shift
MOVING LONDON FORWARD

Our Rapid Transit Initiative

STRATEGIC PRIORITIES AND POLICY COMMITTEE
MAY 26, 2016

London
CANADA

Shift Rapid Transit Initiative

- Largest infrastructure project in the city's history.
- Rapid Transit initiative will transform London's public transit service – serving as the backbone for a redefined route structure.
- Major investment that will alter how Londoners travel and how the city will grow.

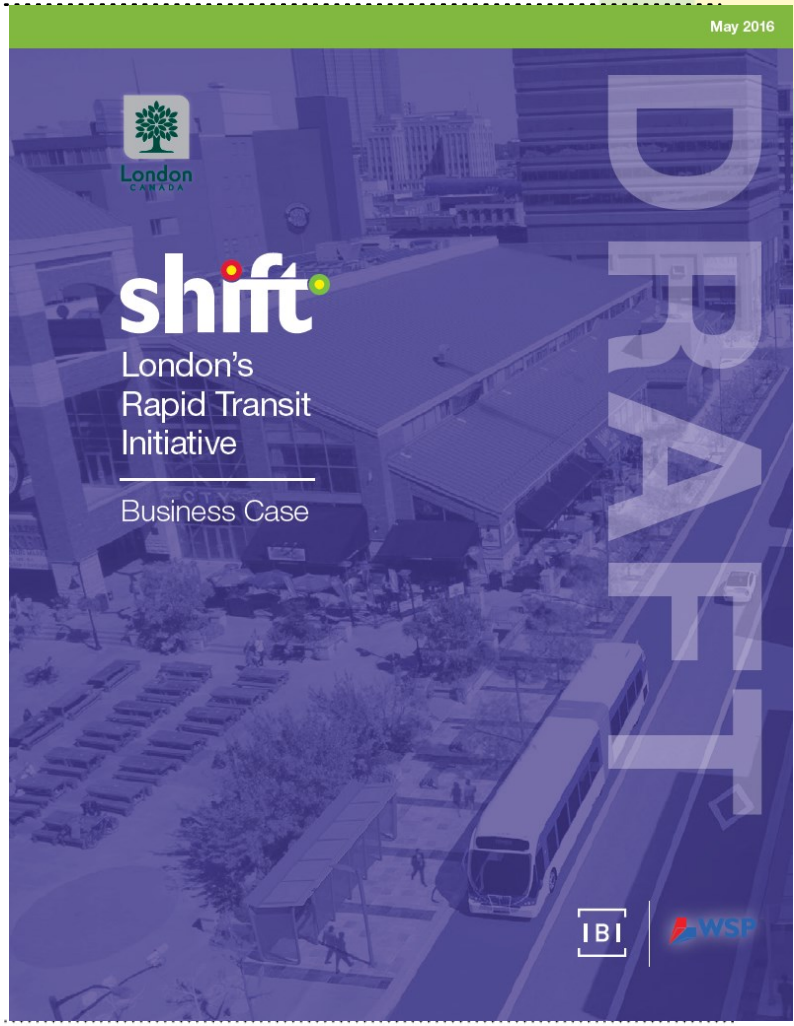
Shift Rapid Transit Recommendation

- Full Bus Rapid Transit provides the greatest value as it meets ridership needs, provides significant benefits from an economic growth, social, environmental and city building perspective.
- Best solution from a financial return on investment perspective.
- Full Bus Rapid Transit will modernize transit and make it a more attractive, reliable and convenient mode of travel.
- Protect and design for a future transition to LRT technology once growth and ridership needs require change.

