Welcome

Stage 2 ION: Light Rail Transit (LRT) from Kitchener to Cambridge
Public Consultation Centre (PCC) No. 3

Please Sign-in

Cambridge City Hall
Preston Memorial Auditorium
Lions Arena – Kitchener

November 21, 2017 – 2:00 - 8:00pm
November 28, 2017 – 4:00 - 8:00pm
January 16, 2018 – 4:00 - 8:00pm
ION To Date

• Stage 1 LRT testing is underway from Waterloo to Kitchener and service will begin in Spring 2018

• Stage 2 ION will replace Bus Rapid Transit (constructed under Stage 1) with LRT, creating a continuous LRT system connecting Cambridge, Kitchener and Waterloo

• ION is the foundation for the Regional Official Plan objectives:

  - Enhance natural environment
  - Provide greater transportation choice
  - Protect farmland
  - Ensure overall coordination and communication
  - Foster strong economy
  - Build vibrant urban places

Read “The ION Story”, available as a handout or on the project website
What is the Purpose of Today?

- Provide an overview of comments received at PCC No. 2 and how these have provided input to the route selection process
- Present refinements and additional route alternatives in the Kitchener, North Cambridge (Preston) and South Cambridge segments
- Explain how the routes will be evaluated
- Hear your feedback

The study has not yet advanced to the stage where individual property impacts are known. These details will be available at a future public meeting in Early 2019.
How Will My Input Be Used?

Your comments on the information presented at this public meeting will be used to:

• Finalize the additional alternatives that will be carried forward for evaluation
• Assess the benefits and impacts of each alternative

Please provide feedback by:

• Speaking with a project team member
• Submitting your comments at this PCC, via email or online by February 16, 2018
Study Timeline

Activities Completed

<table>
<thead>
<tr>
<th>Fall 2015</th>
<th>Feb – Mar 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop alternative design concepts and establish evaluation criteria</td>
<td>Evaluate alternatives and identify Preliminary Potential Route</td>
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</table>

Public Consultation No. 1

<table>
<thead>
<tr>
<th>Early 2019</th>
<th>Spring 2019</th>
<th>Fall 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete preliminary design and identify property requirements</td>
<td>Present the Preferred Route and Business Case to Regional Council for Endorsement</td>
<td>File the Environmental Project Report for public review and complete the Transit Project Assessment Process</td>
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Public Consultation No. 5

<table>
<thead>
<tr>
<th>Fall 2017</th>
<th>Spring 2018</th>
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<tbody>
<tr>
<td>Identify additional and refined route options based on PCC No. 2 feedback</td>
<td>Complete evaluation and present updated Preliminary Potential Route</td>
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</table>

Public Consultation No. 3

Public Consultation No. 4

We are here
What we heard at PCC No. 2

Approximately **350** attendees over 3 sessions
Over **380** comment submissions received during and after PCCs

<table>
<thead>
<tr>
<th>Supportive feedback on the Preliminary Potential Route</th>
<th>Concerns regarding the Preliminary Potential Route</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td><strong>Property Impacts</strong></td>
</tr>
<tr>
<td>• Connections to transit hubs and major destinations</td>
<td>• Residential and commercial property acquisitions</td>
</tr>
<tr>
<td>• Regional connection between Cambridge, Kitchener and Waterloo</td>
<td>• Broader effects on community character</td>
</tr>
<tr>
<td><strong>Environmental Benefits</strong></td>
<td><strong>Traffic Impacts</strong></td>
</tr>
<tr>
<td>• Sustainable transportation options</td>
<td>• Additional auto/freight traffic</td>
</tr>
<tr>
<td>• Reduced pollution</td>
<td>• Left turn restrictions</td>
</tr>
<tr>
<td><strong>Redevelopment Potential</strong></td>
<td>• Construction staging/delays</td>
</tr>
<tr>
<td>• Transit oriented development</td>
<td><strong>Heritage, Natural and Noise Impacts</strong></td>
</tr>
<tr>
<td>• Walking, cycling and transit friendly communities</td>
<td>• Impacts to specific natural and built heritage sites, walking trails</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>• Noise from construction and/or LRT operation</td>
</tr>
<tr>
<td>• Avoidance of busy intersections</td>
<td><strong>Ridership and Cost</strong></td>
</tr>
<tr>
<td>• Alternative to automobile travel</td>
<td>• Potential lack of ridership to support cost</td>
</tr>
<tr>
<td><strong>Environmental Benefits</strong></td>
<td>• Potential lack of funding</td>
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</table>

Concerns regarding the Preliminary Potential Route:

- Property Impacts: Residential and commercial property acquisitions, Broader effects on community character.
- Traffic Impacts: Additional auto/freight traffic, Left turn restrictions, Construction staging/delays.
- Heritage, Natural and Noise Impacts: Impacts to specific natural and built heritage sites, walking trails, Noise from construction and/or LRT operation.
- Ridership and Cost: Potential lack of ridership to support cost, Potential lack of funding.
PCC No. 2 – Site Specific Feedback

