



# Enhancing Surface Transit

## Bunching and Gapping Pilot Project Update

November 2025



# Traffic and Service Congestion

# Pilot Overview

Goal: Pilot bunching and gapping reduction measures across 11 select routes

March 2025

## 1 Pilot Launch

- 11 routes selected

June 2025

## 2 Targeted Reset

- Five key focus routes
- Dedicated resources

September 2025

## 3 Expanded Focus Routes

- Two newly added focus routes

Actions  
taken to  
date



Reduced routes per supervisor



Deployment of in-field resources



Operator education



Joint transit priority measure with City

# Hot Spots & Mitigation Strategies

In-depth analyses have identified key delay hot spots

## 7 Bathurst

Dupont-Davenport, St. Clair-Eglinton, Lawrence-Wilson

**Delays:** parked cars, left turns, school traffic, closely spaced stops

**Mitigation:** Run as Directed (RAD) vehicles, supervisor deployment, line management

## 165 Weston Rd

Wilson Ave (Dufferin St-York Mills Stn)

**Delays:** construction, heavy traffic, parked vehicles

**Mitigation:** prepositioning extra buses, line management, supervisory support

## 24/924 Victoria Park

Consumers Rd-401 area

**Delays:** traffic lights, heavy traffic

**Mitigation:** vehicle spacing, RAD support, line management

## 506 & 512 Streetcars

Bathurst to Ossington, St Clair West Stn, Old Weston Rd to Gunns Loop

**Delays:** heavy traffic, high passenger volume, curbside congestion

**Mitigation:** supervisory deployment, service adjustments (incl. City management traffic support)



# Leveraging AI for real-time decision support with transit headway management

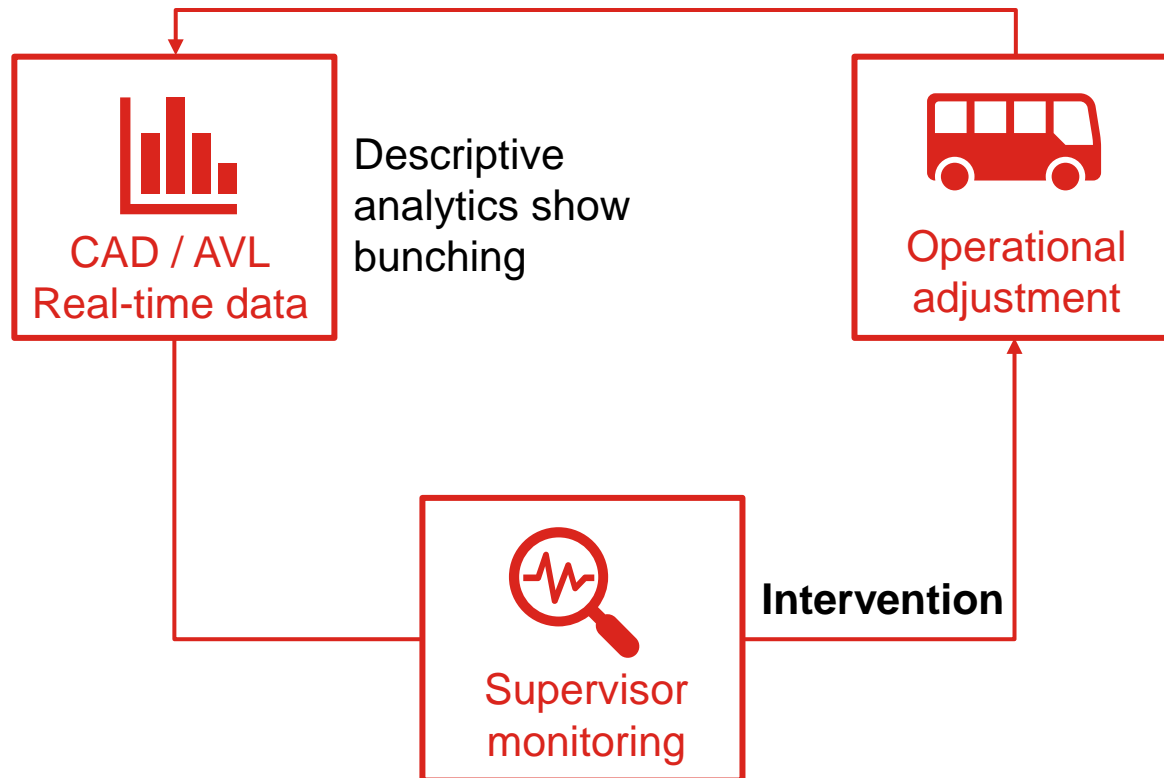
Partnerships are key to the success of this pilot and beyond.



