

Planning for Better Transportation Outcomes: Lessons Learned from Vancouver and Chicago



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November 22, 2010

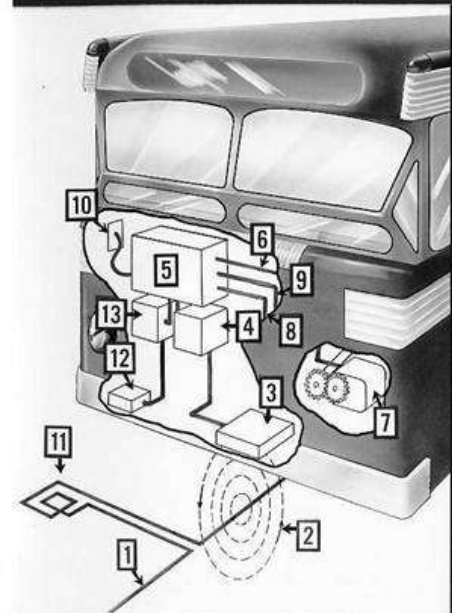


Foundations





HOW GUIDE-O-MATIC SYSTEM COULD BE APPLIED TO A CTA BUS



SYSTEM IDENTIFICATION

- 1. GUIDANCE WIRE
- 2. MAGNETIC FLUX LINES
- 3. SENSING UNIT
- 4. GUIDE BOX
- 5. RELAY PANEL
- 6. STEERING CONTROL LINE
- 7. STEERING MOTOR
- 8. FUEL ADJUSTMENT CONTROL LINE
- 9. BRAKING CONTROL LINE
- 10. OPERATOR CONTROL
- 11. BEACON CONTROL LOOP
- 12. BEACON ANTENNA
- 13. BEACON CONTROL RECEIVER



Chicago's WEST SIDE SUBWAY

..... FIRST RAIL - TRANSIT FACILITY CONSTRUCTED WITHIN A SUPERHIGHWAY




JUNE • 1958





A dark blue rounded rectangle with a white notch on the left side, containing the text 'Academic Background' in white.

Academic Background



How can we leverage
technology to better inform
discussions about the future of
our communities?

Monumental Core multimedia visualization for National Planning Commission (c.1992)



As described in:

Shiffer, M.J. (1995) "Interactive Multimedia Planning Support: Moving from Stand-Alone Systems to the World Wide Web," Environment and Planning B: Planning and Design, volume 22, pp. 649-664.

Automobile Level of Service Web-Based Multimedia Visualization Tool for US Federal Highway Administration(c.1996)

Netscape: Level of Service Multimedia Representations

Background Discussion | Levels of Service | Temporal Dimension | Exit

MJ Shiffer

Netscape: Level of Service B

Video Examples of Level of Service B:

"Level of Service" Multimedia Representations

Many potential urban developments are evaluated against a community's existing transportation infrastructure. These evaluations are frequently represented as a projected change in automobile Level of Service (LOS). Several measures have been used to represent these changes. The Highway Capacity Manual (Transportation Research Board, 1985) has been used to classify or "grade" traffic conditions into five Levels of Service (LOS).

A	B	C	D	E
Free-Flow Operations	Reasonably Free-Flow	Stable Operations	Borderline Unstable	Extremely Unstable

Click on a photo to see a video

Level of Service B

Level of Service B

Maneuverability: Only Slightly Restricted

Driver Comfort: High

Effect of Minor Incidents: Easily Absorbed - though local deterioration in service will be experienced.

Average Traveling Speed: Over 57 mph in a freeway design to have a speed of 70 mph

Urban mass transit web-based multimedia visualization tool for US Federal Transit Administration and USDOT Bureau of Transportation Statistics (c. 1996)

File Edit Movie 1:30 PM

Netscape: Digital Transit Image Library

Transit Mode	Bus	Trolley Bus	Automated Guideway Transit	Light Rail Vehicles	Rail
Types Of Right-Of-Way					
Street					
Private Right-of-Way					
Underground					

TBStreet2.mov

Netscape: Passenger Capacity

Passenger Capacity

The matrix above allows you to access... you can view examples of transit vehicle... type. To access our digital library, simp...

While it may be possible for a transit ve...
[transit-vehicle-digital-library-federal-transportation-statistics](#)

The following is a list of variables of analysis that should be considered making a comparative analysis between vehicle types.

- **Seats:** Number of seats available for passenger use.
- **Standee Capacity:** Number of standing passengers capable of being carried under rush-hour conditions. (Not always available, and not necessarily available on a consistent basis.)



The Chicago Experience

Mass Transportation in Chicago

CTA- Buses & Rapid Transit for Chicago & 40 Suburbs

Metra- Commuter Rail

Pace- Suburban Buses

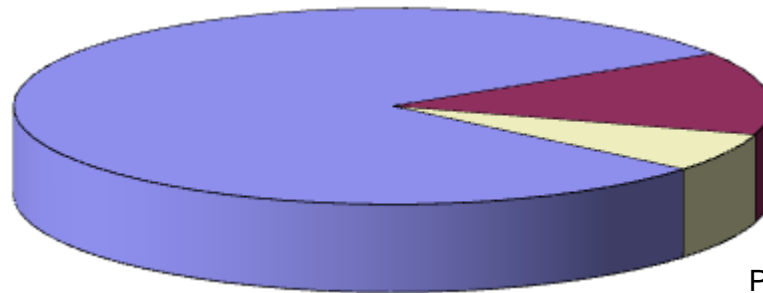


CTA
80%



Metra
14%

Transit Ridership Share



Pace
6%

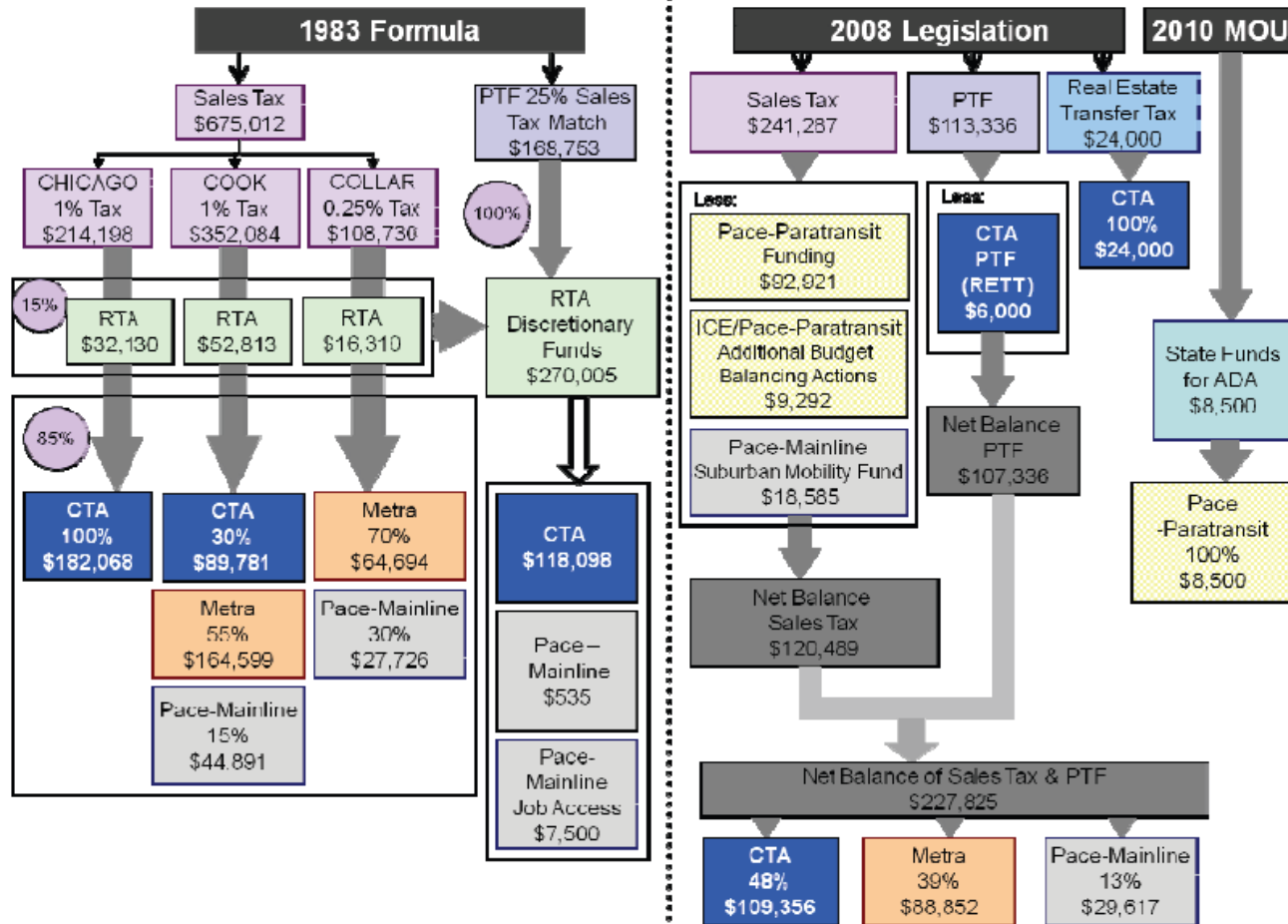


Chicago Transit Funding

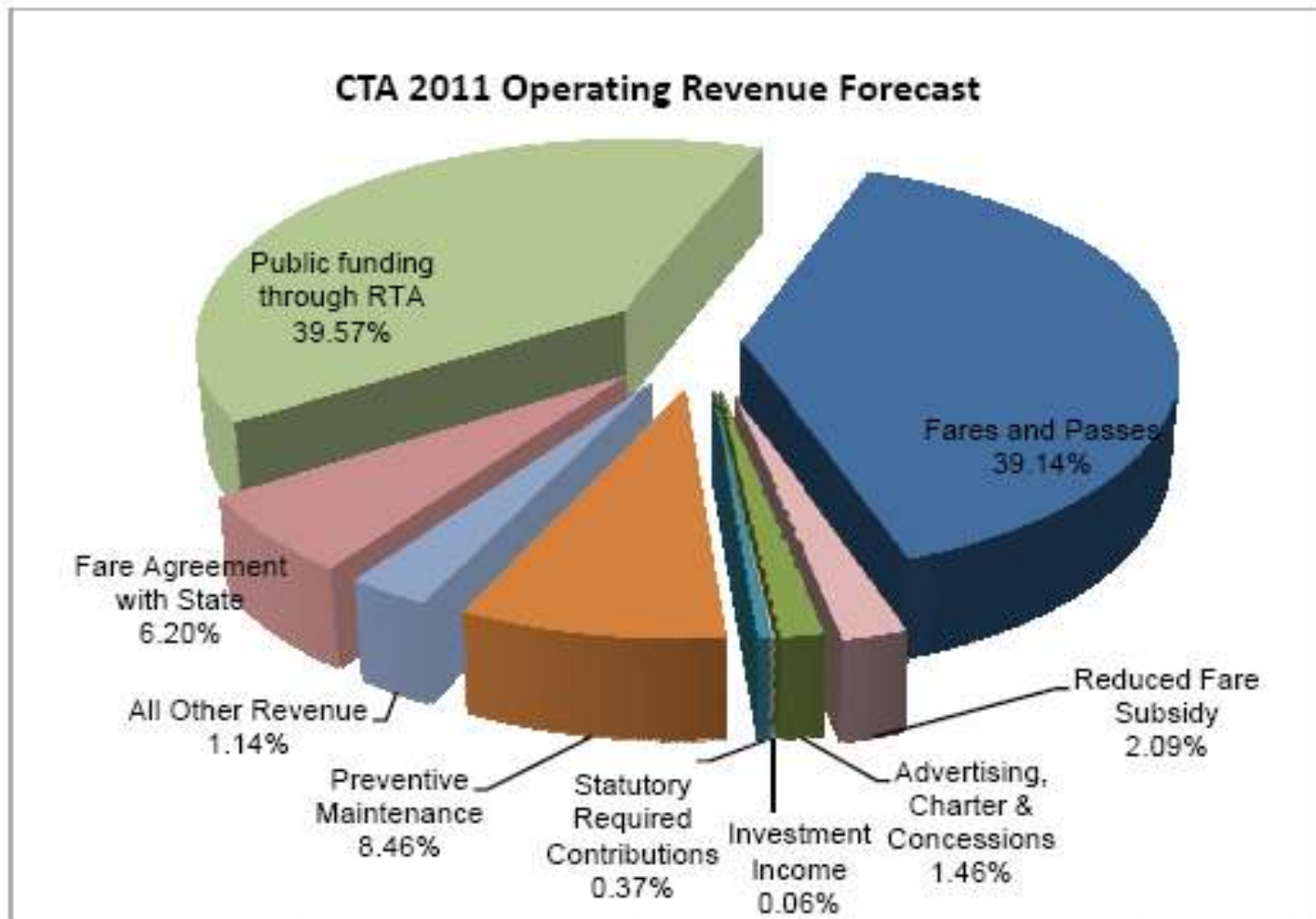
- Transit Fare Products
- Sponsorship
- Advertising Opportunities
- Property Transfer Tax
- Sales Tax
- Senior Government Grants

RTA Funding Allocations...

2011 Budget - Operating Funding Allocation Chart (in thousands)



Chicago Transit Funding



Chicago Transit Authority Challenges

- Changing Customer Habits
- Shifting Land Use
- Manage Capacity
- Aging Infrastructure
- Funding



Approach

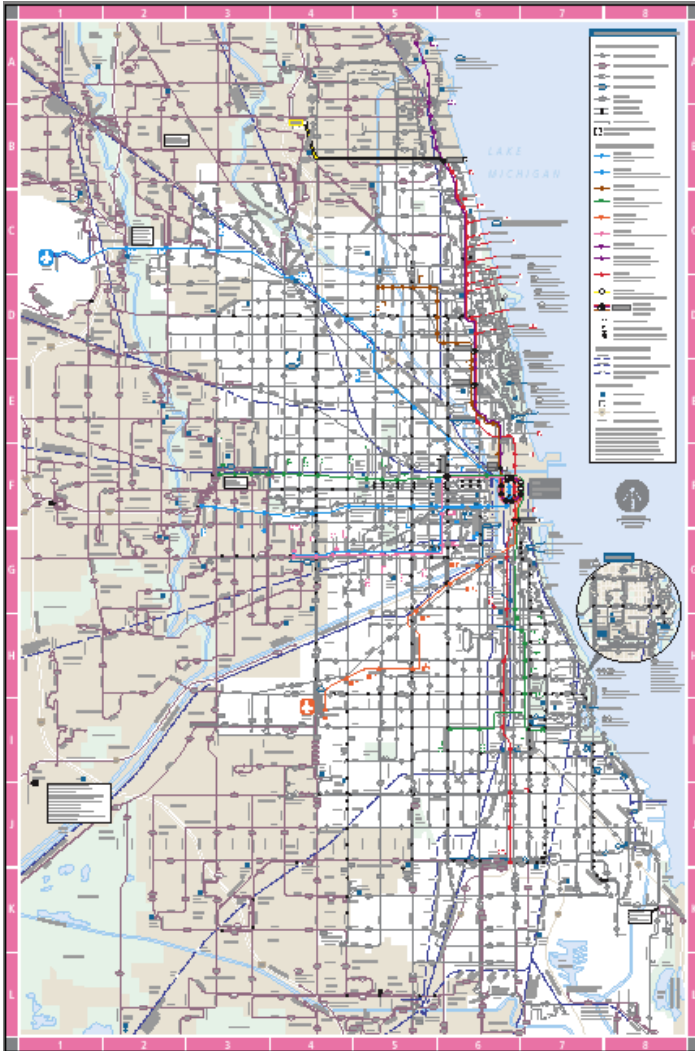
- Create a systematic process
- Develop information infrastructure
- Develop human capital
- Support discourse by leveraging technology

Spatial Data Strategy

Develop a spatial data infrastructure...

