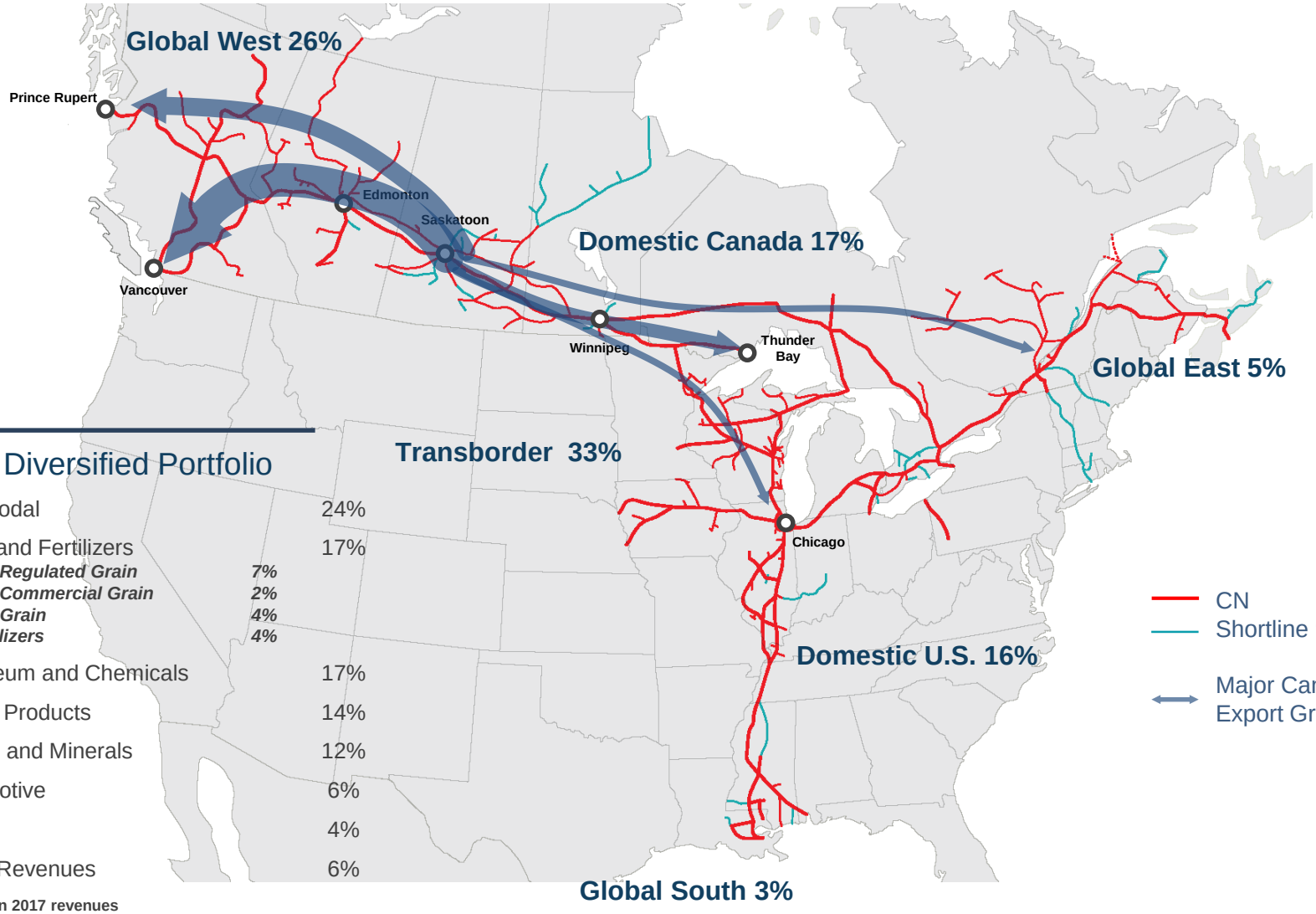
The Canadian Grain Supply Chain

Expanding Capacity for the Future

Canadian Federation of Agriculture
Annual General Meeting
February 28, 2018

A Trade-Enabling North American Network

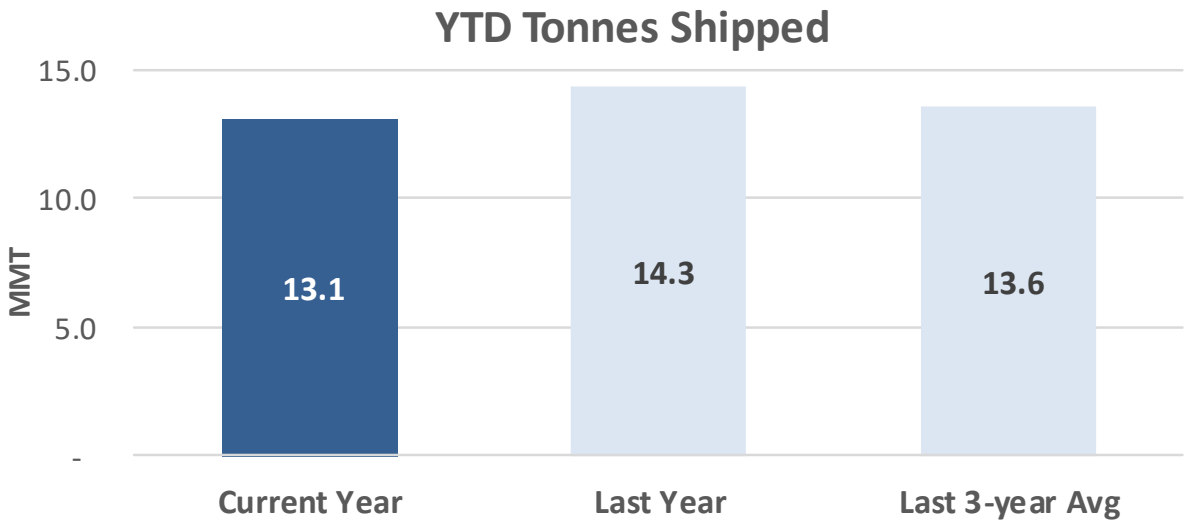


Well Diversified Portfolio

Intermodal		24%
Grain and Fertilizers		17%
Cdn Regulated Grain	*7%*	
Cdn Commercial Grain	*2%*	
U.S. Grain	*4%*	
Fertilizers	*4%*	
Petroleum and Chemicals		17%
Forest Products		14%
Metals and Minerals		12%
Automotive		6%
Coal		4%
Other Revenues		6%

