

# **KING STREET TRANSIT PILOT**

## Annual Summary

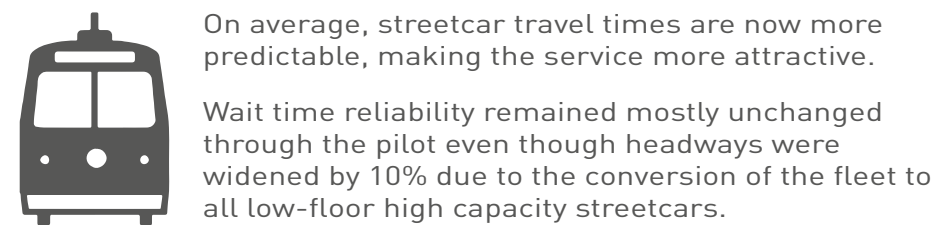
# ANNUAL HIGHLIGHTS



## TRANSIT RIDERSHIP

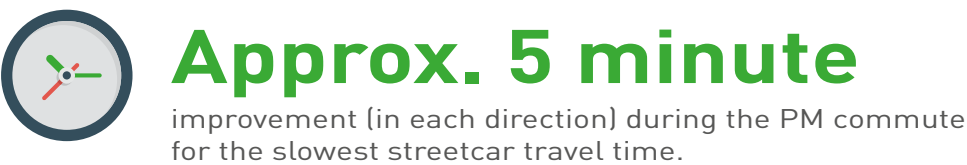


## TRANSIT RELIABILITY



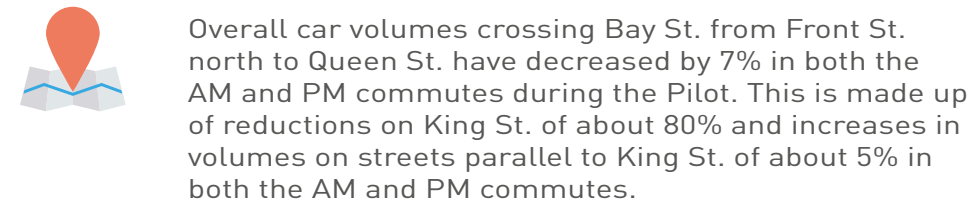
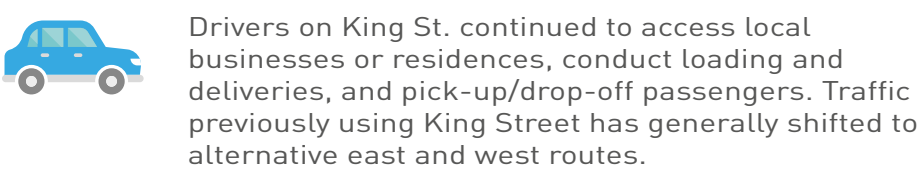
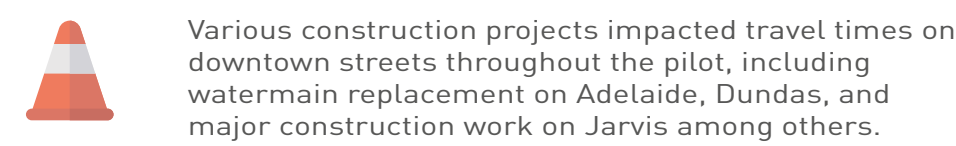
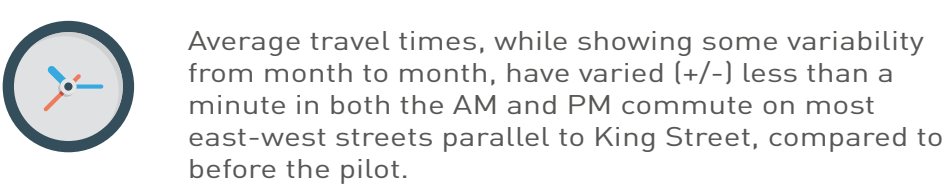
## TRANSIT TRAVEL TIMES

The reliability of streetcar travel times has continued to improve since before the pilot.



Across the full year of the pilot, the **slowest travel times** during the afternoon commute were similar to the **average travel times** before the pilot.

## CAR TRAVEL TIMES & VOLUMES



The downtown traffic network has been largely able to absorb and respond to the changes in routing that drivers have made.

## PEDESTRIAN VOLUMES

Total pedestrian volumes have remained stable on King St. as a result of the pilot when accounting for the effects of seasonality, relative to most comparable east-west streets.



## CYCLING VOLUMES

King has become the second most popular east-west cycling route in the downtown after the Richmond and Adelaide cycle tracks.

In October, cycling volumes at Spadina Avenue have increased by 380 riders in the afternoon peak compared to before the pilot in October 2017.

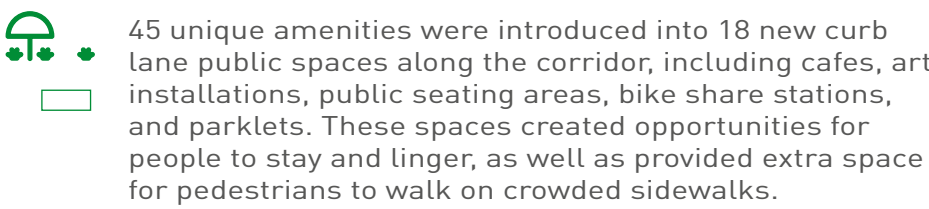


## ECONOMIC POINT-OF-SALE DATA

Customer spending data suggests that year-over-year growth in total spending on King Street has decreased slightly (0.8%) after the pilot was installed, with reductions primarily to spending in the restaurant sector. This is a trend that existed during the year before the pilot was installed, indicating that these differences may not have resulted from the pilot itself. Spending in both retail and services sectors appears to have grown faster during the year after the pilot was installed compared to the rate of growth in the year before the pilot began.



## PUBLIC SPACE



During Park People's Public Space Public Life Study, nearly one in five people spending time on King Street were found within the new public spaces.



## PILOT BACKGROUND

The King Street Transit Pilot is about moving people more efficiently on transit, improving public space, and supporting business and economic prosperity along King Street. The pilot aims to improve transit reliability, speed, and capacity on the busiest surface transit route in the city by giving transit priority on King Street from Bathurst Street to Jarvis Street.

The monitoring and evaluation plan involves the collection of data before and during the pilot in order to assess the impacts and benefits. Data is collected through methods such as the tracking of TTC streetcars using GPS, the monitoring of car travel times using Bluetooth sensors, and the collection of pedestrian, cycling and car volumes using video analytics. Monthly updates will be provided reflecting the latest data and information available to the City. This update provides an overview of the results of monitoring through November 2017 to December 2018.

## OPEN DATA

An open data release has been posted on the City's open data catalogue, covering data from November 2017 to the end of December 2018. This release includes detailed and summarized car travel times and car, pedestrian and bicycle volumes. The catalogue can be accessed at: <https://www.toronto.ca/city-government/data-research-maps/open-data/>





# TRANSIT TRAVEL TIMES & RELIABILITY



King Street  
Transit Pilot

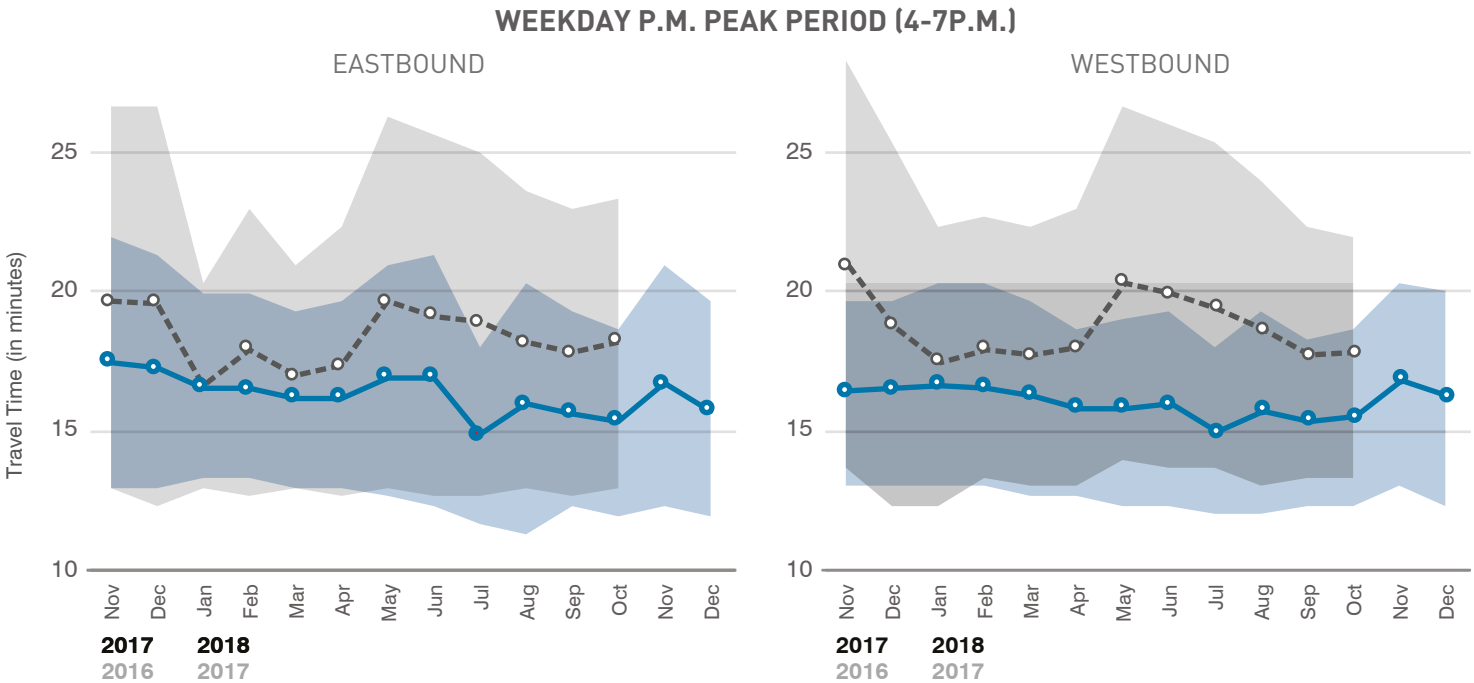
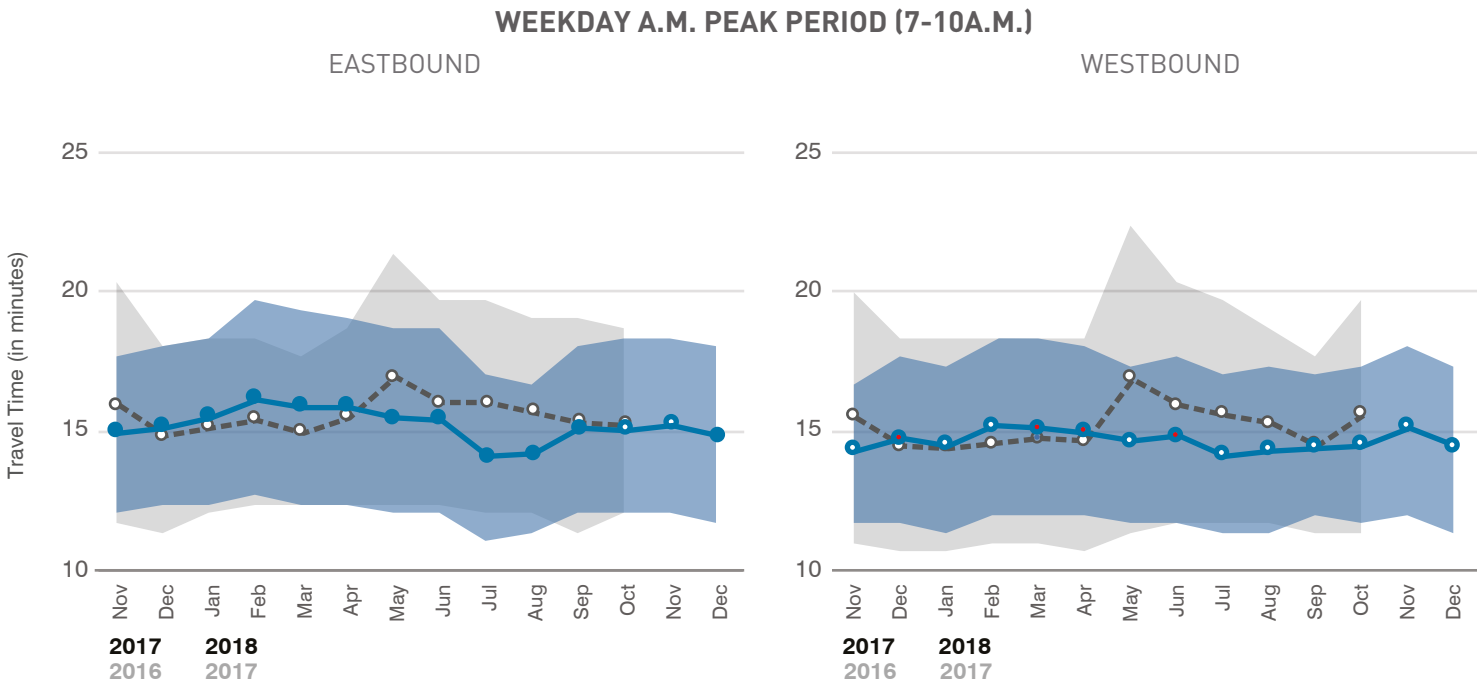


