

# Highway 11 Pilot Project for a 2+1 Roadway Model Public Information Centre (PIC)

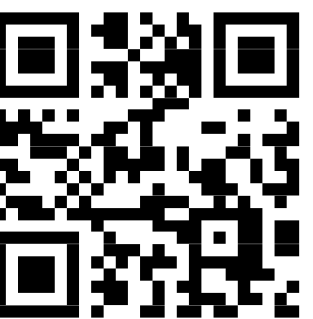
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## Highway 11 Pilot Project for a 2+1 Roadway Model

Design Studies & Class Environmental Assessments  
GWP's 5151-21-00 & 5033-22-00

Public Information Centre (PIC)

November 21, 2024

4:30 PM—8:30PM

### Project Contacts:



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## Project Overview

### What?

Reconstruct / reconfigure and widen two sections of Highway 11, between the City of North Bay and the Municipality of Temagami, to introduce a 2+1 Roadway Model.



A 2+1 Roadway Model is a continuous three-lane highway that provides an alternating passing lane with a median barrier. The roadway shifts the passing lane configuration every 2-5 km to provide passing opportunities in both directions.

### Why?

To address the unique transportation needs of the north, by enhancing traffic flow and improving safety for the travelling public.

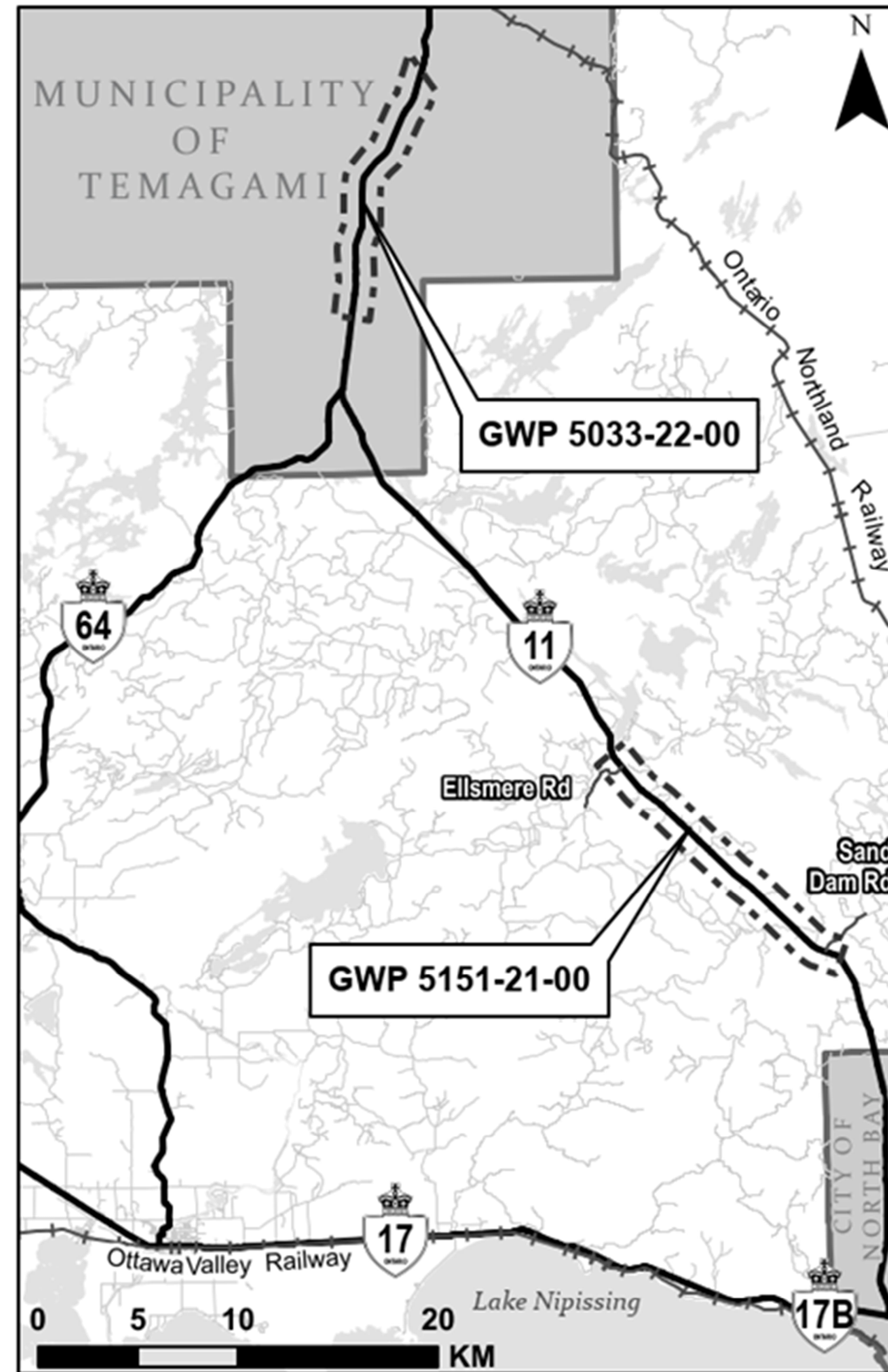
### Who?

The Ministry of Transportation (MTO) has retained AECOM Canada Ltd. (AECOM) to undertake the Design Studies and Class Environmental Assessments (EA).

### How?

Following the approved planning process for 'Group B' projects under the *Class Environmental Assessment for Provincial Transportation Facilities (Class EA) 2000*.

### Where?



Project Location



**GWP 5033-22-00 (North):** Highway 11 from 4.6 km north of Highway 64 northerly 11.4 km to 340 m south of Jumping Caribou Road

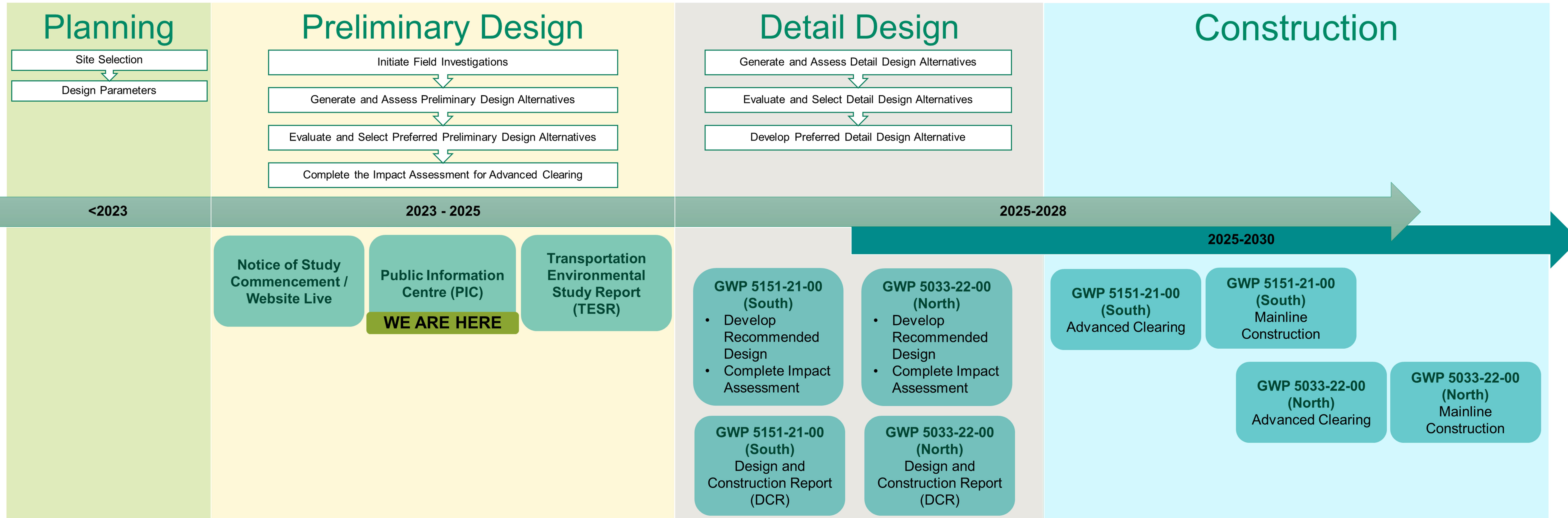


**GWP 5151-21-00 (South):** Highway 11 from Sand Dam Road northerly 13.8 km to Ellsmere Road

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## Study Process

The Projects will follow the approved planning process for 'Group B' projects under the Class EA



\*\*Study and Construction Schedule may be subject to funding and environmental approvals

