

Executive Summary

Topic and Purpose

This Report aims at understanding just how accessible the waterfronts in the cities of Kingston and Belleville, Ontario, are to the public by focusing on the physical design of the waterfront walkways and evaluating them against criteria established through research. The ultimate objective is to use these results to propose design interventions in order to enhance the pedestrian environment and improve public access to the waterfronts.

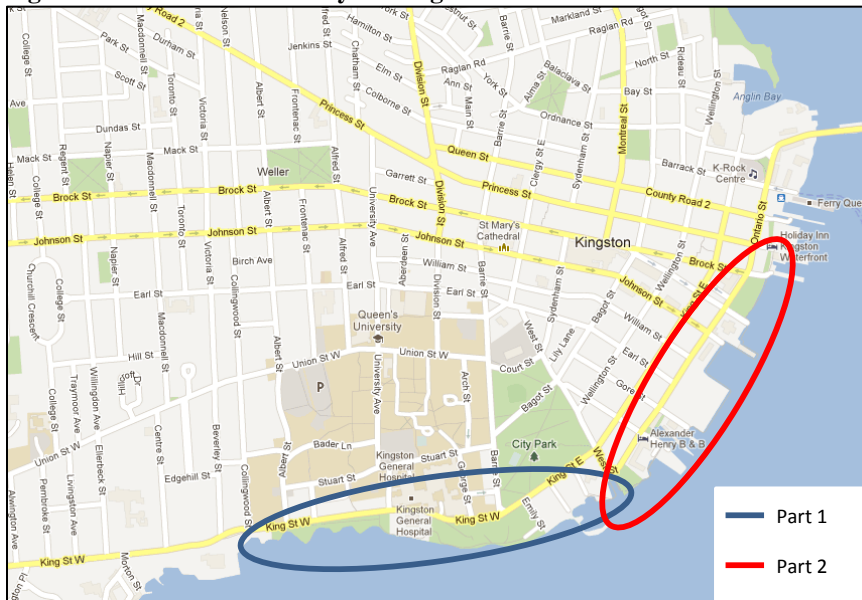
In order to aid in the development of this thesis the following research questions are proposed:

- What specific design elements and guidelines have been incorporated into the design of the waterfront walkways in both Kingston and Bellville?
- How has the design of the waterfront walkway affected public access to the waterfront?
- What design interventions could be used to improve this environment?

Study Area

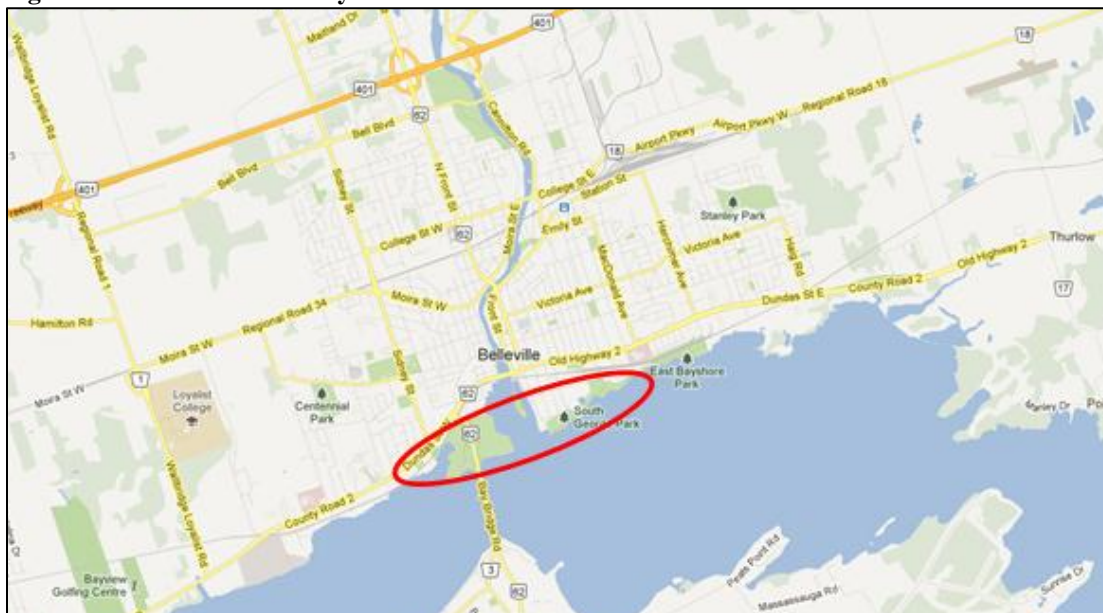
A subsection of the entire length of Kingston's waterfront walkway was chosen in order to allow for detailed analysis. This subsection of the walkway was further divided into two sections: Part 1 consisting of the section from Breakwater Park to An Gorta Mor Park, and Part 2 stretching from An Gorta Mor Park to Brock Street. Part 2 denotes a more urban walkway while Part 1 has a more natural and insulated feel. For Belleville, analysis was conducted on the existing waterfront walkway as well as the proposed walkway design in Belleville's Waterfront Master Plan.

