



Events of January 30, 2018 on Line 1

Date: February 15, 2018
To: TTC Board
From: Chief Executive Officer

Summary

On a typical weekday, ridership on Line 1 is approximately 740,000 customer trips while ridership on Line 2 is approximately 515,000 customer trips. Over the past number of years the TTC has been looking at both short and long term initiatives to address the increasing need for capacity in the system. In May, 2017 Mayor Tory requested the TTC examine a number of short term options to improve immediate capacity of the system (Appendix A). In June, 2017 Commissioner Mihevc made a similar request through the Board requesting staff investigate strategies to alleviate pressure on Line 1 (See Decision History).

It should be noted that unprecedented longer term investments in the system have been funded and supported by City Council and the TTC Board over several years including the introduction of Toronto Rocket Trains, and the implementation of Automatic Train Control (ATC) into the system.

On an average weekday, the TTC encounters delays, particularly during peak periods. These delays can cause disruption to the customer but on average these disruptions are cleared relatively quickly to minimize impacts to the customer. From time to time however the system experiences an unusual series of delays. January 30 was such a day when 16 incidents converged over a 3.5 hour period, during the morning rush, which compounded to create severe delays and over-crowding at Bloor-Yonge and St. George Stations (Appendix B).

In response to this event, on January 31, TTC Chair Colle requested TTC staff to report to the February Board meeting detailing the events of January 30 including how the TTC can further mitigate this from happening in the future (Appendix C). On February 2, Commissioner Fragedakis made a similar request in a letter to the Chair and Commissioners of the Board (Appendix D).

On February 12 Mayor Tory and TTC Chair Colle announced a Ten-Point Action Plan, (Appendix E) developed in discussion with the City Manager and the CEO of the TTC, to help add capacity across the network and reduce overcrowding. Funding for this investment was approved as part of the 2018 Budget process. This plan builds on past initiatives and investments of the TTC Board and City Council.

In response to these requests, this report outlines the events of January 30, provides context for the current subway capacity, discusses the station management model in place today and actions staff have and will undertake to ensure disruption to the system is minimized, and when an unplanned disruption does occur.

Recommendations

It is recommended that:

1. TTC staff report to the May, 2018 Board meeting on possible bus and streetcar service and route changes that could help reduce overcrowding;
2. TTC staff report to the July, 2018 Board meeting on the analysis of peak and off peak fares as part of the 2018 Ridership Growth Strategy analysis report; and
3. TTC staff forward this report to all members of City Council for information.

Financial Summary

Over \$2 billion in capital funding has been committed over recent years to Line 1 to improve service and reliability, as well as add system capacity. These investments have been directed towards the full replacement of rail fleet with the new Toronto Rocket (TR) trains; investments in automatic train control; and upgrades to Wilson and Keele yards increasing capacity to store and dispatch trains.

Building on these investments, the TTC will utilize \$2.0 million in 2018 base operating funding to further enhance reliability and capacity through the following initiatives:

- Addition of two Line 1 morning gap trains, and four additional early evening trains (to 9 p.m.); and
- Additional staff presence at key stations (Bloor-Yonge and St. George) to establish a level of redundancy to respond to emergencies (\$1 million).

The 2018 Operating Budget approved by City Council on February 12 also included \$3.0 million in added subsidy to address overcrowding on bus routes; and to take actions consistent with the Ten-Point Action Plan released by Mayor Tory and TTC Chair Colle.

The Chief Financial Officer has reviewed this report and agrees with the information.

Equity/Accessibility Matters

Making the TTC accessible and barrier-free to all is a stated goal of the TTC. Infrastructure must be accessible to all by 2025, including having elevators in all stations. Accessing TTC service during its busiest times is a right and expectation of all who use the TTC. This report, and associated actions, addresses issues of crowding and what can be done to ensure a safe and accessible transit experience for all.

Decision History

Commissioner Joe Mihevc submitted correspondence for the Board's consideration at its meeting of June 15, 2017 regarding crowding on Line 1.

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2017/June 15/Reports/20 New Strategies to Alleviate Ridership Pressure o.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2017/June%2015/Reports/20%20New%20Strategies%20to%20Alleviate%20Ridership%20Pressure%20o.pdf)

The Board adopted an amended motion which requested that staff report on strategies to alleviate pressure on Line 1 and to further investigate pressures on parts of Line 2 from Coxwell Station to St. George Station while the Downtown Relief Line is being planned and constructed.