Based on 2017 revenues

Western Canadian Grain – Crop YTD Performance

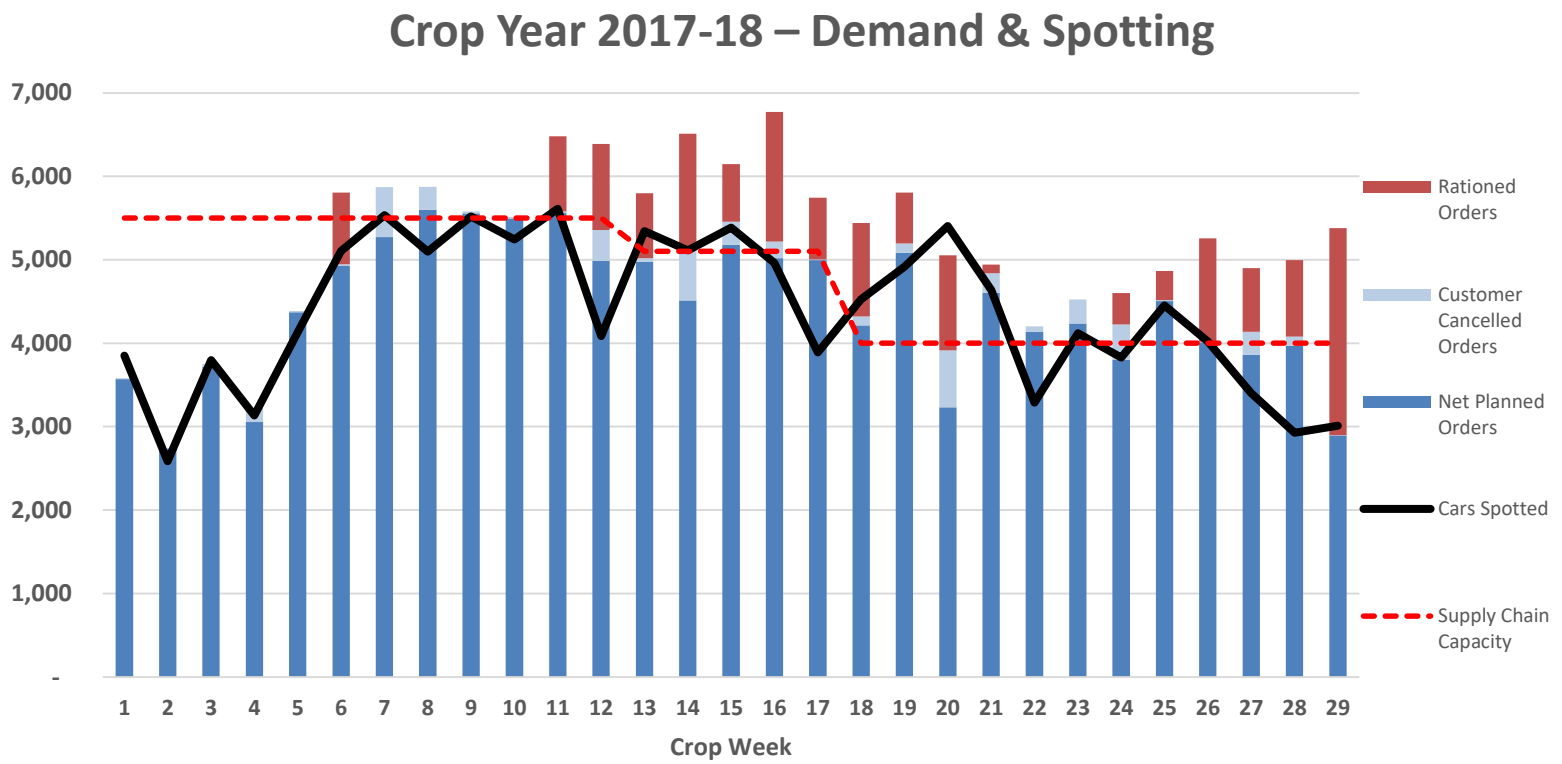


Crop YTD (Week 29), CN has moved over 13MMT of export grain

- Commercial agreements with reciprocal penalties cover ~90% of our car supply
- 2017-18 is our 3rd best year on record (Crop YTD) - - 8% less than the record 2016-17 Crop Year; 3% off the prior three-year-average
- Spotting an average 3,935 hoppers/week since Week 18 (versus a maximum winter supply chain capacity of 4,000 hoppers/week)

