

Highway 7 Widening - 266th Street to 287th Street



Discussion Guide

Winter 2021

Traffic congestion on Highway 7 between 266th Street and 287th Street in Maple Ridge has been identified as a concern. With one travel lane in each direction, commercial and industrial vehicles are experiencing delays, while commuters are spending more time in traffic and less time with their families. The Ministry of Transportation and Infrastructure is developing a proposed design to upgrade this four-kilometre segment of highway — the last remaining undivided two-lane section of Highway 7 between Maple Ridge and Mission — to four lanes.

Please use this Discussion Guide to learn more about the project and how you can share comments and ask questions. Your input will be used to help refine the proposed design as we work towards a final design.

engage.gov.bc.ca/highway7widening266-287

Canada



Ministry of
Transportation
and Infrastructure

HOW TO ENGAGE ONLINE

Engaging with the local and regional governments, Indigenous groups, stakeholders, interest groups, and community members is important to help shape the proposed design to increase capacity, safety, and reliability. We will be engaging online to adhere to physical distancing guidelines currently in place due to the COVID-19 pandemic. We welcome your comments and questions about this project. Input will be considered during design refinement and will form part of the engagement record. The engagement process is open until **February 19, 2021, 4:00 pm (PST)**.



LEARN MORE

- ▶ Visit our project webpage: engage.gov.bc.ca/highway7widening266-287
- ▶ Read this Discussion Guide



SHARE YOUR COMMENTS

- ▶ Complete an Online Feedback Form found on our project webpage: engage.gov.bc.ca/highway7widening266-287
- ▶ Download and print the Feedback Form, then complete and scan and either:



Email to: Hwy7.266to287@gov.bc.ca



Mail to: Ministry of Transportation and Infrastructure,
310-1500 Woolridge, Coquitlam, BC, V3K 0B8
Attention: Highway 7 - 266 Street to 287 Street



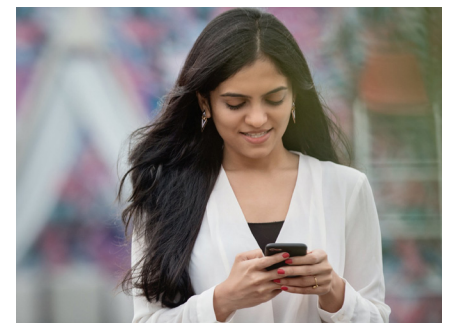
ASK QUESTIONS

- ▶ If you have questions or need clarification, send us a message using the above contact information and we will reply as soon as possible or:



Phone: 604-527-2221

We know online engagement isn't for everyone. If you or someone you know would prefer a printed copy of this Discussion Guide, contact us using the contact details above and we will arrange a safe way for you to receive one.



1 ABOUT THE PROJECT

Highway 7 between 266th Street and 287th Street is an important community link. The route is well-used for local traffic, local business operations, tourism, and movement of goods related to port and rail activities. It is a key connection between Highway 11 in Mission and Highway 1 in Coquitlam. Over 24,000 vehicles travel each day on this segment of highway and traffic is expected to grow over the next 25 years.

The Ministry of Transportation and Infrastructure (Ministry) is committed to investing in safe and efficient transportation infrastructure to move people and goods. Improvements will increase capacity, connect communities, and improve BC's economy which is reliant on a safe, efficient transportation system. Funding for this project is subject to provincial government approval.

