Cape Breton Regional Municipality

Special Council Meeting

AGENDA

WEDNESDAY, NOVEMBER 16, 2022

1:30 P.M.

Council Chambers
2nd Floor, City Hall
320 Esplanade, Sydney, NS

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Cape Breton Regional Municipality

Special Council Meeting

Wednesday, November 16, 2022
1:30 p.m.

AGENDA ITEMS

Roll Call

1. **APPROVAL OF AGENDA:** (Motion Required)

2. **CBRM Centre 200 Addition Study**: Jon Hack, Sierra Planning and Management
(See page 4)

ADJOURNMENT

CBRM Centre 200 Addition Study

Facility Program and Operations Plan

April 1, 2022

Sierra Planning and Management
advice • strategy • implementation

DSRA ARCHITECTURE

CONTENTS

EXECUTIVE SUMMARY

Cape Breton Regional Municipality (CBRM) is both a provider of direct programming of recreation services and a facility provider for community-directed program delivery. A recent Recreation Master Plan-making process finds that CBRM is lacking in available, state-of-the-art multi-use recreation facilities. The Master Plan recommends that CBRM develop a Centre 200 site master and feasibility study.

The original idea was an addition that would provide an additional 44,800 sq. ft. multi-purpose space to the municipal inventory.

A new solution at the Centre 200 throws up the potential for an efficient model of governance and management; leaner staffing and other costs, and achieves much needed supply additions.

The main purpose of this study is to provide advice and guidance to the municipality on the possibility of building an addition to the current Centre 200.

This report presents the situation and needs analysis and addresses a range of factors that are anticipated to have a bearing on future decision-making in respect of the Centre 200 project. Confirmation of concept, appropriateness of the location and prospective financial impacts – both in terms of development costs and operational liabilities – are analysed and answers provided.

Purpose of this Report

- Assess the expansion opportunities for the Centre based on community recreation needs;
- Determine the appropriate concept designs;
- Present results of consultations with prospective users and a preliminary schedule of capital costs, management options, and estimated operating financial impact.

Process

This report summarizes the detailed program of work which has been undertaken beginning in the Fall of 2021 to assess the opportunity to develop a major community-focused recreation addition to Centre 200.

A range of primary and secondary sources, including federal, provincial and regional policies and plans, informed the development of this report.

Best practices in recreation facility design in comparable communities across Canada were analysed. This analysis points to the following trends:

- Flexible multi-use, multi-generational,
- Sport tourism,
- Aquatics,
- Sustainability,
- Accessibility.

In line with the trends, proposed design concepts represent options that combine good planning and layout, equitable, accessible and sustainable interior and exterior design, and high quality systems design.

Upon synthesizing and analyzing the feedback and information received from the stakeholders and community, the Design Team has confirmed the Functional Program of requirements for the addition to Center 200.

> The new addition to Center 200 should be an inclusive, universally accessible, state-of-the-art, multi-purpose, modern facility that promotes in a comprehensive way the wellbeing of its users.

Key Findings

The proposed project and that of the general upgrades to the event centre are both fully supported by the broader policy and strategic plan framework.

The situation analysis demonstrates that the Centre 200 project has the potential to leverage immediate sport tourism opportunities, as well as facilitate longer-term investment in Downtown. As a major public investment alongside other institutional development, the opportunity exists to take on an ambitious plan for development in the immediate surrounding area.

While the CBRM population has been declining over the past two decades, the rate of decline has slowed down significantly in the last 5 years – from 3.2% in 2011-2016 to 0.6% in 2016-2021. Increasing quality of life by enhancing recreation and sport opportunities can be an important factor in retaining and attracting new residents.

The analysis of community needs and economic development opportunities, and the results of public and stakeholder consultations, demonstrates the need for better and more varied supply of modern, municipally-owned indoor facilities.

The additional capacity provided by the new building will benefit CBRM by way of greater prospects for hosting participant sporting events, as well as spectator events. In this report, the Economic Impact Assessment (STEAM) model demonstrates that sport events, that bring out-of-town participants and spectators into the municipality, generate spending, employment and tax benefits at the municipal, provincial and national level.

Proposed Design Concepts

The consulting team proposed 3 options which can be accommodated across 2 scenarios of remaining within City landholdings or extending beyond. In addition, a third scenario (B) contemplates a future involving broader development in the immediate area. The report describes each option in detail followed by a comparison of each.