KITCHENER

Support
- Use of the proposed River Rd extension
- Avoiding Fairway Rd/King St intersection
- Active transportation on Grand River Bridge
- Direct connection to Sportsworld

Challenges
- Traffic impacts to River Rd extension and King St near Sportsworld
- Environmental impacts to Hidden Valley area
- Environmental impacts of Grand River crossing
- Proximity of Sportsworld stop to existing transit hub

Kitchener Segment

NORTH CAMBRIDGE

Support
- Ability for LRT to serve more densely populated area (higher ridership)
- Access to LRT for Preston residents
- Anticipated growth in the community due to LRT implementation
- Opportunity for LRT to connect with King Street buses

Challenges
- Property impacts along Moore and Eagle; decrease in property values and effects on businesses and institutions.
- Traffic conditions along Shantz Hill Rd, Moore St, and Eagle St
- Impacts on natural environment, trail system and heritage properties
- Impacts on community character and public realm

SOUTH CAMBRIDGE

Support
- Avoidance of Delta intersection
- Utilization of the abandoned rail corridor
- Connections with major transit hubs (i.e. Ainslie St. Terminal)
- Avoidance of heritage impacts along Ainslie and Water Streets

Challenges
- Potential impacts to/relocation of Mill Creek Trail
- Property impacts and loss of affordable housing along Beverly
- Impacts to heritage homes
- Ability to create multi-modal hub
Kitchener Segment

Why are we looking at a new alternative?

F2a-K2 (PCC No. 2 Preliminary Potential Route)

When evaluated against previously considered alternatives:

- Fewer property impacts
- Reduced impact to traffic operations
- Environmental impacts & First Nation interests with new Grand River crossing
- Relatively higher travel time
- More complex bridge design for River Road over Highway 8

Following discussion with the Ministry of Transportation (MTO), the opportunity to use a portion of the Highway 8 right-of-way for LRT was examined further. This alignment appears to improve most the shortcomings of the Preliminary Potential Route, in particular a significant reduction in travel time for the overall LRT network.
Kitchener Segment – Additional Route Alternative

- **Grand River Hospital – Freeport Campus** will be serviced via GRT bus service from the Fairway Stop.
- The F2 alternatives are contained within the approved River Rd corridor to avoid environmentally sensitive areas.
- LRT will run on an independent structure along the west side of Highway 8, and will fully span the river to minimize environmental impact.
- No change to Potential Route and Stop at Sportsworld.

**Legend**
- Preliminary Potential Route
- Preliminary Potential Stop
- Rail Corridor
- Significant Environmental Features
- Regulatory Floodplain
North Cambridge Segment

Why are we looking at new route alternatives?

PCC No. 1
• Support for a stop in Preston was one of the most frequently noted comments

PCC No. 2
• Concerns raised regarding the alignment of the route through the Preston area

In response to feedback at PCC No. 2, the Project Team is exploring additional alternatives (including those suggested by area residents and the public) which will meet the same overall objective of bringing LRT to the core of Preston, but reduce potential property and community impacts.
North Cambridge Segment

Route refinements and additional routes must fall within the scope established for this review:

- Minimize travel time by providing direct connection between Sportsworld and Pinebush stops
- Travel through Preston, stop in King/Eagle area
- Improve property/environmental impacts compared to the Preliminary Potential Route as presented at PCC No. 2
- Only variations of Preliminary Potential Route are being examined - previously evaluated alternatives K1, N1, N2 are not being reconsidered
These routes were set aside as they do not provide a direct connection through Preston to Sportsworld.
North Cambridge Segment:
Route Suggestions Which Are Not Direct (2 of 2)

These routes were set aside as they do not provide a direct connection through Preston to Pinebush
North Cambridge Segment:
Route Suggestions Impacting Railways

These routes were set aside due to impacts on the existing railway operations.
These routes were set aside as they do not reduce impacts to the established neighborhood and/or environmentally sensitive areas and are less direct.
North Cambridge Segment - Constraints

Routes using the railway corridor will be subject to approval by the railway company.

Routes through Riverside Park may result in the Preston Stop being relatively far from King St.

Routes travelling along the Speed River may have significant impacts to the area’s natural environment.

Options where vehicles and LRT share the lanes on Eagle Street will be considered in order to reduce property impacts.

Routes connecting the rail corridor and King St. may require closure of Rogers Dr. entrance to Riverside Park.

Routes on Fountain St and King St have the potential to impact already congested vehicle traffic routes.

Routes along Highway 401 will only be feasible when MTO reconstructs the interchange.

Routes along the Speed River will need to take into account the existing walking trail network.
North Cambridge Segment – Additional Route Alternatives

- Cross section for routes traveling on King St. E and Shantz Hill Road

- Potential cross section for routes traveling on Eagle St. S

- Potential cross section for routes traveling on Eagle St. N, Fountain St. (O), King St. W (L) and King St. E (H, R)

- Cross section for routes traveling on King St. E and Shantz Hill Road

(modified from Preliminary Potential Route)
Updated Study Process

Regional Planning

Rapid Transit Studies

June 2011 Council Endorsed Route & Stations

Alternative design concepts

PCC No. 1

Set aside N4 N5 N6

Screening

Evaluation

Set aside N1 N2

PCC No. 2 – Potential route presented

Revised public feedback & established scope of review

Additional routes identified based on public feedback

Out of Scope Alternatives

N3 M M1

Route Suggestions & Submissions

Assess in/out of scope

PCC No. 3 – Present scope of review, additional route alternatives, evaluation criteria

Further develop remaining routes

PCC No. 4 – Present updated preliminary preferred route based on evaluation

Preliminary Design

PCC No. 5 – Present Preliminary Design, Property Impacts and Business Case
South Cambridge Segment

Why are we looking at new route alternatives?