- ✓ Where people live
- ✓ Where they work
- ✓ What their travel patterns are
- ✓ Facilities needed to serve them

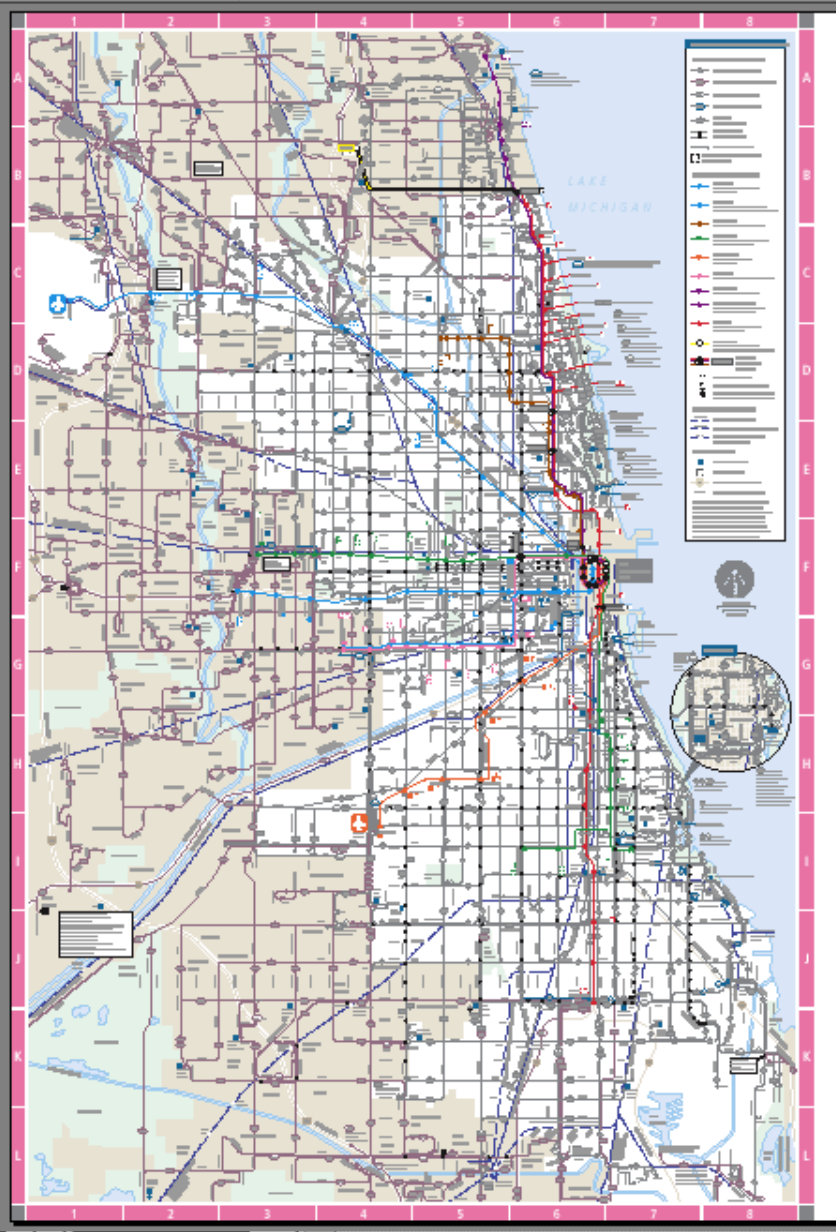
Information Infrastructure



- Census Data
- Housing Data
- Land Use Data
- Aerial Orthophotos
- Route Infrastructure
- Schedule Information
- Spatially Intelligent Vehicles
- Performance
- Ridership Data
- Specialized Models
- Field Data

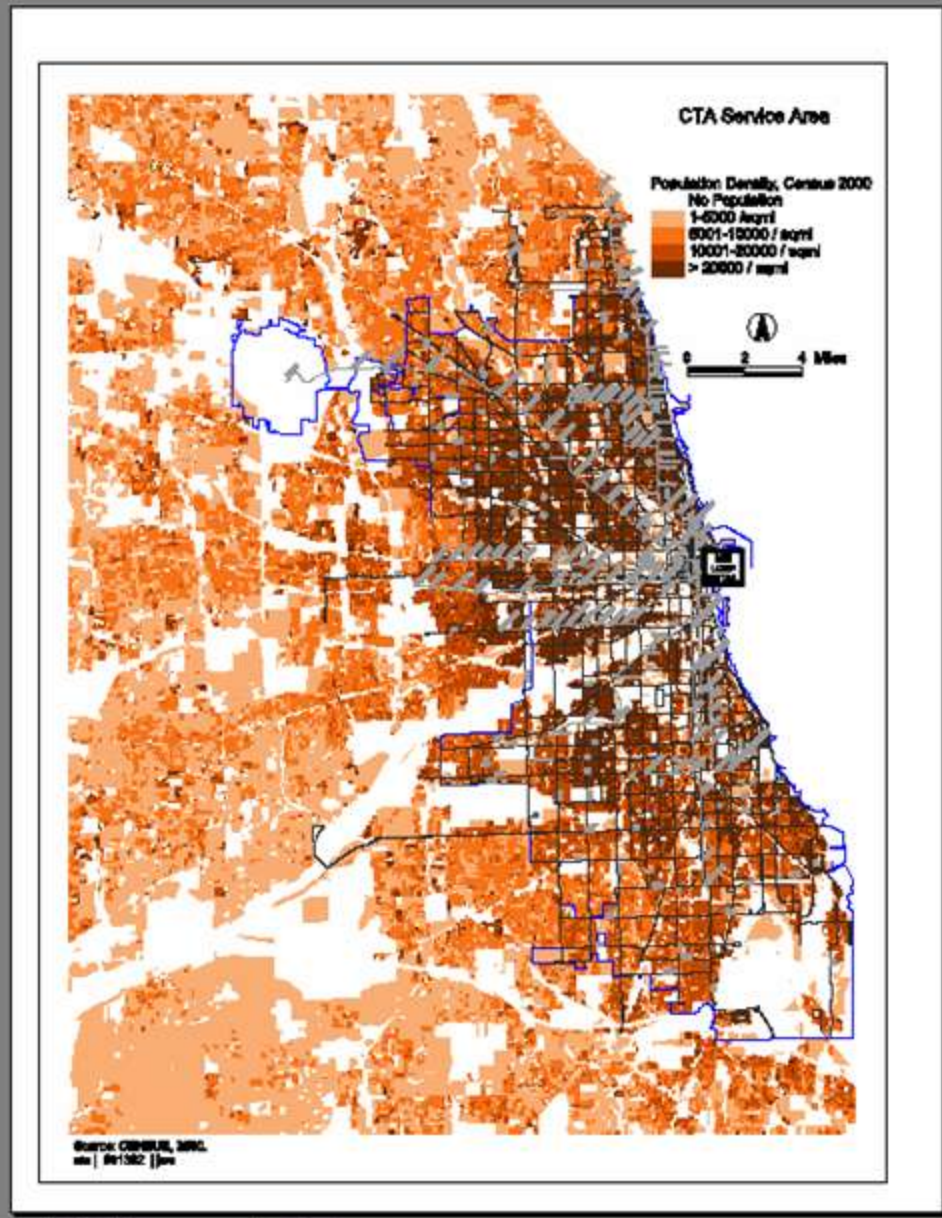


- Bookmarks Thumbnails
- Route Map Summer 06
 - Route Map Summer 05
 - Downtown summer 06
 - Population Density 2000
 - Employment Density 2001
 - Pop Change - 1990-2000
 - Pop Density Loop
 - Emp Den - Loop Area
 - Pop Chg - Loop Area
 - Track Maps
 - August 05 Board
 - WSS



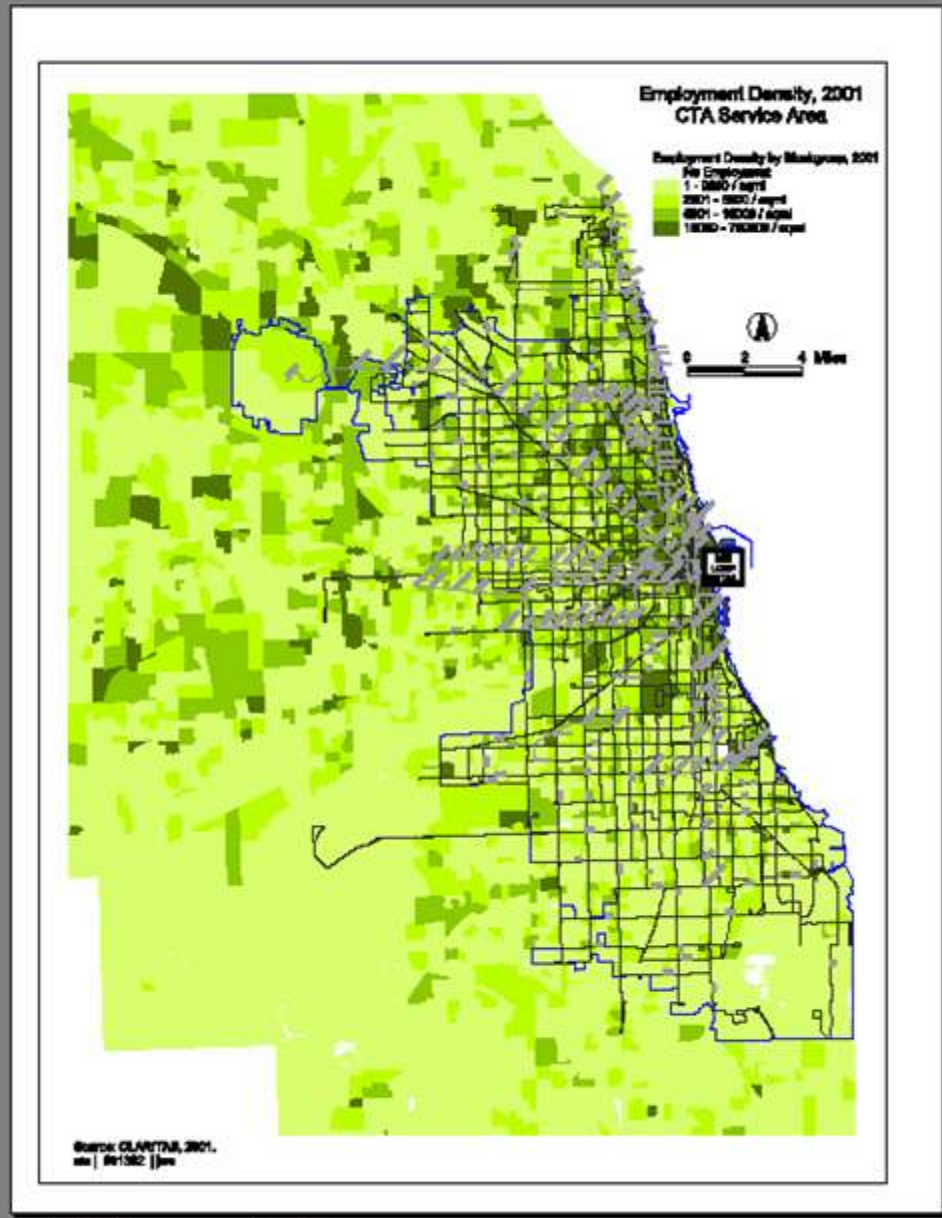


- Bookmarks** | Thumbnails
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 - Pop Change - 1990-2000
 - Pop Density Loop
 - Emp Den - Loop Area
 - Pop Chg - Loop Area
 - Track Maps
 - August 05 Board
 - WSS



Rail Ridership Information



Ridership

Ridership FAQ

Use this application to show daily branch ridership and monthly average branch ridership. Creates a stacked area trend of the contribution of each branch over 24 hours.

Data available from **January 2001 — March 2004**

Select a date (mm-dd-yyyy)

Stacked Area Graph of Branch Ridership on 3/19/2004 (Friday)

Select Date, Please: April 2004

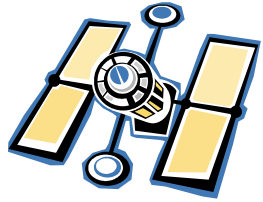
Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4			
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2

- Red Line: North Main Branch
- Red Line: State Subway Branch
- Red Line: Dan Ryan Branch
- Purple Line
- Yellow Line
- Blue Line: O'Hare Branch
- Blue Line: Dearborn Subway Branch
- Blue Line: Congress Branch
- Blue Line: Douglas Branch
- Green Line: Lake Branch
- Green Line: South Elevated Branch
- Green Line: East 53rd Branch
- Green Line: Ashland Branch
- Brown Line
- Orange Line
- Downtown Loop

Half-Hour (Starting)

12PM 1 2 3 4 5 6 7 8 9 10

Bus Navigation System



GPS (Global Positioning Satellite) Signal



Heading Signal (Gyroscope)



Distribution Data:
Route data



Odometer Signal



TCH – Operator Logon

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

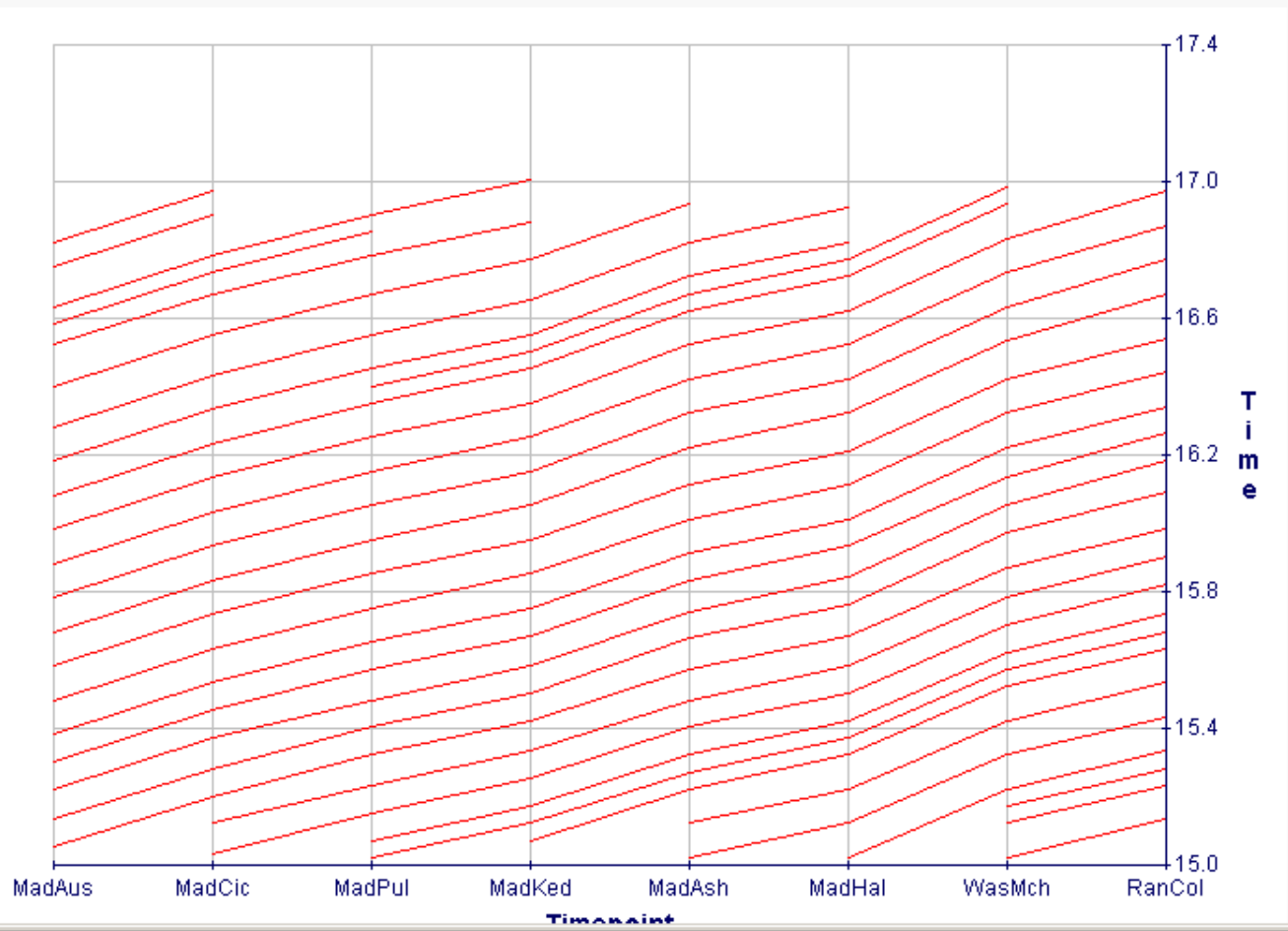
Address <http://planning/avl/chart.asp?route=20&dir=East&yy=20048> Go Links WebMail at UIC Authorized CTA Personnel Use Only Welcome to BlackBerry!

Google Search Web Search Site Options

Start Time (hh 00-23) 15 : 00 End Time (hh 01-24) 17 : 00

Actual Trips Scheduled Trips Draw

#20 East 8/12/2004 Schedule Day: WK



File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Mail

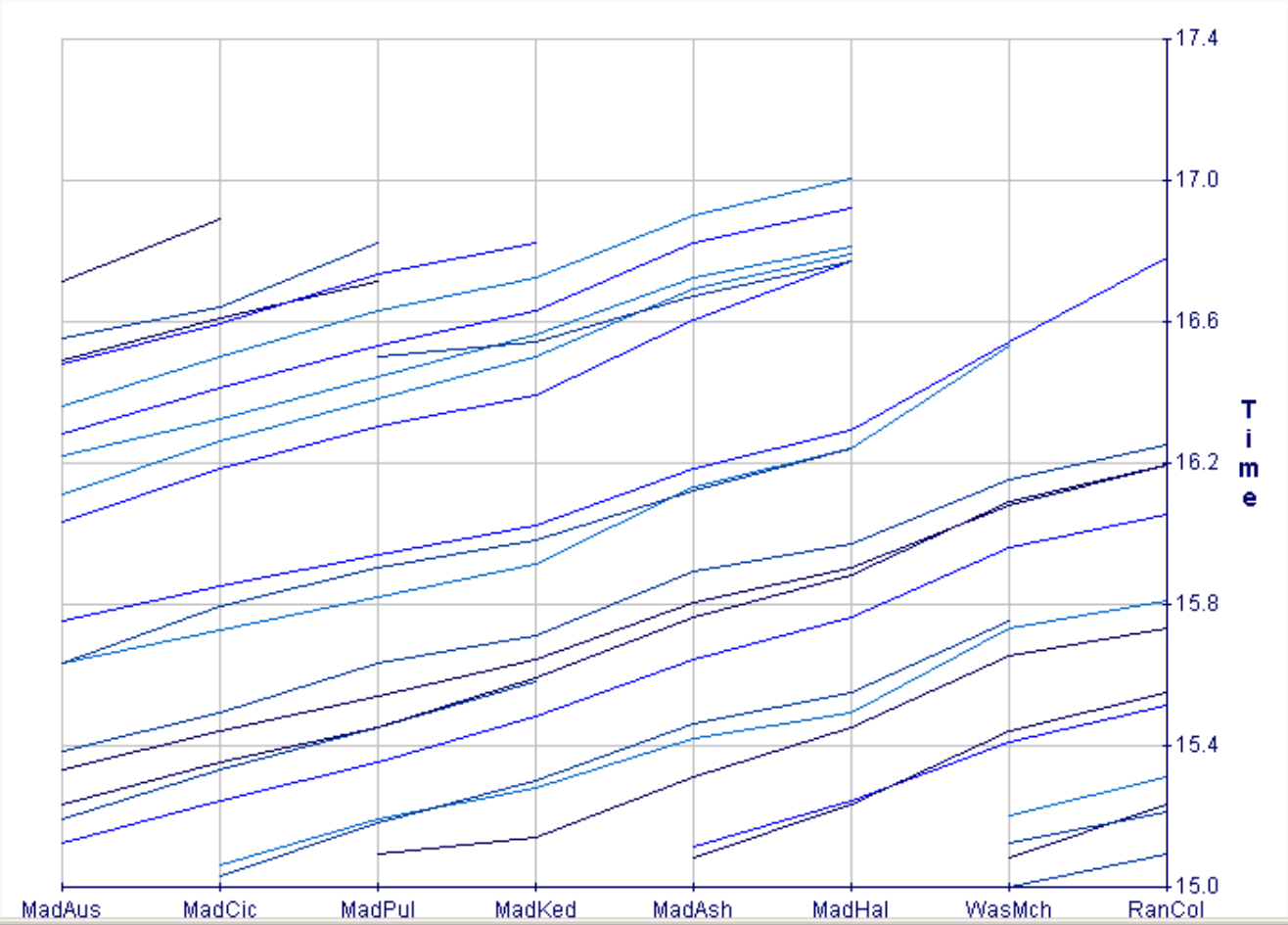
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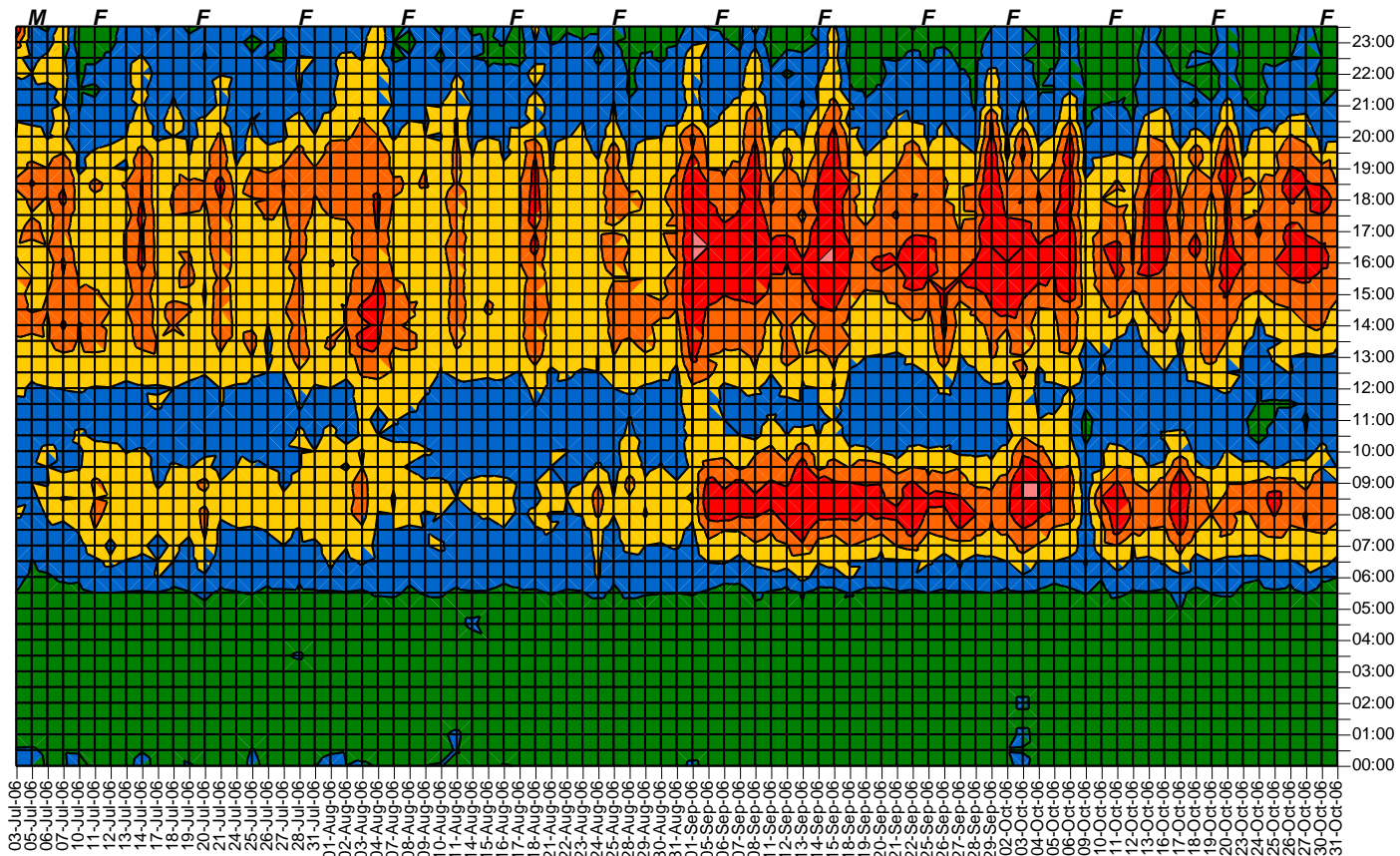
Start Time (hh 00-23) 15 : 00 End Time (hh 01-24) 17 : 00

