

# Nelson Canyon Bridge and 26<sup>th</sup> Street Pedestrian Bridge

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# Presentation Outline

1. **Nelson Canyon Bridge**
2. **26<sup>th</sup> Street Pedestrian Bridge**
3. **Recommendation**

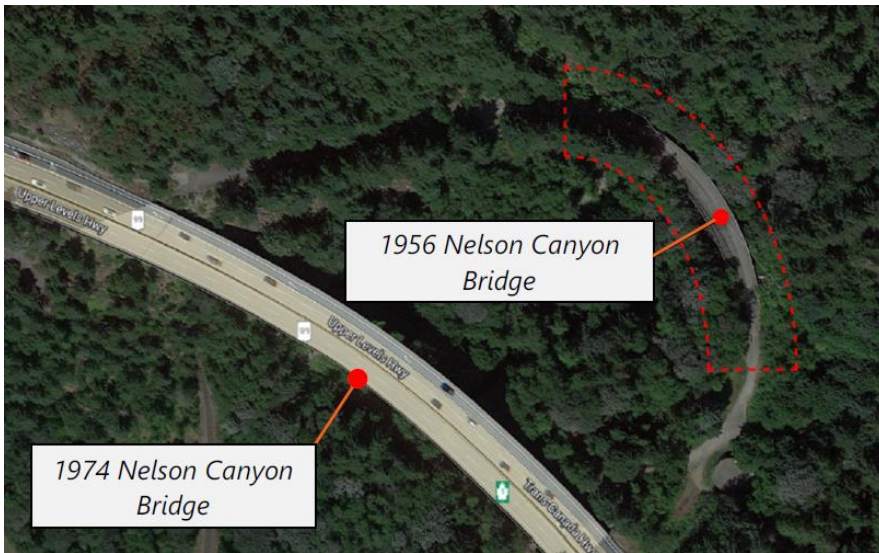
# 1 Nelson Canyon Bridge

NELSON CANYON BRIDGE AND 26<sup>TH</sup> STREET PEDESTRIAN BRIDGE

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# Nelson Canyon Bridge

- constructed 1956
- located south of Nelson Canyon Park, north of Highway 1
- part of the Trans-Canada Trail network, closed to vehicular traffic
- carries critical watermain transmission line to western District



# Nelson Canyon Bridge

- assessment completed 2022



# Nelson Canyon Bridge

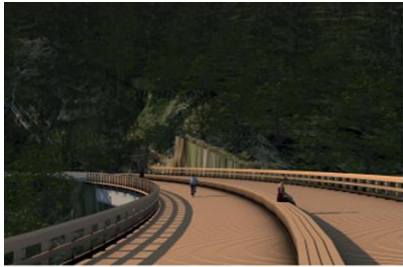
- estimated end of service life - 2031
- urgency rating of 4 out of 5
  - *rating indicates structure requires moderate-priority structural repairs to remain in long-term service and has moderate safety concerns*
- bridge has no seismic force-resisting features in place
  - *expected to perform poorly during a seismic event*



# Nelson Canyon Bridge

## Option 1 – full-width timber deck replacement with seismic upgrades

- replace existing concrete deck with 8 m wide lightweight timber
- seismic preventative added to base of foundations
- water main realigned under protective bench
- cost - \$1,500,000



