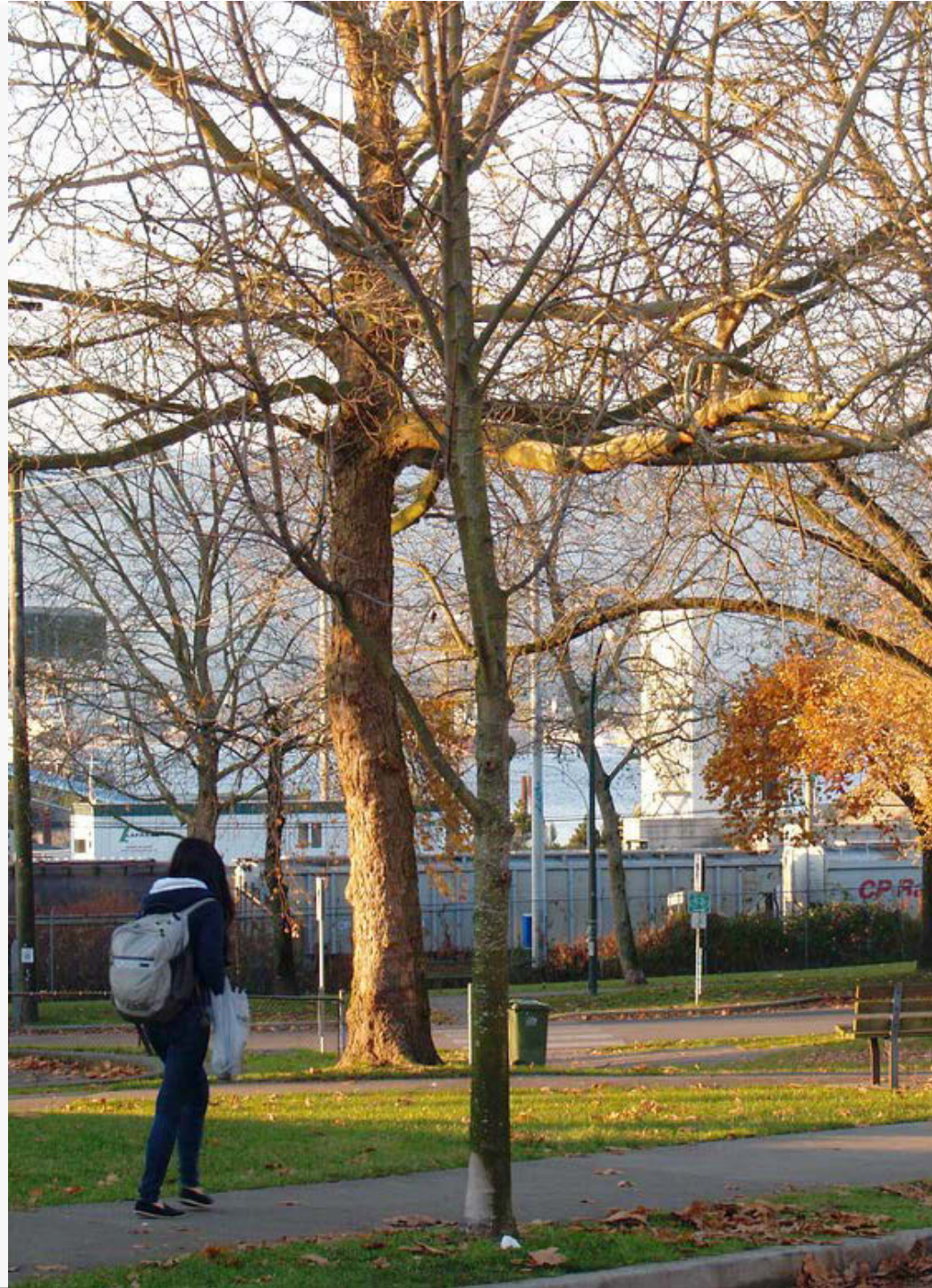


# Grandview- Woodland Neighbourhood Transportation & Parking

Stakeholder  
Advisory Group

Meeting # 3

May 11, 2017

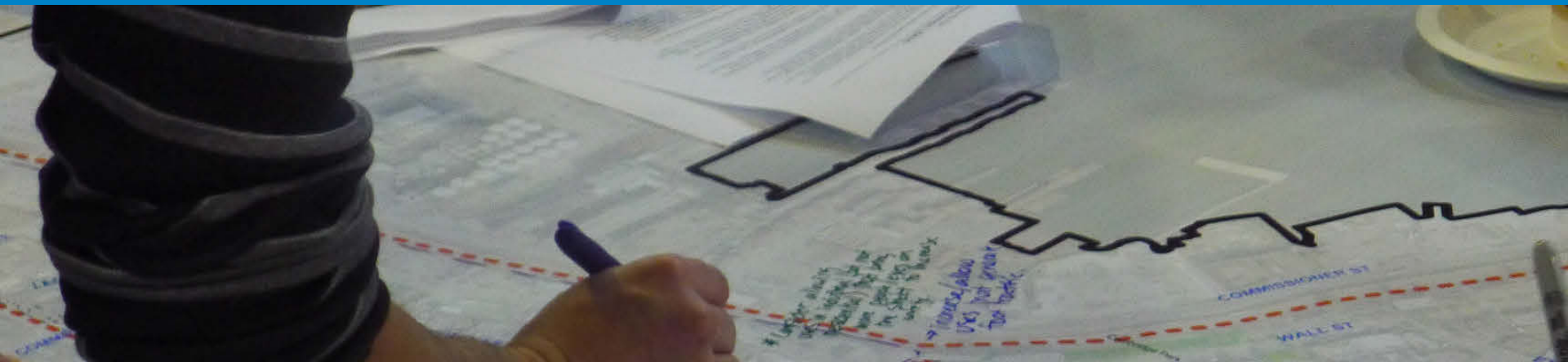


# Introductions

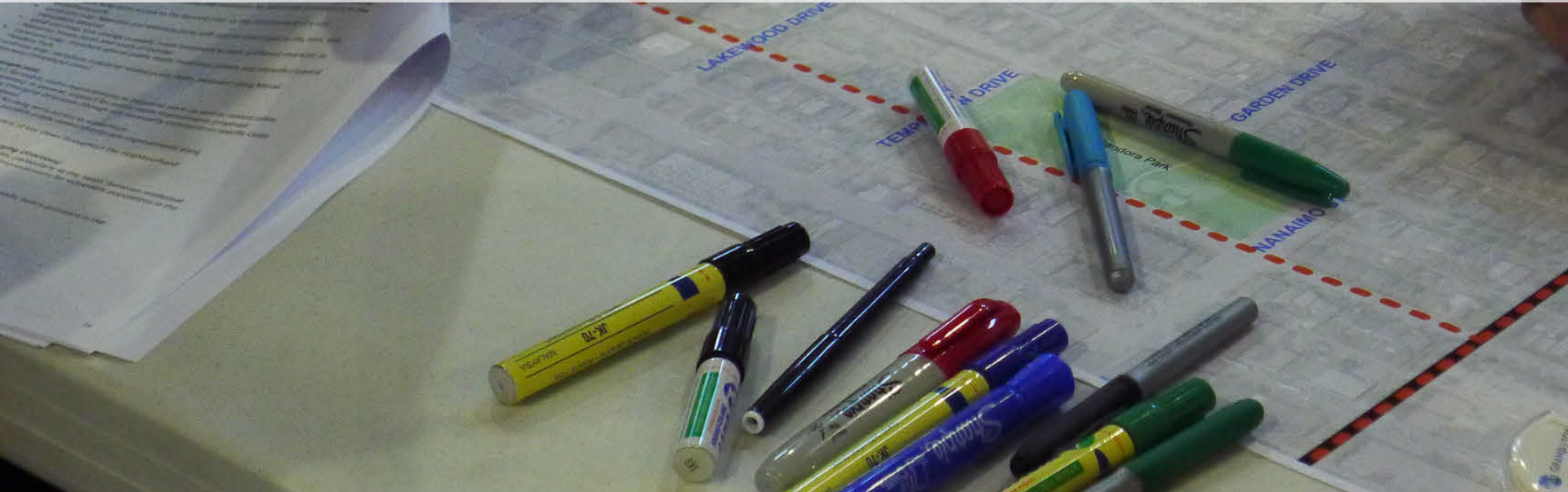


- Grandview Woodland Area Council
- East Village / Hastings North BIA
- Commercial Drive Business Society
- Italian Day Festival
- ISS of BC
- The Kettle Society
- Kiwassa Neighbourhood House
- Vancouver Coastal Health
- REACH Community Health Centre
- TransLink
- Streets for Everyone
- BEST
- HUB
- Advisory Committees
  - Persons with Disabilities
  - Seniors’
  - Active Transportation
  - Urban Aboriginal Peoples
- City of Vancouver
  - Dale Bracewell, Hailey Steiger-Tang, Carol Kong, Liliana Quintero

- 6:30 pm Intros & Welcome
- 6:40 pm Project Updates
- 7:10 pm False Creek Flats & East - West Arterial Update
- 7:20 pm Break
- 7:30 pm Moving Towards Zero
- 8:00 pm Closing & Next Steps



## Project Updates



## Why Complete Streets?

- Help achieve Transportation 2040 targets on mode share and safety
- Renewable City Strategy
  - *T.1.2 Enhance and accelerate the development of complete streets and green infrastructure*
- Deliver better streets for all users and promote sustainable transportation

## Also Supported by

- Other Citywide policies:
  - Greenest City Action Plan
  - Healthy City Strategy
  - Citywide Integrated Rainwater Management Plan (IRMP)
- ATPC Motion



# What are Complete Streets?

## Transportation Perspective

- Consider needs of people of all ages & abilities
- Integrate planning for all modes of travel
- Ensure critical mobility and access functions are met
- Respond to local context, and connectivity and reliability of the broader transportation network



# What are Complete Streets?

## Broader Perspective

- Bring a holistic lens to street design
- Integrate seamlessly land use, transportation, urban design, green infrastructure and public space
- Promote public life and deliver context sensitive public realm
- Help create Complete Communities





# Street Typology and Network Considerations

**Not a one-size-fits all approach**

**Typologies informed by:**

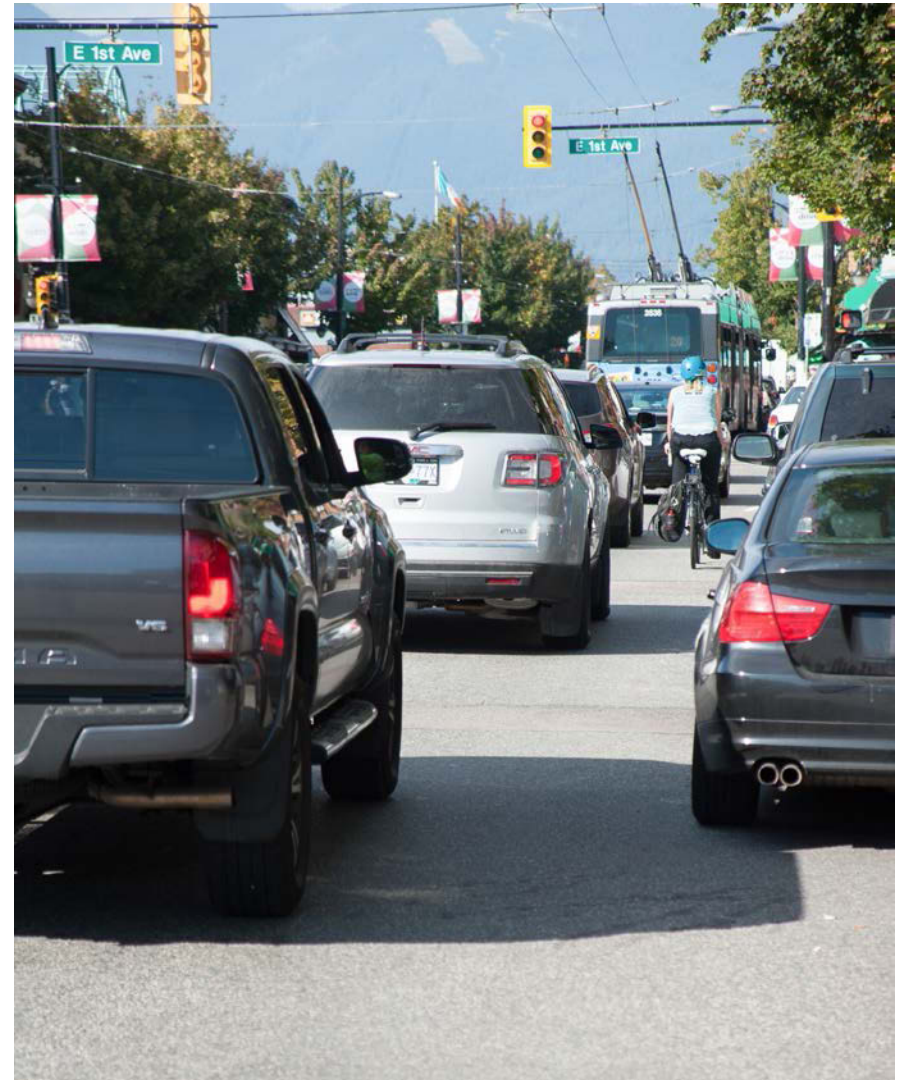
- **Transportation function** within a broader network
- Available **right-of-way**
- **Type of street** driven by land use intensity and activity
- **Other factors** that make a street **unique**



# Opportunity to Improve Delivery

## Existing City Engineer Authority:

- First enacted in 1944
- Allows for motor vehicle infrastructure:
  - **Mark and modify traffic lanes** for moving vehicles
  - **Designate and regulate parking** on streets
  - **Locating and establishing** vehicle traffic controls on streets
- But doesn't allow for:
  - **Modification** to improve **walking, biking** and **transit** infrastructure (per T2040)



# Opportunity to Improve Delivery

## Recommended **amendments to modernize** the Street and Traffic By-law

Update City Engineer's delegated authority to

- **Reallocate public right-of-way** for different modes and uses
- **Divert general motor vehicle traffic** from streets
- **Reroute transit** access onto different streets

Allows for more efficient delivery of improvements to achieve T2040 targets



# Complete Streets

## Recommendations:

- Council receive for information the Citywide Complete Streets policy framework
- Council approve amendments to the Street & Traffic Bylaw to facilitate street modifications to support Transportation 2040 safety and mode share targets, and delivery of more Complete Streets
- Council instruct the Director of Legal services to bring forward for enactment amendments to the Street and Traffic By-law



## Road network policies

- Optimize network operations to manage congestion impacts
- Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space
- Manage traffic to improve safety, business activity and neighbourhood livability



- Slower moving vehicles can be **helpful** to improve neighbourhood livability, business activity and reduces risk of traffic-related injuries or fatalities
- Congestion is **harmful** as it impacts travel times of transit and goods movement, and increases emissions
- Sustainable transportation is prioritized in Vancouver, however vehicle congestion that is not **managed** can negatively affect urban areas and the economy

## Goals

1. Improve monitoring of traffic conditions and trends
2. Improve road safety
3. Ensure a smart and efficient transportation system
4. Coordinate street use
5. Prioritize people & goods movement



## Consultation on Key Project parameters targeted for June

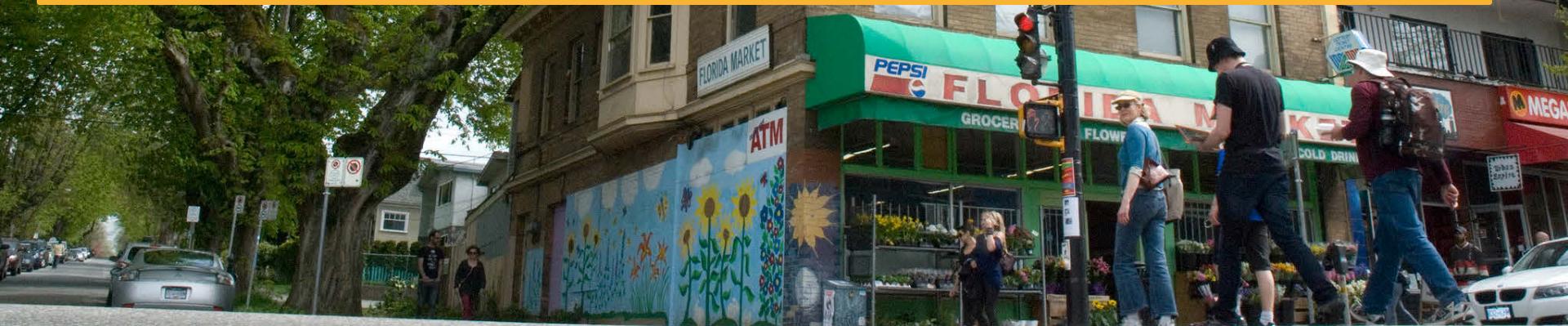
- Managing construction impacts
  - Traffic
  - Business Access
  - Walking/Biking
  - Transit
- Design considerations
  - Stations
  - Public Realm
  - Intermodal connections