- Scenario A1: Remaining Within Current CBRM Property Boundaries;
- Scenario A2: Partially Within Current CBRM Property Boundaries;
- Scenario B: Toward a Campus of Community and Event Centre Opportunities.

The programming and operational plan analyzes management models for the proposed addition to Centre 200 and points to the effectiveness of the existing municipal departmental model.

The proposed options have different building types, functional program requirements and gross floor area. Capital costs range from CA$ 27.6 million to CA$42.3 million.

Capital costs are an illustration of general scale and include contingencies at this initial level of concept plan. More refined cost estimates will be required during the design process as the concept is finalized and subject to more detailed design and engineering assessment.

Options at a Glance

	Option 1	Option 2	Option 3
Building type	One storey + mezzanine in building height with Curling and Multipurpose Gym both located on the ground level	Two story in building height with the second-floor mezzanine	one storey & mezzanine in building height with Curling and Multipurpose Gym both located on the ground level
Gross Floor Area	4,616 sq.m.	5,429 sq.m.	7,220 sq.m.
Functional program of requirements	4 sheets curling Multipurpose Gym (Basketball, Volleyball, Badminton etc) Curling Club Viewing Gallery/Lounge 11 Offices + Reception 2 Meeting Rooms Kitchen Change Rooms Officials Room First Aid Public Washrooms Storages Building Services	4 sheets curling Multipurpose Gym (Basketball, Volleyball, Badminton etc) Curling Club Viewing Gallery/Lounge 12 Offices + Reception 2 Meeting Rooms Kitchen Change Rooms Officials Room First Aid Public Washrooms Storages Building Services	6 curling sheets Multipurpose Gym (Basketball, Volleyball, Badminton etc) Multipurpose Fitness Room Open Fitness area adjacent to Gym Elevated Walking Track (3 lanes) Curling Club Viewing Gallery/Lounge Spectator's seating 300 spaces 12 Offices + Reception 2 Meeting Rooms Kitchen Change Rooms Officials Room First Aid Public Washrooms Storages Building Services
Capital cost estimate	CA$27,582,648	CA$32,175,130	CA$42,312,007

Indicative Operating Performance

The report provides financial projections of operating performance of the facility operating at full capacity in response to the growing level of demand. Financial performance estimates are based on the facility's role as a community focused recreation centre operated as an integrated operation along with Centre 200.

The preliminary 20 year financial projections provided in this report show the amount of deficit for the proposed development: CA$ 305,489 in year 1 to CA$ 535,676 in year 20.

These projections are based on a number of key assumptions, explained in this report, that are critical to understanding the future operating risks associated with this investment.

What's Next

Critical questions of implementation remain, including funding, partnership agreements with potential users and a more detailed investigation of how the project can help stimulate a broader rejuvenation of the central business district.

The financial estimates in this report are illustrative and designed to inform further discussion on the issues of revenue generation, staffing needs, potential efficiencies, integration with existing staffing on-site, and approach to pricing for different uses and users.

Exhibit 1: 5-Year Operating Revenue/Cost Projections

Building Size: 49,686 s.ft.

		Year 1	Year 5	Year 10	Year 15	Year 20
Escalation (p.a.)	*3.0%*	*1.00*	*1.13*	*1.30*	*1.51*	*1.75*
Revenue						
Annual Curling Ice Lease		**$150,000**	**$168,826**	**$195,716**	**$226,888**	**$263,026**
Spectator Events (Ticketed)		$42,000	$47,271	$54,800	$63,529	$73,647
Gymnasium Rentals		$228,780	$257,494	$298,506	$345,050	$401,157
Drop-In (Free Youth / Seniors / Community Use)		$0	$0	$0	$0	$0
CBRM Programs		$64,000	$72,038	$83,505	$95,806	$112,224
Meeting Room Rentals		$38,075	$37,226	$43,155	$50,029	$57,997
Rental Based External Events (trade show, convention, etc.)		$24,000	$27,012	$31,315	$36,302	$42,084
Total Revenue		$541,855	$609,863	$706,998	$819,604	$950,146
Gross Margin		$541,855	$609,863	$706,998	$819,604	$950,146
Expenses						
Payroll (Labour)		($361,820)	($407,232)	($472,093)	($547,285)	($634,454)
Utilities		($248,431)	($279,611)	($324,146)	($375,774)	($435,625)
Other Operating Costs						
Administration		($10,000)	($11,255)	($13,048)	($15,126)	($17,535)
Repair and Maintenance		($20,000)	($22,510)	($26,095)	($30,252)	($35,070)
Janitorial Contract and Supplies		($27,093)	($30,493)	($35,350)	($40,980)	($47,507)
Grounds Maintenance / Snow Removal / Waste Mgt		($20,000)	($22,510)	($26,095)	($30,252)	($35,070)
Marketing		($10,000)	($11,255)	($13,048)	($15,126)	($17,535)
Insurance		($30,000)	($33,765)	($39,143)	($45,378)	($52,605)
Total Expenses (Excl. Debt and Capital Reserve)		($747,344)	($841,142)	($975,114)	($1,130,424)	($1,310,471)
Net Income (NOI) Before Capital Reserve		**($205,489)**	**($231,279)**	**($268,116)**	**($310,820)**	**($360,325)**
Capital Reserve		($100,000)	($112,551)	($130,477)	($151,259)	($175,351)
NOI after Capital Reserve		**($305,489)**	**($343,830)**	**($398,593)**	**($462,079)**	**($535,676)**