Nov. 2017-  
Dec. 2018



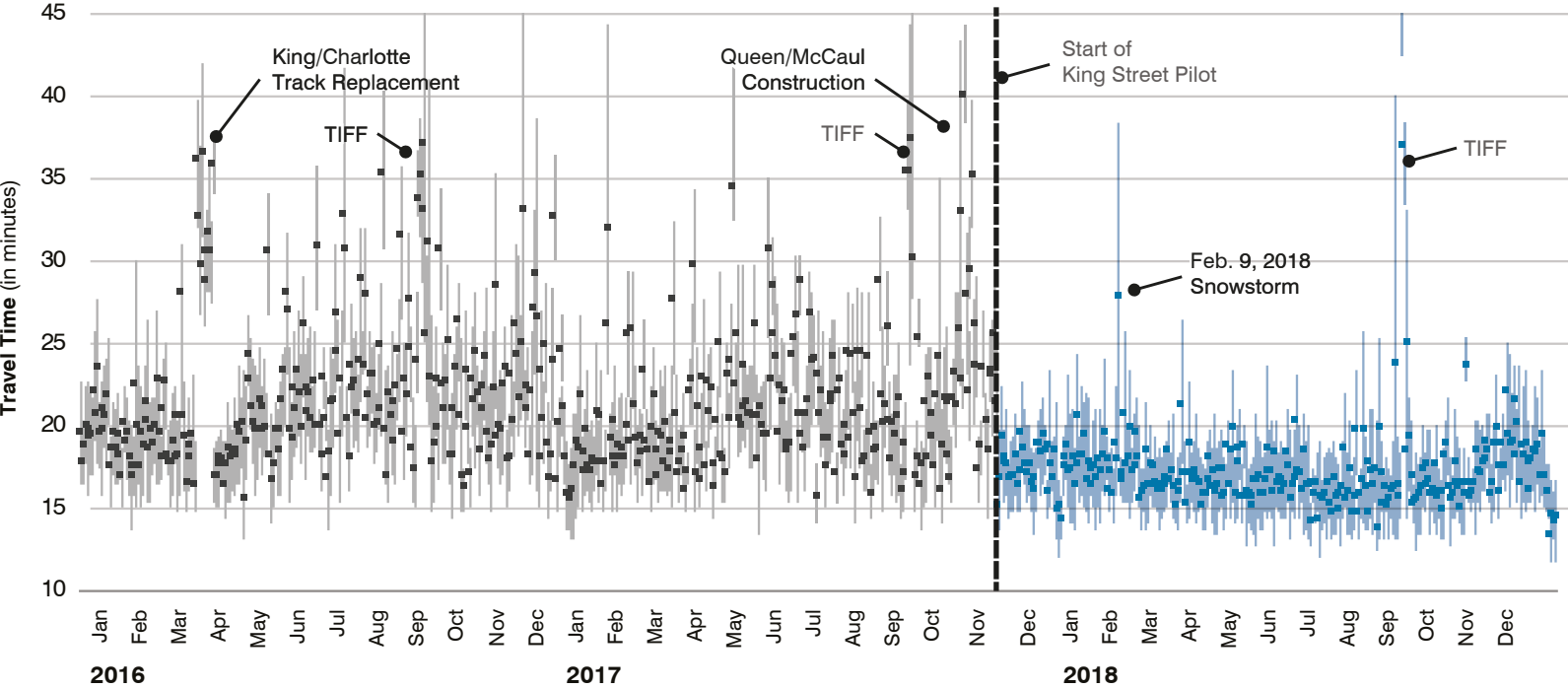
## STREETCAR TRAVEL TIME RANGE

AVERAGE AND 90% RANGE (BATHURST - JARVIS)



## DAILY AFTERNOON PEAK BUSIEST HOUR PILOT AREA TRAVEL TIMES

AVERAGE AND 90% RANGE (WESTBOUND JARVIS ST. TO BATHURST ST., WEEKDAY 5-6P.M.)



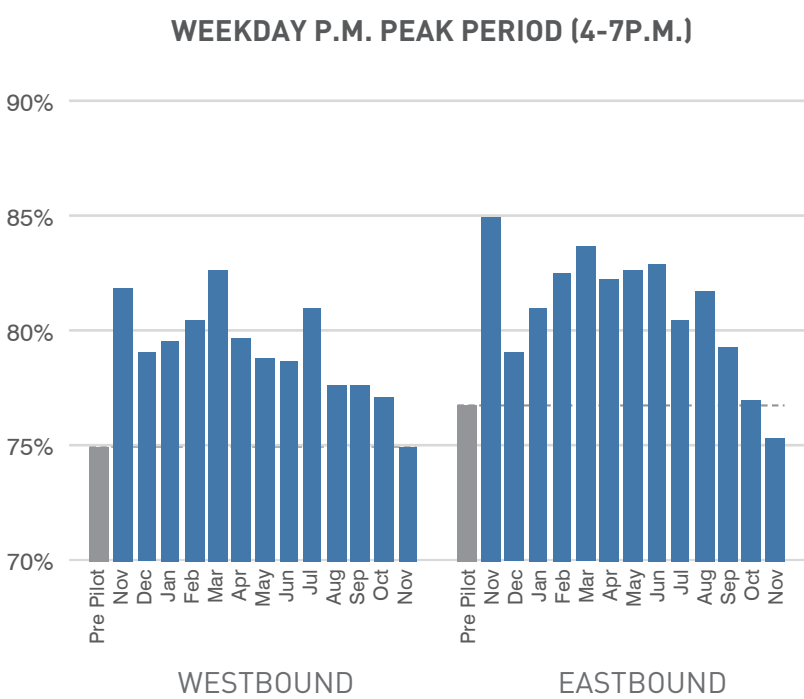
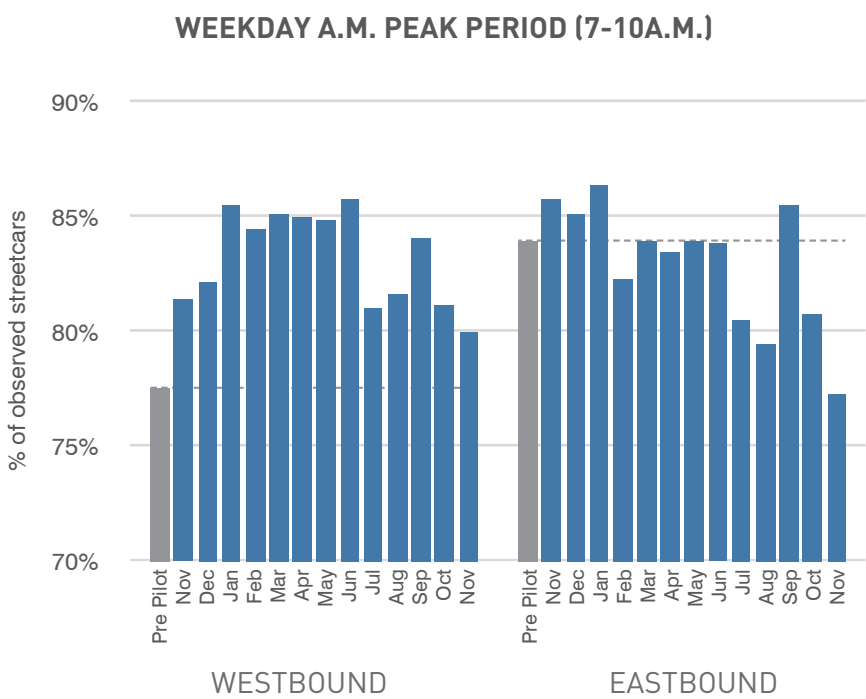
## ANNUAL SUMMARY

- A year-over-year comparison shows how seasonal changes have impacted travel times demonstrating that the pilot resulted in consistent and predictable travel times.
- The greatest benefit of the pilot was observed during the summer months.
- The slowest travel times during the afternoon commute were similar to the average travel times before the pilot.
- The variability of travel times has greatly decreased due to the pilot. Where trips before the pilot were highly variable, observations during the pilot have become more tightly clustered, hovering between 15-20 minutes.
- Travel times since the pilot began rarely exceed 20 minutes, whereas prior to the pilot, travel times were often exceeding 25 minutes, or longer.
- Transit users are able to plan their trip more efficiently knowing how long their commute is going to take.



## WAIT TIME RELIABILITY

% OF STREETCARS ARRIVING WITHIN 4 MINUTES (BATHURST - JARVIS)

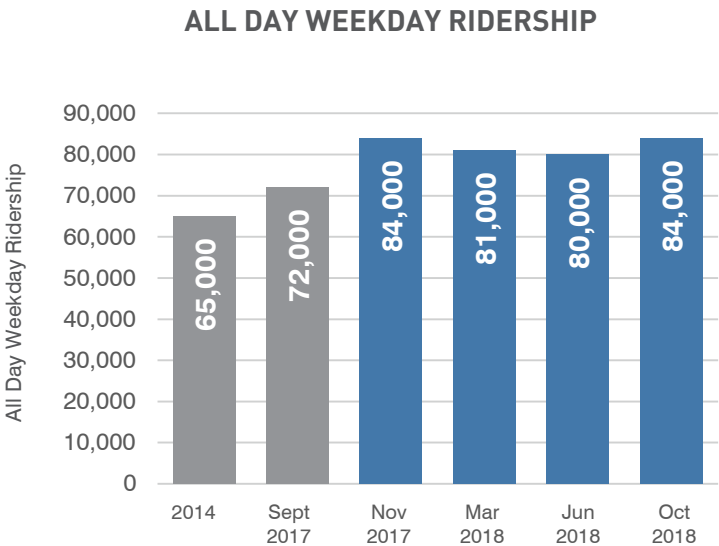


## ANNUAL SUMMARY

- Wait time reliability remained mostly unchanged through the pilot even though headways were widened by 10% due to the conversion of the fleet to all low-floor high capacity streetcars.
- Afternoon peak period performance significantly improved upon the start of the pilot, with westbound and eastbound wait time performance consistently above most pre-pilot levels. Afternoon wait time reliability in the fall decreased due to changes in route structure.
- Morning peak performance remained generally unchanged through the pilot period with some reduction in performance in the summer due to construction and late fall due to the change in route structure.

