for York Region’s travellers. The significant increase in the number of people working from home may have significant impacts on future travel trends as well as people’s comfort levels with travelling in close proximity to others on various forms of transit. Identified trends will be incorporated into the planning of the future transportation network as the Transportation Master Plan Update is planned to get underway this fall.

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Paul Jankowski  
Commissioner of Transportation Services

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Bruce Macgregor  
Chief Administrative Officer

Attachments (3)  
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