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2017/June 15/Reports/Decisions/20 Strategies to Alleviate Ridership Pressures on Line One.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2017/June%2015/Reports/Decisions/20%20Strategies%20to%20Alleviate%20Ridership%20Pressures%20on%20Line%20One.pdf)

Staff responded to the Board's request in a report entitled "Managing Crowding on Line 1 Yonge University" which was before the Board at its January 18, 2018 meeting.

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2018/January 18/Reports/6 Managing Crowding on Line 1 Yonge.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2018/January%2018/Reports/6%20Managing%20Crowding%20on%20Line%201%20Yonge.pdf)

The report identified immediate and long-term strategies and solutions that staff are undertaking in order to help to alleviate pressure from the line.

Issue Background

During a typical weekday morning, the TTC builds service levels up to 115 trains in service across the subway network (Lines 1-4), manages the service on those lines, supports the operation of both bus and streetcar networks, and is responsible for customer communication during delay incidents on all three modes.

Since 2015, the TTC has been working towards an ambitious goal of reducing subway delays by 50% over 5 years. On Line 1, customers experienced 3,915 less delay minutes in 2017 than they did in 2014 – a reduction of 21.4%. There are fewer signal, train and track problems than only a few years ago. As well, capacity in the system has increased with the introduction of the Toronto Rocket trains, improving capacity per train by 10%.

In November 2017, the TTC began running trains to Vaughan in preparation of full service on the Toronto-York Spadina Subway Extension (TYSSE) on December 17, 2017. Due to challenges with the introduction of new service, there are more trains coming out of the Wilson Yard in the morning in less time. The Automatic Train Control project is continuing to make progress towards achieving full ATC on the entire line by the end of 2019. With ATC workcars, along with track and structure workcars, a challenge exists with the need to get into Wilson Yard while our service trains are trying

to get out. At this time this is challenging to manage, but service has improved over the past few weeks as TTC staff manage the night work differently to preserve the morning peak service levels needed.

Comments

Current Station Usage and Capacity

During a normal service weekday, the interchanges at Bloor-Yonge and St George stations are very busy and see high levels of customer traffic. Bloor -Yonge Station accommodates approximately 235,000 customers per day, not including those who travel through the station on trains. In the morning peak rush hour, approximately 26,000 customers travel within Bloor-Yonge Station. About 9,000 customers perform the peak direction transfer movement from Line 2 to the Line 1 southbound platform. A seven minute gap in Line 1 southbound service creates crowding and difficult passenger circulation conditions on the Line 1 southbound platform.

St. George Station accommodates approximately 140,000 customers per day, not including those who travel through the station on trains. In the morning peak rush hour, approximately 22,000 customers travel within St George Station. About 10,000 customers perform the peak transfer movement from Line 2 to the Line 1 southbound platform. A nine minute gap in Line 1 southbound service creates crowding and difficult passenger circulation conditions on the Line 1 southbound platform.

As noted, these stations cannot withstand delay incidents of more than seven minutes southbound at Bloor Station and nine minutes southbound at St George Station without experiencing significant difficulties.

Route Management

Before the first revenue service trains leave the yards each morning, Transit Control is actively managing dozens of work zones in place across the network throughout the night where crews are improving and maintaining the infrastructure critical to running service safely and efficiently. While necessary, this can create issues with work cars trying to get off mainlines and into the yards and, at the same time, staff are directing trains onto the mainlines to serve customers. During inclement weather, the TTC will also undertake preventative maintenance and proactive equipment checks.

To ensure our service quality is to the standards customers expect, staff are working to ensure they direct workcar traffic into Greenwood, Davisville and Keele Yards to avoid bottlenecks at Wilson Yard. In addition staff have improved the schedule for workcars into the yard to ensure the outbound service trains are not impeded. Similarly, staff ensure that overnight work zones clear on time.

Once service levels build up across the line, staff work to maintain wait and travel times to within expectations, however, delays do happen. When delays happen, Transit Control dispatches resources to the scene and begin adjusting service. In the context of a delay southbound on Line 1 during the morning peak rush hour, consideration must

be given to maintaining safe levels of crowding in the station. Immediate actions include:

- Offloading and short-turning northbound trains at Bloor onto southbound for Yonge trains, and St George or Spadina on the University side.
- Slowing service both directions on Line 2 to bring less customers into the interchanges while there is diminished capacity to move customers out.
- Bypassing interchange stations until customer levels return to normal.

An additional senior manager has been assigned to Transit Control to ensure improved monitoring across the system to help staff react and respond quickly to issues as they arise.

As of February 12, during weekday mornings the TTC increased the number of trains available on Line 1 from 61 to 63. These trains are usually stationed at Eglinton and Davisville and are used to fill service gaps, clear southbound Bloor from crowding, and increase southbound capacity by up to 2,400 passengers.