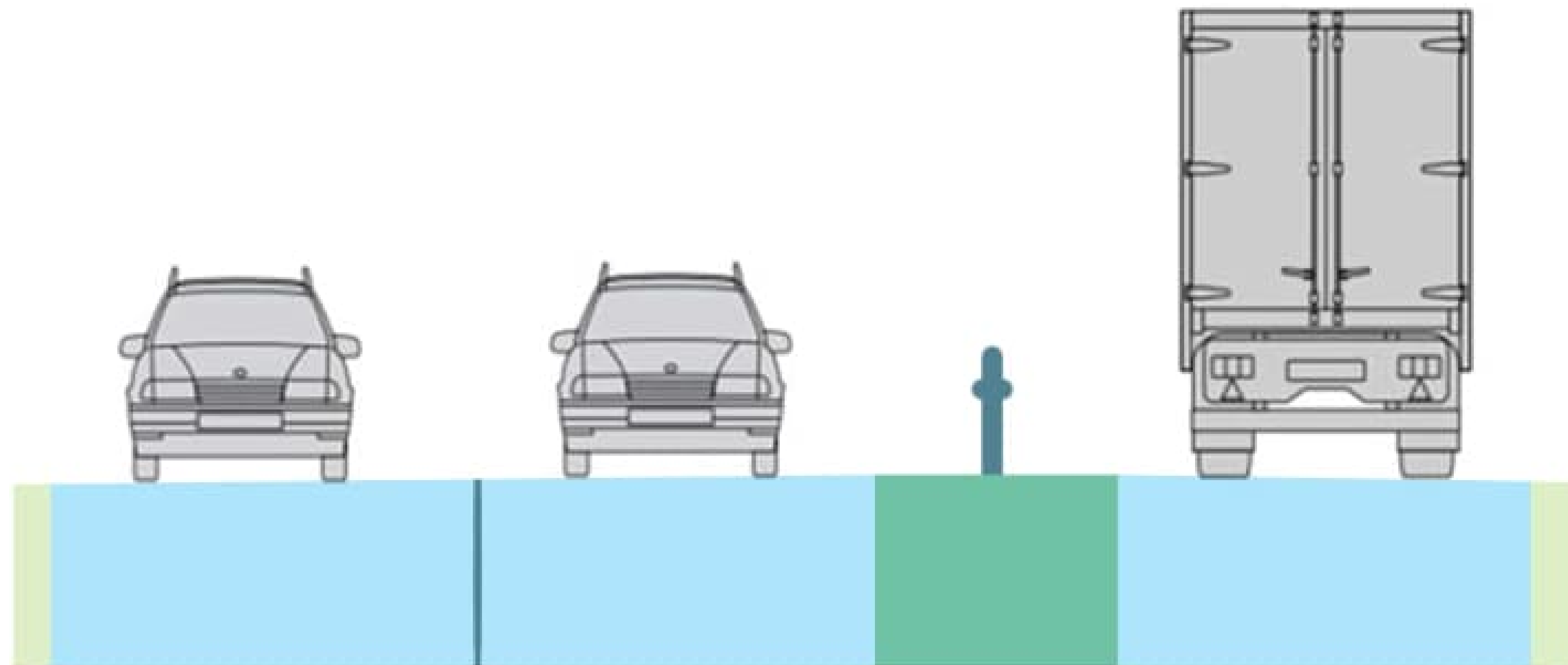
- The TESR and DCRs will each be prepared and made available for a 30-day public and agency review period at Study completion
- Notification advising of the times and locations of the availability of the TESR and DCRs for comment will be published in local newspapers, the Project Website and provided to those on the Project Contact List

## Proposed Scope

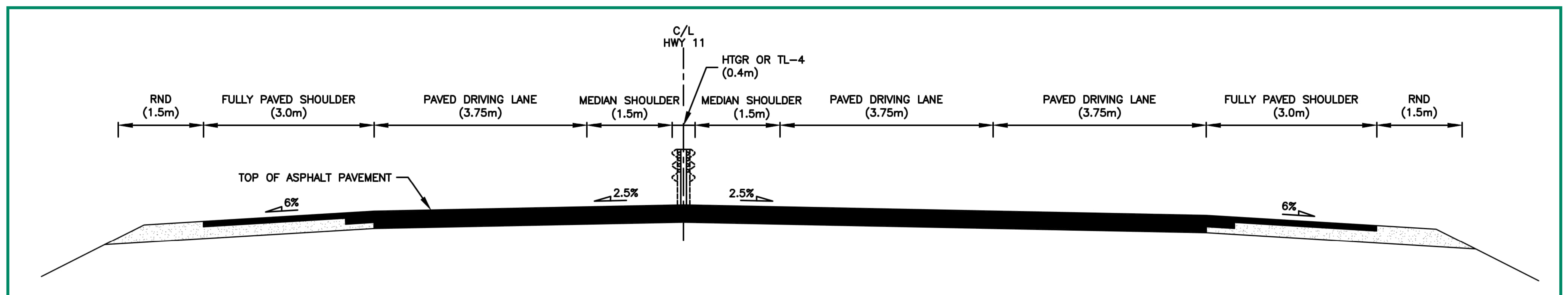


### • Common Elements

- Reconfiguration to a '2+1' facility
- Pavement rehabilitation
- New fully paved shoulders
- Treatment of pavement distress areas
- Drainage improvements
- Guide rail improvements
- **GWP 5151-21-00 (South)**
  - Replacement of the Little Sturgeon River Culvert
- **GWP 5033-22-00 (North)**
  - Realignment of Highway 11 near Pan Lake



2+1 Highway Graphic: 2 Lanes + 1 Lane



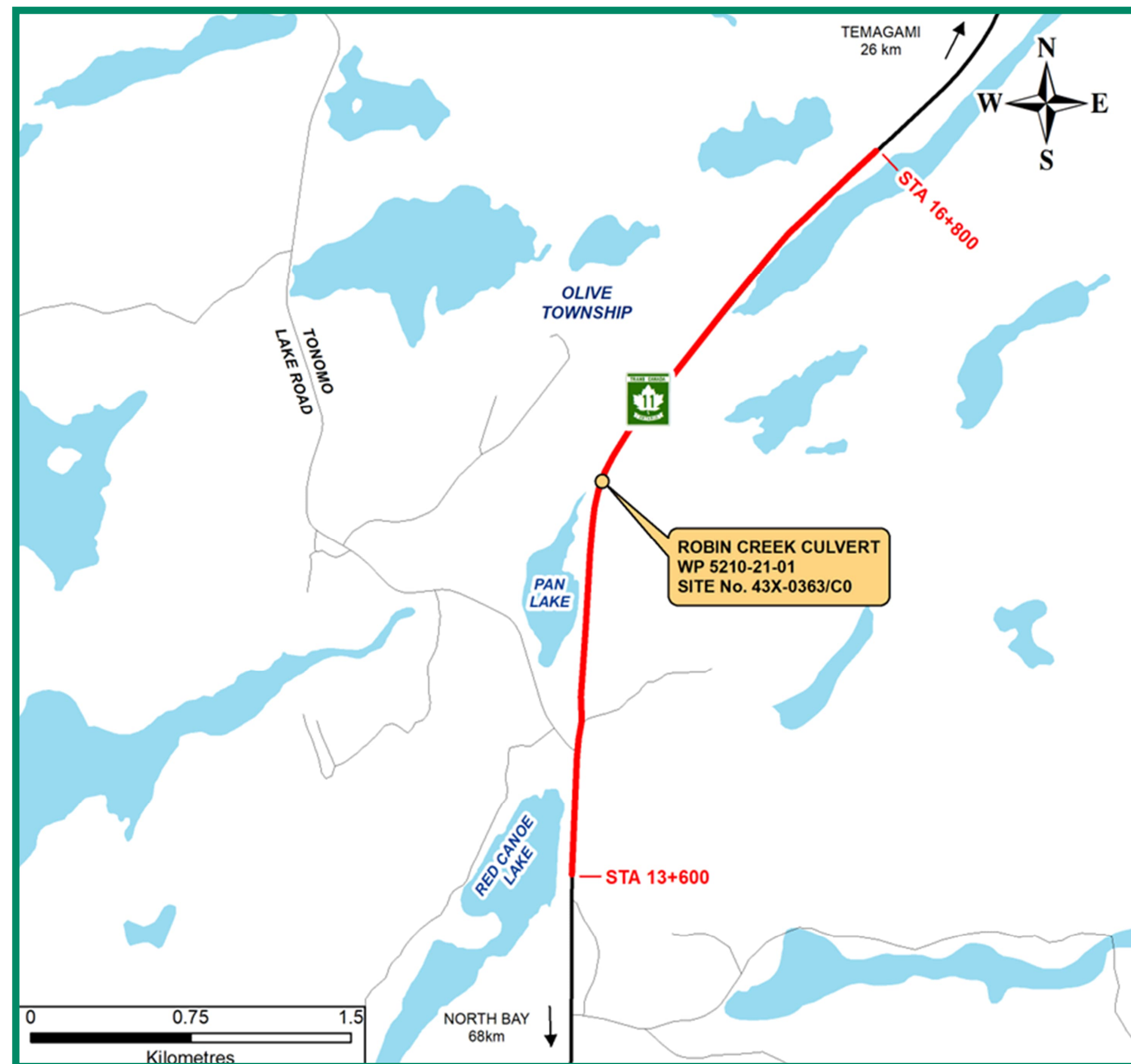
GWP 5151-21-00 (South) & GWP 5033-22-00 (North): Proposed 2+1 Typical Cross Section