# Nelson Canyon Bridge

## Option 2 – partial-width timber deck replacement with seismic upgrades

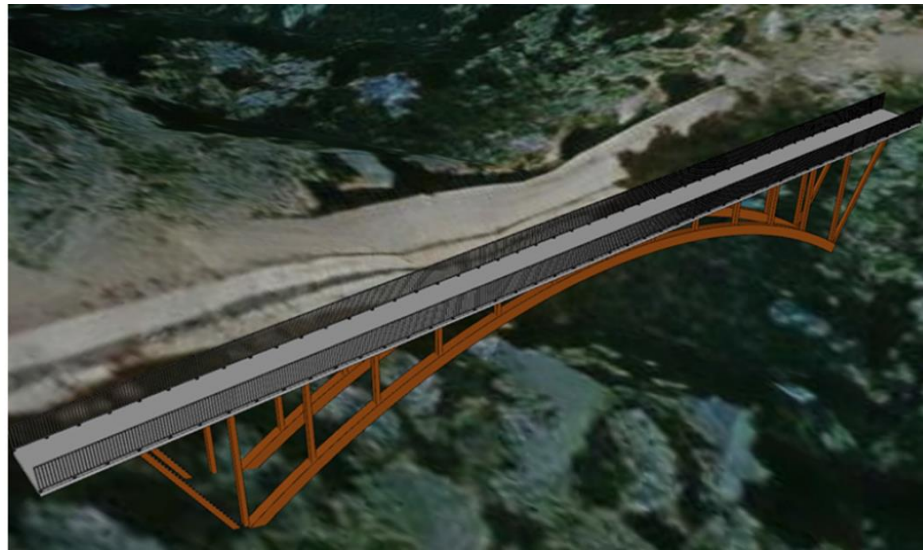
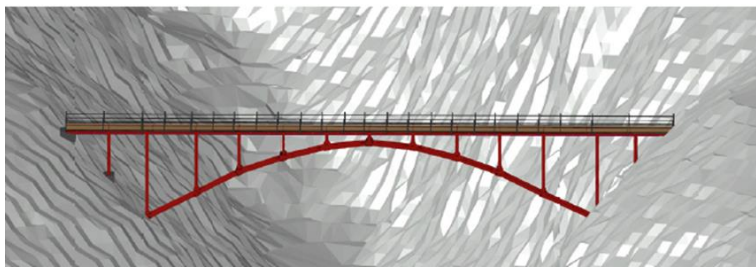
- replace concrete deck with 4 m wide lightweight timber
- seismic preventative added to base of foundations
- water main realigned under protective bench
- cost - \$1,200,000



# Nelson Canyon Bridge

## Option 3 – new bridge

- new lightweight pedestrian bridge - meets current seismic standards
- south of the existing bridge
- watermain relocated to new bridge
- cost - \$4,000,000 - \$5,000,000



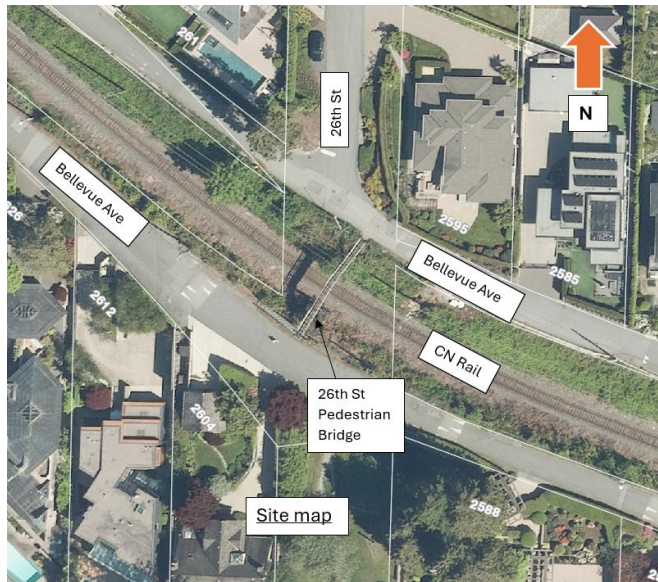
# 2 26<sup>th</sup> Street Pedestrian Bridge

NELSON CANYON BRIDGE AND 26<sup>TH</sup> STREET PEDESTRIAN BRIDGE

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# 26<sup>th</sup> Street Pedestrian Bridge

- constructed in 1937 by the District
- located at the base of 26<sup>th</sup> Street, adjacent to Bellevue Avenue, crosses the CN Rail track.
- low-use asset - 55 pedestrians daily



