Simcoe Street Rapid Transit

Committee of the Whole
January 15, 2025

The Benefits of Investing in Rapid Transit

1. **Enhanced Mobility and Accessibility**
   - Improves travel options for priority neighbourhoods
   - Connects people to jobs, education and services
2. **Increased Transit Ridership**
   - Attracts more riders compared to traditional bus service
   - Increases transit's modal share
3. **Economic Growth**
   - Stimulates economic activity by attracting investments
   - Encourages transit-oriented development, including housing
4. **Environmental Sustainability**
   - Decreases vehicle kilometres traveled, lowering GHG emissions
   - Supports a transition to cleaner and more efficient transportation
5. **Cost Effectiveness**
   - Increases revenue while reducing operational costs
   - Promotes sustainable financial models for transit systems

Simcoe Street Rapid Transit

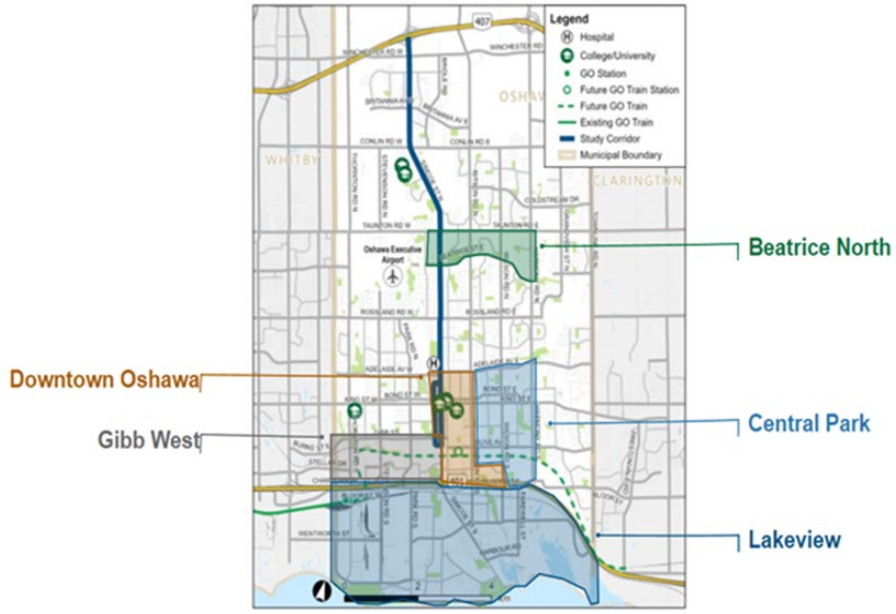
- Through the Investing in Canada Infrastructure Program (ICIP), Durham received $6.4 million in funding ($1.7 million Region share) to study transit priority along the Simcoe Street corridor, including a Transit Project Assessment Process (TPAP) for Rapid Transit on Simcoe Street
- September 2022,Visioning Study, Feasibility Study and Initial Business Case Study initiated
- Based on feedback from community engagements, study limits were extended south to Lakeview Park

Why Simcoe Street?

- 42% of Oshawa's population and 51% of Oshawa's jobs are within 1km of Simcoe Street
- Five Priority Neighbourhoods on or adjacent to Simcoe Street
- Provides rapid transit connections to these communities, removing barriers and promoting a healthy, high-quality way of life
- Reliable service supports access to education, employment, and healthcare
- Provides access to greater housing opportunities, including for students

Simcoe Street Corridor

Priority Neighborhoods in Oshawa



Simcoe Street Connections and Destinations

Simcoe Street Key Destinations

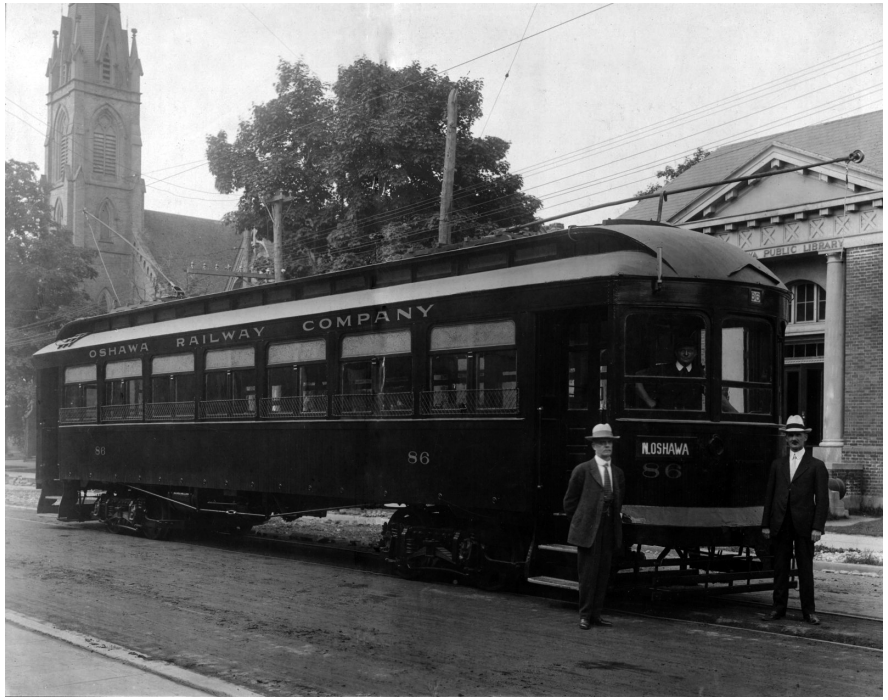
- Ontario Tech University
- Durham College
- Lakeridge Health Oshawa
- Trent University
- Downtown Oshawa
- Lakeview Park