# Highway 11 Pilot Project for a 2+1 Roadway Model Public Information Centre (PIC)

## Evaluation Criteria for Alternatives

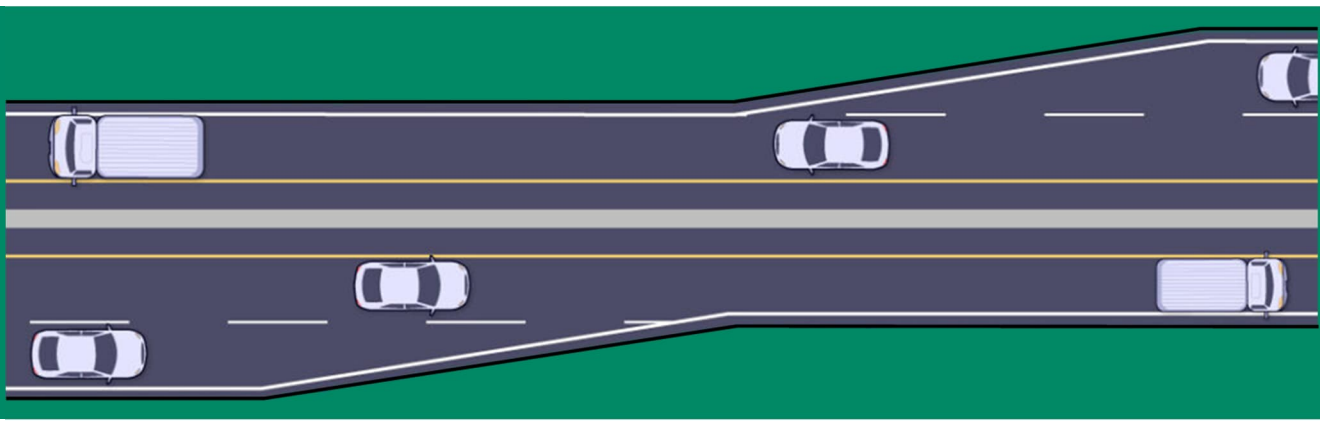
Each design alternative listed below will be evaluated based on the criteria described in the table:

- Highway 11 Realignment near Pan Lake
- Passing Lane Configuration
- Turnaround Configuration
- Widening Arrangement
- Median Barrier Type



GWP 5033-22-00: Highway 11 Realignment near Pan Lake

Key Evaluation Criteria		Evaluated Design Alternatives				
		Highway 11 Realignment near Pan Lake	Passing Lane Configuration	Turnaround Configuration	Widening Arrangement	Median Barrier Type
Geometrics	<ul style="list-style-type: none"> <li>• Alignment</li> <li>• Grade</li> <li>• Sight distance</li> </ul>	☑		☑		
Constructability	<ul style="list-style-type: none"> <li>• Complexity</li> <li>• Duration</li> </ul>	☑	☑	☑	☑	☑
Traffic Operations and Safety Management	<ul style="list-style-type: none"> <li>• Traffic staging during construction</li> <li>• Driver expectation</li> <li>• Access</li> <li>• Emergency management</li> </ul>	☑	☑	☑	☑	☑
Construction Cost		☑	☑	☑	☑	☑
Environmental Impacts	<ul style="list-style-type: none"> <li>• Archaeology</li> <li>• Fish and fish habitat</li> <li>• Terrestrial habitat</li> <li>• Waste &amp; Contamination</li> <li>• Indigenous Rights</li> </ul>	☑	☑	☑	☑	
Long-Term Performance	<ul style="list-style-type: none"> <li>• Pavement and differential performance</li> </ul>	☑		☑		
Property and Utilities		☑	☑	☑	☑	



# Highway 11 Pilot Project for a 2+1 Roadway Model Public Information Centre (PIC)

## Realignment Alternatives

### GWP 5033-22-00 (North)

Highway 11 from 400 m south of Tonomo Lake Road northerly for 2.6 km

**Study Objectives and Considerations:** Improve the existing geometric, operational, and safety concerns in the vicinity of the Tonomo Lake Road intersection, Pan Lake, and Robin Creek Culvert, while minimizing impacts to the existing environment



1



#### Base Case '2+1' Arrangement

Widening of the existing platform symmetrically while maintaining the existing horizontal and vertical alignments, including realignment of Tonomo Lake Road

2



#### Slight Realignment to the East

Slight realignment in order to avoid environmentally sensitive receptors such as Pan Lake and the unnamed lake north of Robin Creek

3



#### Moderate Realignment to the East

New independent alignment to mitigate concerns with performance issues with widening an existing embankment, while avoiding impacts to Pan Lake

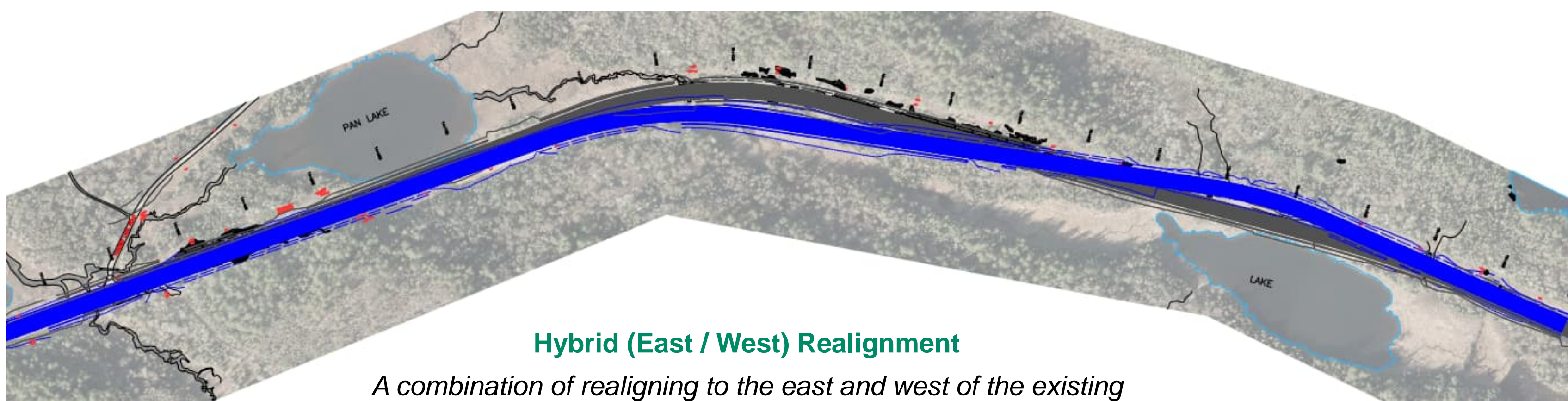
4



#### Moderate Realignment to the West

Moderate realignment predominately to the west of existing Highway 11 to avoid impacts to east wetland

5



#### Hybrid (East / West) Realignment

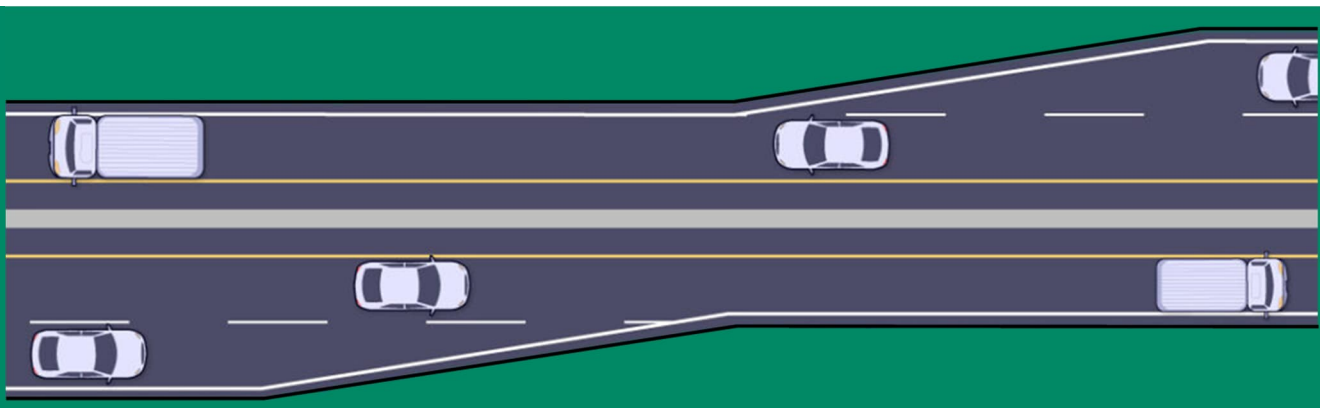
A combination of realigning to the east and west of the existing Highway 11 to avoid impacts to waterbodies