Winter conditions are causing operating challenges

Shipper Demand & Spotting Performance

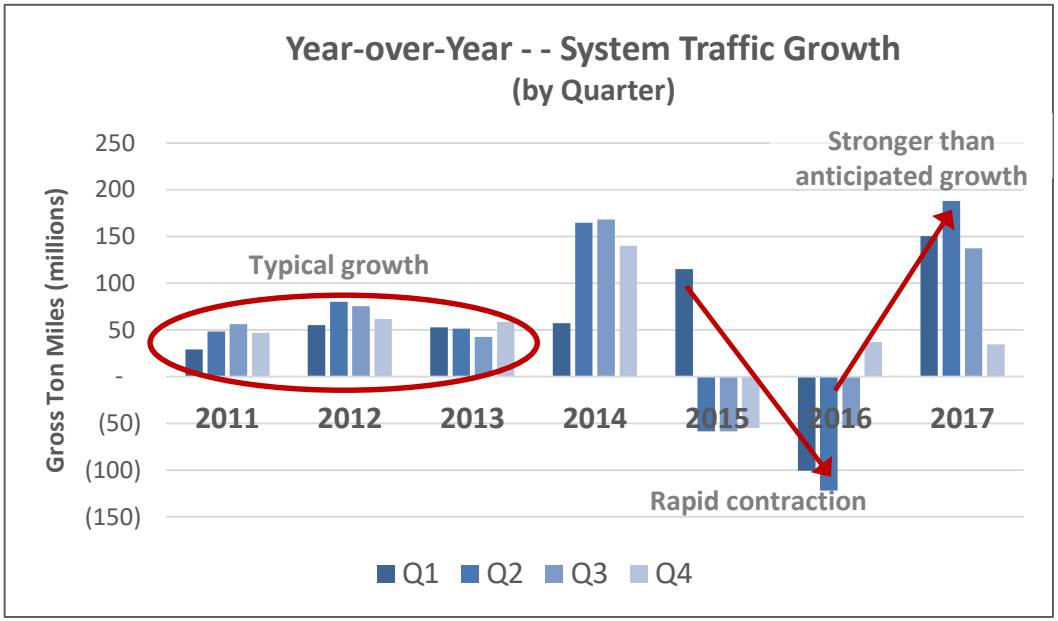


Order rationing has outpaced last year, but CN has largely planned and spotted in line with the Maximum Sustainable Supply Chain Capacity

- Spotting in the want-week has lagged last year's performance, but "missed spots" are generally spotted within the first few days of the following week
- Prolonged extreme cold across Western Canada has had a substantial impact on recent performance

Very strong demand has persisted through winter months

Current Service – Growth Context



Significant growth in 2017 following six quarters of volume losses

- Adding qualified conductors:
  - 265 (Q4/17)
  - 775 (first half of 2018)
- Adding locomotives:
  - Purchased 34 (Q4/17)
  - Leased 130 (Q4/17-Q1/18)
  - Ordered 200 (60 coming in 2018)
- Shovel-ready infrastructure projects, when the ground thaws in 2018

Long lead times to secure and deploy new resources

Current Service – Weather Context

Add a harsher than average winter which challenges rail operations

- Temperatures below -30°C twice as much as last year so far this year
- 75% of the days in 2018 have been so cold that we have had to run trains at reduced length – effectively removing 25%-30% of network capacity
- Significant snowfall in Northern B.C. the week of Feb 12th

Congestion is affecting all market segments, particularly in the Edmonton-Winnipeg-Chicago corridor

Service Recovery

- The impact of this congestion is being felt broadly across all customers and business units
  - Western Canadian grain, frac sand, intermodal, and forest products that travel through the Edmonton-Winnipeg-Chicago corridor are all experiencing capacity constraints

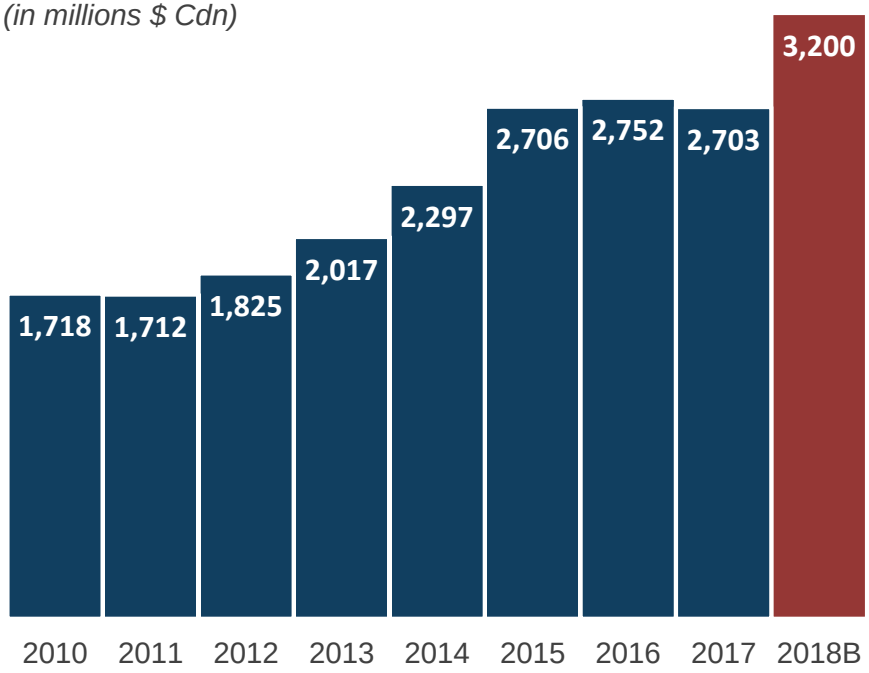
- Focused on restoring network health and fluidity
  - Pause on crude oil shipments since Q4-2017
  - Considering congestion issues with this traffic, embargoed all new frac sand origins, followed by accepting new traffic under an allocation/permit system subject to improved network fluidity
  - Let go some overseas intermodal traffic
  - Restricting the flow of railcars into the congested Edmonton-Winnipeg corridor

Near-term focus on easing congestion and restoring fluidity for all supply chains

Rail Infrastructure

Investing for the Long-Term

Capital Investments
(in millions $ Cdn)



