

# **DIXIE ROAD RECONFIGURATION: ENHANCE THE SAFETY AND COMFORT FOR ALL ROAD USERS**

A Collaborative effort with the community and stakeholders

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## **ABSTRACT**

Peel Region is one of Ontario's fastest growing regions, with population of over 1.3 million people and forecasted growth to reach 1.8 million people by 2031. Employment is expected to keep pace with population growth with employment forecasted to grow from 734,000 jobs in 2014 to 880,000 jobs by 2031. Recognizing the increase in population and jobs that comes with an expanded economy and the reality of constrained land area, the transportation system can only accommodate future travel by ensuring more people use sustainable modes of transportation such as transit, walking and cycling.

Supports for the implementation of a bikeway on Dixie Road are well recognized in many Regional and City planning documents. A comprehensive approach has been undertaken to bring planning policy to implementation for the Region's first-ever buffered bike lanes with road reconfiguration that incorporates an urban streets approach to improve the safety and comfort for all road users. This includes completing a feasibility study, bringing stakeholders together to build consensus on a design plan, engaging the community, and leveraging on major infrastructure projects for implementation.

The recommended design is a lane reconfiguration on Dixie Road from a four lanes arterial road to a two lanes road, centre left turn lanes, and buffered bike lanes to provide a complete streets approach. The project will be monitored to see the effectiveness of implementation.

## **A GROWING MUNICIPALITY**

Peel Region is one of Ontario's fastest growing regions, with a population of over 1.3 million people and forecasted growth to reach 1.8 million people by 2031. Employment is expected to keep pace with population growth with employment forecasted to grow from 734,000 jobs in 2014 to 880,000 jobs by 2031. Recognizing the increase in population and jobs that comes with an expanded economy and the reality of constrained land area, the transportation system in Peel can only accommodate future travel by ensuring more people use sustainable modes of transportation such as transit, walking and cycling.

## **ACTIVE TRANSPORTATION TOWARDS SUSTAINABILITY**

Regional Council approved the Region's first Active Transportation Plan in early 2012. The Plan provides a framework for how the Region will increase the share of trips by walking and cycling and a "blue print" for an active transportation network comprised of sidewalks, trails and bikeways to be implemented over time. Walking and cycling facilities are identified on Dixie Road, a major arterial road in the Region.

The section of Dixie Road under study is a 1.6km arterial road that forms a critical transportation link to complete the active transportation network, linking to existing and planned facilities, major recreation trail, transit hubs, destinations, and supports future growth area (Figure 1).

### **PLANNING CONTEXT**

A shift to Complete Streets along the Dixie Road corridor is consistent with the direction identified in many planning and policy documents.

The Province of Ontario Cycling Strategy recognized, respected, and valued cycling as a core mode of transportation that provides individuals and communities with health, economic, environmental, social and other benefits.

The Regional Official Plan encourages and supports the development of a safe, accessible and integrated network of bicycle and pedestrian facilities that enhances the quality of life.

Local City Official Plan has designated Dixie Road as a scenic route to maintain or restore historic scenic nature of roadway. The City's cycling master plan further identified this section of Dixie Road as a primary on-road bike route. Dixie Road also lies within the Lakeview local area plan that is being updated. The Inspiration Lakeview redevelopment is expected to be a mixed use waterfront community that accommodates additional population and employment growth. The Lakeview Waterfront Connection Project aims to create a new natural waterfront park in the Inspiration Lakeview neighbourhood to enhance degraded aquatic and terrestrial wildlife habitat and provide public access to the waterfront, which currently do not exist. A cycling facility on Dixie Rd provides critical link to this future development, linking transportation with land-use.



Figure 1: Project Context

## DIXIE ROAD BIKEWAY FEASIBILITY AND DESIGN STUDY

A feasibility study was completed to determine the options for the Dixie Road corridor, including bike lanes, multi-use trails, and shared bike route. The study considered available right of way, position of utilities, speeds, accesses, and extensive traffic analysis. The recommended design is lane reconfigurations on Dixie Road from a four lanes road to a two lanes road, centre left turn lanes, and buffered bike lanes to provide a complete streets approach (Figure 2).

The reconfiguration benefits:

- Improved safety and comfort of all users;
- More consistent traffic flow and reduced speed differential;
- Pedestrians buffered from vehicle traffic;
- Fewer lanes to cross when turning from side-streets;
- Low cost solution by changing pavement markings

The design for the Dixie Road Lane Reconfiguration with Bike Lanes is unique in that this is the first-ever buffered bike lanes implemented by the Region, and incorporates an urban streets approach to improve the safety and comfort of all road users. Design criteria were reviewed intensively with the project team including design/target speed, travel lane width for general purpose lane and turning lanes, and bikeway width. The

design was presented to stakeholders and public, and then modified to reflect comments received from the consultations.



