

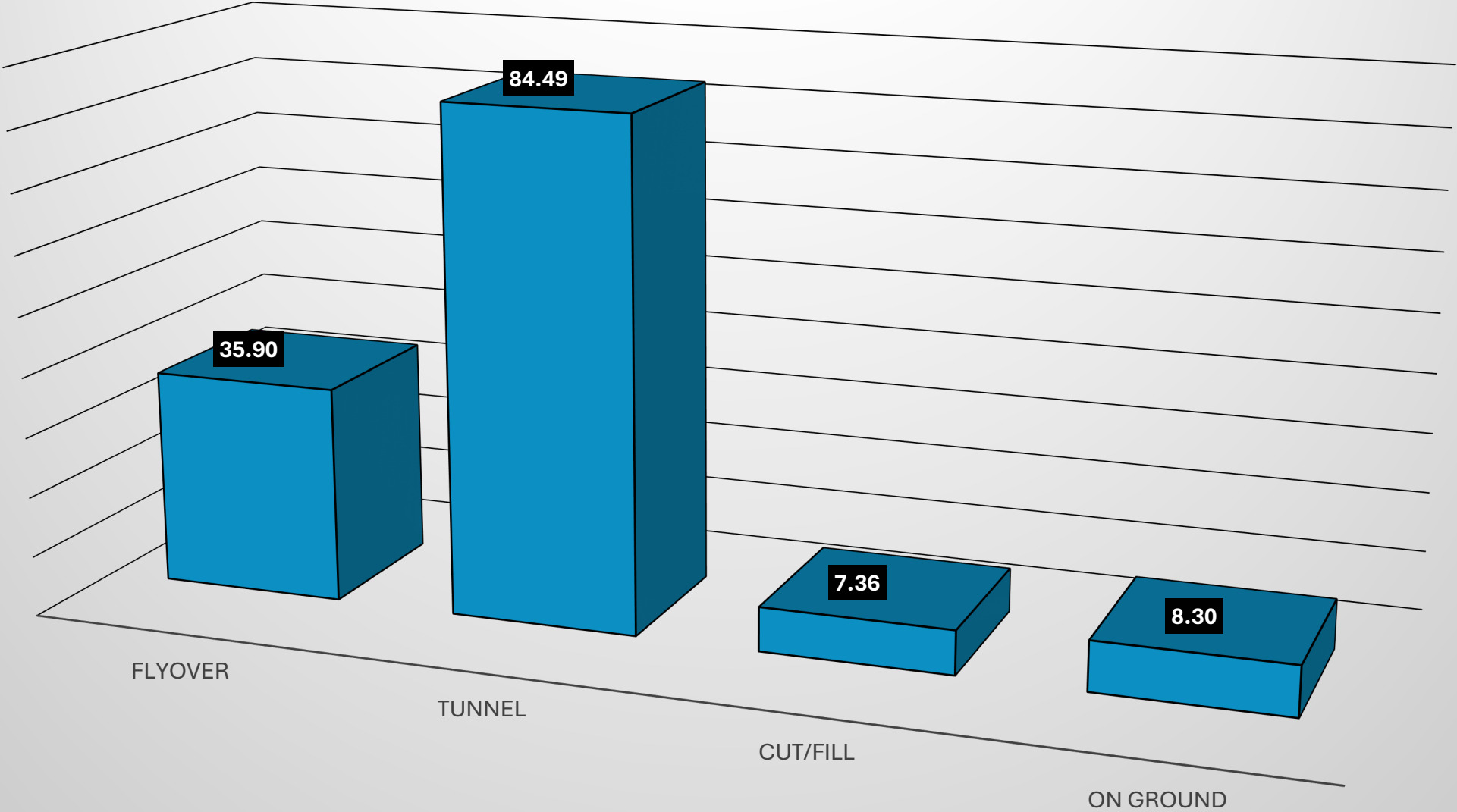


The CHSR Miles from Seattle Central to Vancouver, BC

- CHSR miles between Seattle Central, WA, and Vancouver Pacific Central Station: Tunnel 84.49 miles, Flyovers 35.90 miles, On Ground 8.30 miles, Cut/Fill 7.36 miles. Total 136.05 miles. Amtrak = 157 miles; CHSR is 20.95 miles shorter.
- Termination of the CHSR at the Surrey Station would shave off 14.37 miles.
- The underground Surrey King George Skytrain Station would handle the immigration checks. This is for entry into Canada and the USA. A special operational agreement between Canada and the USA may allow US border control personnel to be stationed in Surrey to execute passenger entry into the USA.
- The percentages in the columned charts are rounded.

CHSR

Between Seattle Central Station, WA, and Vancouver, BC



Series 1	Flyover		Tunnel		Cut/Fill		On Ground	
	35.9	26.31%	84.49	62.02%	7.36	5.35%	8.3	6.32%

