



MEMO

To: Mayor & Members of Council

Date: December 18, 2017

From: Don MacLeod, Chief Administrative Officer

Number: 2017-175

Subject: High Speed Rail Update

File: T13 – High Speed Rail

Council Meeting Date: December 19, 2017

Agenda Item: **8(b)(i)**

RECOMMENDATION:

For Council's information.

BACKGROUND:

An initial meeting was held with staff from the Ministry of Transportation High Speed Rail Team on December 15, 2017, at the Municipality of Thames Centre with the following in attendance:

Don MacLeod	Zorra, CAO
Stewart Findlater	Thames Centre, CAO
Jeff Carswell	East Zorra-Tavistock, CAO
Jennifer Graham Harkness	MTO, Director of High Speed Rail
John Slobodzian	MTO, Team Lead, Environmental Policy Office, Transportation Planning Branch
Nicole Forbes	MTO Senior Policy Analyst, Environmental Policy Office, Transportation Planning Branch
Sara Patterson	MTO, Issues Coordinator, High Speed Rail Team

A wide range of issues were discussed and there was excellent dialogue with MTO staff. First and foremost, MTO staff stressed that while the Special Advisor's Report did put forward a recommended route of paralleling the Hydro One corridor, this route is not finalized. The preferred route will be selected through the environmental assessment process.

At present, the Province is advancing the HSR program through three main streams of work:

- Governance, corporate and financial design
 - Creation of Planning Advisory Board
- Corridor planning and environmental assessment
- Development of regulatory and safety standards

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The governance, corporate and financial design stream will examine how best to govern and manage the system. This will include detailed review of existing worldwide HSR models and develop a best practice for Ontario. This stream will also determine on how best to fund HSR.

The corridor planning and environmental assessment stream will carry out the detailed work necessary under an EA. The Phase 1 HSR segments will have different planning and design requirements and may require different EA processes. Given the Toronto to Kitchener-Waterloo will be a rail service upgrade and the Kitchener-Waterloo to London will be a new right-of-way, each segment will likely have a different process. The KW-London link will also be subject to the Canadian Environmental Assessment Act as the project will be for trains travelling in excess of 200 km/h as well as requiring more than 32 km of new right-of-way. As Council is aware, the first stage in an EA is preparation of a Terms of Reference. This first stage will commence once the Province has retained a lead consultant to coordinate the project. In literature provided by the Province, it is estimated the EA process will take between four to six years. It should be clearly noted that the EA process will not review improvements to the 401 or enhanced VIA Rail service. The mandate of the EA will be to carry out a review of high speed rail.

The last stream of work will see work carried out on establishing regulatory and safety standards for HSR. These will be federal standards and will be worked on in conjunction with Ontario and the Federal government. Again, a best practices review will be carried out and appropriate Canadian standards will be adopted. California is in the midst of developing standards and will likely be a good North American comparable.

COMMENTS:

John Slobodzian noted this project has similarities with other highway corridor projects that MTO has undertaken in that Environmental Assessments were required. MTO has worked closely with impacted municipalities through creation of advisory groups at the political and technical level. He felt this project would similar with the creation of a Municipal Advisory Group (MAG) comprised of the CAO's and a Council representative to act as the political group. A separate Municipal Technical Advisory Group (MTAG) would include Public Works staff and other technical municipal staff. It was suggested the MAG should be established in 2018 to begin a dialogue between MTO and the corridor impacted municipalities. There was general agreement this approach would be advantageous.

The subject of a municipal peer review process was also discussed and MTO staff did not disagree there may be merit in this. However, funding of a peer review would have to be through a request to the Minister of Transportation. With this in mind, it is recommended that a joint letter from the Mayors of Zorra, East Zorra-Tavistock, Thames Centre and Wilmot be sent to Minister Del Duca to request a meeting to discuss a fully funded peer review for this process.