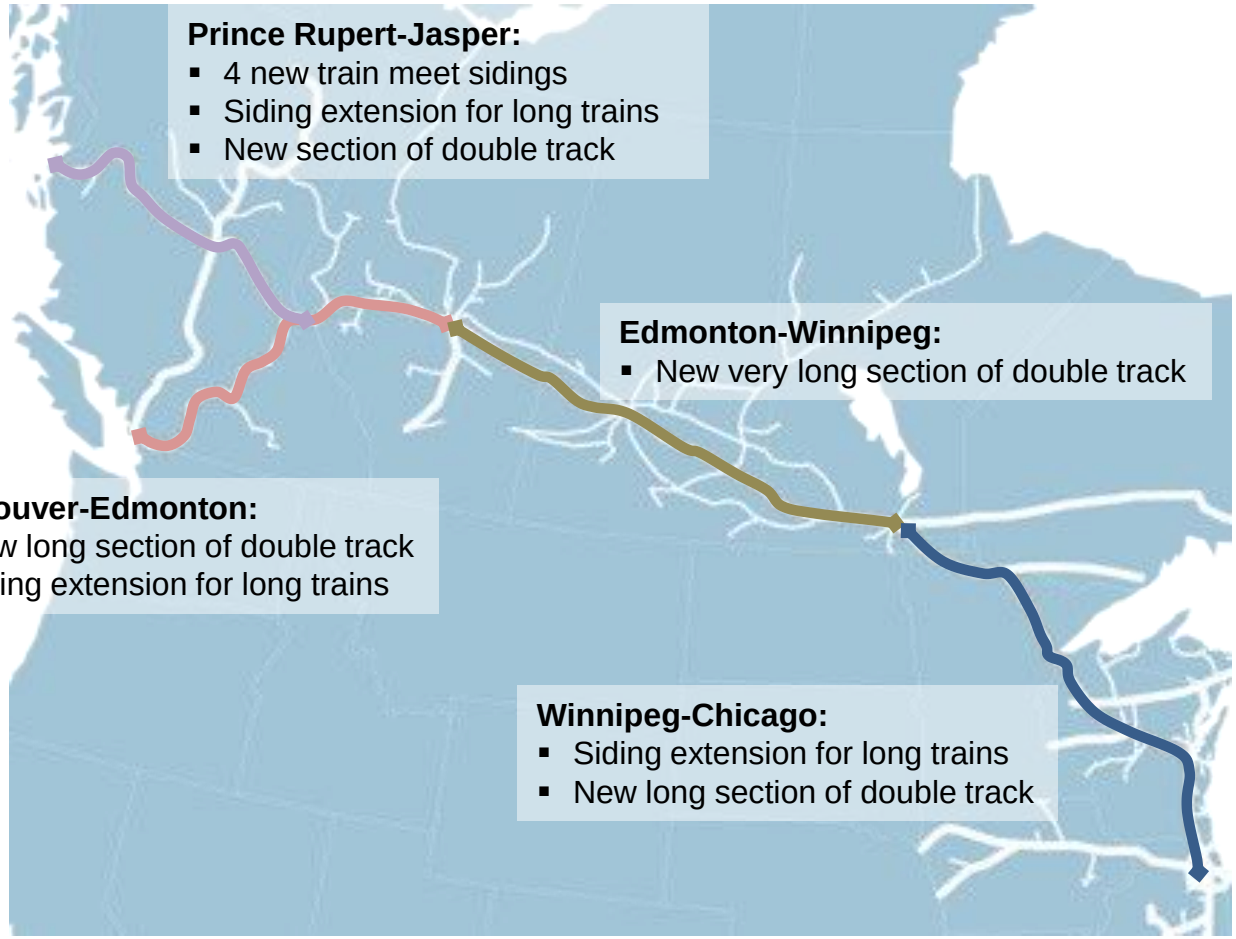
** Capital Investments represents approximately 20% of annual Revenues and approximately 50% of annual Operating Income*

~$20B Cdn
capital investments
over the last 10 years

Record $3.2 Billion Capital Investment Planned for 2018

Driving safety, fluidity, and productivity while enabling growth

Network Capacity Enhancements



Nearly $700M of capacity-enhancing investments planned for 2018, including network capacity improvements

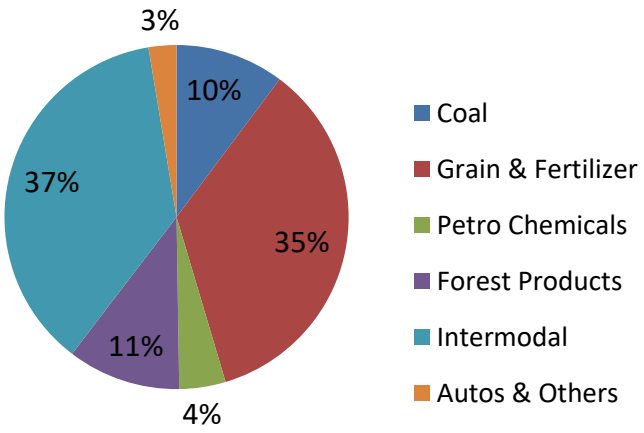
Traffic running through Western Canada will benefit from targeted network investment

