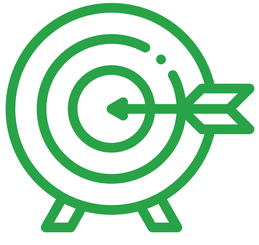
THE

North Perimeter (PTH 101) Highway Design Study

Engage MB

Phase 2 Engagement - Fall 2023

Manitoba



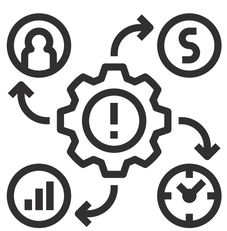
Purpose

To develop a plan that will accommodate the future development of the North Perimeter Highway into a **fully access-controlled, grade-separated freeway that can ultimately accommodate six lanes**.

Welcome

The intent of phase 2 engagement is to:

Inform you of the **purpose and scope** of the study for PTH 101.

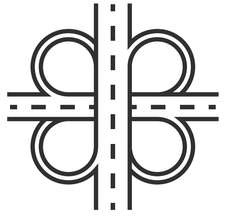


Present **highway and interchange options** for PTH 101.

Offer an opportunity for you to **provide feedback** on the options and **ask questions** of the design team.

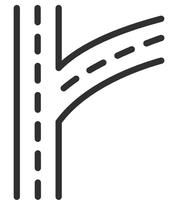
Background

WSP Canada Inc. (WSP), a planning and engineering firm, was engaged by the Manitoba government to develop a design for the reconstruction of the North Perimeter Highway (PTH 101).



The PTH 101 redesign, once constructed, will create a **modern freeway facility**.

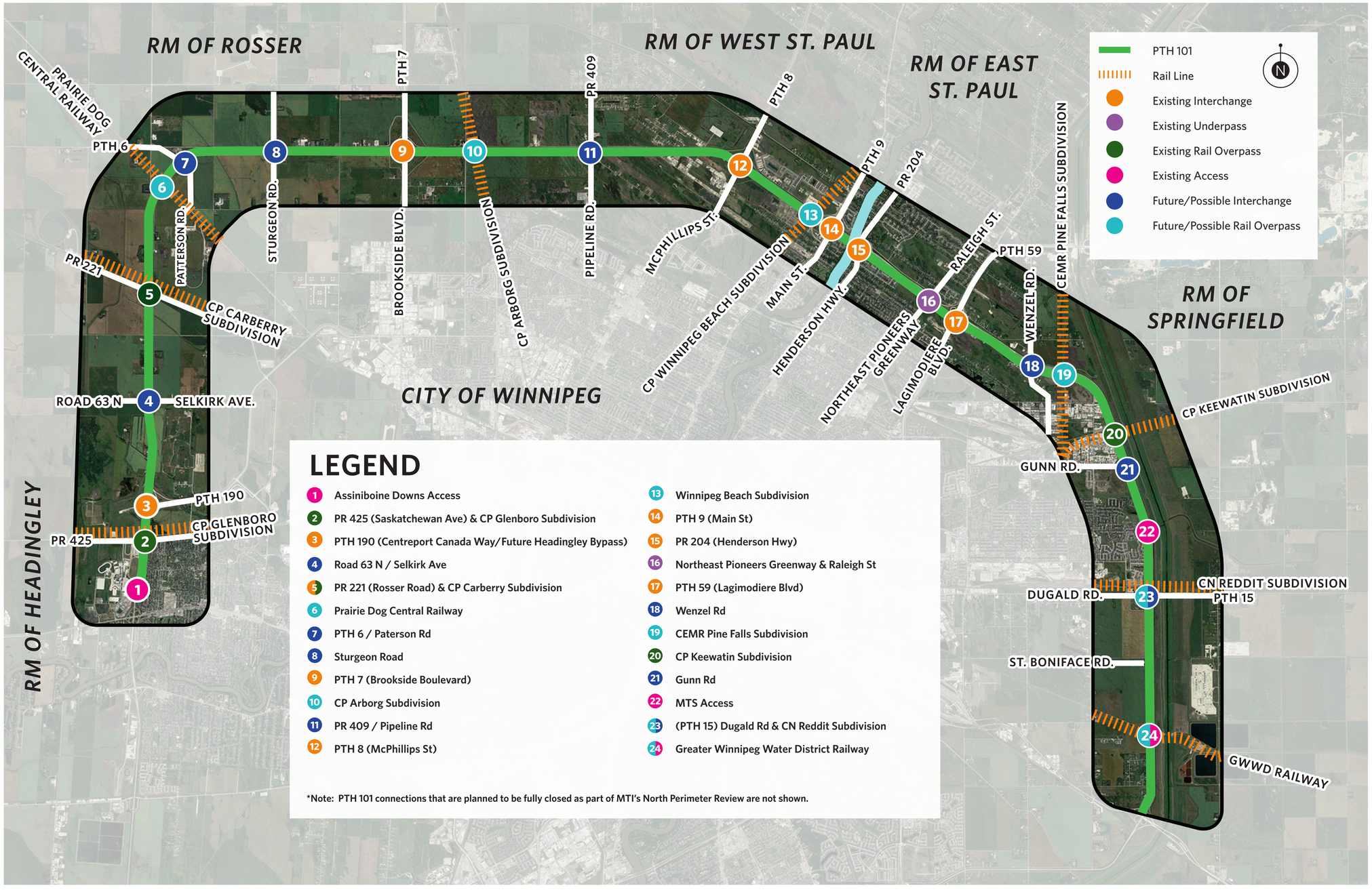
The study was initiated due to **existing highway safety**, **operations**, and **condition issues**.