FINANCIAL IMPLICATIONS

N/A

LINK TO STRATEGIC PLAN

Keeping Council and member of the public updated on the High Speed Rail project supports the following goal and action in the Strategic Plan:

Goal: We are an *engaged* community that values all members and actively encourages involvement, engagement, openness and transparency.

Action: By being open and transparent

ATTACHMENTS

- a. MTO PowerPoint presentation

Respectfully submitted by:



Don MacLeod
Chief Administrative Officer



Ontario

Connecting Ontario with
High Speed Rail (HSR)

Overview

- 1** HSR: Connecting Ontario
- 2** What is HSR?
- 3** How Ontarians Benefit
- 4** HSR Travel Times by Station
- 5** Getting Ready for HSR

A map of Ontario, Canada, with a semi-transparent blue overlay. The map shows major cities and transportation routes. A dark grey horizontal bar is positioned at the bottom of the image, containing the text 'HSR: Connecting Ontario'.

HSR: Connecting Ontario

Overview

- In Ontario's history, railways have played a significant role **connecting people and businesses** within the province and with adjacent places.
- Today, new types of high-speed rail can create **strong economic and environmental benefits**.
- High speed rail is in place across Europe, Japan and the east coast of the United States. Canada is the only G8 country without a high-speed rail system.
- Ontario is now moving ahead with preliminary work to build a **High-Speed Rail system between Toronto and Windsor (370km)**.

Maclear & Co.'s Railway Map of Canada West. Source: Library and Archives Canada, n0002910

HSR in Ontario



High speed trains running between Toronto and Windsor could **cut the current journey time in half.**

The first phase of this project will begin with service from Toronto to London, then expand with service from London to Windsor in the second phase of construction.



Why the Toronto-Windsor Corridor

Connecting A Growing Region

The Toronto-Windsor is currently home to **more than 7 million people and 3.4 million jobs.**

This region is an ideal candidate for high-speed rail because it's:

- a hub for leading research institutions, start-ups, and advanced manufacturing and home to existing regional transit systems and Canada's largest and busiest airport
- growing faster than its current transportation network can accommodate





A map of Southern Ontario, Canada, with several high-speed rail (HSR) routes highlighted in red. The routes connect major cities including Toronto, Mississauga, Hamilton, and Niagara. Other cities shown on the map include London, Kitchener, and Windsor. The map also displays major roads and geographical features like Lake Ontario and Lake Erie.

What is HSR?

What is HSR?




Definition

Ontario defines high speed rail as a system with **trains that operate at or above 250 km/h on dedicated tracks or at 200 km/h on existing tracks**. This aligns with the definition of the Union of International Railways (UIC).

Three Principles

- 1 High Speed Rail is a system:** State of the art infrastructure, stations, rolling stock, operations, financing, communications, marketing, management and regulation creating a smooth door-to-door experience for the commuter.
- 2 High Speed Rail means capacity:** HSR is synonymous with capacity and sustainability. To ensure these elements, HSR needs to consider accessibility, multi-modal compatibility and demand.
- 3 High Speed Rail are (equal but) different everywhere:** HSR systems depend on how their components interact and can vary widely depending on commercial approach, operation criteria and costs management.

How HSR is different

	 Long-Distance Passenger Rail	 Commuter Rail	 High Speed Rail
Speed	80 – 160 km/h	130 – 175 km/h	175 – 300 km/h
Power	Diesel - electric	Diesel - electric	Electric
Tracks	Some parts shared with freight rail	Some parts shared with freight rail	Exclusive to passenger service
Typical Station Distance	15-30 km apart	30-50 km apart	50-100 km apart
Example	Via Rail	GO Transit (RER)	TGV (France), Shinkansen, ICE

Global example of HSR





How Ontarians Benefit

How Ontarians Benefit

Economic Benefits

\$20 BILLION OVER 60 YEARS FROM:

- > passenger travel time savings
- > automobile operating cost savings
- > greenhouse gas reduction benefits
- > benefits from reduced congestion on roads