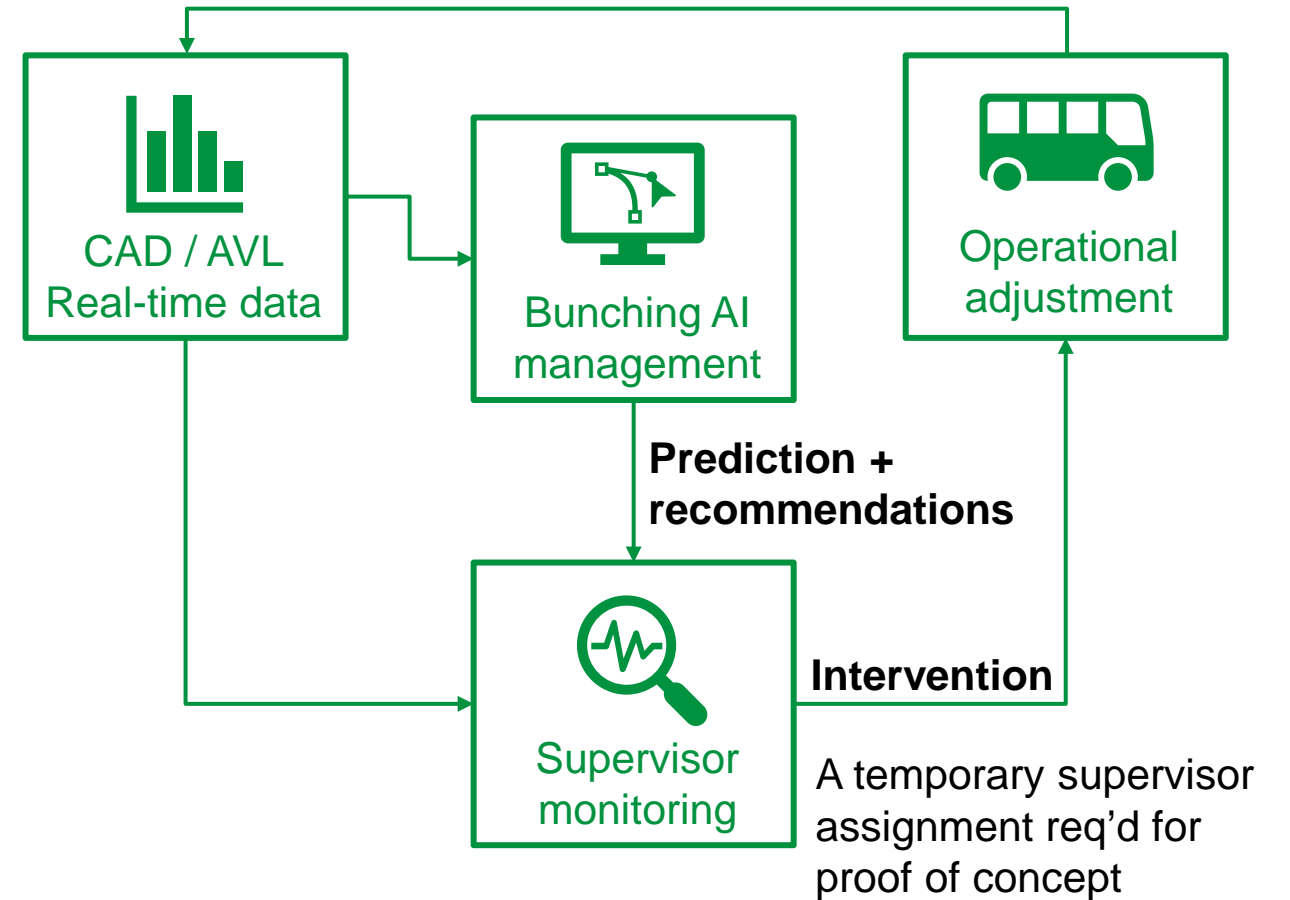
November 3, 2025

# | Status Quo Bunching Correction Process

## STATUS QUO



## PROPOSED



# | Added Value

1. **Integration** with existing data infrastructure
2. **Uses AI** to make holding recommendations to supervisors
3. **Prediction** of bunching next, with self-learning capability
  - **Optimization:**
    - \*Crowd-sensitivity in holding recommendations

Front Higher : 25.7%



Low



High

Trailing = Front : 64.2%



High



Low

Trailing Higher : 10.1%



High



Low

\*Headway sensitivity in holding recommendations

4. **Solution engineering** (what-if analysis)





Route 7 (2 bunching events)

2 opps

Route 7 — Bunching Events (Past & Predicted)

Time	Dir 0 Count	Dir 1 Count
10:21	2	0
10:25	0	0
10:31	1	0
10:35	2	0
10:41	1	0
10:45	1	1
10:51	1	1
10:55	0.7	0.7
11:01	1	0
11:05	1.5	0
11:11	1.4	0
11:15	0	0
11:19	1.4	0

STOP	VEHICLE — TRIP	ETA (MIN) <small>Time to hold stop</small>	HOLD <small>(min:sec)</small>	ACTION
6794	9008 — 118852020	2.6 (10:52:39)	3:00	<div>Apply</div> <div>Ignore</div>
9911	9013 — 53928020	1.7 (10:51:44)	1:26	<div>Apply</div> <div>Ignore</div>

# Overview of POC Pilot Platform

Historical events  
(Prev 30 mins, both  
directions)

Predicted events  
(Next 30 mins, both  
directions)

All vehicles location  
(Color-coded by direction / holding  
opportunity)

Recommended  
holding times



# | Next steps

## 1. Continue focused pilot approach:

- The current focus routes, 7 Bathurst and 24/924 Victoria Park, will return to regular monitoring
- 29 Dufferin and 929 Dufferin Express (replacing 7 Bathurst)
- 25 Don Mills and 925 Don Mills Express (replacing 24/924 Victoria Park)

## 2. Ongoing monitoring and reporting:

- AI tool assessment to determine its efficacy in managing bunching and gapping
- Continue performance tracking for newly added routes
- Review routes that have returned to regular supervision to assess changes and impacts
- Continue to inform of progress through CEO's report

## 3. Collaboration with City partners:

- Coordinate with the City on identified tactics