PROJECT MAP



Key Improvements

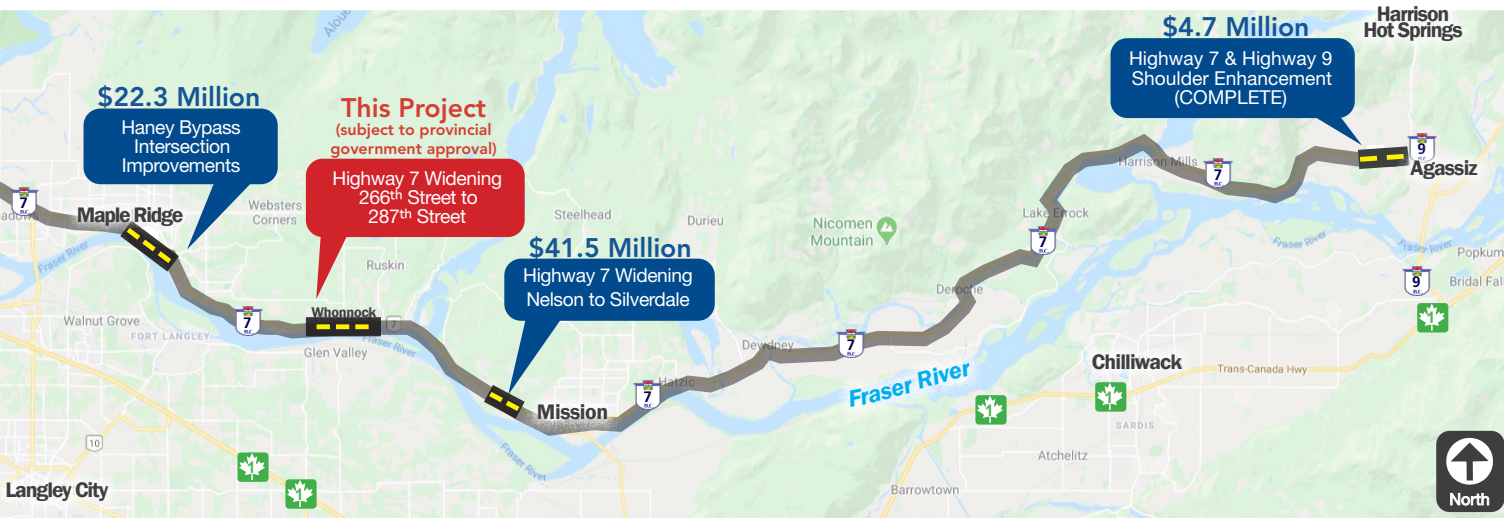
- ▶ Widening the highway from 2 to 4 lanes between 266th Street and 287th Street
- ▶ Installation of a new centre median barrier on the existing four-lane highway from west of Spilsbury Road to 266th Street
- ▶ Two vehicle turnarounds to support safety and access along the corridor
 - » East turnaround at River Road / 272nd Street (reconfigured intersection with proposed roundabout)
 - » West turnaround at 287th Street
- ▶ Related improvements for three signalized intersections:
 - » River Road / 272nd Street
 - » 280th Street
 - » 287th Street

2 WHY IMPROVEMENTS?

HIGHWAY 7 CORRIDOR

Highway 7 between 266th Street and 287th Street is the last remaining section of the Highway 7 corridor to be widened between Maple Ridge and Mission. Recent Highway 7 improvements have included:

- ▶ **Haney Bypass Intersection Improvements:** addresses safety and delays during peak periods
- ▶ **Highway 7 Nelson to Silverdale in Mission:** four-laning to improve capacity and safety
- ▶ **Highway 7 and Highway 9 Shoulder Enhancement and Asphalt Resurfacing:** Completed work between Harrison and Kent



Anticipated Benefits

- ✓ Improved safety for vehicles
- ✓ Increased capacity and decreased traffic congestion
- ✓ More reliability for highway users
- ✓ Improved River Road / 272nd Street connection
- ✓ Better approaches to rail crossings
- ✓ Greater efficiency for moving people and goods
- ✓ Overall benefits to road network



The Government of Canada is contributing up to **\$29,205,477** through the New Building Canada Fund (Provincial-Territorial Infrastructure Component). Cost estimates are currently being developed and will continue to be refined throughout the design process. The provincial government will finalize its investment decision following business case review.

KEY ISSUES ON THIS SEGMENT



Traffic Congestion

Traffic on the highway and intersections during peak periods is reducing efficiency, safety, and reliability for highway users.



Anticipated Growth in Traffic

Traffic is anticipated to grow 45% over the next 25 years which will intensify issues.



Safety Issues

This segment has a collision history that exceeds the provincial average for similar facilities.



Back-ups at Rail Crossings

Due to the proximity of the CP Rail line to Highway 7, there are challenges with back-ups onto the highway at crossings when the rail line is occupied.