6



#### Major Realignment to the West

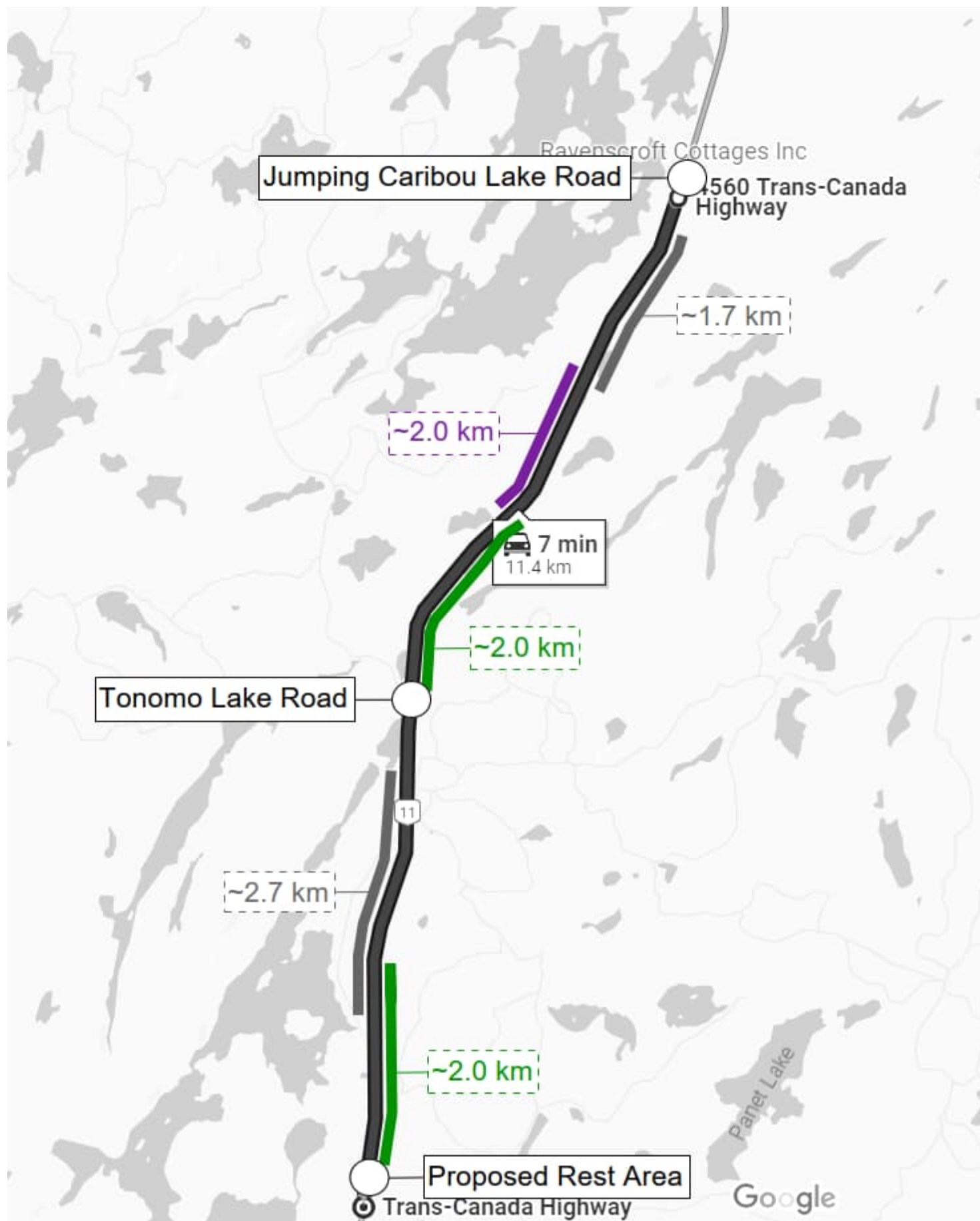
Modify Highway 11 alignment by reducing the number of curves and avoiding east wetland and unnamed lake



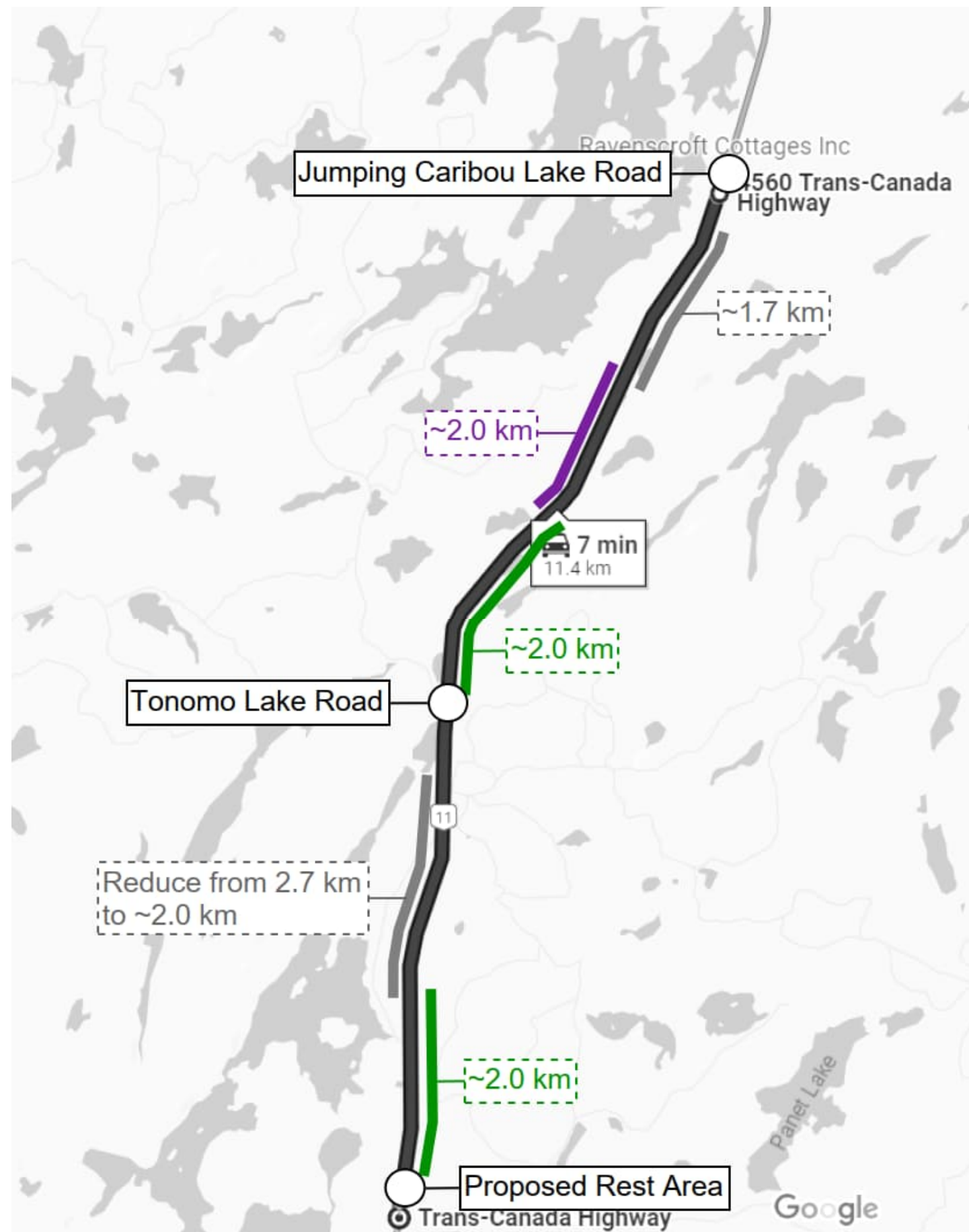
## Passing Lane Configuration Alternatives GWP 5033-22-00 (North)

**Study Objectives and Considerations:** Determine the optimal passing lane configuration to improve operational performance and the safety of the traveling public, while considering impacts to property, existing infrastructure, and the environment