Station Management

The Stations staffing model supports Bloor-Yonge Station with a number of staff that increases and decreases based on time of day and incident demand. Central Zone includes Bloor-Yonge, St. George, Spadina, Bay, Sherbourne and Castle Frank Stations. There are nine supervisors, two duty station managers (DSM), and one group station manager (GSM) to manage the Zone in all hours of operation.

When an event causes Bloor-Yonge crowding to increase to unacceptable levels, stations staff perform a series of targeted tasks, including:

- work with Transit Control to confirm appropriate station platform procedure has been implemented and report present level of crowding;
- request convergence of additional supervisory and transit enforcement resources for the station;
- shut down appropriate escalators;
- notifying customers entering the station about crowding and suggest possible alternate routes;
- if conditions fail to improve, direct Transit Enforcement Officers (TEO) to close entrances to station and clear the station.

On the morning of January 30, when St. George Station became overcrowded and trains bypassed the station, the same bypass protocol should have occurred at Bloor-Yonge Station to avoid the anticipated overcrowding that resulted.

While the actions listed above form part of our normal response to escalating crowd levels, they are resource dependant. Staffing level redundancy is important to ensure the TTC can continue to assist customers, initiate processes and make decisions required to control capacity and maintain acceptable crowding levels. On this particular morning, the last minute absence of two employees resulted in short staffing, leaving no reaction time to redirect supervisors from other zones before the rapid build-up of customers occurred.

Additional staff will now be provided for needed redundancy. This will ensure a consistent staff complement at key stations (Bloor-Yonge and St. George during morning and evening peaks to maintain station control, instead of relying on convergence of Supervisors from other zones when delays occur.

Real-Time Communications

Communications can be the difference between a smooth trip and an anxious one during a disruption. Providing better real-time information is a Corporate Plan promise rooted in The TTC Way.

Today, the TTC uses a number of tactics to communicate with customers in an emergency, including:

- face-to-face with station staff
- electronic displays in stations
- public address announcements in stations and on vehicles
- TTC website
- Twitter
- e-alerts (free email subscription)
- third-partying trip planning apps

By the end of the year, the TTC will complete an upgrade of its radio and public address system to be more reliable and clear. A real-time communications action plan is being developed that includes the adoption of new technology, training for staff to help them communicate with customers more effectively. For example, if train operators are asked to communicate directly with customers about alternative routes during a delay, they need direction from Transit Control about when and where to make such announcements, as well as clear scripts they can use when making an announcement.

Transit Control Centre Review of Policies and Procedures

Prior to this incident, a review of policies and procedures within the Transit Control Centre was initiated. This review is intended to provide feedback and benchmarking on resourcing, training, capacity to adjust to dynamic situations, and a plan to move ahead with modal integration into one centre. This integration will be completed by the end of 2019.

The TTC continues to work at reducing total delays and delay minutes. A review of Transit Control Centre will ensure appropriate adjustments are made to allow staff to be successful and, therefore, deliver an excellent service day in and day out.

Short Term Yonge Subway Crowding Relief

Express Bus and Streetcar Service

The TTC has on several occasions in the past evaluated express bus services that were designed to reduce crowding on the busiest part of Line 1. Work will commence shortly to update and review all possible bus and streetcar service and route changes that

could help reduce overcrowding. The measures to be investigated will include, but will not be limited to:

- Express buses on Yonge Street, together with transit priority measures
- Express buses from other stations on Line 2 Bloor-Danforth direct to downtown
- Improvements to streetcar service and streetcar terminal capacity improvements at Broadview, Spadina, and Dundas West stations, which are served by streetcar routes to downtown

The work will be done with input from TTC planning staff, TTC Operations, TTC Engineering, City of Toronto Transportation, and City of Toronto planning staff. The work will be expedited, with an initial report to the TTC Board in May 2018.

The work will include:

- Review of past work on express bus relief services
- Identification of service options, including routings, corridors, and express stops
- Consultation with key stakeholders
- Projection of ridership and of the degree of subway relief to be provided
- Resource requirements for buses and Operators
- Required transit priority measures to deliver the necessary services
- Evaluation of value for money of the relief services, including comparison of the relief services to other services that could be operated with the same resources

The TTC's current fleet plans may provide the opportunity to dedicate approximately 20-25 buses for subway relief services, starting in late 2018, early 2019. The exact timing and availability of these buses will be determined as part of this work.