Legend



CHSR Station in Tunnel

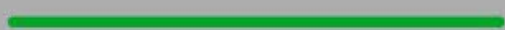


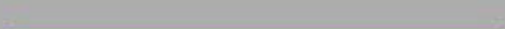
CHSR Station on Flyovers



CHSR Station on Ground

 On ground

 Cuts

 Fills

 Flyovers

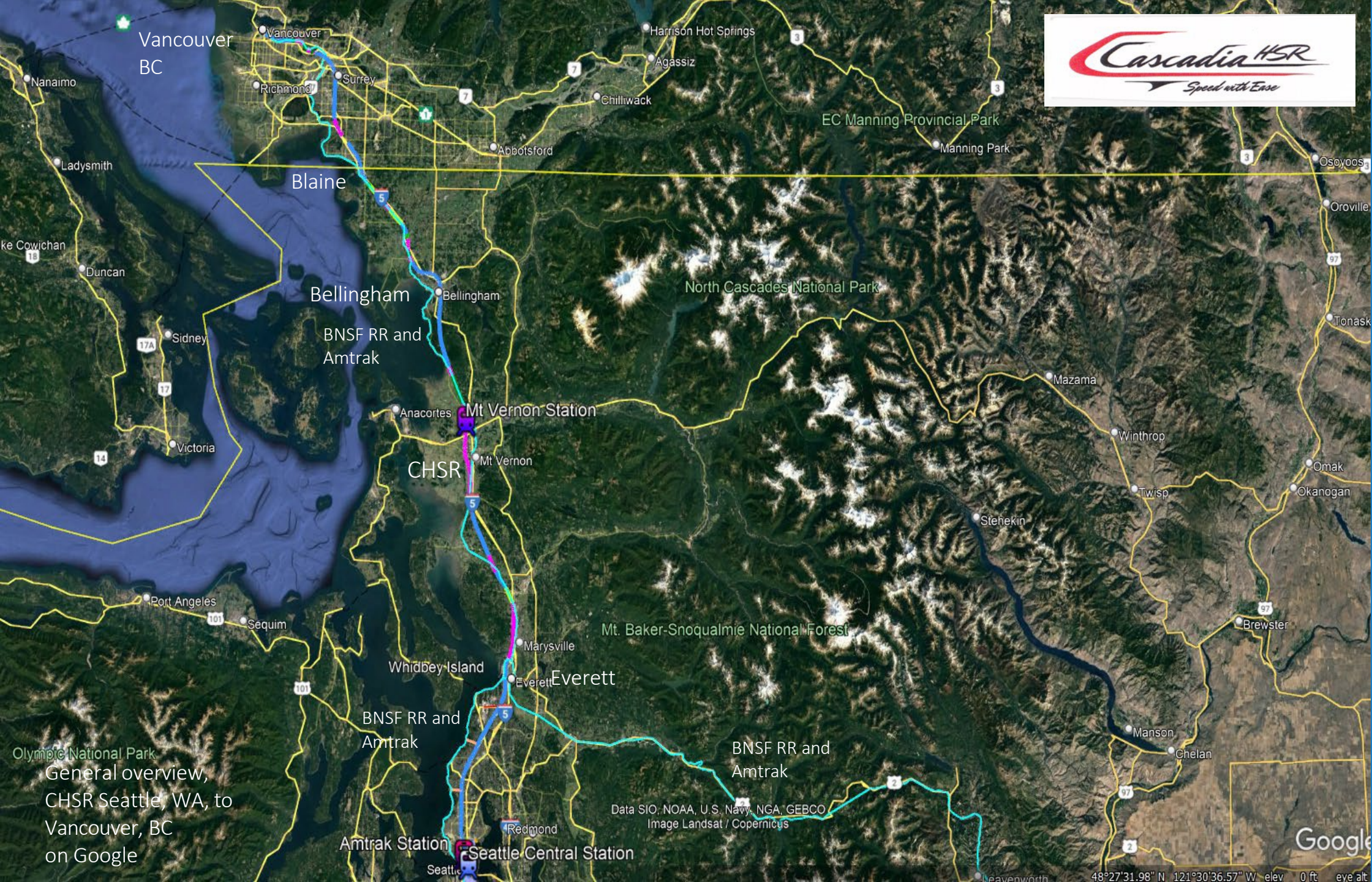
 Tunnels

 Existing Freight Railroads, other than BNSF and UP RR

 Existing Freight Railroads

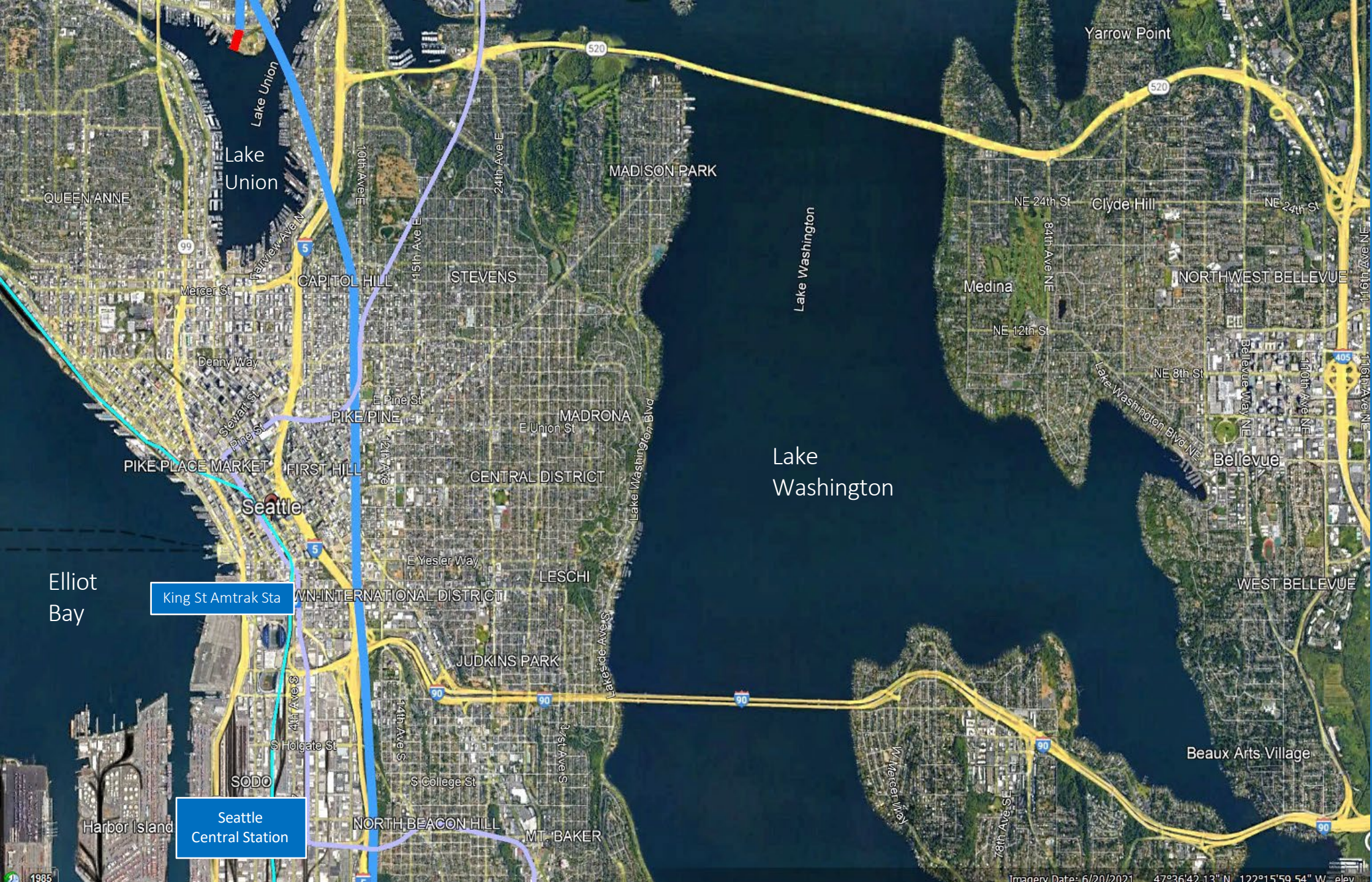
C-ICE: Cascadia Inter-City Express

CCE: Cascadia Commuter Express



The CHSR
Corridor
between
Seattle and
Vancouver, BC

General overview,
CHSR Seattle, WA, to
Vancouver, BC
on Google



CHSR between
Seattle Central
Transportation
Hub and Lake
Union

The CHSR is partly
below Broadway
public right-of-way
to reduce land
acquisition costs.



CHSR at the new Seattle Central Station

This station is below ground and above the Link-Rail Line.

The station has six tracks; two to Vancouver, BC, two to Portland, and two for a future Spokane connection.

Mixed-use development and parking are above the new underground Link Rail Station and CHSR Station.



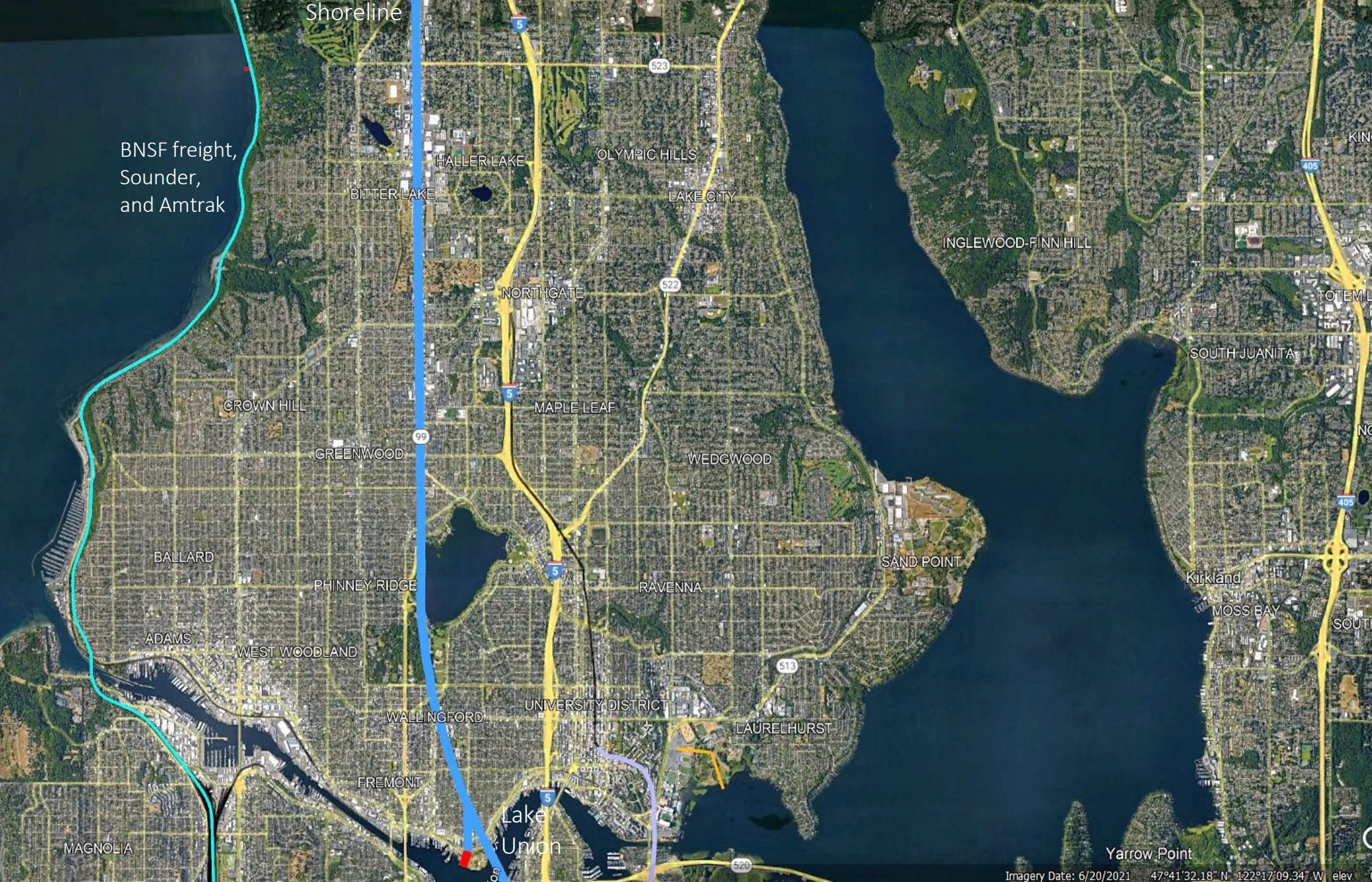
The Seattle
Central
Station and
Possible
Development
Plan by
Ankrom
Moisan
Architects