1 INTRODUCTION

1.1 Introduction

This report summarizes the detailed program of work which has been undertaken beginning in the Fall of 2021 to assess the opportunity to develop a major community-focused recreation addition to Centre 200.

The report addresses the range of factors that are anticipated to have a bearing on future decision-making in respect of the proposal. Questions of community need, confirmation of concept, appropriateness of the location and prospective financial impacts – both in terms of development costs and operational liabilities – are analysed and answers provided.

Critical questions of implementation remain, including funding, partnership agreements with potential users and a more detailed investigation of how the project can help stimulate a broader rejuvenation of the central business district.

1.2 Aims and Objectives

Cape Breton Regional Municipality (CBRM) is both a provider of direct programming of recreation services and a facility provider for community-directed program delivery. Organizationally within CBRM, recreation programming separated from the Facilities Department about 5 years ago and amalgamated to form the CBRM Recreation Department responsible for both facilities and recreation programming. Following this amalgamation a Recreation Master Plan was developed which recommended that CBRM develop a Centre 200 site master and feasibility study. A key finding of that plan-making process was that CBRM is lacking in available, state-of-the-art multi-use recreation facilities. The need for better and more varied supply has been widely signalled from indoor facility users, with the pandemic highlighting with even greater clarity the lack of modern, municipally-owned indoor facilities.

A new solution at Centre 200 throws up the potential for an efficient model of governance and management; leaner staffing and other costs (e.g. mechanical/electrical) and achieves much needed supply additions.

The purpose of the current report is as follows:

- Assess the expansion opportunities for the Centre based on meeting community recreation needs in the face of limited municipally controlled supply of such venues and in the absence of other partnership opportunities (school board and university).
- Determine the appropriate concept designs and the likelihood of synergies in terms of building systems if the new space was developed as an addition as opposed to a stand alone building on-site.
- Consult with prospective users and develop a preliminary schedule of capital costs, day to day management options and estimate the resulting operating financial impact.

1.3 History of Centre 200

In summary, Centre 200 is a major regional venue for sports and entertainment in Cape Breton. As such, the original investment along with more recent upgrades, and the many years of successful operation – achieving considerable economic benefits for the Region and Province, the community is considerably invested in the building and its role in civic and economic life of the City and region.

Exhibit 2: Centre 200 Aerial Photo

Centre 200 is Sydney's sports, recreational, cultural and entertainment hub, built to celebrate Sydney's 200th birthday in 1985:

- It opened its doors in 1987 and was part of the Canada Winter Games venues the same year;

- It' is currently home to the Quebec Major Junior Hockey League's Cape Breton Eagles and has hosted various events over the past 34 years;

- The last big event held at Centre 200 was the Scotties Tournament of Hearts national women's curling championship in February 2019. The Scotties tournament drew a total of 26,684 spectators with an average of 1,500 per draw.

Centre 200 is an event-oriented facility with a municipal management structure. This creates the potential to more easily consider the addition of community-oriented used on site as well as ensure balance between community use and spectator/delegate (sports and non-sports) events. This report will address the range of governance models and the pros and cons of each.

The centre is part of the larger assembly of CBRM-owned land parcels (shown by pink lines on the associated aerial image). The ownership of the CBRM was historically larger and included the land in front of Centre 200 now occupied by a Tim Hortons restaurant.

More recently, a provincially owned Casino (Casino Nova Scotia) was developed as an add-on to the original 1987 building on its southern elevation. The casino provides for an integrated entertainment opportunity on this site and mirrors some other event centre-casino destinations elsewhere Atlantic Canada (for example: Charlottetown's Eastlink Centre and Red Shores Racetrack and Casino; and the Summerside Credit Union Place, Red Shores Casino and Red Shores Summerside Raceway).