It is important to note that enhanced bus or streetcar services can only provide a relatively small increase in capacity, compared to the subway. The ability of the services to provide meaningful relief will be carefully evaluated by TTC staff as part of this work, as will the relative operating and capital costs.

Fares

As part of the Ridership Growth Strategy (RGS), TTC staff will undertake a comprehensive review of fares and fare policies. This work will begin with the consideration of fare changes that could help reduce peak period demand on the subway, by encouraging shifting of ridership outside of the busiest times. The analysis of peak/off-peak fares will be reported back to the TTC Board in July 2018 as part of an RGS analysis board report.

Longer Term Yonge Subway Crowding Relief

Bloor-Yonge Station Capacity

The Bloor-Yonge Station Capacity project includes examining improvements to the station, optimizing passenger flow, and relieving congestion within the station.

Specifically, the project is addressing the existing and future challenges at the station including:

- Overcrowding at the north end of the Line 1 platforms due to poor passenger distribution and queuing near the stairs and escalators in the morning and evening peak hours
- Reducing the north end station overcrowding which will subsequently reduce the station dwell time with additional stairs and escalators, which is critical for the successful implementation of ATC
- Overcrowding of the Line 2 platform due to narrow centre platform width and congested stairs and escalators in the morning and evening peak hours

The current study scope includes the analysis of ridership and facilities in and around the station, and the development of multiple options.

Currently, work is underway to model ridership and design options that meet the short-term (2021), mid-term (2031) and long-term (2041) passenger demand.

The ability to construct any modifications is severely constrained as the station lies largely under buildings at Yonge and Bloor Streets. Specifically, these building foundations limit the space available to enlarge the station. Inside the station, current customer congestion also constrains construction. Careful staging of any improvement would be required to ensure that impact to station performance is minimized, but this would increase the duration of the construction activity.

The preferred option will be developed to 10% design to address the requirements to the year 2041. Included in this analysis is the impact of all the expansion projects, sequencing and other endeavours that effect Line 1 and Line 2 performance (ATC signalling, new subway trains, etc.). Fire ventilation, emergency egress and other impacted infrastructure associated with Line 1 and Line 2 capacity improvements will be considered in the design development for the station.

The early identification of potential concepts is expected to be available for TTC staff review by mid-year 2018 with final feasibility reporting in early 2019.

Relief Line South and North

While a relief line between Pape Station on Line 2 and Osgoode Station on Line 1 (“Relief Line South”) would not have prevented any of the events of January 30, however for Line 2 customers east of Yonge Street it would have provided an alternate route to and from the downtown core.

The Relief Line is made up of two discrete projects: the Relief Line South being led by the City and TTC in partnership with Metrolinx (MX); and the Relief Line North being led by MX in partnership with the City and TTC. The budget required for the RLS planning and design to develop a Class 3 cost estimate and schedule (approximately 15-30% design) is estimated to be \$100 million. The City has allocated \$55.52 million and the Province committed \$150 million to Metrolinx to work with the City and TTC to advance planning and design of the Relief Line (\$45M of the \$150M is allocated to the RLS).

The remaining \$105M provincial funding is allocated to the RLN up to Sheppard Avenue (planning studies, initial business case, preliminary design to develop project budget baseline and schedule).

Detailed demand modelling will identify the degree of relief that both the Relief Line North and South will provide. Modelling work done by City and TTC staff shows that, by 2031, the Relief Line South will reduce peak period crowding on Line 1 between Bloor-Yonge Station and Union Station. The Relief Line South will not mitigate any forecast increase in demand on Line 1 north of Bloor-Yonge Station. The Line 1 Yonge Subway extension (YSE) to Richmond Hill will add more riders to Line 1 and will use up capacity freed up by the Relief Line South. Toronto City Council directed that the Relief Line South must be in operation prior to the opening of the Yonge Subway extension. Continued relief to crowding on Line 1 will likely require that the Relief Line North also be built. Additional study is required before such a conclusion can be confirmed. This work will be carried out as part of the Relief Line North planning work.

Since 2014, TTC has been working in partnership with the City on the Relief Line South Project Assessment to undertake the planning studies and develop the conceptual design. City Council approved an alignment and station locations for this rapid transit connection in May 2017. Work is underway to undertake preliminary design and engineering (PDE) to develop a project budget baseline. The City, TTC, and MX are also finalizing the draft environmental project report and will be jointly launching the Transit Project Assessment Process (TPAP) this year. The TPAP/Environmental approvals process does not impact the preliminary design schedule. As directed by City Council, we remain on schedule to report back in Q4 2019.