The Vancouver Gateway

Importance of Vancouver to Canadian Trade

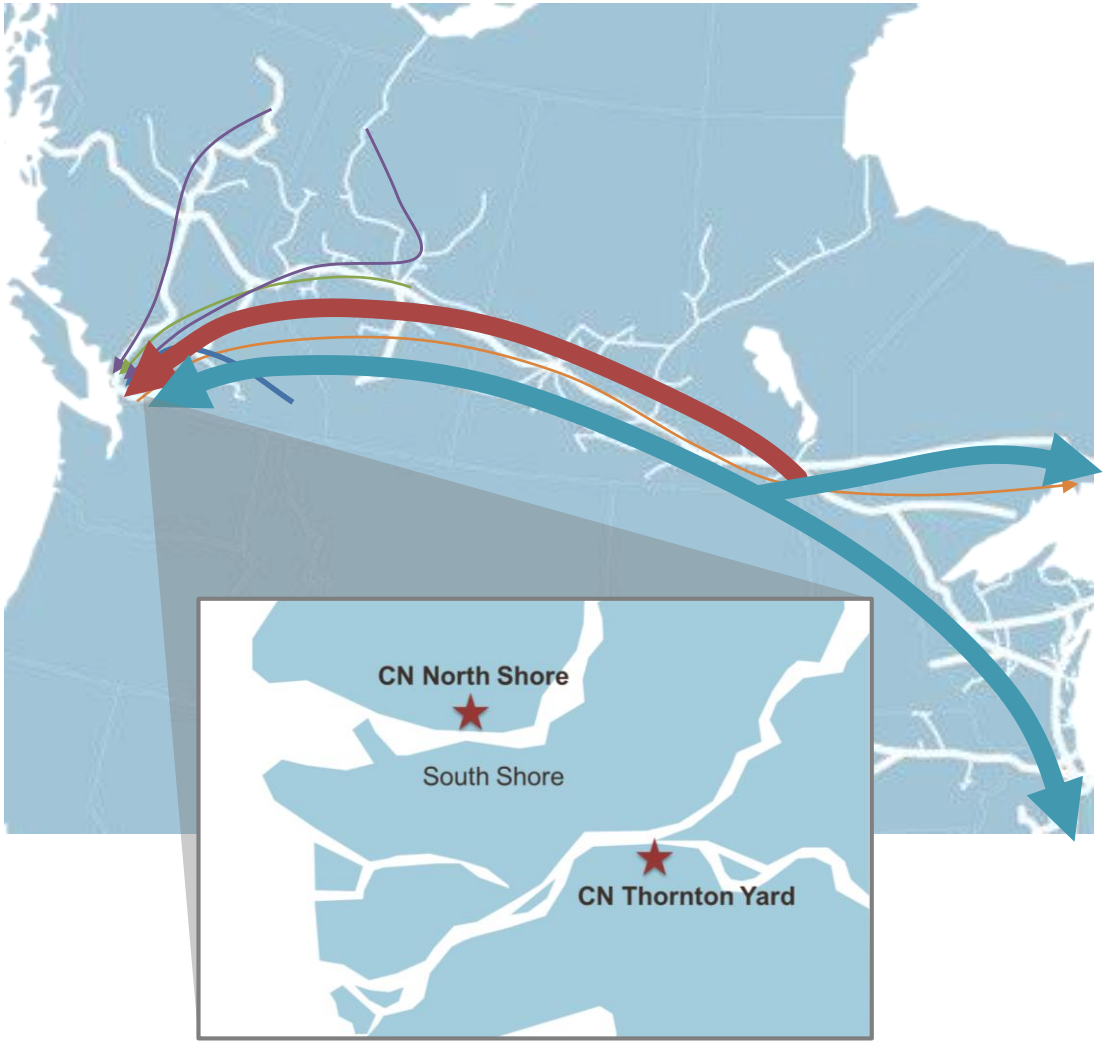
Nearly 750,000 carloads in 2016

(intermodal multi platforms - each platform counted as one car)



The Port of Vancouver, Canada's largest port and the most diversified in North America, handles nearly 140 MMT annually

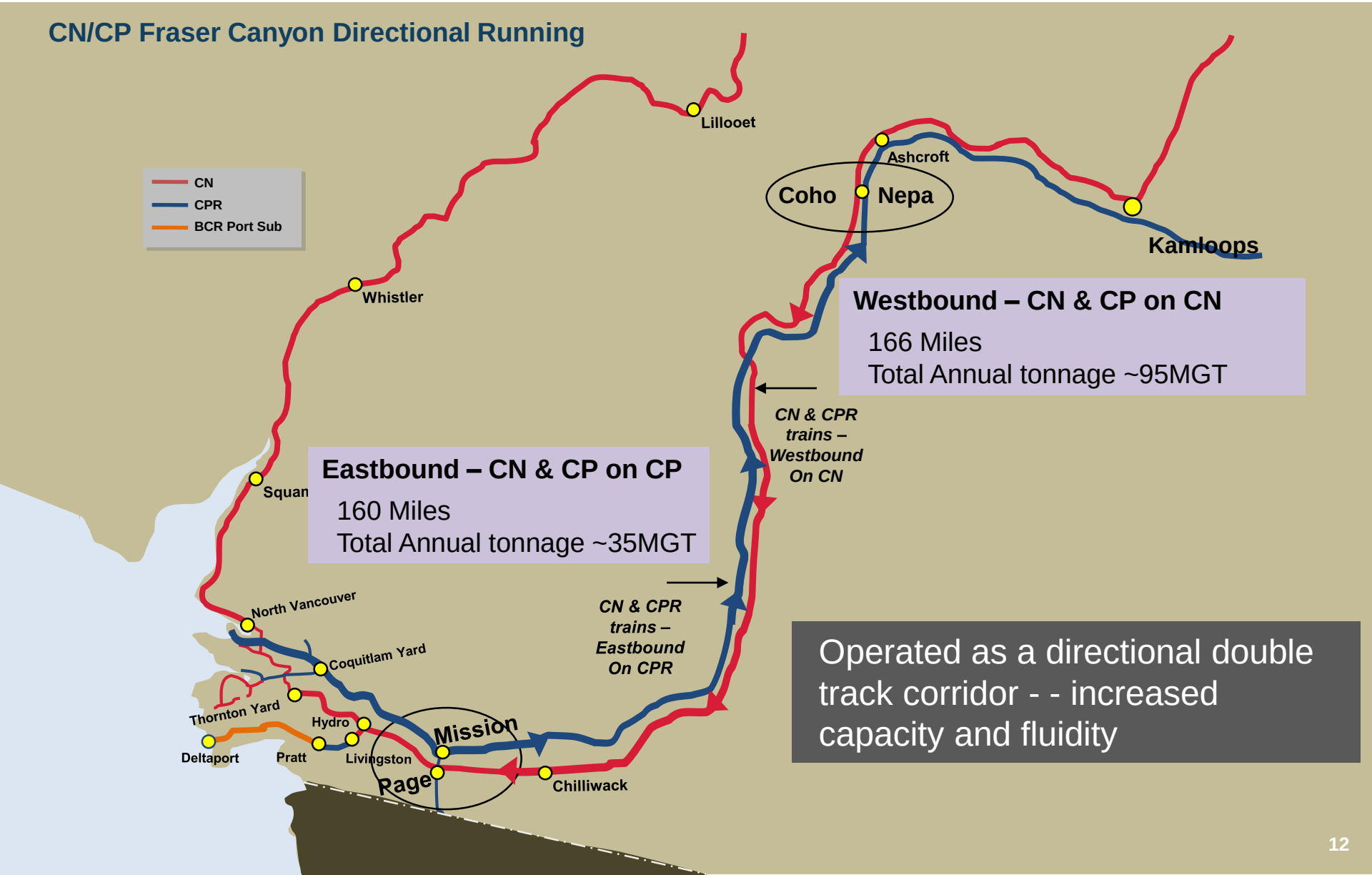
The Port of Vancouver's annual estimated throughput value of ~$200B represents 25%+ of Canada's non-US foreign trade by value