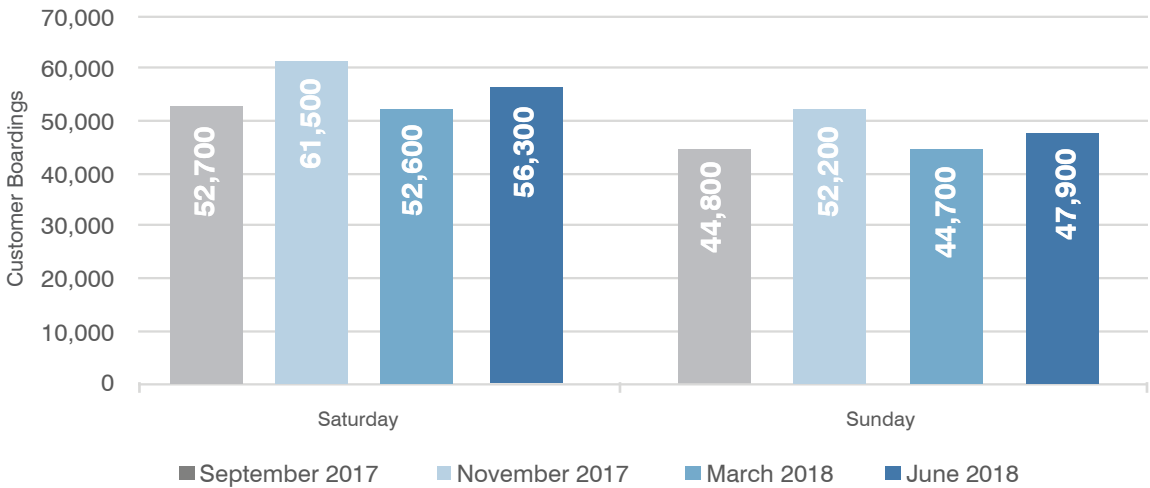


## ALL DAY WEEKDAY RIDERSHIP



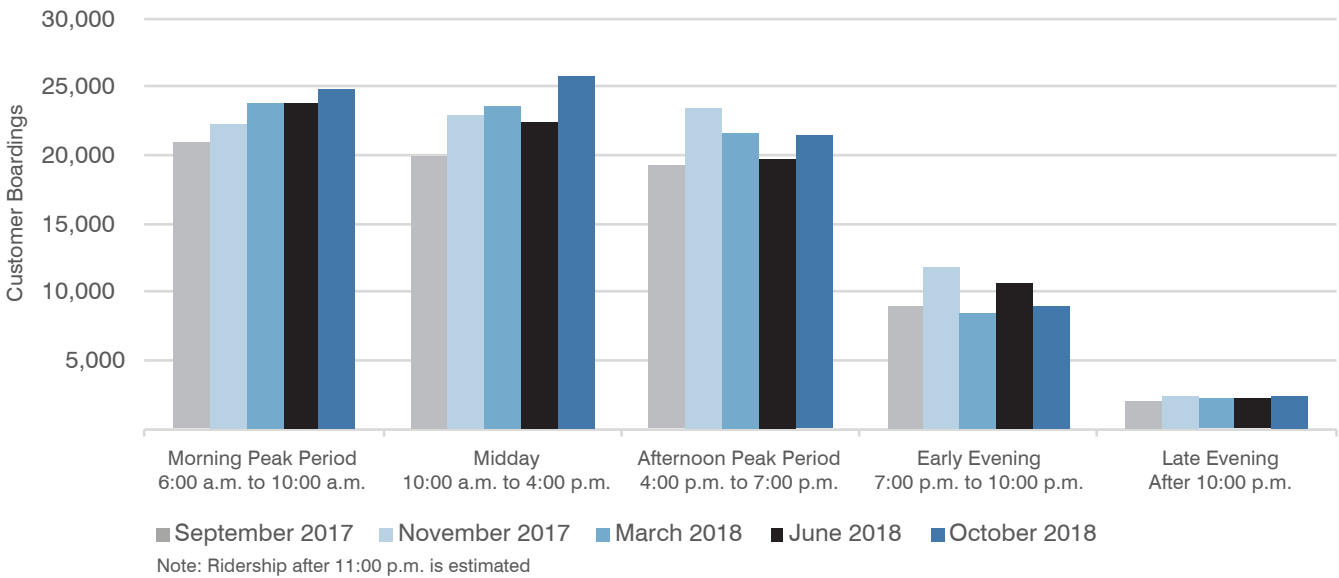
## WEEKEND RIDERSHIP

504 King and 514 Cherry Streetcar



## WEEKDAY RIDERSHIP BY TIME PERIOD

504 King and 514 Cherry Streetcar

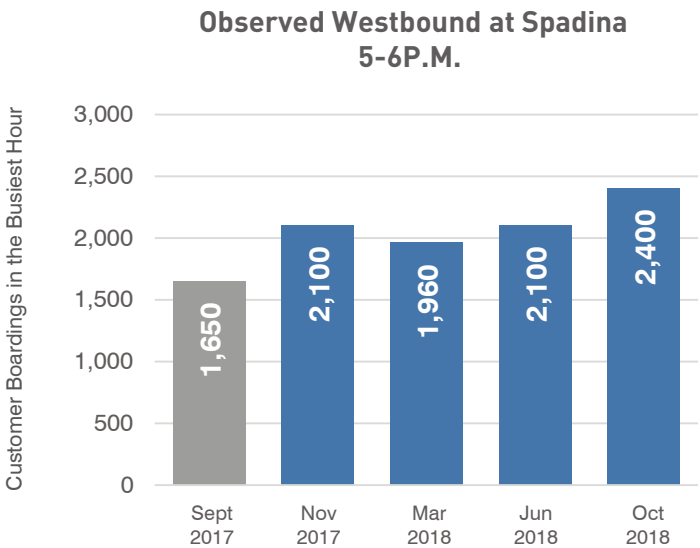
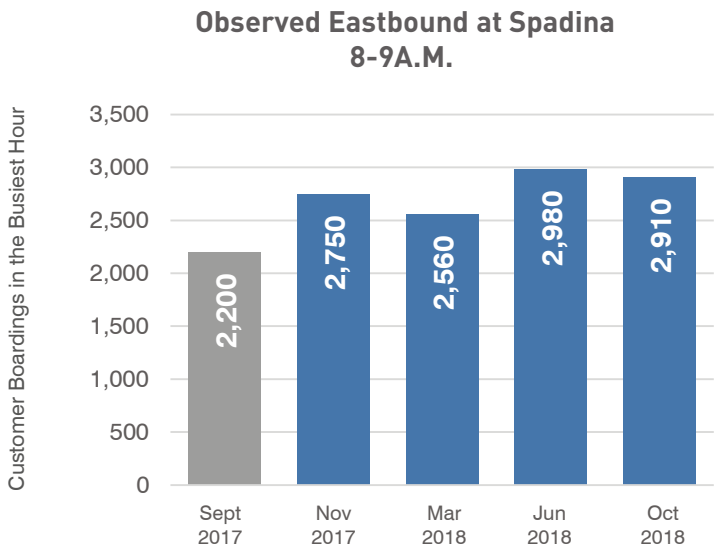


## ANNUAL SUMMARY

- Weekday ridership has increased by nearly 17% between September 2017 and October 2018 to approximately 84,000 customers per day. The lower values observed in March and June are consistent with observed seasonal variation in ridership system-wide.
- Saturday ridership has increased by 7%.
- Weekend ridership is highly variable on streetcar routes Downtown – special events, road restrictions, and subway closures all have significant impacts on ridership on a week-over-week basis.
- Saturday and Sunday ridership in most months counted had shown increases over the September 2017 baseline ranging from 0% to 17%. Lower ridership in March 2018 is consistent with seasonal trends from previous years.
- Ridership has increased at most times of the day, particularly in the midday, where ridership has increased between 10% and 25%.
- Early evening ridership fluctuates depending on time of year due to special events occurring in the Downtown.
- Late evening ridership remains largely unchanged.



## A.M. & P.M. BUSIEST HOUR DEMAND

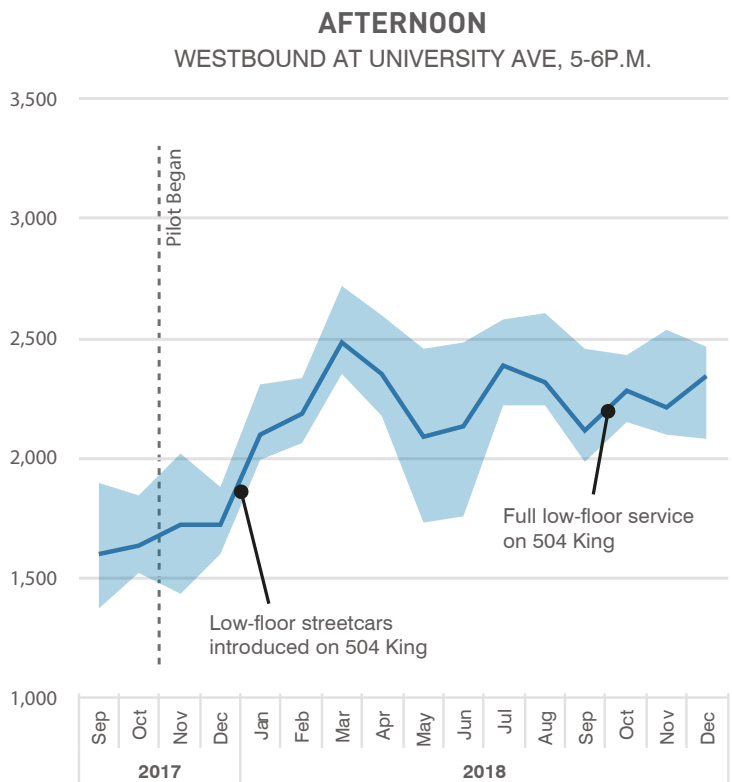
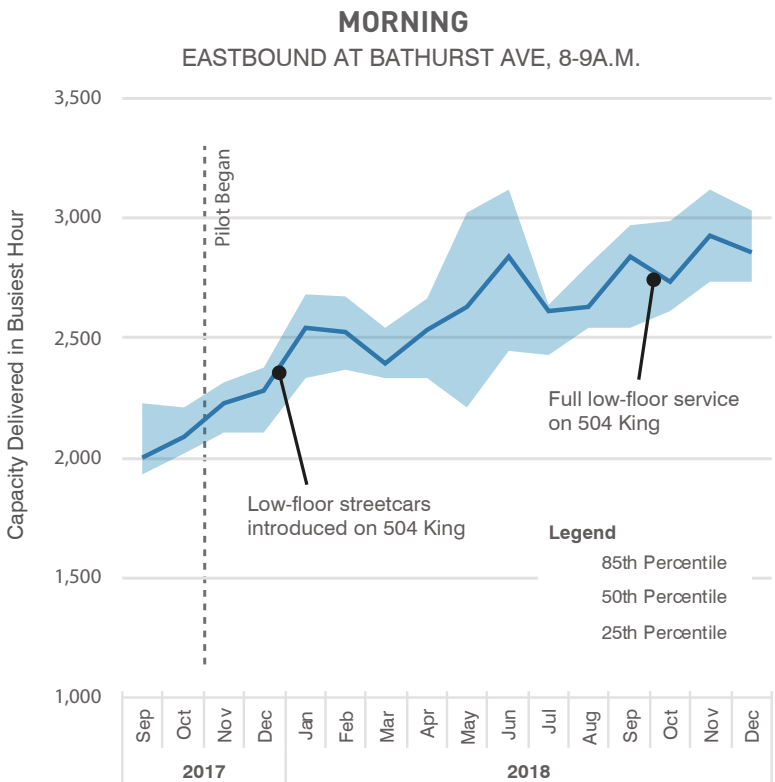


Note: Observed peak demand is the number of customers observed in the busiest direction, at the busiest location, in the busiest hour.

## ANNUAL SUMMARY

- Peak demand at the busiest hours and locations has increased significantly.
- 2,910 riders were counted travelling eastbound at Spadina Avenue in the morning rush hour in October 2018 hour compared to 2,200 before the pilot, an increase of 33%
- 2,400 riders were counted travelling westbound at Spadina Avenue in the afternoon rush hour in October 2018 hour compared to 1,650 before the pilot, 45% higher than before the pilot.
- The deployment of the new low-floor, high-capacity streetcars on King Street, and the ability to reliably operate them closer together, has significantly increased the capacity of the corridor in order to respond to greater passenger demand.
- Delivered streetcar capacity has increased from approximately 2,000 to 2,900 passengers per hour per direction in the morning peak. In the afternoon peak period, it has increased from approximately 1,600 to 2,400 passengers per hour.
- Despite this increase, overcrowding is still observed at the busiest times.
- The combination of improved reliability and additional capacity illustrates the amount of latent passenger demand on the corridor that was previously unserved.