Actual Trips Scheduled Trips Draw

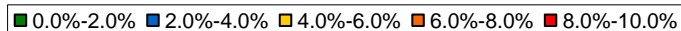
#20 East 8/12/2004 Schedule Day: WK



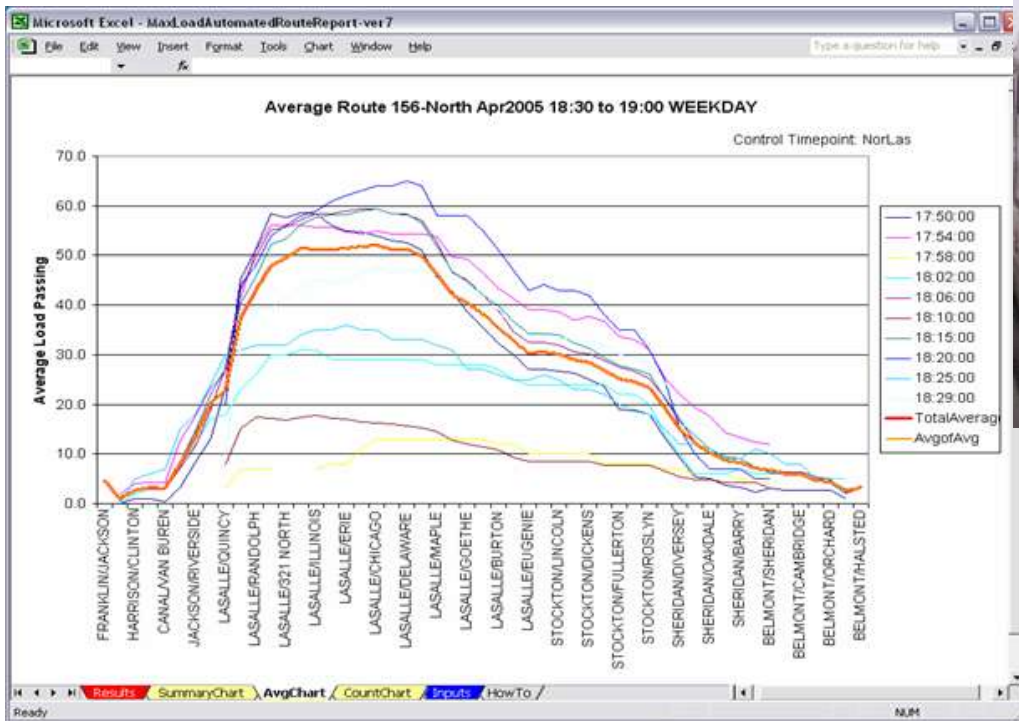
CTA Bus Bunching Measures (circa 2006)



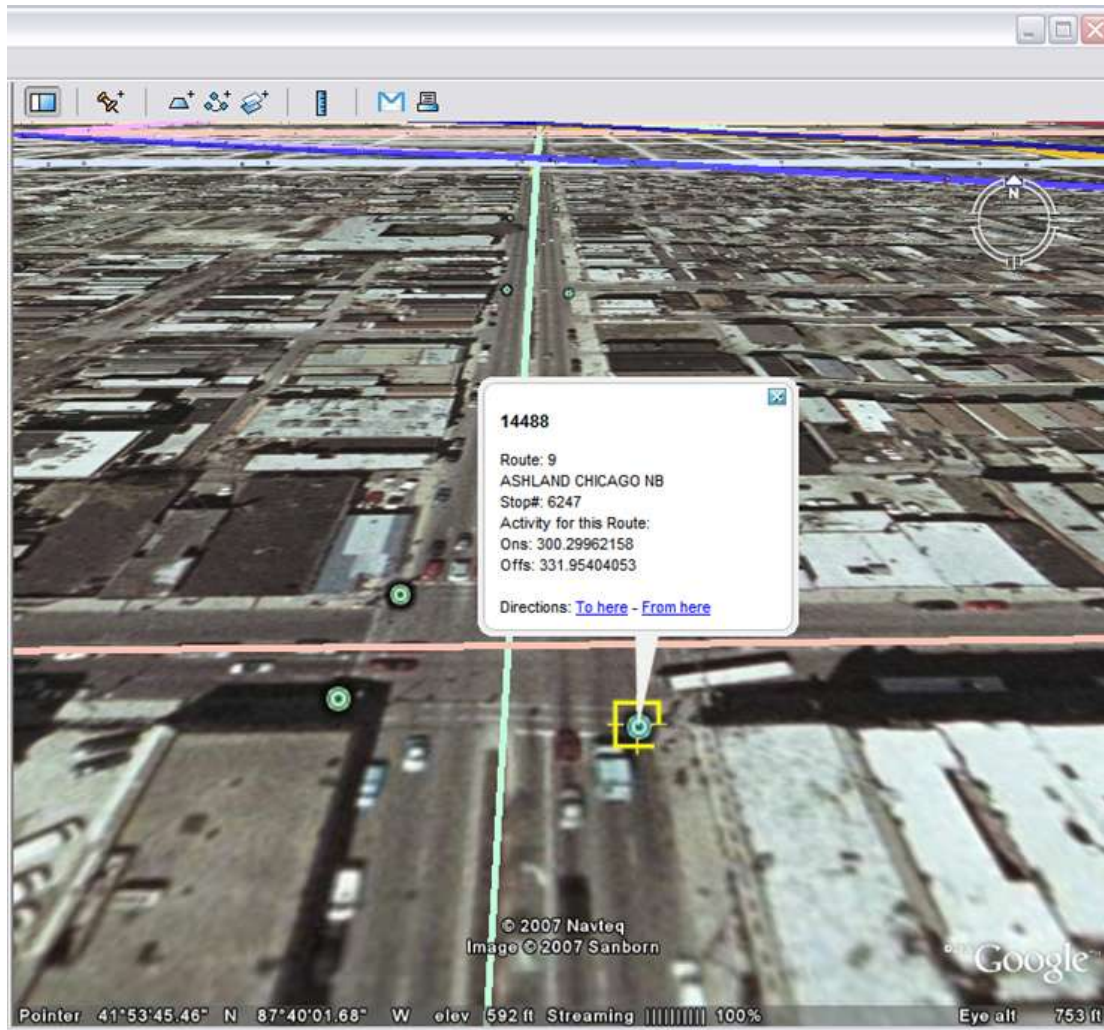
Percent of bus intervals 60-seconds or less by date and half-hour for weekdays from July to Sept in 2006.



Automatic Passenger Counter (APC) Bus Ridership Tracking



New Forms of Visualization



Directions

ve, IL

Add Content

Green

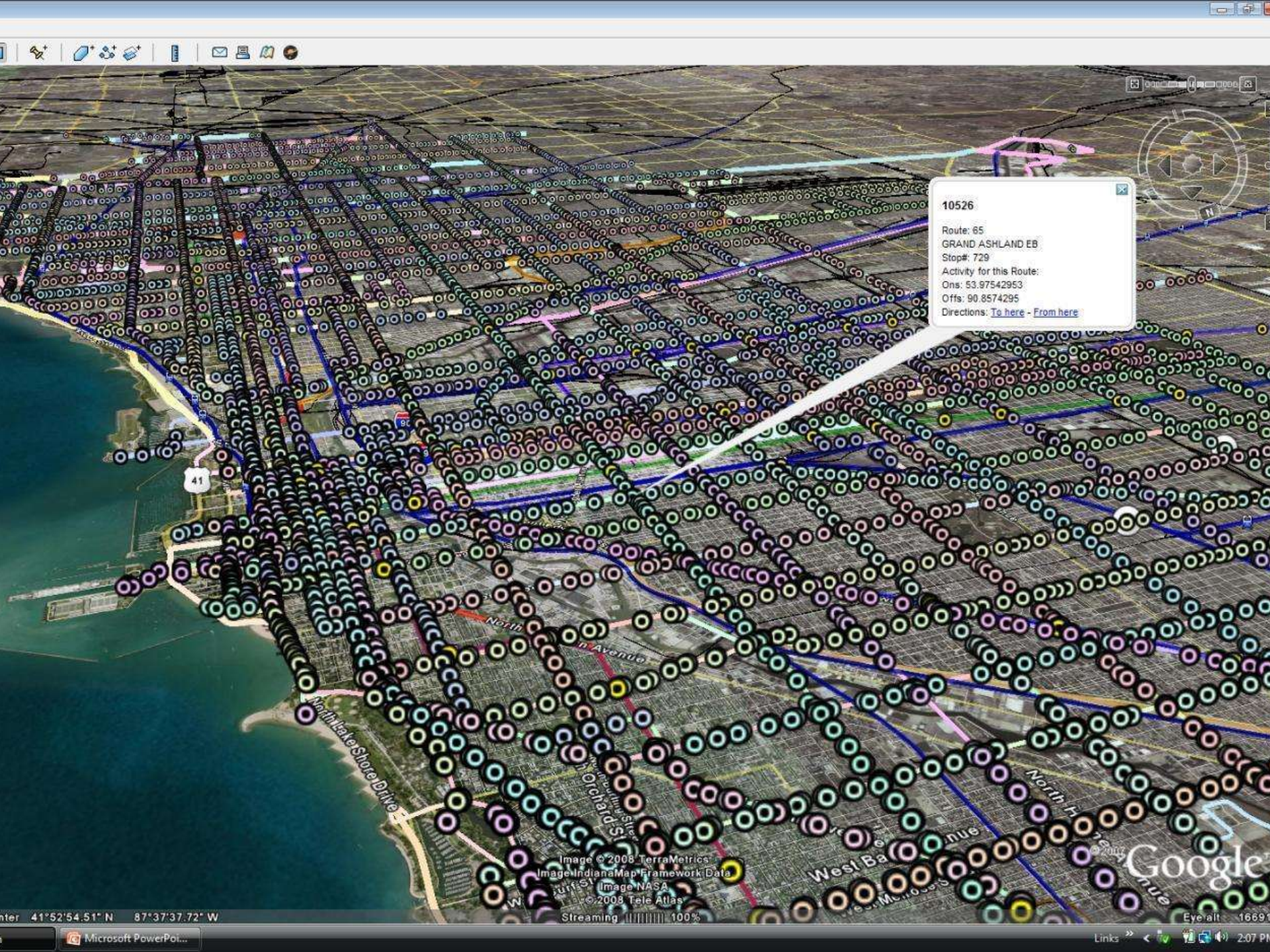


10526

Route: 65
 GRAND ASHLAND EB
 Stop#: 729
 Activity for this Route:
 Ons: 53.97542953
 Offs: 90.8574295
 Directions: [To here](#) - [From here](#)

Pointer 41°53'25.85" N 87°40'02.12" W

©2008 Tele Atlas
Streaming 100%



10526

Route: 65
GRAND ASHLAND EB
Stop#: 729
Activity for this Route:
Ons: 53.97542953
Offs: 90.8574295
Directions: [To here](#) - [From here](#)

Outreach Through Surveys

cta Badania warunków podróżowania w Zachodnie
Wiosna 2004

CTA pragnie dowiedzieć się więcej o sposobie używania tej trasy przez Państwa bardzo ważne dla nas, proszę wypełnić ankietę i zwrócić osobie od której ją otrzymał.

1. Jaką trasę teraz Państwo jedziecie? Trasy: _____

2. Jak często jedziecie TA trasą?
 5-7 dni/tydzień 4-5 dni/tydzień 1-3 dni/tydzień 3 dni/miesiąc lub więcej

Proszę powiedzieć o PODROŻY jaką teraz odbywacie. Chodzi nam o podróż z domu do pracy a nie o przejazd "tam i z powrotem" np. z domu do pracy.

3. Gdzie wjeżdża Państwo do TEGO autobusu? (skrzyżowanie głównych ulic)
 pierwsza ulica: _____ druga ulica: _____

4. Czy przesiadacie się Państwo z innego autobusu lub pociągu?
 Tak, z innego autobusu CTA. Trasy: _____ Tak, z innego środka transportu publicznego Tak, z metra CTA Nie, nie przesiaduję.

5. Skąd Państwo jedziecie? (Gdzie najczęściej Państwo podróżujecie, wliczając ewentualnie)
 Dom Praca Szkoła Zakupy Rozrywka Inne: _____

6a. Lokalizacja tego miejsca? (skrzyżowanie głównych ulic lub adres i kod pocztowy ulicy)
 pierwsza ulica: _____ druga ulica: _____

6b. Gdzie Państwo wysiadacie z TEGO autobusu? (skrzyżowanie głównych ulic)
 pierwsza ulica: _____ druga ulica: _____

7. Czy wysiadacie Państwo do innego autobusu lub metropociągu po opuszczeniu TEGO autobusu CTA. Trasy: _____ Tak, do innego autobusu CTA. Tak, do metra CTA. Tak, pociąg Nie, nie przesiaduję.

8. Jaki jest cel Państwa podróży? (wliczając przesiadki)
 Dom Praca Szkoła Zakupy Rozrywka Inne: _____

8a. Lokalizacja tego miejsca? (skrzyżowanie głównych ulic lub adres i kod pocztowy ulicy)
 pierwsza ulica: _____ druga ulica: _____

Opłonie uwagi o TEGO trasie autobusowej:

9. Ogólnie, jak jestcie Państwo zadowolony z TEGO trasy autobusowej?
 Bardzo Tak sobie Nie mam zdania Niezły Bardzo źle

10. Proponujecie Państwu na poprawę warunków jazdy TA trasą:

11. Proponujecie Państwu na poprawę warunków jazdy autobusami w Zachodnie:

AA Dziękujemy za wypełnienie ankiety i korzystanie z CTA

cta Estudio de Rutas de Autobús del Oeste
Primavera 2004

La CTA necesita saber acerca de sus patrones de viaje en esta ruta. Su información es importante para nosotros, por favor, responda este cuestionario y devuélvalo a la persona que se lo entregó.

1. ¿Cuál ruta está usando en estos momentos? Ruta: _____

2. ¿Con qué frecuencia usa ESTA ruta?
 5-7 días/semana 4-5 días/semana 1-3 días/semana 3 días/mes o menos

Describe el VIAJE que está haciendo en estos momentos. Un "viaje" significa via dirección (ej. de la casa al trabajo) NO de ida y vuelta (ej. de la casa al trabajo a la casa).

