



**Date:** April 24, 2023  
**To:** Mayor and Council  
**Author:** Courtney Godfrey, Manager of Parks, Recreation and Facilities  
**RE:** Kingsville Arena Ice Slab Replacement Project – Award of Contract

---

## **RECOMMENDED ACTION**

1. That the Kingsville Arena – Ice Slab Replacement Project Tender **BE AWARDED** to Ball Construction for \$1,380,860.00 (excluding HST) beginning May 1, 2023 and subject to content review by the Director of Community and Development Services, legal review by the Town Solicitor, and financial review by the Town Treasurer, the Mayor and Clerk **BE AUTHORIZED** to execute the requisite agreement.

## **BACKGROUND**

The Kingsville Arena is a single pad arena complex constructed in 1974. The arena includes bleacher seating for up to 534 people, a capacity of 557 for standing and six dressing rooms. The Arena is also home to a lobby and canteen, second floor auditorium with kitchen and meeting room space, office and mechanical areas, and washrooms.

In September/October 2022, the Town's refrigeration contractors made Administration aware of significant concerns regarding the arena ice slab and its viability beyond the 2022-2023 season.

## **DISCUSSION**

The current ice slab has experienced at least 15 brine leaks in the floor within the refrigeration lines over the past several years, including nine (9) leaks in August/September 2022 (in addition to ruptured chiller). The leaks occurred in both the concrete pad and at the headers. Repairs to leaks within the concrete slab are particularly concerning as their repair requires breaking up the pad which leads to further leaks.

In addition, the ice slab floor is showing cracks that are no longer surface level which have been compounded annually with the thawing and subsequent freezing.

In September 2022, Administration met with the Town's Arena Refrigeration Consultants (Black and McDonald) to discuss the state of the floor and other issues regarding the ice. Black and McDonald raised concerns about the brittle plastic rink pipe and because the plastic pipe is embedded in the concrete floor, it will become more brittle and is prone to further leaks. Based on the age of the floor, the number of leaks found and condition of the existing poly rink piping, Black and McDonald recommended that the concrete ice slab, rink piping and headers are replaced to avoid future leaks and downtime of the refrigeration system. On request of Administration, in October 2022, Black and McDonald provided a cost estimate in for complete ice pad replacement, including all refrigeration pipes, rink boards and glass.

Administration included the estimate on internal budget submissions for review, and based on internal review, the project was included in the 2023 Capital Budget that was shared with Council in December 2022 and deliberated on in January 2023. The final budget was approved on January 25, 2023.

Following budget approval, Administration created an internal project team including the Director of Community and Development Services, the Manager of Parks, Recreation and Facilities, the Supervisor of Parks and Facilities and the Town Engineer. Administration also engaged Terry Fink, the Town's Facilities Review Consultant who has experience in arena construction.

On February 3, 2023, due to the specialized and complex nature of the project, Administration issue a Request for Approvals to engage an Engineer specializing in Arena replacements and rebuilds. The RFP closed February 15, 2023 and the contract was awarded to Barry Bryan & Associates on February 17, 2023 following review of proposals by an Internal Arena Committee. The Consultant's scope of work includes preparation of the necessary drawings, specifications, and tender documents.

In preparing the tender materials, Administration was advised of supply chain issues related to refrigeration tubing and boards which would delay the project to end October 2023. The Committee, with Barry Bryan & Associates reviewed options including acquiring all materials and delaying install until March 2024, as well as maintaining ice through the summer to reduce impacts on the floor due to thawing and re-freezing. The Committee also considered the option of a 'business as usual' approach of thawing and re-freezing in the Fall 2023.

Ultimately, the committee determined that maintaining ice through the summer would likely put too much pressure on, and overwork, aging equipment and refrigeration pipes leading to leaks and equipment failure. The arena is not insulated or air conditioned and becomes very hot in the summer. Importantly, even if the equipment was operational through summer, due to the age of the rink and the lack of insulation and lack of 'heat lines', the Consultant advised of a significant risk of forcing permafrost conditions which could in fact threaten the structure of the facility.

Alternatively, creating ice as usual in September 2023 would also likely lead to leaks and failure based on past years' experiences and knowledge of the severity of the damages to the pad. Additionally, though the new chiller has helped, quality of ice has been identified as a concern by users, especially areas of soft ice which causes potential risk to skaters and potential liability to the Town should a skater become injured in known areas of soft ice.

Though there is a chance that there may be no issues in the Fall if the slab is not replaced, it was determined that the uncertainty around a fall opening would be more impactful to user groups and the community than completing the project and delaying the season to November 1, 2023.

Administration met with all ice user groups on April 3, 2023 to advise of these issues and to work with all user groups to confirm ice time in other arenas, revisit scheduling once the ice is available to maximize user group time, and providing other assistance we can. Additionally, on April 20, 2023 the Town hosted a Public Information Centre on the Arena Ice Slab replacement project which was attended by approximately 12-15 individuals. Though delaying the start of the season is not ideal, most user groups and members of the community appreciated the early notice, and were supportive of the project.

The final tender package seeking ice slab replacement was advertised to the public on April 06, 2023. The Tender included project start date of May 1, 2023 with a completion date of October 13, 2023, with a goal of having ice available on November 1, 2023. Though it is always challenging to set definite dates due to unexpected issues arising, administration added penalty and bonus clauses in the Tender to incent timelines.

After a very brief two-week tender posting the Town received three bids as follows:

<b>Contractor / Vendor Name</b>	<b>Bid</b>
MJ.K. Construction	\$1,866,341.90
Schilthuis Construction Inc.	\$1,441,880.00
Ball Construction	\$1,380,860.00

Administration reviewed all tenders and deemed them all to be complete.

Based on review of tender submissions with the Consultant, as well as reference checks of previous municipal arena ice pad replacement projects, the Committee has determined that Ball Construction is able to satisfy requirements relating to experience with similar projects, and has the required bonding, and insurance while providing the lowest cost proposal, The Committee is recommending the Ice Slab replacement project be awarded to Ball Construction for a total of \$1,380,860.

Should Council award this tender, the ice slab replacement project will start May 2023 and is scheduled to be complete mid-October 2023 with the ice season beginning November 1, 2023.

## **FINANCIAL CONSIDERATIONS**

The 2023 Capital Budget includes \$1.8 million for this project. As noted, the Town engaged a Consulting Engineer (\$95,000) to develop all tender documents and specifications and act as project manager overseeing replacement.

## **ENVIRONMENTAL CONSIDERATIONS**

Materials (Brine and Ammonia) using the assigned waste generation number, will be disposed of through the appropriate channels ensuring that there is no environmental impacts.

## **CONSULTATIONS**

- Administrative Arena Committee – Director of Community and Development Services, Manager of Parks, Facilities and Recreation, Town Engineer, Supervisor of Parks and Facilities, and the Town’s Facilities Assessment consultant.
- SMT
- Barry Bryan Associates – Architects, Engineers and Project Managers
- Black and McDonald (Refrigeration contractors)
- Ice User Groups (Erie North Shore Minor Hockey, Skate Kingsville, South County Predators, Kingsville Kolts, Kingsville District High School Mens and Womens Hockey Team, Rusty Blades Mens league)
- Public Open House – attended by approximately 12-15 residents.

## **PREPARED BY:**

---

Courtney Godfrey  
Manager of Parks, Recreation, and Facilities

## **REVIEWED BY:**



---

Richard J.H. Wyma CSLA  
Director of Community and Development Services