## CAPACITY DELIVERED BY MONTH

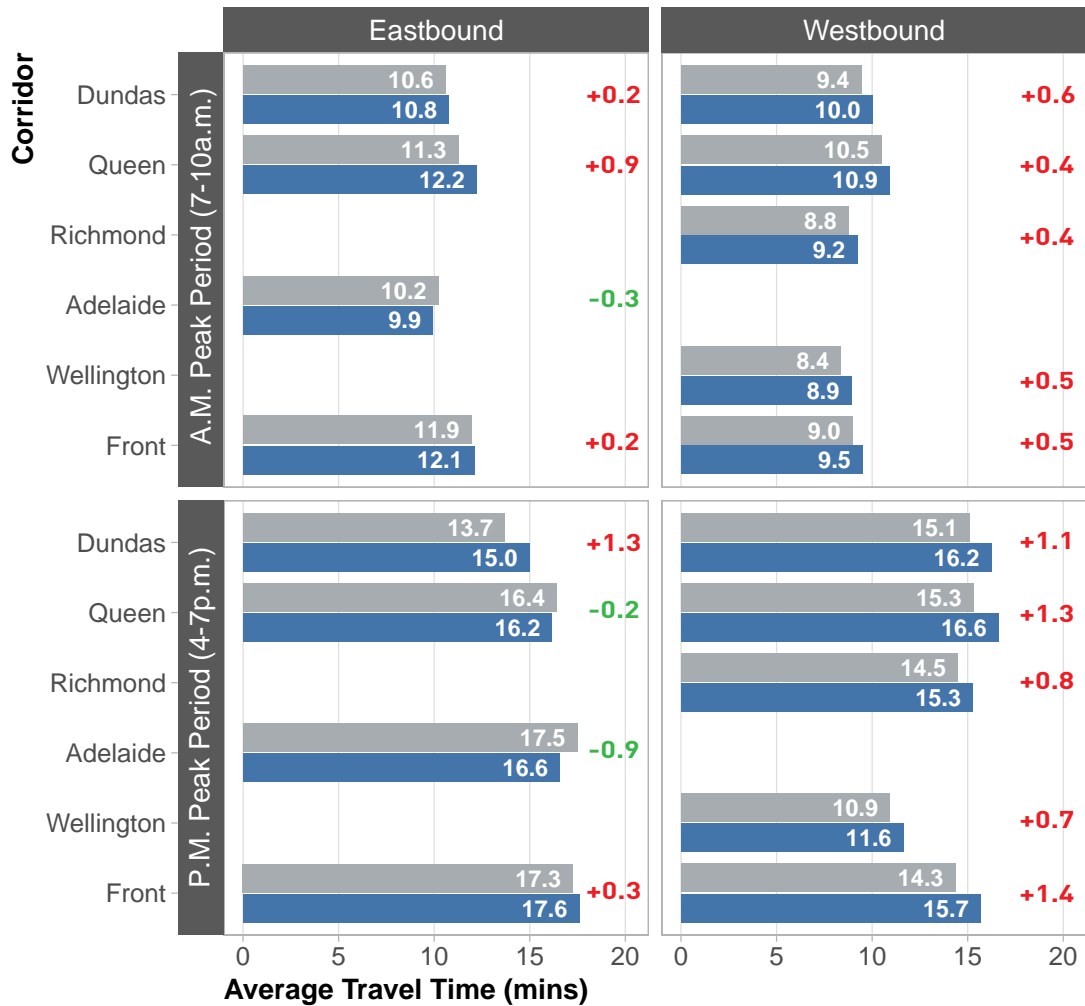


Note: Capacity delivered calculated based on vehicle capacity as defined by TTC Service Standards. Peak period standards for bus (51), CLRV streetcar (74), ALRV streetcar (108), and low-floor streetcar (130)



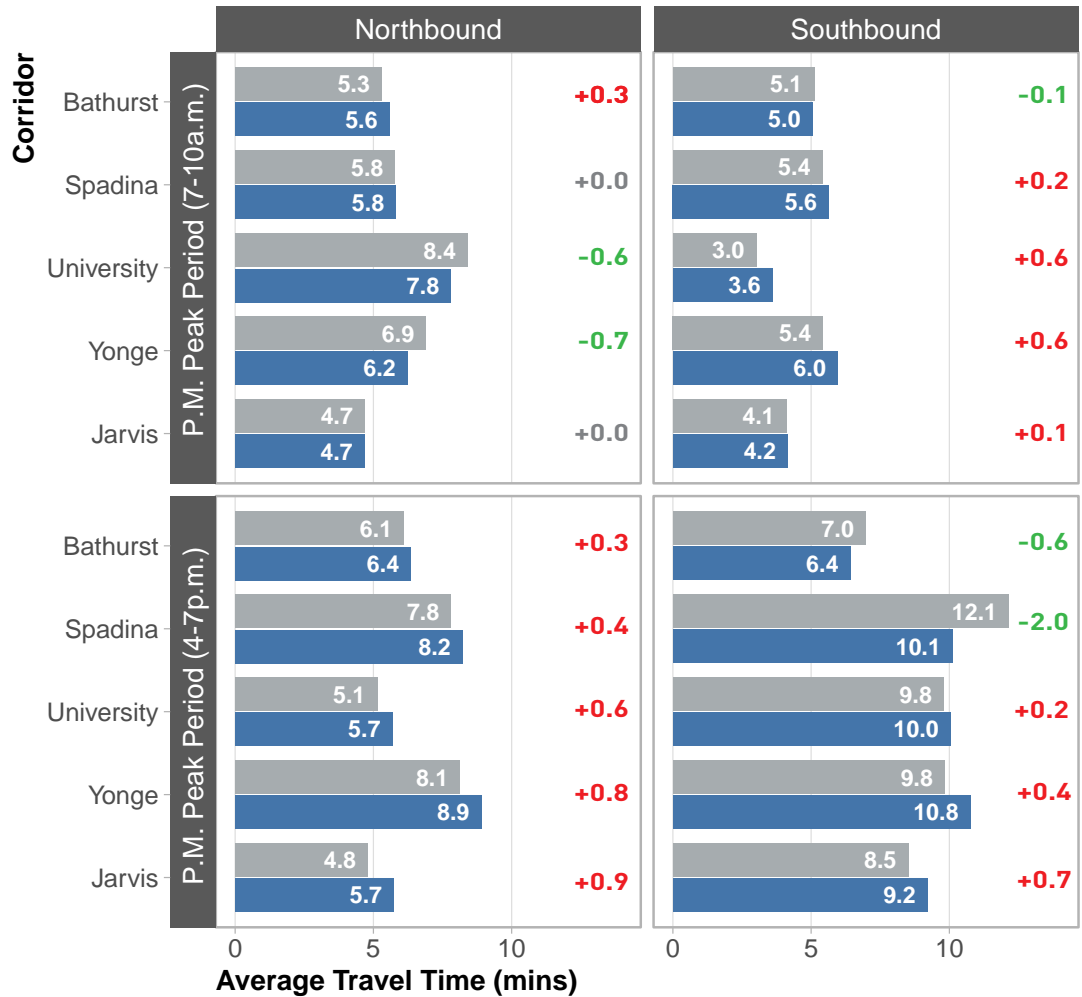
## AVERAGE CAR TRAVEL TIMES (MIN) EAST-WEST STREETS

Peak Weekday Period Average Travel Times, Baseline vs. Pilot (Average of All Months)



## AVERAGE CAR TRAVEL TIMES (MIN) NORTH-SOUTH STREETS

Peak Weekday Period Average Travel Times, Baseline vs. Pilot (Average of All Months)



## ANNUAL SUMMARY

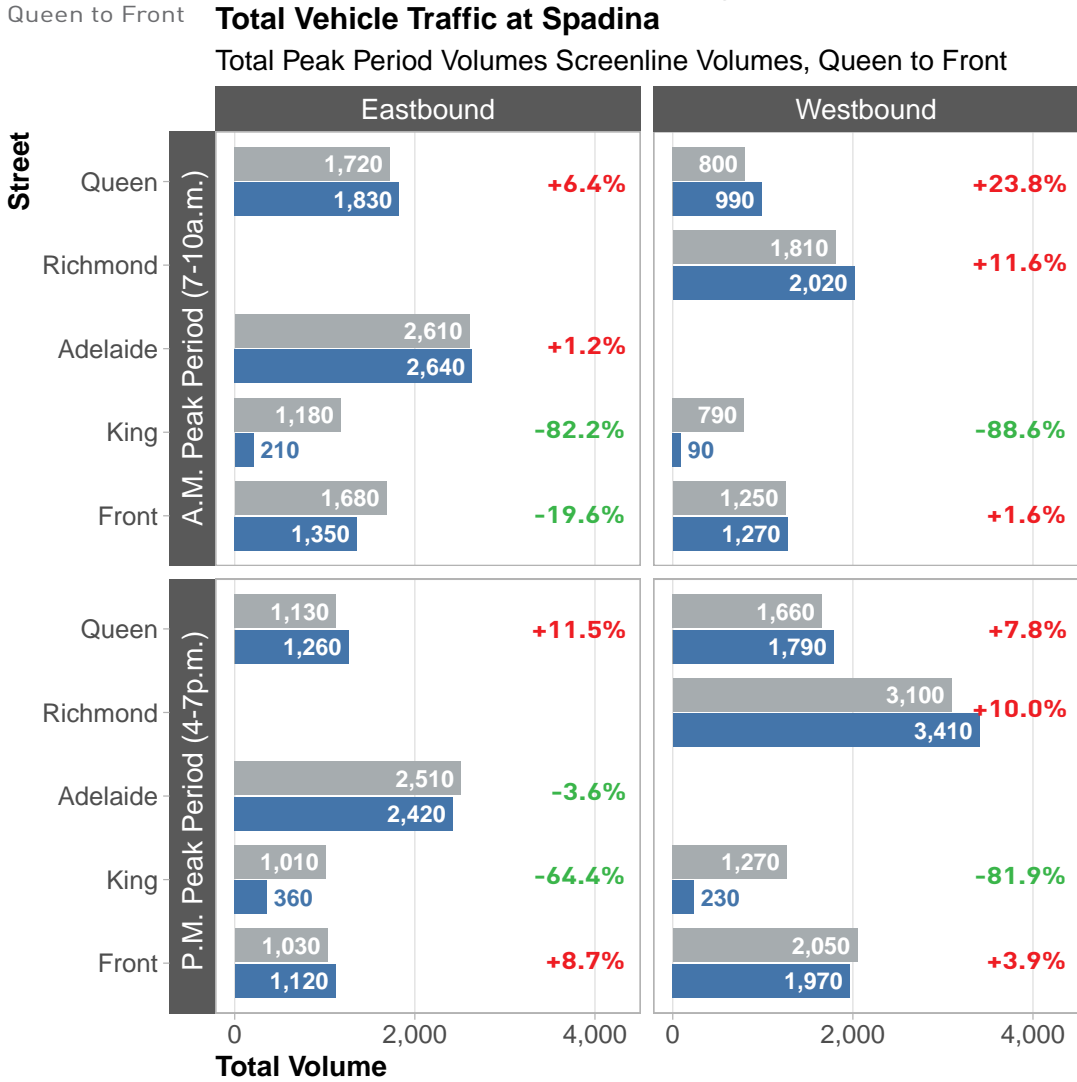
- Motor vehicle travel on streets in the Downtown have not been significantly impacted by the pilot.
- Average travel times, while showing some variability from month to month, have varied (+/-) less than a minute in both the AM and PM commute on most east-west streets parallel to King Street, compared to before the pilot.
- On north-south streets, travel times are largely the same.
- The largest travel time increases were on Front Street Westbound in the afternoon peak period (1.4 minutes) and Queen Street Westbound in the afternoon (1.3).
- Travel times on Adelaide Street (eastbound in the afternoon) improved by 0.9 minutes and on Spadina Avenue (southbound in the afternoon) improved by 2.0 minutes compared to pre-pilot times.