The final design will provide **highway access via grade separated interchanges** with service roads at certain locations to accommodate access to fronting developments.

Study Area

The North Perimeter (PTH 101) Highway Design Study



LEGEND

1. Assiniboine Downs Access
2. PR 425 (Saskatchewan Ave) & CP Glenboro Subdivision
3. PTH 190 (Centreport Canada Way/Future Headingley Bypass)
4. Road 63 N / Selkirk Ave
5. PR 221 (Rosser Road) & CP Carberry Subdivision
6. Prairie Dog Central Railway
7. PTH 6 / Paterson Rd
8. Sturgeon Road
9. PTH 7 (Brookside Boulevard)
10. CP Arborg Subdivision
11. PR 409 / Pipeline Rd
12. PTH 8 (McPhillips St)
13. Winnipeg Beach Subdivision
14. PTH 9 (Main St)
15. PR 204 (Henderson Hwy)
16. Northeast Pioneers Greenway & Raleigh St
17. PTH 59 (Lagimodiere Blvd)
18. Wenzel Rd
19. CEMR Pine Falls Subdivision
20. CP Keewatin Subdivision
21. Gunn Rd
22. MTS Access
23. (PTH 15) Dugald Rd & CN Reddit Subdivision
24. Greater Winnipeg Water District Railway

*Note: PTH 101 connections that are planned to be fully closed as part of MTI's North Perimeter Review are not shown.

Manitoba

Timeline

The North Perimeter (PTH 101)
Highway Design Study

FALL/WINTER 2022

Review existing condition and design requirements

SPRING/SUMMER 2023

Develop highway and interchange options

FALL 2023/ SUMMER 2024

Evaluation, selection and design of preferred option

SUMMER 2024/ WINTER 2025

Finalize functional design of preferred option

WE ARE HERE

WINTER 2023

Public engagement phase 1

Present project scope, background information and collect feedback

SUMMER/FALL 2023

Public engagement phase 2

Collect feedback on highway and interchange options

SUMMER/FALL 2024

Public engagement phase 3

Collect feedback on proposed design

The functional design study will take approximately two years to complete.

A functional design study is an early phase of the design process in which the road right-of-way and roadway layout are established based on projected travel patterns and demand. Functional designs are informed by both technical studies and public input and feedback throughout the process.

Manitoba

Phase 1 Engagement Summary

The North Perimeter (PTH 101)
Highway Design Study

During Phase 1 Engagement, the **project team met with Indigenous Rights Holders, municipalities and stakeholders** to introduce the project, communicate the project's scope and timing and gather initial feedback.

The engagement activities facilitated during Phase 1 of public engagement included:

Stakeholder meetings with **associated municipalities** (six meetings in total).

Meetings with a **variety of stakeholders** (six meetings in total) and meetings with Indigenous Rights Holders.

Virtual engagement on MTI's website.

A project **newsletter** distributed to landowners in the vicinity of the study area.

Overall, the feedback collected during Phase 1 from the stakeholders was **positive.**

Manitoba

Phase 1 Engagement Summary

The North Perimeter (PTH 101) Highway Design Study

Specific themes based on the feedback received include:

That active transportation be considered in the design of PTH 101 at strategic locations.