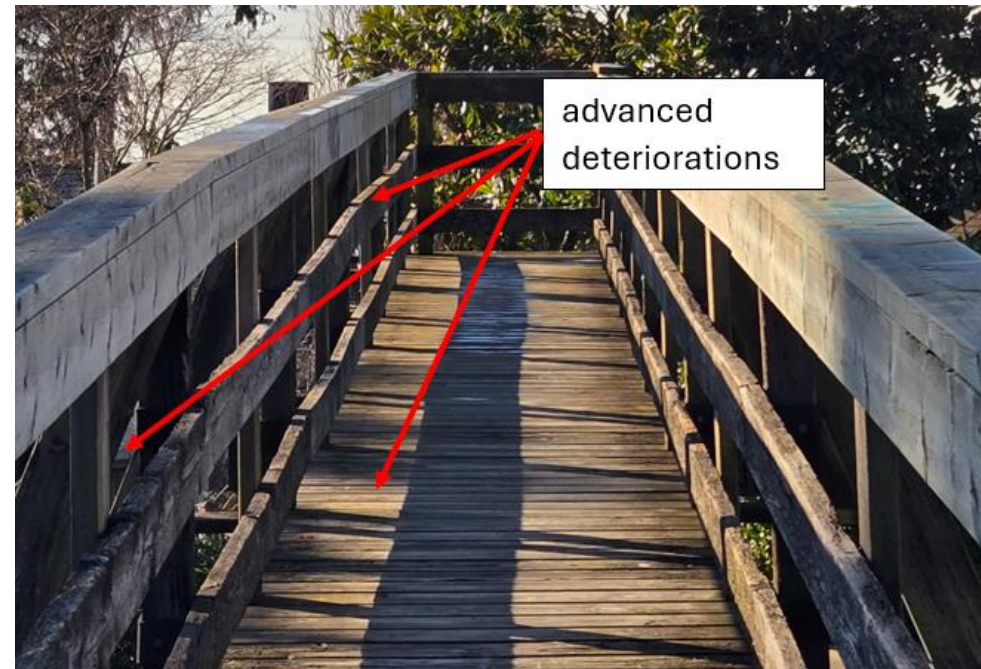
# 26<sup>th</sup> Street Pedestrian Bridge

- assessment completed June 2024



## 26<sup>th</sup> Street Pedestrian Bridge

- advanced timber decay and weather-related deterioration
- ***no remaining service life - close immediately***