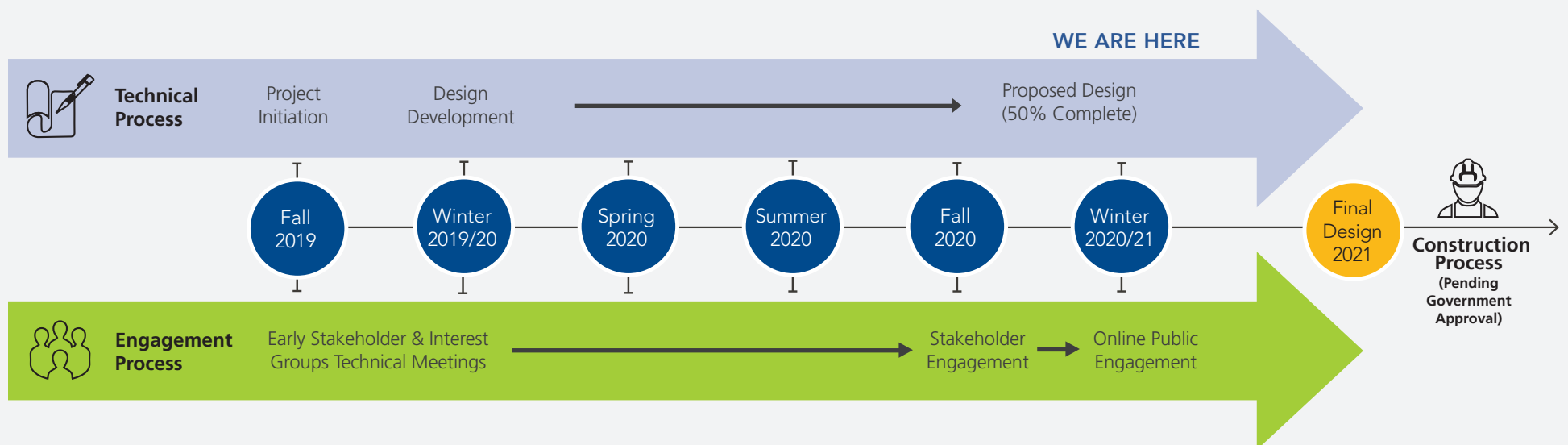
Challenging Intersections

The current intersection at River Road and 272nd Street makes it difficult for large trucks and emergency vehicles to turn presenting safety issues.



Poor Sight Lines

The road grade and configuration in certain locations creates poor sight lines meaning reduced visibility and safety for drivers.

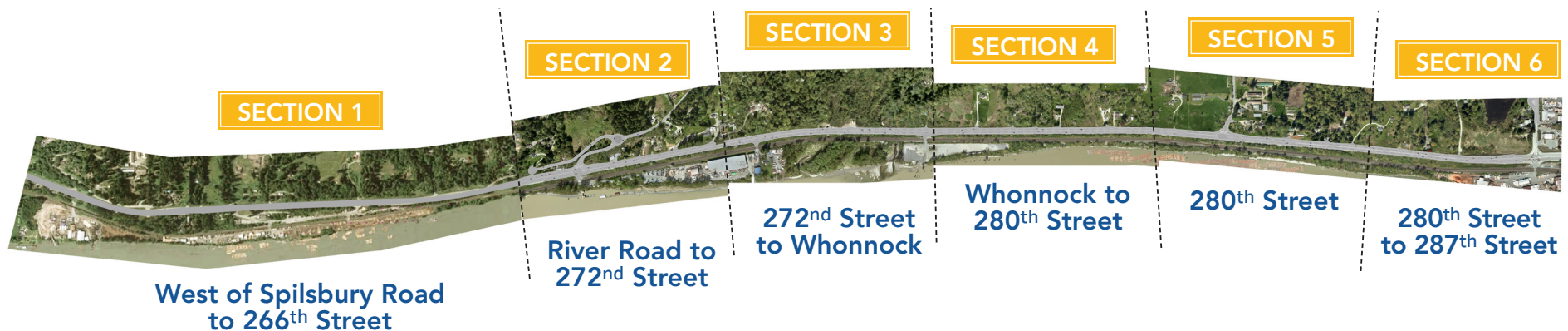


3 DESIGN DIRECTIONS

OVERVIEW

At this stage, the proposed design has been advanced to a 50% design stage. This means that the design is sufficiently detailed to determine that it can be built, and confirms that it works within the site and meets project objectives. After engagement, the design will be further refined based on technical reviews and engagement input to a 100% design stage to inform the business case development and to seek Ministry approval.