Critically important gateway for Canadian exports & imports

Railroad Collaboration to Increase Capacity & Fluidity

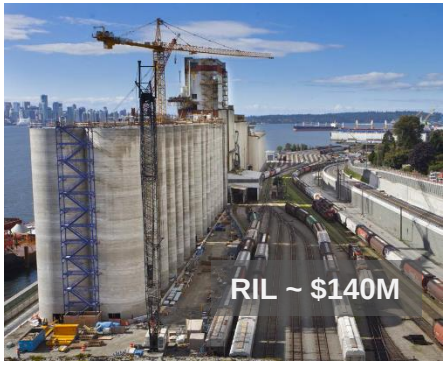
CN/CP Fraser Canyon Directional Running



North Shore Terminals Expanding

Operating at current capacity of 16 trains/day - - Forecast 23-27 trains/day

CN switches all North Shore traffic, but receives only cost-based Interswitch rates on the non-CN traffic (>50%)

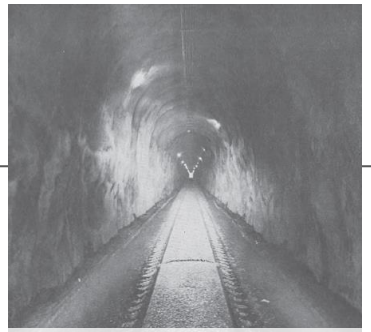


Terminal	Current or proposed expansion
Kinder Morgan	Increasing agricultural products flowing through terminal
Fibreco	Newly handling export grain
Cargill	Adding 3rd dumper and improving internal conveyance – complete
RIL	Increasing storage and throughput – complete
Neptune (Teck)	Doubling throughput capacity - end 2018
Neptune (Canpotex)	Have doubled throughput capacity
Westgate	New grain terminal (G3) – 2019

Increasing pressure in an already capacity constrained corridor

Key Vancouver Corridor Bottlenecks

CN Second Narrows Bridge



CN Thornton Tunnel
(11,000')

Fraser River Bridge
(owned by Public Works Canada)

Multi-user Fraser River crossing

North Shore

South Shore

Vancouver

Willingdon Jct

CP Coquitlam Yard

Sapperton

CN Thornton Yard

to Kamloops

to Kamloops

to Richmond

to Seattle

to Chilliwack

CN
CP
BN
SRY
Amtrak
Via Rail
RMR

Two bridges and one tunnel govern Vancouver corridor capacity for all railways

Bottleneck #1 — Second Narrows Bridge

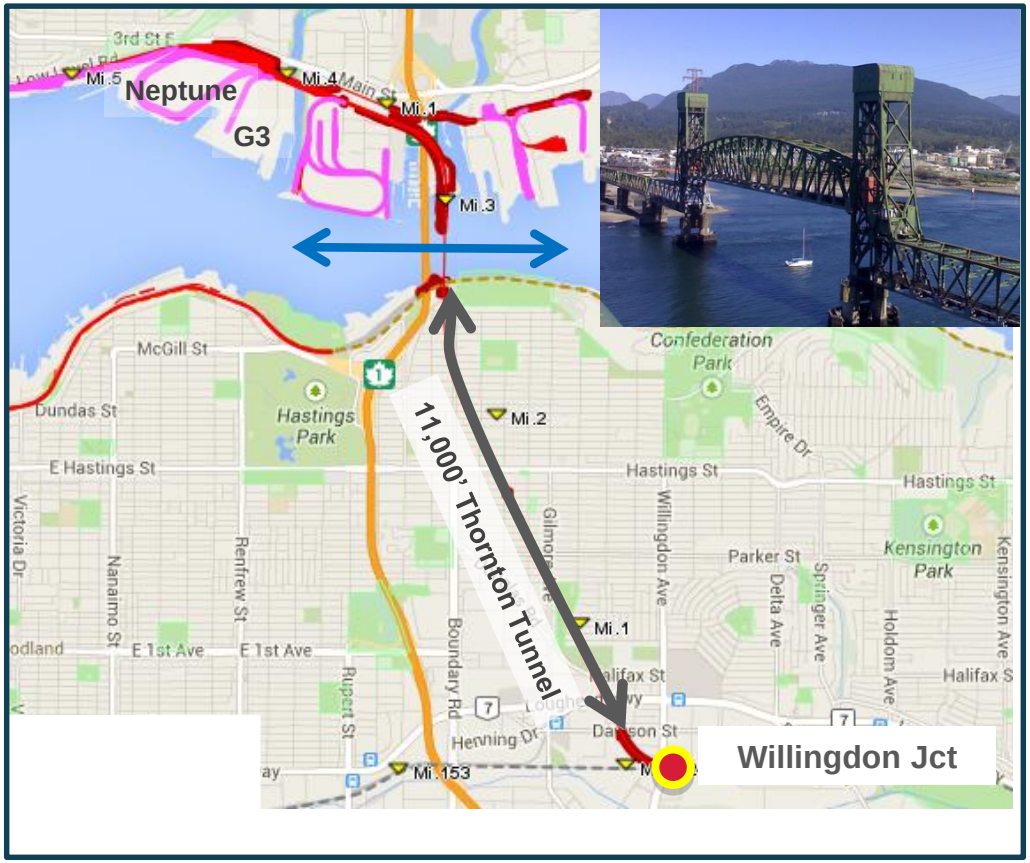
Single track lift span rail bridge linking North and South Shore