A senior staff Memorandum of Understanding (MOU) between the City, TTC, and MX is being finalized to confirm roles and responsibilities for the PDE. As directed, staff will present the MOU to the TTC Audit & Risk Management Committee for review prior to execution.

There is a joint project team comprised of TTC, City and MX resources to undertake the PDE phase of work. There are currently approximately 19 TTC staff providing support to this project. Within the City Planning division, there is a dedicated team undertaking planning work on all of Council's priority transit projects. Staff from that team are assigned to the Relief Line in order to best address project demands. The TTC has appointed an Acting Project Director and Principal Engineer. Consultant services are being retained to provide technical and professional expertise on geotechnical, tunnelling, stations and systems design. The Request for Proposals for these consultant contracts were released in November 2017 with the first two scheduled for award in February and March 2018.

Relief Line South has many complexities requiring thorough planning and design. These include constructing three new stations under existing operating subway stations, tunnelling through rock south of Queen Street, tunnelling under the Don River, the depth of the stations, constructing through residential, commercial and high rise environments and connecting to existing third party infrastructure. Staff remain on schedule to report back on Relief Line South as directed to the Board and Council in Q4 2019 with a Stage Gate 3 project budget and schedule.

The Relief Line North project will identify a further rapid transit line north from the Relief Line South at Pape Station, to Eglinton Avenue, Sheppard Avenue, or beyond. The project will identify the technology for the line, the alignment, station locations, and connections to other rapid transit lines. The first round of public meetings are tentatively planned for Spring 2018.

Conclusion

There are a number of actions the TTC has taken, or will take, to mitigate against a recurrence of the cumulative events and customer impact of January 30. These actions are part of the Ten-Point Action Plan (Appendix E) that was released by Mayor Tory and TTC Chair Colle on February 12.

At the TTC operational level, these include:

1. Proactive overnight switch checks in yards in inclement weather (ongoing)
2. Increase trains available in morning rush hour from 61 to 63 (February 12, 2018)
3. Enhanced oversight at Transit Control (ongoing)
4. Complete Wilson yard hostler work for secondary mainline entrance, reducing conflict with revenue trains and workcars in morning service starts (Summer, 2018)
5. Increased staffing at Bloor-Yonge and St George platforms (ongoing)
6. Real-time communications enhancements (ongoing)

Over the medium and longer terms, planning and design work is proceeding on relief bus services for the Yonge Subway; and for the Relief Line North and South. A review of fares, as part of the Ridership Growth Strategy, will also consider the effects of specific fares changes on ridership and peak demand on the subway.

Contact

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Signature

Richard J. Leary
Chief Executive Officer (Acting)

Attachments

Appendix A – Letter from Mayor John Tory – May 24, 2017

Appendix B – Chronology of Events – January 30, 2018

Appendix C – Chair Colle Statement – January 31, 2018

Appendix D – Commissioner Fragedakis Letter – February 2, 2018

Appendix E – Mayor Tory launches 10-point plan and pledges \$3 million in 2018 budget to relieve crowding on TTC

Appendix A – Letter from Mayor John Tory – May 24, 2017



John Tory
Mayor

May 24, 2017

Andy Byford
Chief Executive Officer
Toronto Transit Commission
1900 Yonge Street
Toronto, Ontario M4S 1Z2

Dear Mr. Byford, *Andy*

I am writing today with respect to subway capacity on the TTC's Yonge line.

Connecting various parts of the city, Line 1 provides a backbone for people to move around, carrying 750,000 trips a day. We are all acutely aware of the crunch in peak hours, where people are often left waiting for a train to go by before they can embark, and platforms left completely full at Yonge-Bloor station.

To address this issue for future generations, the Relief Line has been identified as a solution to provide options for transit riders, and will address some of the capacity issues we continue to experience. But Line 1 will be at capacity in 2031, and the Relief Line will need to be operational by that time. I am pleased that the Executive Committee and the TTC Board has moved the next steps on this item and we can get moving on this important and transformational project.

In addition, SmartTrack will give people more choice when moving in and out of the downtown core. The SmartTrack line connects with a significant number of key transit connections, including Union Station, Finch East, St Clair West and Liberty Village. This connection to other transit hubs will allow people with the choice of taking a separate direct line to other parts of the city, rather than using the subway. Ridership analysis from City staff tell us that SmartTrack will provide congestion relief on the Yonge Subway and to Bloor-Yonge station in this way.

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While high ridership on our subway is a positive sign of a growing city, it is important we keep up with this growing demand and adapt to it where we can. The Relief Line and SmartTrack are generational solutions but we must also look at what we can do in the shorter term. I want to make sure we are doing everything we can now to make the ride better for riders.