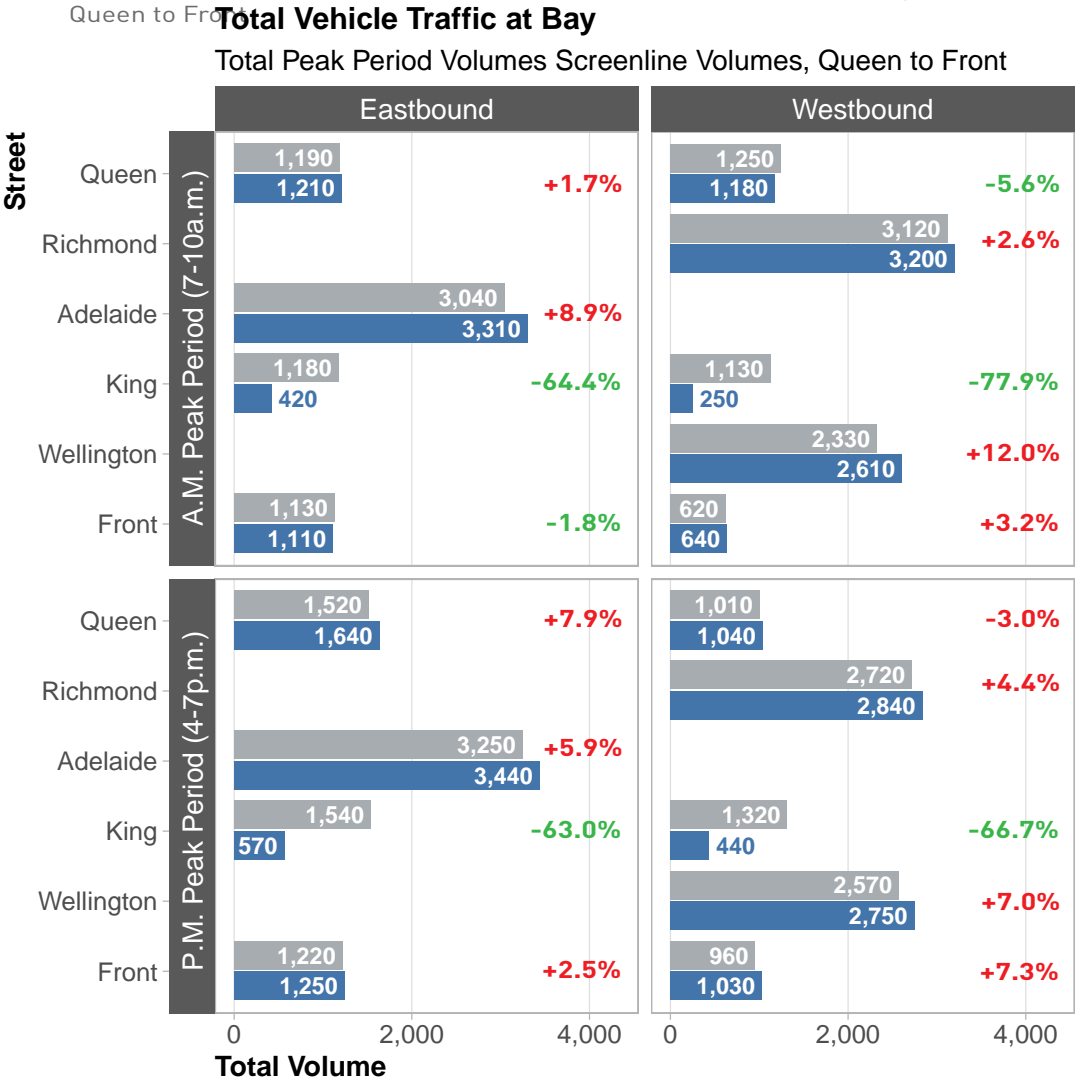
## TOTAL VEHICLE TRAFFIC AT SPADINA

Total Weekday Peak Period Traffic, Baseline vs. Pilot (Average of All Months)  
Queen to Front



## TOTAL VEHICLE TRAFFIC AT BAY

Total Weekday Peak Period Screen Volumes, Baseline vs. Pilot (Average of All Months)  
Queen to Front



## ANNUAL SUMMARY

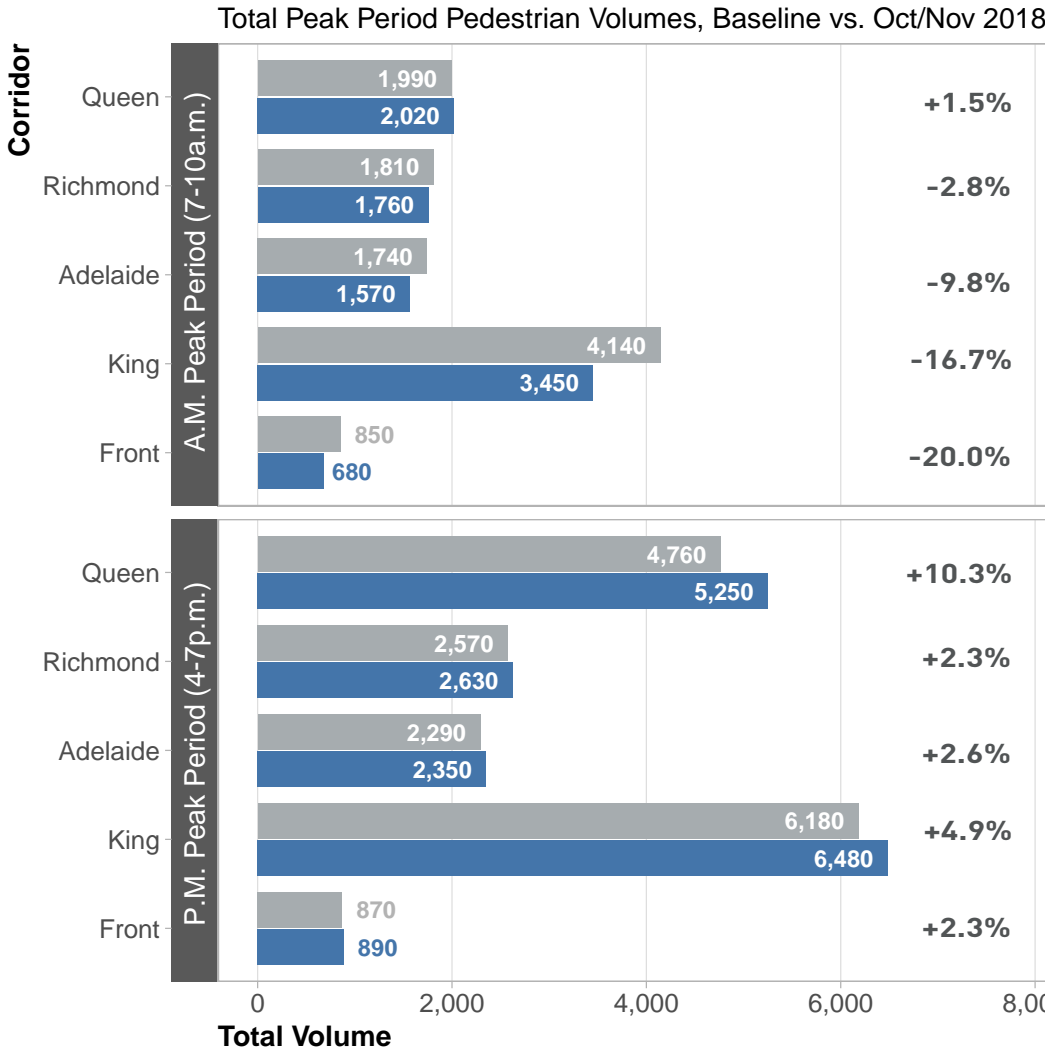
- A substantial reduction in car volumes on King Street has been accompanied by increases in traffic on Queen Street, Richmond Street, Adelaide Street, and Wellington Street. Traffic volumes on Front Street have remained largely unchanged.
- While volumes have increased on these streets, this has had a minimal impact on travel times as noted in the above section.
- Overall car volumes at Bay Street have decreased by 7.0% in both the morning and afternoon peaks during the Pilot. On streets parallel to King, these volumes have increased by an average of 4.6% and 5.6% during the morning and afternoon peak periods, respectively.



## TOTAL TWO-WAY PEDESTRIAN TRAFFIC AT SPADINA

Total Weekday Peak Period Pedestrian Volumes,  
Baseline vs. Oct/Nov 2018

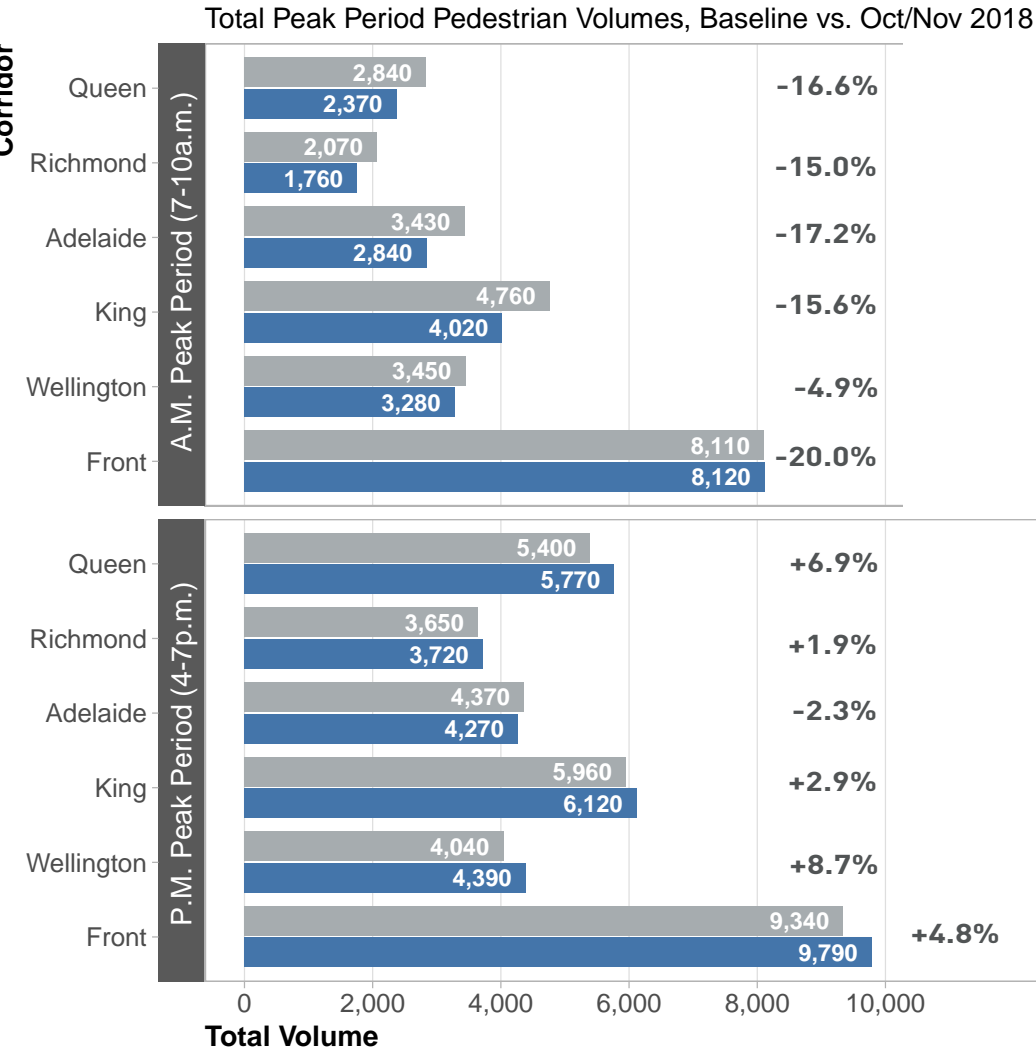
**Total Two-Way Pedestrian Traffic at Spadina**