The following pages provide a summary for each section for the proposed design as well as the design considerations that were used to help develop the design, and balance all objectives to the best of what is achievable given the specific constraints of the project.



To share your comments or ask questions about the proposed design for Highway 7 between 266th Street and 287th Street, please use our Online Feedback Form found at engage.gov.bc.ca/highway7widening266-287 and submit your feedback by February 19, 2021, 4:00 pm PST.

DESIGN CONSIDERATIONS



Enhance Safety

- » Installation of a centre median barrier between Spilsbury Road and 287th Street will reduce risk of vehicle cross-overs and collisions
- » Proposed changes including safer turnarounds, better highway access, and road geometry which will improve overall safety
- » The proposed design will coordinate with existing crossing controls at 272nd Street rail crossing to avoid vehicles occupying rail tracks



Improve Traffic Flow

- » Widening the highway from 2 to 4 lanes will improve traffic flow and highway reliability and efficiency
- » Improved intersections that include better access to and from Highway 7 will better handle traffic volume
- » Turnarounds at either end of the project will reduce heavy truck movements on local roads



Maintain Accessibility

- » Access to local businesses along Highway 7 will be provided by gaps in the centre median barrier and turnarounds at either end of the project
- » The project team is coordinating with local business owners and the rail company to work through issues and opportunities while meeting design requirements
- » Connectivity to other roads around the project area is also being considered to meet general traffic management goals



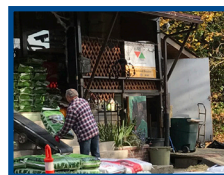
Minimize Environmental Impacts

- » Three major streams are in the project area and the design focuses on avoiding, reducing, or mitigating environmental impacts to fish bearing streams
- » Opportunities for habitat enhancement have been identified
- » Proposed design improves efficiency which will reduce greenhouse gas emissions from vehicles
- » All work will comply with environmental regulations and in consultation with stakeholders and local Indigenous groups



Minimize Property Impacts

- » The project team is coordinating with Kwantlen First Nation, utility companies, CP Rail, and local residents to avoid or minimize property impacts
- » The design utilizes split grade road sections in key locations to work within project area constraints
- » There is no impact to existing heritage properties, and archaeological impacts are being managed