PROPOSED DEVELOPMENT BOUNDARY

MAX GSF (3:1 FAR) = 15,300,000 SF

RECOMMENDED GSF (2:1 FAR) = 10,200,000 SF

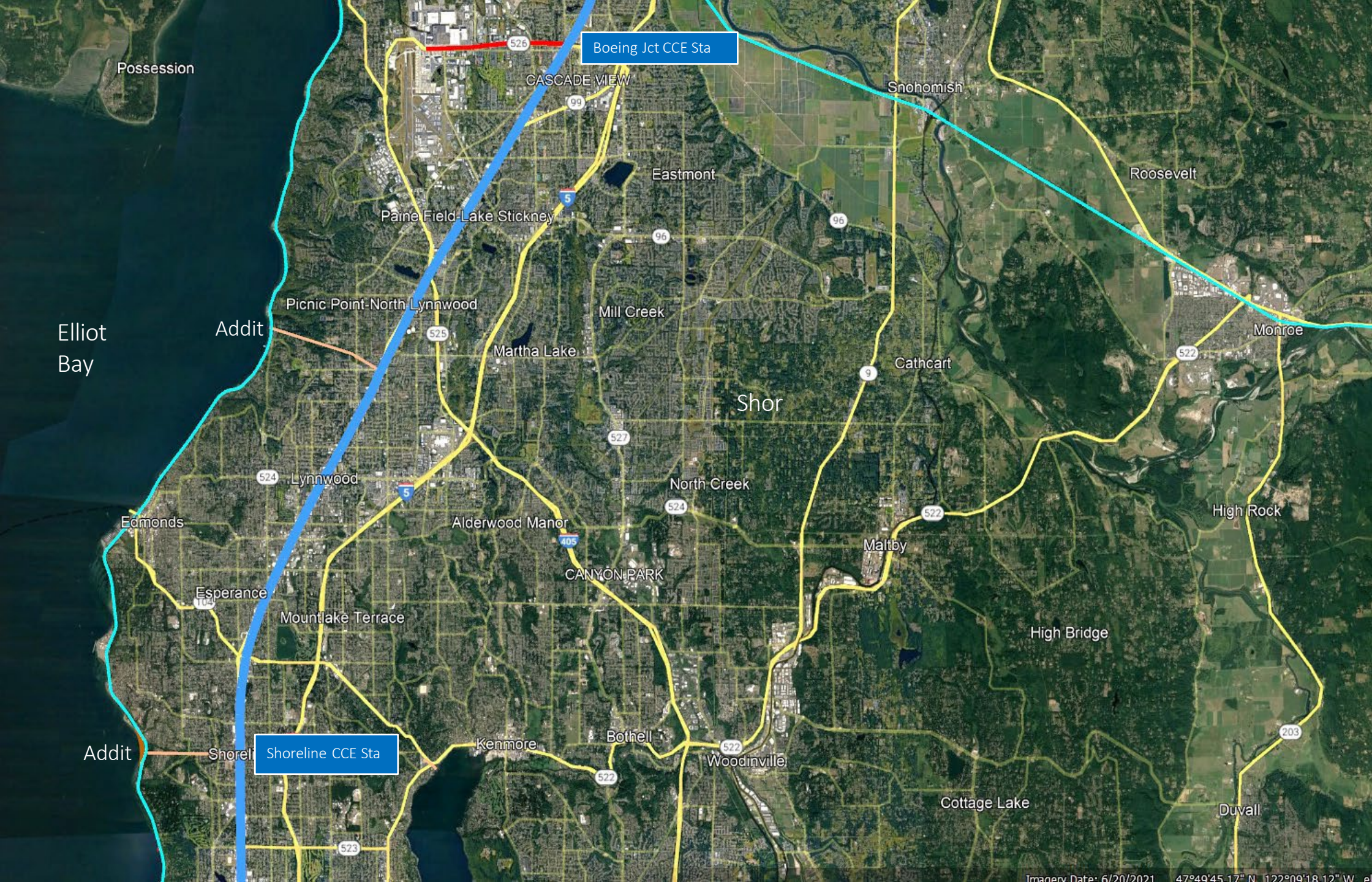
EXISTING MAX FAR (1:1) = 5.1 mil. SF



BNSF freight,
Sounder,
and Amtrak

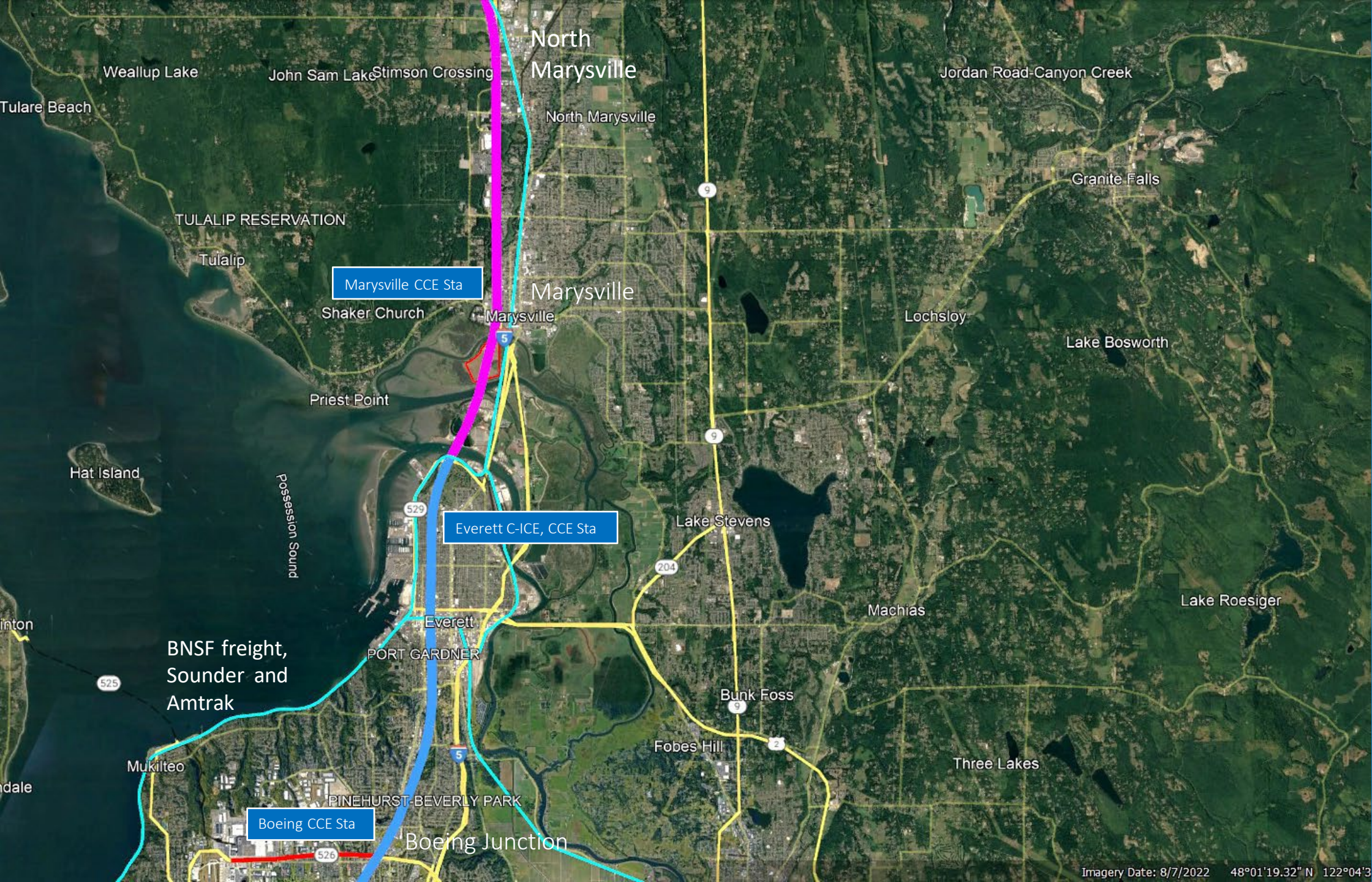
CHSR Corridor
between Lake
Union and
Shoreline

The CHSR is
below Hwy 99
to reduce the
right-of-way
costs to
construct the
new CHSR
corridor.



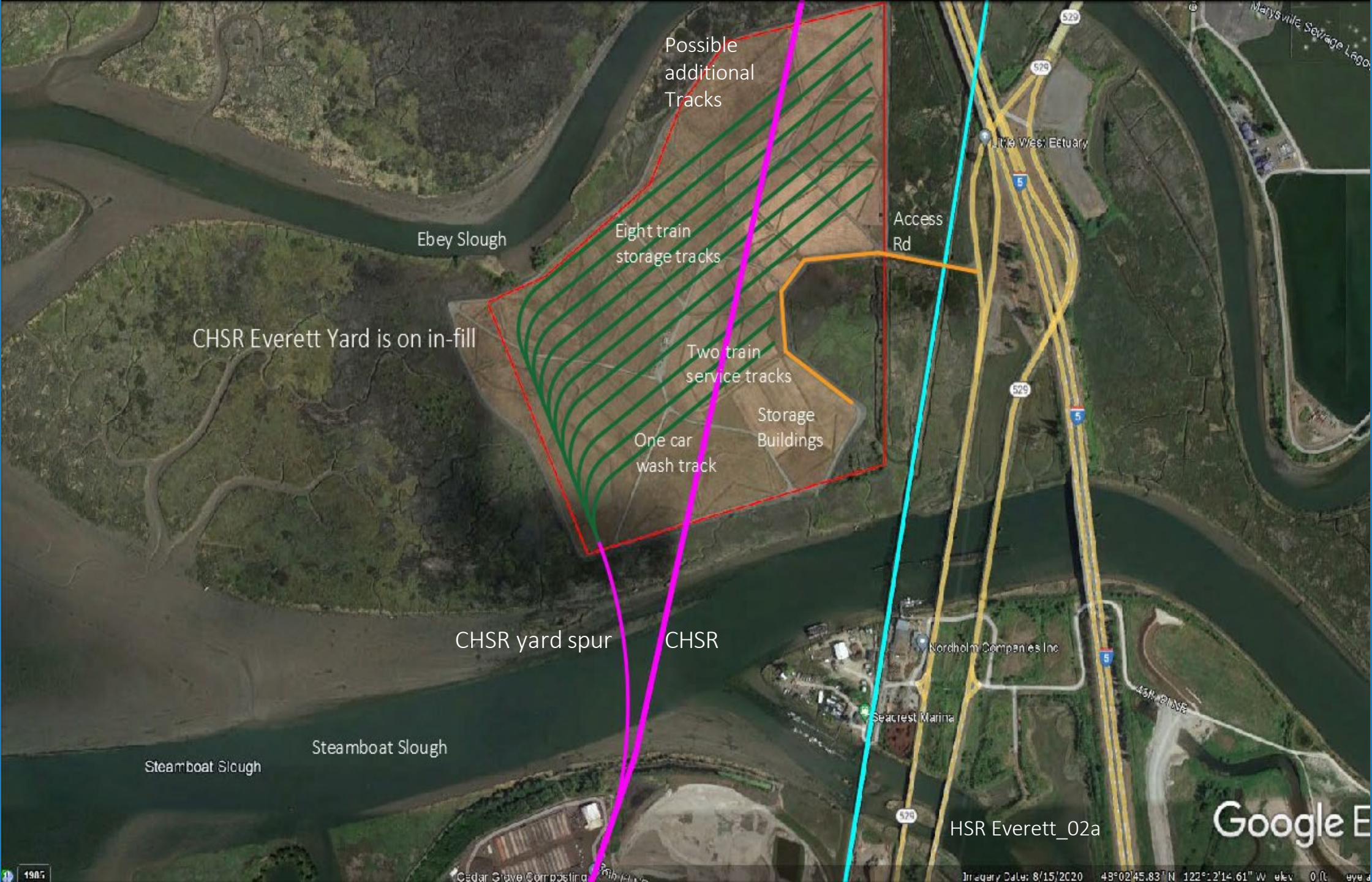
CHSR Corridor
between
Shoreline and
Boeing CCE
Station

The CHSR twin-
bore tunnel has
addits for
tunnel boring
material
removal to Elliot
Bay shoreline
infill.



CHSR Corridor
between
Boeing
Junction and
North of
Marysville

The Everett
CHSR station is
at Hewitt and
Colby Ave.