That coordination occur between this study and other potential future projects in the area.

That noise mitigation measures be considered where warranted, based on technical analysis.

That alternative access options be considered for businesses located on the highway.

That interchanges on PTH 101 be prioritized at various locations, such as at Pipeline Road, due to safety concerns.

That traffic impacts from CentrePort be incorporated into the design.

Manitoba

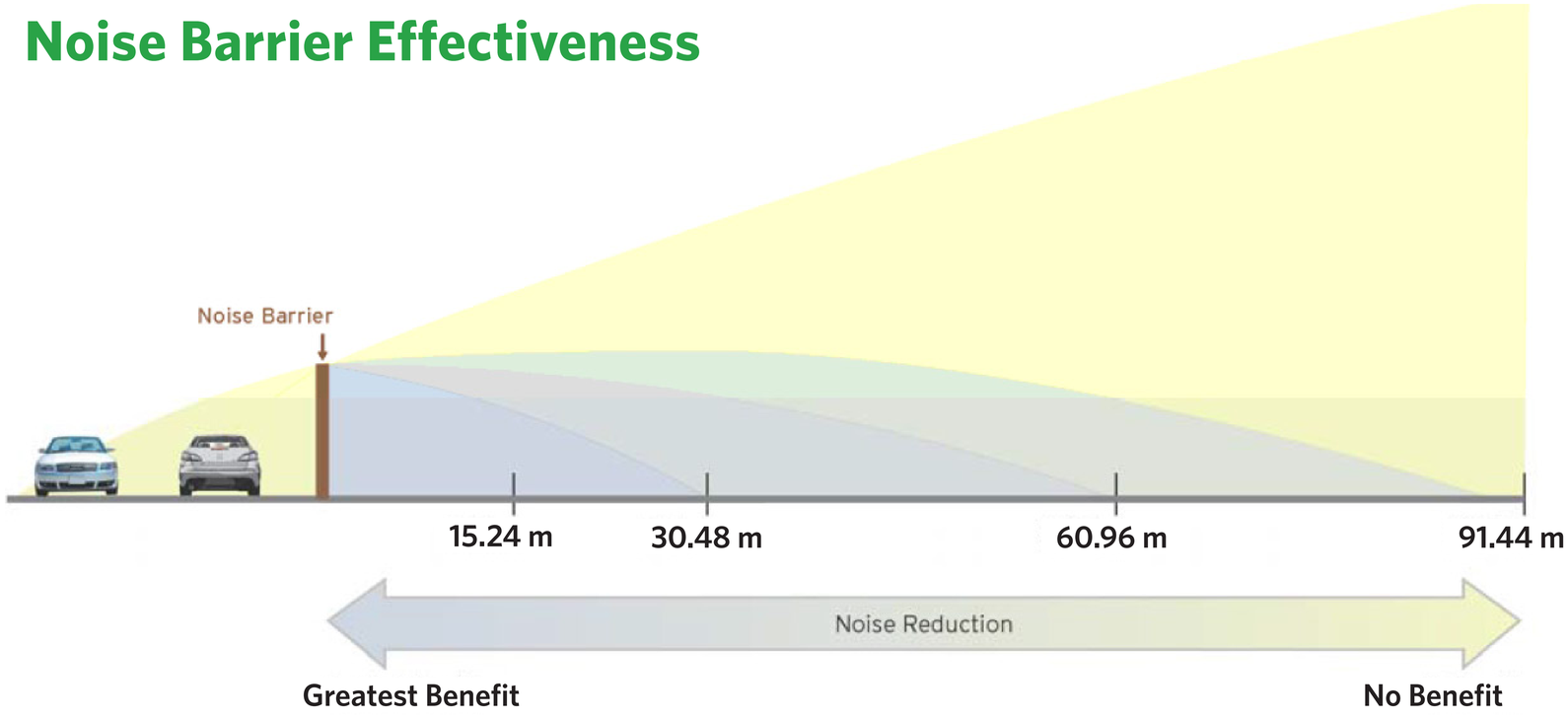
Noise Attenuation

In Phase 1 Engagement **we heard that it was important to incorporate noise attenuation to reduce noise experienced by nearby developments** as a result of any future changes to the Perimeter.

Specifically, **noise was raised as an existing concern at PTH 59/PTH 101**.