1.4 Limitations of Analysis

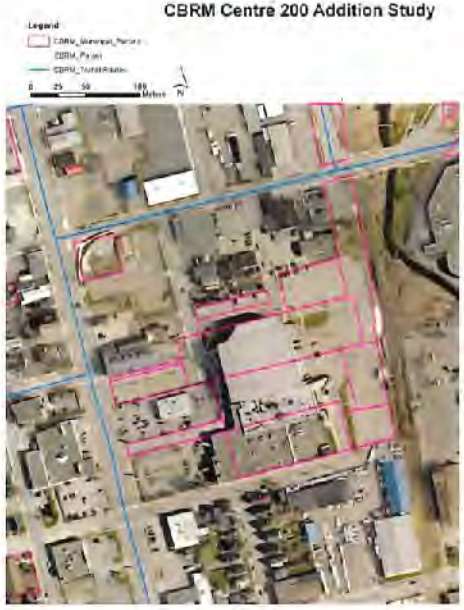
The contents of this report and its analysis is based, in part, upon a range of primary and secondary sources. Sierra Planning and Management endeavours to ensure the accuracy of all secondary sources of information but cannot warranty their accuracy. In the event that secondary source information is inaccurate or incomplete, Sierra Planning and Management, DSRA and M&R Engineering, will not be held liable for original errors in data.

The report and the information contained within it is prepared specifically for the purposes as laid out in this report. Reliance on information and opinion contained in this report for other purposes is not recommended. The contents of this report should not be extracted in part from the entire report without the permission of Sierra Planning and Management.

1.5 Outline of Reporting and Associated Presentation

The report begins with a situational assessment (Section 2), including the current demographic trends, sports and recreation policies, overview of existing facilities and services.

Exhibit 3: CBRM Owned Land Parcels



The report then outlines constraints and opportunities for sports and recreation in CBRM as it relates to the Centre 200 enhancement. Section 3 discusses Centre 200's primary and secondary service areas, provides an overview of CBRM future population dynamics and community needs, presents best-practices, and outlines economic development opportunities. Section 4 describes the process and outcomes of internal and external stakeholder consultations. The conceptual program (Section 5) presents detailed descriptions of the three scenarios for the Centre 200 addition and compares these scenarios:

- Scenario A1 - Remaining Within Current CBRM Property Boundaries
- Scenario A2: Partially Within Current CBRM Property Boundaries
- Scenario B: Toward a Campus of Community and Event Centre Opportunities.

The following sections discuss economic and governance aspects of the Centre 200 enhancement. Section 6 presents estimated order of magnitude capital costs, including capital costs of the recommended on-site option, associated costs of Centre 200 enhancement, and overall lifecycle planning. Section 7 outlines a programming and operational plan. Section 8 discusses the economic impact potential of the Centre 200 enhancement. The report concludes with recommendations regarding capital costs (including development, design and construction risks); operating risks; and two project delivery options - the traditional public procurement approach and public-private partnership options.

Exhibit 4: Current Location

2 SITUATIONAL ASSESSMENT

2.1 Community Needs and Event Centre Opportunity

This main purpose of this study is to provide advice and guidance to the municipality on the possibility of building an addition to the current Centre 200. The original idea was an addition that would provide an additional 44,800 sq. ft. multi-purpose space to the municipal inventory.

Exhibit 5: Originally Proposed Addition

CBRM owns and operates Centre 200 (Sydney), the County Arena (Coxheath), the Centennial Arena (Sydney) and the Glace Bay Miners Forum (Glace Bay). In 2021, CBRM the Centennial Arena as an ice arena. These facilities are further described in the exhibit below.

Exhibit 6: Municipal Run Facilities

Facility	Description
Centre 200 481 George Street, Sydney Year of construction: 1987	• Important regional sports and arts event facility • A full-service stadium complex • 5000 seats for ice events, and 6500 for concert events • One ice surface – flexible use space
Cape Breton County Recreation Centre 305 Keltic Dr. Coxheath Year of construction: 1977	• Capacity 1200 • NHL sized-ice surface • Special event room over building entry (building addition) • Change rooms • Canteen
Centennial Complex - Bi-centennial Gym 205 Hospital Street, Sydney Year of construction: n/a	• Capacity 400 – 450 • Gymnastic Facility located adjacent to important regional sport fields • * Community Rink - Closed in 2021
Glace Bay Miners Forum	• Ice surface • 6,000 sq. ft banquet/community space • Amenities include community room, restaurant, lounge and canteen • Major Renovations – reopened in October 2020

Other public rinks in Dominion, Glace Bay, North Sydney, New Waterford, Sydney Mines and Whitney Pier are owned and managed by independent boards or community associations.