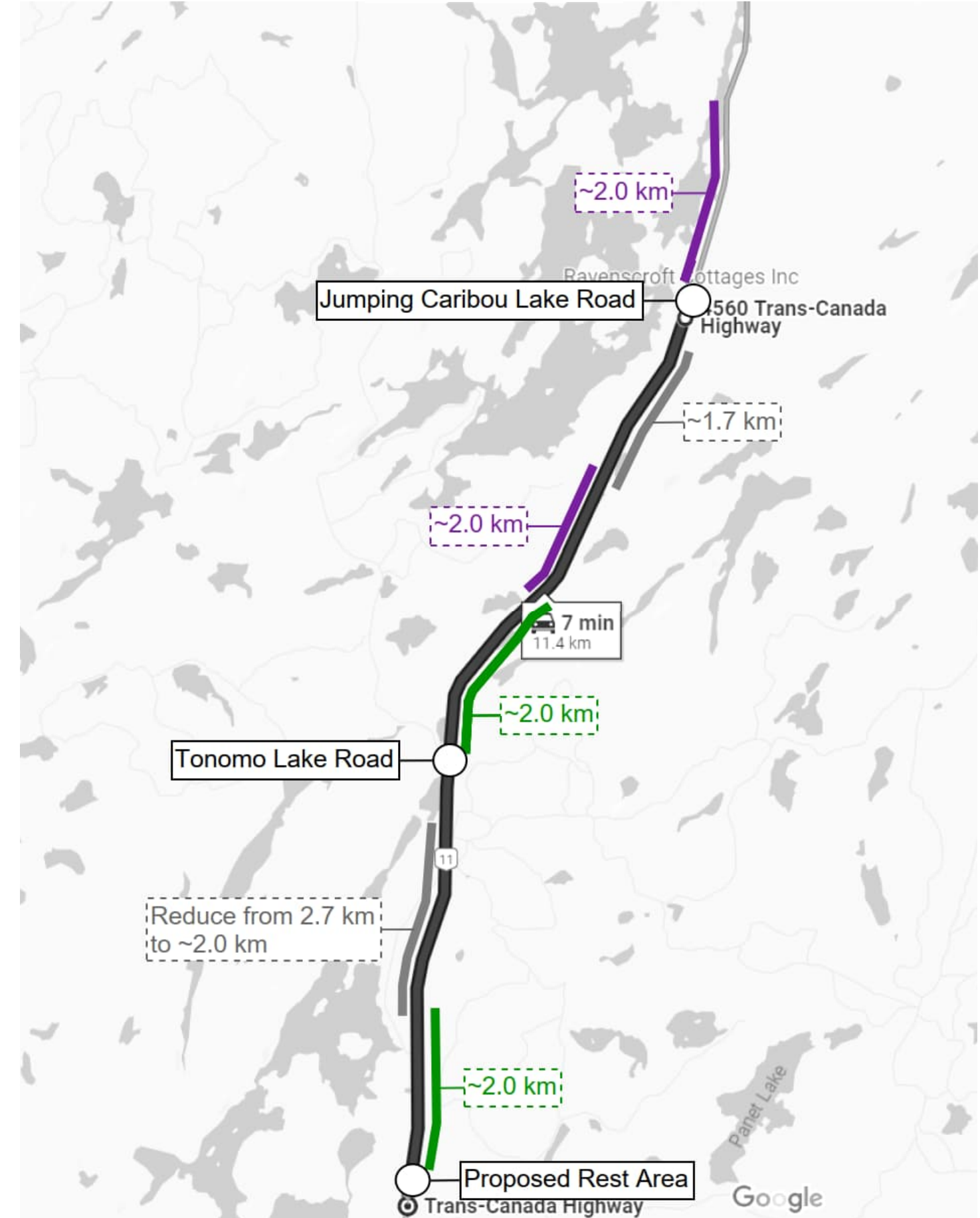
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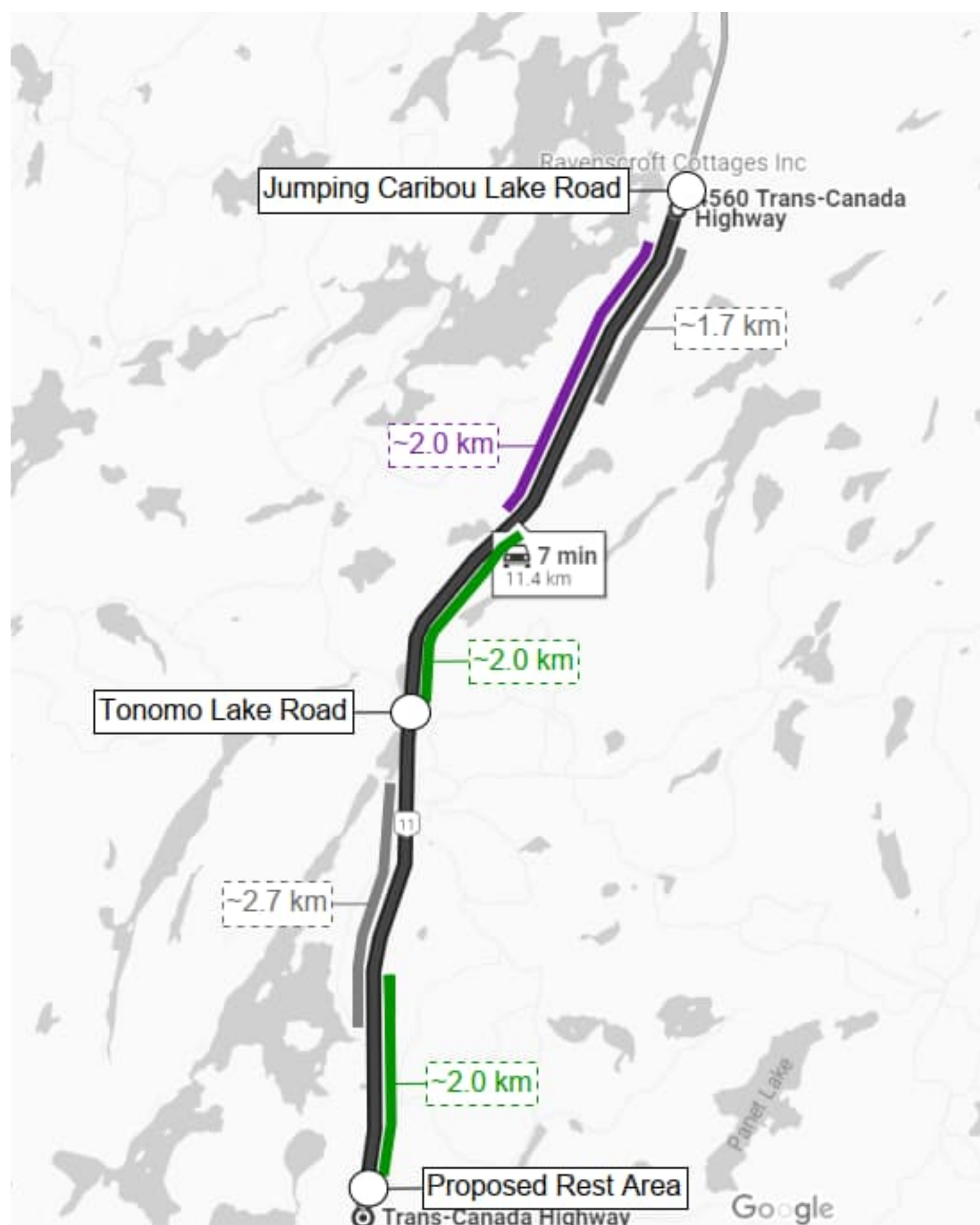
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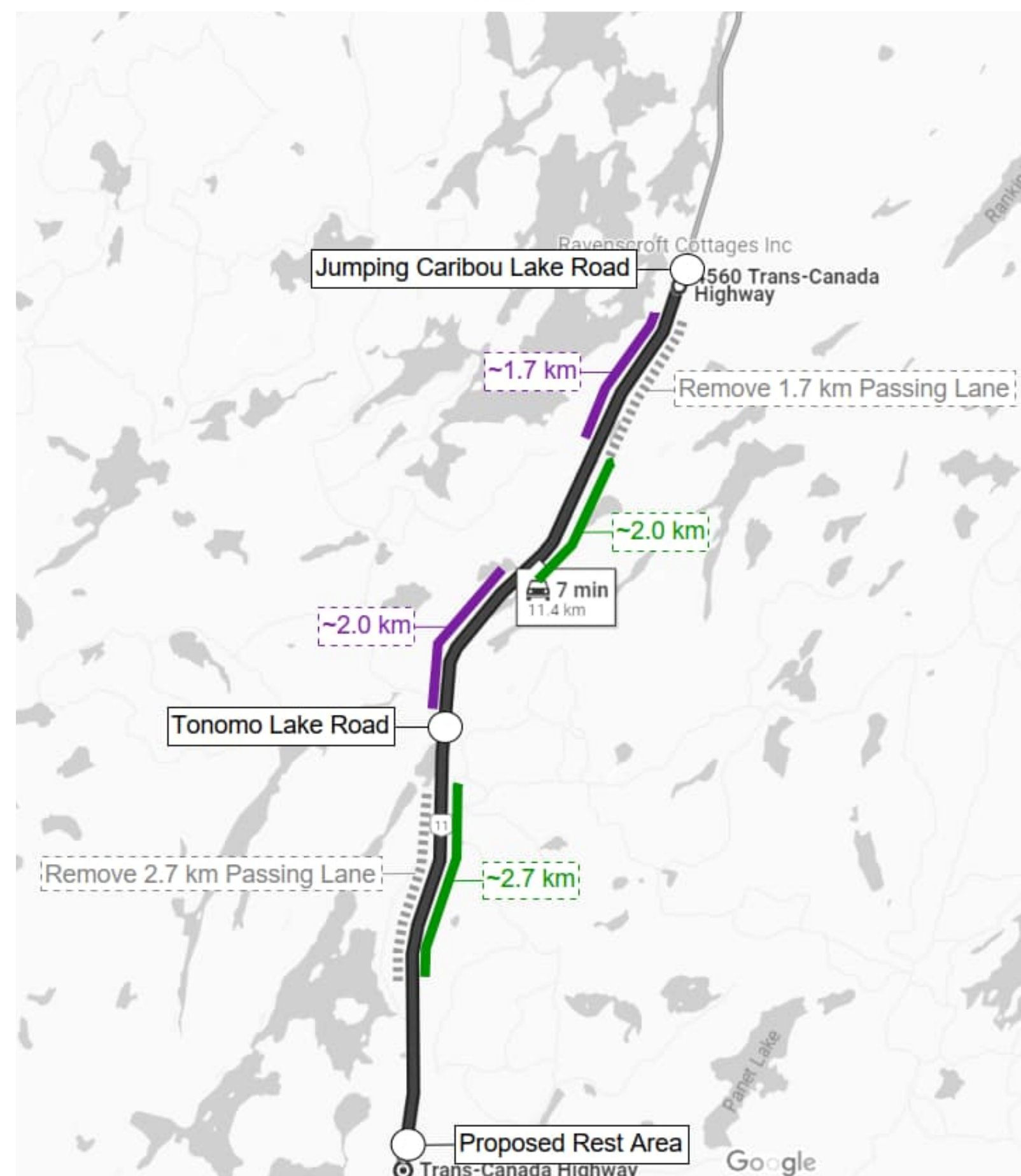
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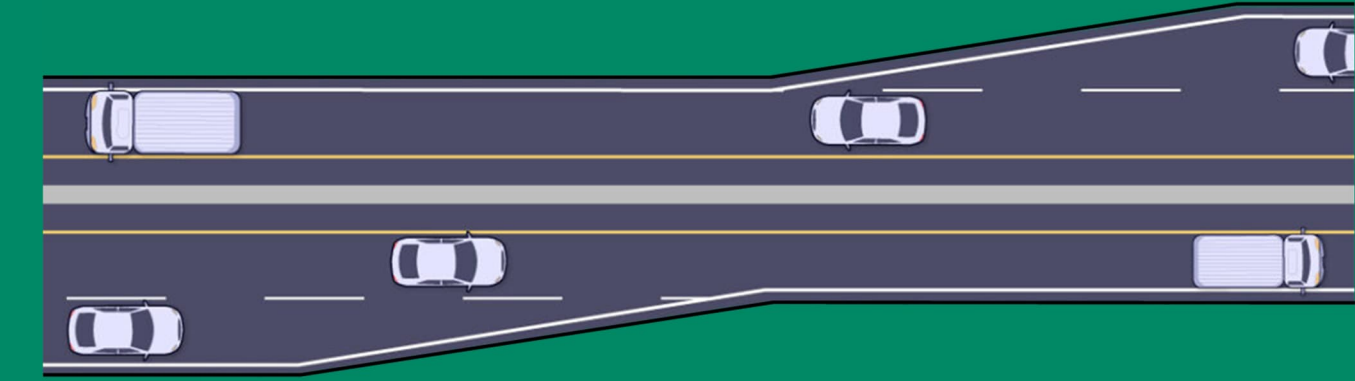
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**LEGEND**