3. ¿Dónde termina ESTE autobús? (Indique la intersección de calles más cercana)
 calle 1: _____ y calle 2: _____

4. ¿Hacia dónde va otro autobús o tren antes de tomar ESTE autobús?
 Sí, de otro autobús de CTA. Ruta # _____ Sí, de un Tren de CTA Sí, otro: _____

5. ¿De dónde viene? (Incluyendo transferencias)
 Hogar Trabajo Colegio Compras Recreación Otro: _____

6a. ¿Dónde queda este lugar? (Indique la intersección de calles más cercana o la dirección y el código postal)
 calle 1: _____ y calle 2: _____ ZIP: _____

6b. ¿Dónde se bajará de ESTE autobús? (Indique la intersección de calles más cercana)
 calle 1: _____ y calle 2: _____

7. ¿Hacia dónde va otro autobús o tren luego de bajarse de ESTE autobús?
 Sí, a otro autobús de CTA. Ruta # _____ Sí, a un Tren de CTA Sí, otro: _____

8. ¿A dónde se dirige o cuál es su destino final en ESTE viaje? (Incluyendo transferencias)
 Hogar Trabajo Colegio Compras Recreación Otro: _____

8a. ¿Dónde queda este lugar? (Indique la intersección de calles más cercana y la dirección y el código postal)
 calle 1: _____ y calle 2: _____ ZIP: _____

Sobre ESTA ruta de autobús:

9. En general, ¿cómo satisfeccho(a) está usted con ESTA ruta?
 Muy Satisfeccho(a) Algo Satisfeccho(a) Neutral Algo Dissatisfeccho(a) Muy Dissatisfeccho(a)

10. ¿Qué mejora(s) usted recomendaría para ESTA ruta?

11. ¿Qué mejora(s) usted recomendaría para el servicio de autobuses en el lado OESTE de la ciudad?

BB (Gracias por su tiempo y cooperación y por usar la CTA)

cta West Side Customer Travel Study
Spring 2004

CTA wants to learn more about your travel patterns on this route. Your information is important to us. Please complete this survey and return it to the person who gave it to you. Thank you!

1. Which bus route are you riding now? Route # _____ **5552**

2. How often do you ride THIS route?
 5-7 days/week 4-5 days/week 1-3 days/week 3 days/month or less It's my first time

Tell us about the TRIP you are making right now. A trip "means" one-way travel from one place to another (ex. home to work) NOT a round trip (ex. home to work to home).

3. Where did you get on THIS bus? (major street intersection)
 street 1: _____ AND street 2: _____

4. Did you transfer from another bus or train to get to THIS bus?
 Yes, from another CTA bus. Route # _____ Yes, from CTA Train Yes, other _____ No, I did not transfer

5. Where are you coming from? (including transfers)
 Home Work School Shopping Recreation Other: _____

6a. Where is this place located? (major street intersection or address and ZIP code)
 street 1: _____ AND street 2: _____ ZIP: _____

6b. Where will you get off THIS bus? (major street intersection)
 street 1: _____ AND street 2: _____

7. Will you transfer to another bus or train after you get off THIS bus?
 Yes, to another CTA bus. Route # _____ Yes, to CTA Train Yes, other _____ No, I will not transfer

8. Where are you going or what is your final destination? (including transfers)
 Home Work School Shopping Recreation Other: _____

8a. Where is this place located? (major street intersection or address and ZIP code)
 street 1: _____ AND street 2: _____ ZIP: _____

About THIS bus route in general:

9. Overall, how satisfied are you with THIS route?
 Very Satisfied Somewhat Satisfied Neutral Somewhat Dissatisfied Very Dissatisfied

10. What improvement(s) would you recommend for THIS route?

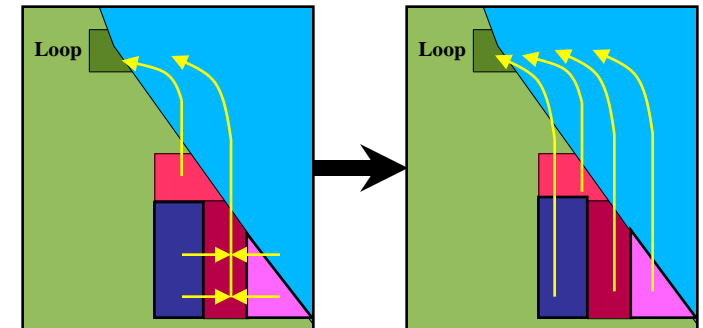
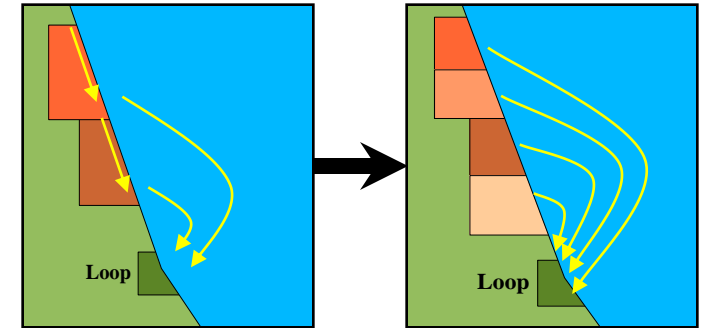
11. What improvement(s) would you recommend for the bus service on the WEST SIDE?

CC Thank you for your time and cooperation and for riding the CTA!

Outreach through Workshops



Service Planning Success



✓ Changes to the South Lakeshore and North Lakeshore were implemented in Fall 2003.

✓ Annual ridership has increased by 4.6 percent for the South Lakeshore sub-region, and 5.5 percent for the North Lakeshore sub-region.

✓ Travel times have decreased and customer satisfaction has improved.

Reconstruction of Infrastructure









**Moving Forward
in Metro
Vancouver**

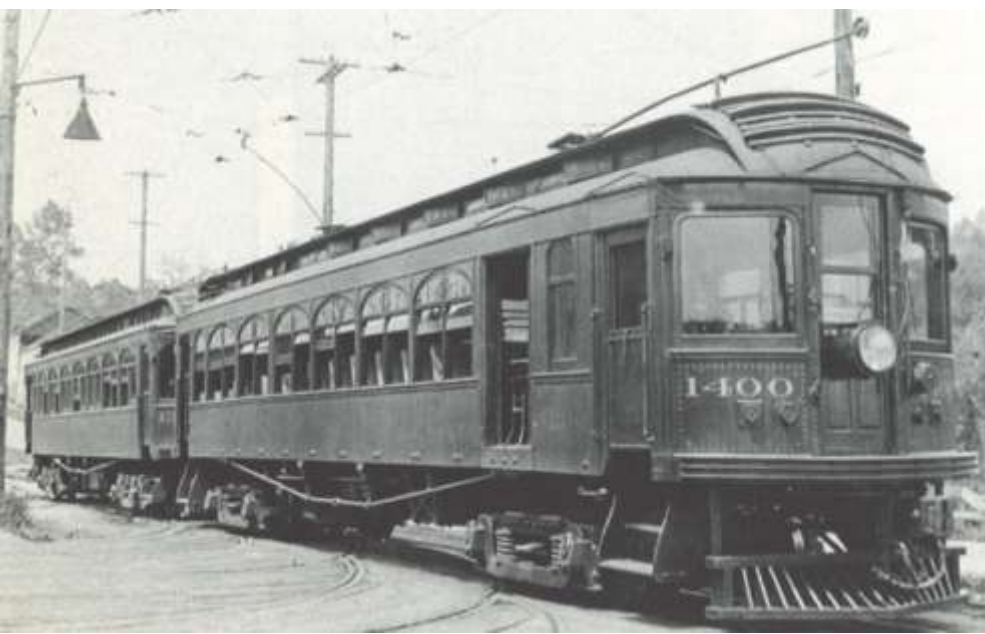
A dark blue rounded rectangle with a white notch on the left side, containing the text 'The Context' in white.

The Context



TransLink and the Metro Vancouver Region









NEW FLYER TROLLEYS - 2008



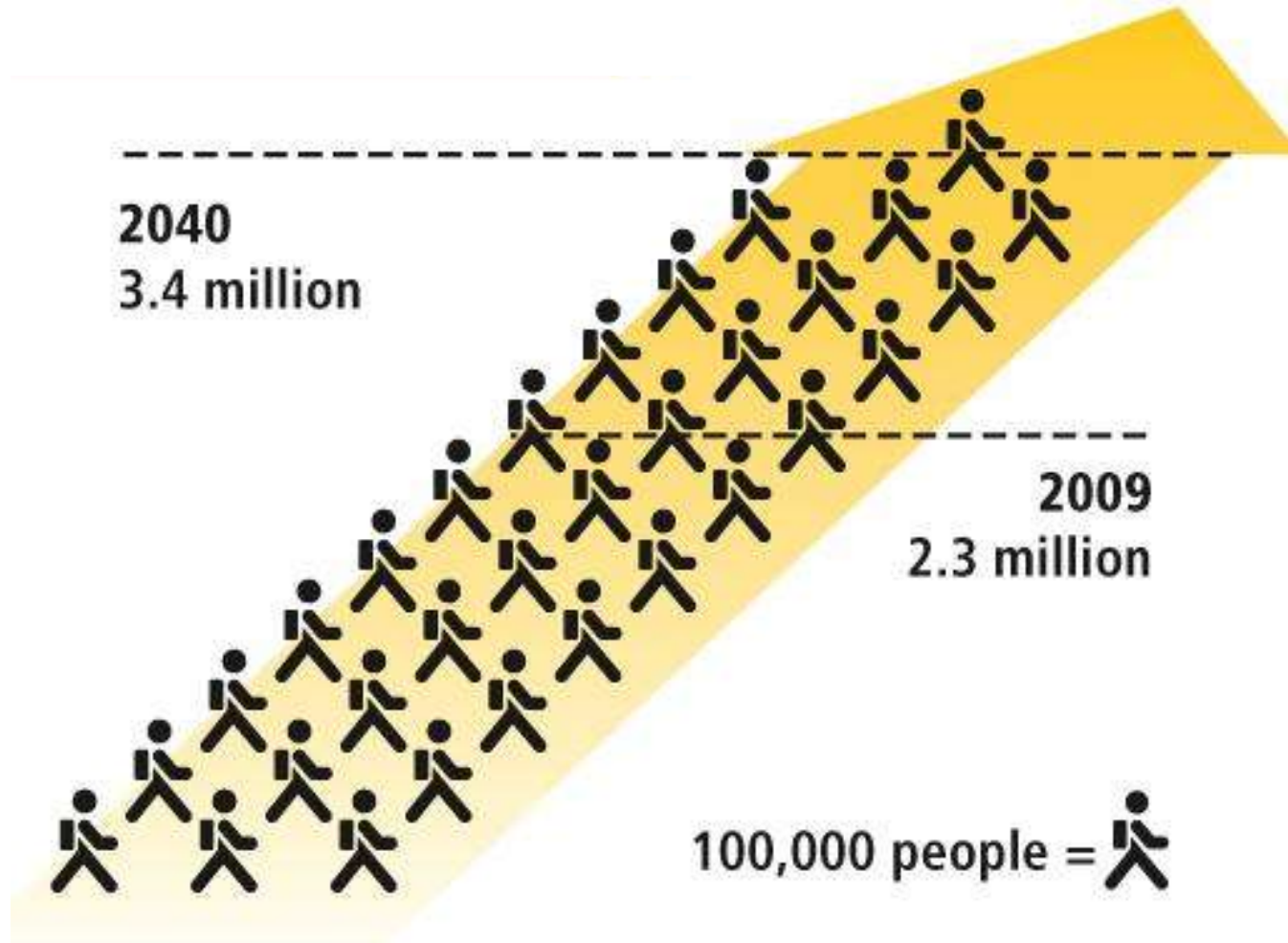
NEW FLYER TROLLEYS - 1982



BRILL TROLLEYS - 1948

TransLink and the Metro Vancouver Region

Over 1 million more people by 2040



↑18%

730,000

Vancouver/UEL

↑11%

460,000

↑28%

240,000

North Shore

↑19%

95,000

↑74%

360,000

Northeast Sector

↑78%

135,000

↑53%

420,000

Burnaby/New West

↑48%

245,000

↑78%

160,000

Ridge Meadows

↑79%

50,000

↑37%

250,000

Richmond

↑49%

195,000

↑56%

835,000

Surrey/Delta/White Rock

↑69%

350,000

↑56%

230,000

Langley

↑89%

125,000

Population
2040 projection
and % increase
(2006 - 2040)

Employment:
2040 projection
and % increase
(2006 - 2040)

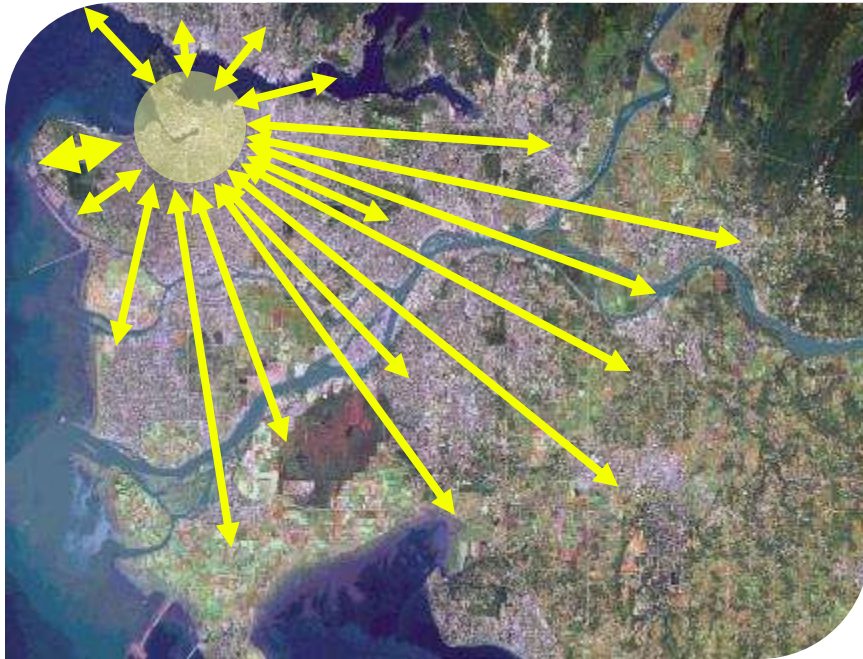
Note: these projections are currently being reviewed as part of Metro Vancouver's regional growth strategy review process.

Source: Metro Vancouver

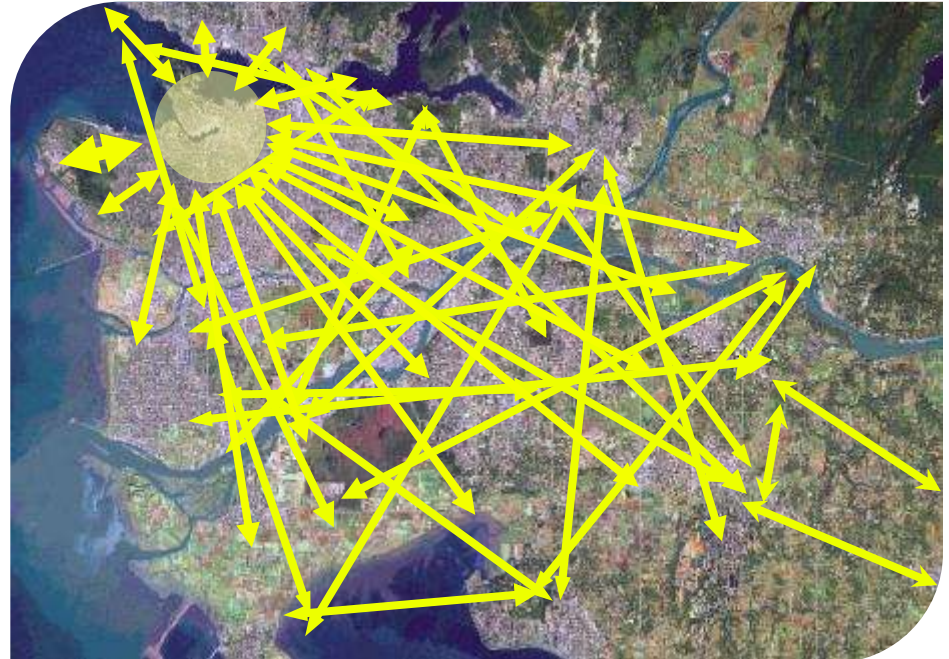
TransLink and the Metro Vancouver Region

Regional Travel patterns

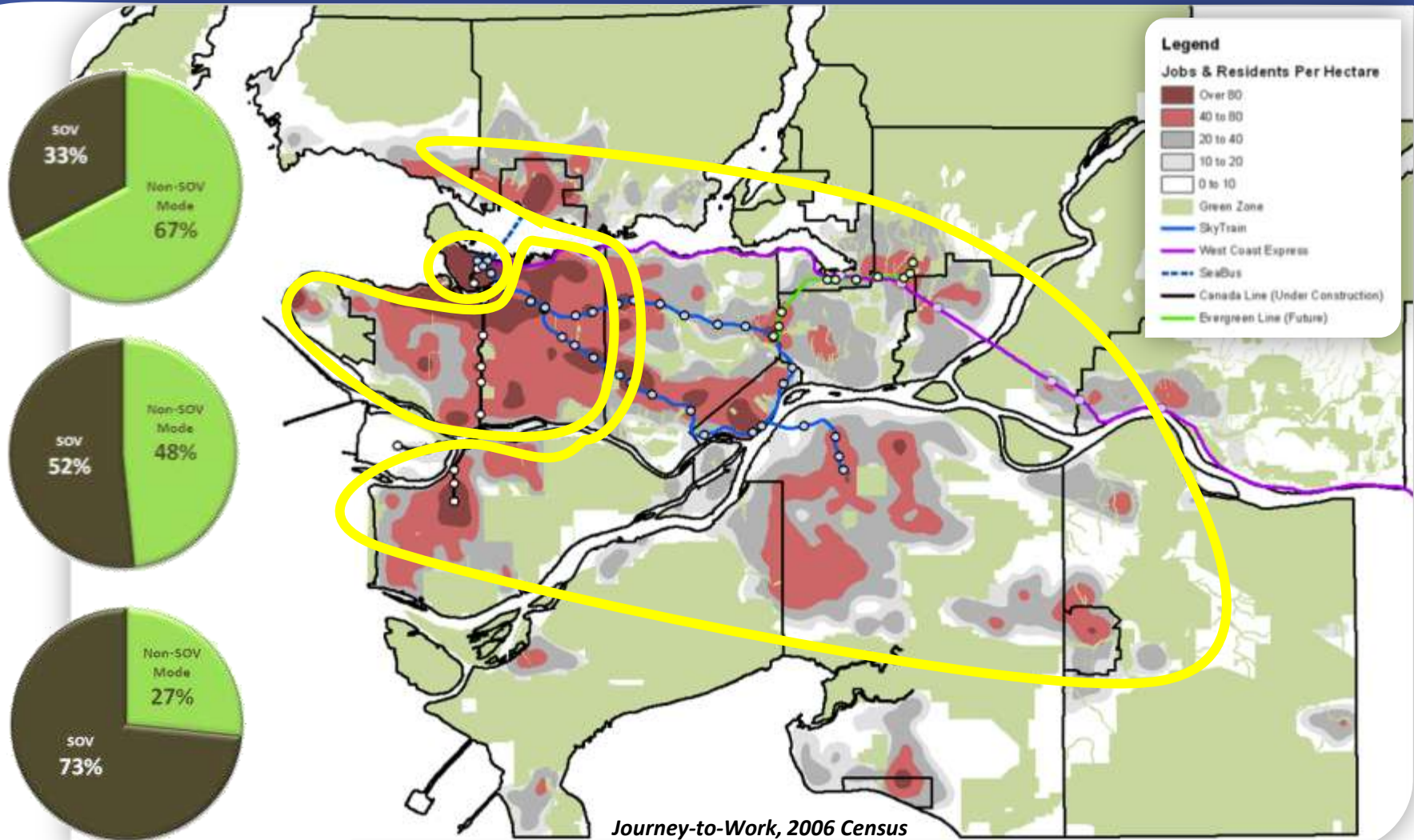
Traditional suburb to Downtown Travel
(latter half of 20th Century)