2.2 Existing Planned Investment at Centre 200

The expansion project should be viewed in the broader context of a commitment on the part of CBRM to maintain the capability of the event centre. To that end, a $10 million investment program has been itemized as a potential set of requirements to better position the building as for its primary event centre function. The timing of these discrete projects has not been identified. Nevertheless, this is an opportunity to maximize the synergy between the event centre and the community program to enhance the hosting and recreational capacity of the Centre 200 campus. It would also help to minimize disruption at the site if upgrades to the main building and development of a new community use complex (whether directly attached or not) were undertaken at the same time.

The C200 upgrade includes the following:

Multimedia including new sound system / video capability etc.	$625,000
Scoreboard / Clock system with full video capability – Boards and glass as per QMJHL requirements – completed and funded through an equal cost share municipal, provincial, federal funding partnership	$650,000
Eagles offices construction	$200,000
Dressing room/Gym/ Coaches offices/players lounge – This would include a complete demo, rebuild, new equipment	$500,000
LED signage inside and outside of the building – Large panels on upper portion of building on the West and East sides – George St LED Billboard – Replace static signage with LED under the Suites and Premium seating	$1,250,000

With the replacement of the sound system and video – relocation of:	$500,000
– sound/video booth and add 2/3 new suites in this location	
Locate/design/build a bar area with view of ice surface	$700,000
Outside façade upgrade and building facelift	$1,500,000
HVAC System	$700,000
New seating	$1,670,000
Flooring/lighting	$400,000
Enhanced box office/West Concourse	$1,500,000
New heating system boilers	$200,000
Total	**$10,895,000**

It should be noted that the cost figures quoted are estimates and would require further review prior to the project beginning. It also should be noted that this work will have to be phased in to accommodate the needs of the building at its customers.

2.3 The Broader Picture

2.3.1 Sport Tourism Opportunities

Sport Tourism is now considered a mainstream form of tourism and economic development – implemented correctly, destination development can primarily benefit the resident base, with visitors as a secondary beneficiary. This means that a culture of service, hospitality, programming and replenishment of infrastructure are combined together with clear purpose. Hosting is the outcome of good planning on all of these related fronts.

2.3.2 Downtown Visioning and Development

Exhibit 7: Zoning Map

The Centre 200 block (George and Prince Street, between the older fabric of downtown and the commercial retail district) lies within the established Central Business District (CBD).

CBRM and the upper levels of government have kept a commitment to invest in major public buildings in the downtown. In addition, private investment is, we understand, benefitting from a community improvement plan and financial incentives (tax increment grants and other measures) designed to leverage investment. The development of the Centre 200 block can be placed alongside recent investments such as the new Marconi Campus of the Nova Scotia Community College, and the plans for a new downtown central library for the Regional Municipality.

Marconi Campus Construction in Progress, November 2021

2.3.3 Supporting CBRM Policies

The proposed project and that of the general upgrades to the event centre are both fully supported by the broader policy and strategic plan framework in place: the regional economic development plan currently in progress, CBRM Forward and the work of the Regional Enterprise Network.

2.4 Centre 200 Mechanical and Electrical Systems Due Diligence Review

M&R Engineering Ltd. conducted a due a review of Centre 200 Mechanical and Electrical Systems. An executive summary of the review results is outlined below with a detailed report provided as Appendix A.

Mechanical:

Mechanical systems are designed to comply with the latest codes, standards and guidelines for each aspect of the project. The design includes reference of applicable standards from code writing authorities such as NBC, NFPA, CEC and standard developing bodies such as ASHRAE, CSA, AABC.

The mechanical includes standalone systems as well as systems which will entail integration with existing C200 building systems. The main mechanical systems which entail integration into C200 main facilities include the new addition's heating supply, and the new addition's cooling and ice making supply. The challenge with this is to ensure coordination with parallel separate work to ensure capacity to accommodate the additional loads and associated control. This work should be closely coordinated with new addition planning and work as design progresses.

The mechanical systems will be designed to include sustainable strategies for CBRM with low carbon footprints.