PCC No. 2

- S3 was presented as the Preliminary Potential Route between Dundas St. and Downtown Cambridge
- It was noted that additional alignments within this corridor would be examined, including terminal options
- Alternative S3 alignments are being examined:
  - Along Beverly Street; and
  - Along the former railway corridor adjacent to Mill Creek
- Additional options for the terminal in Downtown Cambridge have also been explored in cooperation with Grand River Transit
South Cambridge Segment – Additional Route Alternatives

Potential Stop at Main Street if Terminal Option T2 or T3 is selected

Existing Ainslie Street Terminal

New Pedestrian Bridge (under construction)

Potential Future GO Station Location

Significant Environmental Features

Regulatory Floodplain

Legend

- Potential Stop Location
- Alternative Terminal Locations (T1, T2, T3)
- Preliminary Potential Route
- Route Alternatives on Beverly St
- Route Alternatives on former railway corridor
- Rail Corridor
- Potential Future GO Station Location
- Significant Environmental Features
- Regulatory Floodplain
What Could the GRT Bus Network Look Like?

This figure shows how the GRT network could be routed through Downtown Cambridge to provide connections with LRT:

- All bus routes in Downtown Cambridge would continue to connect to each other, while also connecting to at least one LRT station (T1, T2 or T3). Stops would be on street or in the LRT Station to enable convenient transfers. Routes would continue to be scheduled to connect.
- “Through-routing” of buses in this area instead of ending all routes at a terminal could reduce transfers, reduce duplication in routing (thereby improving operating efficiency) and increase bus frequency.
- Bus layover and driver’s facilities could be moved out of Downtown, providing redevelopment opportunities.

This is an illustration of a modified bus network that could be introduced with any of the Downtown Cambridge LRT concepts. It applies only to bus routes in southern Cambridge that currently use the Ainslie Terminal. Any potential bus route changes would be subject to public consultation and Council approval before implementation.

Legend
- Preliminary Potential LRT Route
- Preliminary Potential LRT Stop
- Potential Integrated LRT/Bus Station
- Potential Bus Station
- Alternative LRT Terminal Location / Potential Integrated LRT/Bus Station
- Potential Bus Route
- South Cambridge LRT Route Alternative
- Rail Corridor
- Potential GO Station Location
Evaluation Criteria

The evaluation criteria are based on the Regional Official Plan objectives, input received from the first public consultation and are consistent with the original evaluation presented at PCC No. 2

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>CRITERIA</th>
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<tbody>
<tr>
<td>Transportation</td>
<td>• Ability to Serve Multi-Modal Nodes</td>
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<td>• Impact on Traffic Operations</td>
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<td></td>
<td>• Engineering Challenges</td>
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<td>• Potential Ridership</td>
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<tr>
<td>Social/Cultural Environment</td>
<td>• Destinations Served</td>
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<td>• Properties Impacted</td>
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<td></td>
<td>• Cultural Heritage Impacts</td>
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<tr>
<td></td>
<td>• Transit and Pedestrian Supportive Land Use Policy</td>
</tr>
<tr>
<td>Natural Environment</td>
<td>• Impact on Floodplains</td>
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<td></td>
<td>• Impact to Significant Natural Features</td>
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<tr>
<td>Economic Environment</td>
<td>• Ability to Serve Concentrations of Employment (existing and future)</td>
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<td></td>
<td>• Opportunity for Intensification and Revitalization</td>
</tr>
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<td></td>
<td>• Cost (Capital and Operating)</td>
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- The additional route alternatives will be compared against the Preliminary Potential Route from PCC No. 2
- For the Terminal options in South Cambridge, additional evaluation criteria will include:
  - Ease of connectivity to local bus routes
  - Operational benefits to GRT local bus services
What Happens Next?

After PCC No. 3
- Once the additional alternatives or refinements have been confirmed for each of the three study areas, they will be evaluated against the Preliminary Potential Route

Next Public Consultation
- Evaluation results and the Updated Preliminary Preferred Route and Downtown Cambridge Terminal location will be presented at the PCC No. 4 in Spring 2018

Property Impacts
- Property impacts will be identified during the Preliminary Design stage (following PCC No. 4) and will be presented at PCC No. 5 in Early 2019
Thank You for Attending

Your opinion matters!

Please provide feedback by February 16, 2018 using the comment sheet or one of the other methods below

- **E-mail:** ION@regionofwaterloo.ca
- **Website:** www.stage2ION.ca
- **Phone:** 519-575-4757 x 3462

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