Supporting **regional integration** and development at a municipal, regional and corridor level


Travel Benefits

40-60% IN **REDUCED** TRAVEL OR COMMUTE **TIME**

- > Increased transit option through connections to existing transit systems
- > Efficient and sustainable mobility in Southwestern Ontario

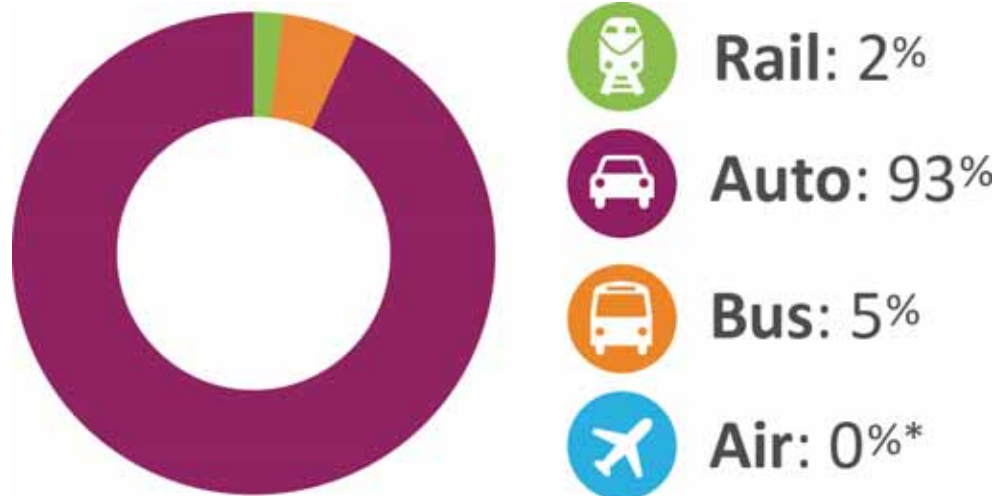


Environmental Benefits

REMOVING MORE THAN 5 MILLION
 **FROM THE ROAD BY 2024**

Making Travel & Commute Faster and Easier

Current Corridor Mode Split



Source: 2011 TSRC Data, Statistics Canada

*Air has a mode share of less than 1%

Shifting travel and commute from car to rail will support growth.

In 2041, over 10 million travellers annually are forecast to use HSR.

The service will capture an 11% mode share in the corridor.

This will take more than five million cars off of Southwestern Ontario's highways.

Creating Integration



Creating faster connections to...