Modern region to region Travel (21st Century)

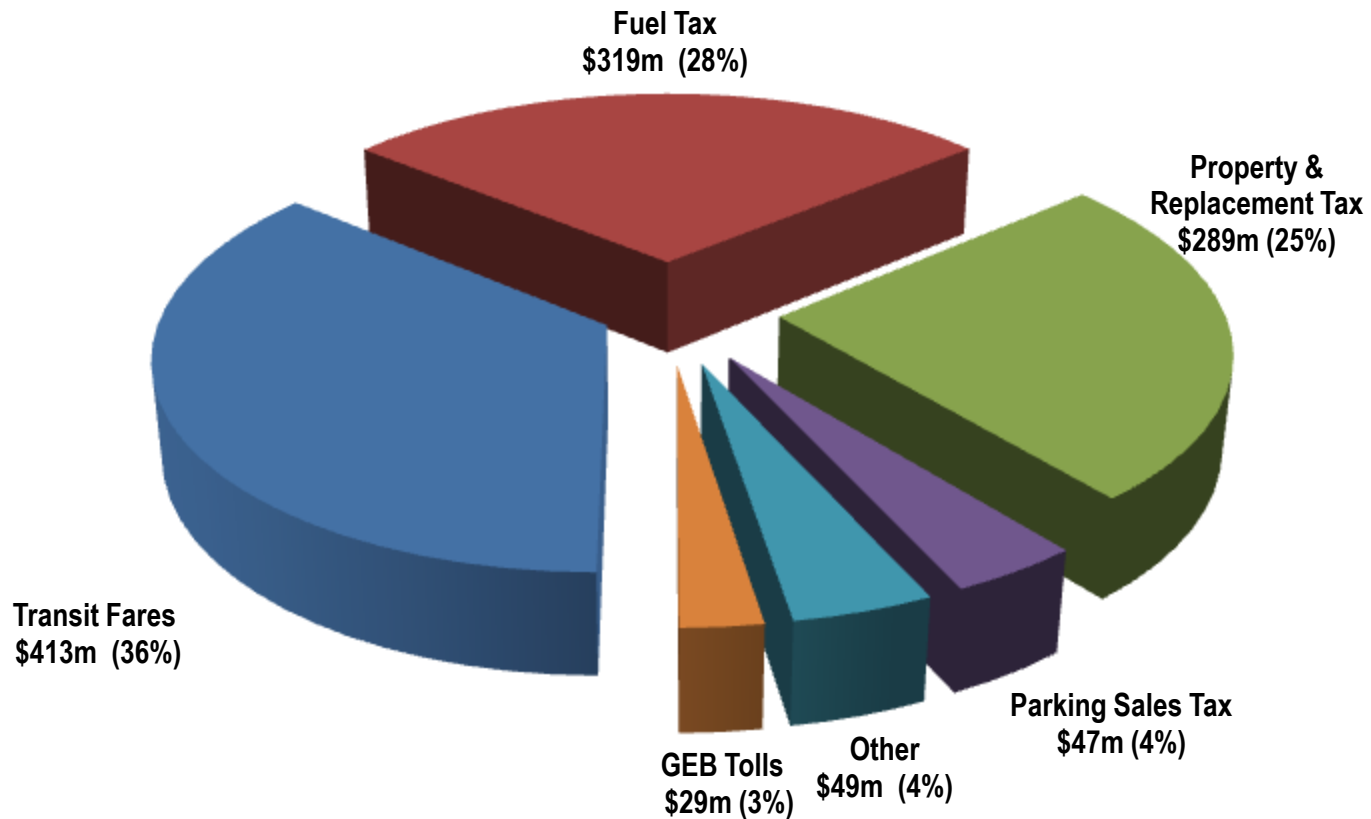


TransLink and the Metro Vancouver Region



TransLink and the Metro Vancouver Region

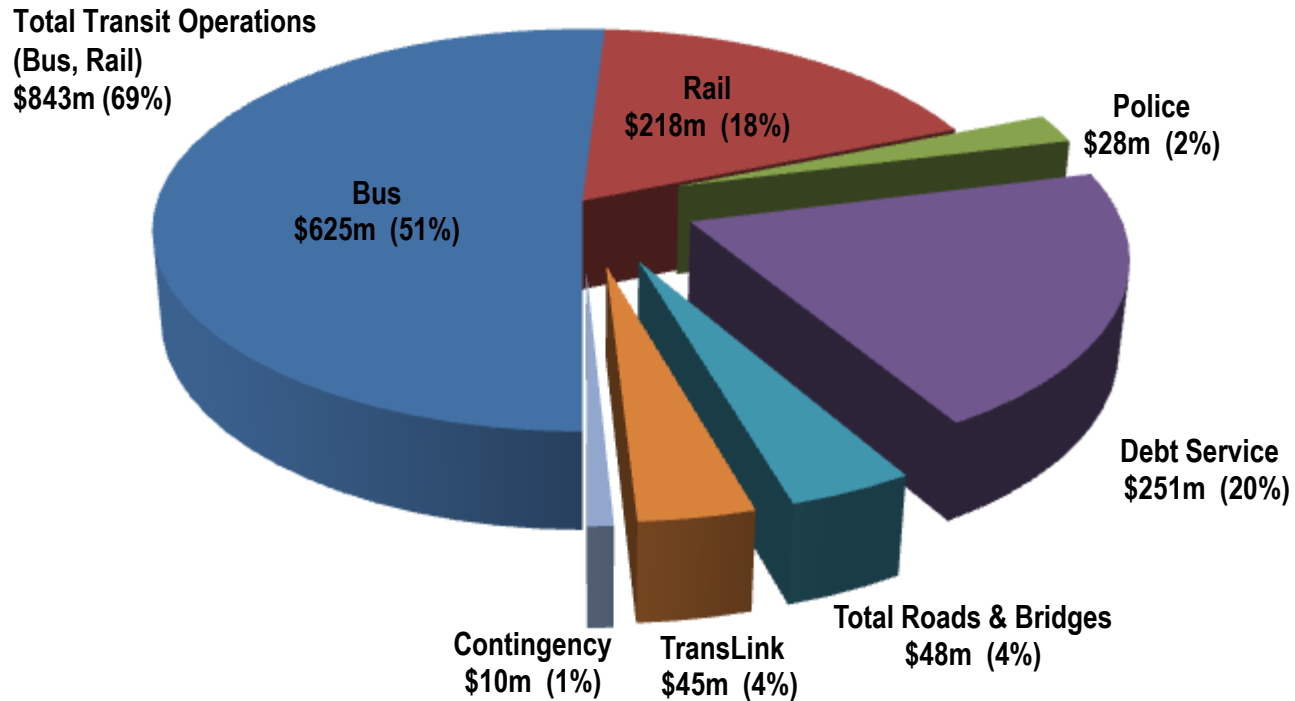
2010 BUDGETED REVENUE



Total approx. \$1,146 Million

TransLink and the Metro Vancouver Region

2010 BUDGETED EXPENDITURE



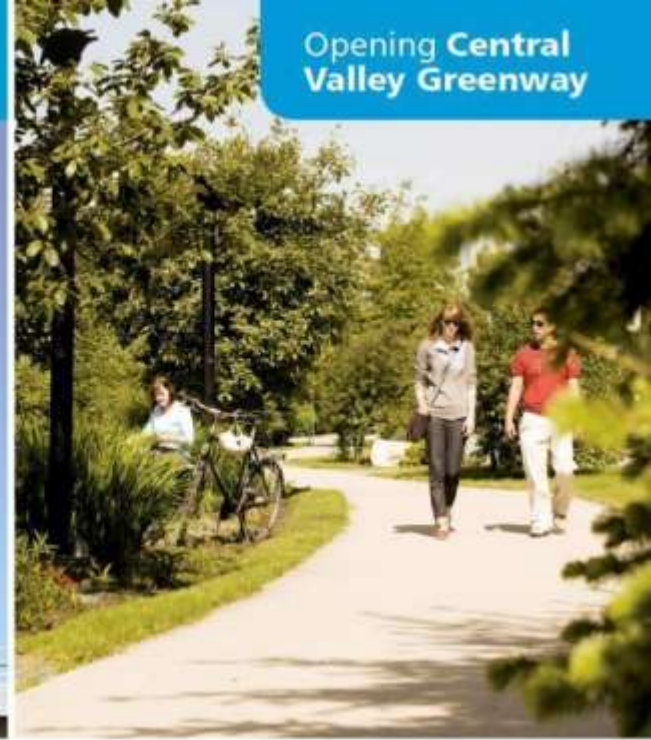
A dark blue rounded rectangle with a white notch on the top-left corner, serving as a background for the text.

Recent Accomplishments

Opening
Canada Line



Opening Central
Valley Greenway



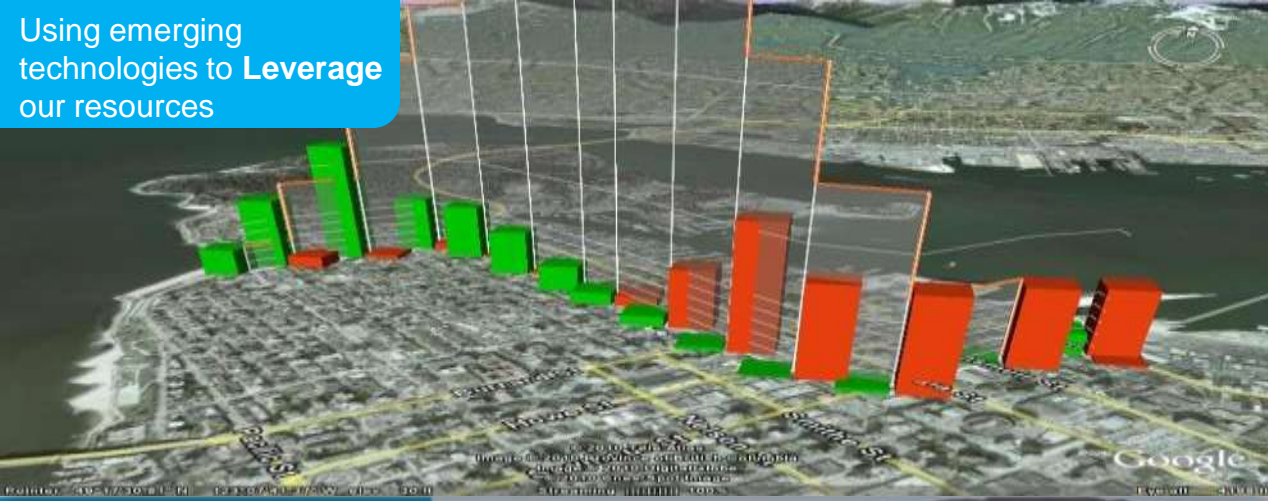
Serving an estimated
188 million revenue
passengers



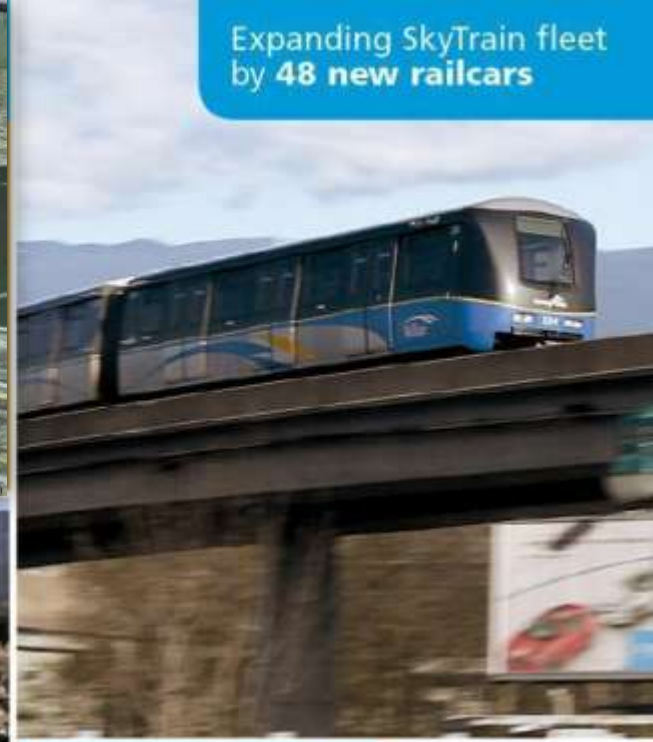
Opening Golden
Ears Bridge



Using emerging technologies to **Leverage** our resources



Expanding SkyTrain fleet by **48 new railcars**



Building Coast Meridian Overpass in Coquitlam



Launching brand new **SeaBus**



Delivering more than **240 new buses**

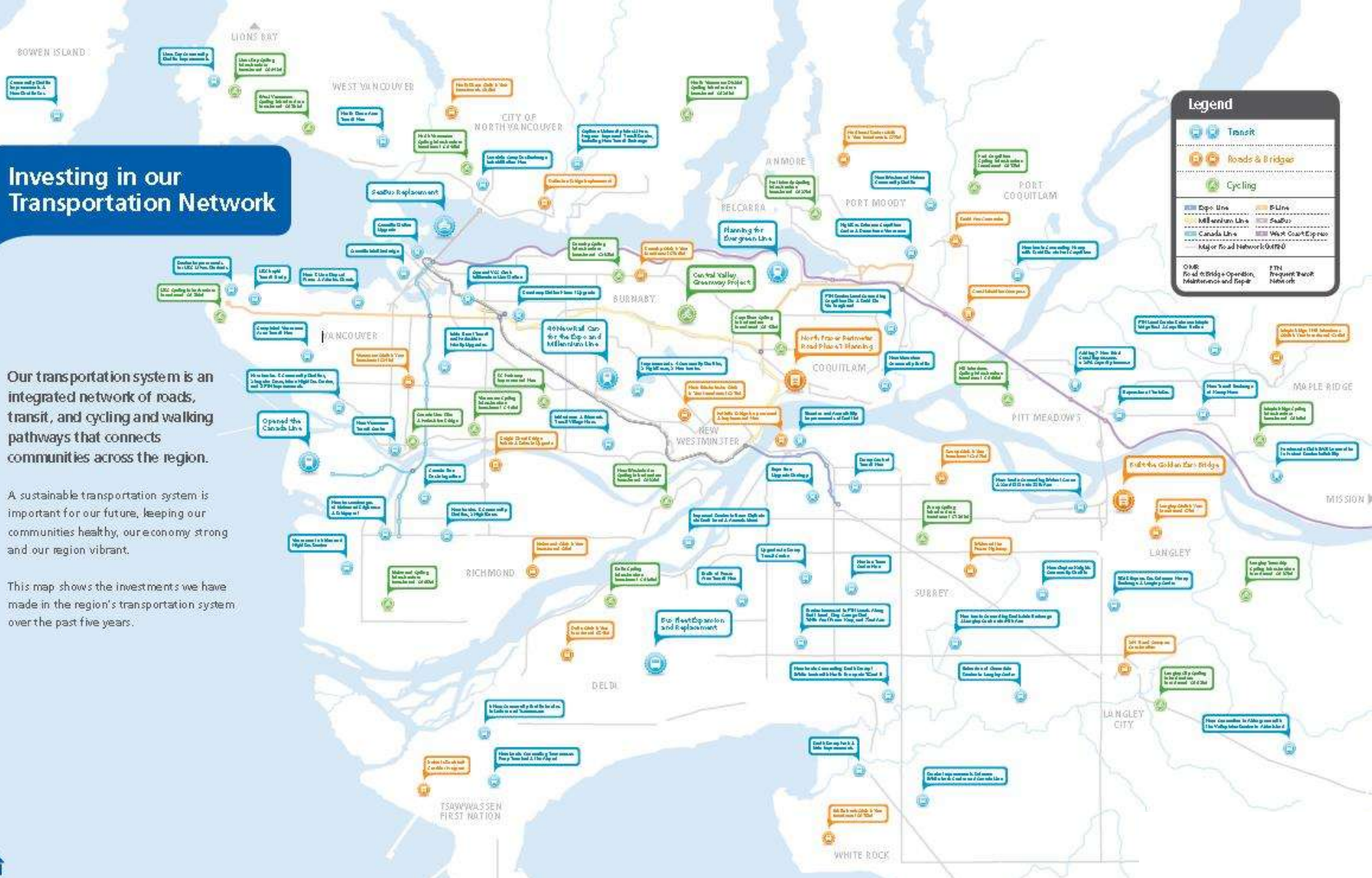


Investing in our Transportation Network

Our transportation system is an integrated network of roads, transit, and cycling and walking pathways that connects communities across the region.

A sustainable transportation system is important for our future, keeping our communities healthy, our economy strong and our region vibrant.

This map shows the investments we have made in the region's transportation system over the past five years.