I know there are a number of different measures the TTC is undertaking that will successfully help the subway rider experience while work on these projects are underway.

I understand the TTC is undertaking extensive and successful work on Automatic Train Control. Automatic Train Control will give the TTC a modern signalling system that will improve reliability and capacity on Line 1. As you know, ATC will improve headways by over 20%, and reduce run times on Line 1 by over 17%. As such, I am happy to learn that this project is both on time and on budget, as it is of critical importance to the city. While I understand the complexities of this program, I want to ensure we have explored all options to safely accelerate this program.

While SmartTrack, ATC and the Relief Line will address our Line 1 capacity issues for the future, I am writing to ask whether, in the meantime, there are any other opportunities to pursue more capacity on Line 1 and relieve some of the capacity issues experienced at Yonge- Bloor subway station. I am wondering whether there are creative solutions that could be explored, such as ways to have some subway trains begin their journey further down the line, allowing for additional capacity in some of our busier stations.

I know some of these are top of mind for your team, and I look forward to hearing about any potential solutions we can help transit riders in Toronto.

Sincerely,



John Tory
Mayor of Toronto

Copy: Chair Josh Colle, TTC Board

Appendix B – Chronology of Events – January 30, 2018

Time	Location	Cause	Remedy	Impact
5:21 a.m.- 5:46 a.m.	Wilson SB	Signal fault. Water buildup on the bottom of the motor. Defective fuse on heater.	Ice chipped away, motor was resealed.	Minimal. Shuttles were ordered for Sheppard West to Wilson but were cancelled before arriving on the route. Resources including a Signals Crew and a Chief Supervisor were deployed.
5:23 a.m.	Finch	Work zone cleared later than expected.	The workzone cleared at 5:23, however the workcars remained on scene until the first train was due at 5:31 a.m.	Minimal but impacted the first trains at 5:31 and this was exacerbated by the disabled train in the Finch tail track. It also affected ability to use pocket tracks as workcars occupied those tracks due to being held out while service built up from the yards.
5:36 a.m.- 6:22 a.m.	Wilson Yard	Switch failure. Snow and ice build-up.	Switch regained detection after defect repaired and snow cleared from the switch.	Trains were behind schedule leaving the yard. Signals crew and Chief Supervisor were required.

Time	Location	Cause	Remedy	Impact
6:31 a.m.- 8:48 a.m.	NB approaching Davisville	Signal failure due to ice build-up on the back of the trip arm.	Ice removed from back of trip arm.	6 trains had to key by and trip through causing headway irregularities. (Train times: 6:47 a.m., 7:13 a.m., 8:06 a.m., 8:17 a.m., 8:31 a.m., 8:48 a.m.). Each incident resulted in 3 minute delays to each train.
6:35 a.m.	Approaching Wilson Station SB	Signal violation	Operator reset and proceeded.	2 minute delay.
7:00 a.m.- 7:02 a.m.	Eglinton Station SB	Emergency Alarm activation. False alarm.	EA reset by Operator, train proceeded	3 minute delay.
7:17 a.m. - 7:21 a.m.	St Andrew Station NB	Door issue on train.	Operator worked with Equipment staff at Transit Control to troubleshoot and resume service.	4 minute delay.
7:23 a.m.- 7:43 a.m.	Eglinton Station SB	Fire/Smoke Plan B reported due to visible smoke at station. Report then received of the empty train travelling from Eglinton SB emitting smoke. Plan B cleared as train in question became disabled at Davisville due to brakes holding.	The train left Finch tail track and was operating private to Davisville for repairs when this incident occurred. A review of protocol has taken place to reinforce that the practice of moving a train with mechanical issues in peak service is not permitted.	20 minute delay. Turn-backs initiated at Lawrence and Bloor stations during delay.
7:50 a.m.- 8:23 a.m.	Wilson SB	Signal failing to clear.	Removed ice from switch.	Intermittent failure and delay to trains.
8:04 a.m.- 8:12 a.m.	Davisville Station NB	Emergency Alarm activation. False alarm.	EA reset by Operator, train proceeded.	3 minute delay.