Simcoe Street High Density Developments

- Windfields Regional Centre
- Taunton Road Area Intensification
- Central Oshawa Major Transit Station Area
- Downtown Oshawa

Connections to Higher Order Transit

- Highway 407 Transitway
- Taunton Road Priority Bus Corridor
- Highway 2 DSBRT
- Lakeshore East GO



Oshawa Railway passenger car, northbound on Simcoe Street at Athol Street. Image from the Oshawa Archives

Public Consultations & Communications

PIC #1 September 2022

Online event
Pop-up Ontario Tech Campus

PIC #2 November 2022

Library McLaughlin Branch
Library Jess Hann Branch
Holiday Inn Lobby
Oshawa Centre Mall

PIC #3 March 2023

Durham College
Oshawa Golf and Curling Club
Jubilee Pavilion

PIC #4 Oct/Nov 2023

Oshawa Golf and Curling Club
Jubilee Pavilion
Pop-up Ontario Tech Campus

Mailed Notices

- PIC #1 Every Address in Oshawa
- PIC #2 Addresses within 250m of Simcoe
- PIC #3 Addresses within 1km of Simcoe
- PIC #4 Addresses within 1km of Simcoe

Advertisements

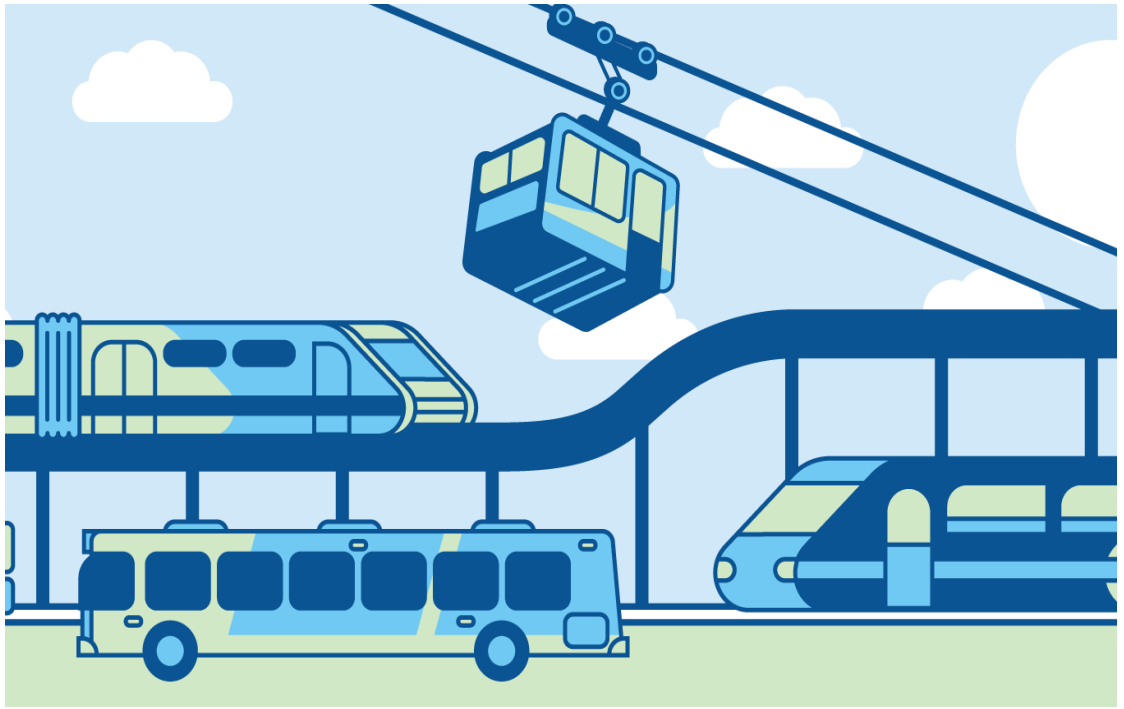
- Printed Newspaper Advertisements
- Digital News Advertisement
- Social Media Posts
- Corridor Billboards
- Oshawa Economic Development E-Newsletter

Stats

- 500+ Attendees to PICs
- 7,000 Unique Visitors to Study Website
- 400+ Surveys Completed
- 100,000 Social Media Impressions
- 70,000 Digital Advertisement Impressions

Options Explored

- Bus Rapid Transit (BRT)
- Aerial Cable Car Transit (ACCT)
- Light-Rail Transit (LRT)
- Monorail
- Subway
- High-Frequency Bus Service



