



## **Town of Whitby Report**

**Report to:** Operations Committee  
**Date of meeting:** September 3, 2014  
**Department:** Community and Marketing Services Department  
**Report Number:** CMS 45-14  
**File Number(s):** n/a

### **Report Title: Iroquois Park Sports Centre Main Entry**

#### **1. Recommendation:**

1. That Council approve the proposed design for the reconstruction of the main entry at the Iroquois Park Sports Centre; and,
2. That Council authorize staff to engage Barry Bryan Associates to prepare the detailed architectural drawings and specifications required to prepare a tender for the project.

#### **2. Executive Summary:**

Staff is recommending reconstruction of the main entry walkway and entrance structure at the Iroquois Park Sports Centre (IPSC) to address the deterioration and limitations of the existing steel frame structure and to improve pedestrian flow and barrier free accessibility to the Centre. The 2013 capital budget included funding to undertake a structural and functional evaluation of the existing entry area and an examination of an alternative design that would provide improved appearance, functionality and accessibility. Barry Bryan Associates Ltd. was engaged to assist staff in examining the existing conditions and developing the proposed solution.

Staff is seeking Council approval of the proposed design that would involve the removal and re-construction of the main entry feature. Staff is also seeking approval to engage Barry Bryan Associates Ltd. to undertake the detailed architectural/structural design and to prepare tender documents to secure bids in order to undertake the work in April 2015 to minimize the impact on the users of the Centre.

### **3. Origin:**

Community and Marketing Services Report CMS 45-14 originates within the Facilities Section of the Community and Marketing Services Department.

### **4. Background:**

The red painted, steel frame entry feature at the Iroquois Park Sports Centre was originally constructed as part of the Arena #2 expansion to the facility in 1987. That expansion project also included additional public washrooms, a new administration/reception area and an expanded lobby and concession area (the concession was subsequently eliminated as part of the 1997 expansion).

The purpose for the new entry and washroom facilities in 1987 recognized the need to provide improved public access and additional amenities to respond to the increased number of users expected with the addition of the second arena.

The 1997 expansion project added another four (4) arenas to the Iroquois Park Sports Centre. The expected threefold increase in user activity at the Centre was addressed with increased public washrooms, increased food services, larger lobby spaces, a parking lot expansion (1998) and the introduction of a secondary entry at the south end of the lobby, but it did not include any change to the main entry. It is noted that the 1997 4-pad expansion was undertaken with minimal impact on the users of the other two arenas, primarily because the main entry area remained undisturbed.

The 2009/2010 construction activity at the Iroquois Park Sports Centre included major renovations and addition to the original Arena #1 and the reconstruction of the Anne Ottenbrite Pool. The changes to the arena and pool were not expected to substantially increase traffic flow into the building but these projects were essential to improving the barrier free accessibility of the overall facility. The accessibility improvements included the installation of 3 new elevators, 9 universal barrier free washrooms/change rooms, a new family change room in the pool, ramp access to both pools and automatic door operators throughout the facility.

The improvements in the arena and pool were undertaken as two distinctly separate construction projects funded in partnership with the provincial and federal governments through two separate Federal/Provincial Infrastructure programs (RInC and ISF).

Throughout these two most recent construction projects, the main entry walkway and entrance structure have remained unchanged.

The 2013 capital budget included funds to undertake an examination and structural assessment of the existing entrance feature and the preparation of a revised design that would improve the appearance, functionality and barrier free accessibility of the entrance. Barry Bryan Associates Ltd. (BBA) was engaged to assist staff in examining the existing conditions and developing the proposed solution. BBA was the architectural firm involved in both the 2010 projects

involving the arena and pool and as a result had extensive base drawings already developed for the main entrance area.

The 2014 capital budget includes funding for the construction of a new entrance structure, including automatic sliding doors, in the amount of \$360,000. Capital funding in the amount of \$170,000 has been carried forward to address the replacement of the paver stone walkway with a poured concrete surface and landscape improvements

### **5. Discussion/Options:**

The main entrance to the Iroquois Park Sports Centre is ideally situated between the Anne Ottenbrite Pool and the Des Newman Arena Complex and directs visitors into the main lobby space at the reception desk location. The overall positioning of the entrance is ideal, however the current travel direction and the limited vestibule depth combined with the relatively narrow lobby area immediately inside the doors creates a bottleneck condition that causes the area to be congested during prime time programming hours. This congestion becomes an even larger concern during special events.