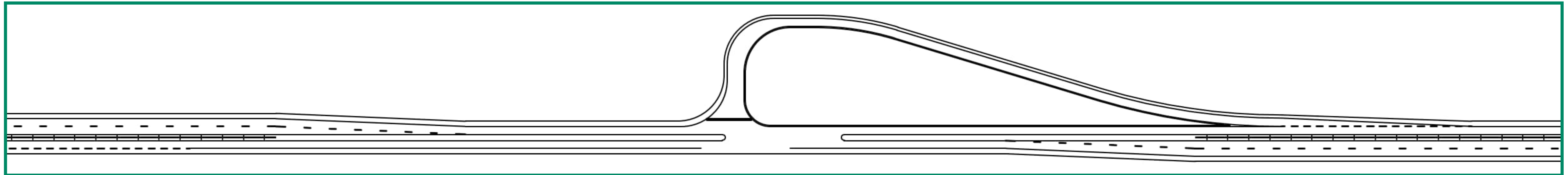
- EXISTING PASSING LANE (RETAINED)
- PROPOSED SOUTHBOUND PASSING LANE
- PROPOSED NORTHBOUND PASSING LANE
- EXISTING PASSING LANE (REMOVED)

For GWP 5151-21-00 (South), only one passing lane layout was available and no further analyses were made; see the proposed layout on the Recommended Design Board

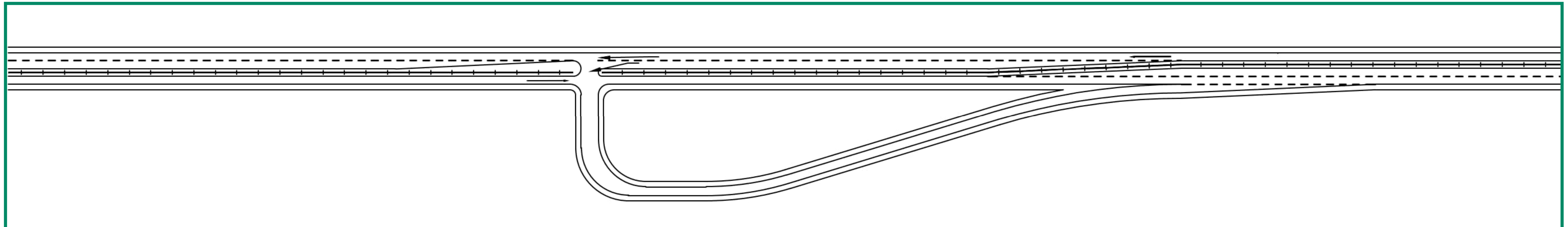


# Turnaround Configuration Alternatives — Both GWPs

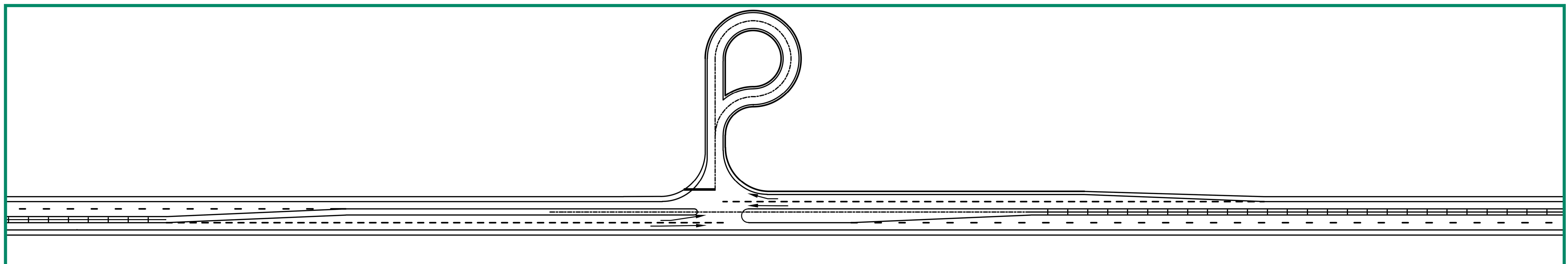
**Study Objectives and Considerations:** Enable travelers to access the opposite direction of the highway, while considering safety, footprint impacts, and emergency & incident management



