Planning for RAV:
Achieving Public Objectives in the Context of a PPP Project

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Presentation Outline

- Vancouver and the Region
- The RAV Line
- Vancouver Stations
  - Waterfront Station
  - Robson Station
  - Broadway Station
  - Marine Drive Portal
City of Vancouver

Population of Vancouver: 550,000
Constrained Region

Population of Greater Vancouver Regional District: 2.4 million
Context: Greater Vancouver
Dense Metropolitan Core
Vancouver Transit Strategy
Transit systems layers:

- local,
- city-wide, and
- regional
Vancouver transit strategy
The RAV Line
Context - Regional

- RAV is one of three rapid transit lines that are cornerstones of Regional Land use and transportation plans – LRSP, Transport 2021.
Regional Transit Network

- SeaBus
- Skytrain
- West Coast Express commuter rail
- RAV
Context – Vancouver

City of Vancouver land use and transportation plans support the regional plans:

- CityPlan
- Central Area Plan
- Transportation Plan
- Downtown Transportation Plan
Rail Transit Is Needed

- Buses alone will not attract sufficient ridership to achieve the City’s transportation targets and land use goals
- Buses alone cannot carry the number of transit trips needed to achieve the targets
- Rail is more compatible with the City’s livability goals
2021 Transit Passenger Volumes (AM Peak Hr)
Comparing Transit Ridership

- Vancouver SkyTrain: 210,000
  - Expo Line: 150,000
  - Millennium Line: 60,000
  - Projected (2010) RAV: 100,000
    - current RAV corridor bus ridership: 65,000
    - Broadway buses: 60,000

- Dallas (DART) LRT: 55,000
- Seattle LRT projected (2020) ridership: 43,000
- Salt Lake City (TRAX light rail system): 28,000
- San Francisco (BART): 300,000

* All numbers are transit ridership per weekday
The RAV (Richmond Airport Vancouver) Rapid Transit Line
The RAV (Richmond Airport Vancouver) Rapid Transit Line

- Automated Light Metro System
- Around 19km (12 miles) long
- 17 Stations (provision for 3 future stations)
- Grade/traffic separated system (underground and elevated sections)
- Added transit capacity equaling 10 road lanes
- $1.9 Billion
  - 1.35 billion - public sector
  - 550 million - private sector
- P3 Project
Participating Agencies

- Federal Government
- TransLink (RAVCO) - Regional
- Province of British Columbia
- Vancouver International Airport
- City of Vancouver
- City of Richmond
- InTransitBC (SNC-Lavalin) – Private sector
The Vancouver Segment

- Northern terminus at Waterfront Station
- Ten kilometres of guideway (1 km elevated)
- 9 stations
- 2 future stations
- Pedestrian/Bike bridge over Fraser River North Arm
City Role and Involvement

- Advice on station design
- Help develop construction and traffic management plans
- Planning around stations - community fit / transit integration
Station Design Review

RAV Project must meet the highest standards in station and system design and be advised by the

- Urban Design Panel
- Development Permit Board
Waterfront Station

- Base Case Proposal:
  - In-street entry
  - Connection to existing transportation hub
  - No connection to adjoining development
Waterfront Station

- City negotiated with all stakeholders to achieve an off-street integrated entry with connection to the adjoining development
Robson Station

- Base Case Proposal:
  - In-street entrance
  - No connections to existing underground malls
Robson Station

- City negotiated with all stakeholders to achieve an integrated entry with connection to both underground malls
Broadway/City Hall Station

- Base Case Proposal:
  - Single entrance
  - Remote from main transit street (Broadway)
Broadway/City Hall Station
Broadway/City Hall Station

- Improved entry location on city-owned site
- Secured additional entrance through discretionary zoning
Marine Drive Station and the Tunnel Portal

replacing any lost green space, landscaping, public art and Street design
Marine Drive Station and the Tunnel Portal

Cambie Street Redesign Options

Option 1: Large Centre Median

Option 2: East Boulevard Greenway