



**ENGINEERING SERVICES**  
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January 4, 2016

**DEVELOPMENT & INFRASTRUCTURE SERVICES REPORT  
ENGINEERING SERVICES 2016-02**

TO: Committee of the Whole

SUBJECT: Water Street Crossing – Update #2  
File No.: T.08 T.30 Water

ORIGIN: Director, Engineering Services

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**RECOMMENDATIONS**

**THAT Development and Infrastructure Services Report – ES 2016-02 dated January 4, 2016 entitled “Water Street Crossing - Update” be received and the following recommendations be adopted:**

- 1. THAT Option 2 be endorsed as the preferred option to address pedestrian safety;**
- 2. AND THAT a Public Information Centre meeting be held in Q1 2016 with the results and final design including costs to be forwarded in an Information Report;**
- 3. AND THAT a copy of this report and Council extract be forwarded to representatives of Metrolinx and York Region.**

**BACKGROUND**

At its regular meeting of March 30, 2015, Town Council discussed Development and Infrastructure Report – Engineering Services 2015-20 and adopted the following recommendations, amended to include item “iv)” regarding the possibility of preserving left turn movements:

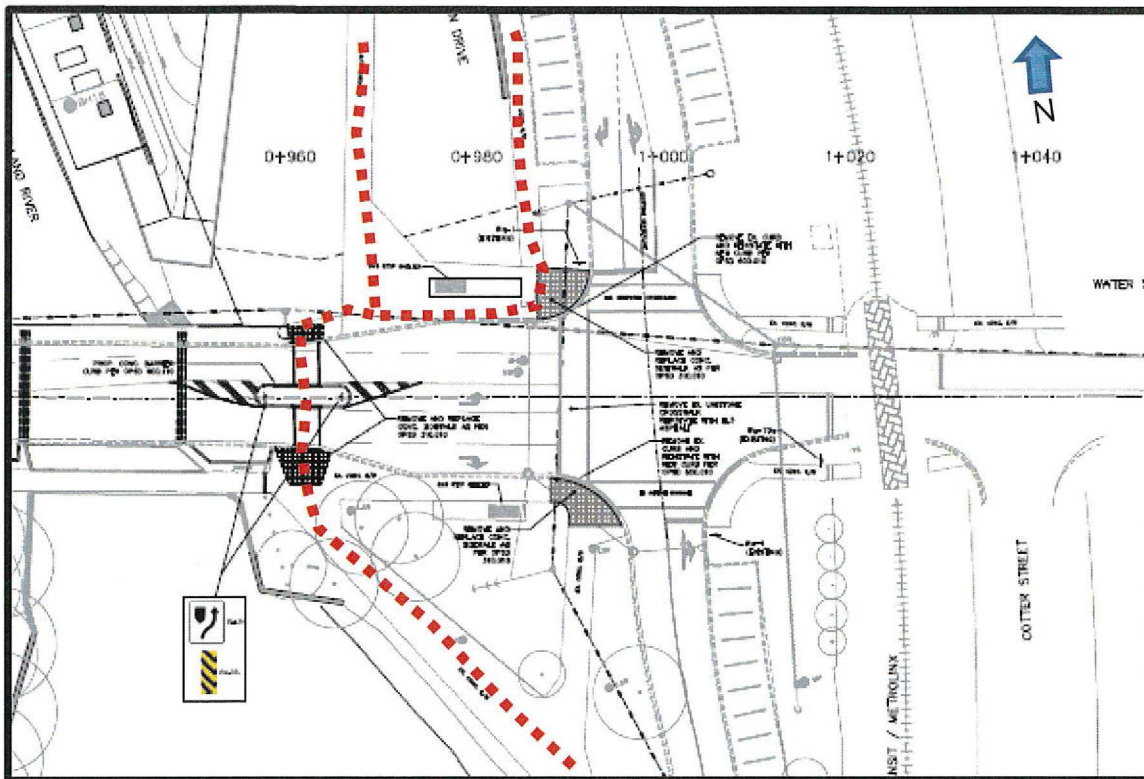
- i) THAT the implementation of a pedestrian traffic signal not be pursued at this time;
- ii) AND THAT a pedestrian refuge island be considered as the medium term solution to enhancing pedestrian safety;
- iii) AND THAT a consultant be retained to design a pedestrian refuge island, conduct a safety review and provide costing and that the report be brought back to Council for final approval;
- iv) AND THAT the design options explore preserving the left turn movements while addressing any safety issue;
- v) AND THAT a copy of his report and Council extract be forwarded to representatives of Metrolinx and York Region.