BRT and ACCT carried forward to a feasibility study

What We've Heard

- Need to improve transit service on Simcoe Street
- Concerns about disruptions caused by construction
- Concerns about property impacts
- Concerns about traffic congestion and infiltration
- Support for BRT and ACCT over High-Frequency Bus
- Rapid Transit is needed to accommodate population growth
- Concerns about privacy

Property Impacts Comparison

ACCT Option

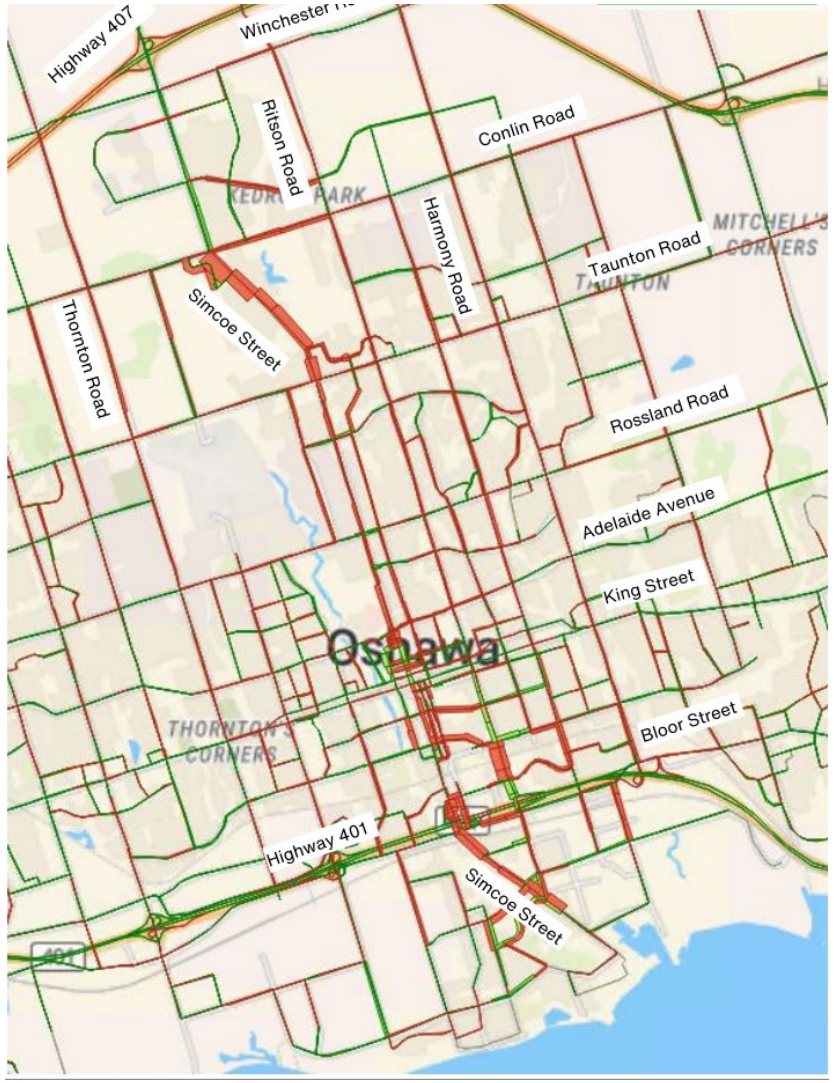
	BRT	ACCT
RESIDENTIAL PROPERTIES IMPACTED	196	51
COMMERCIAL PROPERTIES IMPACTED	103	33
FULL PROPERTIES ACQUIRED	28	2
HERITAGE PROPERTIES IMPACTED	5	0
TOTAL AREA ACQUIRED	16 acres	2 acres
COMMERCIAL PARKING SPACES REMOVED	253	33
ON-STREET PARKING SPACES REMOVED	58	16

4-Lane BRT Option (removing an existing traffic lane)

LEGEND:

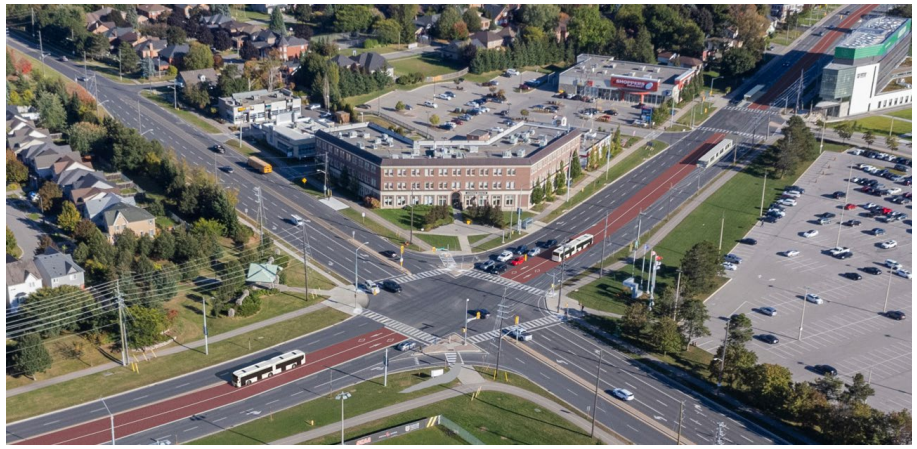
- EXISTING ROW
- PROPOSED ROW
- EXISTING BUILDING
- PROPOSED 1.8 m SIDEWALK
- PROPOSED 3.0m MULTI-USE PATH
- ROAD WIDENING REQUIRED

Traffic Impacts



Auto Volume-Capacity Ratio Difference Plot, A.M. Peak Hour (2051), Base vs BRT Scenario. Red indicates increases in traffic congestion.