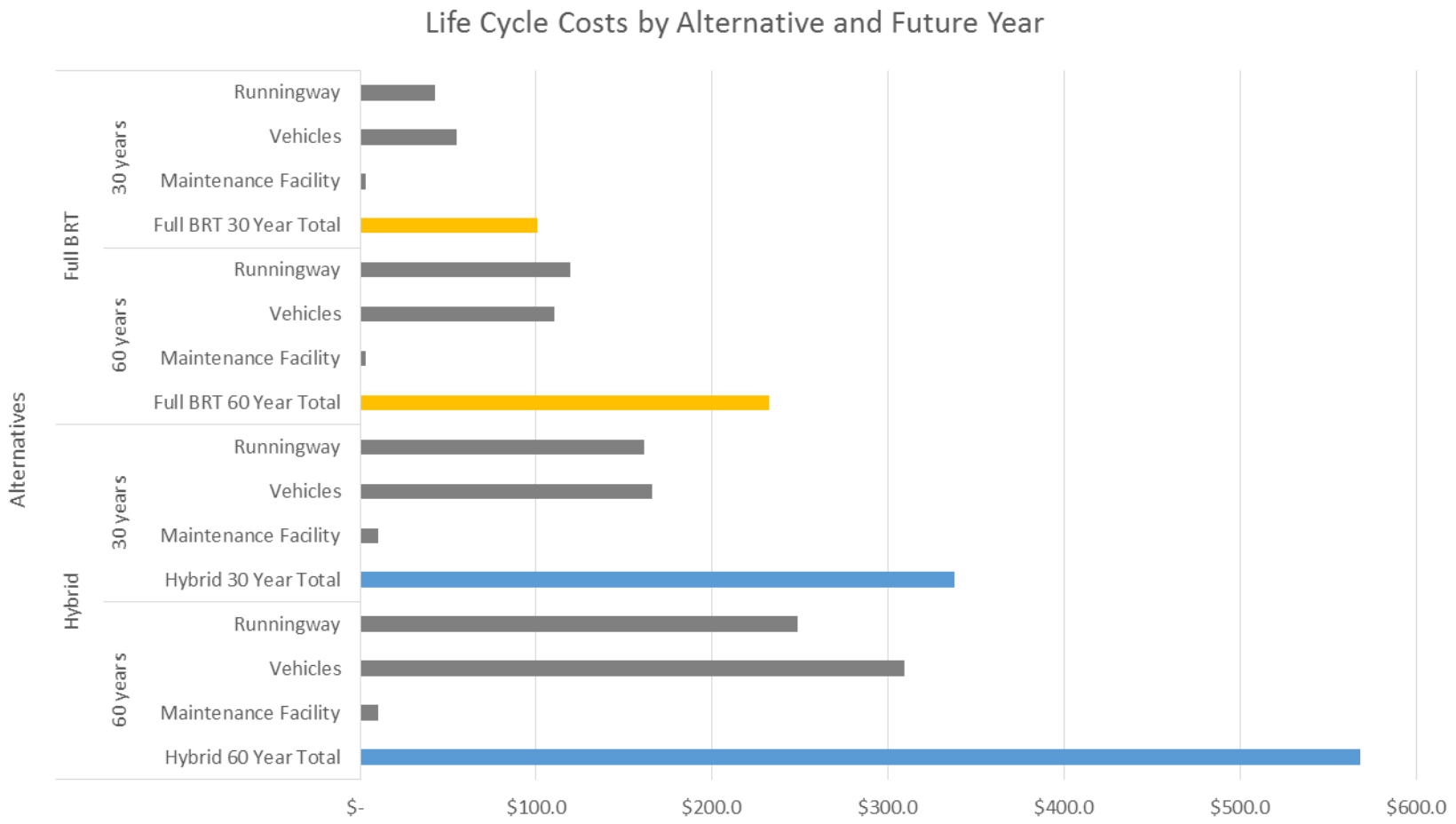
The right solution at the right time.

Business Case Overview

- Transit investments funded by Province and Federal government require a Business Case
- Demonstrated need for project based evidence-based decision making and objective comparison of proposals for funding
- Aligns with new *Infrastructure for Jobs and Prosperity Act*
- Shift Business Case compares the four different rapid transit alternatives
- Lifecycle costs are outside of Business Case analysis



