



**SUBJECT: Integrated Mobility Plan – Travel Demand Model Funding**  
**TO: Environment, Infrastructure & Community Services Cttee.**  
**FROM: Transportation Services Department**

Report Number: TS-11-20

Wards Affected: All

File Numbers: 830-03

Date to Committee: April 6, 2020

Date to Council: April 20, 2020

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**Recommendation:**

Award the auxiliary contract for the development of the travel demand model of the Integrated Mobility Plan to Dillon Consulting Limited for \$192,902.30 including HST;

Authorize the execution of any contracts or contract amendments as may be required, subject to the satisfaction of the Executive Director of Legal Services and Corporation Counsel; and

Approve funding of \$250,000 for the purposes of expanding the scope of the Integrated Mobility Plan to include the development of a multi-modal travel demand model.

**PURPOSE:**

The purpose of this report is to provide an overview of the Integrated Mobility Plan and request an increase in scope to include the development of a multi-modal travel demand model. This report provides a high-level overview of how the tool will be used to support future decision making as it relates to the prioritization of transit investment and infrastructure improvements.

**Vision to Focus Alignment:**

- Improve integrated city mobility
  - Support sustainable infrastructure and a resilient environment
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## **Background and Discussion:**

The Integrated Mobility Plan is a key study required to enable the city to work towards realizing the many transportation related goals identified in Vision to Focus. The intent is to develop a policy document to guide future decision making and identify key actions required to support multi-modal transportation to the 2041 horizon, connecting several existing plans and initiatives at both the local and regional level. Consulting services for the Integrated Mobility Plan were awarded through a competitive bid process and the request for proposal was recently approved (February 24, 2020) through the Transportation report TS-9-20 under delegated authority (DA-13-20).

### **Study Purpose**

The purpose of the Integrated Mobility Plan (IMP) is to guide long-term mobility policy, planning and investment decisions in a manner that aligns with the City of Burlington's 2015-2040 Strategic Plan.

The creation of an engagement-driven IMP will result in an innovative strategy that is rooted in a progressive approach to mobility, an approach that places emphasis on people movement over auto movement and is based upon the vision and values identified through meaningful engagement with the community.

The plan will consider the city's current and future demographics, recognizing the unique mobility needs of an aging population, while looking towards the future with a focus on maximizing the people-carrying capacity of our transportation network. The plan will focus on transit and active transportation not just as congestion reduction measures but as a way to achieve quality of life objectives and will consider the role of new and emerging mobility trends which will change the way we move around the city.

The fundamental objective of the plan is to develop a path forward to support population and employment growth while establishing principles and implementation tools that will position the city to successfully prepare for the future of mobility. The IMP will be an actionable plan that sets realistic goals for implementation of policies, enabling strategies, infrastructure needs and investment in order to realize the mobility vision of the city.

### **Scope Expansion – Travel Demand Model**

In order to plan for the future, the IMP must provide a clear picture of projected travel demands and develop realistic mode share targets in order to fully understand transportation network needs and impacts. The development of a travel demand model is critical to the success of the plan as it serves as an important tool to understand existing and future travel behaviour. The proposed scope expansion includes the development of a multi-modal travel demand model that will be developed at a sub-area

zone level that considers the current urban structure and future growth framework, as contained in the adopted Official Plan (April 2018).

Development of the model will rely on traditional data sources (i.e. Canadian Census, 2016 Transportation Tomorrow Survey, traffic counts, transit boarding data, etc.) and consider the use of 'big data' such as Streetlight Data which is of particular significance as this provides an opportunity to understand travel behaviour in previously unavailable ways. Streetlight Data is largely based on detailed information collected from GPS, cell phones and other proprietary technologies and provides insight into origin/destination travel patterns, mode choice information, trip purpose, route choice and travel time. While traditional data sources ask travelers to recall basic details of their trip (i.e. Transportation Tomorrow Survey), big data sources collect information in real-time and in greater detail, providing more accurate insight into Burlington-specific travel patterns and behaviour.

Analysis of future 2041 baseline conditions will identify corridor-level deficiencies and establish an estimate of person-trips that will need to be accommodated through shifts in mode choice. Effectively, the 2041 travel demand model will quantify what level of future growth will need to be absorbed by transit and other sustainable modes in order to maintain reasonable operations without increasing automobile capacity. The model will be used to forecast mode share targets for each sub-area and establish the future multi-modal transportation network.

The inclusion of a travel demand model is critical to the success of the IMP as the tool will be used for strategic transit and transportation planning activities and to support decision-making as it relates to budget and prioritization of transit and active transportation investment over road widenings. Additionally, the travel demand model will serve as a foundational input for the future Development Charge study update.

### **Options Considered**

At the outset of defining the project requirements, the development of a policy-based Integrated Mobility Plan was considered as a means to reduce budget and schedule impacts. However, a policy-based plan fails to provide the quantitative assessment that is required to predict future network conditions and evaluate proposed alternatives in an evidence-based framework. Inclusion of a travel demand model as part of the IMP ensures that the resulting plan is defensible and as such, is critical to the overall success of the study.

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### **Financial Matters:**

### **Total Financial Impact**

The Integrated Mobility Plan was approved for \$400,000 funded from Region of Halton allocation through the Region's Mobility Management Strategy for Halton (PW-03017/LPS-13-17).

While \$192,902 is quoted to develop the model, we believe that full funding in the amount of \$250,000 is required in order to develop and execute multiple runs of the model and undertake greenhouse gas emission analyses in order to assess, refine and evaluate a number of alternative scenarios.

### **Other Resource Impacts**

The \$250,000 is proposed to be funded by \$100,000 Transportation Development Charges and \$150,000 Capital Purposes Reserve Fund. Balances in the respective reserve funds at December 31, 2019, including commitment of the 2020 budget, are approximately \$6M and \$4M, respectively.

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### **Climate Implications**

Further to its alignment with Vision to Focus, the creation of the Integrated Mobility Plan directly supports key programs identified in the Climate Change Action Plan through the development of policy framework and enabling strategies to achieve a mode shift, directly supporting the city's initiatives to reduce greenhouse gas emissions from the transportation sector.

Additionally, development of the travel demand model enables the consulting team to undertake a comparative greenhouse gas emission analysis as part of the evolution of network scenarios, reporting on the relative net benefit with respect to GHG emissions for each alternative scenario, assessing the effectiveness of recommended strategies and investments and ability to meet the goals of the Climate Change Action Plan.

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### **Engagement Matters:**

Not Applicable

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### **Conclusion:**

Inclusion of a travel demand model is critical to the success and defensibility of the Integrated Mobility Plan and as such, the scope of work should be expanded to include funding of the model.

Respectfully submitted,

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**Appendices:**

- A. TS-9-20 (DA-13-20) Award Report – Consulting Services for the Integrated Mobility Plan

**Report Approval:**

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Council. Final approval is by the City Manager.