Legend

- Transit
- Roads & Bridges
- Cycling

- Expo Line
- BC Line
- Millennium Line
- Canada Line
- West Coast Express
- Major Road Network (MTR)

- O&M: Road or Bridge Operation, Maintenance and Repair
- FTR: Frequent Transit Network



TransLink and the Metro Vancouver Region



1998

124 million transit trips



2009

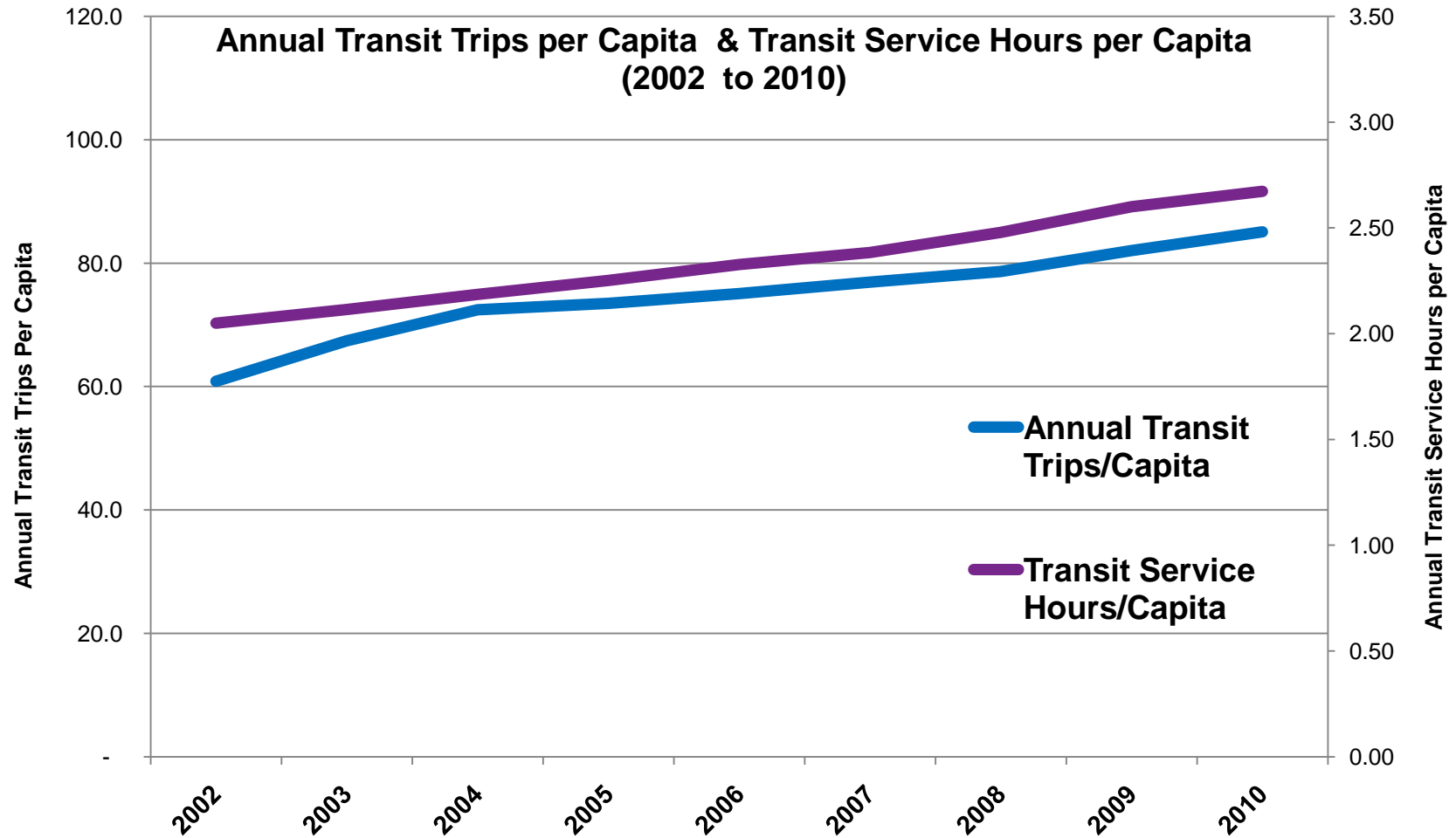
188 million transit trips

Metro Vancouver Annual Transit Ridership

- Ridership increased 52% between 1998 and 2009
- Population increased by 15%

 = 5 million transit trips

TransLink and the Metro Vancouver Region



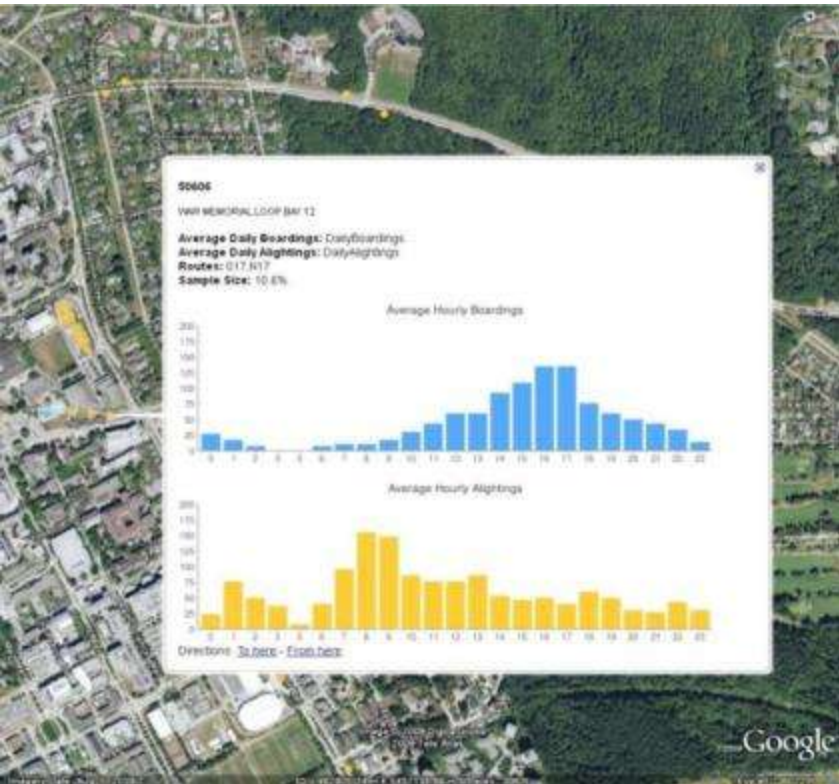
The Olympic Experience



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Leveraging Resources

Steps Taken to Leverage Existing Resources

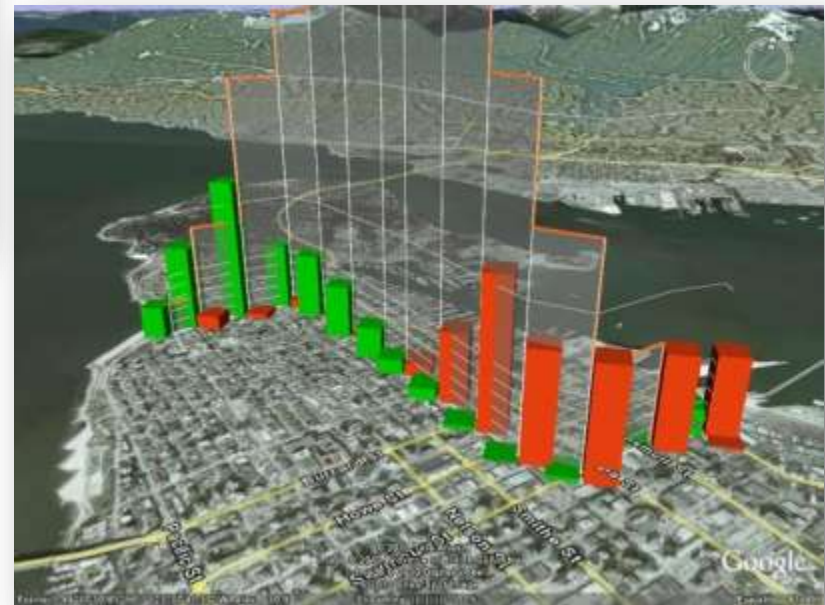


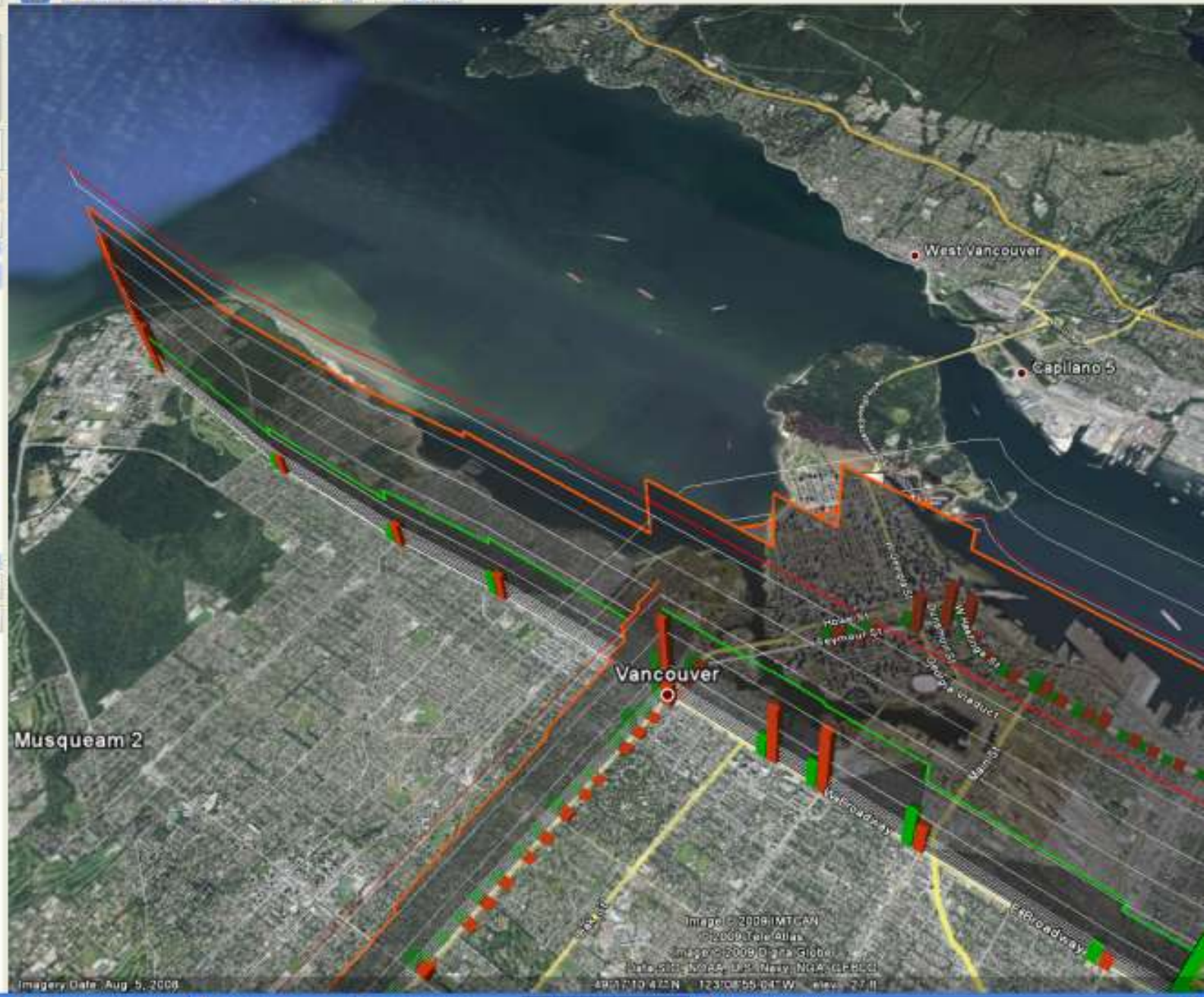
- Buses serve as important data collection devices

Steps Taken to Leverage Existing Resources



APC equipped buses record passenger activity by stop, trip, time period, etc

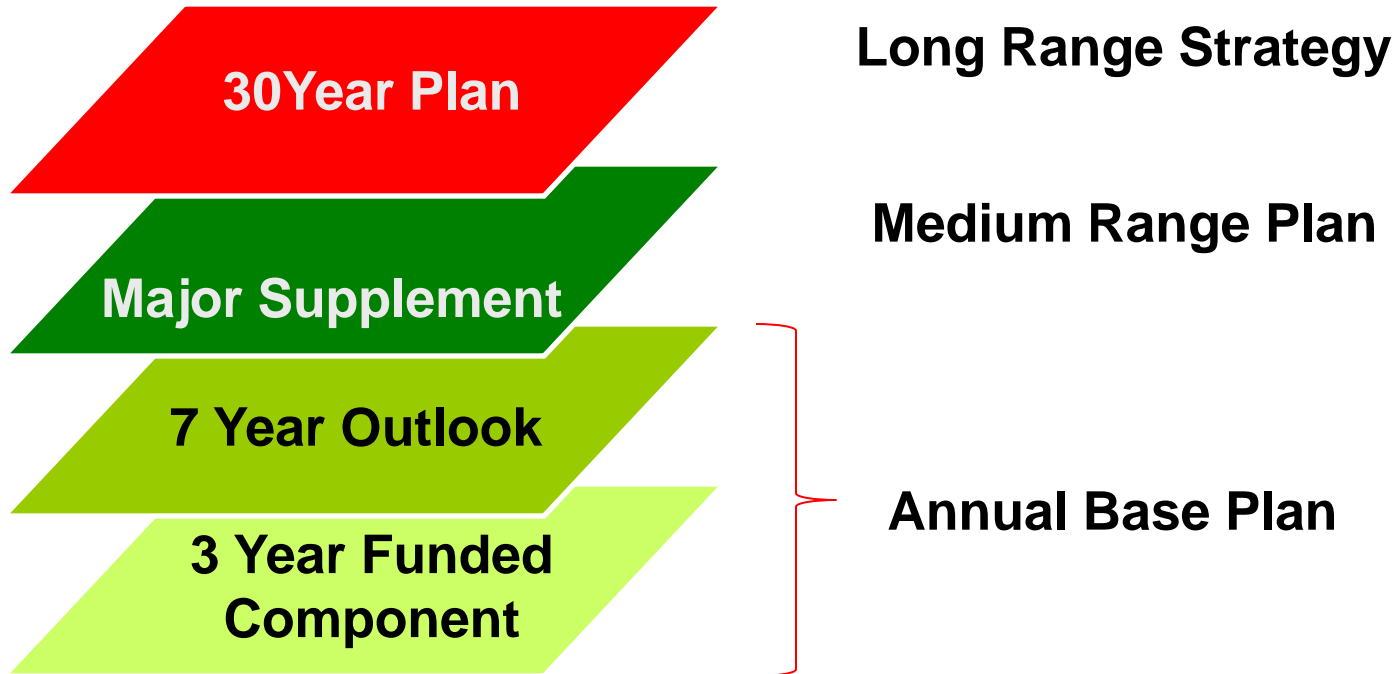




A dark blue rounded square graphic with a white outline, positioned in the center of the slide. The word "Planning" is written in white, bold, sans-serif font inside the square.

Planning

Planning Framework



TransLink's Long Range Plan



TransLink's Long Range Plan

Future vision of Transport 2040

GOAL 1 - Greenhouse gas emissions aggressively reduced.

GOAL 2 - Most trips are by transit, walking and cycling

GOAL 3 - Most jobs and housing located along frequent transit network

GOAL 4 - Traveling is safe, secure, and accessible for everyone

GOAL 5 - Economic growth and efficient goods movement are facilitated

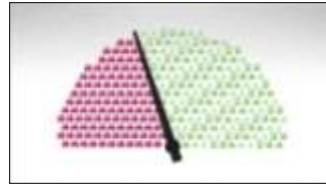
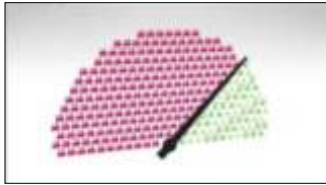
GOAL 6 - Funding is stable, sufficient and influences choices.