Lifecycle Costs

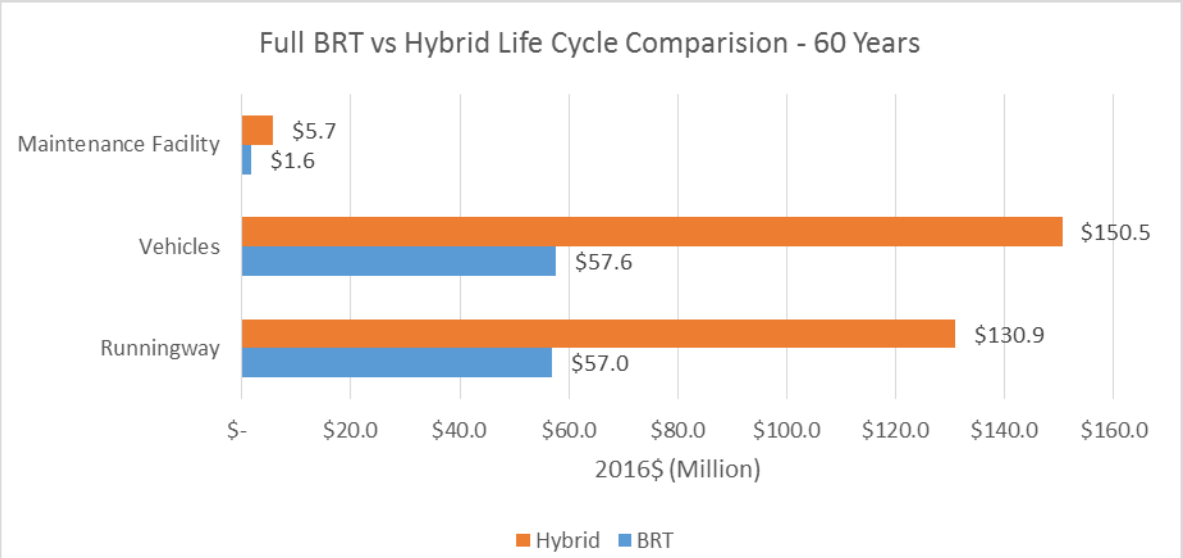


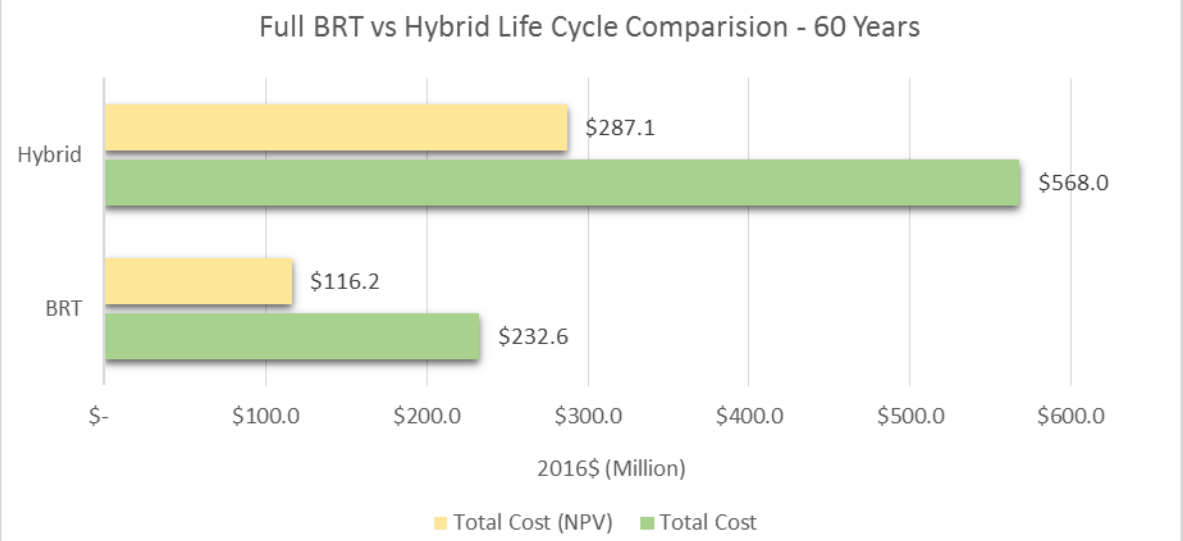
Financial Summary

Financial Element	Full BRT (Million $)	Hybrid (Million $)
Capital Cost	$500	$880
Capital Cost (NPV)	$440.2	$781.5
City Allocation	$129	$129
Required Investment	$371	$751
Operating Cost Over 30 Years (NPV)	$234.9	$215.6
Operating Cost Per Year	$12.2	$11.1
Lifecycle Investment Required over 60 Years	$233	$568
Lifecycle Investment Required over 60 Years (NPV)	$116	$287
Average Lifecycle Investment Required Per Year	$3.9	$9.5