## TOTAL TWO-WAY PEDESTRIAN TRAFFIC AT BAY

Total Weekday Peak Period Pedestrian Volumes,  
Baseline vs. Oct/Nov 2018

**Total Two-Way Pedestrian Traffic at Bay**



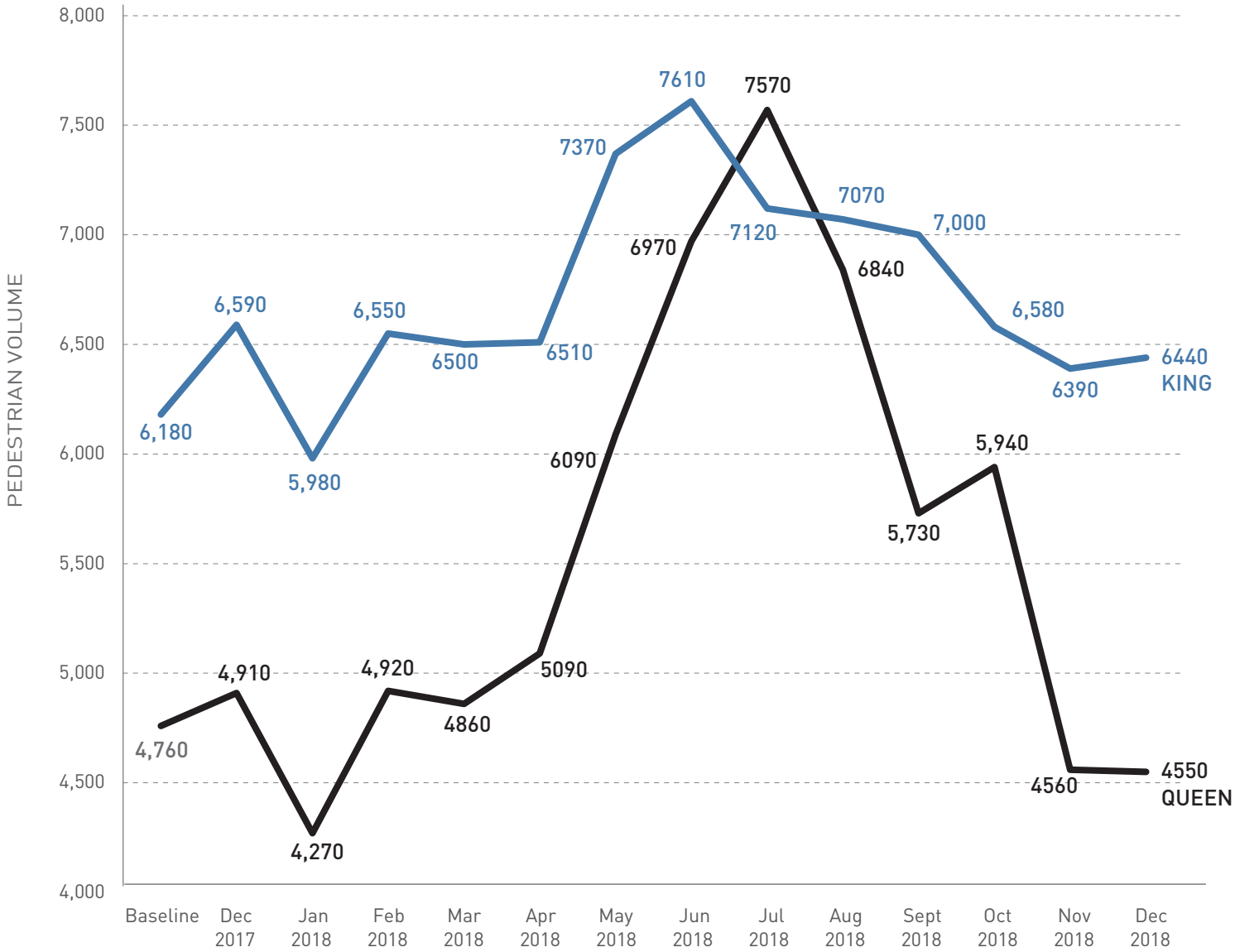
## ANNUAL SUMMARY

- Total pedestrian volumes have remained stable on King Street as a result of the pilot when accounting for the effects of seasonality, relative to most comparable east-west streets.
- Average pedestrian volumes in October and November 2018 at King Street and Spadina Avenue, relative to baseline volumes from the previous year, decreased in the morning peak period by 17% and increased in the afternoon peak period by 5%. This is comparable to an observed decrease in the morning peak period of 9% and increase in the afternoon peak period of 6% at other downtown streets at Spadina Avenue.
- Pedestrian traffic is sensitive to trends in seasonality, especially at intersections along Bay Street where pedestrians can use the underground PATH as an alternative to the street network during colder weather.



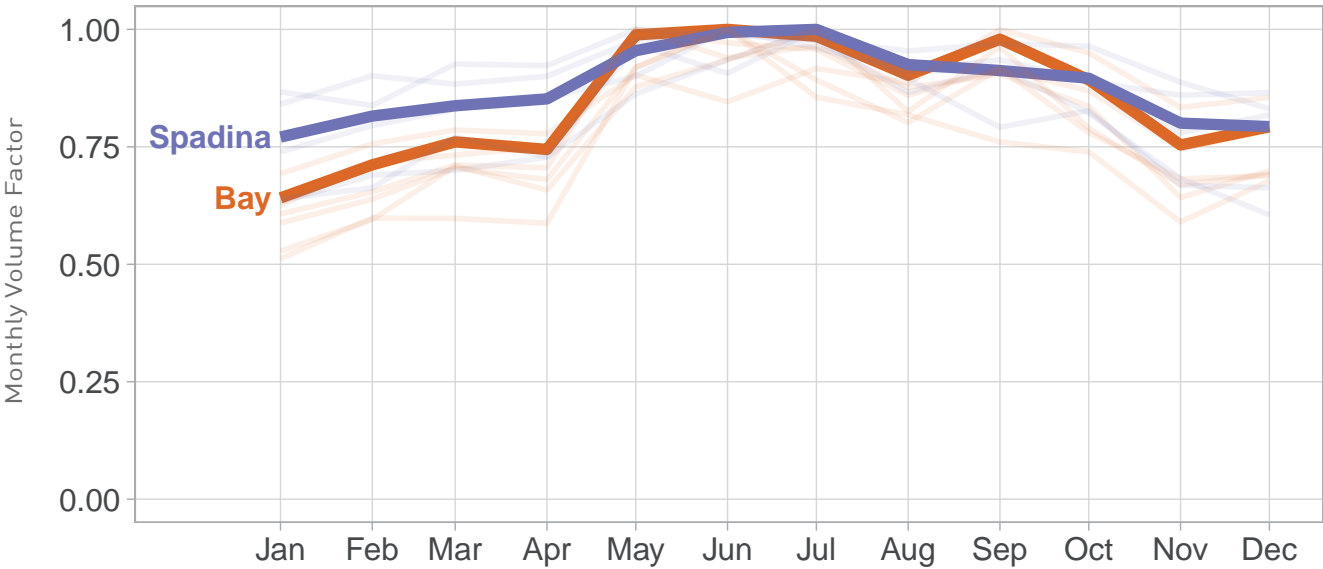
## TOTAL WEEKDAY P.M. PEAK PERIOD (4-7P.M.) PEDESTRIAN VOLUMES AT KING/QUEEN AND SPADINA

Total Monthly East-West Volumes



## EFFECT OF SEASONALITY ON PEDESTRIAN VOLUMES

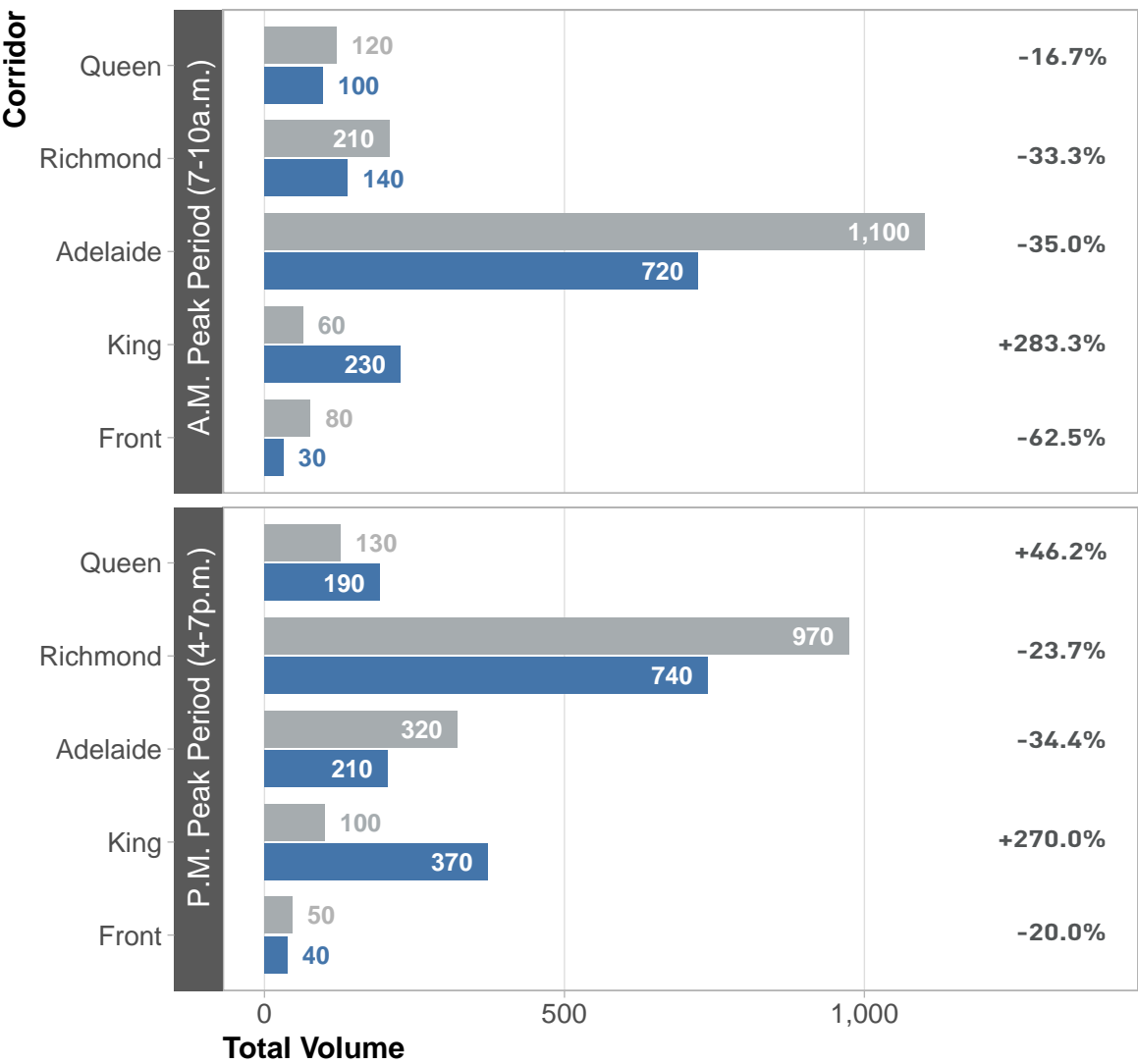
Average Monthly East-West Volumes Relative to Peak Volumes, 2018