1
Million



Cars



Congestion



Funding



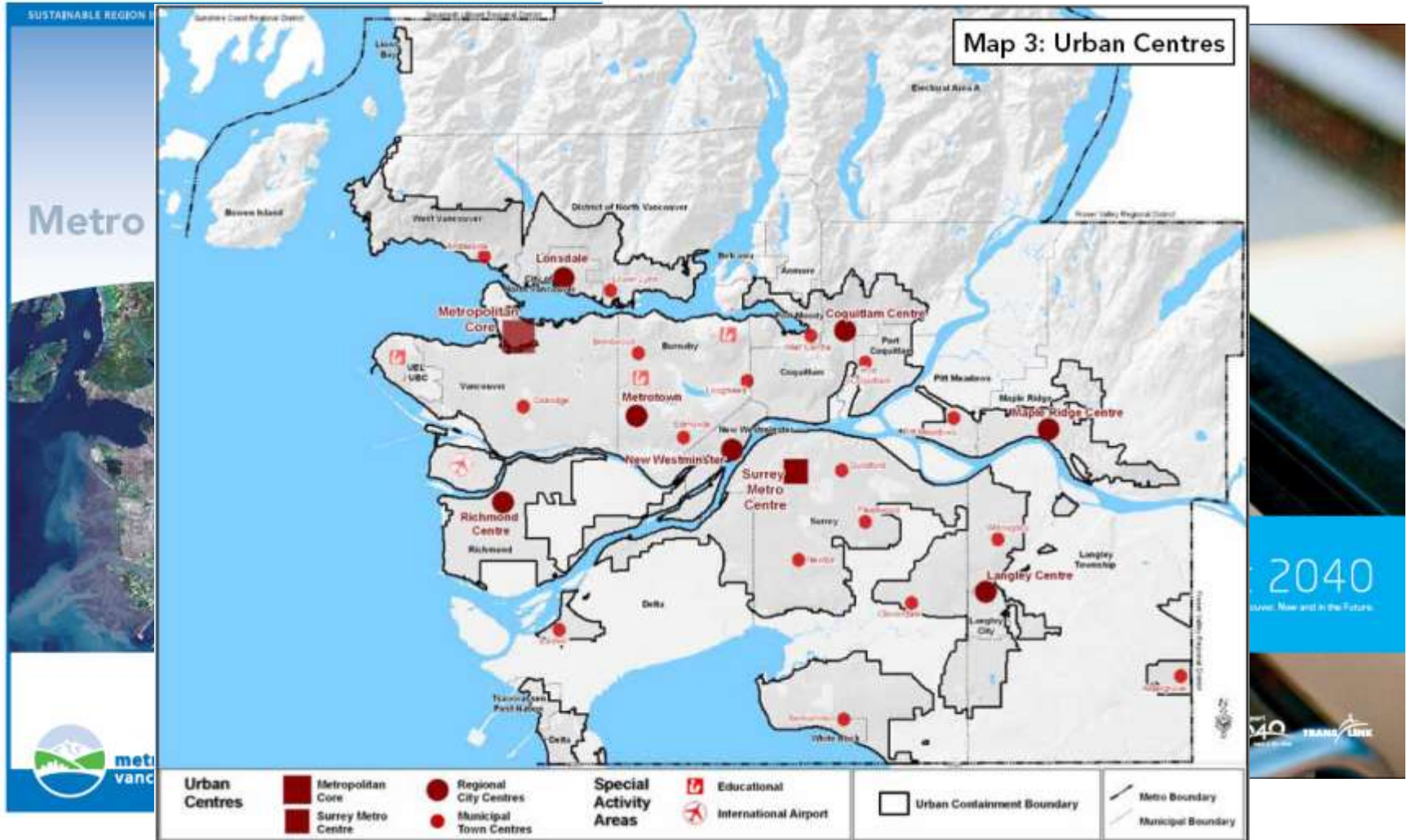
GHG



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Planning Approaches

The Land Use & Transportation Connection



The Land Use & Transportation Connection

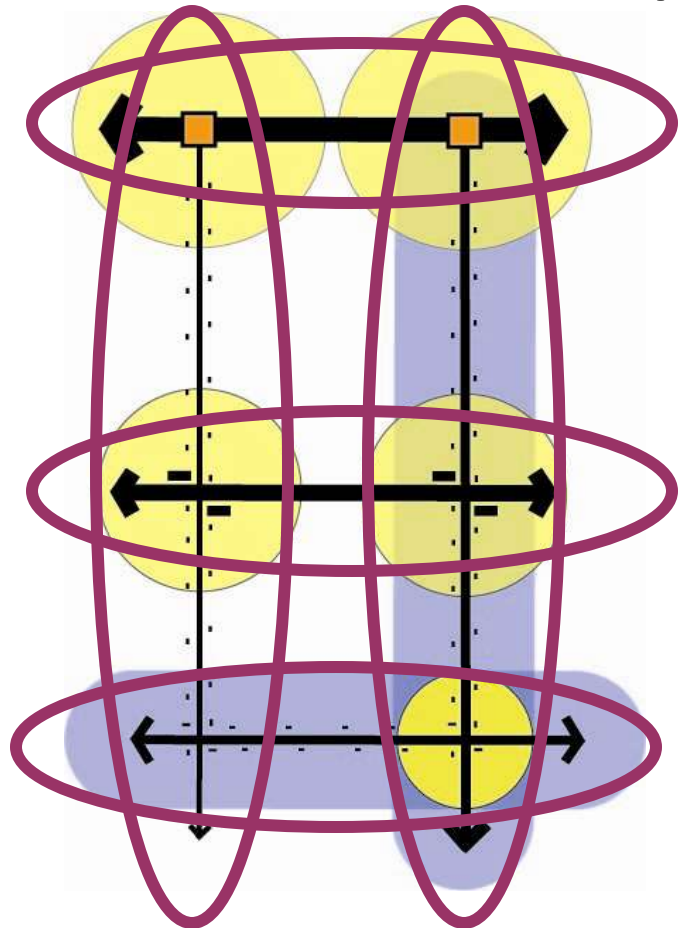
Frequent Transit Network (FTN)

- At least **every 15 min** throughout the day; 7 days/week
- **Framework** for a conversation around **transit** and **land use coordination**



The Land Use & Transportation Connection

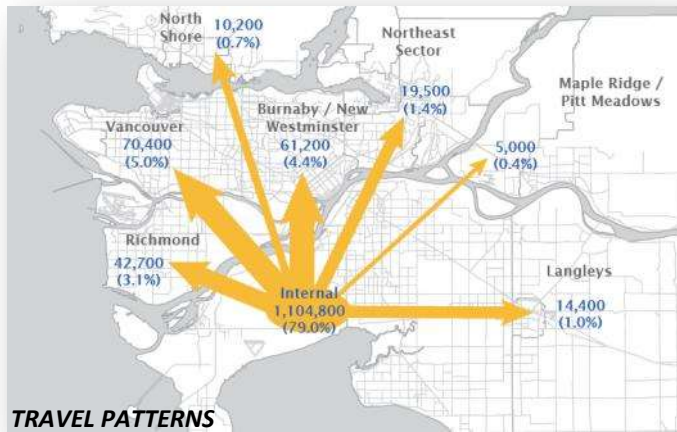
Frequent Transit Network



Transit Service Type	Examples
FTN Limited Stop w/exclusive ROW	Fixed Guideway Rapid Transit Lines Nodal Development 800M (half mile) Catchment
FTN Limited Stop	Limited Stop Bus Lines Nodal Development 600M (3 block) Catchment
FTN Local Stop	Trunk Line Frequent Bus Routes Linear Development 400M (2 block) Catchment
Local Stop	Local Bus Routes No Specific Development 400M (2 block) Catchment

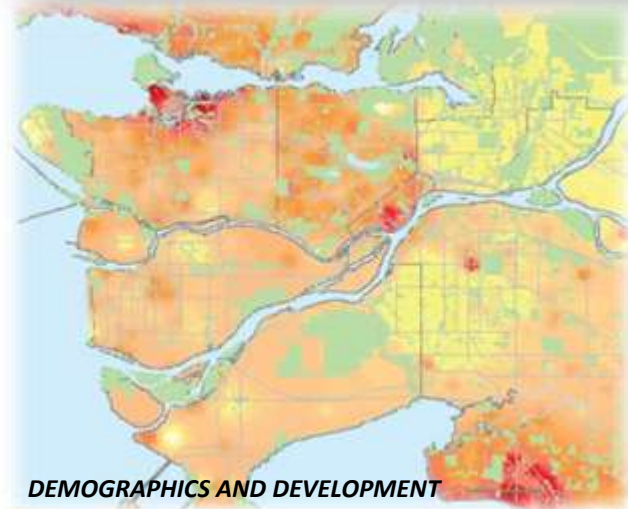


Area Transit Plans



Area Transit Plans:

- Created with the formation of TransLink
- Provide more local involvement in transit planning
- Recognize regional differences and informs regional plans
- Create a vision for the future



Land Use & Transportation Connection

More strategic approach to land use and transportation

1) Supply-side (transit provision)

- Frequent Transit Network (FTN)

2) Demand-side (land use shaping)

- Partnerships w/ municipalities on transit-oriented land use planning and development



Transit-Oriented Communities in Metro Vancouver

Transit-Oriented Communities:

- are places that facilitate a decreased reliance on driving by focusing:
 - higher-**density** development,
 - **diversity** of uses, and
 - pedestrian-friendly **design**,
 - within walking-**distance** of frequent transit
- are really pedestrian-oriented communities connected by transit!



Transit-Oriented Communities in Metro Vancouver

What are the Benefits?

- More **cost-effective** transit service
- **Higher quality** transit service
- Improved **public realm & livability**

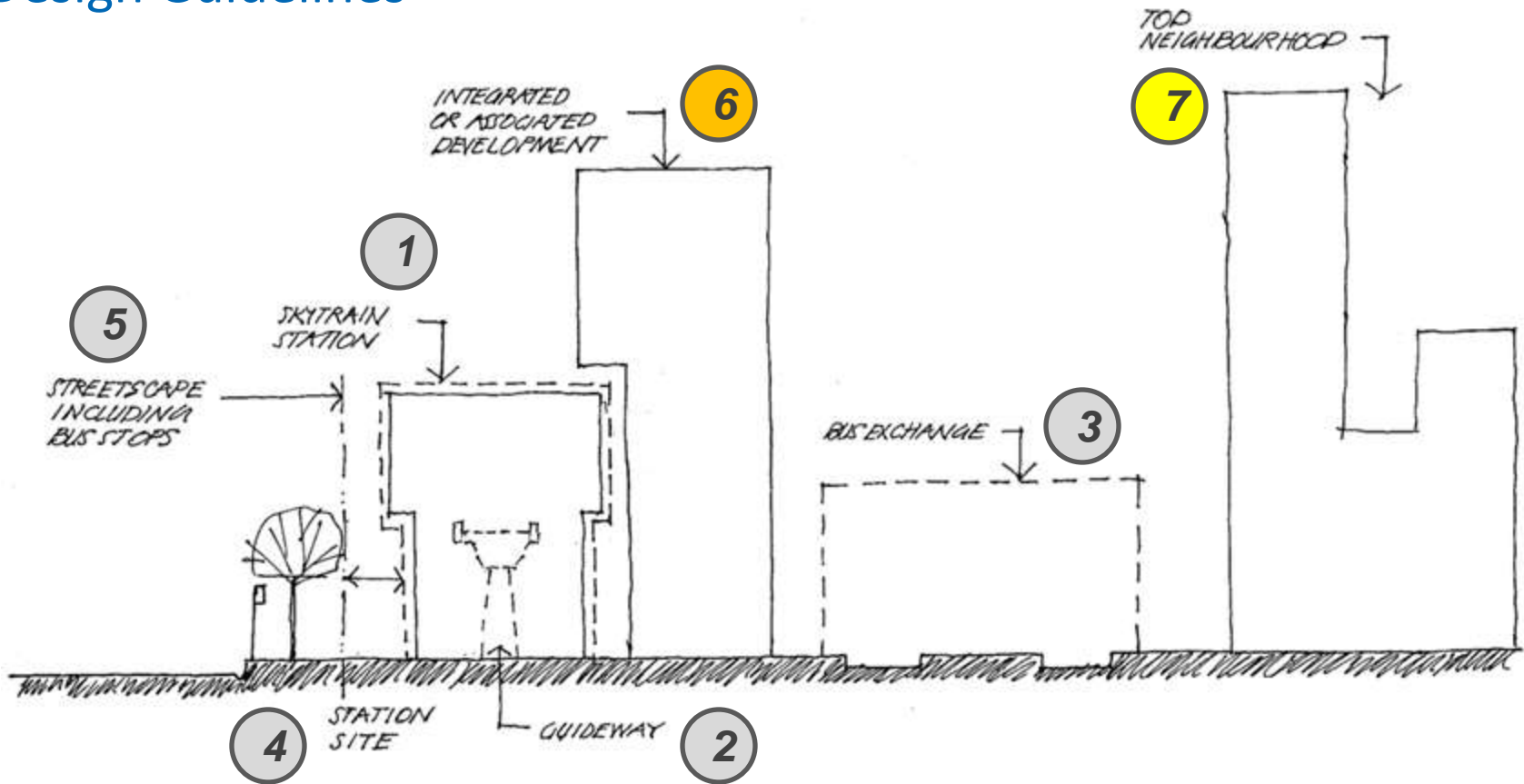


Land Use & Transportation Connection



Land Use & Transportation Connection

Passenger Facility and Community Design Guidelines



Rapid Transit Studies

The Land Use & Transportation Connection

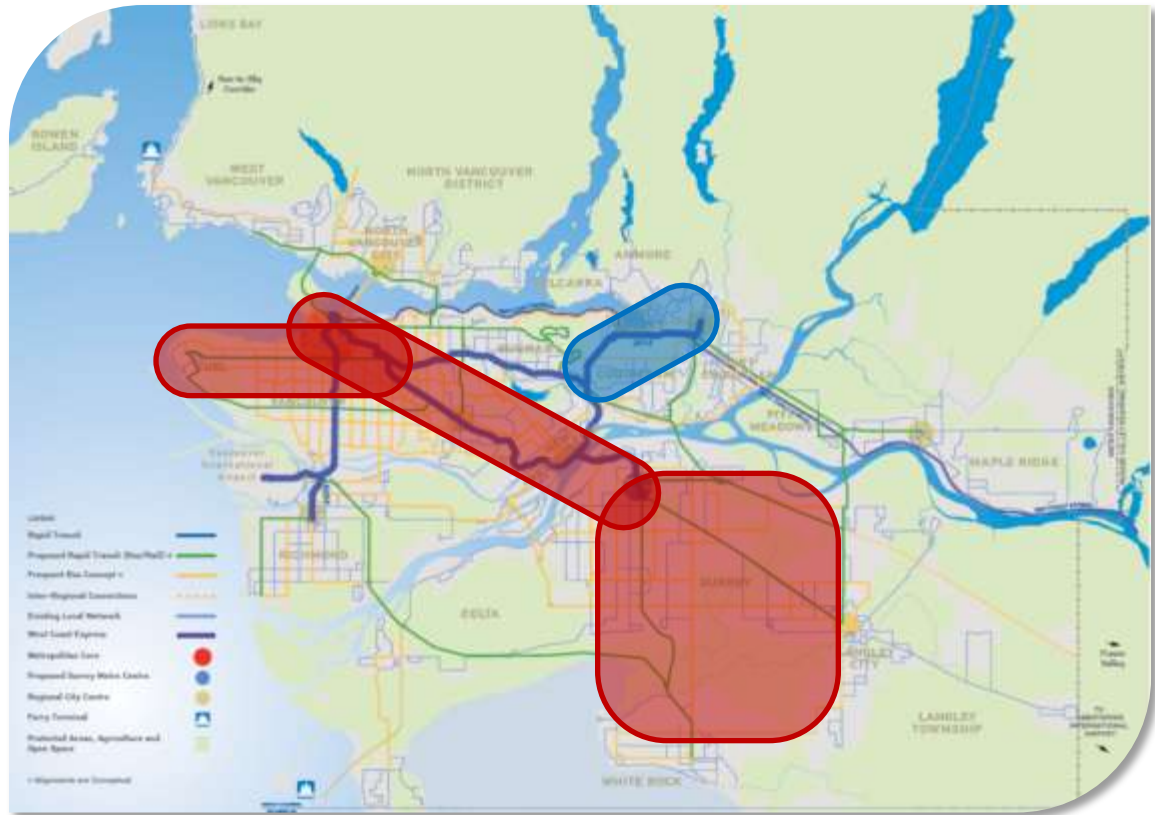
Rapid Transit Studies

Need careful analysis:

- Long lead times
- Capital intensive

Conversation about regional priorities:

- Advancement criteria to consider transit-supportive land-use potential



Enhancing Core Carrying Capacity: The Expo Line Upgrade Study



Serving Existing Need: The UBC Line Study



Rapid Transit Studies

Defining Problems

Existing transit services in the Corridor do not provide sufficient **capacity** or a **reliable service**

- Frequent pass-ups
- Unpredictable journey times
- Passenger experience



UBC Line Rapid Transit Study Area

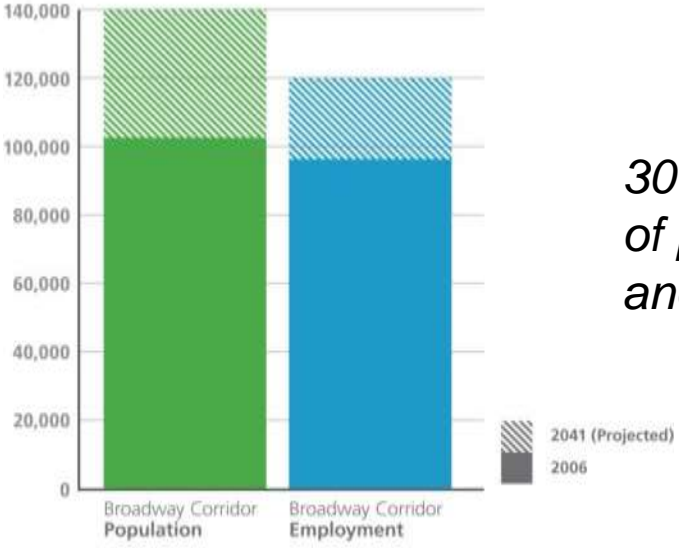


Central Broadway:

- 58,000 jobs
- 35,000 residents

UBC :

- 6,500 residents
- 19,000 jobs
- 60,000 daytime population (students, faculty, staff)