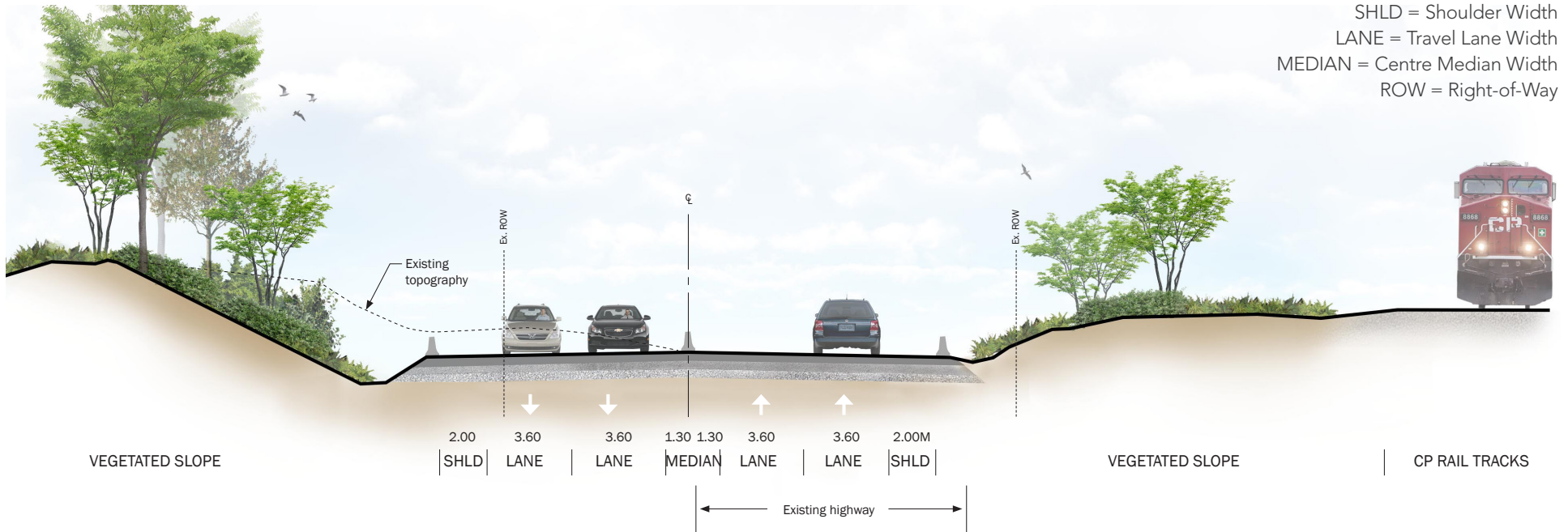


Provide Community Improvements

- » Turnarounds, including a three-legged roundabout at River Road, will help address safety issues and improve overall access
- » River Road will become a cul-de-sac for local traffic
- » Constructability is manageable with detours and minimal highway closures

DESIGN DIRECTIONS

Typical Cross-Section General design for segment from 266th Street to 287th Street