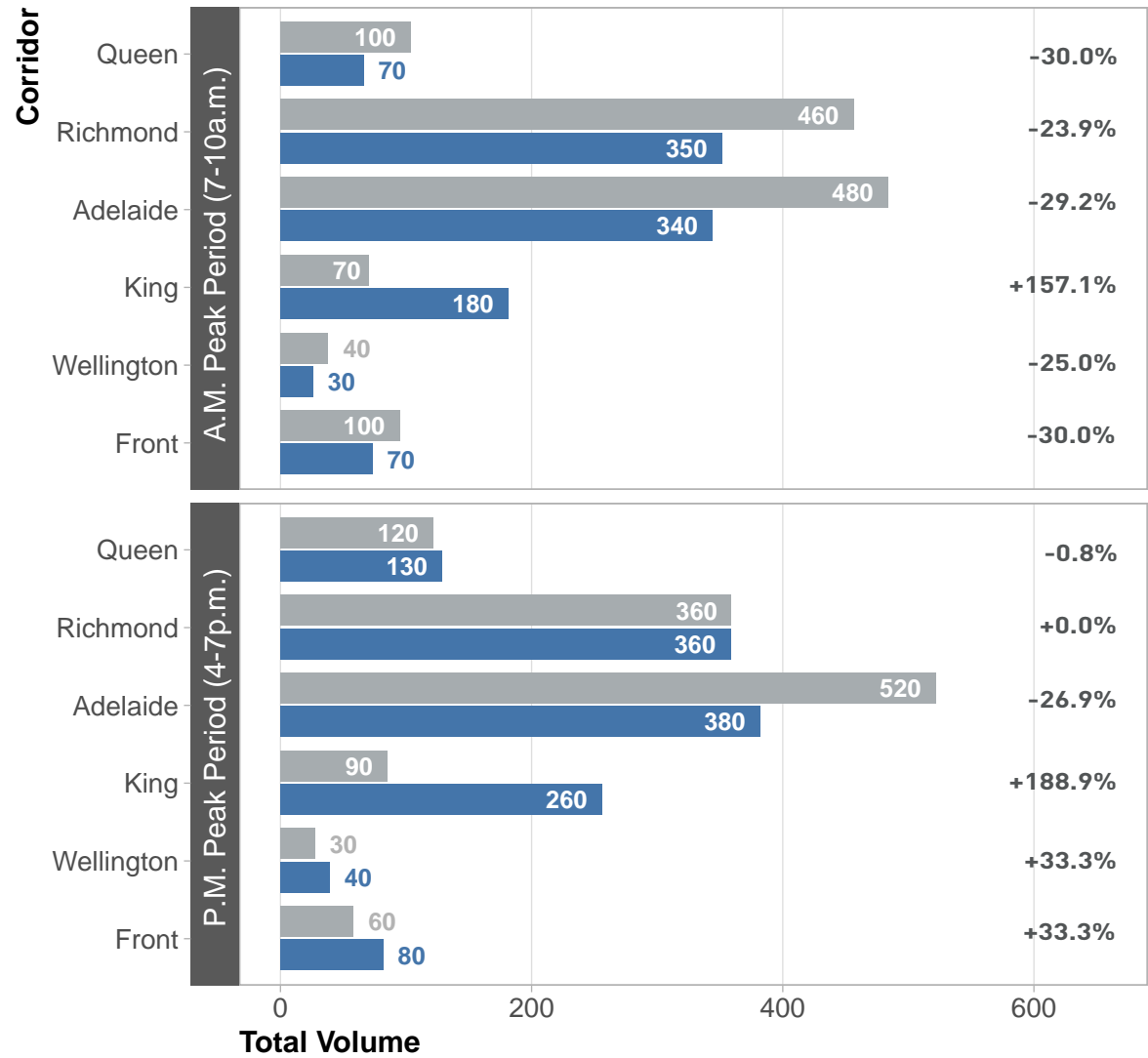
## TOTAL TWO-WAY CYCLIST TRAFFIC AT SPADINA

Total Weekday Peak Period Cyclist Volumes, Baseline vs. Oct/Nov 2018



## TOTAL TWO-WAY CYCLIST TRAFFIC AT BAY

Total Weekday Peak Period Cyclist Volumes, Baseline vs. Oct/Nov 2018



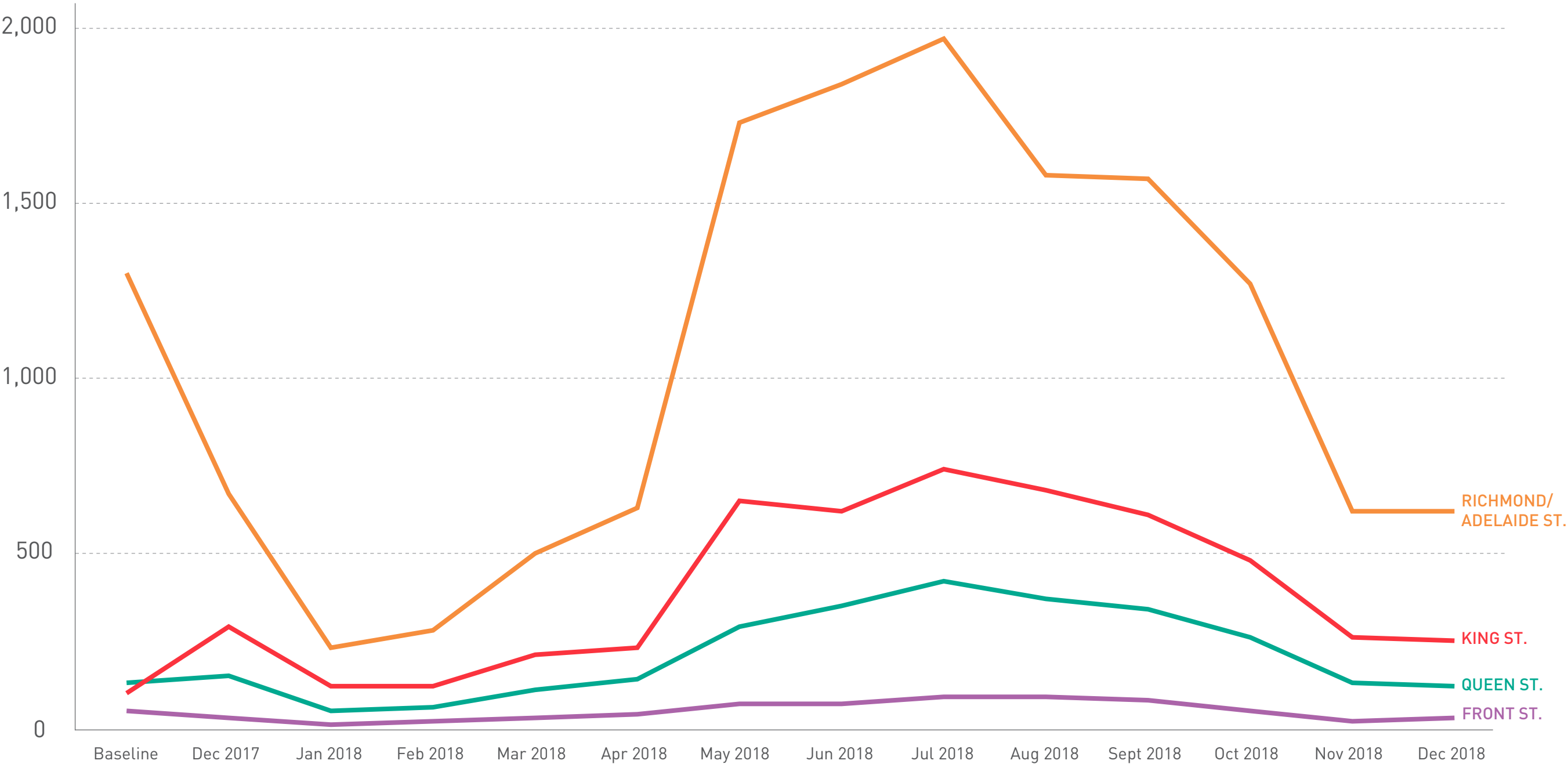
## ANNUAL SUMMARY

- King Street has become the second most popular east-west cycling route in the downtown after the Richmond and Adelaide cycle tracks.
- Changes in cycling volumes on streets parallel to King Street have been consistent with expected seasonal changes during the pilot, while those on King have significantly increased.
- Significant increases in east-west cyclist traffic at Bay Street of +160% and +190% were observed along King Street in the morning and afternoon peak periods, respectively. During this same time period, decreases of -27% and -9% were observed in cyclist traffic along corridors parallel to King Street during the morning and afternoon peak periods, respectively.
- Eastbound volumes along Adelaide Street have likely been impacted by on-going construction between Spadina Avenue and Yonge Street cycling traffic is also highly sensitive to seasonality and weather conditions, which may impact differences in overall cycling volumes.



## THE EFFECT OF SEASONALITY ON CYCLING VOLUMES TOTAL WEEKDAY P.M. PEAK PERIOD (4-7P.M.) CYCLING VOLUMES AT SPADINA

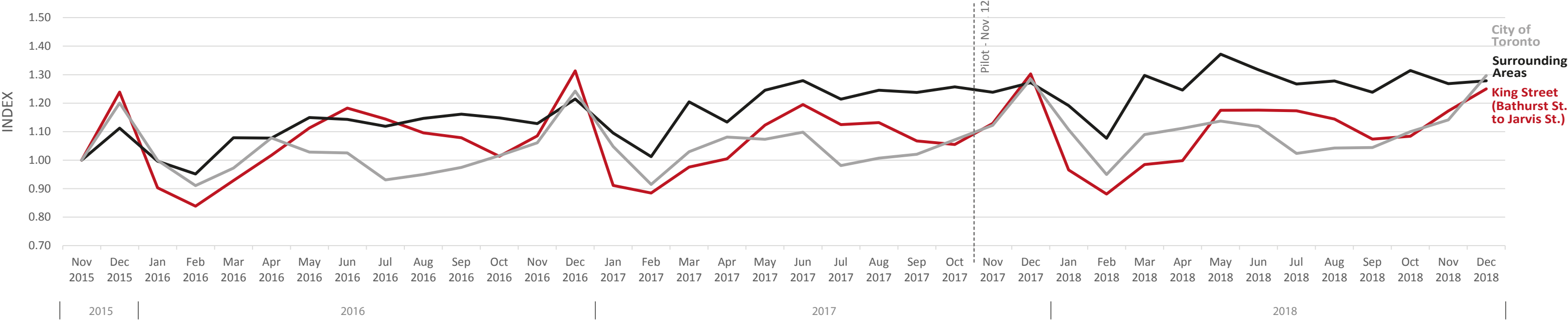
Monthly Trends



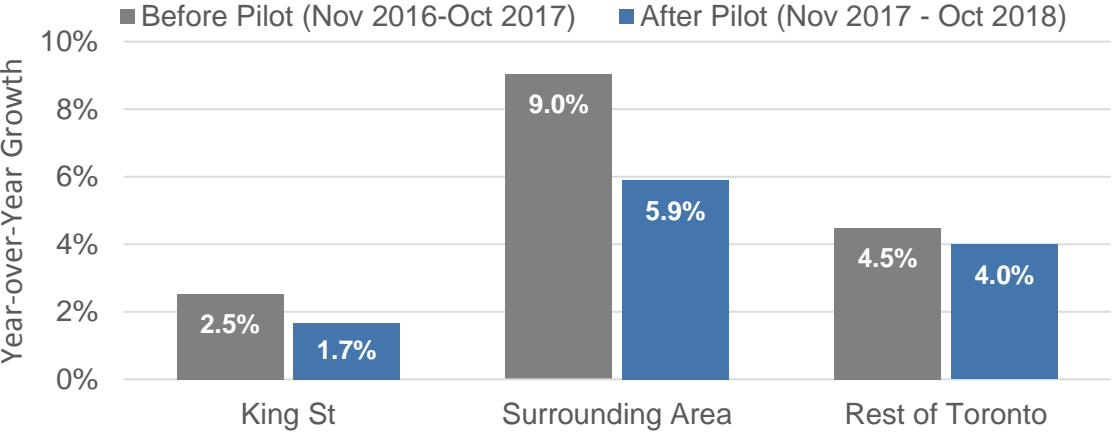




## Total Value of **Customer Spending**



## YoY Growth in **Total** Spending 12 months before pilot vs. 12 months after



## ANNUAL SUMMARY

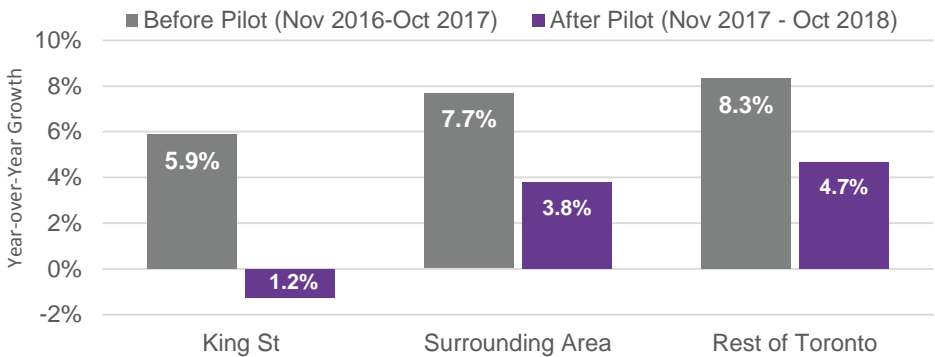
For spending across all industries, comparing the year over year growth in the twelve (12) month period before the pilot and 12 months after the pilot was installed shows that:

- Year-over-year growth in total spending on King Street has decreased slightly from 2.5% before the pilot to 1.7% after the pilot was installed;
- Growth in total spending on King Street is lower than the surrounding areas and city-wide; and
- This is a trend that existed during the year before the pilot was installed, indicating that these differences may not have resulted from the pilot itself.