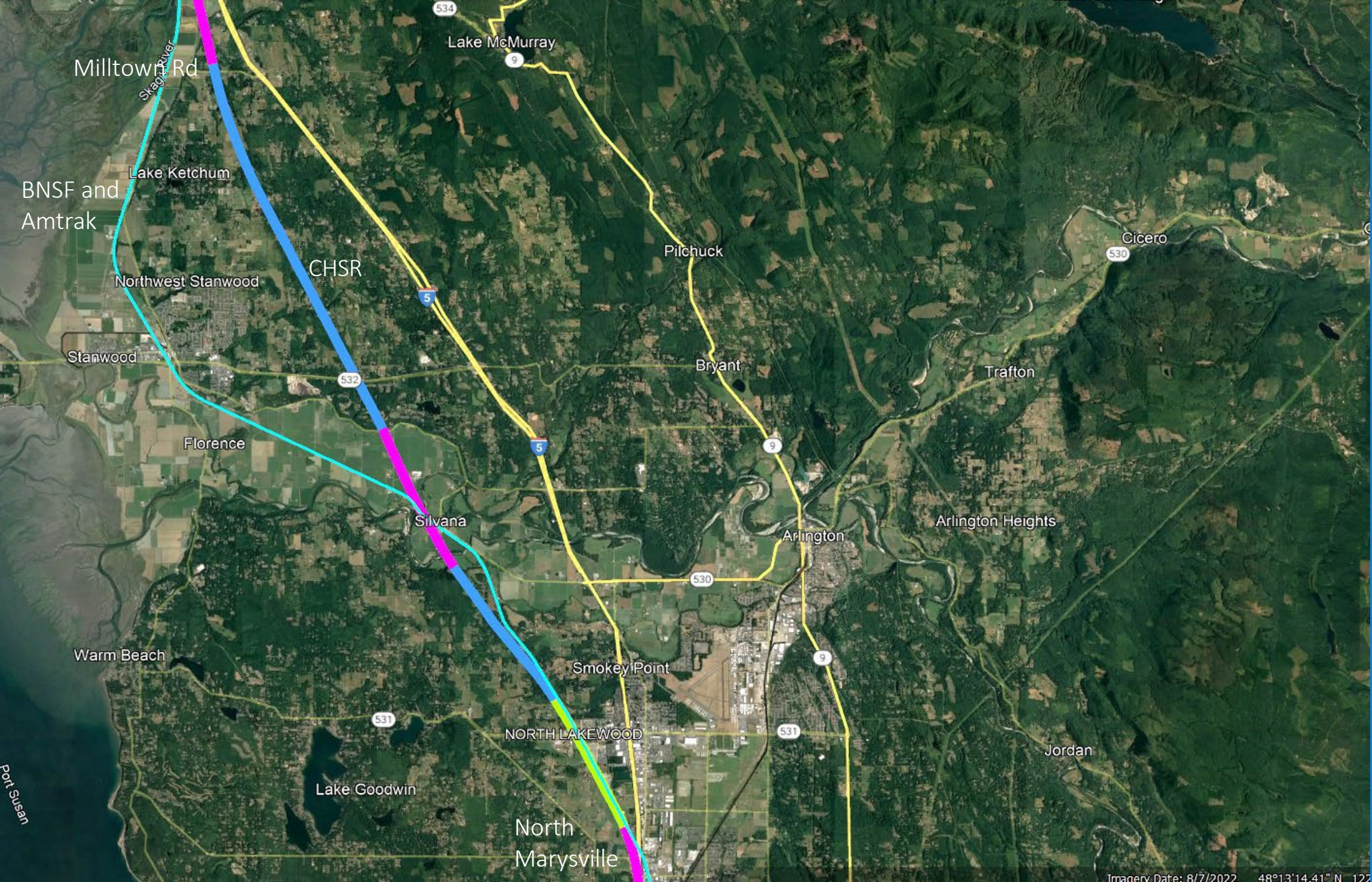
CHSR Corridor at the North Everett Maintenance Yard

The 154-acre yard is on compacted infill from the tunnel excavation.

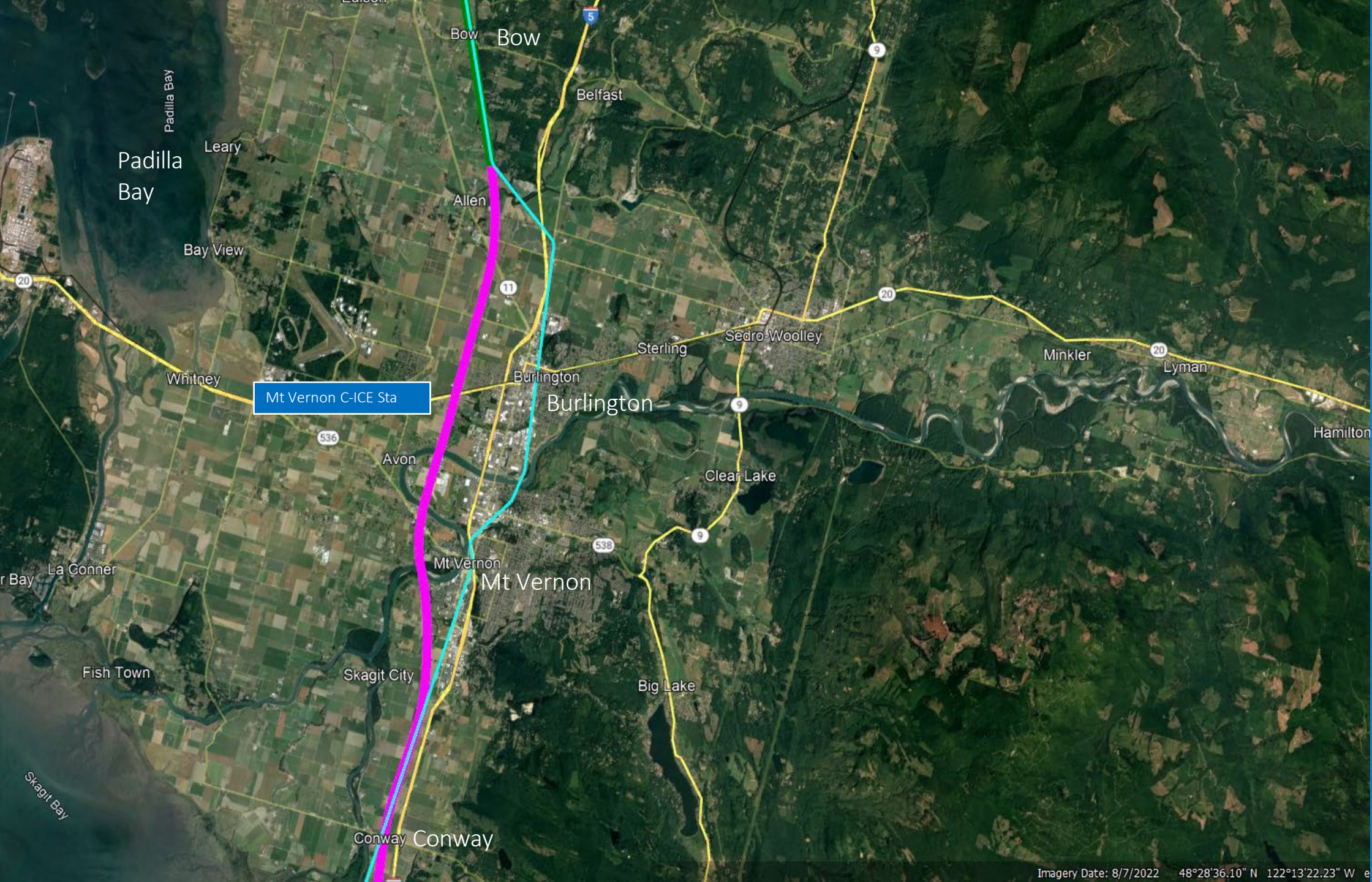
The train storage tracks are 2600 feet long. The train service and carwash tracks are up to 1500 feet long. All yard tracks are below the CHSR flyover.

Modified access to the yard is from Hwy 529.

The CHSR Company has the profile drawings.



CHSR Corridor
between
North
Marysville and
Milltown Rd



CHSR Corridor
between
Milltown
Rd/Conway
and Bow

Mt Vernon C-ICE
station will
serve Burlington
as well.