Time	Location	Cause	Remedy	Impact
8:10 a.m.	Wellesley Station SB	Emergency Alarm activation. False alarm.	EA reset by Operator, train proceeded.	3 minute delay.
8:18 a.m.- 8:39 a.m.	Museum Station SB	Disabled train with no propulsion/ Emergency Alarm activated	Door interlock bypass activated to move train to Museum station. TTC/ EMS on scene, no Supervisor available to respond. The medic was unable to locate the customer initially and cleared the call at 8:28, however at 8:30 they located a customer reporting vision problems. Customer was removed from train with the rest of the offloaded passengers and awaited EMS.	21 minute delay. Train was offloaded when it arrived at Museum creating a large crowd of customers.
8:40 a.m.- 8:53 a.m.	Museum Station SB	2 Emergency Alarms activated – fight between two customers likely exacerbated by crowding.	Medic on scene, no Supervisor available to respond. This train was moved off St. George station at 8:28 a.m. when the medic reported the previous medical was clear. However, when the medic located the customer at 8:30 a.m., this train was required to wait in the tunnel for an additional 9 minutes.	13 minutes. Overcrowding was experienced at Museum station. This level of crowding contributed to the reported fight that occurred between the customers.

Time	Location	Cause	Remedy	Impact
8:38 a.m.	St George Station	Overcrowding reported at St. George station	Trains bypassed St. George station (Line 2) from 8:51 a.m.-9:11 a.m.	
9:11 a.m.- 9:14 a.m.	St Clair Station SB	Emergency Alarm activation. False alarm.	EA reset by Operator, train proceeded.	3 minute delay.
9:22 a.m.	Yonge/Bloor	Due to St. George bypass, customers are redirected to Yonge-Bloor and it becomes overcrowded.	Trains bypassed Yonge station from 9:22 a.m.-9:37 a.m.	Two trains offloaded (St Clair station and Rosedale station) to run empty to Bloor <u>station</u> and alleviate platform crowding.

Appendix C - Chair Colle Statement – January 31, 2018



Councillor Josh Colle
Office of the TTC Chair
Toronto City Hall
100 Queen Street West
Suite A21
Toronto, ON
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For Immediate Release
January 31, 2018

Statement from TTC Chair Josh Colle about the recent TTC service disruptions

Over the last few years the TTC has made it a priority to maintain and upgrade our core infrastructure. After years of neglect we are making the necessary investments to improve our subway system to make it more safe and reliable. We are spending millions of dollars to upgrade our signalling system which will drastically improve the flow of our trains and reduce the number of signal-related issues. We are completing track work, which maintains the strength of our rail system and prevents problems before they occur. I can assure you that work is funded and happening every day. While we are undergoing all that maintenance work, we are simultaneously in the process of adding capacity to our subway system as we carry out planning work for the Relief Line.

Yesterday's service failures are that much more frustrating in light of all the good work that is being done by the TTC to improve subway service. It is even more frustrating for our loyal passengers who experience delays. To this end, I have asked that the failures experienced yesterday be addressed at our upcoming TTC board meeting. This review will include how we can further mitigate this from happening in the future. While significant state of good repair work is happening as we speak, I believe there were many things that require further explanation from the TTC.

We owe it to our very patient and loyal customers to demand these answers and to make sure they receive the best possible transit service every day.

For Media Inquiries, contact:
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Appendix D – Commissioner Fragedakis Letter – February 2, 2018



MARY FRAGEDAKIS
City Councillor, Ward 29



February 2, 2018

Toronto Transit Commission
100 Queen St. West
Toronto, ON M5H 2N2

Dear Chair and Commissioners,

The unplanned service disruptions on the TTC during the work week starting January 29th had a severe negative impact on many Torontonians.

The communications coming out of the TTC explaining what happened to our customers and the general public were helpful but given the gravity of the situation much more needs to be done.

It behooves us to review what happened and take measures to ensure sure there is not a reoccurrence. As I write this I am hopeful that such a review is underway but I am also aware of the pressing need to understand the full extent of the problem so that there can be a well-informed discussion both in the larger community as well as by decision-makers as resources are allocated and plans for the future developed.

The challenges of operating the least-subsidized major transit system in North America are very daunting. None of this is helped by the delivery delays with the Bombardier streetcars or the many glitches associated with PRESTO. I have confidence that the TTC staff do a great job with the resources at their disposal but the extent of these unplanned disruptions should serve as a warning that we have asked too much of them.

My quick review of the information provided to me about what occurred suggests two areas of concern beyond what has already been identified by the TTC in recent communications. The first thing is that there does not seem to be sufficient reserve capacity of people and resources to address a cascading series of problematic incidents. Secondly, the contingency plans for dealing with the safety issues posed by extreme overcrowding at our Yonge and St. George stations need to be reviewed through a process that regains the confidence of our customers and the public in said plans. For example, perhaps we need to run a drill in coordination with our first responders.

