

On behalf of the Region of Waterloo and Capital Paving, I am pleased to submit our application for the 2019 Municipal Concrete Award:

**PROJECT SCOPE / SUMMARY: KING STREET (REGIONAL ROAD NO. 15), UPTOWN WATERLOO STREETScape CONSTRUCTION, ION TRACKS TO ELGIN STREET**

The Region of Waterloo in collaboration with the City of Waterloo has completed the first phase of the King Street (Regional Road 15) improvements project in Uptown Waterloo between the recently constructed LRT (ION) Tracks / Station south of Erb Street, to Elgin Street. The project has been undertaken as a Schedule 'C' project under the provincial Municipal Class EA guidelines and the second phase of this project is expected to be extended up to University Avenue in 2021. Once complete, this project will provide a critical active transportation link between the universities, high-density residential housing, high-order transit and commercial businesses/institutions in Uptown Waterloo, a total project distance of approximately 1.3 km.

King Street was in need of reconstruction to replace the deteriorated pavement, sidewalks and streetlights and aging underground municipal infrastructure. As part of this work, this project provided an opportunity to consider a reduction in the number of traffic lanes in order to make room for cycling lanes and enhanced pedestrian facilities (eg. wider sidewalks). Prior to construction, King Street in Uptown Waterloo primarily served auto traffic and one of the primary goals through these improvements was to create an environment that promotes walkability/active transportation.

A comprehensive traffic analysis was completed for this EA and confirmed that King Street can operate satisfactorily now and in the future with only one through lane in each direction. With the number of through lanes reduced from four to two, the Project Team was able to consider several types of cycling facilities for King Street and the final design included two coloured concrete segregated bike lanes with a unique finish to enhance skid-resistance / aesthetics. Additionally, a custom mountable curb with 4:1 slope was developed for this project to allow cyclists to enter/egress the bike lanes more freely.

The total estimated cost for the first phase of this project is \$12.0 M and includes funding from the Region of Waterloo for road reconstruction, roadway lighting upgrades, storm sewers, cycling lanes

and traffic signal modifications; and the City of Waterloo / Uptown Waterloo BIA for the streetscaping work (sidewalk, landscaping, decorative lighting) and underground sewer/watermain replacement between Erb Street and Elgin Street.

#### **Concrete Volume(s) and Mix Type(s):**

- 150mm thickness, broom finish with 2.4m saw cut spacing = 4100 sq.m (615 cub.m)
- 200mm thickness (commercial and parking), broom finish with 2.4m saw cut spacing = 1000 sq.m (200 cub.m)
- 150mm thick coloured concrete for Segregated Bike Lanes, etched finish with 2.4m saw cut spacing = 1900 sq.m (285 cub.m)
- 200mm thick coloured concrete for Separated Bike Lanes, etched finish (commercial) with 2.4m saw cut spacing = 100 sq.m (20 cub.m)
- 125mm thickness, coloured concrete stencil finish with 2.4m saw cut spacing = 250 sq.m (32 cub.m)
- Mix types: Refer to test results and mix designs attached (additional information available upon request)

#### **Why does this project fulfill/meets the purpose of this Award?**

a. Conformance to specifications based on testing – see attached

b. Visual appearance – The vision for the new streetscape has provided a new look for Uptown Waterloo that is unique and unlike any other City. The Project Team’s selection of concrete materials and finishes has helped achieve this goal (see photos).

c. Workmanship – Given the context and nature of this streetscape project, the Region and City expected the utmost quality of construction practices to be provided by the concrete contractor. The contractor understood the importance of this project and partnered with the Region to ensure every aspect of the design / construction practices were achieved.

**d. Innovation – The design for King street required an innovative design treatment to provide a unique streetscape appearance and included an ‘innovative’ concrete treatment used in the Region for the first time (concrete micro-etching). (1) Tan coloured concrete bike lanes with micro-etched finish; (2) Black coloured stenciled brick pattern boulevards with micro-etched finish; and (3) Custom curb design to meet the cycling / accessibility needs of the project.**

e. Other considerations – Economic Development, not only is this an infrastructure project, one of the primary objectives of the project was to encourage new development and attract/retain businesses. The new streetscape has met these requirements and adjacent developments are now moving forward. Additionally, the number of new businesses are rising and vacancy rates have lowered.

**PROJECT SUBMISSION:**

Municipality: Region of Waterloo

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**PROJECT SCOPE / SUMMARY:**

\* please see attached email for remaining submission

Regards,  
  
B. SANDERSON