- Business & Goods Movement Survey results are online
- Business engagement
  - Ongoing analysis: Parking, loading, volumes, transit data, etc.
  - June 2017: Loading and parking newsletter update
  - Fall 2017: Information session on loading and parking

## Summer 2017

- Pop-up events on the Drive regarding walking, public spaces, placemaking (with VIVA Vancouver)



## Union-Adanac Corridor

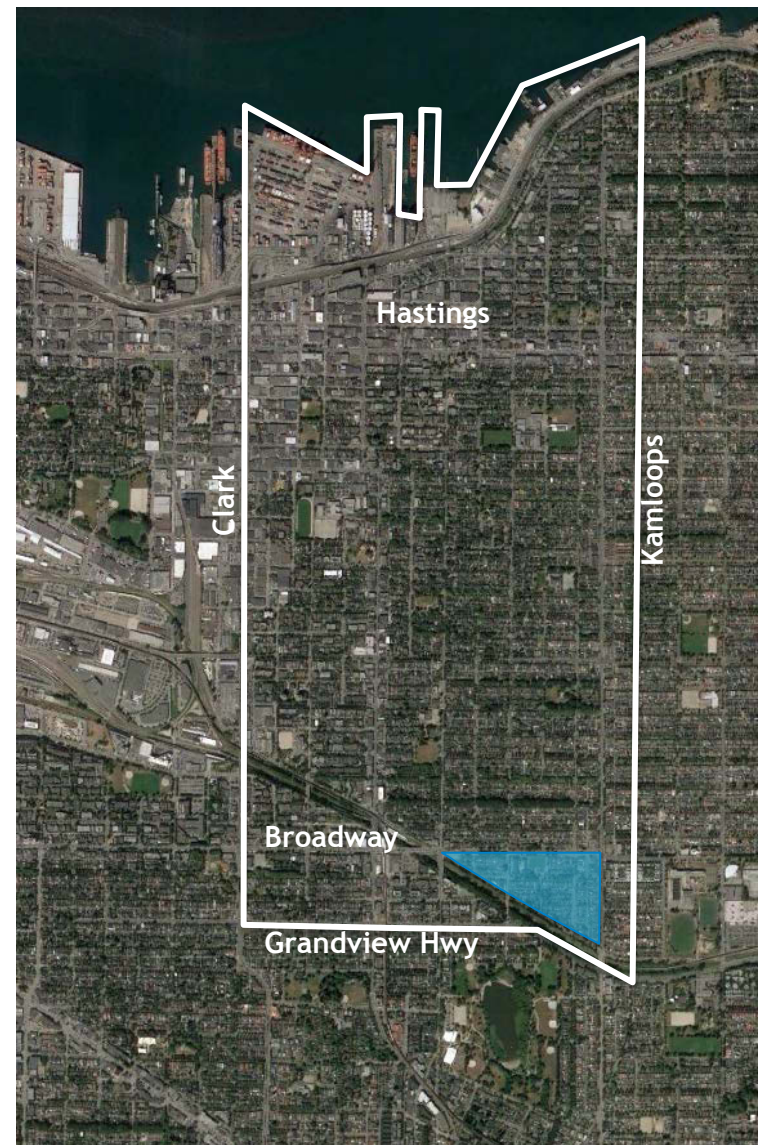
- Spot improvements proposed at Jan 2017 open houses
- Design adjustments made based on feedback e.g. reduced impacts to parking
- Updates to Victoria Drive & Nanaimo Street residents underway. Updates soon on [vancouver.ca/adanac](http://vancouver.ca/adanac)

## 10<sup>th</sup> Avenue Corridor: Commercial-Victoria

- Minor refinements based on Nov 2016 feedback
- Construction of interim improvements anticipated in late 2017 or 2018

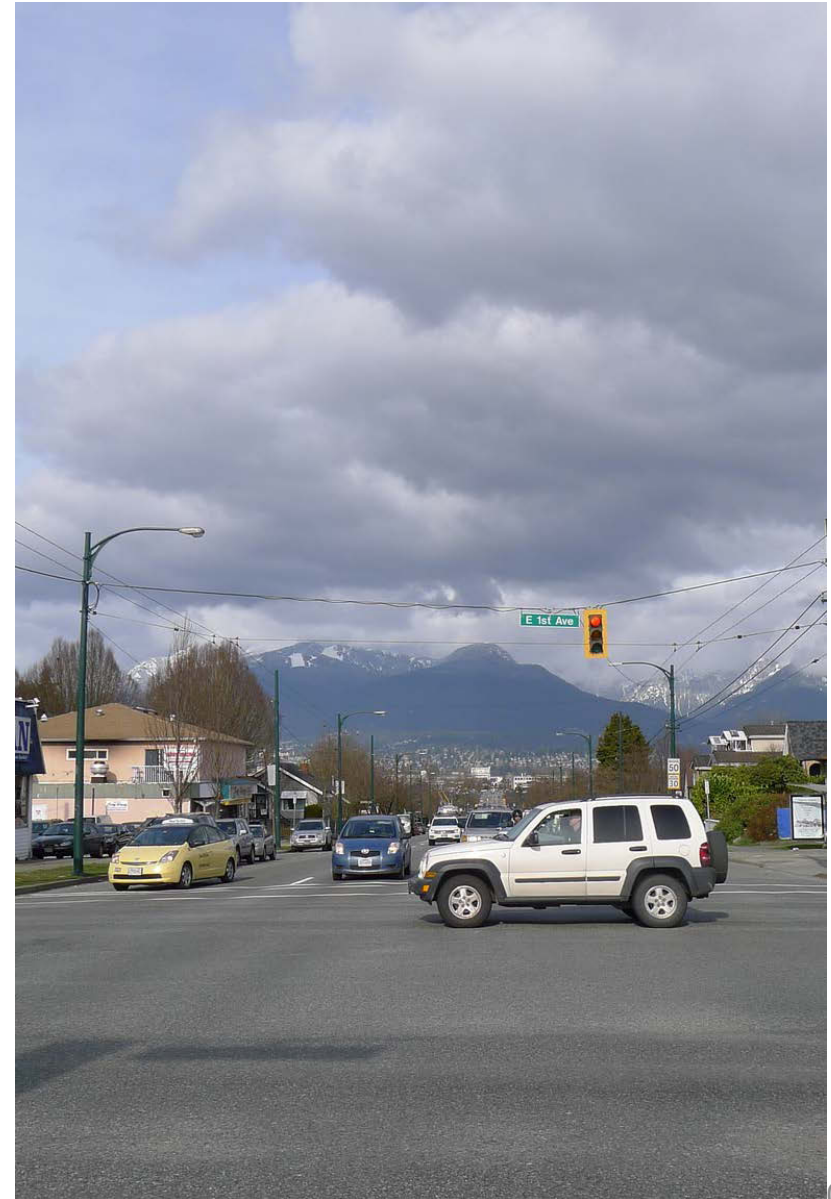


- “Listen and learn” session with residents - May 18<sup>th</sup>, Trout Lake Community Centre 6:30-8:30pm
- Discuss transportation related concerns and opportunities for improvement, in the context of proposed land use changes
- Study to assess existing vs. future traffic conditions (as per changing land use) and to identify range of potential solutions



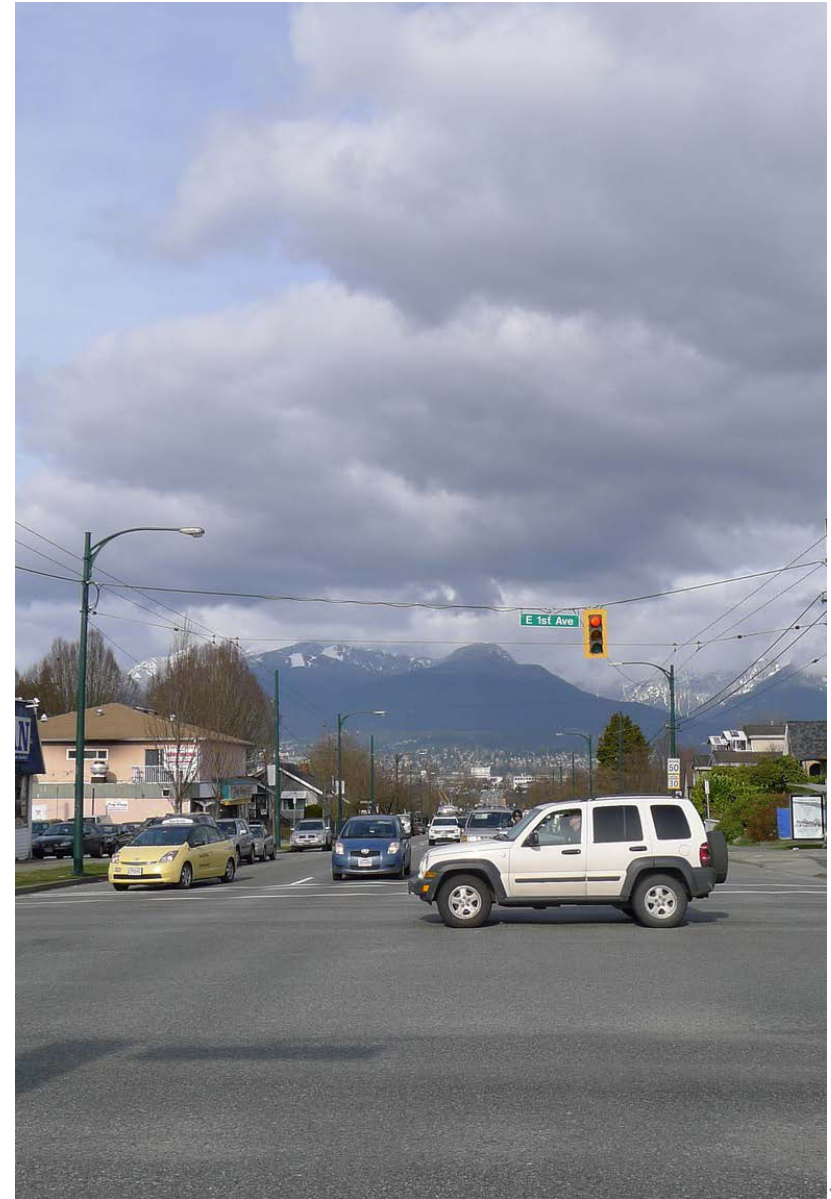
## Fortis BC Pipeline Replacement Project

- Replacing deteriorating 20” pipeline on 2<sup>nd</sup> Avenue with a 30” pipeline on 1<sup>st</sup> Avenue
- Improve safety and reliability of City’s gas supply
- East 1<sup>st</sup> avenue from Boundary to Woodland Drive, including segment on Graveley St.
- January - September 2018



## Traffic Management

- Boundary to Nanaimo St
  - Closure of eastbound lanes on E 1<sup>st</sup> Avenue,
  - One-lane two-way traffic within the westbound lanes
- Nanaimo to Clark
  - Full closure
  - 2 month window (July/August)
  - Trenchless crossings of Nanaimo and Commercial



# 10-Year Vision Update

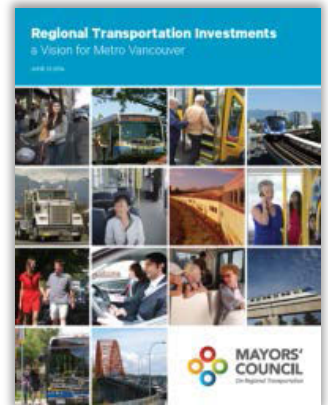
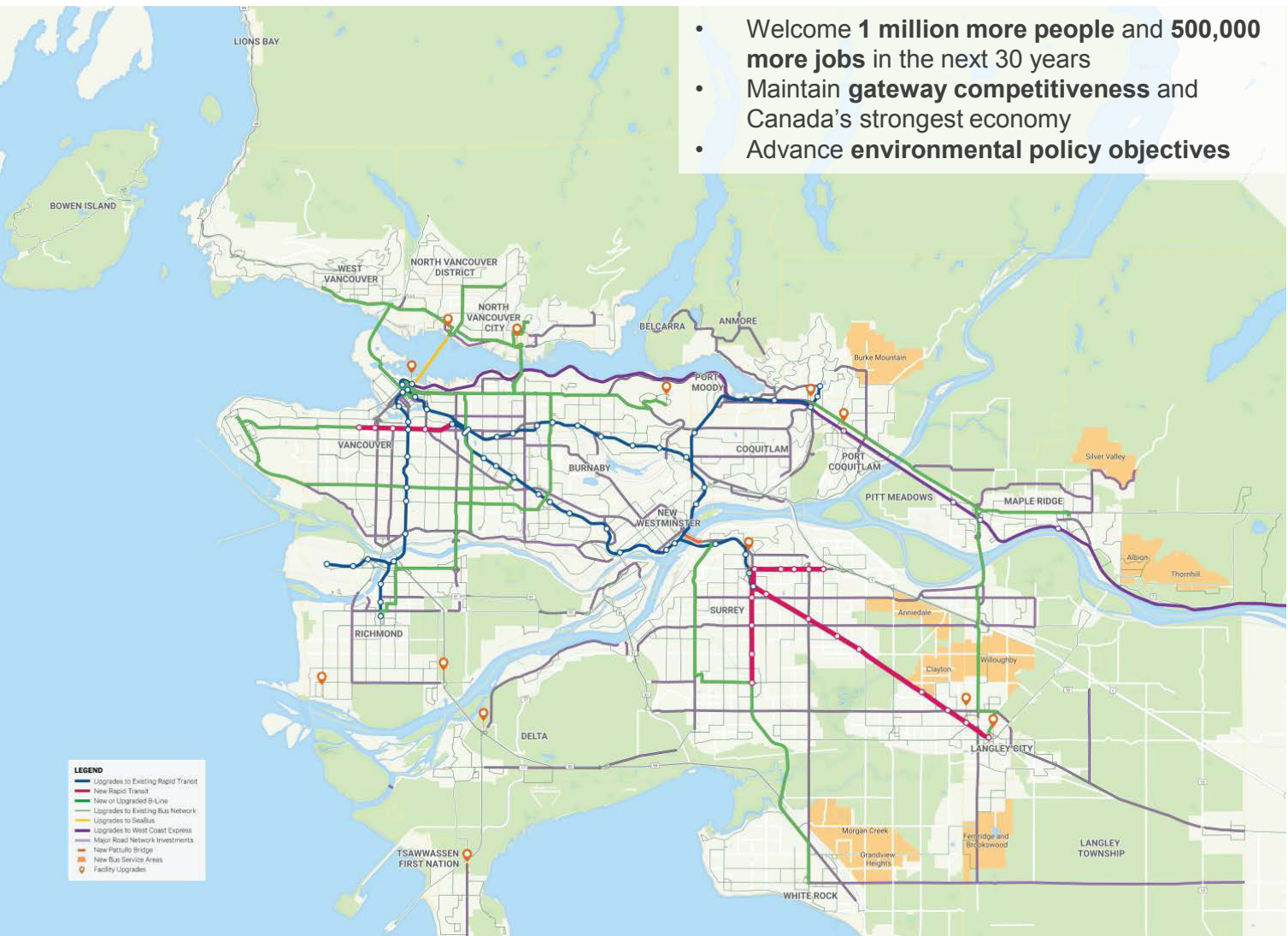
Grandview-Woodland Transportation Advisory Group