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It is imperative we remember that these problems did not happen concurrently with any other crisis in our city like a storm. All three levels of government must be made aware of the risks involved in operating an underfunded transit system in this age of increased resiliency challenges.

Like so many in our city, I believe the new relief subway line must be a priority investment for all levels of government.

Though I appreciate the level of investment all three levels of government have committed to improving public transit these recent events are confirmation that we need to do more and we need to act quickly.

Given the circumstances, I ask that there be an opportunity on the agenda of the next TTC Board meeting for a thorough discussion of these matters. I do not think the tone of that conversation should be why did you fail but rather what do we need to fix this; what is in the works; what else needs to be done; and how can we accelerate solutions.

Thank you for your consideration.

Sincerely,



Commissioner Mary Fragedakis
Ward 29, Toronto-Danforth

Appendix E – Mayor Tory launches 10-point plan and pledges \$3 million in 2018 budget to relieve crowding on TTC

For Immediate Release
February 12, 2018

Mayor Tory launches 10-point plan and pledges \$3 million in 2018 budget to relieve crowding on TTC

Ahead of City Council finalizing the 2018 budget, Mayor John Tory, TTC Chair Josh Colle and Budget Chief Gary Crawford announced they will support investing more than \$3 million in the TTC to help address crowding immediately. Council will be presented with a motion at today's City Council meeting to grant approval of such an investment to fight overcrowding. The Mayor also announced that he has asked the City Manager and the CEO of the TTC to have staff explore any and all means to accelerate the Transit Network Plan, including the Relief Line.

"I know delays and crowding can be frustrating. I know people want an expanded transit system as soon as possible. I know how maddening it can be when transit and traffic don't move in this city," said Mayor Tory. "I want Toronto residents to know that I am dedicated to getting transit and traffic moving. I'm dedicated to building our entire transit network plan. I'm dedicated to making sure the TTC is doing everything possible to minimize delays and ease crowding."

This morning, the Mayor and TTC Chair outlined a 10-point plan to help relieve crowding on the TTC.

Right away, the TTC will be doing the following:

- 1) Two additional subway trains have been added to Line 1 service during the AM peak period. That's on top of the 61 trains that currently operate during the morning rush and makes sure the TTC is able to move 2,400 more people.
- 2) Overnight maintenance schedules have been adjusted to ensure better system reliability.
- 3) The TTC will do more proactive checks on operating equipment, especially during periods of extreme cold or inclement weather so we're not surprised by a broken heater on a switch.
- 4) More platform staff have been deployed at Yonge/Bloor and St. George stations to manage crowding and help better communicate with the travelling public.
- 5) There will be improved monitoring system-wide with additional personnel at the Transit Operations Centre so the TTC can react faster to problems as they arise.

In the coming weeks and beyond:

- 6) The TTC will be enhancing its communications with riders and announcements across the system.
- 7) The TTC will be studying possible options for lower fares during off-peak hours to give people real financial incentives to take transit outside of the rush hours.
- 8) The TTC will be bringing forward a plan on how to use enhanced express bus service to help ease overcrowding on the Yonge Line during peak periods.
- 9) The Mayor will be meeting with the Minister of Transportation and the Premier to propose ways the City and the Province can work together to ease overcrowding city and region-wide.
- 10) Just as the Mayor has done with road closures in the city, he will be chairing a regular monthly meeting with senior city, TTC and Metrolinx transit officials to track the

progress of our transit expansion projects, including but not limited to the Relief Line, with an eye to doing everything possible to speed them up.

“Over the last four years, we have invested millions of dollars in the TTC. I have championed funding the state of good repair backlog at the TTC, something ignored for too long by past administrations,” said Chair Colle. “We’re finally doing the hard work of upgrading the aging signal system on Line 1 which will help the system run more reliably and increase capacity for riders.”

"The proposed investments in fighting crowding on the TTC will ensure we are giving relief where possible, as soon as possible," said Budget Chief Gary Crawford. "The 2018 budget is once again good news for everyone who uses the TTC – we have made the bold decision to invest in the Hop on-Hop off transfer fare and to begin to phase in the Fair Fare pass for low income riders."

The City's 2018 budget holds the line on taxes while investing in City services and adding new ones. This budget contains over \$50 million in new and enhanced investments including the TTC's hop on-hop off transfer, the City's TransformTO plan, funding for social housing repairs, 825 additional child care spaces, 20,000 additional recreation spaces, accelerating the Vision Zero safety plan and hiring more police officers focusing on community safety. For the fourth year in a row, the property tax increase will be kept at or below the rate of inflation. The capital budget will see \$170 million in additional gas tax money secured from the province by Mayor Tory.

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