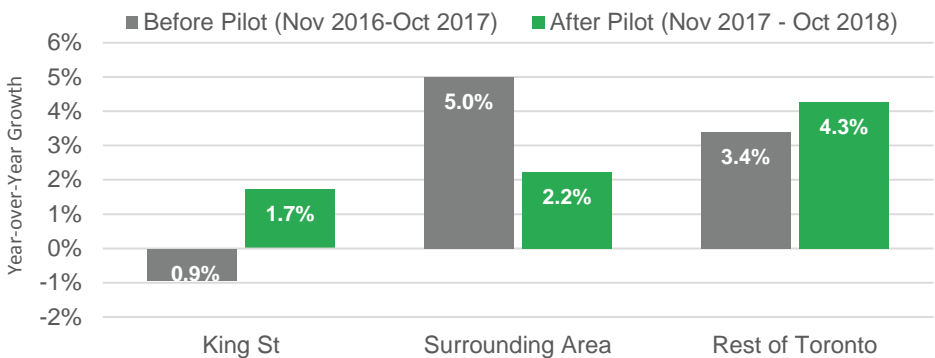
## YoY Growth in **Restaurant** Spending

12 months before pilot vs. 12 months after



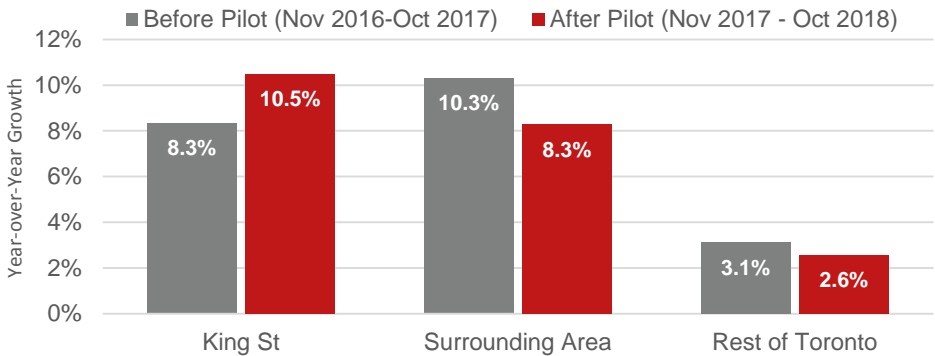
## YoY Growth in **Retail** Spending

12 months before pilot vs. 12 months after

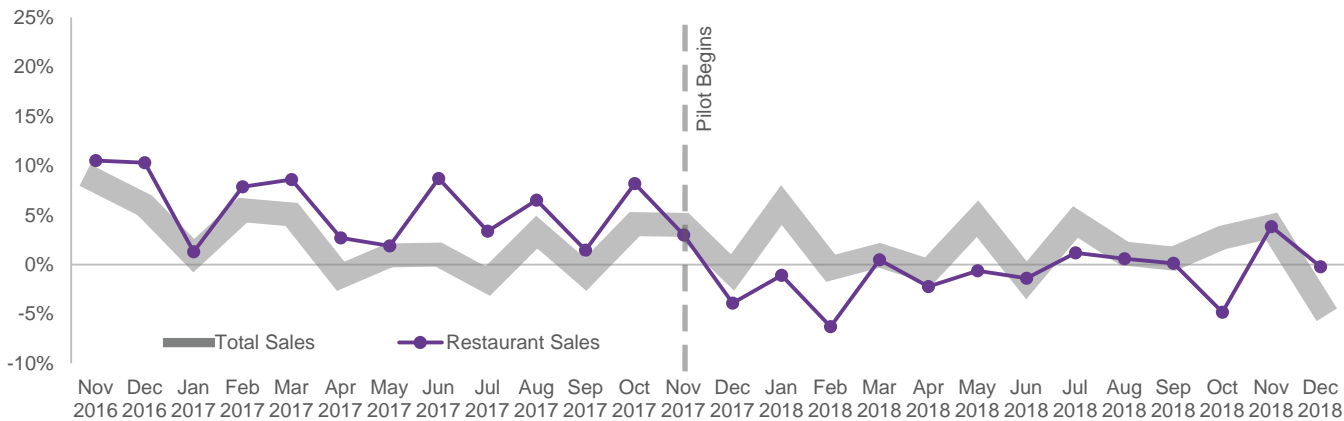


## YoY Growth in **Service** Spending

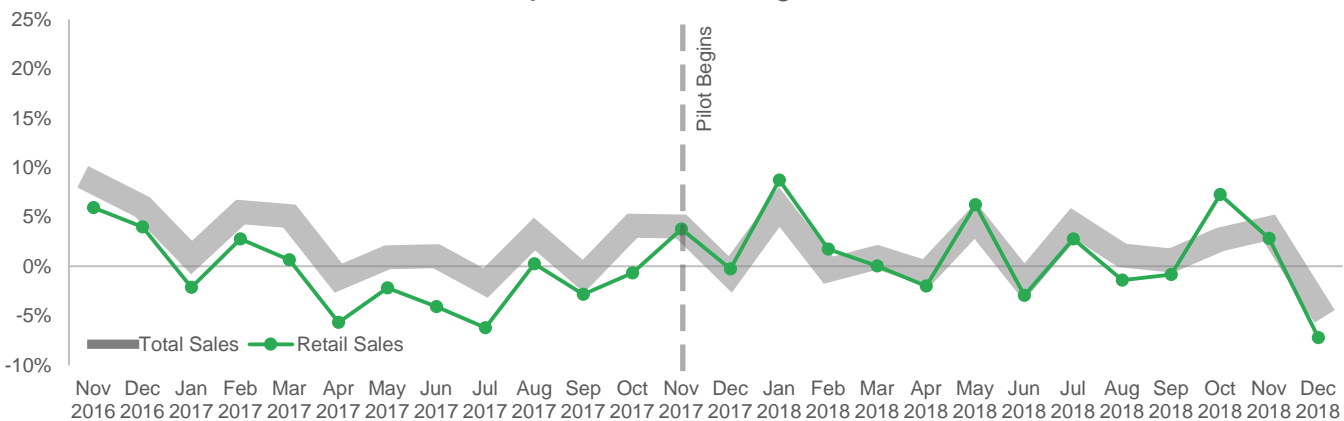
12 months before pilot vs. 12 months after



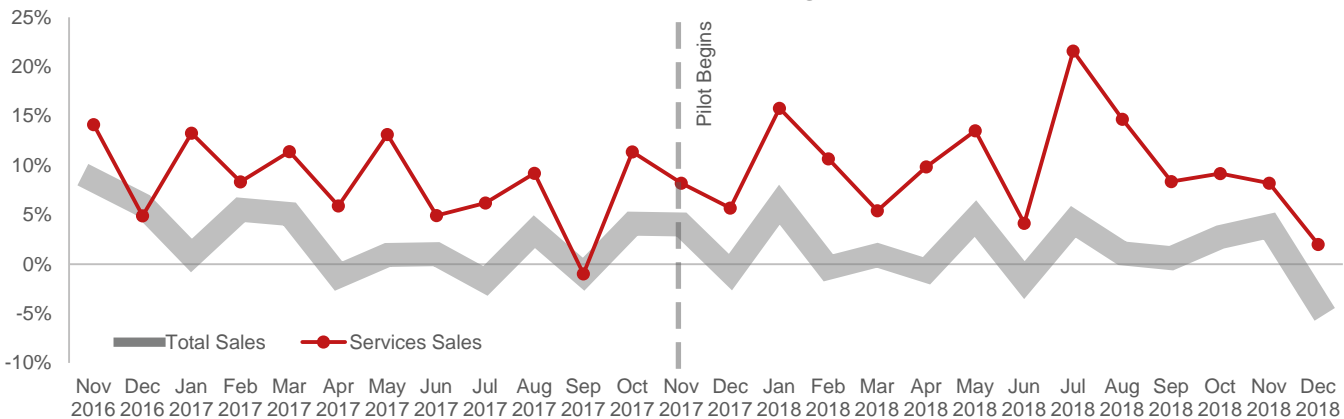
## YoY Growth in **Restaurant** Sales by Month on King Street



## YoY Growth in **Retail** Sales by Month on King Street



## YoY Growth in **Service** Sales by Month on King Street



## ANNUAL SUMMARY

Comparing the year-over-year growth in the 12-month period before the pilot and the first 12 months of the pilot shows:

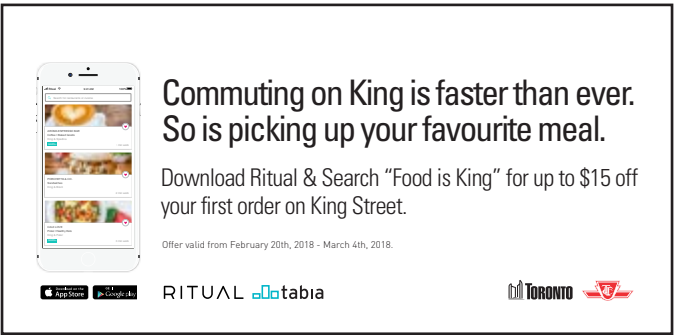
- **Restaurant** spending appears to have decreased on King St. year over year by 1.2%.
- This decrease in **restaurant** spending appears to have started in late 2017.
- **Restaurant** sales have also experienced lower growth in both the surrounding areas and city-wide after the pilot was installed, suggesting that the trend of lower growth cannot entirely be attributed to the pilot.
- Spending in both **retail** and **services** sectors appears to have grown faster during the year after the pilot was installed compared to the rate of growth in the year before the pilot began. The growth in these sectors seems to offset the reduction in customer spending in restaurants to result in overall year over year growth that is about the same in the year before and after the pilot was installed.



To assist local businesses, the City of Toronto has undertaken a number of promotions and activities throughout the pilot:



- The City launched the "Food is King" promotion, which provided a \$15 credit for any resident who used the line-skipping "Ritual" app and involved 52 participating restaurants along and around King Street West.
- This promotion resulted in a \$426,005 increase in sales for participating restaurants compared with the weekly average three weeks before the promotion.



- The City issued permits for 14 business to begin operating new on-street public seating areas and outdoor café spaces providing additional space for customers to linger as well as restaurant patios.

- SHAPELab installations are installed.
- The City partnered with Ryerson University to implement a student design build competition to create interactive public space installations.



Feb 20 - Mar 4, 2018

Jun 2018

Jul 2018

Economic Point-of-Sale Data obtained includes information until December 31, 2018

Jan 12, 2018



- The City and the Toronto Parking Authority began offering a parking promotion through the GreenP app, to provide customers with a discount of up to \$10 off their parking in the pilot area.
- This promotion has been used over 78,000 times through the end of December 2018, representing a value of approximately \$509,520. On average, the discount code was used 6,572 times per month at an average cost per use of \$6.46, resulting in a monthly impact of \$42,460 for Toronto Parking Authority.
- Total on-street parking revenue in the pilot area during the time when the parking promotion was in effect (from February 2018 to January 31, 2019) was approximately \$12.8 million. Pay and display off-street parking generated approximately \$2.4 million in this time period.



Apr 2018 - Jun 2018



- Installation of 18 new public spaces began as part of the City's "Everyone is King" design/build public space competition.
- Activations such as destination parklets, bike parking corrals, Bike Share stations, and seating were installed along King Street between Bathurst Street and Jarvis Street to animate the street for the length of the transit pilot.



Nov 2018 - Mar 2019

- King Street Winter Warm-Up pop-ups begin.
- The goal of these events was to encourage people to embrace the winter weather. The events also provided an opportunity to utilize the new public spaces made possible by the pilot configuration. Each event featured warm drinks, oven baked snacks, a cozy fireplace, and live music.