May 11, 2017

Andrew Tester, TransLink

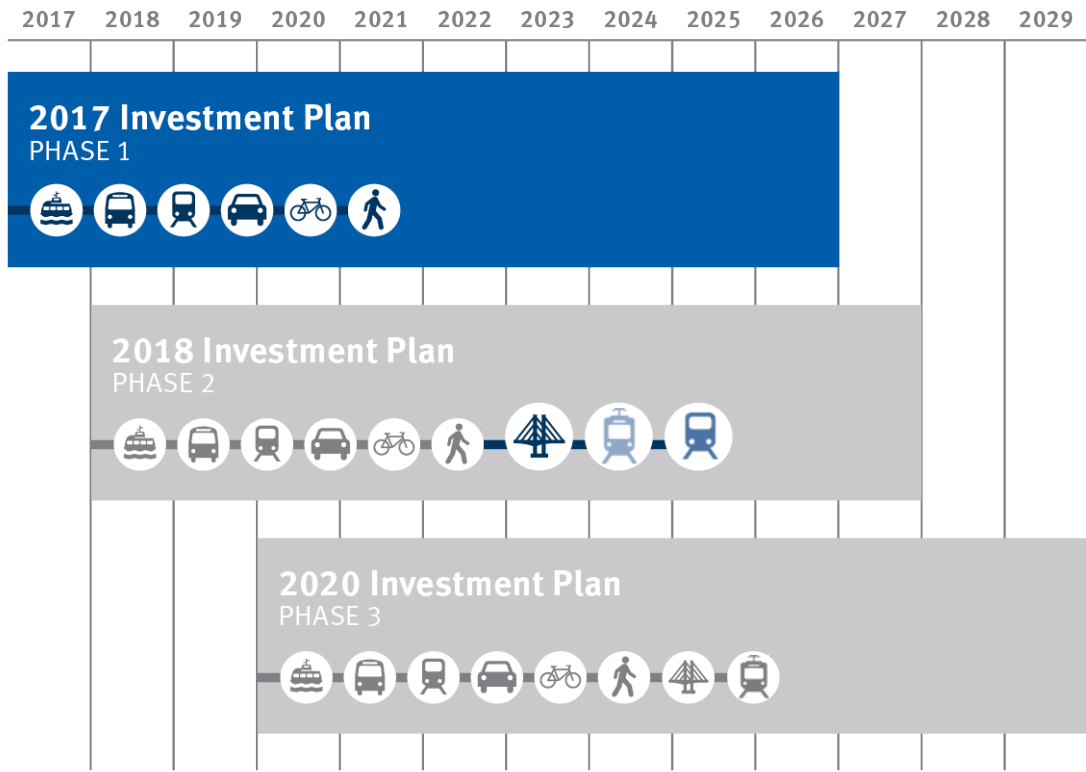
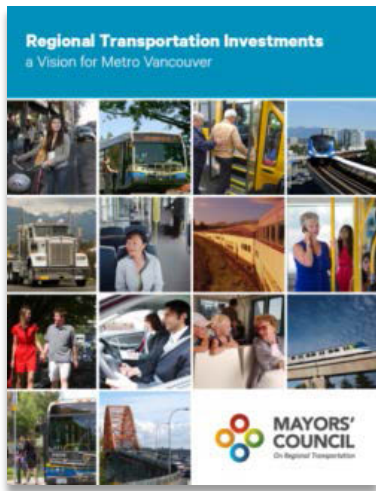
# The 10-year Vision is our Regional Blueprint for Multimodal Transportation Investments

- Welcome **1 million more people and 500,000 more jobs** in the next 30 years
- Maintain **gateway competitiveness** and Canada's strongest economy
- Advance **environmental policy objectives**



- **New buses** to expand bus service by 25%.
- **New SkyTrain cars.**
- **Station and bus exchange** upgrades.
- **New rapid transit** in Vancouver, Surrey & Langley.
- **New SeaBus**, with service every 10 mins.
- 80% more **NightBus**
- \$200M for walking & cycling, w/ **2,700km of new bike lanes**
- \$330M for **upgrades and seismic investments** of roads

# 2017 Investment Plan to be Phase One of Implementing the 10-Year Vision





# The Phase One Plan will improve transportation across the region



Service design, including routing, for new transit services, will be confirmed through collaboration with municipalities and project-level public consultation.

### Transit Service Improvements

**Skytrain**

- Canada Line** High frequency rail service. Early morning to late evening.
- Expo Line**
- Millennium Line**
- Evergreen Extension**

**Buses**

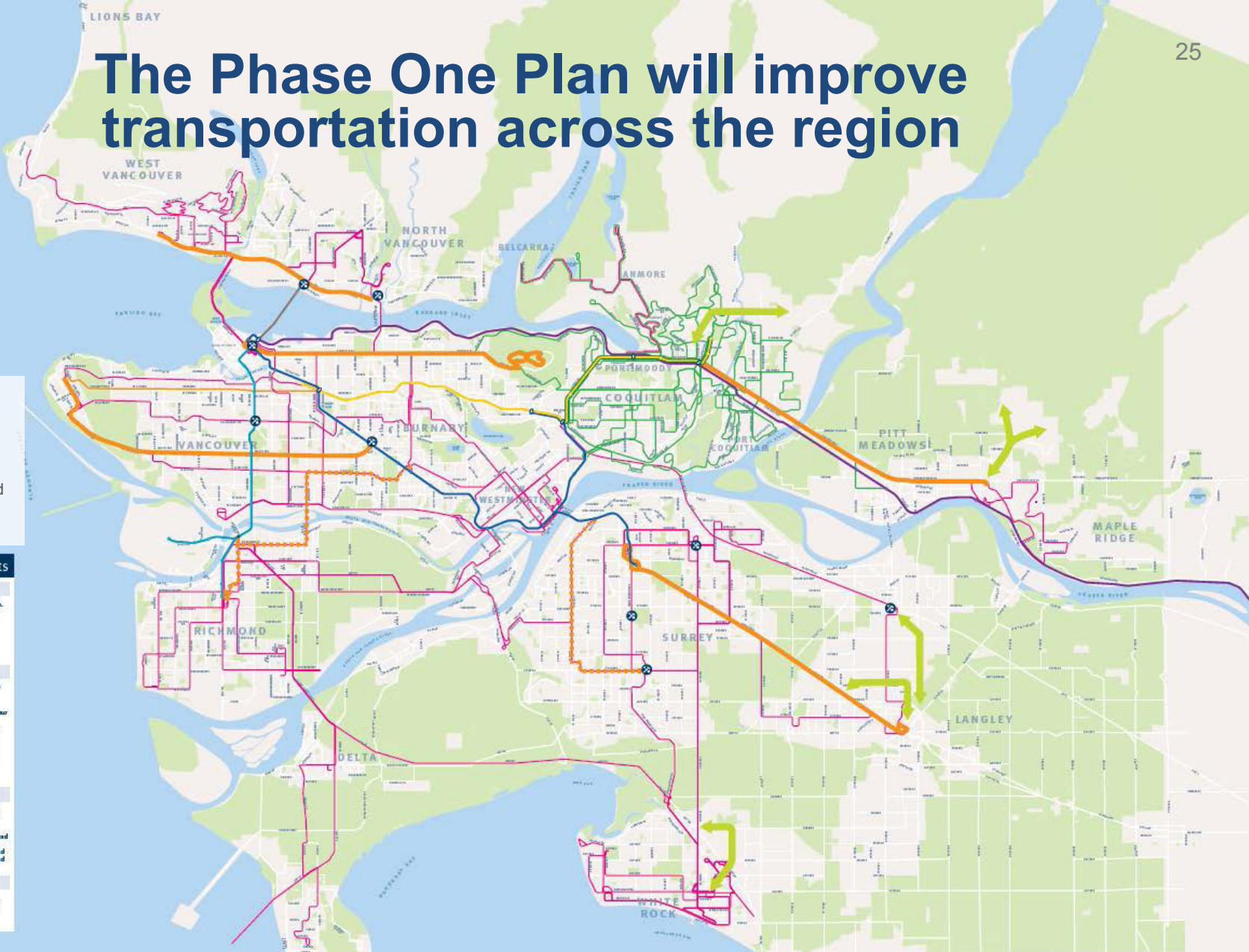
- B-Line** Frequent bus service, with limited stops.
- All Bus Routes** Regular Bus Service. Service at least once an hour during the day time for longer, all week, all year.
- B-Line Study**
- Evergreen Integration Improvements**
- New Bus Service Areas**

**Other Transit Services**

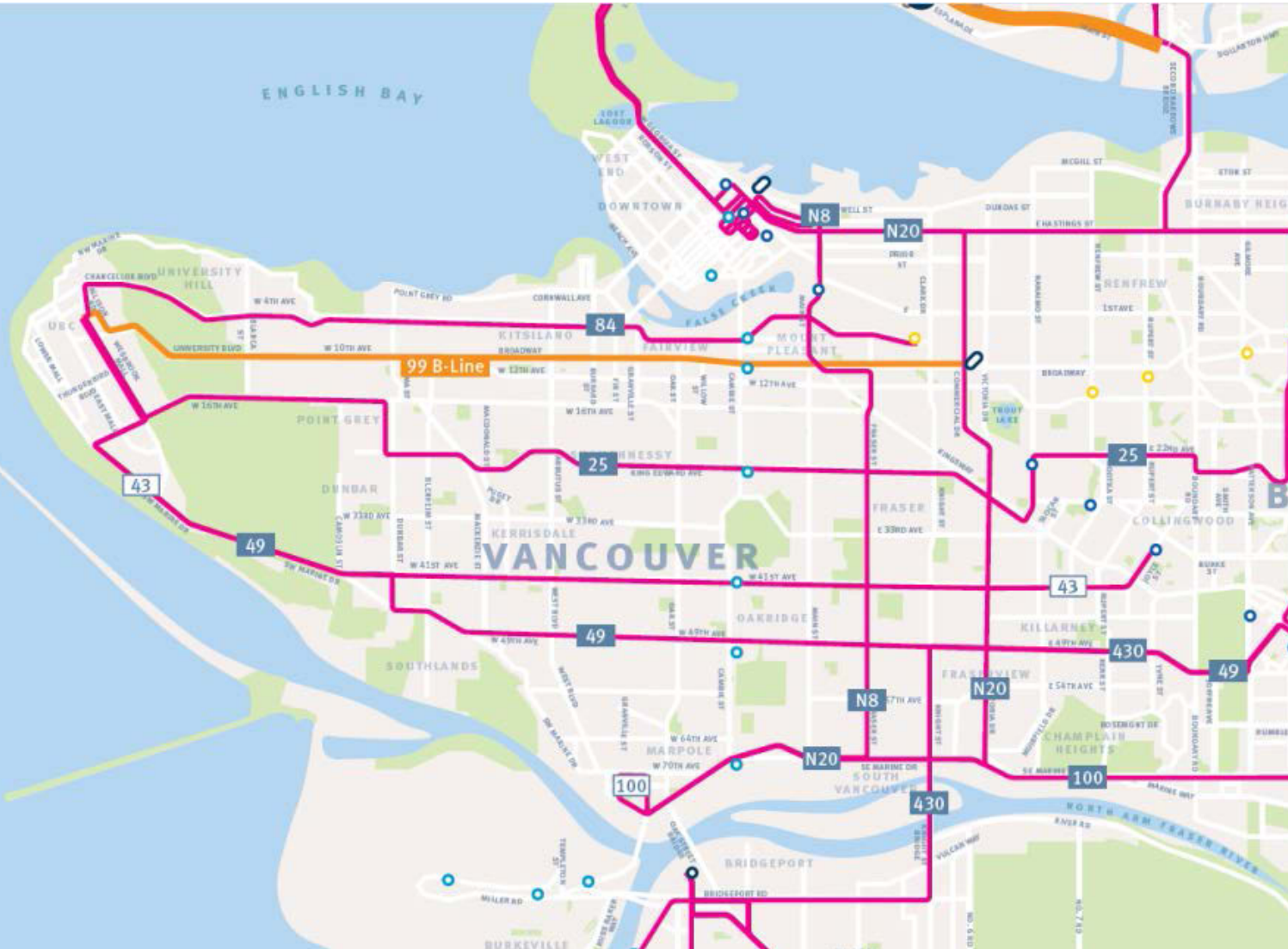
- SeaBus** Frequent passenger ferry service. Early morning to late evening.
- West Coast Express** Weekly commuter-train and bus service running westbound in mornings and eastbound in afternoon and evening.

**Infrastructure Improvements**

- Station Upgrade** Upgrades to improve customer experience and accessibility.



# Bus Service Improvements



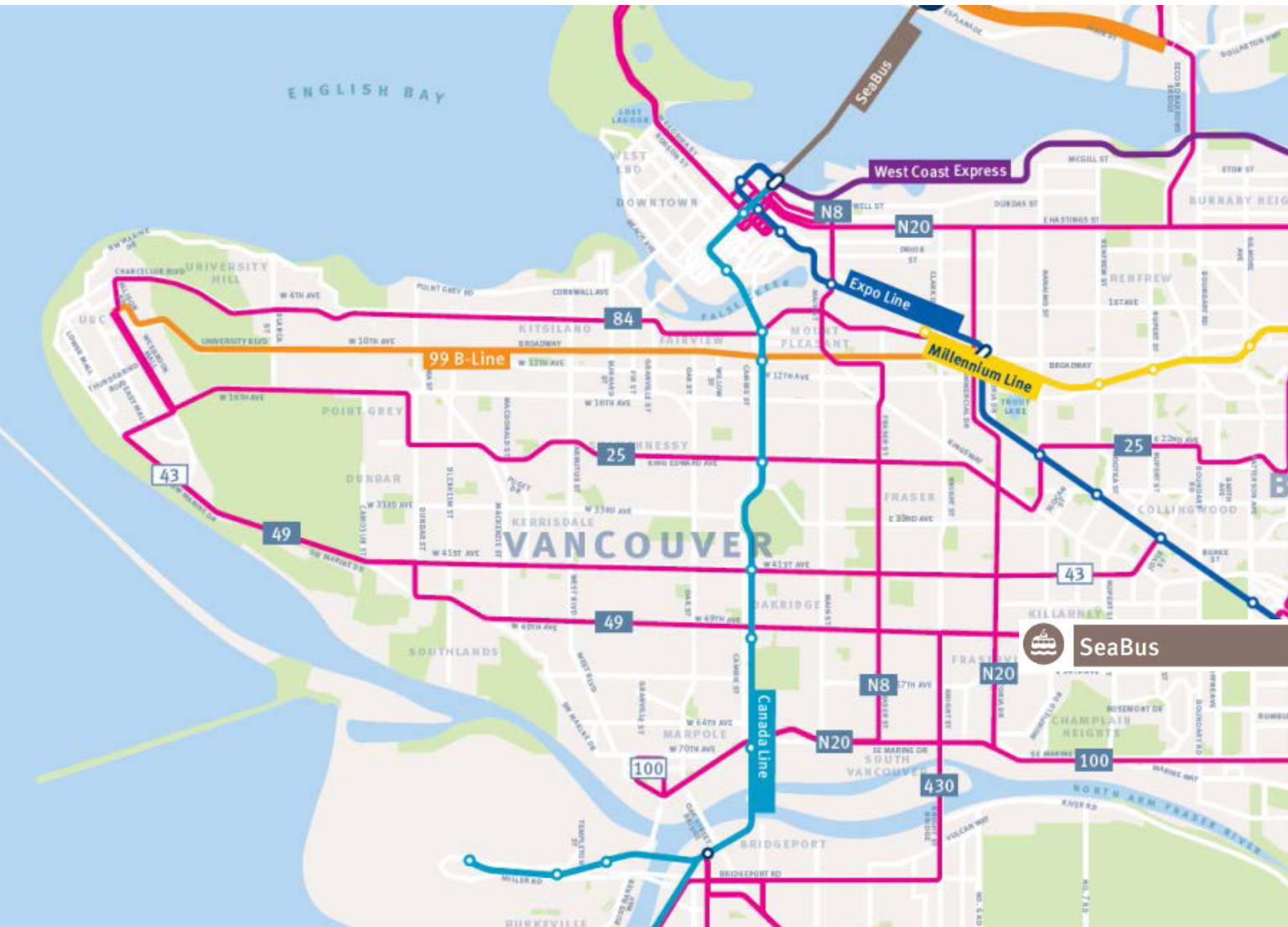
- Bus Service**
- 25
  - 43
  - 49
  - 84
  - 100
  - 430
  - N8
  - N20
  - 99 B-Line

**HandyDART**

- 15% increase across the region



## Other Transit Improvements



### Expo Line

### Millennium Line

- 28 new rail cars

### Canada Line

- 22 new rail cars
- Station upgrades

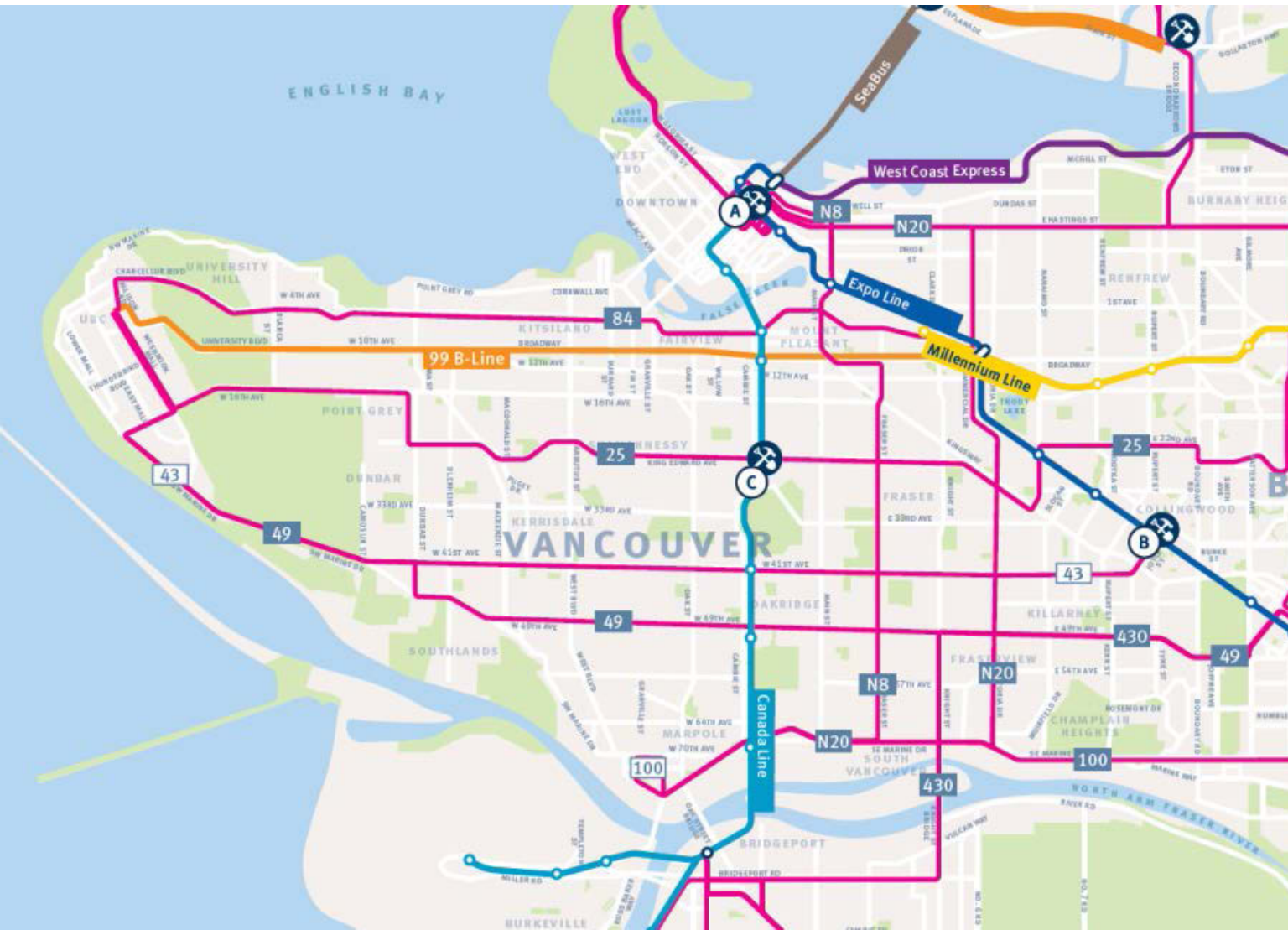
### SeaBus

- Increase frequency to **15 minute service** all day, 7 days a week.
- **New SeaBus**, with frequency increased to every **10 minutes during the AM and PM peak**.