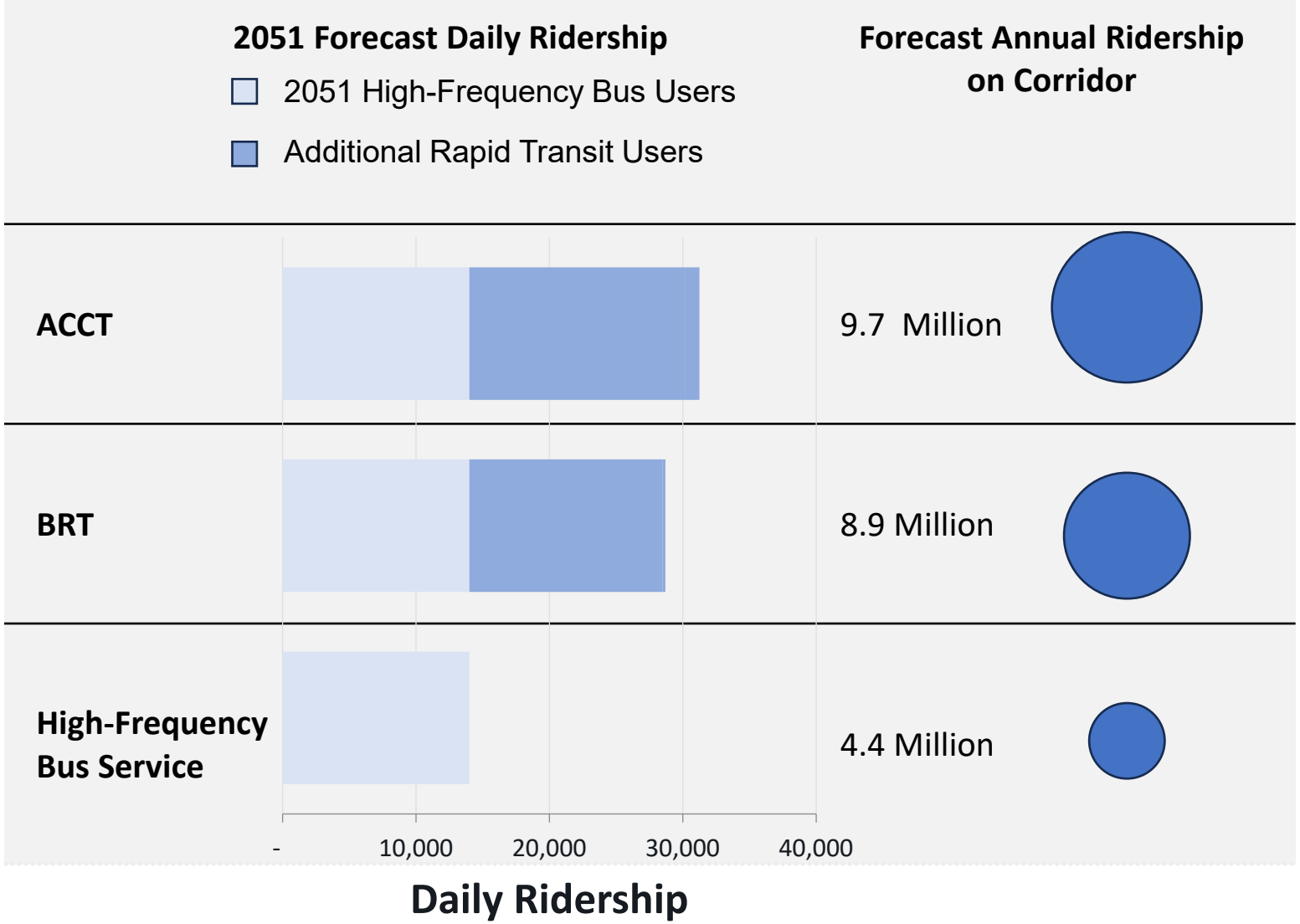
Construction Impacts



BRT Construction takes approximately 10 years

ACCT Construction takes approximately 6-7 years

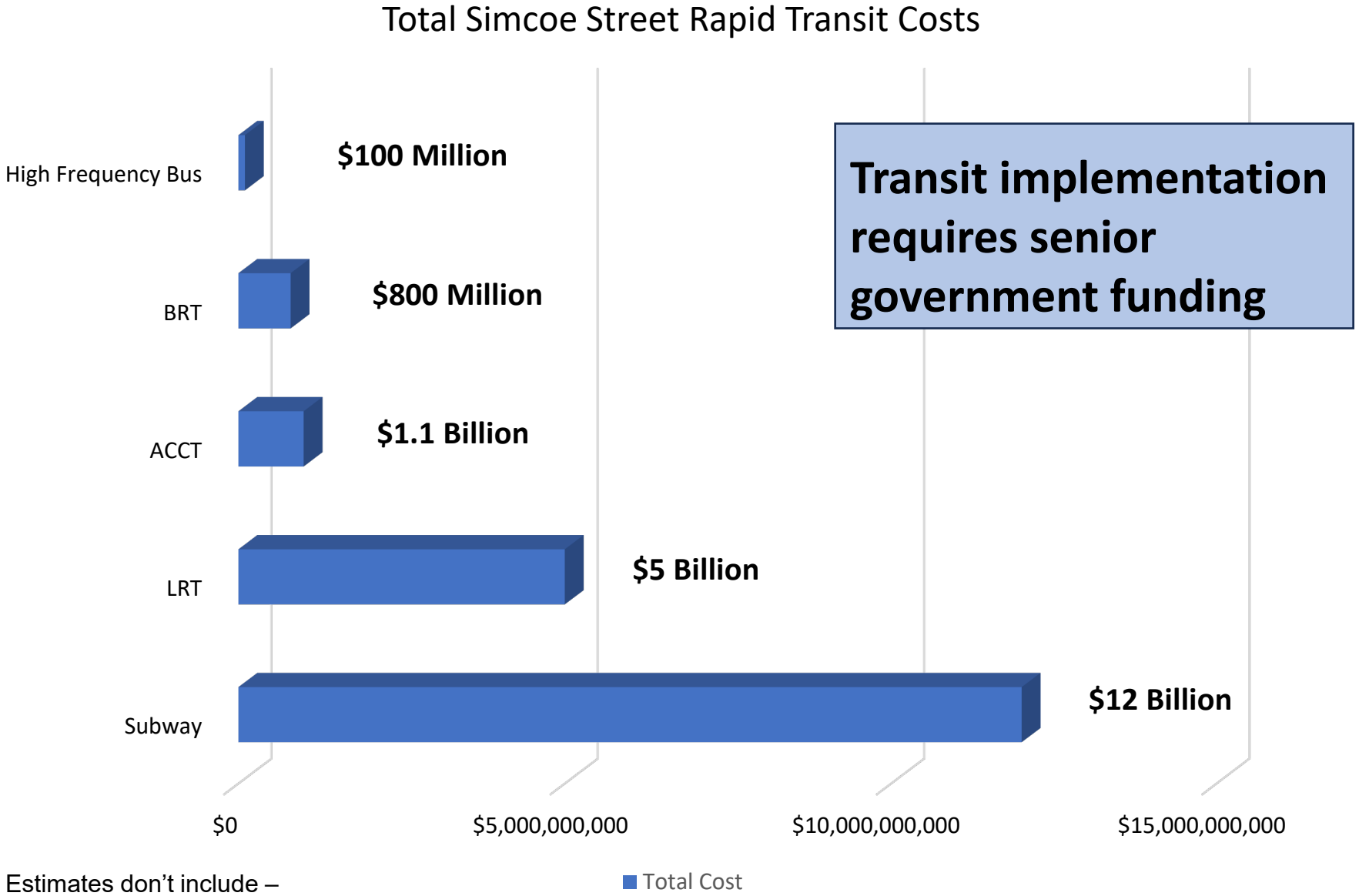
Ridership Forecast



Key Insights

- **Aerial Cable Car** has **greater ridership** potential than BRT due to its **increased frequency and reliability.**
- Deploying rapid transit will more than double transit ridership on the corridor compared to high-frequency bus service.

Transit Capital Cost Comparison



Estimates don't include –
discount rates and carrying costs

Revenue, Operating and Maintenance Comparison

	Mixed Traffic	Rapid Transit	
	High Frequency Transit Service (in millions)	Bus Rapid Transit (in millions)	Aerial Cable Car Transit (in millions)
Annual Fare Revenue	$13.6	$27.6	$30.1
Annual O&M Costs	$22.9	$29.8	$16.3
Annual Net Differrence	**-$9.3**	**-$2.2**	**$13.8**
60-Year Life Cycle Sum	**-$558**	**-$132**	**$828**

Estimates are in 2024 dollars and don't include – advertising revenue, tourism surcharge, inflation, discount rates and interest.

Economic Development Benefits of Rapid Transit

Every dollar invested in rapid transit generates an economic development spinoff of $2.08, as rapid transit systems attract businesses and investors. The associated development for rapid transit options is expected to reach a magnitude of:

- **$2.3 billion with ACCT**
- **$1.5 billion with BRT**

Developments along rapid transit corridors have reduced parking requirements due to a greater modal shift towards transit usage. With the cost of constructing each underground parking spot now exceeding $100,000, rapid transit offers significant benefits:

- **Reduces building costs, encouraging new developments**
- **lowers housing costs, enabling developers to offer more affordable prices**

Core Benefits of Rapid Transit Investment

Additional annual transit rides over high frequency bus service:

- **4.6 million for BRT**
- **5.4 million for ACCT**

Core benefits from increased transit use:

1. Decrease in auto collisions (injury or fatality)
   - **ACCT: 11 fewer collisions/year**
   - **BRT: 2 fewer collisions/year**
2. Reduction in annual vehicle kilometres travelled
   - **35.4 million km for ACCT**
   - **6.8 million km for BRT**
3. Reduction in GHG emissions
   - **ACCT: 81,400 tonnes/year**
   - **BRT: 15,700 tonnes/year**

Given the minimal property impacts, reduced congestion, decreased construction disruptions, increased ridership potential, and significant economic and core benefits, we recommend conducting further studies on the ACCT option for Simcoe Street.