...more healthcare options



...international travel



...research & innovation hubs



...higher education



...sports and culture

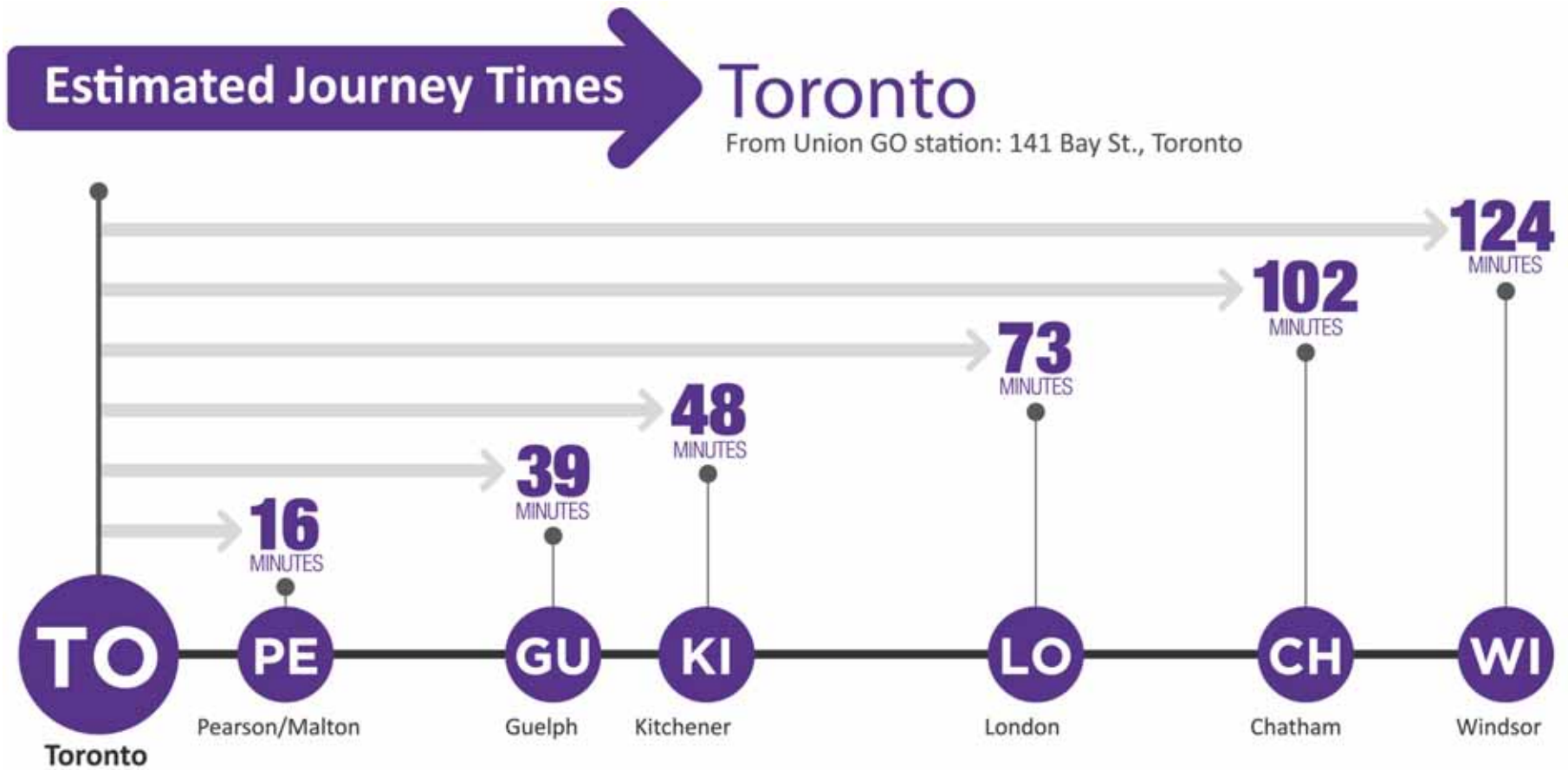


...business opportunities

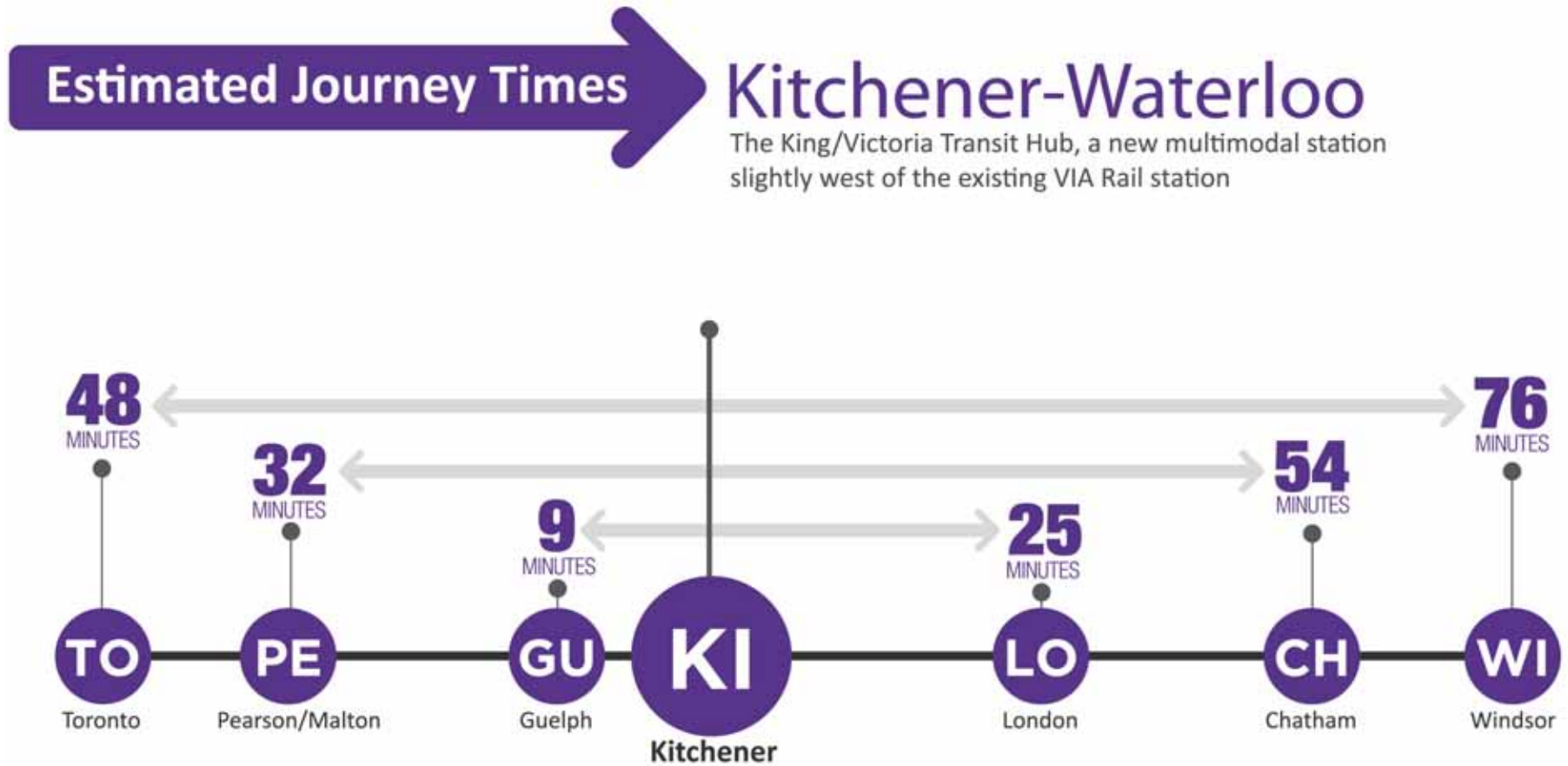
A map of Southern Ontario, Canada, with a dark blue overlay. The map shows major cities and their connections. The text 'HSR travel times by stations' is overlaid in white. The map includes labels for cities such as Toronto, Mississauga, Hamilton, and Niagara. The text is centered on the map.