### West Coast Express

- 5 new cars

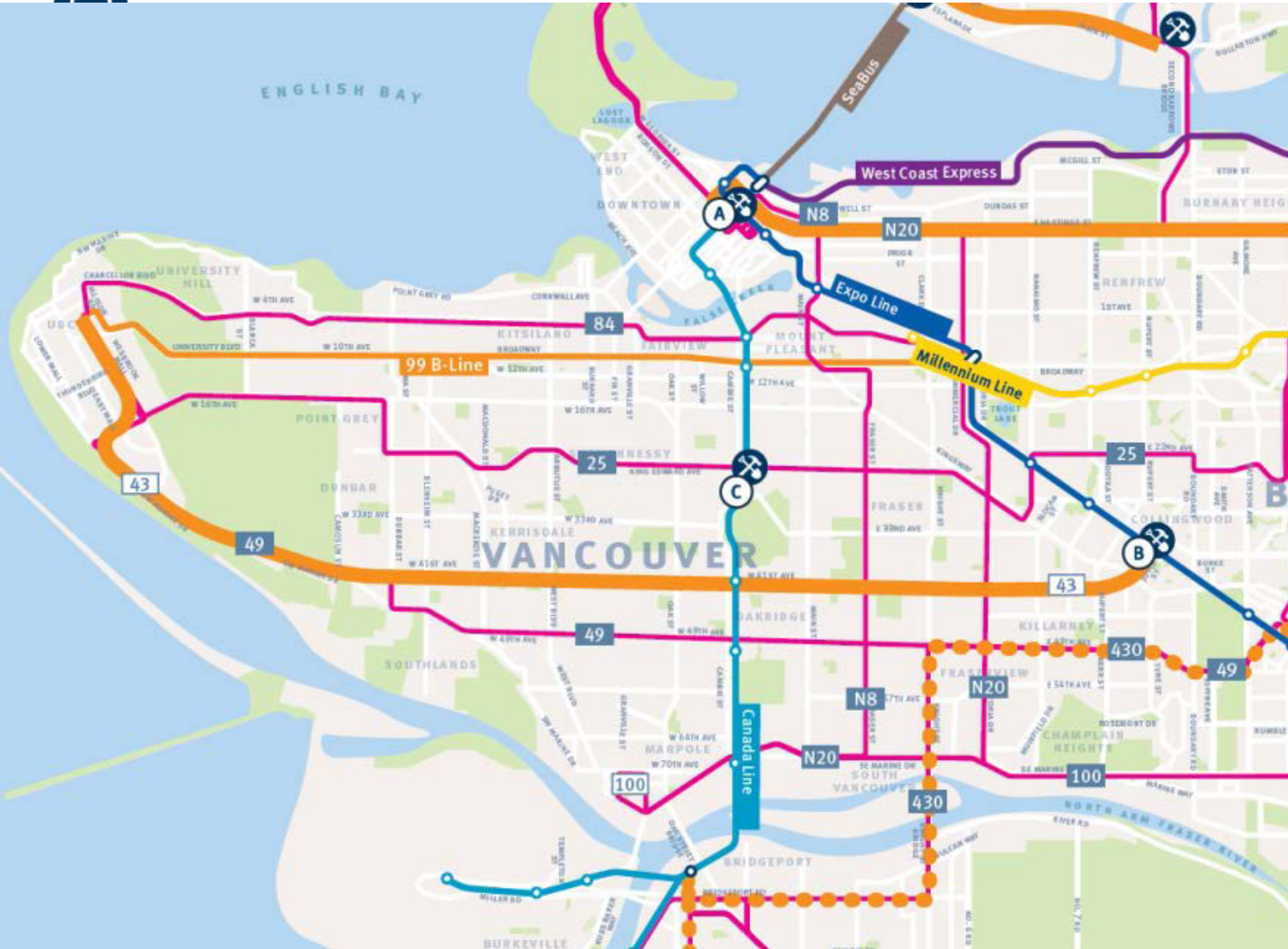
# Infrastructure Improvements



- Infrastructure Improvements**
- A. Burrard Station
  - B. Joyce-Collingwood Station (Phase 2)
  - C. King Edward Station



# B-Line or Better


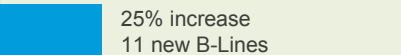
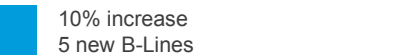




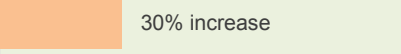
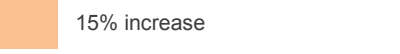






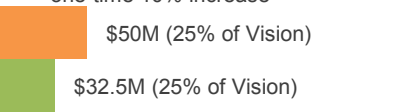
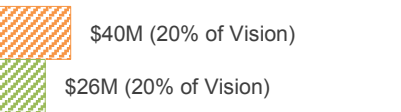


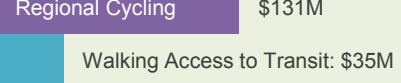
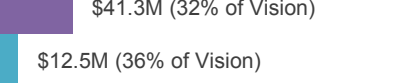
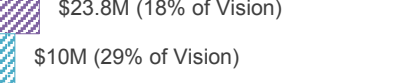
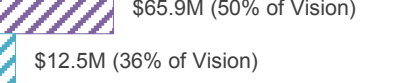



**B-Line or Better –**

- 41st Avenue
- Hastings St

**B-Line Study –  
Metrotown /  
Richmond-  
Brighouse**

# Completing the 10-Year Vision for Metro Vancouver Transit & Transportation 30

		Entire 10-Year Vision	Phase One Approved / Underway	Phase Two Working Assumptions	Phase Three Remaining Investments
Bus Service		 25% increase 11 new B-Lines	 10% increase 5 new B-Lines	 6% increase 2 new B-Lines	 9% increase 4 new B-Lines
SeaBus Service		<ul style="list-style-type: none"> <li>• 1 new SeaBus</li> <li>• 10 min peak frequency; all-day FTN service (every 15 mins or better)</li> </ul>	<ul style="list-style-type: none"> <li>• 1 new SeaBus</li> <li>• 10 min peak frequency; all-day FTN service (every 15 mins or better)</li> </ul>		
HandyDART Service		 30% increase	 15% increase	 7% increase	 8% increase
SkyTrain & West Coast Express (WCE)		<ul style="list-style-type: none"> <li>• 114 Expo/Millennium Lines cars</li> <li>• 22 Canada Line cars</li> <li>• 10 WCE cars + locomotive</li> </ul>	<ul style="list-style-type: none"> <li>• 28 Expo/Millennium Lines cars</li> <li>• 22 Canada Line cars</li> <li>• 5 WCE cars + 1 new locomotive</li> <li>• Upgrades to Expo/Millennium &amp; Canada Line stations</li> </ul>	<ul style="list-style-type: none"> <li>• 86 Expo/Millennium Line cars (including Broadway Extension)</li> <li>• Upgrades to Expo/Millennium &amp; Canada Line stations</li> </ul>	<ul style="list-style-type: none"> <li>• 5 WCE cars</li> <li>• Upgrades to Expo/Millennium &amp; Canada Line stations</li> </ul>
Major Projects		<ul style="list-style-type: none"> <li>• Millennium Line Broadway Extension</li> <li>• Surrey-Langley Rapid Transit</li> <li>• Pattullo Bridge Replacement</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-construction on Broadway Extension</li> <li>• Pre-construction on Surrey-Newton-Guildford LRT</li> <li>• Design for Pattullo Bridge Replacement</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of Broadway Extension</li> <li>• Construction of Surrey-Newton-Guildford LRT</li> <li>• Construction of Pattullo Bridge Replacement</li> <li>• Pre-construction on Surrey-Langley LRT</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of Surrey-Langley LRT</li> </ul>
Major Roads Network (MRN)		<ul style="list-style-type: none"> <li>• MRN expansion: 1% annual increase + one-time 10% increase</li> </ul> 	<ul style="list-style-type: none"> <li>• MRN expansion: 1% annual increase + one-time 10% increase</li> </ul> 		
Walking & Cycling					
Transit Exchanges		13 new or expanded transit exchanges	3 updated transit exchanges, in addition to 2 exchanges as part of Surrey pre-construction work	2 upgraded transit exchanges	6 upgraded transit exchanges

Phase One investments dependent on enabling legislation for new regional development fee

Working assumptions as of Feb 2017

Subject to refinement after Phase Two development

# False Creek Flats + E-W Arterial



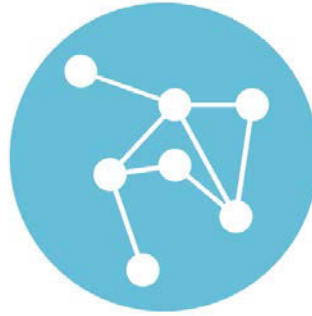
**The plan** seeks to unlock the economic potential of the area by creating a more productive, sustainable and integrated False Creek Flats.



**SPACES**



**PLACES**



**CONNECTIONS**



**ENVIRONMENT**

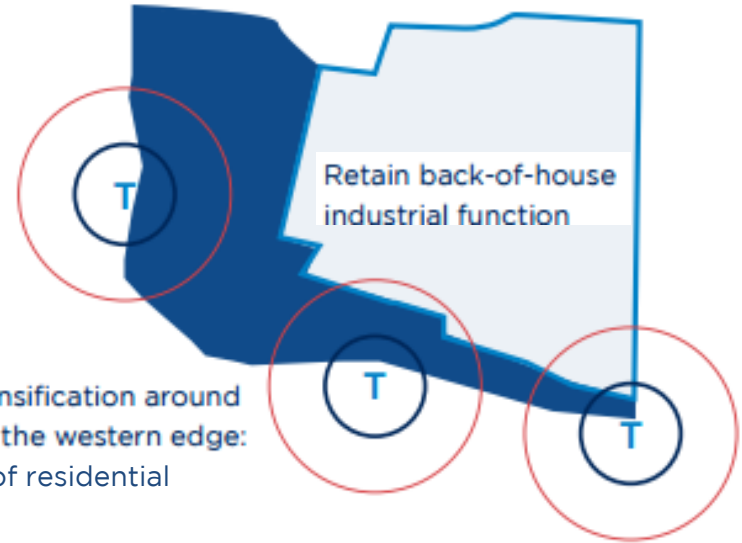


**PROGRAMS**



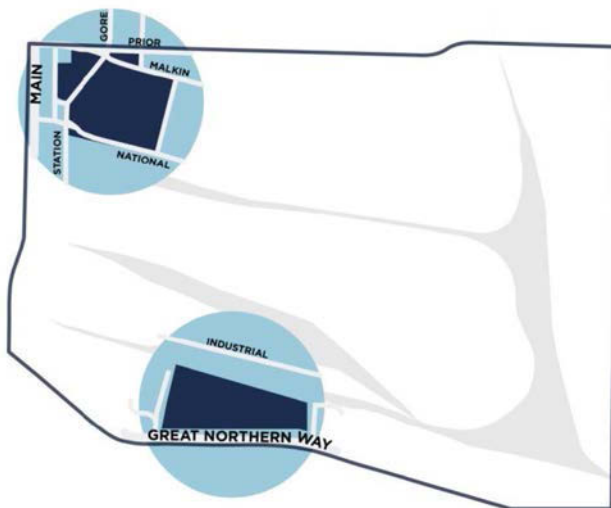
# False Creek Flats - Area Plan

From 8 000 to more than 30 000  
total jobs

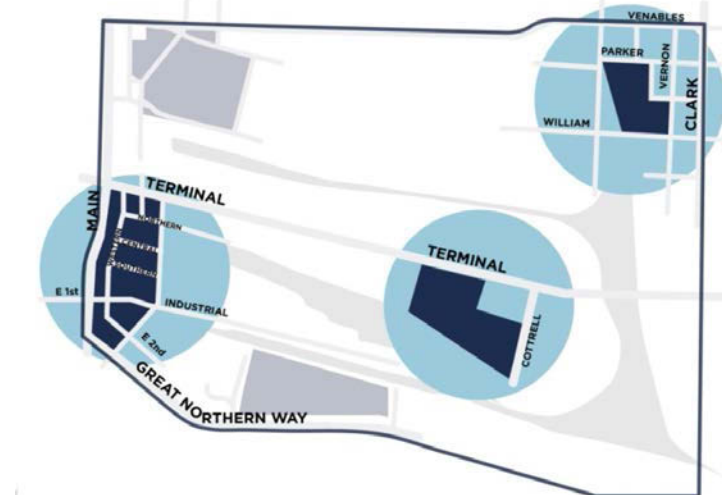


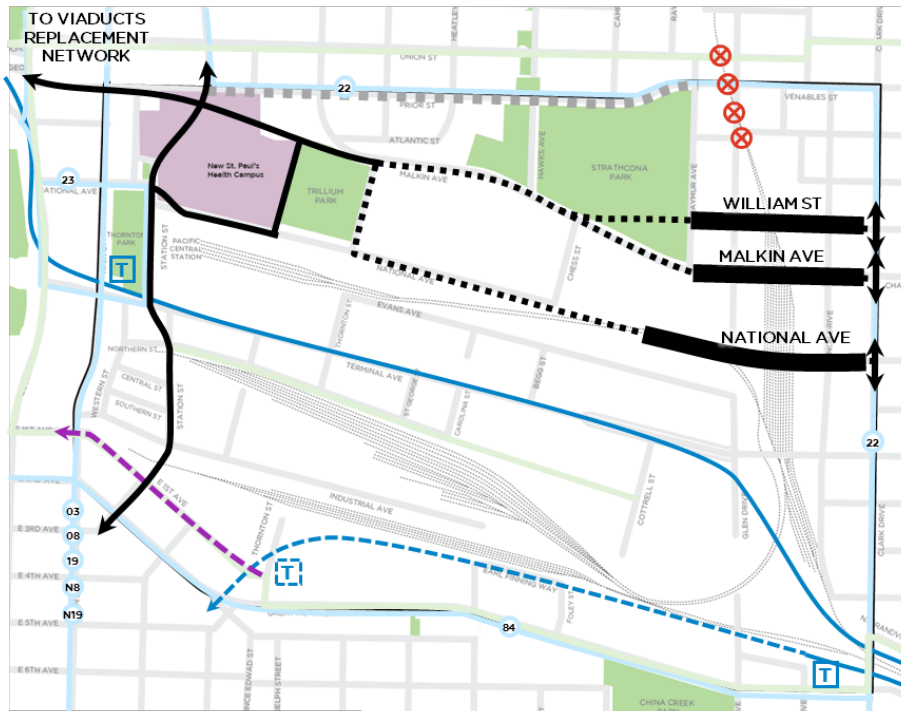
Employment intensification around transit and along the western edge: and pockets of residential

## Institutional Anchors



## Amenity Hubs





## Big Moves

- Gore/Station Street
- Prior/Venables Replacement Arterial
- Millennium Line Broadway Extension