## COMMENTS

To meet the additional requirement of preserving left turn movements at the Doug Duncan Drive/Water Street intersection, the size and location of the pedestrian refuge island was reviewed and modified..

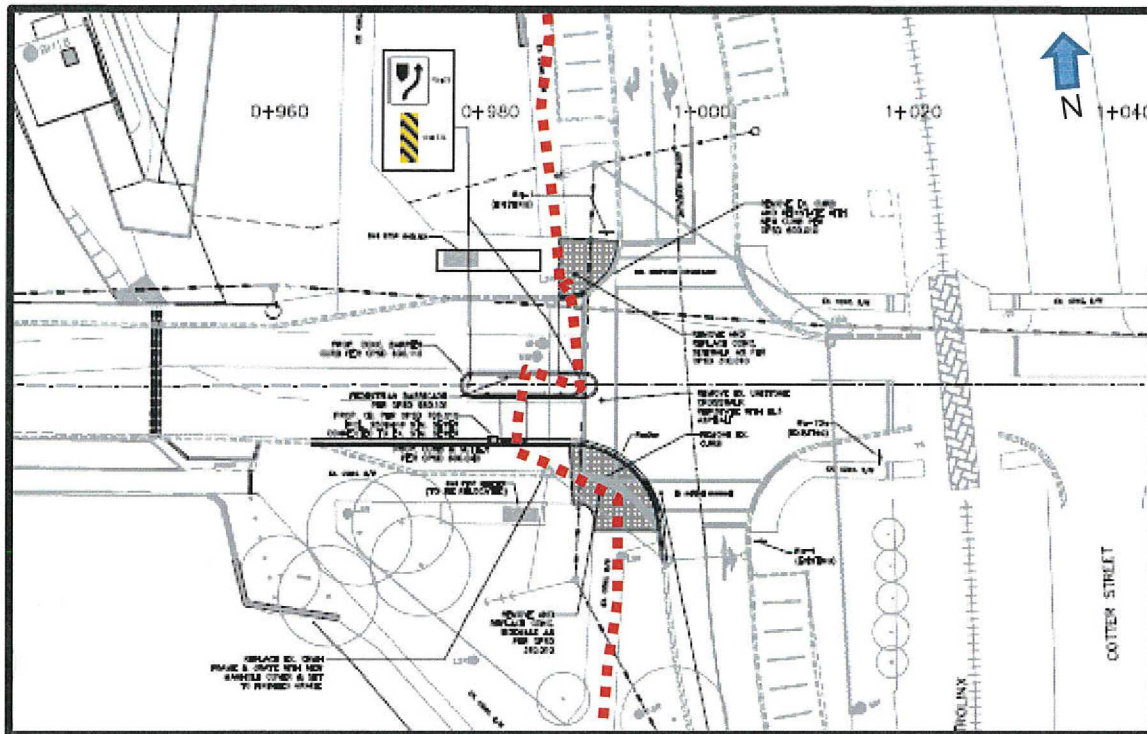
Two options were considered for the pedestrian island, and these will be described and presented below. Option 1 responds to the direction of Town Council and provides a safe crossing location with preservation of the existing left-turn movement and bus bay; however the pedestrian island is smaller and must be located west of the intersection. Option 2 has a more direct crossing alignment for pedestrians, but will restrict or prohibit the left turn movement from eastbound Water Street onto Doug Duncan Drive.