The hollow steel section (HSS) and steel window frames that form the main structure for the entrance feature have rusted through in multiple locations. The isolated and accessible rust holes have been repaired many times over the years however the level of corrosion has expanded to include a continuous line of deterioration at the grade level of the columns and beams and will require a much more significant repair in the near future.

The photographs included on Attachment #2 illustrate the nature of the corrosion on the steel frame entry structure.

The entrance structure frames a shallow vestibule of approximately 2.9m (9.5ft) deep and provides 2 pairs of 900mm (35") aluminum swing door openings on the exterior and also on the interior of the vestibule. Automatic door operators have been added to one door on each of the 4 pairs of double doors. Over the years the aluminum doors and frames have been replaced or repaired on many occasions due to material fatigue associated with the high volume of use.

It is estimated that 800-1000 people are moving in and out of the Iroquois Park Sports Centre during every prime time hour of the ice season. The staggered start times for each of the 6 arenas assists in smoothing out the traffic flow to reduce the impact on the parking lot, main entry and lobby circulation spaces. Despite the 1997 addition of a secondary entry at the south end of the lobby corridor (near Whitby Sports Hall of Fame) over 95% of the people visiting the Iroquois Park Sports Centre enter through the main entry doors.

The Accessibility Advisory Committee had identified the introduction of automatic sliding doors, similar to the configuration of the McKinney Centre, as a priority for accessibility improvements to the Iroquois Park Sports Centre. The existing entry structure would require significant re-construction to accommodate the automatic

sliding door configuration. The modification of the existing structure to simply accommodate the sliding door is not recommended given the overall condition of the structure and the congestion concerns identified above. In addition, the installation of automatic sliding doors similar to the entry at the McKinney Centre would increase the overall width of each entry point and the relatively shallow vestibule would result in both the outer and inner doors being opened at the same time allowing considerable heat loss and cold air to move directly into the lobby spaces. The depth of the existing entry vestibule at IPSC is approximately ½ the depth of the vestibule at the McKinney Centre.

The entry vestibule at McKinney Centre was specifically designed with automatic sliding doors in mind. The vestibule provides sufficient depth to permit the outer doors to close prior to the inner doors opening to minimize heat loss and to reduce the incidence of cold winds flowing directly into the lobby spaces through the larger openings.

### **The Proposed Entrance Design**

The sketches on Attachment #1 illustrate the proposed design solution for changes to the entrance at Iroquois Park Sports Centre.

Staff worked with the architects of BBA to develop a solution that responds to the following design considerations:

- The proposed new entry would require a double sliding door configuration similar to the entry at the McKinney Centre. This could not be achieved without widening the overall structure.
- The depth of the vestibule would need to be increased from 2.9 meters to a minimum of 5.1 meters to reduce the direct heat loss through the wider openings. The proposed design positions the exterior wall approximately 2.2 meters further east and out into the walkway area in order to achieve the required vestibule depth.
- The pedestrian travel direction would need to be re-aligned slightly, directing visitors to the right and into a wider, more open part of the lobby space. Although the location of the office/reception area limits the opportunity to create a wider entry lobby immediately inside the entry doors, changing the angle of the overall entry structure could create a more intuitive flow direction into the larger lobby area.
- The entry structure would need to be readily identifiable for all visitors and have a significant height and presence. The structure would also need to be fairly transparent to allow natural light to flow into the interior spaces and artificial light to illuminate the entry walkway area in the evenings.
- The proposed design would require a canopy projection to help reduce the accumulation of the snow at the doorway entry location.



- The proposed design would also need to draw upon other architectural elements of the eastern façade of the facility to create a more uniform and consistent architectural appearance. The recent addition and renovations to the Anne Ottenbrite Pool introduced a large curtain wall element that allows natural light to flow directly into the pool area. A similar architectural feature is identified for the proposed new entry to improve the overall appearance and architectural consistency of the entry area.
- The proposed solution would need to be capable of being constructed in a manner that could be staged to maintain some emergency exiting at all times. While every effort will be made to re-direct visitors to other entry points during the proposed construction period, this area would need to maintain an emergency exit route at all times during construction.