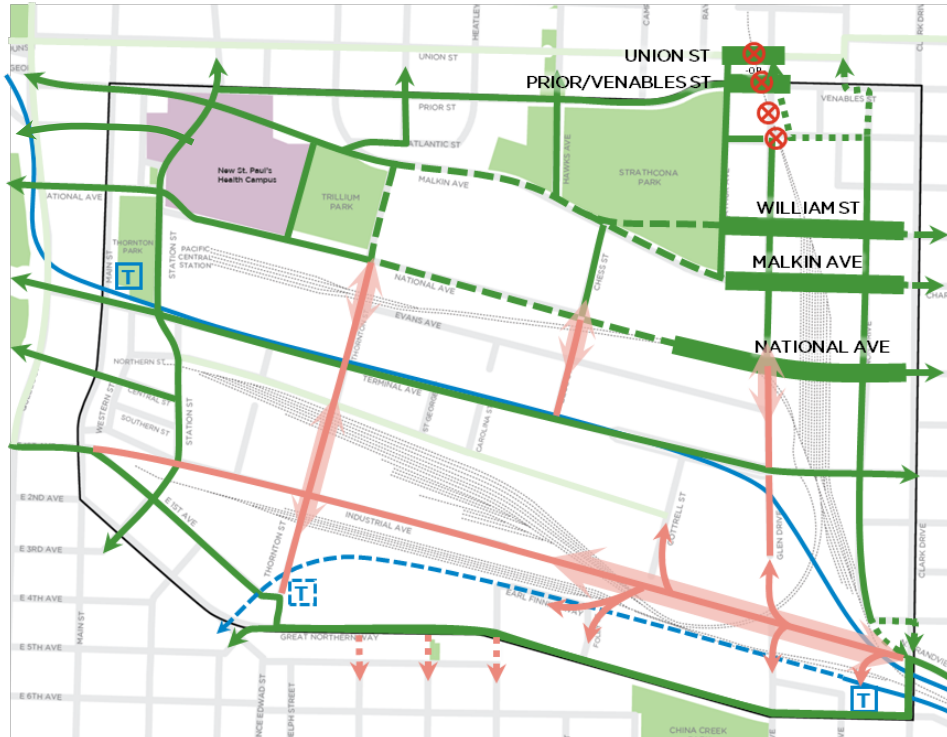
### Existing Network

- Existing street network
- Existing cycling route
- Existing bus routes
- Existing SkyTrain Line
- Ⓜ Existing SkyTrain Station

### Potential Opportunities

- New complete street (all modes, all ages and abilities)
- East-west arterial overpass option \*
- ⊗ Street closure at rail tracks
- Downgraded arterial to local street
- Millennium Line Broadway Extension
- Ⓜ New SkyTrain Station
- Long-term streetcar route

\*Only one option will be constructed



## Big Moves

- Expanding the network
- Adanac Bikeway grade-separation
- Connections across rail

### Existing Network

- Existing street network
- Existing cycling route
- Ⓜ Existing bus routes
- Existing SkyTrain Line
- Ⓜ Existing SkyTrain Station

### Potential Opportunities

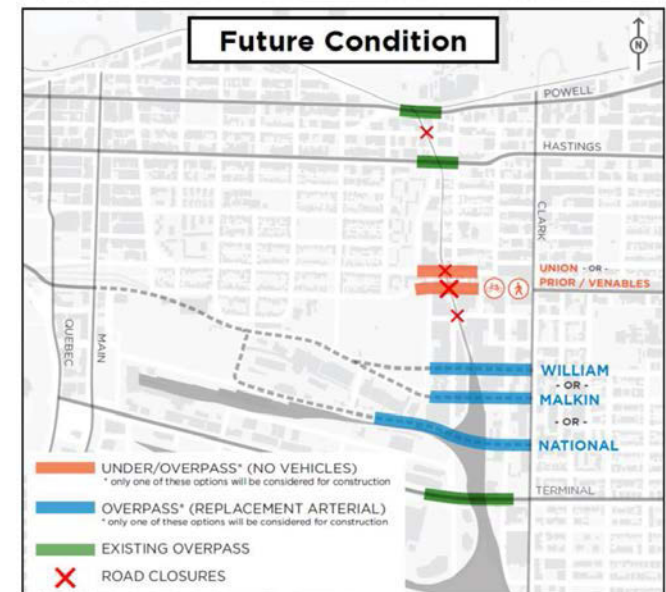
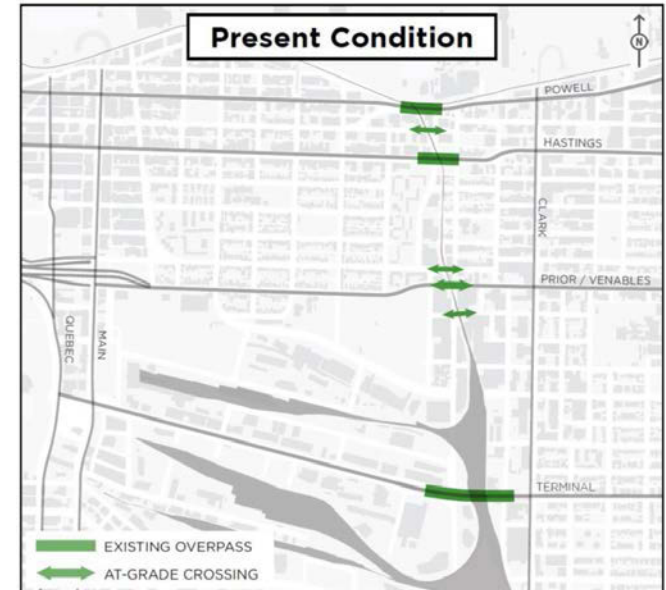
- New/improved walking/cycling route
- ⋯ New/improved walking/cycling route option\*
- New walking/cycling overpass or underpass option\*
- ⋯ Millennium Line Broadway Extension
- Ⓜ New SkyTrain Station
- ⊗ Street closure at rail tracks
- Long-term walking/cycling route
- ⋯ Long-term walking/cycling route option\*
- ↔ Long-term connection over rail

\*Only one option will be constructed

- Grade-separating the Burrard-Inlet Rail Line
  - Prior/Venables replacement arterial
  - Adanac Bikeway
  - Local street closures



Since 1919 Rail has defined the presence of industry in the False Creek Flats

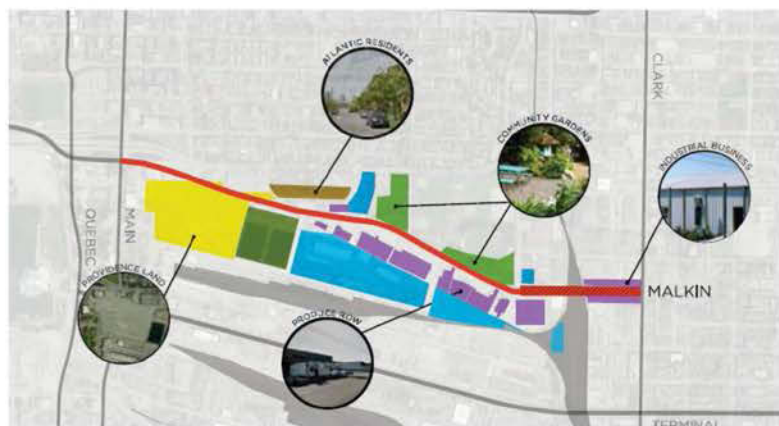




- October 2015 – Council directed staff to identify a new alignment to replace Prior/Venables Street
- March 2016 – Staff presented two leading alternatives: Malkin Avenue and National Avenue

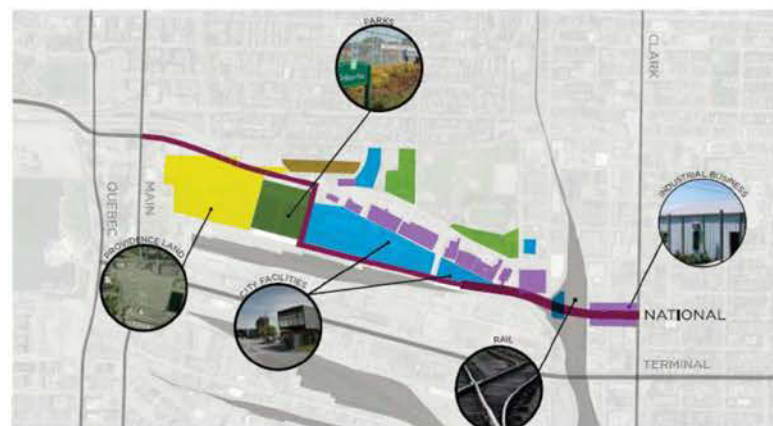
## Malkin Avenue Option

- Significant impacts to Cottonwood Gardens
- Significant impacts to Produce Row businesses
- Requires significant investment for impact mitigation



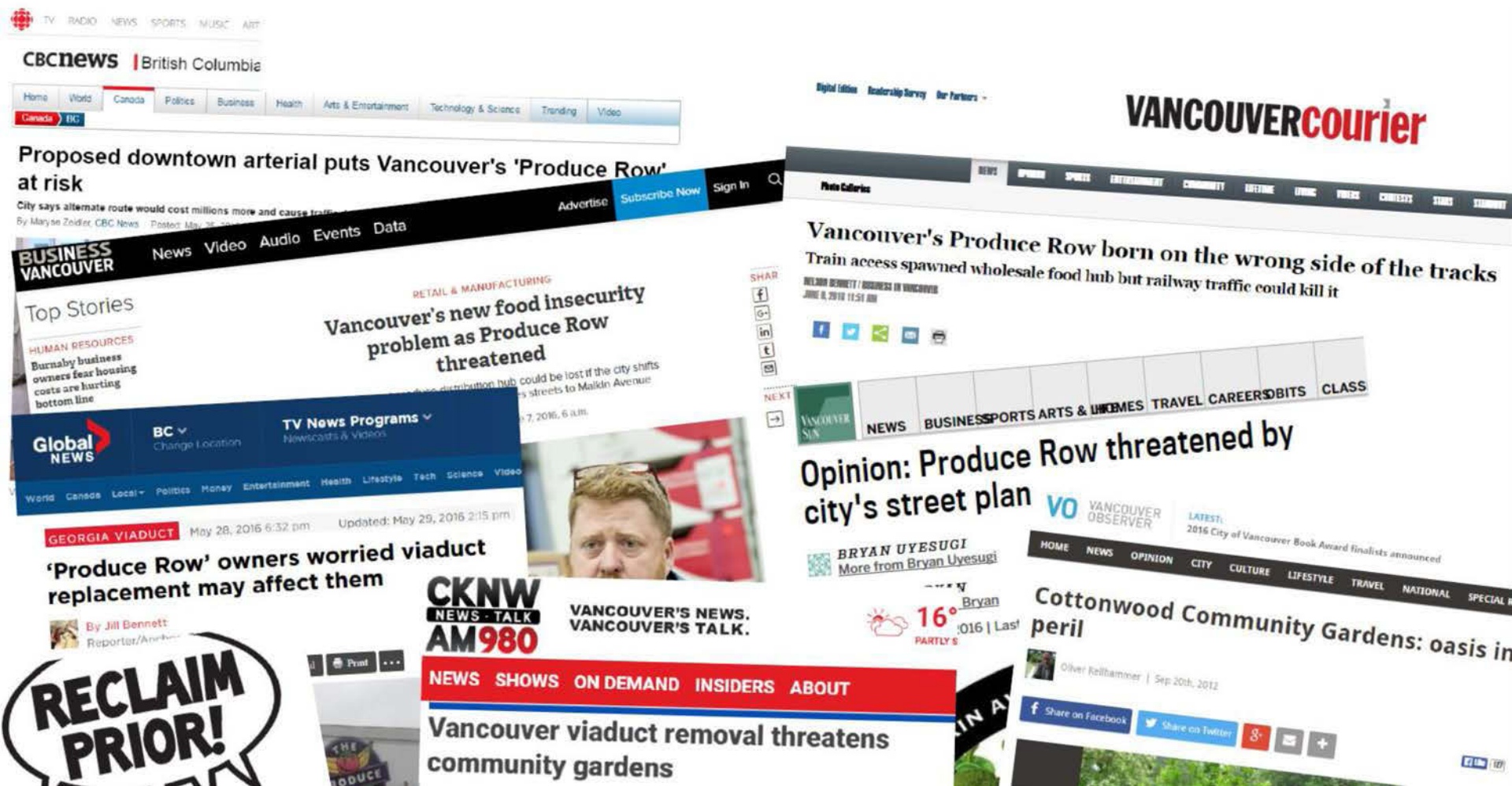
## National Avenue Option

- Approx. \$100 M more than Malkin
- Poor transportation performance (goods movement and transit)



# What We Heard

- Following stakeholder workshops, open houses, and an online survey, public feedback was split among the options.
- Numerous stakeholders asked the City to reconsider the William Street option.



# Exploring William Street as a potential option

- Further study & engagement to select 1 of 3 alignment options:
  - William Street
  - Malkin Avenue
  - National Avenue



- Engineering developing concepts for William St
- Park Board assessing impacts and mitigation for Strathcona Park
- Two rounds of open houses led by Park Board (TBC - June & Sept)
- Report to Park Board & City Council in late 2017

**Break (15 mins)**





# Moving Towards Zero Safety Action Plan

Liliana Quintero, P. Eng  
Traffic and Data Management

# Vancouver Safety Progress

- Transportation 2040: Zero Traffic Related Fatality goal
- Pedestrian Safety Study and Action Plan
- Cycling Safety Study and Action plan
- Creation of Traffic Safety Advisory group



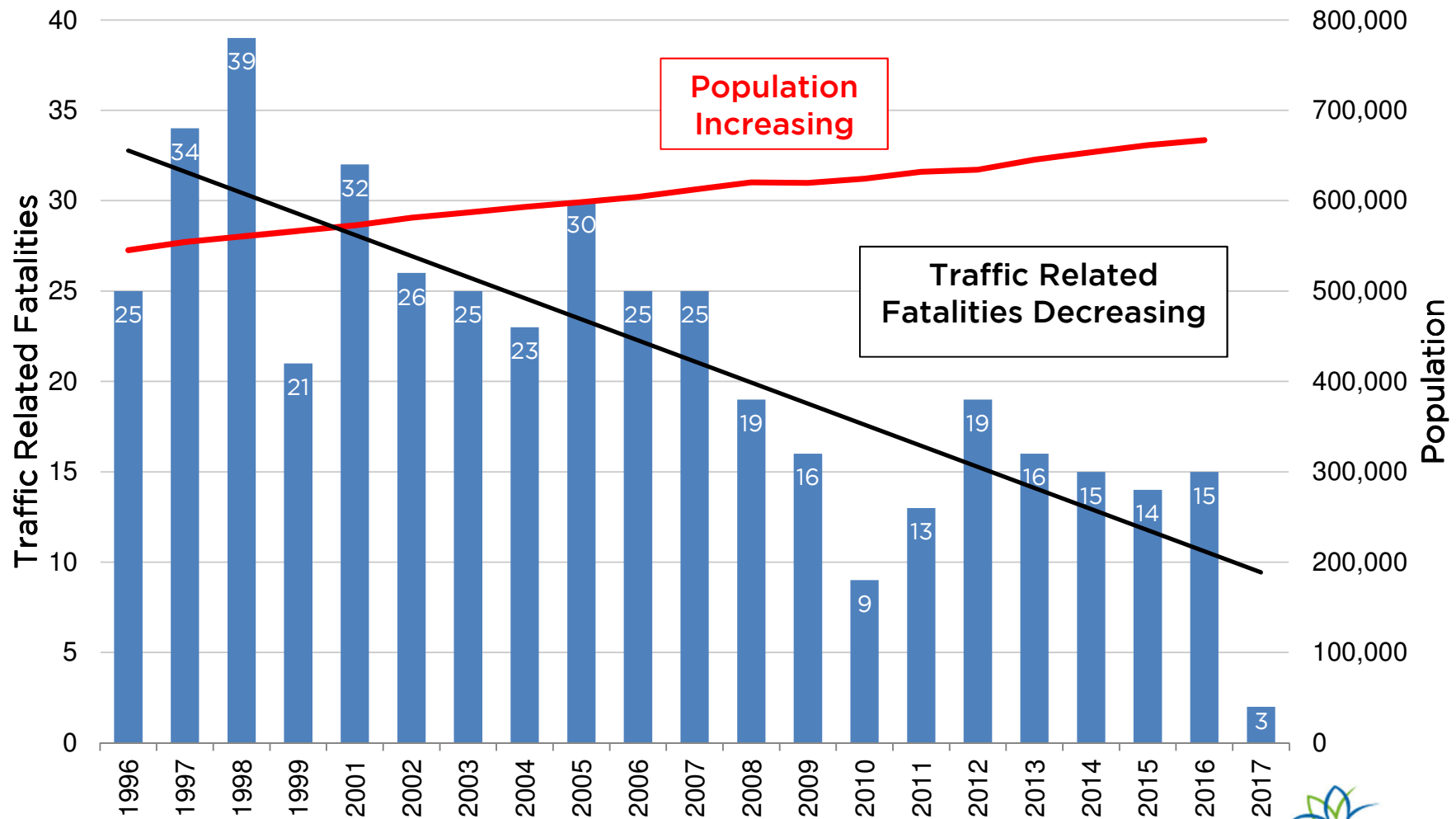
# Moving Towards Zero: Action Plan

1. Enhanced Data
2. Evaluate and Prioritize Locations
3. Engineering Action Plan
4. Education & Public Outreach
5. Enforcement
6. Next Steps