Why Explore ACCT Further

Proven Technology

- There are thousands of systems operating worldwide.
- ACCT offer high reliability and availability.
- They are whisper-quiet.
- They easily integrate with other transit modes.
- They are statistically one of the safest transit modes.

Roosevelt Island Tramway, NY

ACCT Systems are Accessible

Modern Urban Cable Cars:

- Meet Accessibility Standards
- Vehicles Slow or Stop
- Level-Boarding Platform
- Cabins Accommodate Mobility Devices, Strollers, and Bicycles
- Ramps or Elevators for Grade Change

Why Explore ACCT Further

The Benefits of Aerial Cable Car Transit

- Aerial cable cars are continuously circulating systems offering schedule-free service and extremely short wait times — 26 seconds during peak times and 1 minute off-peak.
- They are frequently used in extreme winter conditions i.e., at ski resorts.
- They can remain operational in wind speeds up to 120km/hr.
- They consume less energy than other fixed-link transit modes.

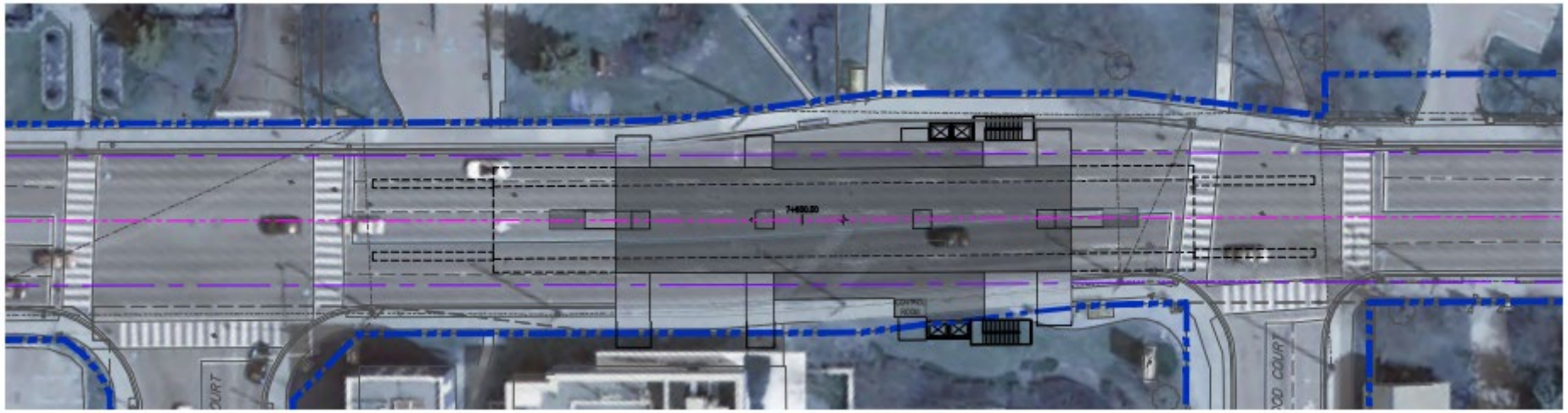
Toulouse, France

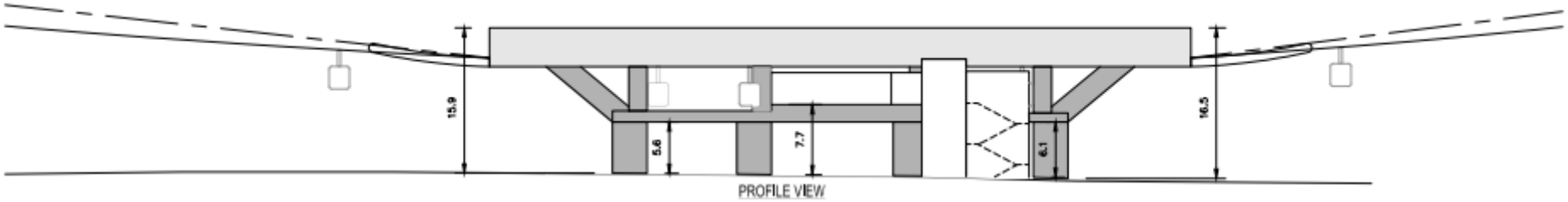
Station Typology

Straddle

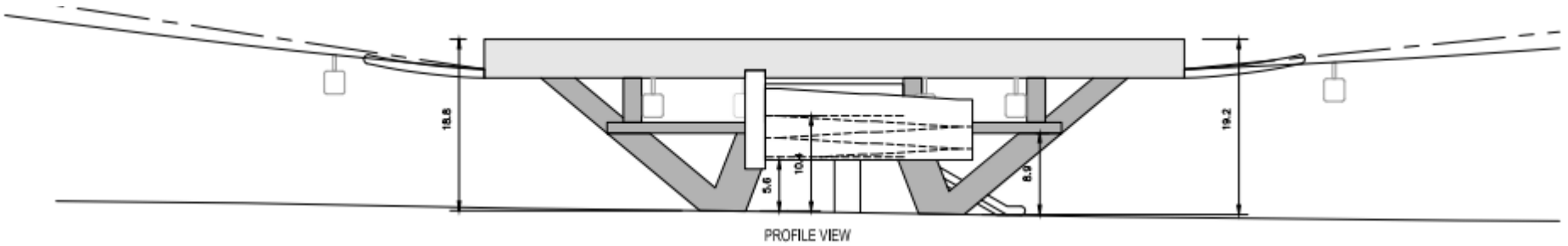
Straddle

Lakeridge Health Station – Preliminary Design





Bond Station – Preliminary Design



Cabins – TRI-Line

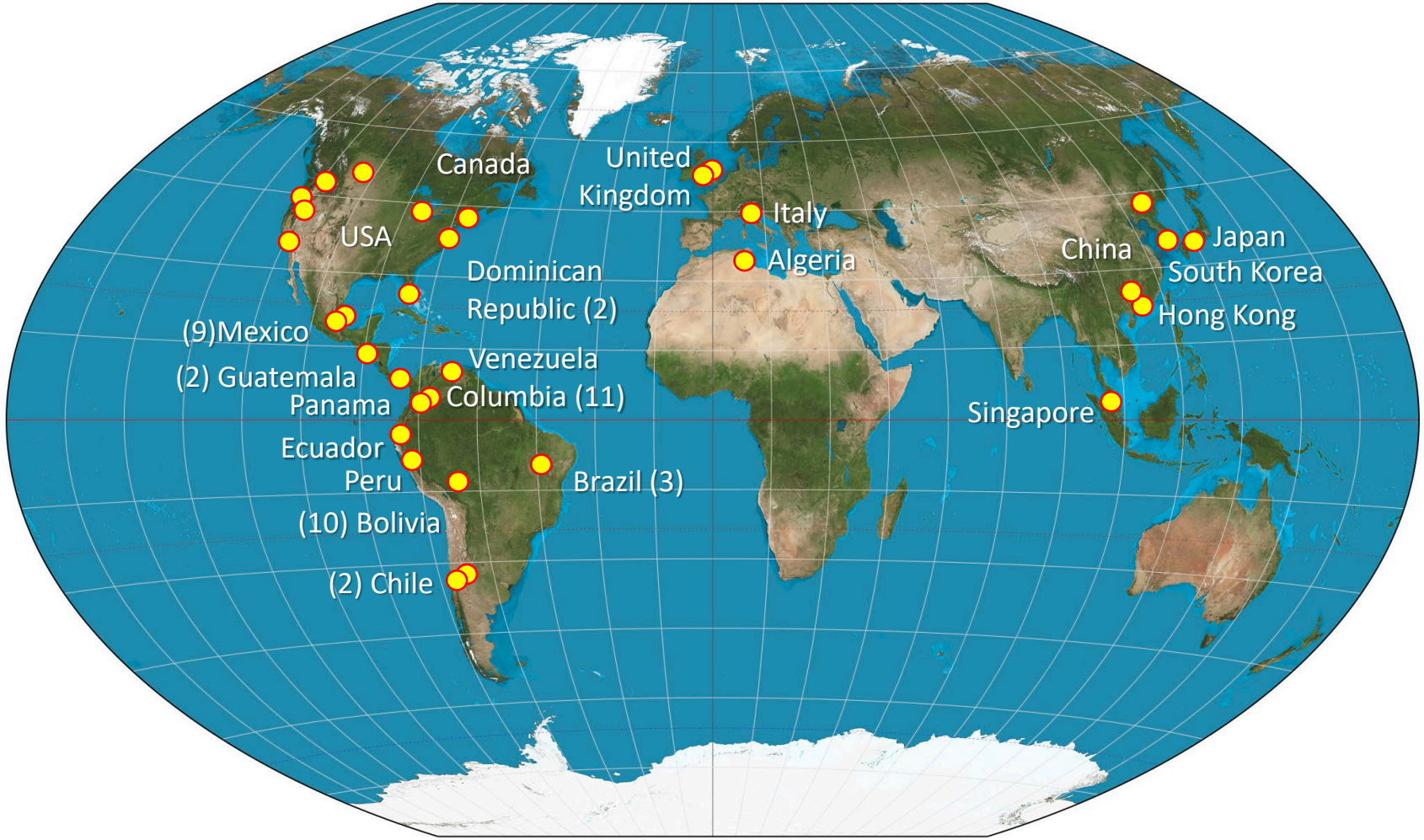
Privacy Concerns

Seating can be arranged to place users backs to outside housing

The Brest cable car system in France utilizes smart glass that turns opaque when passing sensitive segments