Capacity Enhancement Initiatives

1. **Lift Coordination**
   - Marine traffic priority over rail traffic
   - Open 5 to 6 hrs/day for vessel crossings
   - Anticipate increase in deep sea traffic
     - KM Trans-mountain
     - Pacific Coast Terminal – K2
   - Bridge open 30 min in advance of large vessels
   - Must pass high tide slack water daylight
   - On-going co-ordination with marine
     - Advance vessel line up provided to bridge tender daily
     - 2 hour advance notice of lift request

2. **Air gap detection**
   - Avoid unnecessary lifts or allow for partial lifts
   - PoV considering detector to measure air gap (underside of lift span to water surface) and display or broadcast to smaller vessels to compare with air draft (phone app based)

3. **Air draft reduction**
   - Avoid unnecessary lifts or allow for partial lifts
   - Lite moves of large tugs account for many bridge openings.
   - Articulated masts on select large tugs can eliminate hundreds of bridges openings per year



Bottleneck #2 — Thornton Tunnel

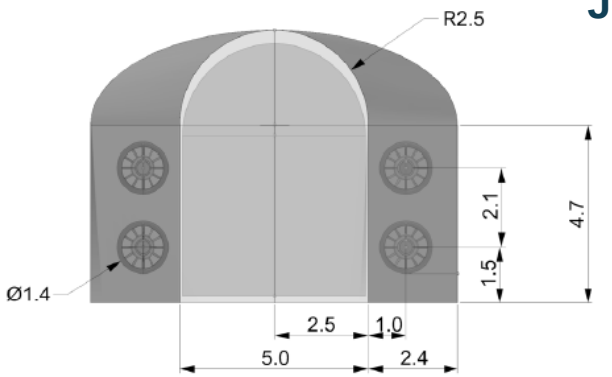
Rail tunnel requires up to 20 min. between trains to vent

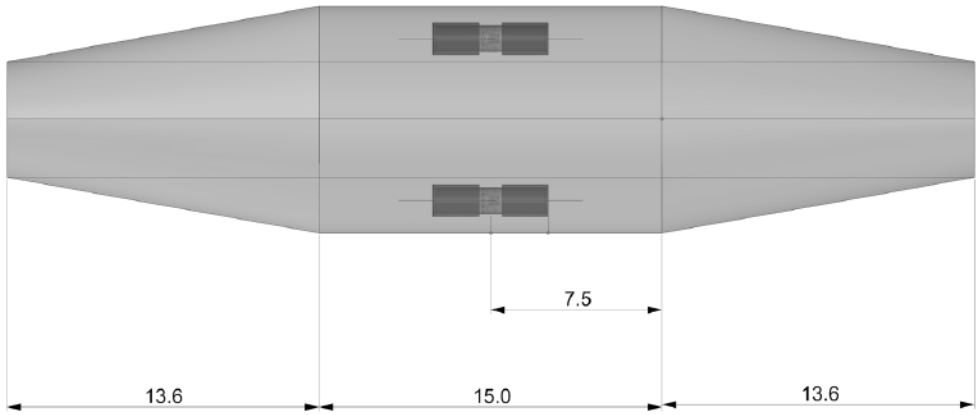
Reduced tunnel venting time = reduced headway between trains = more capacity

Adding jet fans can reduce tunnel venting to 5 minutes

Reducing headways to 5 minutes increases tunnel train throughput capacity by nearly 50%