# 1. Enhanced Data: Current Data Sources

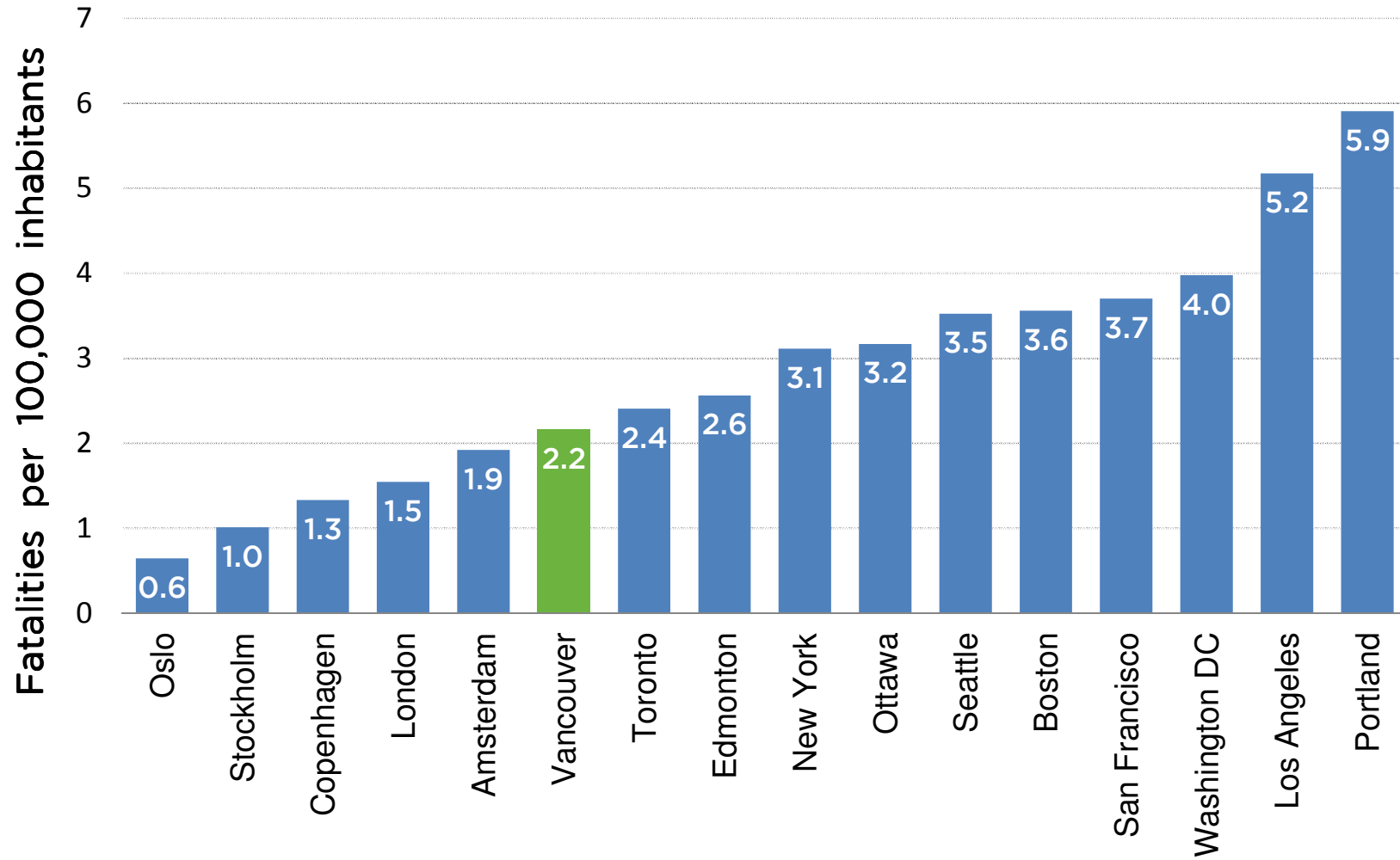
- Transportation Related Fatalities – VPD
  - Summary reports as they occur
  - Annual review
- Collisions involving – ICBC
  - Summary reports each year
  - Annual review
  - Serious injury data – included since 2014
- Health Injury Data - **NEW**
  - Hospital data - Vancouver Coastal Health
  - Ambulance data – BC Ambulance

# 1. Enhanced Data: Transportation-Related Fatalities

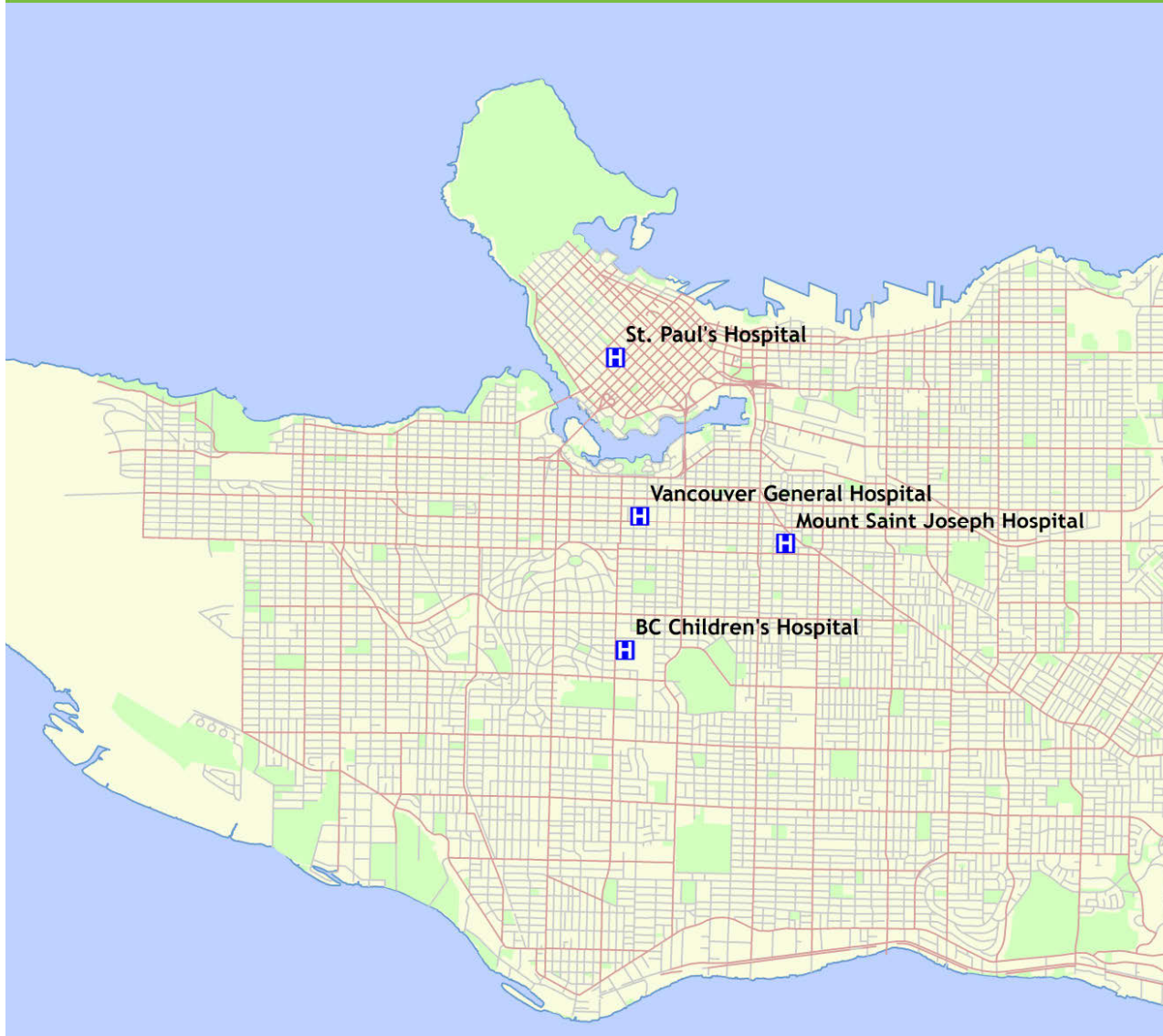


Source: VPD Traffic Fatality Data (1996-2017)

# Vancouver Compared to Other Cities



# 1. Enhanced Data: Hospital Injury Data Summary

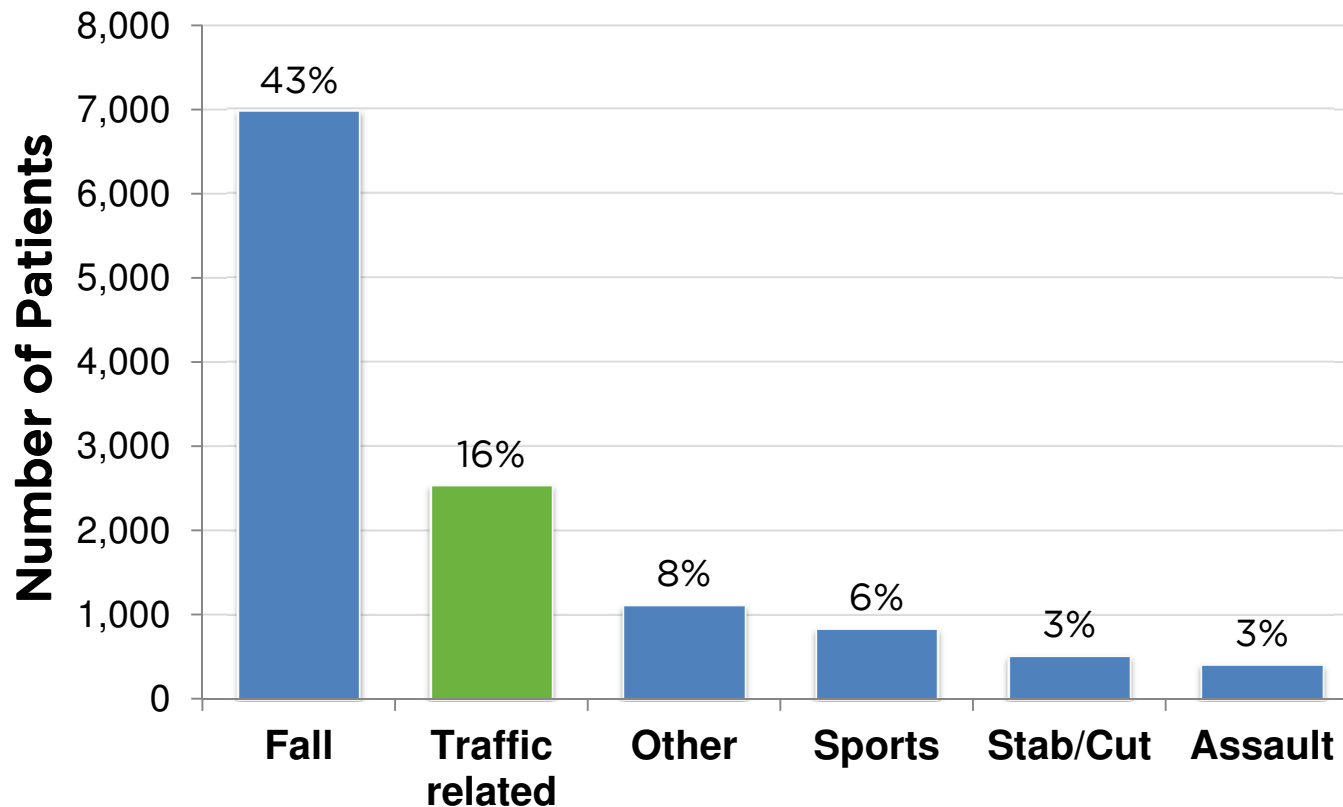


## OBJECTIVES:

- Quantify serious injuries
- Understand injury demographics
- Insight on non-motor vehicle collisions

# 1. Enhanced Data: Hospital Injury Data Summary

## Serious Injuries by Type



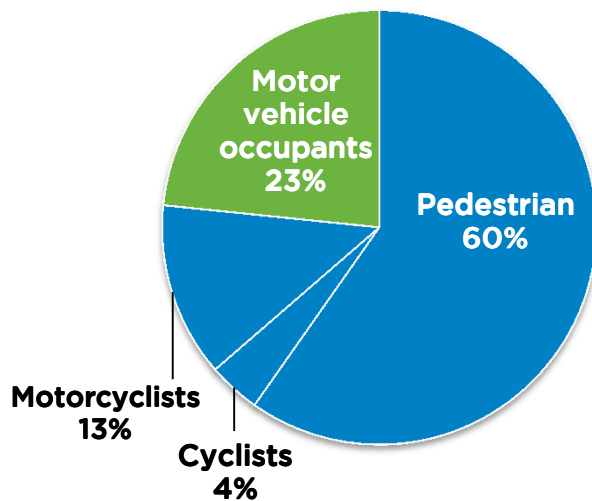
**Traffic-related injuries are the 2<sup>nd</sup> highest cause of serious injuries arriving at VGH**

Source: VGH Injury Data (2011- 2016)



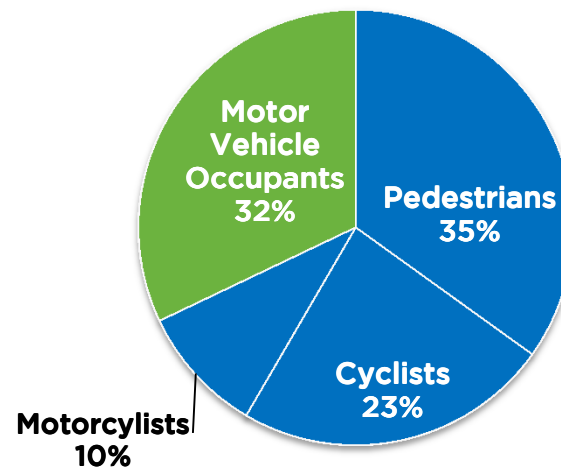
# 1. Enhanced Data: Hospital Injury Data Summary

## Fatalities



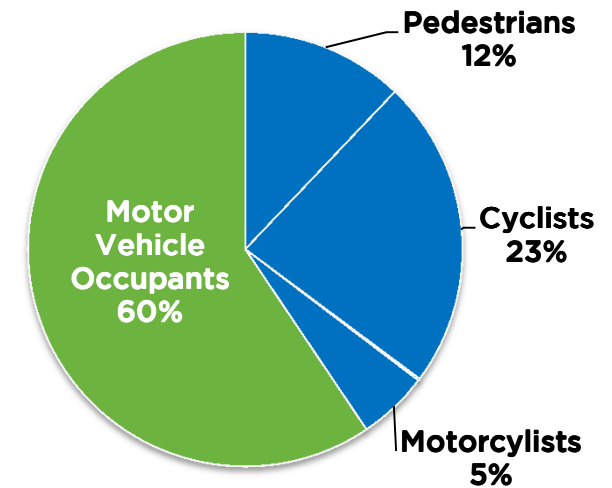
**~15 fatalities  
per year**

## Serious Injuries



**~300  
serious injuries  
per year**

## Minor Injuries



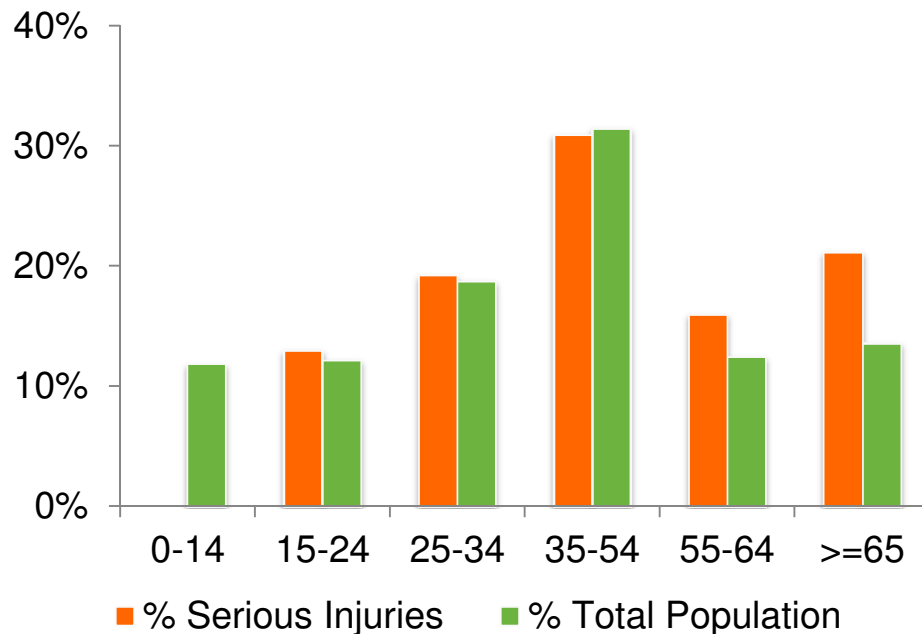
**~2,000  
minor injuries  
per year**

Source:  
VPD Traffic Fatality Data (2011-16)  
VGH Hospital Injury Data (2011-16)