View from opaque window

Existing & Planned Urban ACCT Systems Around the World



Roosevelt Island Tramway – Manhattan, NY

Mi Teleferico – La Paz, Bolivia

Mexicable – Mexico City, Mexico

Future Urban Cable Cars

Paris, France opening 2025

Los Angeles, California

Burnaby, British Columbia

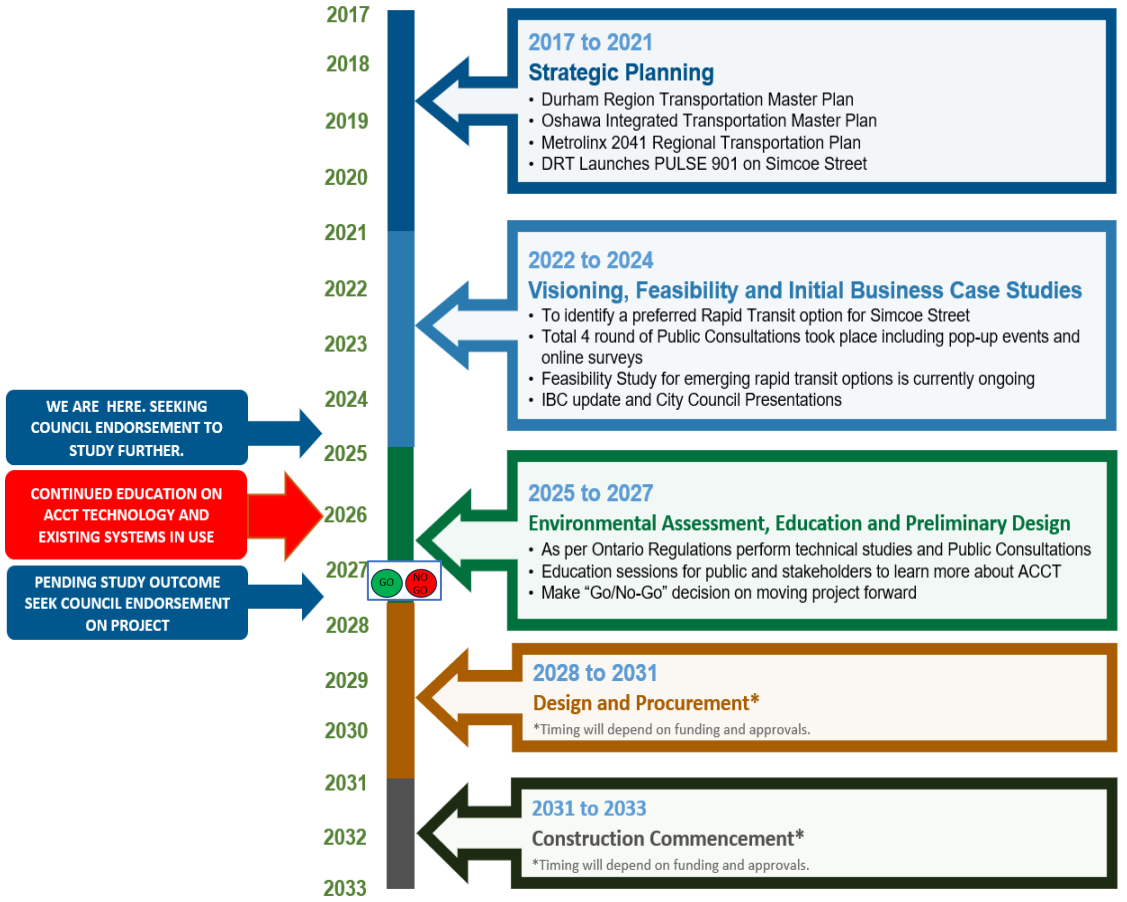
Summary

Why ACCT Technology Over Running High-Frequency Buses?

1. **Provides mobility equity**
   - Greater mobility options for Regional Priority Neighbourhoods
   - Supports access to education, employment and healthcare
2. **Increases transit ridership**
   - 9.7 million riders for ACCT
   - 4.4 million for high-frequency bus
3. **Spurs economic growth**
   - Increase in development approximately $2.2 billion
   - Reduced parking requirements brings down development costs
4. **Environmental sustainability**
   - Reduces vehicle kilometres travelled by 35.4 million km per year
   - Cuts GHG emissions by 81,400 tonnes per year
5. **Financially sustainability**
   - Increases revenues by $17.5 million/year
   - Reduces O&M costs by $6.7 million/year

Simcoe Street RT Next Steps

- **Commence an Impact Assessment (IA) and Transit Project Assessment Process (TPAP):**
  - Start Q2, 2025, complete by Q4, 2027
- **Provide Ongoing Education Sessions:**
  - Regular updates to inform and educate the public and stakeholders
- **Evaluate Project Post-Study:**
  - Pending positive study outcomes, evaluate the project against Regional strategic objectives
  - Report to Council with a “Go/No-Go” recommendation on whether to advance the project
- **If appropriate, Pursue Funding and Partnerships:**
  - Engage senior government and private partners for project delivery



Questions?

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