Report to
Rapport au:

Transportation Committee
Comité des transports
15 August 2018 / 15 août 2018

and Council
et au Conseil
29 August 2018 / 29 août 2018

Submitted on August 8, 2018
Soumis le 8 août 2018

Submitted by
Soumis par:
Jeff Leiper, Kitchissippi Councillor, conseiller

Contact Person
Personne ressource:
Tom Pechloff, Councillor's Assistant, adjoint au conseiller
613-580-2400 x16099, tom.pechloff@ottawa.ca

Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE   **File Number**: ACS2018-CCS-TRC-0010

SUBJECT: **INTERACTIVE MAPPING TOOLS: IDENTIFYING OPPORTUNITIES TO IMPROVE CYCLING INFRASTRUCTURE CONNECTIVITY**

OBJET: **OUTILS INTERACTIFS DE CARTOGRAPHIE : CIBLER LES OCCASIONS FACILITANT LES CONNEXIONS AUX INFRASTRUCTURES CYCLABLES**

REPORT RECOMMENDATIONS

That the Transportation Committee recommend Council receive this report for information.

RECOMMANDATIONS DU RAPPORT

Que le Comité de transports recommande au Conseil de prendre connaissance du présent rapport.

BACKGROUND

Using the 'level of traffic stress" (LTS) system created by San Jose's Mineta Transportation Institute as a guide, Bike Ottawa has created new mapping tools, available at maps.bikeottawa.ca

Bike Ottawa gathered over 600,000 photos of the city's roadways in the summer of 2017. These were uploaded to Mapillary, which is a platform for storing and sharing GPS-tagged street-level images.

This report makes use of the community-driven OpenStreetMap (OSM) as a source of geospatial data. Data such as the names and shapes of streets come from the City of Ottawa Open Data project. For this report, Bike Ottawa added and verified data in the map, including speed limits, number of lanes, presence and type of parking, roadway classifications, and presence and type of cycling infrastructure.

Bike Ottawa then created software tools to calculate LTS for every roadway in Ottawa based on these map attributes. The results are presented in the form of maps that show different levels of stress for the entire National Capital Region, and can be used as input for tools to find safe bike routes, as well as to detect vital links that could greatly improve route connectivity. Using the new routing tool, we can find a route and estimate the amount of time needed to travel between two locations by way of the shortest route that adheres to a maximum LTS.

DISCUSSION

The cycling network in Ottawa includes infrastructure of varying quality and safety, and in some places, critical connections are missing. To optimize the utility of future additions to the network and appeal to all ages and abilities, it is important to make planning decisions that prioritize high-quality cycling connections.

Much of our older infrastructure needs to be rebuilt, which allows us to redesign our public spaces, based on current insights into environmental stewardship, public health, demographic shifts, and efficient transportation systems. Cycling ridership numbers are steadily increasing; nearly 5% of the population inside the Greenbelt now uses a bicycle to go to work. Ottawa is also undergoing major changes as we expand our light rail system in the coming years. We are about to update our Transportation Master Plan. Importantly, other levels of government are seeing the benefits that come with

increased uptake of walking and cycling; federal and provincial funding is now being made available for active transportation, and has been used to enhance and accelerate Ottawa's cycling plan.

Cycling adoption can be increased by developing a low-stress network that is comfortable and where the perceived level of danger is low. There is a massive opportunity to increase cycling uptake in Ottawa by building infrastructure that appeals to those who prefer protected bicycle facilities.

The value in these maps is that users can set a maximum level of traffic stress comfort. The routes plotted will not exceed that level of traffic stress. In doing so, the maps often reveal missing links in infrastructure that are barriers to a safe and pleasant journey by bike. Therefore, these maps can be used to make planning decisions to address the gaps.

This method of identifying missing links in the local cycling networks should prove to be generally useful to the City of Ottawa as we renew our Transportation Master Plan and Ottawa Cycling Plan. By providing this new tool for analyzing our current cycling network and identifying areas for improvement, Bike Ottawa is hopeful that staff and residents alike will be able to identify and prioritize opportunities for making Ottawa an even better city for cycling.

RURAL IMPLICATIONS

There are no rural implications associated with the recommendations in this report.

CONSULTATION

Transportation Services Comments

The 2013 Ottawa Cycling Plan (OCP) recommends the Level of Traffic Stress (LTS) approach (which was developed by Dr. Peter Furth at Northeastern University in Boston) as the basis for measuring the Level of Service (LOS) of streets from the cycling perspective.

City staff slightly modified Dr. Furth's method to better facilitate the analysis of multi-modal streets and included it in the City's Multi-Modal Level Service (MMLOS) analysis process which identified six (A-F) LTS ranges, rather than four as per Dr. Furth.

The OCP also recommends the creation of a LTS map to visually indicate the quality of cycling facilities on a network level. The work undertaken by BikeOttawa goes towards achieving this OCP recommendation. Some modifications to Dr. Furth's method were also made by BikeOttawa, mostly to address the issue of missing data.

Staff has been working on the City-owned LTS map that would fully reflect the City's methods of assessing the performance of cycling facilities. It is expected that by the end of Q1 2019 the City's version of the LTS map will be ready for internal use and sometime later for public release.

The benefit of having a City-owned LTS mapping capability includes the ability to continually maintain the datasets and maps and to update the classification of streets as the City's MMLOS method evolves.

COMMENTS BY THE WARD COUNCILLOR(S)

This is a city-wide report.

ADVISORY COMMITTEE(S) COMMENTS

No Advisory Committees were consulted in the preparation of this information report.

LEGAL IMPLICATIONS

There are no legal impediments to receiving this report for information.

RISK MANAGEMENT IMPLICATIONS

No risk management implications have been identified for this report, as it is for information only.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the recommendation in this report.

ACCESSIBILITY IMPACTS

No accessibility impacts have been identified.

TERM OF COUNCIL PRIORITIES

This report has no direct impacts on the City's strategic priorities or directions identified for the current Term of Council.

SUPPORTING DOCUMENTATION

Document 1 – Bike Ottawa Report "Interactive Mapping Tools: Identifying Opportunities to Improve Cycling Infrastructure Connectivity"

DISPOSITION

This is an information report only.