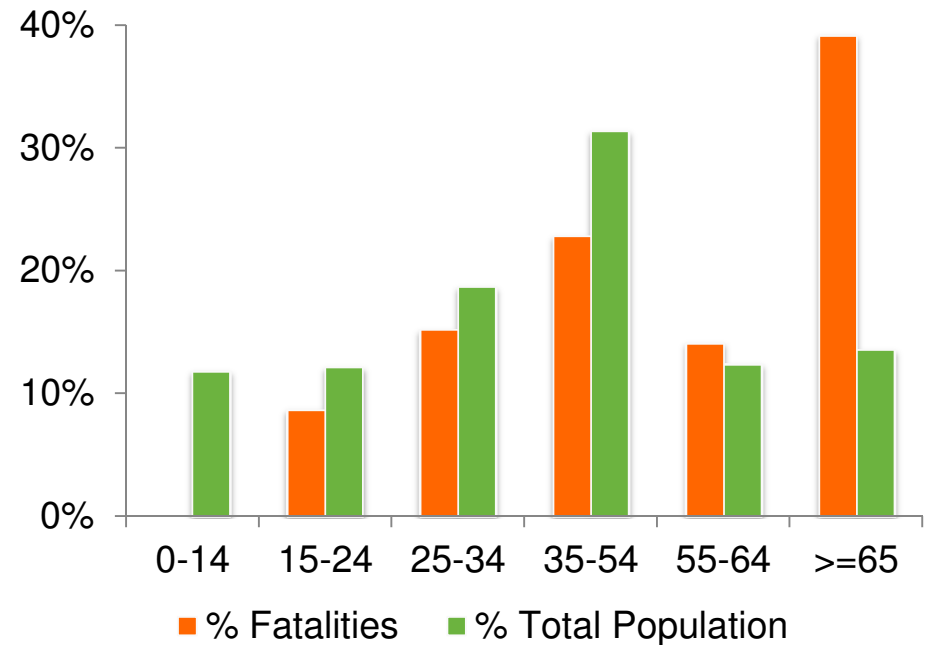
# 1. Enhanced Data: Hospital Injury Data Summary

## Seniors: Higher risk of fatality & serious injuries

### Serious Injuries by Age



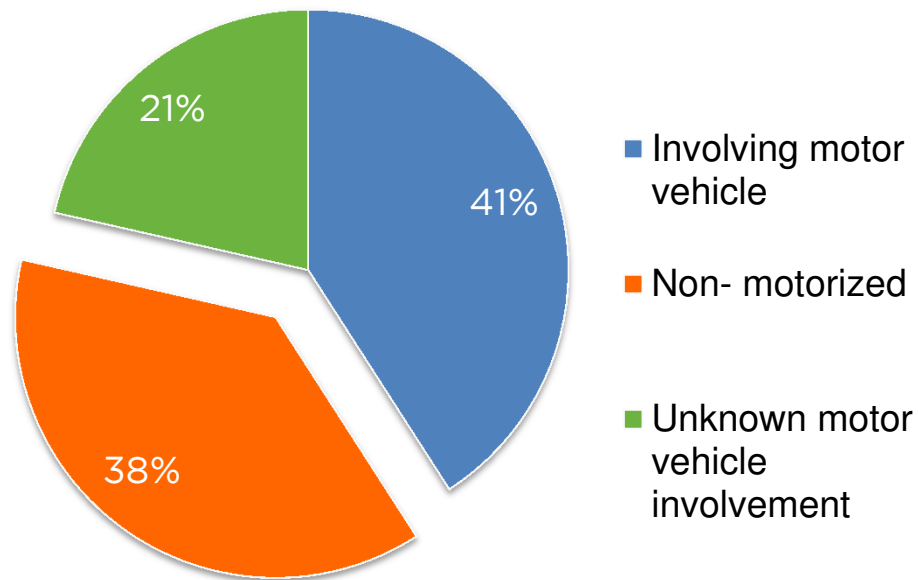
### Fatalities by Age



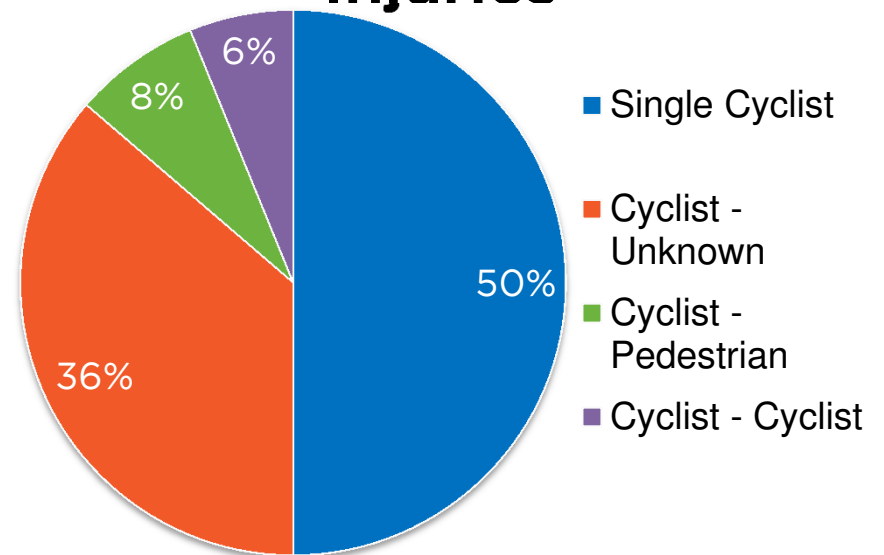
Source: VPD Traffic Fatality Data (2011-15), VGH Traffic Injury Data (2011-2015) & Census 2011 Population Data

# 1. Enhanced Data: Hospital Injury Data Summary

## All Cycling Serious Injuries



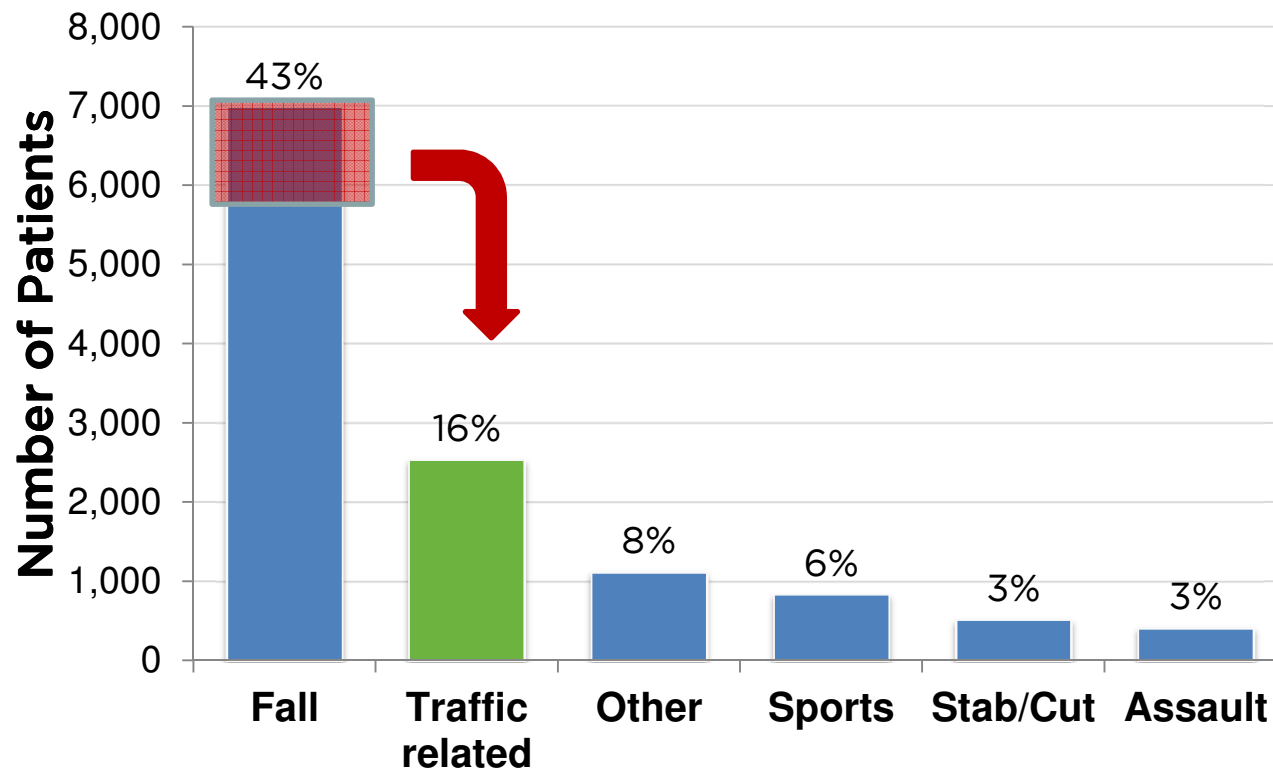
## Non - Motorized Cycling Serious Injuries



Source: VGH Traffic Injury Data (2011-2015)

# 1. Enhanced Data: Falls Data

## Serious Injuries by Type



Source: VGH Injury Data (2011- 2016)

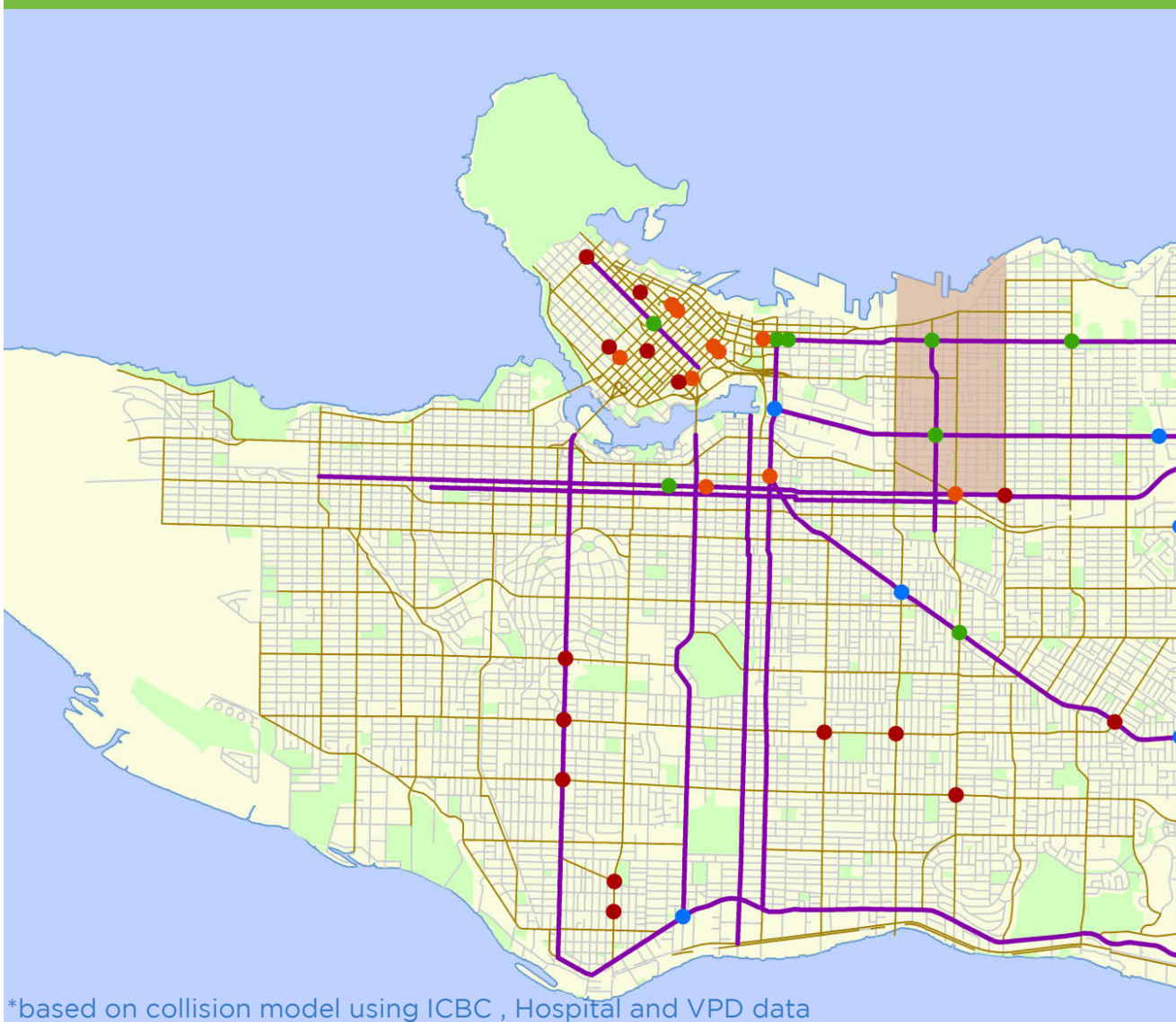


# 1. Enhanced Data: Ambulance Data

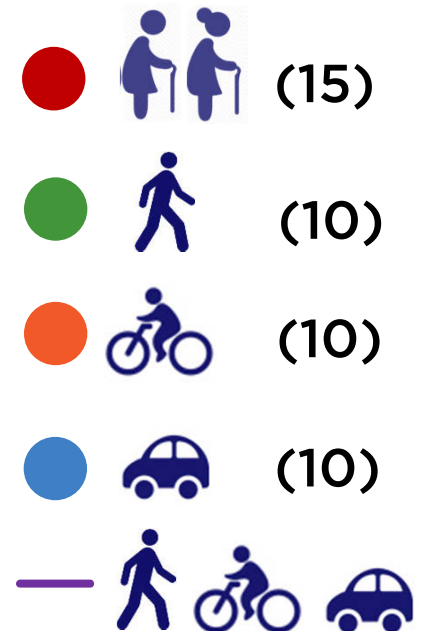


**BC Ambulance  
collects GPS  
coordinates with  
patient pick-up  
and hospital  
drop-off  
locations**

## 2. Evaluate & Prioritize Locations



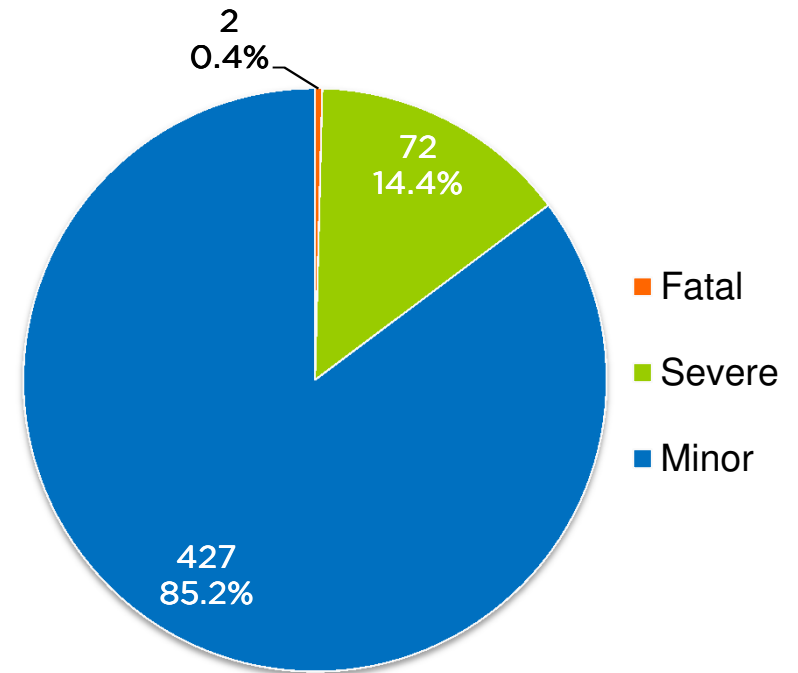
### Top Corridors & Intersections for Deep Dive