Figure 2: Dixie Road Before and After Reconfiguration

## **COLLABORATIVE EFFORT WORKING WITH THE COMMUNITY AND STAKEHOLDERS**

An effective communication strategy raised awareness of the project and fostered understanding of its benefits to the community. This also ensured that any issues identified were addressed through the study and design process, and gained support from internal and external stakeholders and the community.

In lieu of a public open house, the project team met with various community groups at their convenient locations. This ensured all comments and perspectives of the project were captured.

A number of communication materials were developed to reach out to the community:

- Notice in local newspaper;
- A flyer/letter to resident's home;
- Notice placed at key destinations;
- Project website; and
- Project email.

Comprehensive community and stakeholder consultations were completed that includes working with:

- local municipality and senior government;
- local official;
- internal teams;
- Individual stakeholder group meetings; and
- Community outreach and engagement at public events such as Tour de Mississauga and a shopping mall (Figure 3).



Figure 3: Public Consultation Events

All comments received have been documented, reviewed, and analyzed in terms of supporting the project, not supporting the project, and/or have concerns. The feedback was varied, but largely positive (Figure 4).

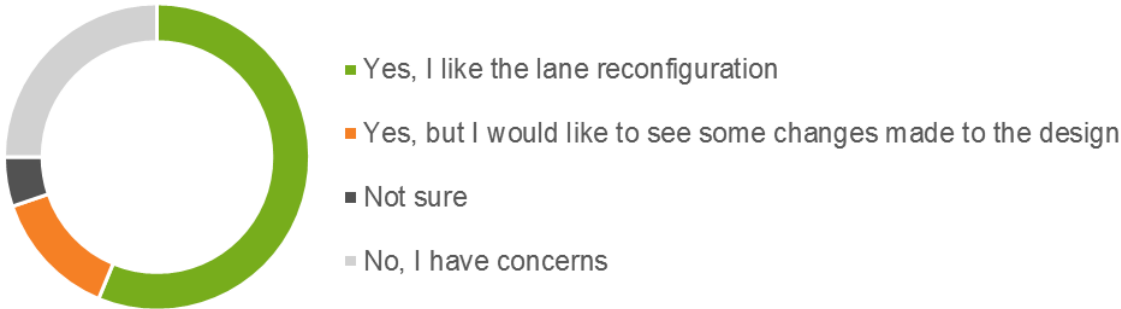


Figure 4: Public Comments

By reaching out to the community and a variety of stakeholders, the project team were able to address concerns early in the project planning and design stage. This also

ensure different perspectives and views to the project were heard, and not only the residents with concerns that typically attend the public open house.

By engaging the local municipality and senior level of government early in the project helps identify and understand projects in the area under their control, develop a design that meets future operational, maintenance and community needs, brings together common vision and partnership. The success of the project will centre on not only technical response in the design to roadway capacity and traffic operations issues, but also an understanding of the benefits to area residents, stakeholders and the community.

## **PROJECT IMPLEMENTATION: BUILDING ON MAJOR INFRASTRUCTURE**

### ***QEW Improvements at Dixie Road, Ministry of Transportation Ontario***

The Ontario Ministry of Transportation (MTO) Queen Elizabeth Way (QEW) improvements from Evans Avenue to Cawthra Road proposed to reconfigure the Dixie Road interchange. The location of the QEW/Dixie Road interchange is significant to the existing and planned active transportation network in the vicinity of the interchange, as well as key destinations that would be connected by the completion of the network in the area, making connection with the Dixie Rd bikeway. The Region worked collaboratively with the MTO on a design concept to incorporate pedestrian and cycling facilities along Dixie Road, including on the bridge structure and entered into a cost sharing arrangement with the MTO to complete the active transportation network within the study area.

### ***Hanlan Water Project and Road Resurfacing***

The Region has a major Water Project (Hanlan Feedermain) and road resurfacing along this section of Dixie Road that provides an opportunity to implement the lane reconfiguration to minimize cost and disruption to the community. Further, a new multi-use trail in the boulevard is being constructed on Dixie Road (north of the Dixie Road and QEW interchange) as part of the Hanlan Water project, making connection to the Dixie Road reconfiguration and bikeway. The project will be monitored to see the effectiveness of implementation.

## **CONCLUSION:**

Together with the community and stakeholders, Dixie Road will be regenerated to provide safe and comfort space for people of all ages and abilities, balanced the needs of different modes, connecting to major transit hubs and destinations, and supporting growth area.

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Note: I have worked at Peel Region as the project manager for this project until December 24, 2015 and joined the City of Vaughan in early 2016. The paper and presentation are prepared in consultation with Peel Region.

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