Figure 1 Waterfront Walkway in Kingston



Source: Google Maps

Figure 2 Waterfront Walkway in Belleville



Source: Google Maps

Evaluation Method

Fifteen evaluation criteria were developed using design guidelines for waterfront walkways developed by New Jersey’s Department of Environmental Protection (NJ Dept, 1989) which were then updated with more recent design guidelines from cities that have redeveloped successful pedestrian-friendly waterfronts, including Portland and Miami. Results from the analysis of the existing waterfront walkways using the evaluation criteria are shown below.

Table 1 Evaluation of Waterfront Walkways

Evaluation Criteria	Kingston – Part 1	Kingston – Part 2	Belleville – Existing	Belleville – Master Plan
Walkway Design				
Spatial Orientation (how does the walkway relate to the shoreline spatially)				
Dimensions (width and elevation of the walkway)				
Material (material used for paving)				
View of the Water (maintenance of views to water)				
Landscaping (use of landscaping to buffer walkway from surrounding uses)				
Connection (connectivity between walkway and other public areas)				
Separation of Space				
Transition between Public and Private Space				
Amenities				
Seating (frequency and design of seating)				
Restrooms (frequency and design of restrooms)				
Public Access				
Accessibility from Streets				
Access to Water’s Edge from Walkway				
Barrier-Free Access Design				
Wayfinding and Lighting				
Signage (frequency and design of entrance signs, wayfinding and informational guides)				
Lighting (frequency and design)				
Surrounding Environment				
Parking (provision of parking and buffering from walkway)				

Legend: ○ Not at all; Poor; Adequate; Good; Excellent

Conclusions

Kingston

In terms of the design of the walkway a number of factors lend themselves to increasing public access to the waterfront, including the fact that the walkway follows the shoreline closely, that it is wide enough to accommodate at least two-way pedestrian traffic along its length, that sightlines to the walkway from adjacent streets are maintained, thereby increasing visibility (visual access) to the walkway. A great deal of parking is also found along the length of the walkway and a number of transit routes are found in close proximity, thereby allowing for greater public access to the walkway through a variety of transportation modes. The two sections of Kingston's walkway, when considered together, do provide links between various destinations such as City Hall in the downtown to Kingston General Hospital, and even Queen's University, thereby making it more likely for people to use the walkway.

There are however a number of factors that do deter access to the waterfront. The sections of the walkway where it veers away from the shoreline and onto main streets breaks continuity. Accessibility from the streets is generally poor with few formal pedestrian crossings, fast traffic, and a lack of distinct entrances marking access to the walkway. The walkway along the western section is also in extremely poor condition and would inhibit use by the physically disabled.

Recommendations

- Articulate a vision for the waterfront and its walkway through a Waterfront Master Plan
- Implement recommendations from the Cycling and Pathway Study to provide a continuous waterfront walkway
- Implement the recommendation from the Downtown Action Plan for a cantilevered boardwalk around the Radisson Hotel
- Shape a coherent waterfront and waterfront walkway identity through branding and improved entrances to the walkway
- Improve access to the walkway across King Street West and Ontario Street
- Add lighting to allow for use during night time
- Improve access to the water's edge
- Design a better transition between public and private space

Belleville

In terms of the existing design of Belleville's waterfront walkway there are a number of design features that increase public access to the waterfront, including the ample width of the walkway that can accommodate two-way pedestrian and cyclist traffic, the panoramic and unhindered views of the water along the entire length of the walkway, easy access to the water itself, and the relatively easy access to the walkway from adjacent and surrounding streets west of the Moira River.

However, there are a number of factors that deter public access, including the extremely large gap between the eastern and western sections of the walkway, the deplorable access from main streets east of the Moira River, and the lack of any major and noteworthy destinations along the walkway.

Many of the deficiencies in the design of the existing walkway are identified in the Waterfront Master Plan which provides recommendations to help overcome them. The Plan for example, recognizes the poor connectivity between the two main sections of the walkway and provides a number of solutions to alleviate this gap, including a pedestrian and cyclist bridge across the Moira River, a 9 metre wide pathway along the water's edge over private property, and the development of South Front Street as a pedestrian and cyclist path. The Plan also highlights the need for better designed entrances at East and West Zwick's in order to define the waterfront as a distinct area and to highlight the waterfront walkway, and also emphasizes the need for better designed parking lots with increased screening and landscaping to minimize visual impact and maximize permeable surfaces. Recommendations for improving Belleville's waterfront walkway only cover those issues for which the Waterfront Master Plan does not already provide solutions.

Recommendations

- Provide additional seating along the entire length of the walkway
- Establish design principles for better transition between public and private space
- Retain Access to the Water

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