Lifecycle Costs

- Current value of transportation system is $2.1 billion.
- The 10 year transportation infrastructure gap in 2015 was $216 M or $21.6 M per annum.
- The lifecycle costs for the Hybrid are significantly more expensive than the Full BRT (250 percent).
- Hybrid would add $9.5 M per annum to the infrastructure gap.
- Full BRT would add $3.9 M per annum to the infrastructure gap.
- Life cycle cost difference of $5.6 M vs $1.1 M operating cost difference



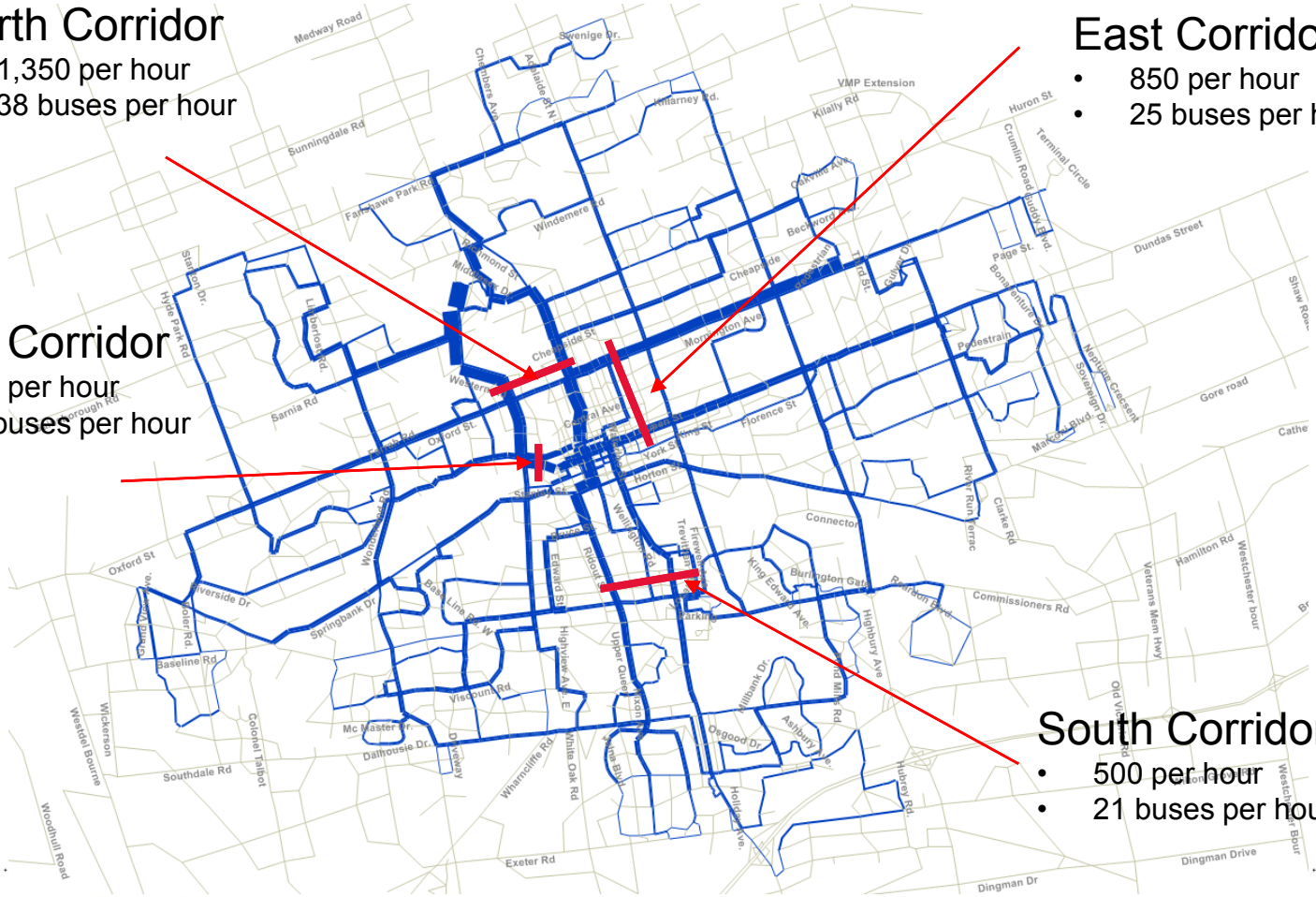


Existing Ridership (Peak Hour)