HSR travel times by stations

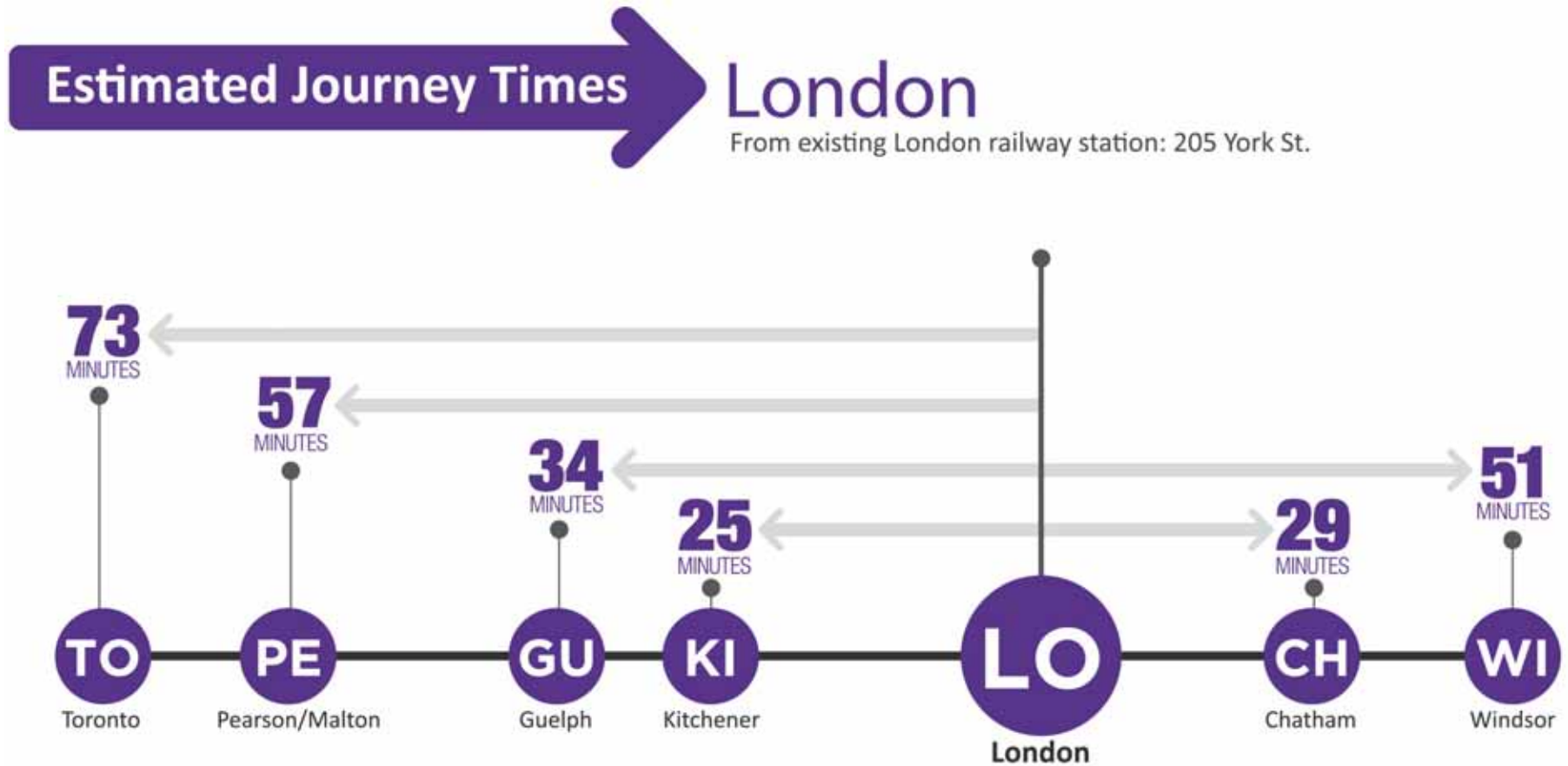
HSR Travel Times by Stations



HSR Travel Times by Stations



HSR Travel Times by Stations





A map of Southern Ontario, Canada, showing major cities and transportation routes. The map is overlaid with a semi-transparent blue layer. Several routes are highlighted in orange, indicating planned or potential high-speed rail (HSR) lines. These routes connect major hubs such as Toronto, Mississauga, Hamilton, and Niagara Falls, and extend further west towards London and Kitchener. The text 'Getting ready for HSR' is overlaid in white on the lower-left portion of the map.