# 26<sup>th</sup> Street Pedestrian Bridge

## Option 1 – rehabilitation

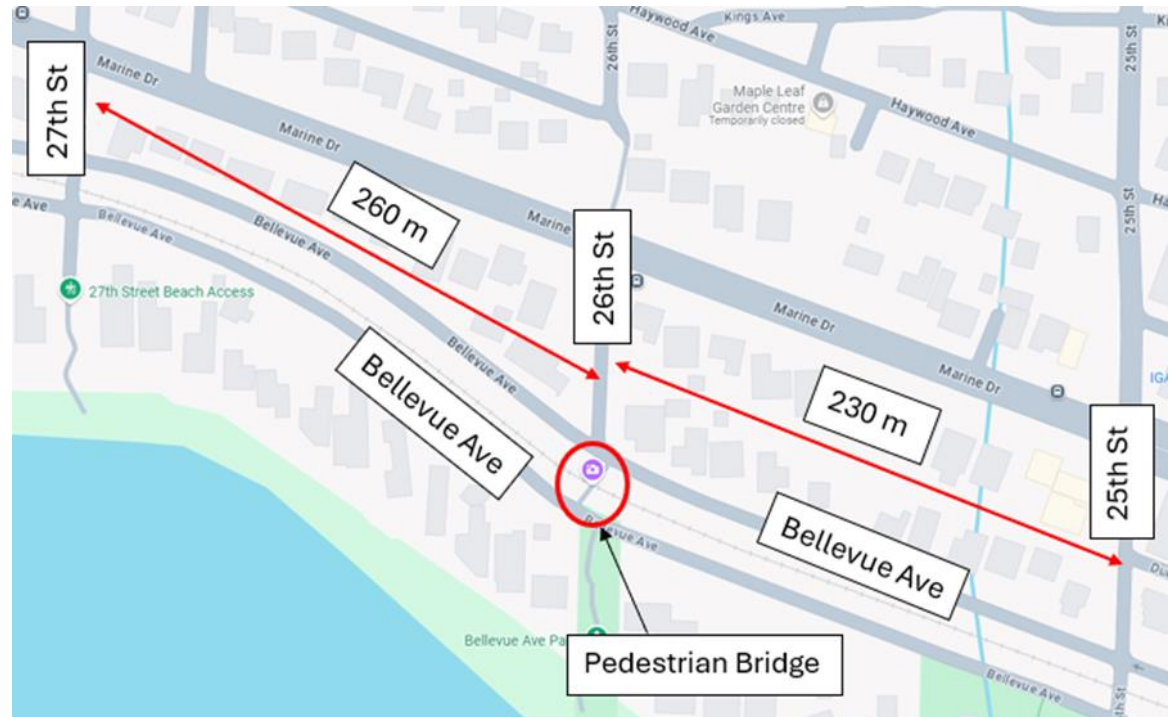
- not viable
- structural issues and decay throughout
- piles do not meet Transport Canada clearance requirements



# 26<sup>th</sup> Street Pedestrian Bridge

## Option 2 – direct pedestrians to existing level crossings

- existing bridge must be removed
- cost - \$100,000
- Pedestrians can cross at nearby level crossings
  - 25<sup>th</sup> Street, 230 m
  - 27<sup>th</sup> Street, 260 m



# 26<sup>th</sup> Street Pedestrian Bridge

## Option 3 – new bridge

- construction constraints
  - narrow roadways
  - CN Rail traffic control
  - BC Hydro lines/poles
  - DWV Utilities
- cost - \$500,000 to \$2,000,000
  - depending on design, accessibility, and bicycle provisions



# 3 Recommendation

NELSON CANYON BRIDGE AND 26<sup>TH</sup> STREET PEDESTRIAN BRIDGE

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## Recommendation

THAT staff be directed to proceed with the **Nelson Canyon Bridge** Project by moving forward with the following next steps:

1. pursue the renewal of Nelson Canyon Bridge, which includes a full-deck replacement, and seismic upgrades described as **Option 1** within the Council report titled “Nelson Canyon Bridge and 26th Street Pedestrian Bridge” dated February 10, 2025, from the Senior Manager, Roads & Transportation and the Transportation Technologist; and
2. staff report back to Council with an update on available funding mechanisms, a proposed project timeline and detailed Class A cost estimate.

## Recommendation

THAT staff be directed to proceed with the **26th Street Pedestrian Bridge** Project by moving forward with the following next steps:

1. pursue the demolition of the existing structure, formalizing the alternative crossing points at 25th and 27th Streets; and
2. staff report back to Council with an update on available funding mechanisms, a proposed project timeline and detailed Class A cost estimate.

# Options Summary

Nelson Canyon Bridge ( <i>end of service life 2031</i> )			
Option	Description	Cost <i>Class C estimate</i>	Life Span
1	full deck replacement	\$1,500,000	25 + years
2	partial deck replacement	\$1,200,000	25 + years
3	new bridge	\$4.0 to \$5.0 million	75 + years

26 <sup>th</sup> Street Pedestrian Bridge ( <i>at end of service life</i> )			
Option	Description	Cost <i>Class D estimate</i>	Life Span
	demolition – mandatory	\$100,000	n/a
1	level crossings	\$0	n/a
2	full rehabilitation	not viable	n/a
3	new bridge	\$500,000 to \$2 million	75 + years

**Thank You!**  
**Questions?**

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