

CITY OF BURNABY

CIVIC DEVELOPMENT COMMITTEE

HIS WORSHIP, THE MAYOR  
AND COUNCILLORS

Re: Burnaby Lake Ice Arena Project Preliminary  
Design and Project Estimate Sign-Off

RECOMMENDATIONS:

1. THAT Council authorize staff to direct the consultants to commence the detailed design process for the Burnaby Lake Ice Arena.
2. THAT a copy of this report be sent to the Parks and Recreation Commission for its concurrence.

REPORT

The Civic Development Committee, at its meeting held on 1995 October 02, adopted the attached staff report providing a preliminary design and budget review for the Burnaby Lake Ice Arena Project. Based on the work completed to date, staff recommended acceptance of the preliminary design and requested approval to commence the detailed design leading to the development of contract documents.

Respectfully submitted,

Councillor D.R. Corrigan  
Chairman

Councillor D. Evans  
Member

Councillor D. Johnston  
Member

COPY - CITY MANAGER  
DIRECTOR FINANCE  
PURCHASING AGENT  
- DIRECTOR ENGINEERING  
- DIR. PLNG. & BLDG.  
- DIR. REC. & CULT. SERV.

**TO:** CIVIC DEVELOPMENT COMMITTEE

1995 SEPTEMBER 21

**FROM:** MAJOR CIVIC BUILDING PROJECT  
COORDINATION COMMITTEE

**SUBJECT:** BURNABY LAKE ICE ARENA PROJECT  
PRELIMINARY DESIGN & PROJECT ESTIMATE SIGN-OFF

**PURPOSE:** To obtain the Committee's approval to proceed into the detailed design for the proposed Burnaby Lake Arena

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**Recommendations:**

1. THAT staff be authorized to direct the consultants to commence the detailed design process for the Burnaby Lake Ice Arena.
2. THAT a copy of this report be sent to the Parks and Recreation Commission for its concurrence.

**R E P O R T**

**1.0 Background**

In 1994 August, the City of Burnaby entered into an agreement with Carlberg Jackson and Partners for the design and contract administration of the proposed Ice Arena at Burnaby Lake. After reviewing several design schemes and locations on the site, Council and the Parks and Recreation Commission concluded that the preferred option was to twin the new arena with the existing one. Based on this direction, staff and the consultants began preliminary design work which included discussions and design input from a number of user groups in terms of present and future requirements in the proposed facility. The preliminary work also included the preparation of a requirements document, a geotechnical assessment of the site, a review of various cost effective building systems and the development of a preliminary cost estimate for the project.

**2.0 Review of the Preliminary Design**

The "Arena Requirements Document" assembled technical and planning information, including input from members of Council, Parks Commission and the arena user groups. This document was presented to the consultants and formed the basis for the development of the schematic and preliminary design phases.

The proposed 2,000 seat arena will be situated directly north of the existing Burnaby Lake Arena and will be linked by a public concourse and viewing area. The arena will accommodate 1,000 fixed seats on the west side and 1,000 retractable seats on the eastern half. The current project budget makes provision for the installing of only the fixed seating, with the balance of seating to be provided at a future time.

## 2.0 Review of the Preliminary Design (Cont'd)

The arena building is being designed to be a multi purpose facility, capable of accommodating various ice sports, lacrosse, trade shows, mini conventions and other public assembly functions. In this regard, special consideration has been given to acoustics, lighting, sound systems and other features such as removable rink boards and retractable seating to accommodate functions requiring large floor areas and accessibility. The new facility is primarily comprised of two levels and includes the following features and amenities.

### **Lower Level:**

The lower level is accessible from the exterior grades and an internal stair and elevator. It is comprised of a skaters' lobby, concession, skate shop, public washrooms, meeting rooms, six dressing rooms, a dedicated change room, storage rooms, an N.H.L. regulation size ice rink (85' x 200') with removable boards, and mechanical and electrical rooms. The ice plant is designed for year round ice capabilities. The ice surface is at the same elevation as the lower skaters' lobby and change rooms.

### **Upper Level:**

The upper level provides the main entry and control point to the new arena complex and is at the same elevation as the existing Burnaby Lake Arena. The upper floor concourse includes a control area and offices, public washrooms, concession and future kitchen, large meeting room, elevator, viewing area and potential for future restaurant seating (150 to 200 seats). The upper concourse provides linkages to the existing arena and to the upper concourse level of the proposed arena which also serves as the public access to the arena seating.