Getting ready for HSR

HSR Timeline



Key Recommendations from Special Advisor

- The Special Advisor's analysis recommended a concept-level route and line speed that showed a positive performance and high potential. Further investigation, design, and analysis will follow as part of the environmental assessment (EA) process.
- The key characteristics to be developed and explored in Planning Design and EA stage are:
 - An above ground HSR corridor that uses existing infrastructure where possible to drive down costs;
 - Ability to serve long distance business/ leisure trips as well as commuter trips, particularly between Toronto, Pearson, Guelph, and Kitchener-Waterloo;
 - Use of running speed of around 250 km/h as appropriate to provide the best value for money
 - Central/downtown stations that are directly connected to rapid transit and local transport networks; and
- Building HSR in two phases: 1) Toronto to London, 2) London to Windsor

How will HSR be Delivered

- The province is advancing the HSR program through three main streams of work:
 - Governance, corporate and financial design; and,
 - Including the creation of a Planning Advisory Board
 - Corridor planning and environmental assessment;
 - Development of regulatory and safety standards.

HSR Planning Advisory Board

Objectives

- Provide strategic advice on major business issues associated with the HSR program
- Engage with the private sector, stakeholders and Indigenous communities

Board Members

Members will be selected from across the Corridor and will have a breadth and depth of experience and expertise.

Corridor Planning and Environmental Assessment Process

The Environmental Assessment (EA) process ensures that governments and public bodies consider potential environmental effects before an infrastructure project begins.

EA for HSR

- HSR will be subject to the requirements of the Ontario EA Act and the Canadian EA Act.
 - The Ontario EA Act applies to public plans, enterprises and activities.
 - The Canadian EA Act applies to rail projects that are designed for trains travelling at a speed of more than 200 km/h, or require more than 32 km of new right-of-way.
- The Phase 1 (Toronto to London) HSR segments have different planning and design requirements, and may require different EA processes.
 - Toronto to Kitchener-Waterloo will be a rail service upgrade.
 - Kitchener-Waterloo to London requires new rail right-of-way and establishment of a new rail service.

Corridor Planning and Environmental Assessment Process

- An EA Terms of Reference provides an approved framework for completing the subsequent planning, design, and EA study.
- The Terms of Reference will include, at a minimum, an approach for:
 - Coordinating federal and provincial EA approvals;
 - Generating and assessing alternative routes and designs (including station locations) to be considered during the EA study;
 - Consulting with potentially affected and interested municipalities, provincial and federal regulatory agencies, other transportation service providers, the general public, and other interested stakeholders;
 - Engaging and consulting with potentially affected and interested Indigenous communities;
 - Coordinating the EA from Kitchener-Waterloo to London with the Metrolinx RER planning and design efforts in the Toronto and Kitchener-Waterloo corridor; and
 - Mitigating and compensating for potential environmental impacts.

Corridor Planning and Environmental Assessment Process

- MTO is currently acquiring consultant services to deliver the EA Terms of Reference for Kitchener-Waterloo to London.
 - Expected commencement is winter/spring 2018*.
- Following approval of the EA Terms of Reference, MTO will undertake a subsequent EA study to determine the plan and design for HSR.
 - The EA study must adhere to the process outlined in the approved EA Terms of Reference and will identify HSR requirements such as the route plan, station design and location, track design, power supply, etc.
 - The EA study is estimated to require 2-4 years* to complete.
- The approach to meeting EA requirements for Phase 2 of HSR (London to Windsor) will use a similar approach for planning, design, and EA as the Kitchener-Waterloo to London segment of Phase 1, and will be initiated as demand for HSR develops.
- Formal consultation and engagement for the EA Terms of Reference has yet to begin.
 - There will be numerous opportunities for Indigenous communities, municipalities and other stakeholders to participate in the planning, design, and EA process.

*Ultimate EA timelines will depend on the nature and scope of issues that must be resolved throughout the EA process. EA is an iterative process that includes evidence-based evaluations and is responsive to the results of consultation to achieve project objectives.

Have your say



Web

[Ontario.ca/highspeedrail](https://ontario.ca/highspeedrail)

[Ontario.ca/trainagrandevitesse](https://ontario.ca/trainagrandevitesse)



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