\*based on collision model using ICBC , Hospital and VPD data

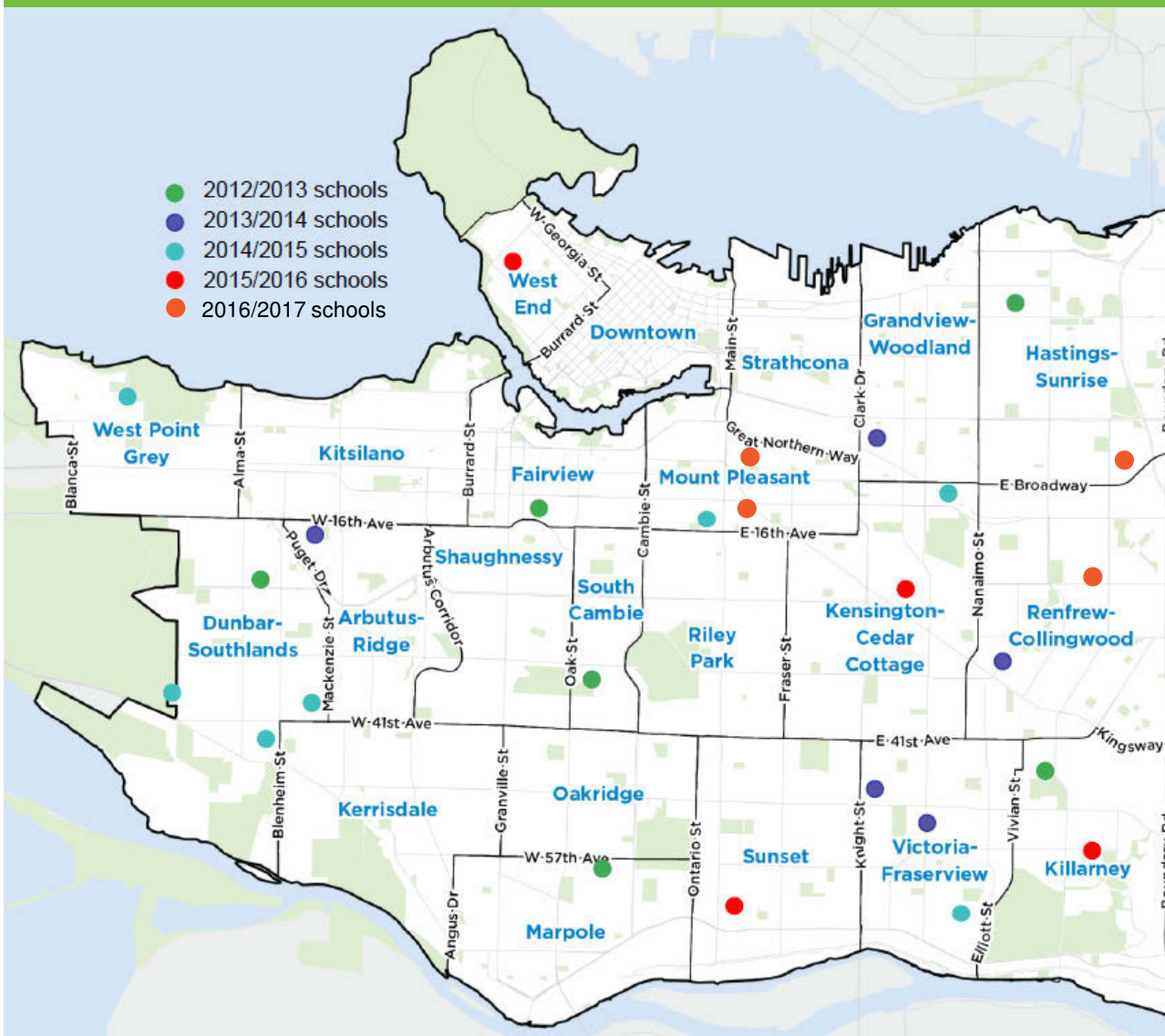
## 2. Evaluate & Prioritize Locations

- Hospital data
  - Most children treated at BCCH
  - No location info
- ICBC data
  - Collisions adjacent to schools & during school days
  - ~2% of all City collisions



Source: BCCH Traffic Injury Data 2011-13

## 2. Evaluate & Prioritize Locations: Improved School Safety Programs



- More data focused
- Work with VSB
- Delivery of program in-house
- Accelerate countermeasures to more schools



# 3. Engineering Action Plan

**Develop best safety practices toolkit & select the most effective solutions to address priority locations**

- Validate toolkit
- New Pilot Programs
- Develop countermeasure based strategy
- Action plan for high priority areas

# Toolkit Validation: Pedestrian Safety Improvements

Validated through Vancouver Implementation

Upgrades	Locations Completed	Collision Reduction	
		Pedestrian	All (Fatal & Injury)
New Pedestrian Signals	2	-96%	-20%
LT Arrows	5	-38%	-26%
LED Lighting	18	-27%*	-46%*
Countdown Timers	33	-28%	-10%
Slower Walking Speeds	4	-12%	

\*After dark collisions only

# Toolkit Validation: Cycling Spot Improvements

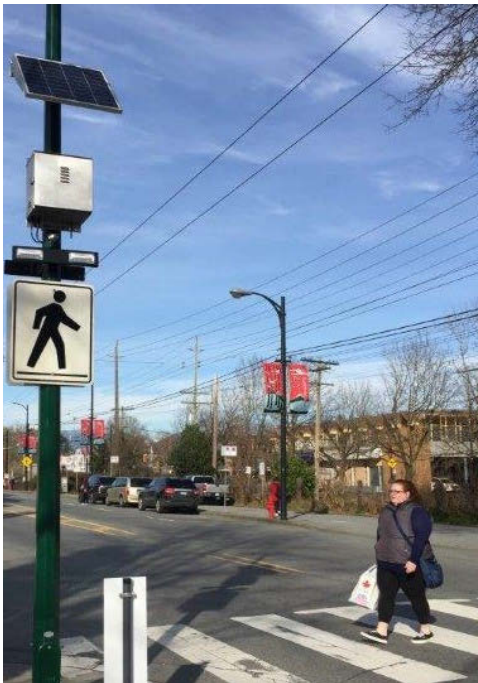
Validated through Vancouver Implementation

Upgrades	Locations Completed	Collision Reduction	
		Cycling	All (Fatal & Injury)
Removal of traffic circles	2	-100%	-60%
Median extension - RT more difficult	1	-42%**	-33%**
Adding lighting	1	-25% *	0%*
Green Paint at Conflict Areas	6	Data not sufficient to assess	

\*After dark collisions only

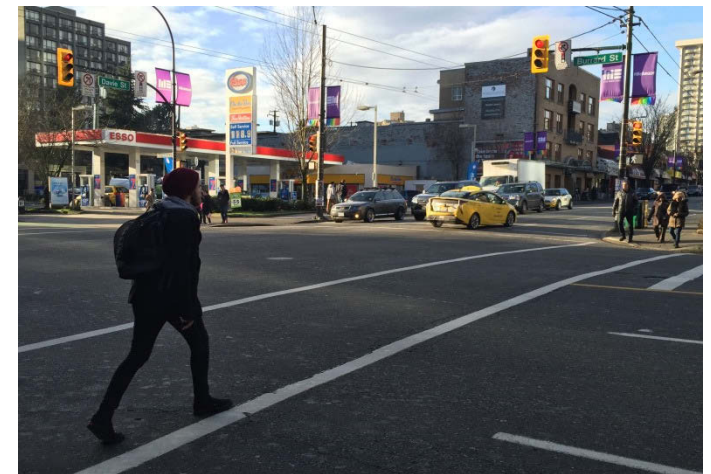
\*\* RT collisions only

# Engineering Action Plan: New Pilot Programs



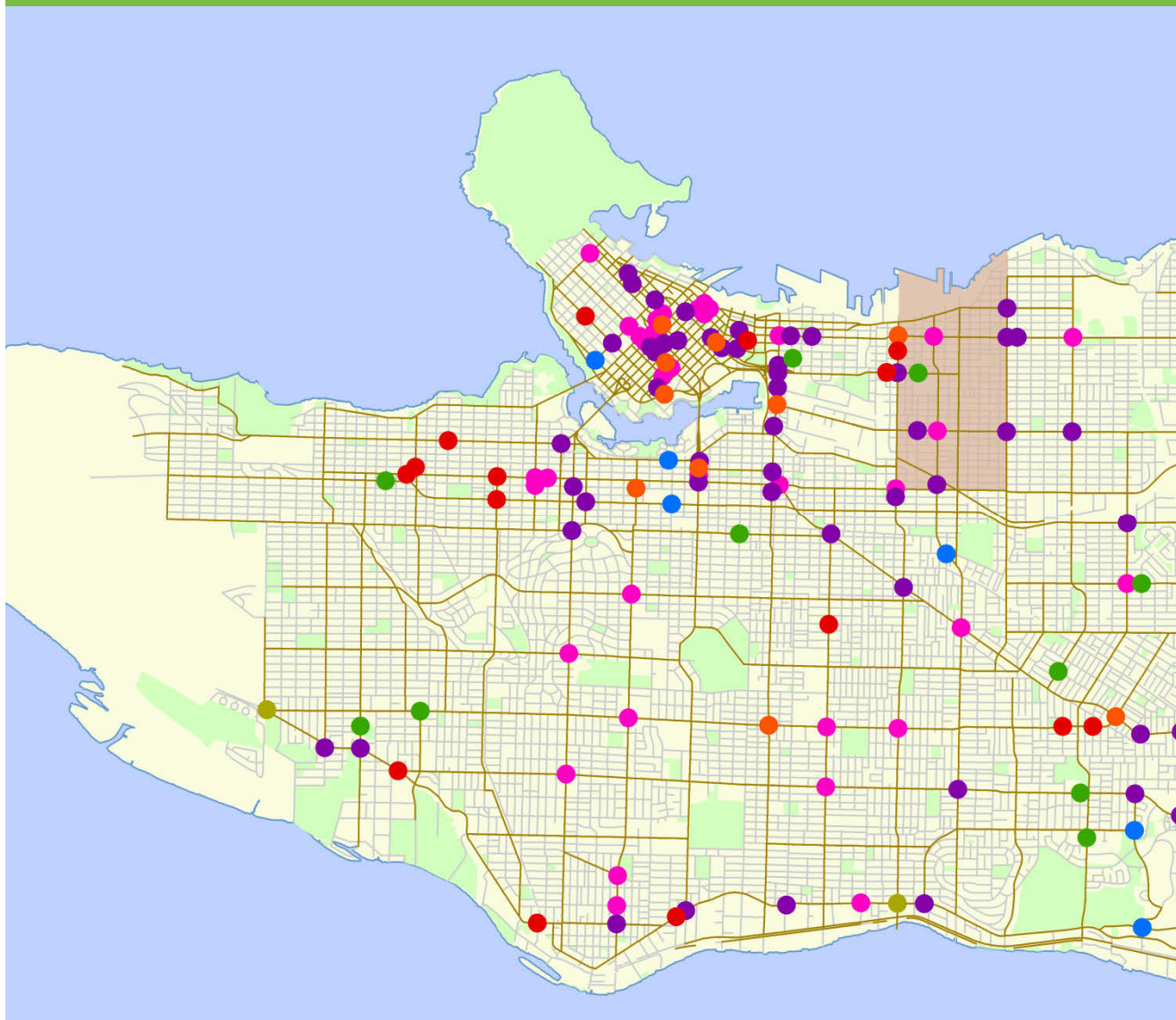
Rectangular Rapid  
Flashing Beacons  
**3 locations in pilot**

Accessible  
Pedestrian Signals  
**4 locations in pilot**



Leading Pedestrian  
Intervals  
**1 location in pilot**

## 2. Engineering Action Plan: Countermeasures



### By countermeasure

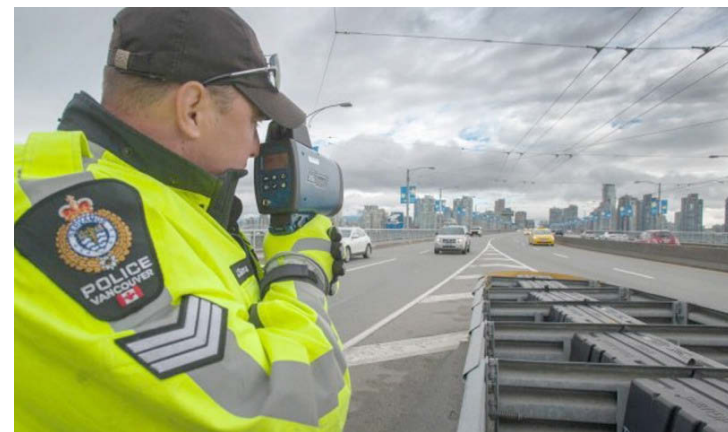
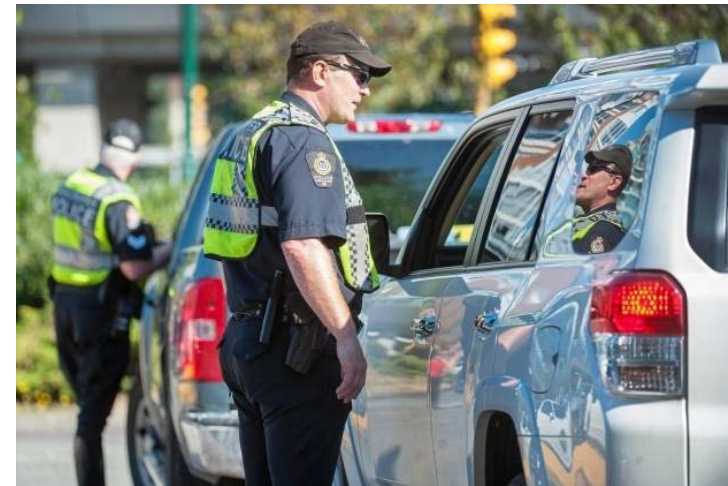
Treat overrepresented types of collisions:

- Left turn
- Right turn
- Driver failure to yield
- Jaywalking
- Collisions after dark

- LPI (6)
- Turning Mov. Changes (12)
- Geom./Signal Changes (2)
- Flashing Beacons (10)
- Signals (15)
- LED Lighting (50)
- Slower Walking Speeds (60+)

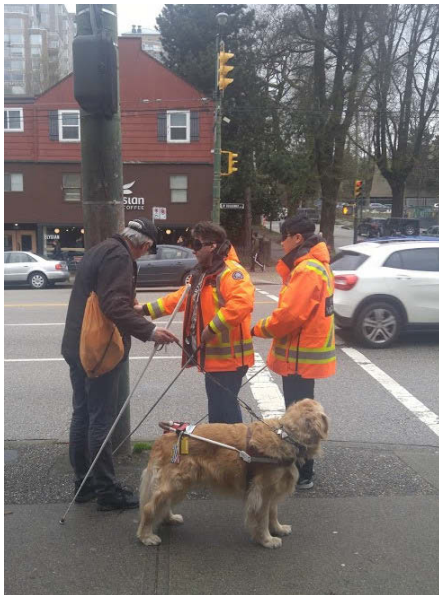
## 4. Enforcement

- Work with VPD to develop targeted enforcement programs to tackle dangerous behaviors at priority locations
- VPD Commercial Vehicle Team inspections with other municipalities and provincial Commercial Vehicle Safety & Enforcement (CVSE)
- VPD Established Targeted enforcement team to target unsafe and reckless pedestrian and cycling behaviors in high incident areas



# 5. Education and Public Outreach

- Develop a Zero Traffic-Related Fatalities website
- Report to Council annually on progress
- Conduct Pedestrian Safety Campaign
- Continue to work with Traffic Safety Working Group
- Disability Awareness training for staff



# Next Steps

- **Serious injury data analysis**
  - Hospital Data
  - Ambulance Data
- **Priority Intersections & Corridors**
  - Undertake detailed assessments at priority intersections, corridors and focus areas (i.e. seniors)
  - Revamp School Program
- **Engineering Action Plan**
  - Implement quick start action plan
- **Education & Public Outreach**
  - Conduct Pedestrian Safety Campaign
  - Create Moving Towards Zero website

**Report Back to Council Spring 2017**



- **Grandview-Woodland Plan Implementation - Two family (Duplex) Zones**
  - May 13 (Saturday) 12-3pm @ Wise Hall
  - May 17 (Wednesday) 5-8pm @ Wise Hall
- **Britannia Renewal Events**
  - May 23 ( Tuesday ) Designing Safe Places, 6:30-8:00pm
  - June 4 ( Sunday) Physical Wellbeing & Community Wellbeing - 12-2pm
- **New St. Pauls \ Health Campus - Draft Policy Open Houses**
  - May 13 ( Saturday) 3 - 6pm @ Creekside Community Centre
  - May 15 (Monday) 5-8pm @ Strathcona Community Centre

## Next Steps

- Meeting minutes to be circulated next week; materials online mid-May
- Next Meeting: September 2017 (date TBD)

- **Reminder** please report back to your respective organizations and share information broadly within networks
- **SAG Coordinator:** [hailey.steiger-tang@vancouver.ca](mailto:hailey.steiger-tang@vancouver.ca) 604-873-7742

Questions? Comments?

Thank you



GRANDVIEW-  
WOODLAND