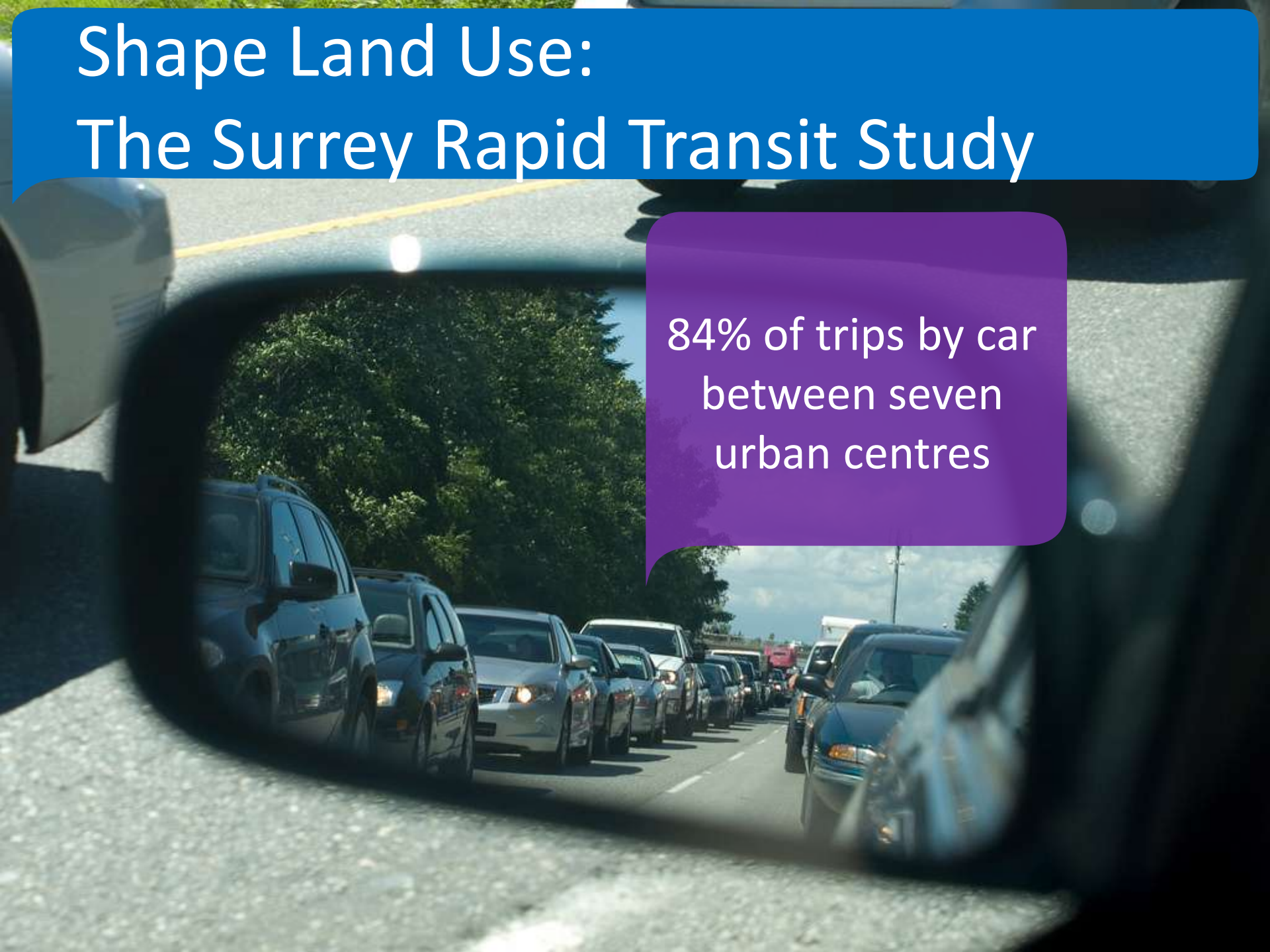


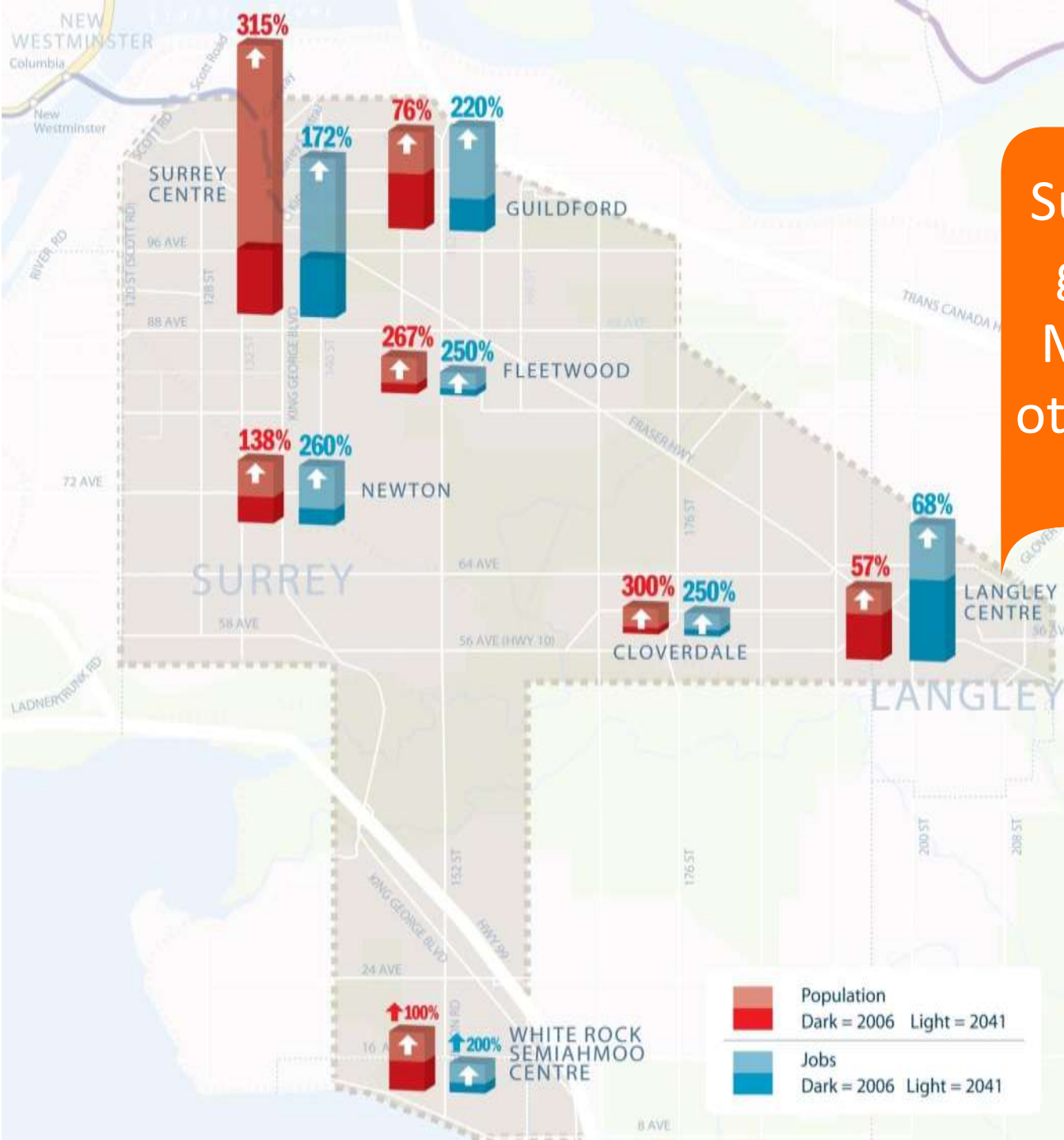
30% growth of population and jobs

Source: Metro Vancouver Regional Growth Strategy draft 2009

Shape Land Use: The Surrey Rapid Transit Study

84% of trips by car
between seven
urban centres





Support significant growth in Surrey Metro Centre and other urban centres

...

Enhance Economic Competitiveness

Stimulate economic development and job access



Shape Future Land Use



Today

... by encouraging transit-oriented development



Future

Diverse range of urban transport technologies



Multiple Account Evaluation

Economic development



Environmental



Financial



Social community



Transportation
































Urban development



Deliverability



		<i>Bus Rapid Transit</i>	<i>Light Rail Transit</i>	<i>Rail Rapid Transit</i>	<i>Regional Rail</i>
	<div style="background-color: green; color: white; padding: 2px; text-align: center;">Possible</div> <div style="background-color: yellow; color: black; padding: 2px; text-align: center;">Challenging</div> <div style="background-color: red; color: white; padding: 2px; text-align: center;">Unlikely</div>				
In-street reserved lane					
Physically reserved in-street					
Private at-grade right-of-way					
Elevated					
Underground					

Alternatives Analysis of the rapid transit options

SCOPE OF ANALYSIS

In the initial phases of the study, many alternatives are subject to a high-level analysis



As the study progresses, the number of alternatives reduces as the level of analysis increases

Phase 1 ▶

Phase 2 ▶

Phase 3 ▶





2009

2010

2011

Strategic
Network Review

Network Sub-studies

UBC Line
*Alternatives Analysis
Phases 1 and 2*

UBC Line
*Business Case and
Concept Design Development
Phase 3*

Surrey Rapid Transit
*Project Set-up
undertaken through
Network Review RFP*

Surrey Rapid Transit
*Alternatives Analysis
Phases 1 and 2*

Surrey Rapid Transit
*Business Case and
Concept Design Development
Phase 3*

Expo Line
Upgrade
Strategy

Expo Line Upgrade
*Project Development and
Implementation*

Selection of Preferred Alternatives

Other Studies TBD by Strategic Network Review



Regional Rapid Transit Plan

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**2011
Supplemental
Plan**

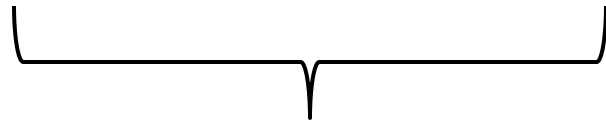
TransLink Priorities

**Maintaining
Services**

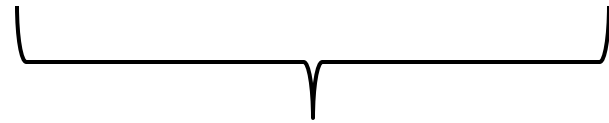
**State of
Good Repair**

Upgrades

Expansion



Funding Stabilization Plan



Additional Funding Required

Evaluation Framework & Process

- TransLink's plan evaluation process
 - Outcomes-driven, performance-based plan development
 - Will continue to apply to future supplements
 - Responds to input of Commissioner and stakeholders
- The evaluation of candidate projects includes two parts:
 - Effectiveness towards Transport 2040 Goals (i.e. reduced GHGs, mode share, complete communities, optimization, economic growth and goods movement, financially sustainable)
 - Priorities specific to a particular plan (i.e. significant lost opportunity if not activated in 2010 and that Leverage significant other funding)

Evaluation Criteria

Goal	Objective
GHGs Aggressively Reduced	Reduces Vehicle Kilometres Travelled (VKT)
	Improves system operations and efficiency
	Greater use of low emission fleet technology
	Greater use of low carbon content fuel
Non SOV Mode Share	Protects existing transit ridership
	Promotes shifts to transit, cycling and walking
	Encourages future shifts to transit, cycling and walking
	Influences smart transportation choices
Complete Communities	Encourages complete and transit-oriented communities
	Expands access to regional transit and cycling networks
	Promotes regional mobility

Evaluation Criteria

Goal

Objective

System Optimization

Encourages modal integration

Improves the resilience of the transportation system

Improves system safety

Promotes universal accessibility

Economic Growth & Goods Movement

Supports efficient access to regional centres and economic gateways

Reduces congestion

Improves travel time reliability

Financially Sustainable

Maximizes leveraging opportunities

Make efficient use of existing infrastructure

Prioritizes cost-effectiveness

Prioritizes long-term growth in cost-effectiveness

Evaluation Criteria

Goal

Significant Lost Opportunity if Not Activated in 2010

Objective

Leaves money on the table

Dependence with other programs

Significantly more expensive to do later

Results in loss of passengers from the system

Leverages Significant Other Funding

Extent of capital contribution

Impacts on operating costs

Impacts on fare revenue

Makes Best Use of Existing Fleet & Infrastructure

Improves efficiency of existing assets

Improves effectiveness in utilizing assets

Intensity of Previous Commitment

Nature of TransLink's commitment

Importance of commitment to stakeholders

TransLink Funding Sources under SCBCTA Act

TAXATION	STATUS
Fuel Tax	increased in 2010 to \$.15/L -AT LEGISLATED MAX
Parking Sales Tax	Increased in 2010 to 21% -AT LEGISLATED MAX
Property Taxes	Increase by 3% per year
Hydro Levy	Remains at \$1.90/month/account -AT LEGISLATED MAX
Replacement Tax	Remains at \$18M/yr -AT LEGISLATED MAX
Benefitting Area Tax	Not implemented
USER FEES	STATUS
Transit Fares	Increased in 2010
Transit Advertising	Opportunities currently maximized.
New Facility Tolls	-AT LEGISLATED MAX
Vehicle Registration Fee	Not Implemented

Two Supplements

Moving Forward: Improving Metro Vancouver's Transportation Network



2011 Supplemental Plan and Outlook Transportation and Financial Supplemental Plan for 2011 to 2013 and Outlook for 2014 to 2020



November 8, 2010

Approved for submission to the
Mayors' Council on Regional
Transportation and the Regional
Transportation Commissioner.

For the purpose of the BC South Coast British Columbia Transportation Authority Act, this document contains a Transportation and Financial Supplemental Plan prepared in 2010 for the 2011 to 2013 period and Outlook for the 2014 to 2020 period. If approved by the Mayors' Council on Regional Transportation, this Plan, together with the 2011 Transportation and Financial Base Plan (approved by the TransLink Board of Directors on July 15, 2010), will serve as TransLink's 2011 Strategic Plan.

Delivering Evergreen Line and North Fraser Perimeter Road



2011 Supplemental Plan and Outlook Transportation and Financial Supplemental Plan for 2011 to 2013 and Outlook for 2014 to 2020



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Two Supplements

Moving Forward: Improving Metro Vancouver's Transportation Network

Delivering Evergreen Line and North Fraser Perimeter Road

- **Evergreen Line**
 - **NFPR Phase I**
 - **Bus Service Hours**
 - **Station Upgrades**
 - **MRN Minor Road Capital**
 - **Cycling Capital Program**
-
- **67% funding from senior government and new ridership**
 - **Defers regional funding to 2012 to identify new funding source**
 - **If property tax, impact on avg household:~\$62/yr or \$8.90/100K**

- **Evergreen Line**
 - **NFPR Phase I**
-
- **68% funding from senior government**
 - **Defers regional funding to 2012 to identify new funding source**
 - **If property tax, impact on avg household:~\$36/yr or \$5.25/100K**

Moving Forward:

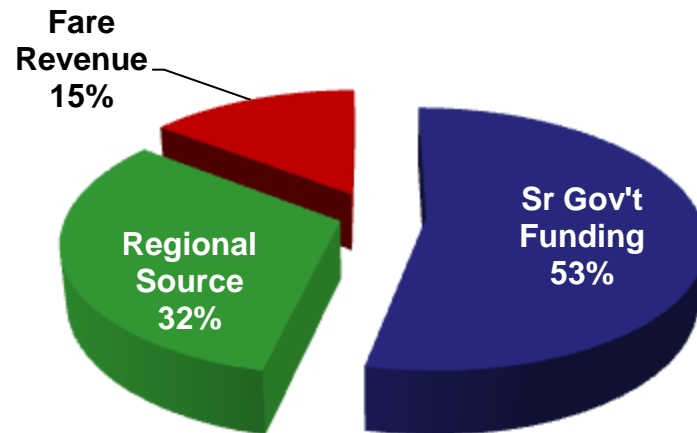
Improving Metro Vancouver's Transportation Network



Plan Benefits: Partner Funding

- Leverages significant funding from senior governments
- \$2.4 Billion in needed transit, road, and cycling capital and operating over the next 10 years

Revenue Distribution of Plan Funding
(2011-2020 Expenditures)



◀ BOWEN ISLAND
LION'S BAY
WEST VANCOUVER

Increase bus services around the region, for example:

- North Shore - Marine Drive to Downtown, SeaBus & Lonsdale Ave
- South of Fraser - Fraser Highway & 104th Ave
- Richmond - Cambie Rd & Queensborough
- Vancouver - 4th, 41st & 49th Avenues
- Burnaby/Coquitlam - Willingdon & Pinetree Way

Station Upgrades

- Main Street Station
- Metrotown Station
- Surrey Central Station
- New Westminster Station
- Lonsdale Quay

Evergreen Line Rapid Transit Program

Restore funding to Regional Bike Capital Program from \$3 million to \$6 million per year

North Fraser Perimeter Road - Phase I

Highway 1 Bus Rapid Transit Project

Restore funding to Regional Roads Minor Capital Program from \$10 million to \$20 million per year

King George Boulevard B-Line Service

White Rock to Langley Bus Service

Moving Forward: Improving Metro Vancouver's Transportation Network

TSAWASSEN FIRST NATION



Benefits of Moving Forward

- Retains federal funding
- Makes progress towards Transport 2040 Goals
- Accessibility and capacity improvements at stations
- Serves existing and new demand
- New service for growing areas of the region
- Provides funding to municipal road and bike programs that depend on TransLink for funding

Next Steps

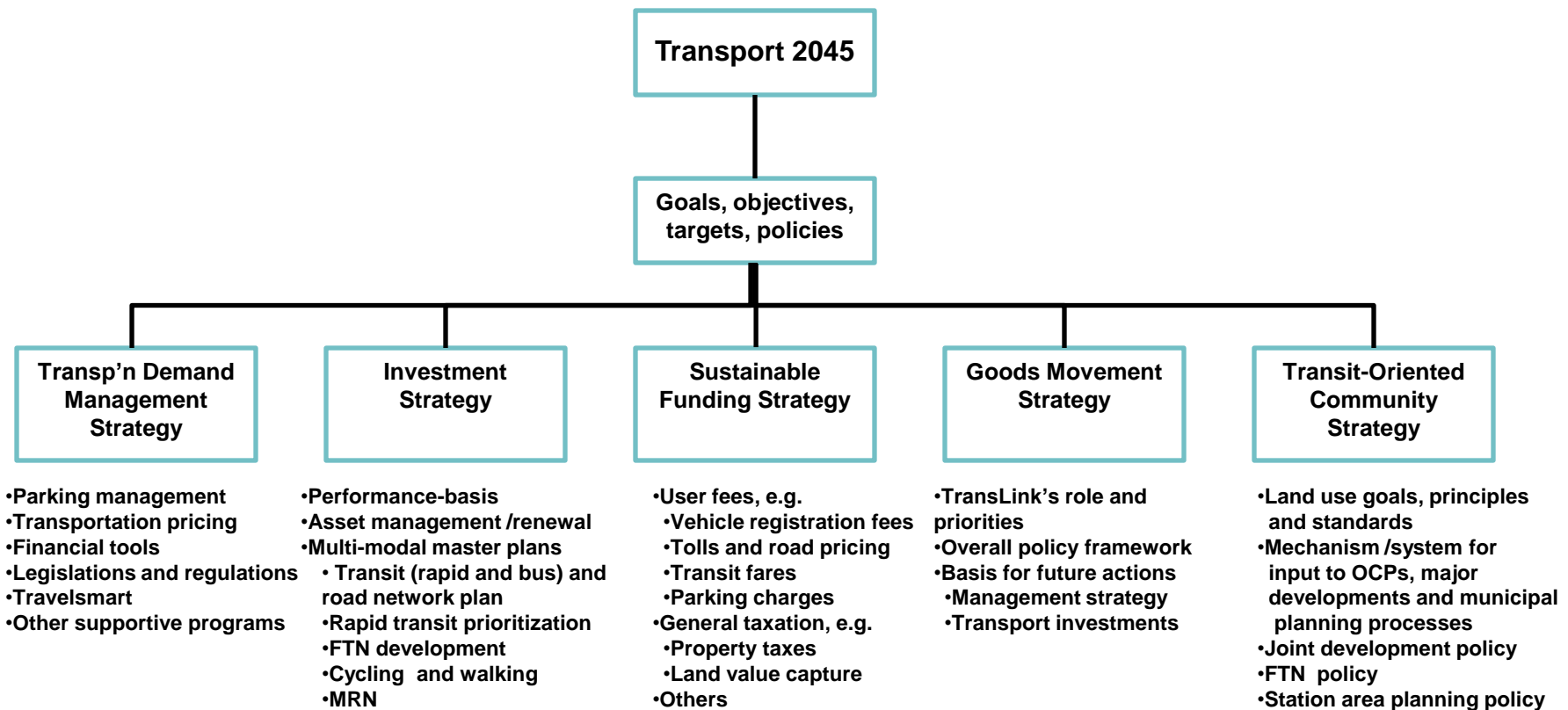
- Regional Transportation Commissioner will review and provide comment
- Moving Forward on these investments requires Mayors' Council approval



Next Steps

Key Long-range Planning Initiatives

Moving forward



Concluding Thoughts



1. Land on a vision and stick to it.
2. Integrated transport planning works better than intermodal competition when enhancing mobility (roads v. transit).
3. Conversations on expansion are well supported if you can demonstrate efficiency and effectiveness.
4. Transport can be used as an effective incentive for supportive Land Use and vice-versa. Linking the two is important.
5. Evidence-based planning provides a critical foundation for political discussions.
6. Never underestimate the value of a political champion.



Thank you.

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