The interchange at PTH 59/PTH 101 was recently completed and is now considered an existing component of infrastructure. Therefore, noise at PTH 59/PTH 101, is outside the scope of the study. The Manitoba government is aware of noise concerns in the area and is reviewing current practices to identify potential improvements.

Noise Barrier Effectiveness



Noise Attenuation

The North Perimeter (PTH 101)
Highway Design Study

How a noise study works

As part of this study, **a baseline noise assessment has been conducted** to create a sound model of the study area. The noise model is created from the geography of the land and the buildings that are situated near the transportation route.

That information is used with the measured traffic volumes of the transportation routes **to predict the noise coming from the transportation route**.

Field measurements were then taken adjacent to the roads in order to **verify the accuracy of the model created**. Some other land noise sources like trains were also measured and incorporated into the model to improve the accuracy of the model.

Once a **preferred option** for the roadway and interchanges is identified, the **future state model will then be created** from the new traffic route geometry and the predicted changes in traffic volumes will be added to the model. The **model simulation will determine potential target areas** for noise abatement.

Mitigation targets the designated recreation space within a residential yard to be consistent with the noise guidelines. Mitigation methods like **berms or sound walls** are then investigated for their ability to reduce increased noises.

The **future noise levels with potential noise abatement options will be reviewed** to determine the preferred noise abatement option with the goal of reducing noise levels to desired levels identified in either municipal guidelines or City of Winnipeg Noise Guidelines.

Manitoba

PTH 101 – Freeway Conditions

Access will be limited to interchanges at major cross-roads, with no at-grade intersections, railway crossings or property access connections.

Other Roads

Access control for all other roads shall be based on the standards of the traffic authority for the road (Manitoba Transportation and Infrastructure for provincial highways; City of Winnipeg and rural municipalities for roads in their respective jurisdictions).

Traffic Forecasts

Traffic analysis was completed for the 10-year (2034), 20-year (2044) and 30-year (2054) horizons for existing / upgraded conditions to determine when an interchange or upgrades to existing interchanges will be required at each intersection.

Significant development growth is anticipated adjacent to PTH 101 over the next 30 years, which will result in a significant increase in traffic volumes on PTH 101.

Assumed build out of CentrePort will add a significant amount of new traffic, especially at the PTH 7 (Brookside Boulevard) interchange.

2022 Traffic Volumes

The North Perimeter (PTH 101) Highway Design Study

Manitoba

2054 Traffic Volumes

The North Perimeter (PTH 101) Highway Design Study

Manitoba

Technical Evaluation Criteria

The project team will design and evaluate interchange and highway options based on the following criteria:

Engineering and Transportation

CRITERIA

- Safety (personal or light vehicles, trucks and pedestrians/cyclists)
- Geometry
- Utilities
- Ease of construction and staging
- Traffic operations

Community/Social Economic Impacts

CRITERIA

- Minimize land acquisition/ severance
- Access impacts (businesses and other properties)
- Pedestrian/cycling accommodation
- Community impacts

Cost Factors

CRITERIA

- Cost of construction
- Right-of-way acquisition cost

Environmental Impacts

CRITERIA

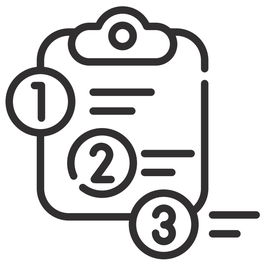
- Noise impacts
- Natural environment
- Habitat impact
- Heritage resources impact

Next Steps

FALL/WINTER 2022	SPRING/SUMMER 2023	FALL 2023/ SUMMER 2024	SUMMER 2024/ WINTER 2025
Review existing condition and design requirements	**Develop highway and interchange options**	**Evaluation, selection and design of preferred option**	**Finalize functional design of preferred option**

WE ARE HERE

WINTER 2023	SUMMER/FALL 2023	SUMMER/FALL 2024
Public engagement phase 1 Present project scope, background information and collect feedback	**Public engagement phase 2** Collect feedback on highway and interchange options	**Public engagement phase 3** Collect feedback on proposed design



After completion of phase 2 engagement, the project team will focus on evaluating and selecting the preferred roadway and interchange options.

A **What We Heard** report summarizing the feedback received will be posted on the **Engage MB** site.

Phase 3 engagement will include presentation of the proposed design.

Thank you

For additional information, please contact:

Meagan Boles, Engagement Lead
E: PTH101@wsp.com
T: 204-477-6650