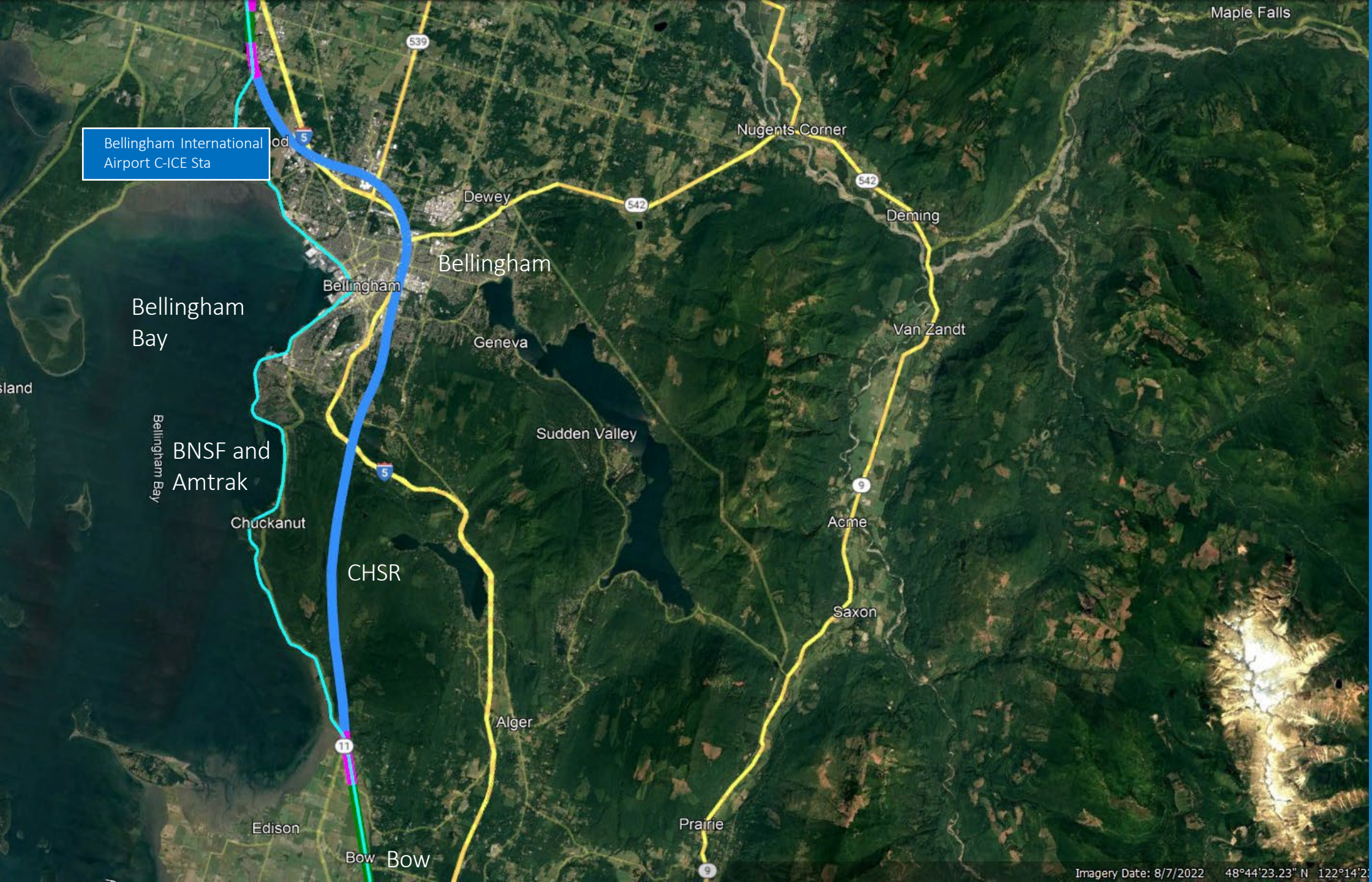


CHSR at Bow Hill Rd

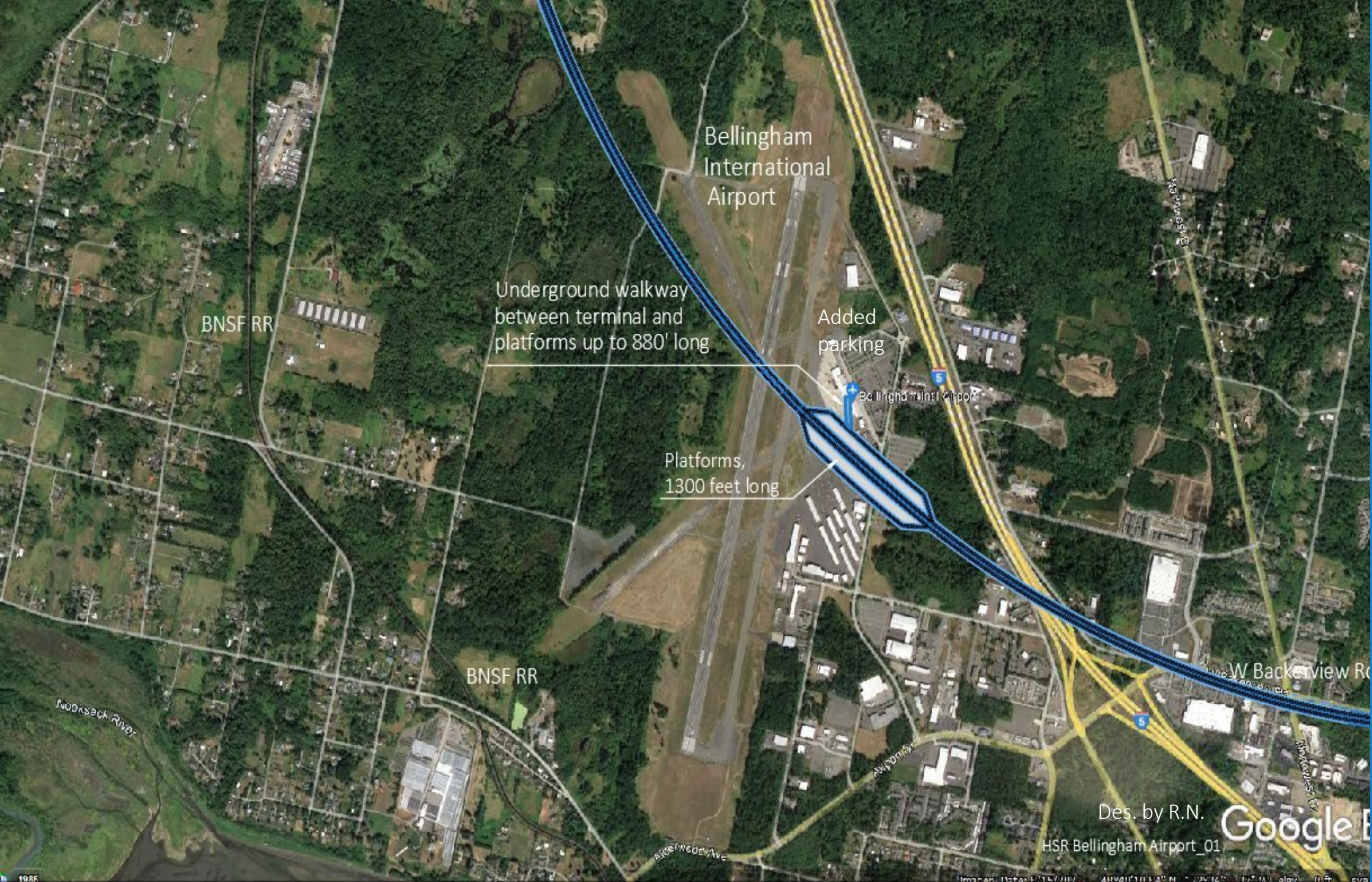
All fill will come from the TBM excavations.

Needed fill volumetrics have yet to be calculated. The footprint is ± 88 feet.

The power lines will go below the CHSR bridge with insulated wire cable, length as required.



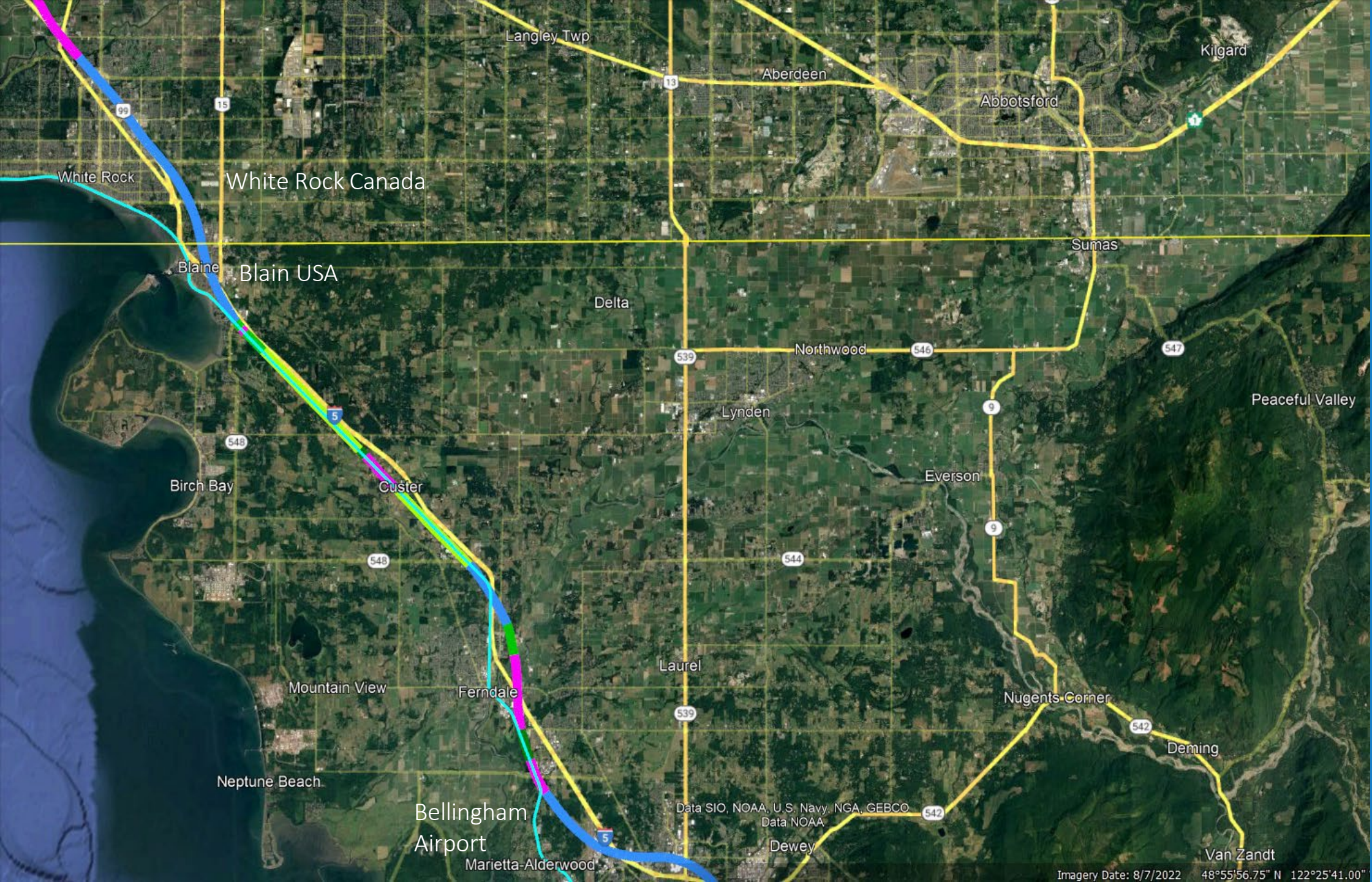
CHSR Corridor
between Bow
Rd and
Bellingham
International
Airport



The CHSR C-ICE Station is below the Bellingham International Airport

The CHSR is well below the runways and can take the brunt of landing airplanes.

The CHSR Company has all the profile drawings for the corridors.