North Corridor
- 1,350 per hour
- 38 buses per hour

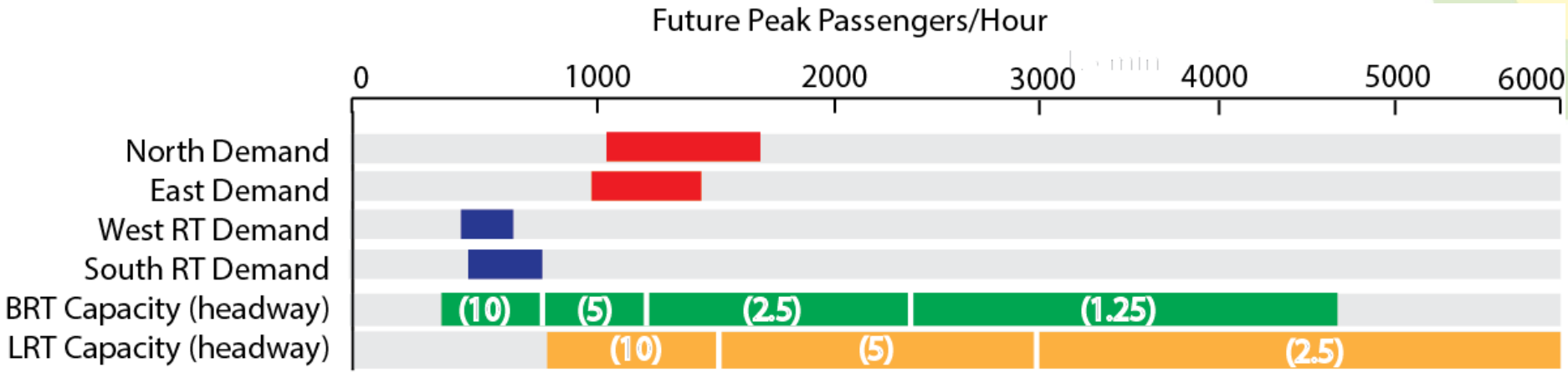
East Corridor
- 850 per hour
- 25 buses per hour

West Corridor
- 500 per hour
- 18 buses per hour



South Corridor
- 500 per hour
- 21 buses per hour

Rapid Transit Future Projected Ridership - 2035



- Future ridership on rapid transit will vary depending on base LTC service levels.
- Full BRT provides a scalable solution where capacity can be matched to demand.
- BRT also permits higher frequencies in the off-peak periods and lower demand corridors.