Road Design Highlights

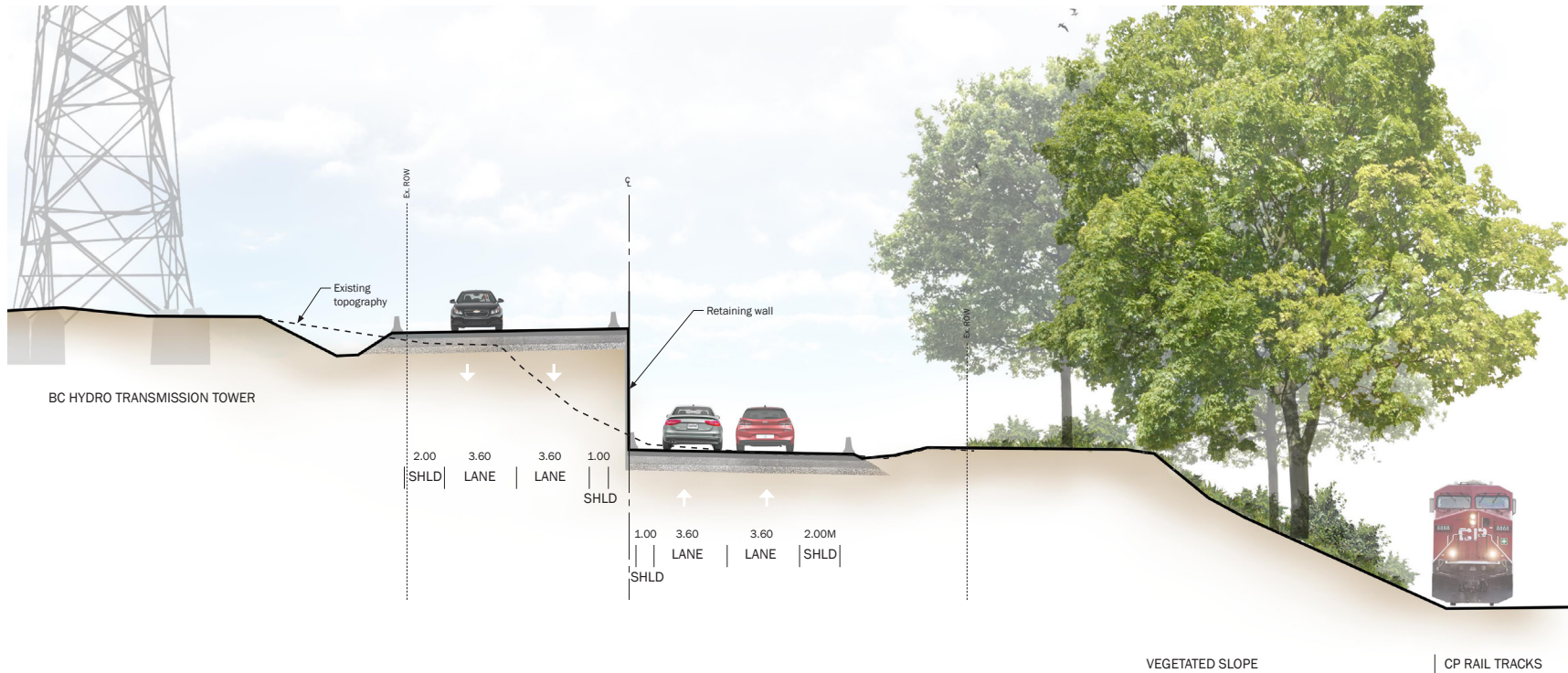
**80 km/hour
Rural Arterial Divided**

The road is proposed to maintain a Rural Arterial Divided (RAD) classification and posted speed of 80 km per hour as existing.

**3.6m wide lanes
Four-lane highway**

The highway will be widened from two to four lanes with each lane measuring 3.6m to maintain corridor consistency for Highway 7.

Split-Grade Cross-Section Design for area near 285th Street only due to proximity of BC Hydro transmission tower



Road Design Highlights

2.6m wide centre median

A 2.6m centre median is proposed along the segment.

2.0m wide paved shoulders

The shoulders will be paved and 2.0m wide, consistent with the rest of the Highway 7 corridor.

SECTION I: SPILSBURY TO 266th STREET



Overview

The proposed widening starts at 266th Street in the west with widening and repaving extending to 287th Street in the east. West of 266th Street, a proposed concrete median barrier would be installed in the existing painted median area, extending back 1.3 km to the current end of the median barrier west of Spilsbury Road. There may be gaps in the barrier at the left-turn slots at 263rd Street, River Road, and Spilsbury Road (to be confirmed during further design development).



Median barrier extends from west of Spilsbury Road 1.3 km to 266th Street

Existing Conditions



West of 266th Street currently features a painted median area. Installing a concrete median barrier with gaps at key locations will improve safety.

Design Highlights

- ▶ The centre median barrier will reduce risks of vehicle cross-overs and collisions
- ▶ Highway users will need to use turnarounds at either end of the project
- ▶ Access will be maintained for local businesses in collaboration with stakeholders
- ▶ The widening of the highway from 2 to 4 lanes would begin at 266th Street 287th Street, and is intended to improve traffic flow, efficiency, and safety as well as provide overall corridor consistency

LEGEND

- Proposed Widening
- Proposed Roadwork
- Retaining Wall
- CP Rail Track
- Watercourse
- Rail Crossing
- Traffic Signal
- Existing Road
- Proposed Barrier

SECTION 2: RIVER ROAD TO 272nd STREET



Design Highlights

- ▶ The turnaround will safely route vehicles back to Highway 7
- ▶ River Road becomes a local road for residents; trucks will be routed to use the roundabout
- ▶ Significant traffic operations, mobility, and access management benefits that will improve overall safety
- ▶ 272nd Street signals will be coordinated with rail crossing
- ▶ Requires grade separating retaining walls (lower portion of 272nd Street and for cul-de-sac)
- ▶ Constructibility is slightly more complicated but manageable
- ▶ Some environmental considerations for Potter Creek but opportunities exist for habitat enhancement
- ▶ Minor impacts to properties

LEGEND

- Proposed Widening
- Proposed Roadwork
- Retaining Wall
- CP Rail Track
- Watercourse
- Rail Crossing
- Traffic Signal
- Proposed Barrier
- Existing Alignment

Overview

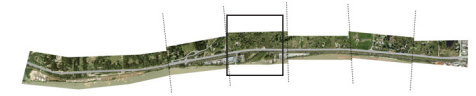
To address challenging grades, sightlines, and road geometry, the 272nd Street intersection will be realigned to connect with the Highway 7 industrial access, and continue northeast into a three-leg roundabout to provide a turnaround opportunity back to the highway. The existing River Road will form the third leg of the roundabout as a local road with cul-de-sac that would maintain access for local residents.

Existing Conditions



The 272nd Street area is challenging for large trucks to turn and access River Road - a local road used by the community. Truck traffic on narrow River Road is a safety issue.