Alternative 1: Deceleration Jug Handle



Alternative 2: Acceleration Jug Handle

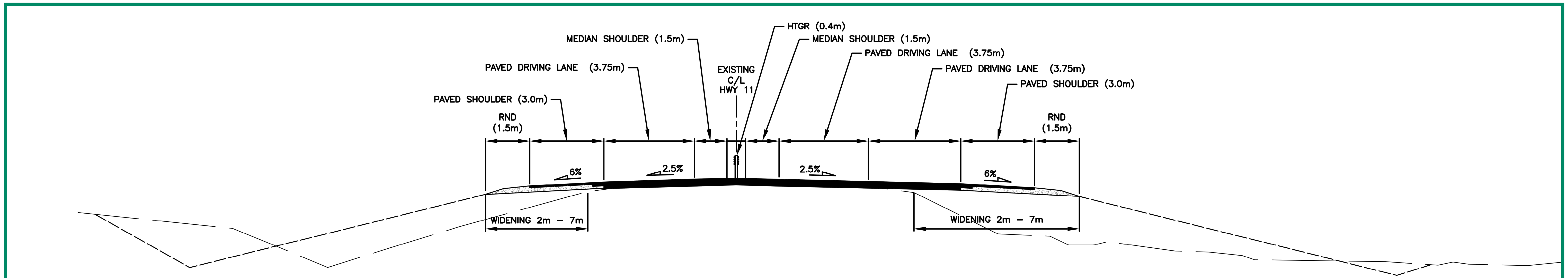


Alternative 3: Turning Bulb

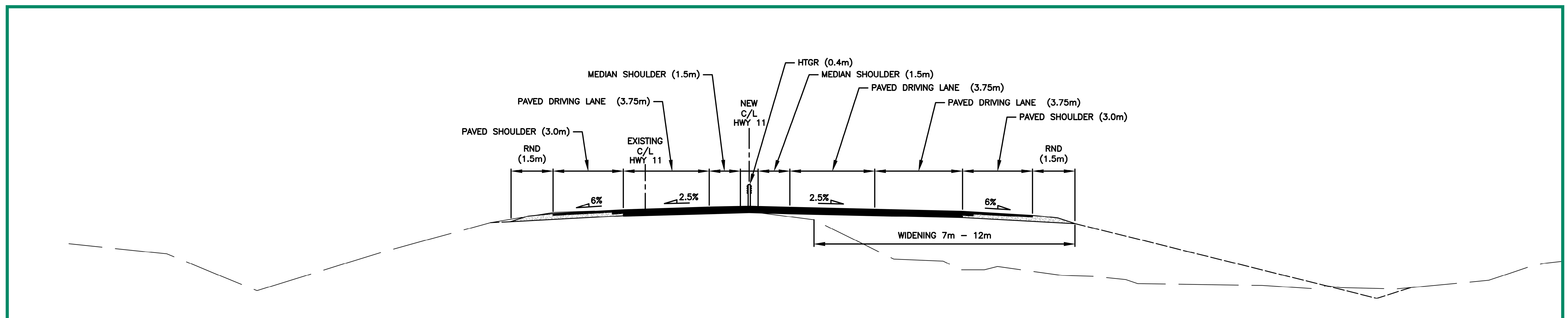


## Widening Arrangement

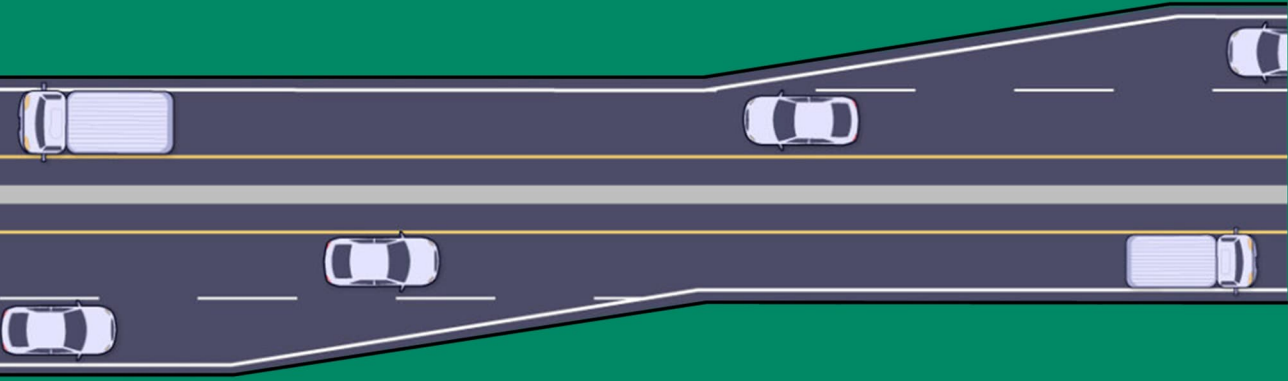
**Study Objectives and Considerations:** Comprehensive review and comparative analysis of widening alternatives in support of the 2+1 Roadway Model



**Symmetrical Widening:** Maintains the existing highway alignment at centreline and widens outwards on both sides to accommodate the 2+1 lane configuration



**Asymmetrical Widening:** Shifts the centreline more to one side to accommodate widening for the 2+1 lane configuration



## Median Barrier Alternatives and Transition Zones



Example of High Tension 3-Cable Guide Rail  
with Start and End Condition  
Proposed for southern GWP 5151-21-00

**Study Objectives and Considerations:** Review of median barrier designs that eliminate crossover collisions, while further considering access, constructability, footprint impacts, and emergency & incident management. Of the 3 options ultimately considered, only 2 were advanced. A concrete barrier option was eliminated due to drainage design constraints.

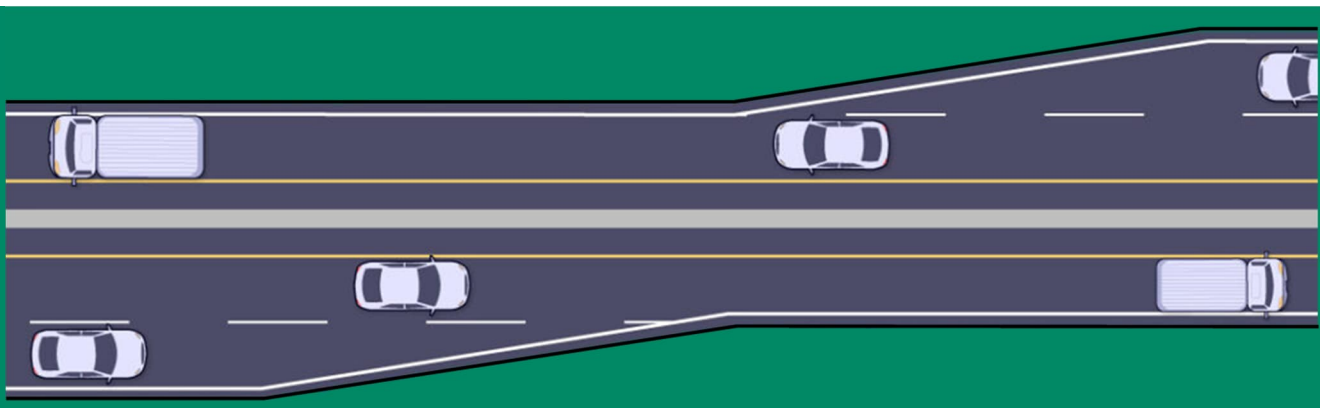
The installation of a median barrier throughout each section of Highway 11 will:

- Safely divide the southbound and northbound directions of travel
- Eliminate crossover collisions
- Direct drivers to designated turnaround locations
- Provide right-in and right-out turning opportunities to entrances
- Signage and lane markings advising drivers of the transition into and out of the 2+1 highway section

Important: These images are for illustrative purposes only and may not reflect what the final design will be along Highway 11

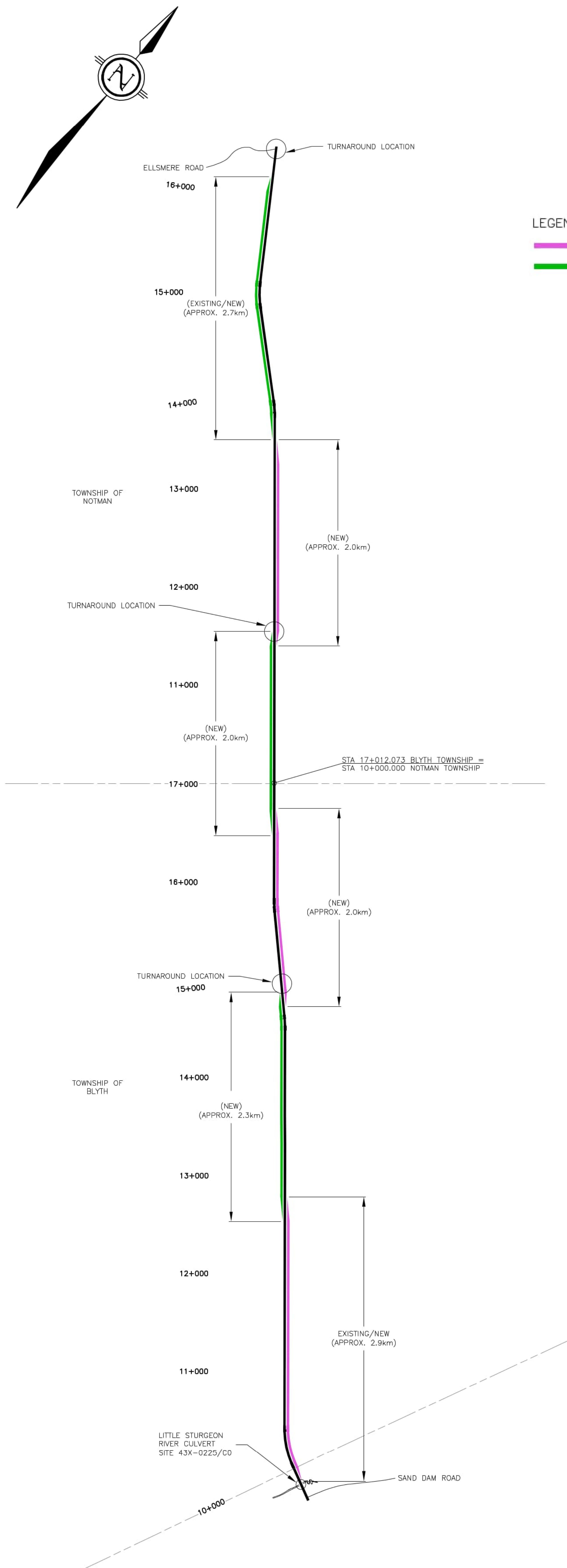


Example of Steel Beam Guide Rail with  
Start and End Condition  
Proposed for northern GWP 5033-22-00

