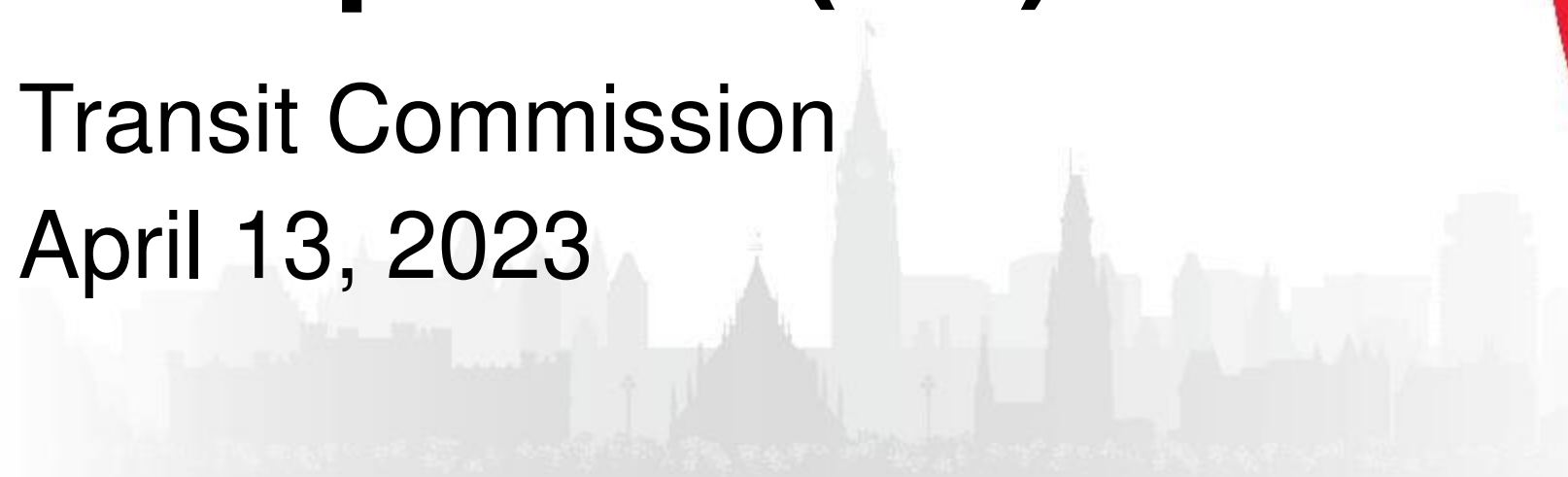




# **Responding to O-Train Line 1 service disruptions (R1)**

Transit Commission

April 13, 2023



# Overview: O-Train Line 1

- OC Transpo's transit system is designed to take full advantage of O-Train Line 1
- The bus network is designed to deliver customers from all areas of the City to O-Train stations
- Our bus fleet is optimized to support regularly-scheduled service
- Trains replaced buses which previously operated on the Transitway between Tunney's Pasture and Blair. The buses were retired from the fleet in 2019.
- Trains are more efficient than buses:
  - Capacity of up to 600 customers per trip; approximately nine-times that of an articulated bus
  - Travel on a dedicated rail line that is unaffected by vehicular traffic



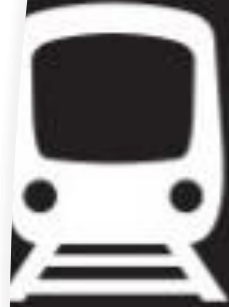
# How was R1 service designed?

- Cross-departmental project began in 2016
- R1 plans were developed in collaboration with Transit Operations, Traffic Services, Ottawa Police Services and Infrastructure Services
- Most optimum R1 route was chosen based on extensive traffic modeling and simulations
- Infrastructure improvements to support R1 service were made in advance of the opening of O-Train Line 1
- Guidance on best-practices was sought from transit agencies in Toronto, Montreal, Edmonton, Calgary, Vancouver, Seattle, and Boston
- Peers at these agencies also reviewed and provided invaluable feedback on R1 plans



# What is R1 replacement bus service?

- R1 is bus service that connects stations along the O-Train Line 1 when trains cannot operate because of a service disruption
- R1 service cannot match the speed, capacity, and efficiency of train service
- Running R1 service creates impacts to our customers, our staff, and our resources



R



# When is R1 service deployed?

R1 service is deployed in situations where:

- Planned maintenance activities do not allow for single-tracking
- A Line 1 disruption is expected to last more than 20 minutes
- Single-tracking around an unplanned disruption is not possible



R

1



# How is R1 service deployed?

## In the event of a Line 1 disruption:

- TOCC (Transit Operations Control Centre) staff are trained to manage Line 1 disruptions
- During an unplanned disruption, TOCC identifies buses and operators that can be deployed to quickly implement R1 service
- If single-tracking is not an option and disruption is expected to last longer than 20 minutes, R1 is deployed
- Each decision has trade-offs and impacts to our overall service, our customers, and our staff



# R1 service: planned vs. unplanned



	Planned R1 service	Unplanned R1 service
<b>Resources</b>	Allocated in advance as much as possible	Limited availability
<b>Communications</b>	Issued in advance	Reactive
<b>R1 mobilization</b>	Buses ready for R1 service in advance	Requires more time to pull buses from regular service
<b>Bus service impacts</b>	Reviewed/mitigated as much as possible in advance	Initial moments following R1 deployment most disruptive
<b>Bus trip cancellations</b>	Some cancellations	More cancellations (depending on time and location of disruption)

# R1 deployment considerations

**TOCC staff refer to established standard operating procedures and must consider:**

- Location of O-Train disruption, cause and corresponding impacts to service
- Anticipated duration of disruption
- Time and day of the week
- Required R1 bus service frequency to accommodate all customers
- Impact on the rest of the system if buses are re-allocated away from other routes
- Communications requirements (both internal and customer-facing)





# How do we inform customers?

OC Transpo has *pre-planned* R1 communications, including:

- Social media, web alerts and text messages ready for agile communications
- Announcements for use at stations and onboard trains
- Permanent signage at stations directing customers to R1 bus stops
- Extra signage stored at stations, ready to be placed by staff
- Digital signage, progressively being installed at all stations



# Communicating with customers

## When R1 service is required:

- Electric rail operators make announcements
- Additional outreach staff may be deployed to locations affected
- Updates provided frequently and when new information becomes available
- Visuals used to support communications on social media and web alerts
- Regular updates provided to Council and the media
- Media availabilities, as required



# Why not run multiple R1 patterns at once?

Changing or running multiple R1 patterns is not recommended, particularly during unplanned disruptions:

- Requires more buses
- Results in more trip cancellations
- Increases the likelihood of confusion for customers and staff
- May benefit some customers, but impact others



# Ottawa's transit network relies on rail

Running R1 at all times to provide the same capacity as O-Train Line 1, from Tunney's Pasture to Blair, on the current road network, would require:

- Approximately \$260 to \$360 million in capital costs to purchase 310 more articulated buses
- Approximately \$110 million per year in operating costs to fund the cost of operations
- Hiring approximately 520 more bus operators and 130 more maintenance staff, plus more support staff



# In summary

- Ottawa's transit network is designed to leverage the O-Train's frequency, capacity and efficiency
- R1 service is used to support customers during O-Train Line 1 disruptions but cannot effectively supplement normal O-Train service
- Staff in the TOCC have the training, processes and plans to deploy R1 service, when required
- OC Transpo's focus is on increasing rail service reliability and, during a disruption, to restore rail services as quickly as possible





**QUESTIONS?**