CHSR Corridor
between
Bellingham
Airport and
White Rock

The CHSR will
cross the border
at Blaine, USA
and White Rock,
British Columbia



CHSR at Birch Bay Lynden Rd Rail Crossing

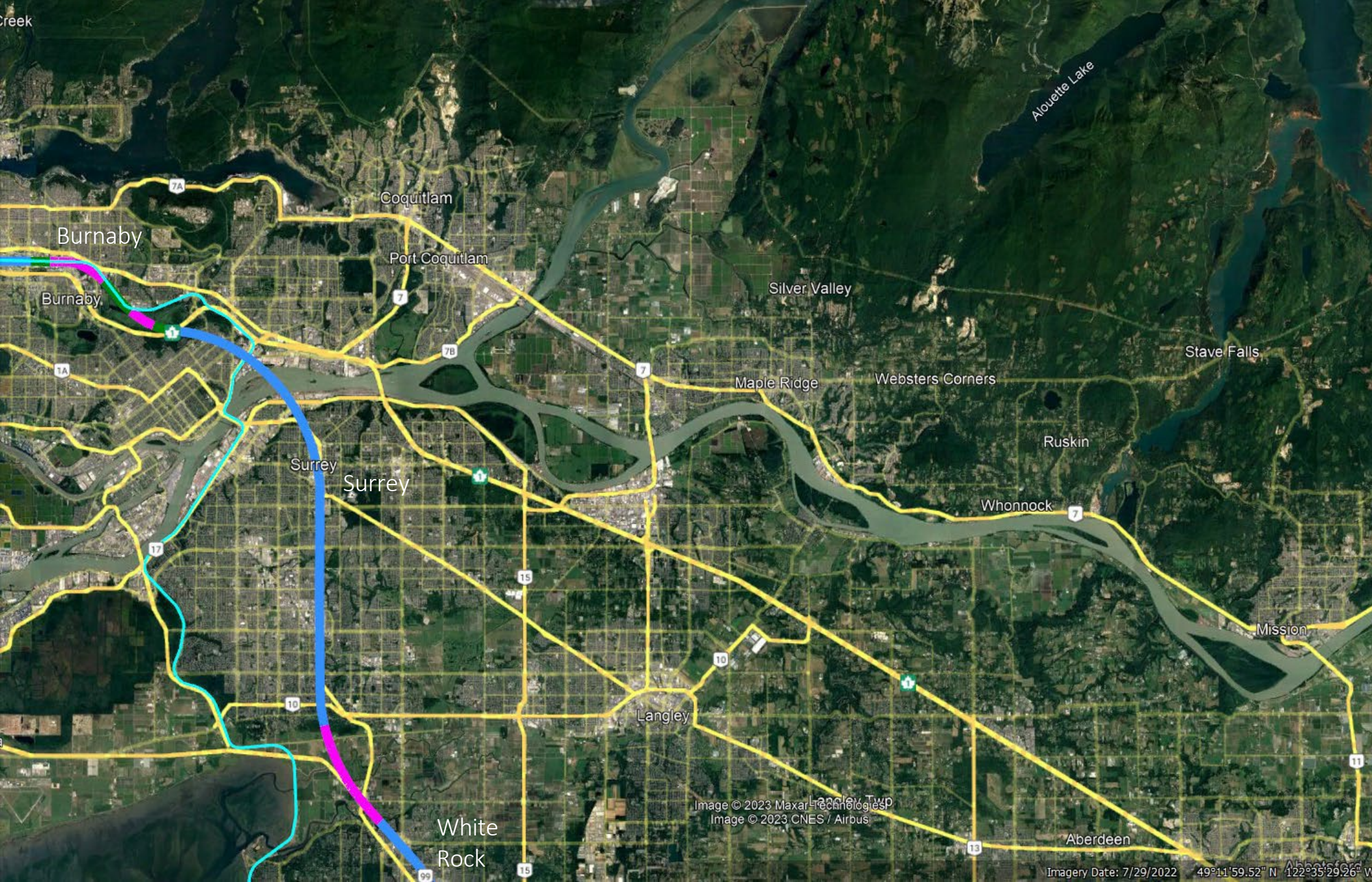
This new Birch Bay Lynden Rd rail overpass will also help BNSF RR. All four Portal Way and Birch Bay Lynden Rd ramps grades are 5.7%.

This is a typical arrangement for combined overpasses with adjacent connecting roads.

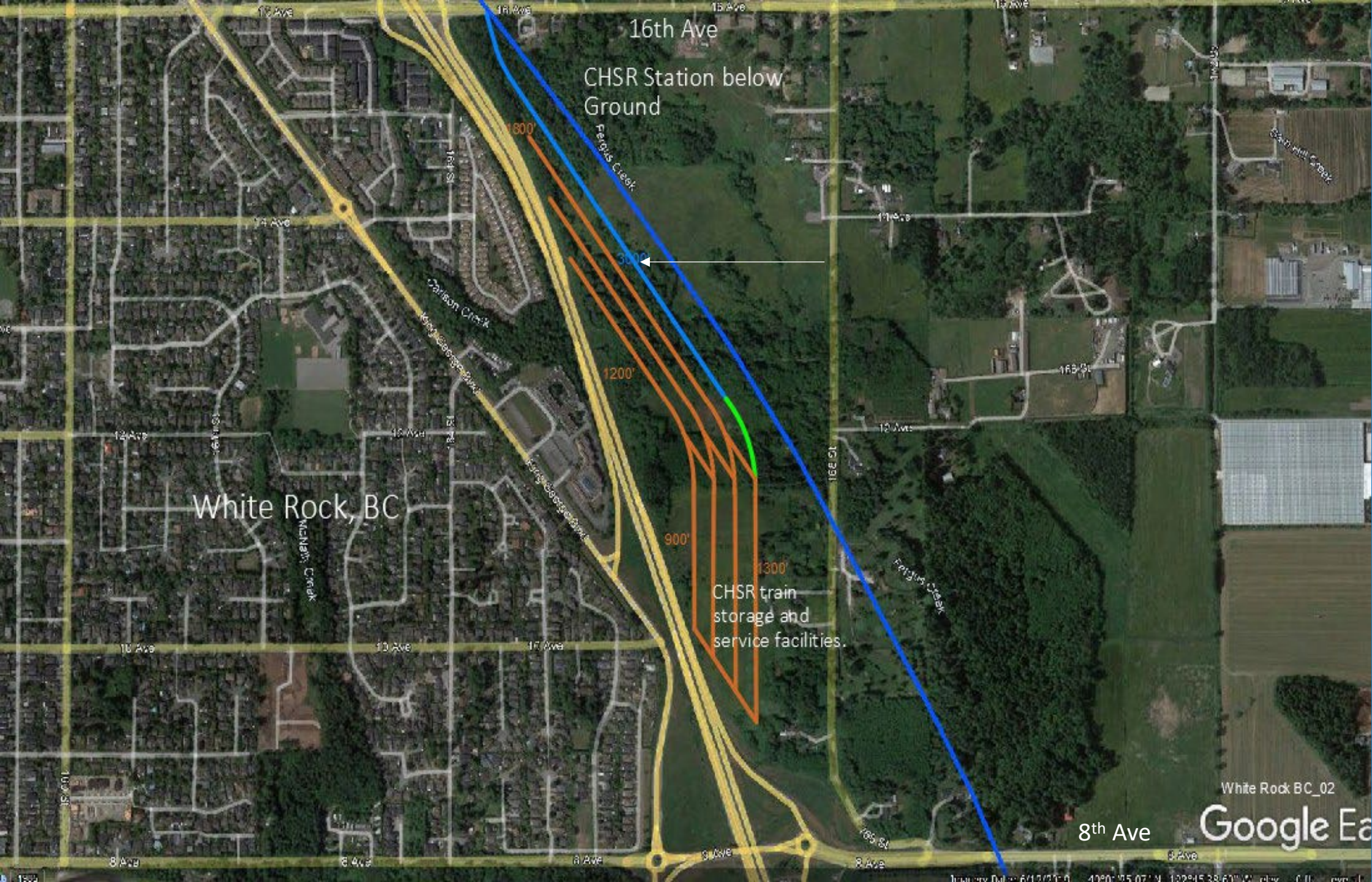
CAD, Birch Bay Lynden_01

Google Earth

Imagery Date: 8/15/2020 48°56'07.97" N 122°40'07.15" W Alt: 1481 ft



CHSR Corridor
between
White Rock
and Burnaby

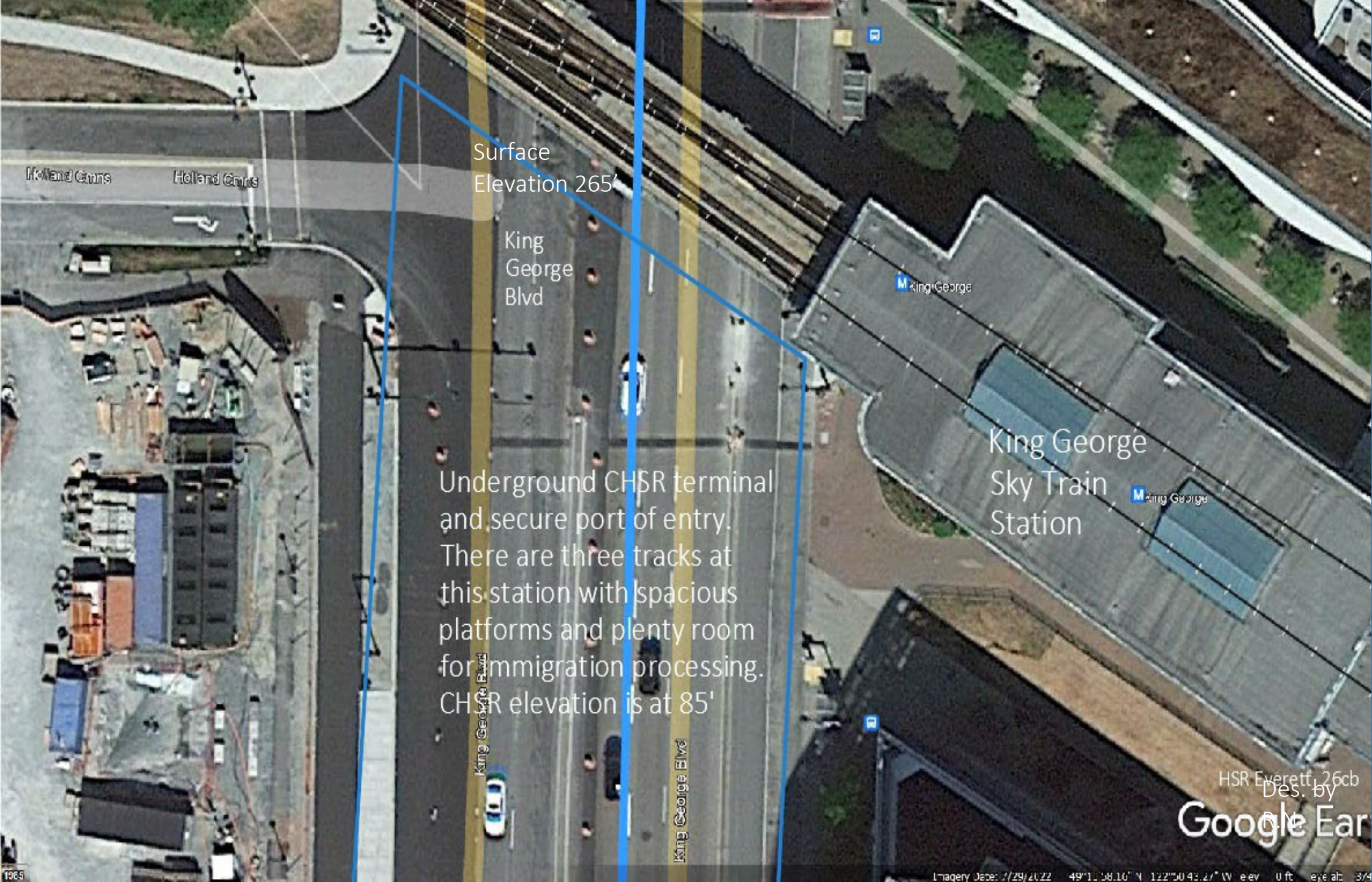


The CHSR Corridor in White Rock, BC

The White Rock Station is only for Canadian commuter train stops. Train storage and service facilities are needed for the Canadian system.

International CHSR trains do not stop here.

Ferguson Creek can easily be rerouted for the service facility.