### **The Pedestrian Walkway**

The paver stone walkway leading to the main entry at IPSC was also installed in 1987 and has required a number of significant repairs over the years. Many of the concrete paver stones have deteriorated and the entire walkway area needs to be removed, and replaced with a poured concrete walkway. The application of de-icing salt over many years has resulted in the salt migrating to the bottom of the paver and causing it to deteriorate from the bottom up. The top surface of the paver stone may look to be in reasonable condition, but upon removal, the bottom third of the paver stone is crumbling. Once removed, the stone cannot be re-used. This condition is evident across the entire entry walkway area.

Funding for the interlock paver walkway improvements was identified and approved in the 2012 Capital Budget but the work was not undertaken due to delays in completing the Anne Ottenbrite Pool project and the need to further assess the relationship of the walkway replacement project with the proposed future changes to the main entry structure. It was expected that any contemplated changes to the entrance structure would involve a larger footprint that would project into the walkway area. Ideally, the walkway project would be undertaken at the same time as or immediately following any proposed changes to the main entry structure to avoid heavy equipment loading on the walkway and to minimize the impact on the users of the facility.

The paver stone walkway is not a suitable surface for pedestrians with mobility limitations due to the potential for unevenness and the need for ongoing maintenance attention. Staff is proposing the installation of a poured concrete walkway to replace the existing paver stone walkway.

The photographs included on Attachment #3 will illustrate the level of deterioration of the paver stone walkway that is evident on the surface.

In addition to replacing the paver stone portion of the walkway, staff would recommend the extension of the concrete walkway across the asphalt driveway toward the main parking lot area to better delineate the area as a pedestrian zone for improved safety.

### **Proposed Scheduling of the Project**

Subject to Council approval of the proposed design, staff is recommending that the detailed design be completed this fall and the project be tendered in early January in order to undertake the work in April/May 2015 to minimize the impact on the users of the facility.

#### **6. Public Communications/Plan:**

Communications with respect to the proposed project would be undertaken by the Community and Marketing Services Department staff through various media including the Activity Guide, Whitby Perspective and Town website. Staff would also organize meetings with all users, tenants and service providers impacted by the proposed project.

#### **7. Considerations:**

##### **7.1. Public**

The proposed changes to the entry at the Iroquois Park Sports Centre would respond to the safety concerns related to the deteriorating walkway pavers and improve access to the facility through a more functional entrance feature.

##### **7.2. Financial**

Funding in the amount of \$530,000 has been provided in approved capital budget for this project as follows:

2012 Carryover – IPSC Entrance Walkway Replacement - \$120,000

2012 Carryover – IPSC Entrance Area – Landscape Improvements - \$50,000

2014 Accessibility Improvements – Main Entry Doors - \$60,000

2014 New Main Entry Structure - \$300,000

Preliminary cost estimates based on the proposed design configuration indicate the project would be completed within the approved budget allocation. Additional costing reviews would be completed periodically throughout the detail design and material selection phases of the project to ensure that the overall project would be completed within the approved budget.

Barry Bryan Associates Ltd. has identified a fee proposal estimate of \$40,000 to undertake the preparation of the detailed working drawings, preparation of the specifications and to provide construction administration services throughout the project.

### **7.3. Impact on and input from other Departments/Sources**

Subject to Council approval of the proposed design, the preparation of the tender documents will involve the staff of the Corporate Services, Planning and Development Departments and Whitby Fire and Emergency Services.

### **7.4. Corporate and/or Department Strategic Priorities**

The recommendations contained within this report are consistent with the Corporate Strategic Objectives:

1.6 Improve accessibility for persons with disabilities.

5.0 Improve municipal and community infrastructure.

## **8. Summary and Conclusion:**

Staff is recommending the reconstruction of the main entrance and walkway at the Iroquois Park Sports Centre to address the deterioration and limitations of the existing steel frame structure and to improve pedestrian flow and barrier free accessibility to the Centre. Staff is seeking Council approval of the proposed design solution and to engage the architectural firm Barry Bryan Associates to prepare the required detailed working drawings and specifications.

## **9. Attachments:**

Attachment #1 Proposed Entrance Design and Perspective

Attachment #2 Photographs showing deterioration of existing structure

Attachment #3 Photographs showing deterioration of walkway

For further information contact:

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Original Approved and Signed.

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