### OPTION 1



The symbol ■■■ represents the walking travel path of the crossing. All turning movements are allowed at the Doug Duncan Drive/Water Street intersection; however, a short left turn lane would result and there would have to be a shorter taper within the eastbound left turn lane, which could lead to minor traffic concerns for motorists turning left. To avoid “jaywalking” at the intersection, some guiding elements such as attractive walls could be designed to direct pedestrians to the island and installed to discourage them from crossing at the intersection. Some pedestrian crossing activity is likely despite the design features due to the walking desire lines across the intersection and the separation of the designated crossing about 25 metres to the west.

## OPTION 2



The symbol ■■■ represents the walking travel path of the crossing. The eastbound bus bay, the eastbound left turn lane and the associated taper would be removed to promote pedestrian safety. If the bus bay was not removed, there would be a visibility issue with a blind area hiding oncoming eastbound traffic when a bus is stopped in the bus bay and a pedestrian is crossing northward at the intersection. With this option, despite the removal of the left turn lane, it may be possible to consider allowing left turns during certain periods of the day (e.g., non-peak hours) subject to further review of the traffic congestion and queuing impacts created. Other opportunities to access Doug Duncan Drive would be available via Timothy Street from Main Street or Prospect Street.

## COMPARISON CHART

Both options show a close preliminary representation of where the pedestrian refuge island will be located and what its size would be. The final design, including signage, pavement marking and other safety features, will be subject to a safety audit as part of the design.

The following table compares the two options on several key points.

Measure	Option 1	Option 2
Left turn Impact	Minor impact - reduction in length of eastbound taper lane	Major impact - restricted or prohibited eastbound left turn lane
Transit	None	Removal of bus bay
Walking Alignment	Offset by 25 metres	Small offset
Construction Cost	\$120,000	\$150,000
Size	10m x 2.5m approx.	13m x 2.5 m approx.

Staff is recommending that Council consider the benefits of Option 2 since it more directly addresses the issue of pedestrian safety at the crossing. While the cost of constructing Option 2 is slightly higher and will have some impact on traffic and bus operations, the alignment offers a more natural location for pedestrians to cross. Staff is concerned that, if Option 1 is selected, some pedestrians will choose to ignore the designated crossing location and cross the street directly at the intersection rather than taking several additional steps to travel the additional 25 metres required to use the island.

Another attractive feature of Option 2 is that the flexibility in the length and width of the island could allow for some very interesting streetscape features to be incorporated. For instance, the island could be an ideal location for some public art or landscaping that would reflect the rich historical significance of this location while being very harmonious with surrounding features. This would not be possible with Option 1 due to the proximity to the bridge and the taper lane for the left turn movement.

Staff is recommending that Option 2 be considered as the preferred option, and that a public information centre and public consultation be undertaken. This PIC could be held at the Community Centre rather than at the Town Hall to engage more people who live, work and play in this vicinity. Once the public consultation is completed, comments made by the public will be taken into consideration when producing the final design including the safety audit.

## **PUBLIC CONSULTATION**

No public consultation was undertaken in the preparation of this report. Once Council provides its direction on the Option it wishes to select, the process for a public consultation will begin.

## **BUSINESS PLAN AND STRATEGIC PLAN LINKAGES**

- Well-planned and connected...strategically planning for the future to improve information access and enhance travel to, from and within Newmarket.

## **HUMAN RESOURCE CONSIDERATIONS**

No impact on current staffing levels.

## **IMPACT ON BUDGET**

### Operating Budget (Current and Future)

Operation and maintenance of the pedestrian refuge island will be part of the budget for road maintenance. Any additional maintenance of features (planting bed for example) will need to be determine based on final design.


### Capital Budget


Construction costs are noted above. These costs do not include any additional streetscaping elements or alteration of the island to incorporate any public art. There is currently \$112,000 available in the budget that was originally earmarked for the installation of traffic signals that will be put forward to this project. The balance would come from unexpended reserves.

## **CONTACT**

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