SECTION 3: 272nd STREET TO WHONNOCK



Overview

Section 3 includes Whonnock IR #1 and both York and Whonnock Creeks which include sensitive areas. A key consideration in the design is to protect fish-bearing streams and work around fish windows. Planning for projected stormwater flows to reduce the risk of flooding on Highway 7 in the future is also a key design consideration.



Existing Conditions



Natural areas of York and Whonnock Creeks provide refuge and shelter for juvenile fish. Project work will comply with environmental regulations and include input from Kwantlen First Nation.

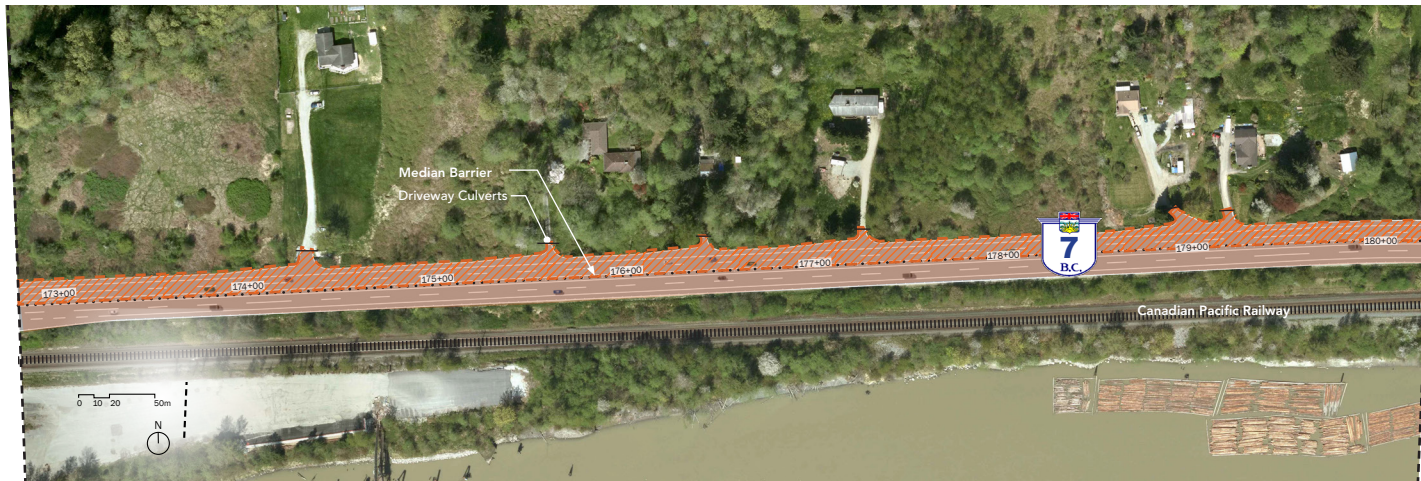
Design Highlights

- ▶ The design will use natural materials to support further environmental enhancements
- ▶ York Creek culvert has adequate capacity for projected stormwater flows so only an extension is required to facilitate road widening
- ▶ Whonnock Creek is 1 of 15 designated sensitive streams so minimizing impacts is important
- ▶ Having a portion of Whonnock IR#1, two at-grade rail crossings, and Whonnock and York Creeks within this segment requires careful design
- ▶ The existing culvert at Whonnock Creek is aging and undersized for future stormwater flows and will need to be replaced

LEGEND

- Proposed Widening
- Proposed Roadwork
- Retaining Wall
- CP Rail Track
- Watercourse
- Rail Crossing
- Traffic Signal
- Existing Roadway
- Proposed Barrier

SECTION 4: WHONNOCK TO 280th STREET








Overview

Section 4 continues with Whonnock IR#1 on both sides of the highway as well as several private residences that are accessed from Highway 7. Highway widening will help improve road capacity and traffic flow. While the centre median barrier will require property owners to use turnarounds for left turns; overall safety is improved for all vehicle users.