Surface
Elevation 265'

King
George
Blvd

Underground CHSR terminal
and secure port of entry.
There are three tracks at
this station with spacious
platforms and plenty room
for immigration processing.
CHSR elevation is at 85'

King George
Sky Train
Station

HSR Everett, 26cb
Des. by
R.M.

Google Earth

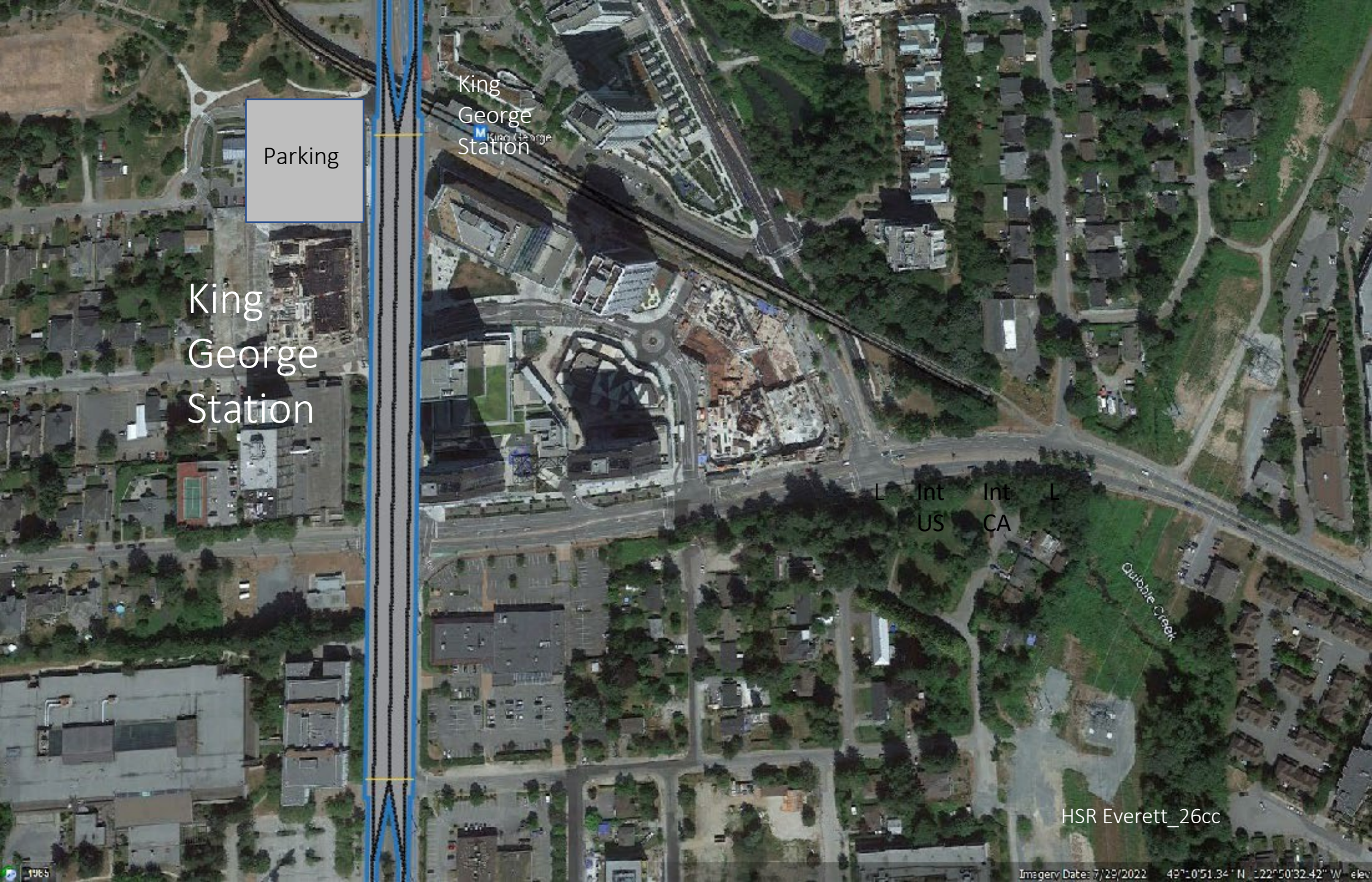
CHSR and King
George Sky
Train Station
at Surrey, BC

The Surrey CHSR
station will
connect to the
Sky Train station.

The CHSR
station is below
ground, allowing
secure border
crossing for
passengers.

Passengers with
improper
documentation
must return to
the point of
origin.

Establish
agreements for
border control
personnel to
work at this
locality.



Parking

King
George
Station

King
George
Station

L Int Int L
US CA

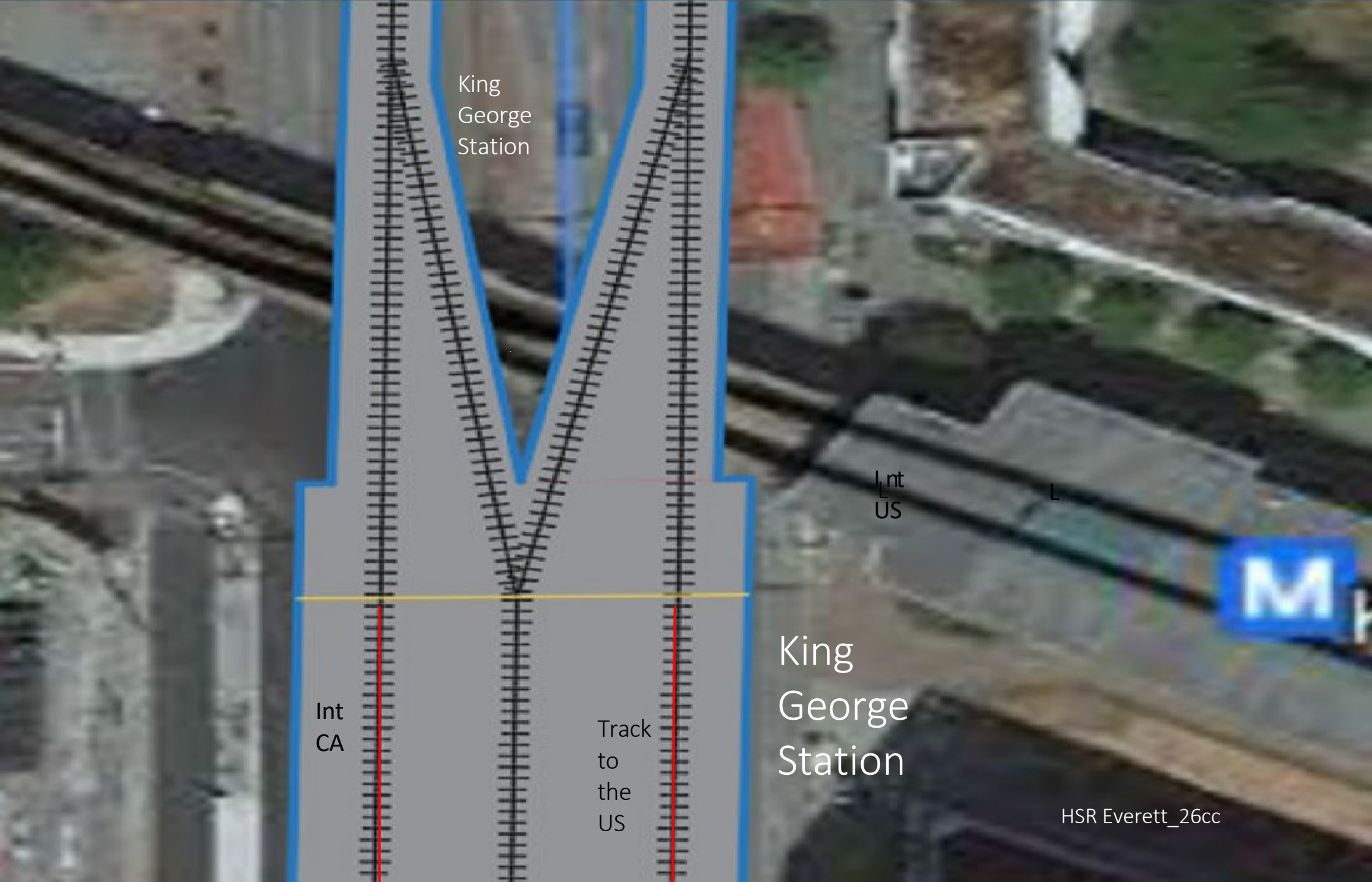
Quibble Creek

HSR Everett_26cc

CHSR Corridor
Terminates and
Sky Train Begins
at Surrey, BC

The C-ICE, CCE
Station is below
ground. The
center track
platform is for
international
transit, and the
outer track
platforms (L) are
for local trains
between Pacific
Central Station
and White Rock.

Red lines are walls
to prevent any
border crossings.