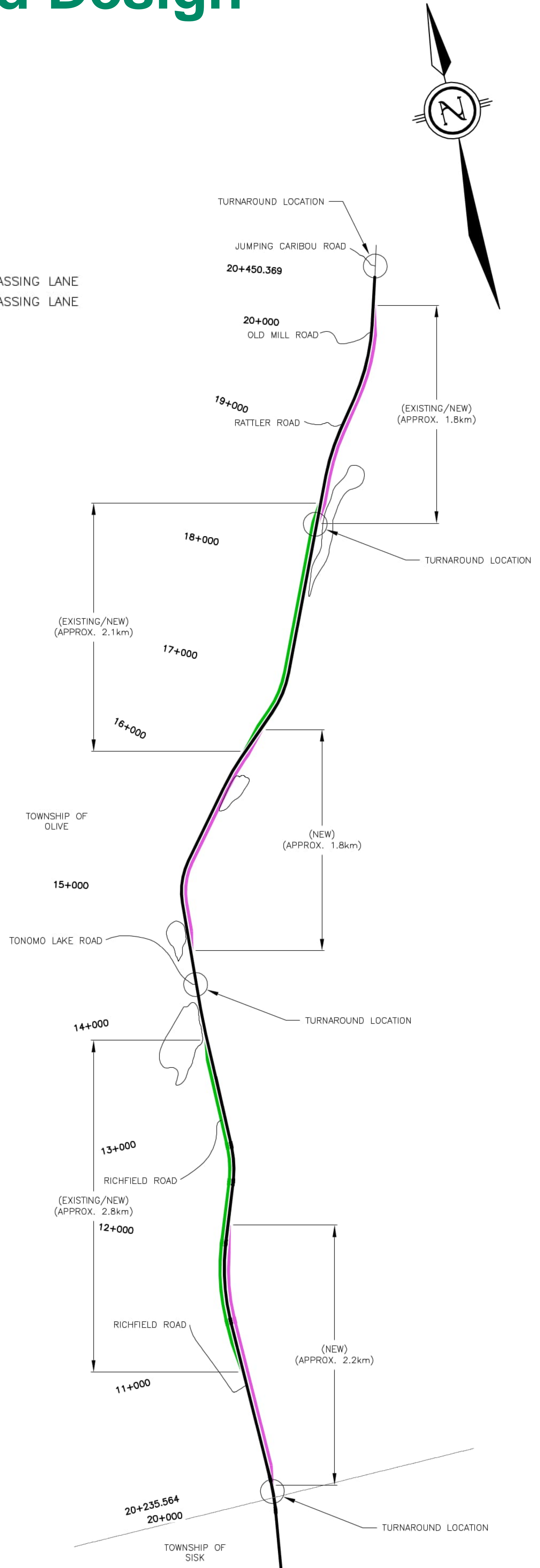


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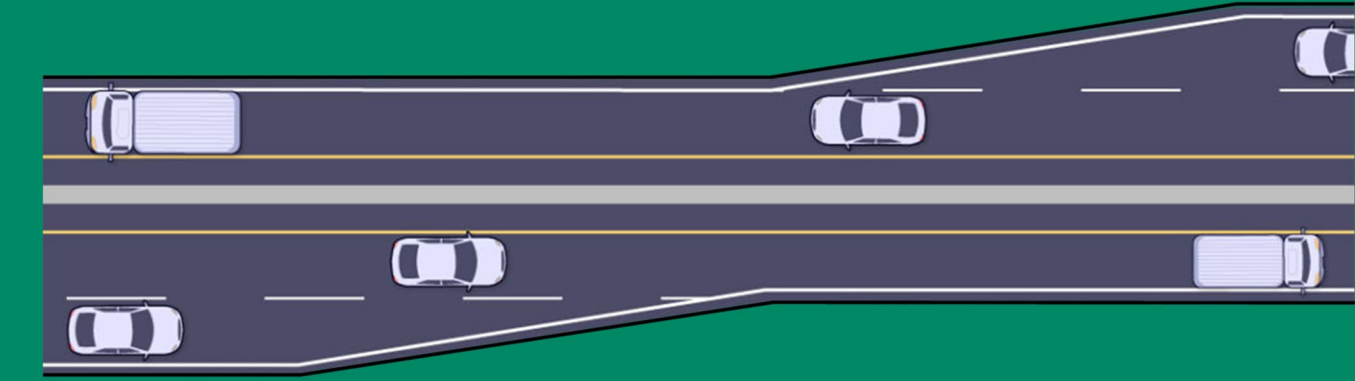
## Recommended Design



**GWP 5151-21-00 (South):** Proposed passing lane configuration and turnaround locations



**GWP 5033-22-00 (North):** Proposed passing lane configuration and turnaround locations



# Highway 11 Pilot Project for a 2+1 Roadway Model Public Information Centre (PIC)

## Environmental Overview

**Environmental impact studies to document environmental existing conditions and identify constraints are being undertaken to consider:** Fish and Fish Habitat, Terrestrial Ecosystems, Archaeology, Excess Materials and Waste Management, Air Quality, Noise and, socio-economic elements including land use and the movement of people, goods and services

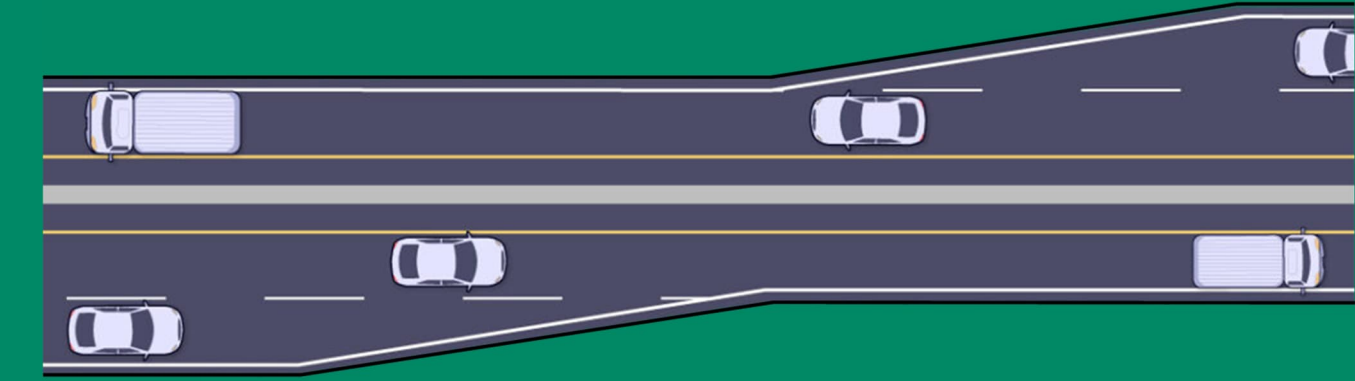
### Preliminary Findings and Environment Constraints include:

- Fish and fish habitat for cold, cool and warmwater species. No Species at Risk (SAR) present
- Forest and wetland habitat for wildlife, including SAR and Migratory Bird
- Habitat managed for bears and sensitive aquatic feeding areas for moose
- Risk areas for wildlife collisions
- Localized areas of archaeological potential
- Localized risk areas for soil contamination
- Localized air and noise sensitive receptors (i.e., private residences, etc.)
- Highway 11 conveys commuter, tourist, recreation and long-haul traffic
- Crown Land dominates the Highway 11 corridor, interspersed with a few residential and commercial properties with direct access to Highway 11

### Next Steps and Mitigation Strategies include:

- Complete targeted field investigations and sampling programs
- Complete all Impact Assessments on the preferred design to comply with environmental legislation
- Continued consultation and engagement with agencies, municipalities, Indigenous Communities, property owners, businesses, and key stakeholders
- Confirm environmental commitments and integrate mitigation strategies within the design (i.e., Best Management Practices and site-specific mitigations)
- Complete the design refinement and EA process to achieve environmental clearance
- Where required, acquire necessary environmental permits, licences, approvals, or authorizations, prior to construction





# Highway 11 Pilot Project for a 2+1 Roadway Model Public Information Centre (PIC)

## Next Steps

Following this PIC, we will:



Collect feedback from the PIC until November 28, 2024



Assess and evaluate the Preliminary Design Alternatives to select the Preferred Preliminary Design Alternatives and complete the Preliminary Environmental Assessment



Prepare a Transportation Environmental Study Report (TESR) which will include the advanced clearing strategy, and made available for a 30-day public review with advanced notification

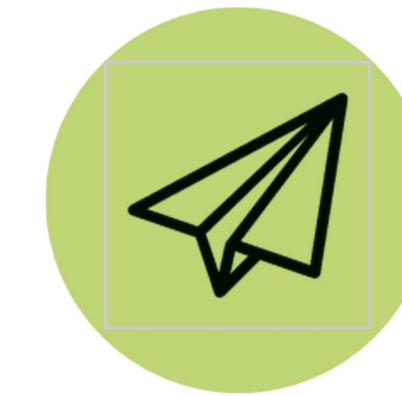


Complete the Detail Design refinement and Environmental Assessment for the mainline construction



Prepare Design and Construction Reports (DCR) for each GWP which will be made available for a 30-day public review with advanced notification

## Thank You!



[projectteam@highway11pilot.ca](mailto:projectteam@highway11pilot.ca)



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**Request to be added to the Project Contact List  
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