### **Building Systems and Finishes:**

As part of the preliminary design review process, staff and the consultants considered various mechanical, electrical and building systems to arrive at cost effective solutions that take both performance and durability into consideration. They include extensive use of structural steel systems, exposed concrete, concrete block, glazing, acoustic metal decking and metal shingles as the principal materials in the construction of the building.

The new arena is equipped with ventilation and dehumidification systems and infrared heaters over the spectator seating. The current program does not however make provision for heating and air conditioning (HVAC) of the new arena, except for the public concourse and viewing areas. Although these basic mechanical features are adequate for most uses and events, they could limit spectator comfort during hot or cold weather conditions.

## 2.0 Review of the Preliminary Design (Cont'd)

### Site Development:

The proposed arena project will provide 102 additional parking spaces. This is achieved by the construction of both new spaces and the re-arranging of existing parking areas. The design includes a public drop-off area adjacent to the new building entry, which is handicapped accessible.

The site development design also makes provision for site landscaping, lighting and pedestrian walkways to link the existing parking lots and play fields directly east of Sperling Avenue.

## 3.0 Preliminary Budget Review

At the completion of the schematic design phase, a preliminary project budget was developed which incorporated various building construction options, program requirements and other related project costs.

In 1995 July, Council approved a project budget totaling \$9,855,347 (inclusive of G.S.T. at 7%). In 1995 September, the Quantity Surveyor updated the estimate to reflect the completed preliminary design which includes a total of 1,000 fixed seats, 102 additional parking stalls, concourse and partially finished upper kitchen area. The details of the project costs are summarized as follows:

Construction (Net Building Cost) .....	\$6,394,400
Site development, existing buildings, design contingency & escalation to 1996 March .....	\$1,075,700
<u>Reasonable Bid Price - Construction</u> .....	<u>\$7,470,100</u>
Miscellaneous Project Costs - furniture & equipment, consulting fees, testing, permits, moving costs, contingency .....	\$1,726,300
<u>Total Net Project Cost</u> .....	<u>\$9,196,400</u>
G.S.T. at 7% .....	\$643,700
<u>Total Project Cost (inclusive of G.S.T. at 7%)</u> .....	<u>\$9,840,100</u>
Project Budget approved by Council 1995 July (inclusive of G.S.T. at 7%) .....	<u>\$9,855,347</u>

G.S.T. on this project is fully recoverable.

### 3.0 Preliminary Budget Review (Cont'd)

Note: The following separate prices are provided for information purposes and are not included in the current design and budget estimate.

- add additional 140 parking stalls ..... \$195,000
- add 1,000 retractable bleacher seats ..... \$365,000
- add full HVAC system to Arena ..... \$475,000
- add upper level kitchen/food services fitout ..... \$150,000 to \$450,000  
(min.) (max.)

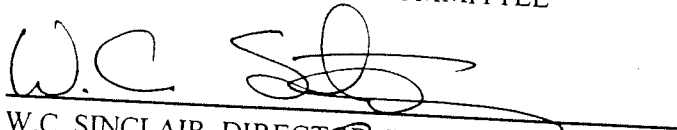
### 4.0 Conclusion

Carlberg, Jackson & Partners have now completed the preliminary design phase for the arena project. The design incorporates program requirements developed by staff in consultation with the various user groups. The design, as currently proposed, has been estimated to be within the budget approved by Council in 1995 July. Based on the work completed to date, the Major Civic Building Project Coordination Committee recommends acceptance of the preliminary design and requests approval from the Civic Development Committee to commence the detailed design leading to the development of contract documents. It is further recommended that a copy of this report be forwarded to the Parks and Recreation Commission for its concurrence.

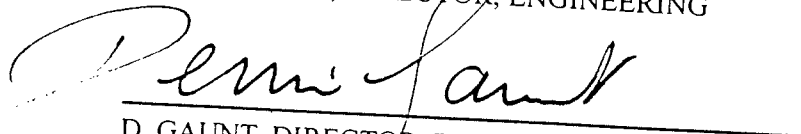
Subject to receiving the necessary approvals, staff will instruct the consultants to commence development of the detailed design phase which will require approximately five months to complete. Based on the current schedule, the project could be tendered to prequalified contractors in the spring of 1996, subject to funding approval by Council.



D.G. STENSON, CHAIR, MAJOR CIVIC BUILDING  
PROJECT COORDINATION COMMITTEE



W.C. SINCLAIR, DIRECTOR, ENGINEERING



D. GAUNT, DIRECTOR, RECREATION AND  
CULTURAL SERVICES

JC:lb  
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cc: City Manager  
Director, Finance  
Purchasing Agent