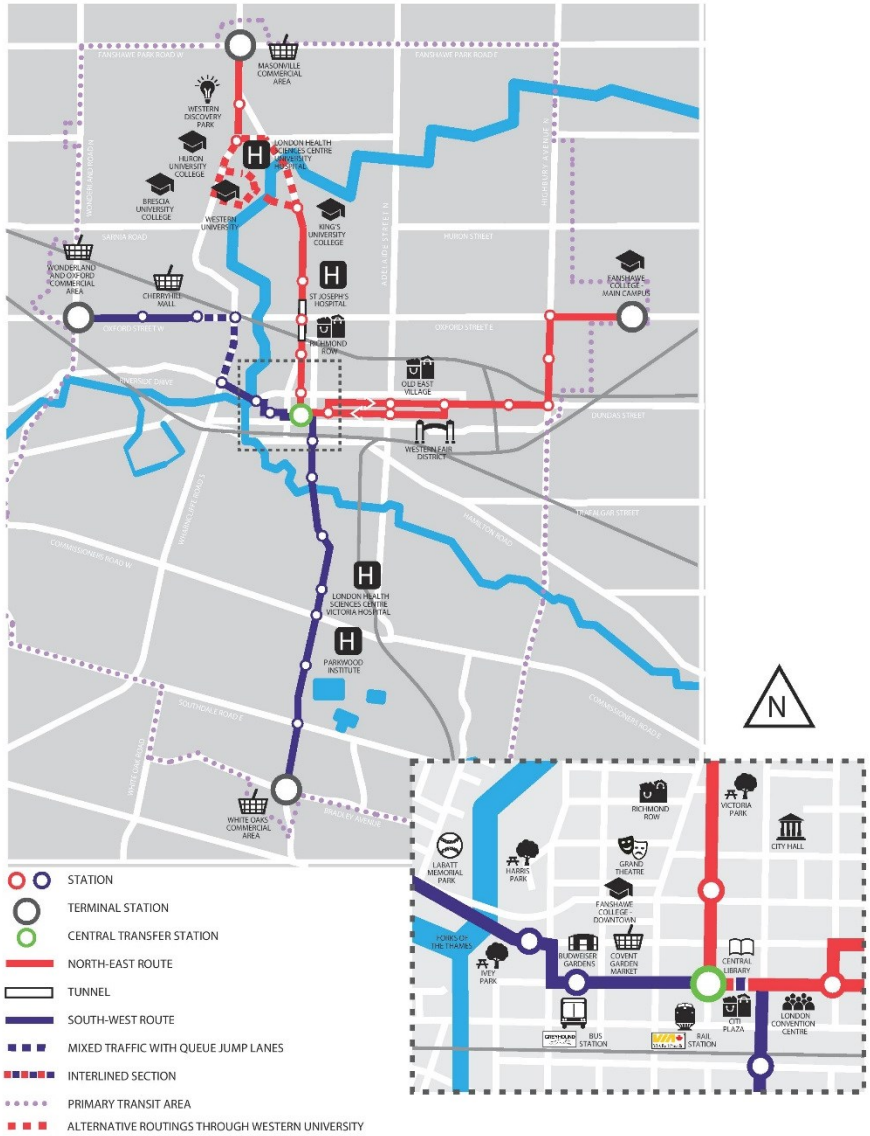
Financial – Development Charge Implications

- The City portion of $129 M is currently funded primarily through development charges ($117 M – 2014 Development Charges Study).
- Changes in the Development Charges Act, effective January 1st, 2016, identify a new methodology to determine Transit service development charges. This methodology includes:
  - forward looking service standards
  - consideration of trip generation (existing vs. future riders)
  - consideration of ridership forecasts and excess capacity by transit mode (i.e. LRT, BRT, Conventional Buses) over a 10 and 20 year planning horizon
  - the remaining calculation requirements for DC's also remain in place
- With regard to determination of excess capacity, the Hybrid option is anticipated to have a greater excess capacity vs a BRT system at the end of 10 year timeframe. Implications of this on the growth share require further analysis however the financing costs of the growth share for LRT could expected to be substantially more than the BRT.

What is Full Bus Rapid Transit?

Characteristics

- ✓ **Faster,** more reliable and frequent service
- ✓ **Integrated** with local transit
- ✓ **Connects** major employers, downtown and institutions
- ✓ **22** km of BRT along a semi-exclusive right of way
- ✓ **1.6** km of BRT mixed traffic
- ✓ Corridors are **adaptable** to new technologies over time



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Funding Scenarios

Rapid Transit Capital Investment

Investment Partner	Split	Hybrid ($880 M)	BRT ($500 M)
London	33/25	290.4/220	165/125
Provincial	33/25	290.4/220	165/125
Federal	33/50	290.4/440	165/250

Investment Partner	Split	Hybrid ($880 M)	BRT ($500 M)
London ($129 Cap)	15 / 26	129.0	129
Provincial	35 / 24	311.0	121
Federal	50	440.0	250