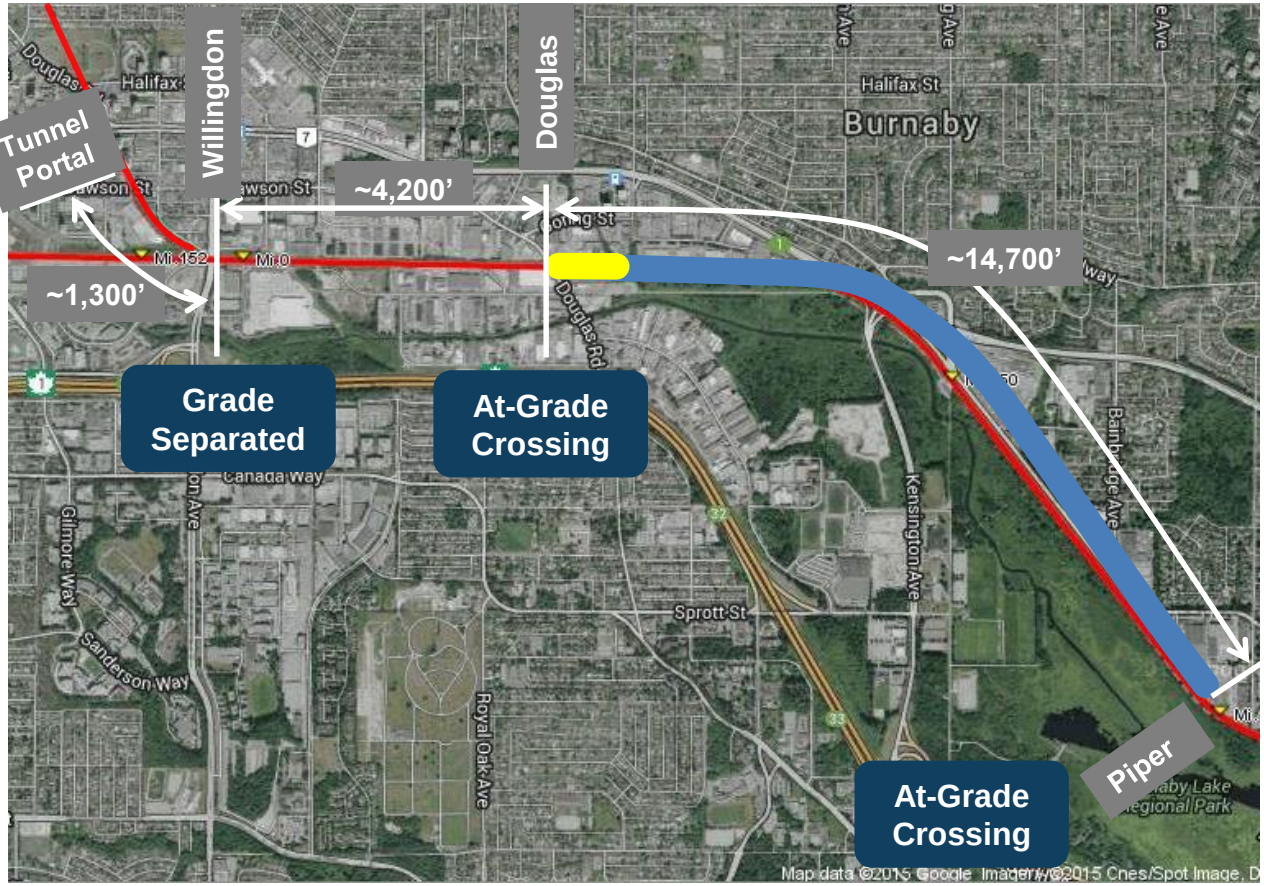
Jet fan configuration





Must be combined with North Shore approach staging track

North Shore Approach Staging Track



Capitalize on shorter headways with improved ventilation

Allows trains to stage closer to Thornton Tunnel

- Tunnel ventilation
- 18,900’ siding
- Douglas Road

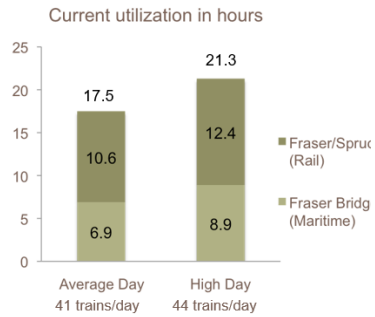
Business case submitted to National Trade Corridors Fund by Port of Vancouver

Position westbound trains to take advantage of reduced headways

Bottleneck #3 — Fraser River Bridge

Operating at/near practical capacity

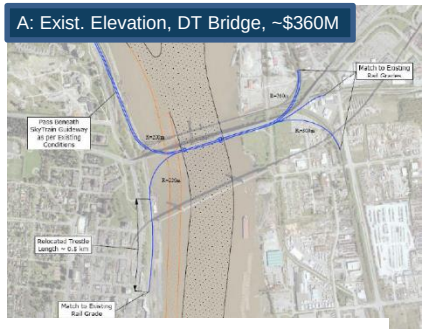
7 user railways: 4 Freight, 3 Passenger



Options A & B studied by TC 2010

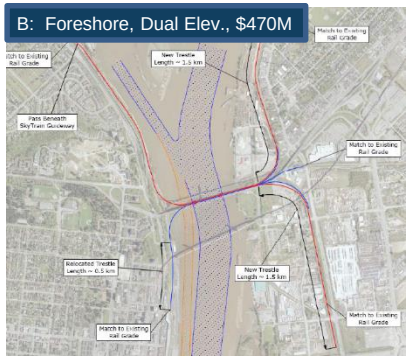
Replacement potentially linked to replacement of the Pattullo Bridge

A: Exist. Elevation, DT Bridge, ~$360M



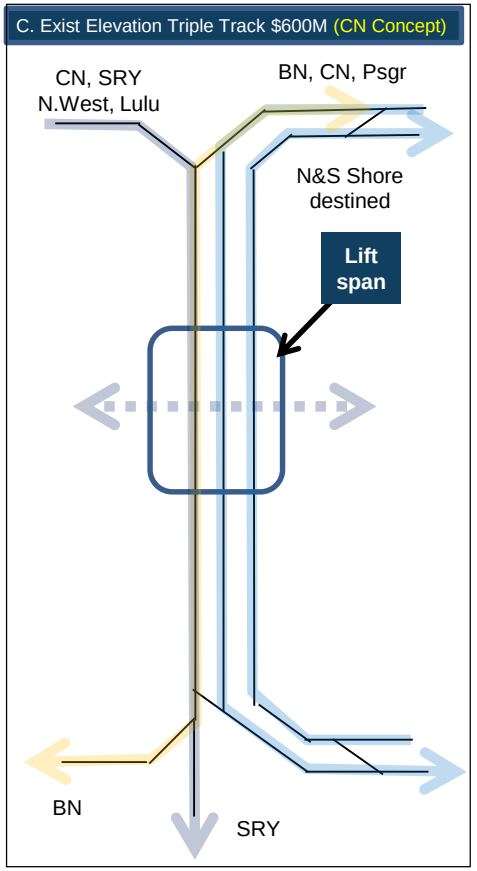
- Minimal conflicts with exist.
- Still capacity limited

B: Foreshore, Dual Elev., $470M



- Long approaches
- Significant impact through New Westminster

C. Exist Elevation Triple Track $600M (CN Concept)



Triple track lift span optimal — optimize use in the interim

Vancouver in Summary & Regulatory Considerations

- Vancouver is a critical gateway for Canadian trade
  - Significant grain terminal expansions recently completed/underway
- CN invests in capacity (infrastructure, equipment, human resources) to support growth where we generate a return for our shareholders
- More than half of Vancouver North Shore traffic is *not* CN traffic, volumes for which CN is compensated in accordance with the Interswitching Regulation
  - Interswitching rates are calculated on a variable-cost basis, which provides no allowance for significant infrastructure or capacity improvements
  - Even less return on double-regulated grain deliveries (MRE + Interswitching) where CN cannot keep Interswitching revenue under current legislation
- Regulatory framework prevents CN from making the full investment

Government funding is vital to increase capacity in this key trade corridor - - need support from all stakeholders