Design Highlights

- ▶ Driveway accesses are maintained in present locations
- ▶ Wider shoulders will allow vehicles to pull off the traveled lane
- ▶ Driveway culverts will manage roadway drainage
- ▶ The centre median barrier will improve vehicle safety
- ▶ Space is constrained on the north side of the highway due to private properties and Whonnock IR #1
- ▶ The concrete median barrier will limit left turns to properties within this segment and turnarounds will need to be used
- ▶ Driveway grades will be steeper but within guidelines

LEGEND

-  Proposed Widening
-  Proposed Roadwork
-  Retaining Wall
-  CP Rail Track
-  Watercourse
-  Rail Crossing
-  Traffic Signal
-  Existing Alignment
-  Proposed Barrier

Existing Conditions



The collision rate for this segment of highway exceeds provincial average for similar facilities while traffic congestion has led to reduced highway reliability.

SECTION 5: 280th STREET



Overview

The area around 280th Street features mainly private properties and some businesses. This section is the start of the split grade median wall. The intersection itself will have improved signals, road geometry, and quadrant islands to enhance safety. The existing transit stop will be relocated.



Existing Conditions



Private properties, including local businesses, use this segment of the highway so maintaining existing access is important for business operations.

Design Highlights

- ▶ The 280th Street intersection will have improved signals and quadrant islands for safer pedestrian crossing
- ▶ Existing access to local businesses will be retained to the extent possible, and designed in coordination with local stakeholders
- ▶ The transit stop will remain in the area but be relocated

LEGEND

- Proposed Widening
- Proposed Roadwork
- Retaining Wall
- CP Rail Track
- Watercourse
- Rail Crossing
- Traffic Signal
- Proposed Barrier
- Transit Stop

SECTION 6: 280th STREET TO 287th STREET



Design Highlights

- ▶ The split grade median wall will avoid impacts to the BC Hydro tower as well as maintain stability of the steep slopes
- ▶ The steep embankment at this location will require a split grade with retaining wall
- ▶ BC Hydro's transmission tower north of the highway will need to be protected from impacts along with other utilities

LEGEND

- Proposed Widening
- Proposed Roadwork
- Retaining Wall
- CP Rail Track
- Watercourse
- Rail Crossing
- Traffic Signal
- Proposed Barrier
- BC Hydro Tower

Overview

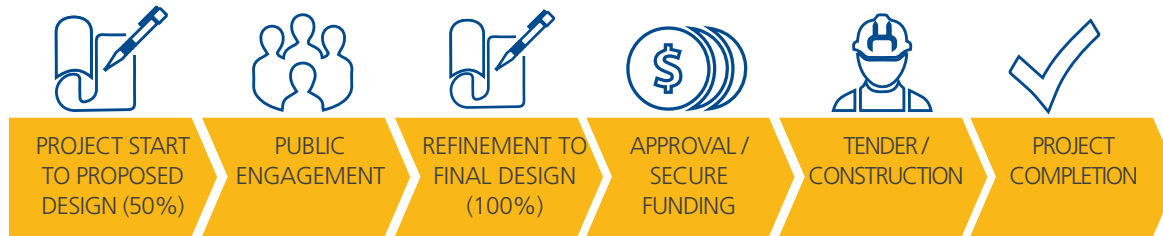
The east end of the project includes a proposed turnaround for vehicles to route back to Highway 7. The 287th Street intersection is just outside the project limit so only minor upgrades are being considered. The split grade median wall reaches full height of 5.0m at the BC Hydro transmission tower before tapering off to the east. The 285th Street intersection will remain closed as it exists today.

Existing Conditions



Relocating the BC Hydro transmission tower would be disruptive, expensive, and time consuming. The proposed design works around this structure.

4 NEXT STEPS



WE ARE HERE

Project timeline will be based on feedback, design revision / adjustments, funding approvals, and permitting.

SHARE YOUR COMMENTS

Please provide your comments about the proposed design for Highway between 266th Street and 287th Street through our Online Feedback Form located on the project website:

[ENGAGE.GOV.BC.CA/HIGHWAY7WIDENING266-287](https://engage.gov.bc.ca/highway7widening266-287)

Deadline is **Friday, February 19, 2021, 4:00 pm PST.**

QUESTIONS?

If you have questions about this project, please email our project mailbox:

HWY7.266TO287@GOV.BC.CA



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