King
George
Station

Int
US

L



Int
CA

Track
to
the
US

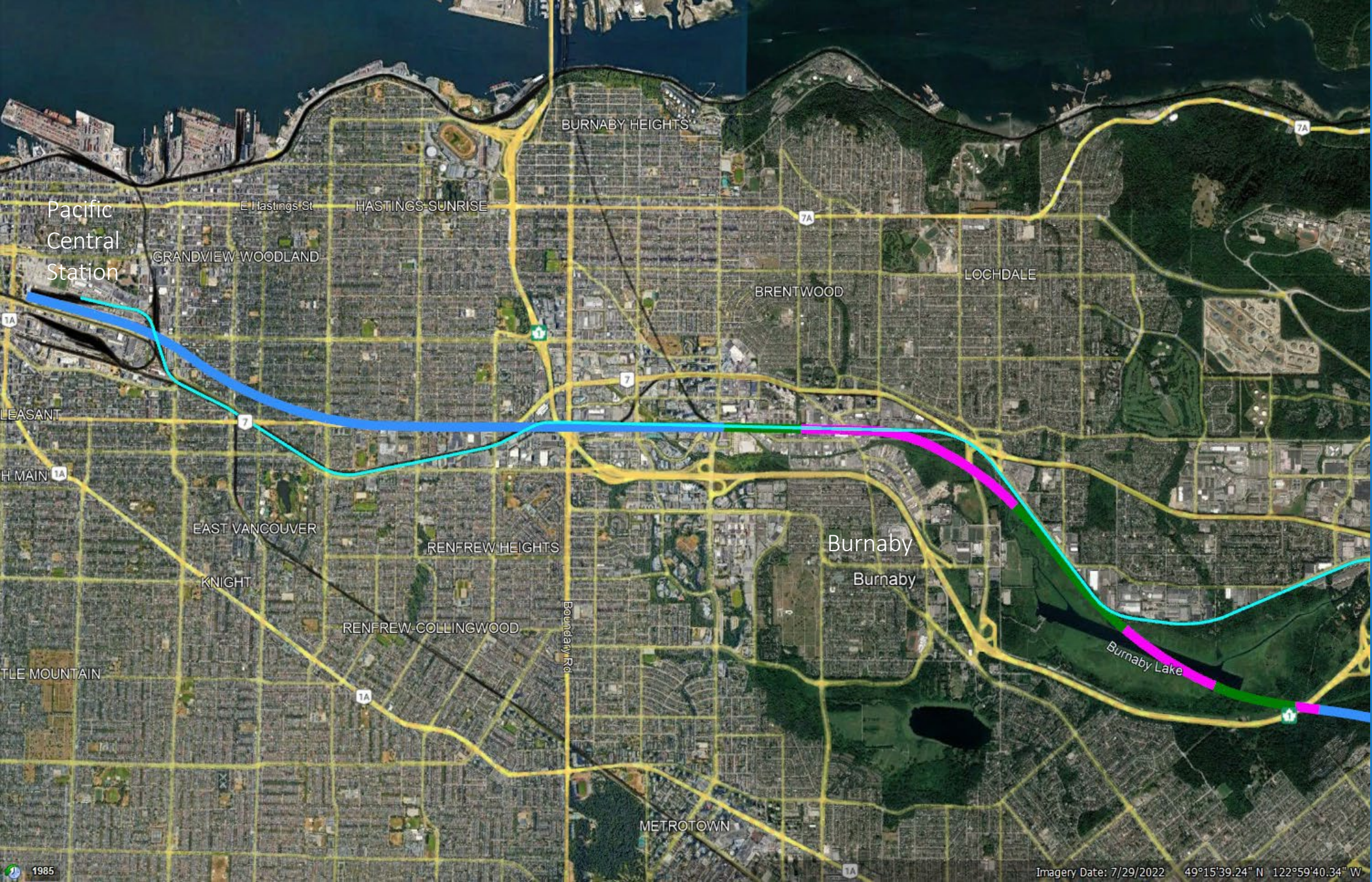
King
George
Station

HSR Everett_26cc

CHSR Corridor
Terminates and
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Red lines are walls
to prevent any
border crossings.



Possible CHSR
Corridor
between
Surrey and
Pacific Central
Station



CHSR Wildlife Under Crossing as Needed

This is an example of providing wildlife under passing. The underpass has open access with trees, shrubs, and greenery to copy the approach sides.

Freight Rail

CHSR

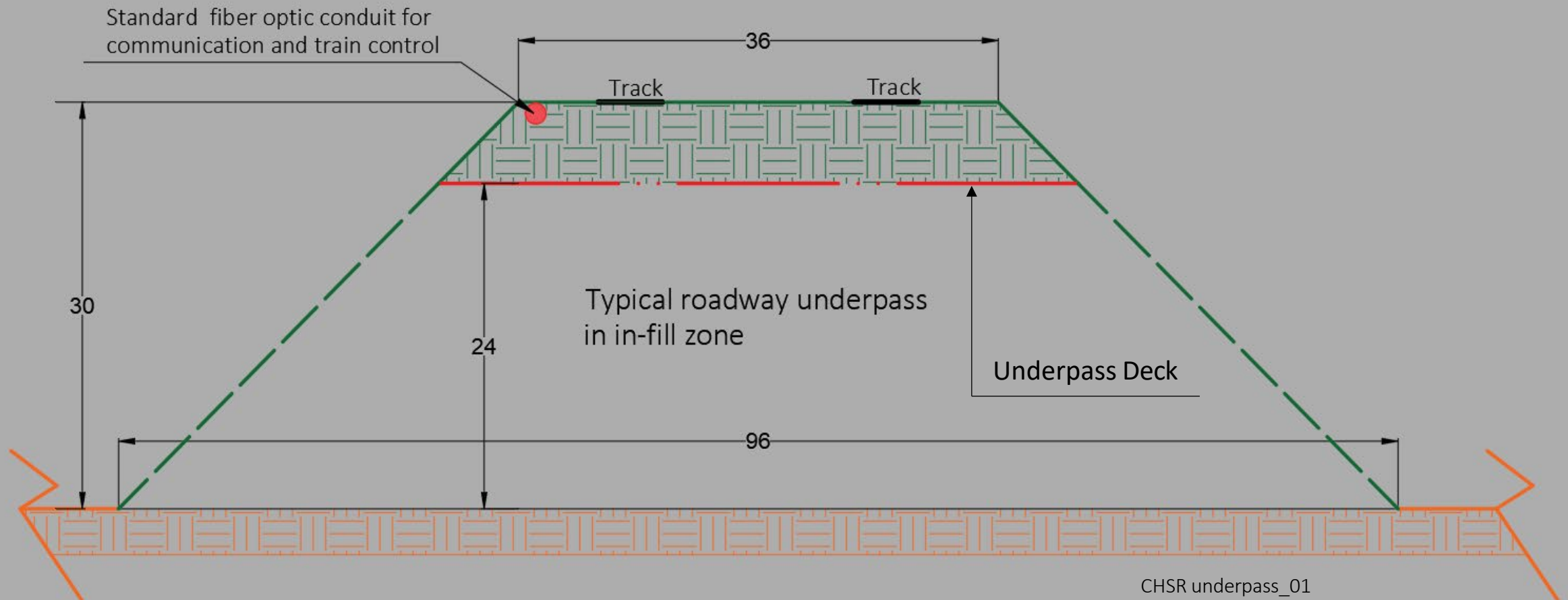
HSR wildlife underpass



CHSR
Wildlife
Crossing as
Needed

This is an example to provide wildlife overpassing. The overpass is fenced with trees, shrubs, and greenery to copy the approach sides.

This is a typical illustration of roadway underpass arrangements along the CHSR corridor where we have in-fills. In-fills will work as tunnel excavation material deposits. This underpass has a 24-foot clearance with a deck height of 6 feet which is enough to cross a 54' broad highway. Also, note the communication conduit along all the CHSR corridor lines.



Seattle Central CHSR Station to Vancouver BC Pacific Central CHSR Station Mileage and Times

Number one = Priority, Number Two = Secondary Stops

Station to Station	CHSR Corridor Milage	Estimated Travel Time
Seattle Central-Shoreline # 1	12.48 miles	10 minutes
Shoreline-Boeing # 2	13.19 miles	11 minutes
Boeing-Everett # 2	3.30 miles	5 minutes
Everett-Marysville # 2	3.30 miles	5 minutes
Marysville-Mt Vernon # 2	28.57 miles	16 minutes
Mt Vernon-Bellingham Airport # 1	32.78 miles	17 minutes
Bellingham Airport-US Border # 2	17.78 miles	11 minutes
US Border-Surrey King George Sta # 1	14.21 miles	11 minutes
King George Sta-Pacific Central Sta # 2	14.30 miles	12 minutes
Transportation Mode Comparison	Stop to Stop	Estimated Travel Time
157 miles (Amtrak)	Seattle King Sta-Vancouver Pacific Central Sta	4 Hr 20 minutes
142.6 miles (Autos/Buses)	Seattle-Vancouver BC	2 Hr 53 minutes
139.91 miles (CHSR)	Seattle Central Sta-Vancouver Pacific Central Sta	49 minutes, one-stop (Bellingham)

CHSR Miles between Seattle Central and Vancouver, BC

On Ground	Cut/Fill	Flyover or Bridges	Tunnel or Underpass
2.36 Mi SV_009 BNSF	4.33 Mi SV_014 BNSF	5.10 Mi SV_007 I-5 *	5.24 Mi SV_001 new
2.59 Mi SV_024 BNSF	0.76 Mi SV_021 BNSF *	4.43 Mi SV_008 I-5 *	7.24 Mi SV_003 Hwy 99 *
3.35 Mi SV_027 BNSF		2.53 Mi SV_011 new	6.79 Mi SV_004 Hwy 99
			6.40 Mi SV_005 Evergreen Hwy
	1.78 Mi SV_022 new	15.30 Mi SV_013 new	6.59 Mi SV_006 new
	0.41 Mi SV_023 new	1.30 Mi SV_015 BNSF	2.69 Mi SV_010 new
	0.21 Mi SV_026 BNSF	0.87 Mi SV_020 BNSF *	6.56 Mi SV_012 new
	0.62 Mi SV_028 BNSF	1.00 Mi SV_025 BNSF	8.31 Mi SV_016 new
		0.14 Mi SV_029 BNSF	5.85 Mi SV_017 I-5 *
			1.79 Mi SV_018 W Bakerview Rd
			1.68 Mi SV_019 new
			2.00 Mi SV_024 new *
	0.21 Mi SV_030 Peace Portal Dr		
		2.72 Mi SV_035 new *	2.10 Mi SV_031 new US
			2.96 Mi SV_032 new BC
			1.51 Mi SV_033 Hwy 99
			1.25 Mi SV_034 Hwy 99
			5.67 Mi SV_036 K George
8.30 Miles 6.66%	8.32 Miles 6.67%	33.39 Miles 26.79%	74.63 Miles HSR 59.89%
			124.64 Miles Total CHSR
			128 Miles Total Amtrak
0.51 Mi SV_039 new	1.13 Mi SV_041 C Nat.	0.15 Mi SV_038 new	5.55 Mi SV_037 new
	0.48 Mi SV_043 C Nat.	0.65 Mi SV_040 new	2.15 Mi SV_044 C Nat. +
		1.45 Mi SV_042 new	2.33 Mi SV_045 new
0.51 Miles to PC Station	1.61 Miles to PC Station	2.25 Miles to PC Station	10.03 Miles to PC Station
			14.40 Miles total
			139.04 Miles to PC Sta.
			157 Miles Total Amtrak

New and existing Right of Way (RoW) declaration.

60.87 miles in a new corridor, USA and Canada	78.17 miles in an existing right of way, BNSF, or Hwy
43.79 % of this CHSR RoW must be acquired	56.23 % may be shared
Tunnel miles may be excluded from the RoW purchase.	

* = Some deviation, as some miles are aside from the named corridor segment.

The upper columns indicate the miles from Seattle Central to the Surrey King George Sky Train Station.

The lower columns indicate the miles from Surrey King George Station to the Vancouver Pacific Central Station.