Electrical:

The electrical system is designed to offer ease of operation, maintenance and flexibility. All components will be modular for fast and efficient servicing and to provide the option for ongoing reconfigurations.

The new building will be fed via a pad-mount utility transformer fed from the local 25kV power grid. The main entrance board will be complete with main breaker, utility metering cabinet, owner's metering, and distribution sections. Transient voltage surge suppression will be provided to protect the entire building from external voltage disruptions. The power will consist of 600/347V and 208/120V systems.

A permanent standby emergency generator will be provided to power life safety systems during a utility outage. There will be special emphasis placed on the design of the illumination system and the choice of light sources. Lighting shall be energy efficient and low maintenance. A lighting automation system will be provided to control all lighting in public areas and office spaces. The system will consist of low voltage control devices, occupancy sensors, daylight sensors, and wall controls.

An addressable, zoned, non-coded, single stage fire alarm system will be provided. This system will be designed to fully integrate with other life safety, sprinkler, and security systems. The telecommunications system design will be in accordance with industry guidelines and standards. Public address systems are planned for the curling rink and basketball courts. Public address/paging will be provided for public areas and integrate with the telecommunications system. Complete intrusion alarm system, access control system, and video surveillance systems will be provided to suit the building layout.

3 COMMUNITY NEEDS & ECONOMIC DEVELOPMENT OPPORTUNITY

3.1 Primary and Secondary Service Areas

Service Areas are the geographic areas where the service is provided and across which the service is funded. Centre 200 is a large multi-functional regional facility. The regional facility provides service across the regional municipality and the County.

Another measure of the geographic extent of the service is reasonable drive-time to/from the facility. For Centre 200, 30 to 45 minute drive would be reasonable for participating in activities regularly or occasionally. The area extends beyond the CBRM boundary to Victoria County including additional potential users. (Note: services provided by CBRM are funded within its boundary.) The primary service area is within the 30-minute drive time area from Centre 200 and the secondary service area is within the 45-minute drive time area.

In the next 10 years, population projections in CBRM and the service area show a continued decreasing trend. CBRM median age was 50 years in 2016 or 4.5 years higher than in Nova Scotia (45.5 years). By 2031, the median age in CBRM is projected to decrease to 48.7 years.

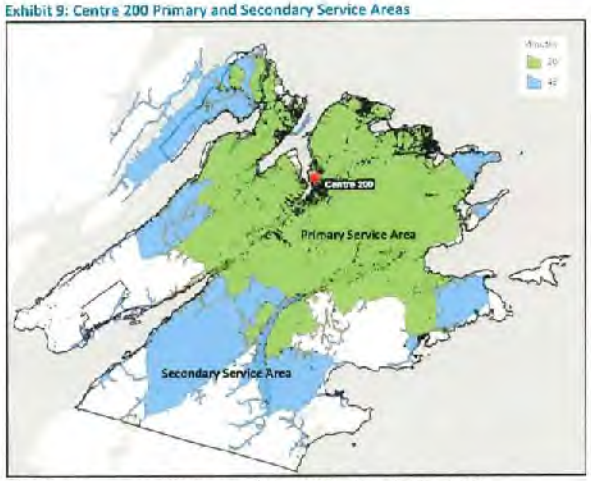
Exhibit 8: Population Projections in the Primary and Secondary Service Areas

Year	CBRM Population	Primary SA Pop. (30 min.)	Secondary SA Pop. (45 min.)	Median age in CBRM
2016	94,285*	92,979	98,887	50.0*
2021	93,694**	93,302	99,519	49.4
2024	91,481	90,284	96,295	49.6
2026	89,815	88,628	94,535	49.7
2031	84,768	83,642	89,195	48.7

SPM, Data Sources: ESRI Business Analyst, 2022;
** Statistics Canada Census 2016;*
*** Statistics Canada Census 2021.*

The primary and secondary service areas are shown on the exhibit below. The map includes building footprints to indicate concentration of the population in relation to the service areas.

Exhibit 9: Centre 200 Primary and Secondary Service Areas



SPM, Data Sources: Recreation Speeding – ESRI Business Analyst, 2022
Note: The secondary service area reaches all Census Dissemination Areas within CBRM. However, not all residents of remote areas live exactly within 45 minutes.

Centre 200 hosts sporting and arts events and offers a range of programs. The table below shows spending on sports and live sporting events in CBRM and in the two service areas.

Exhibit 10: Recreation Spendings, Service Area, 2021

Select Categories, 2021	CBRM Spendings (CA$)	Primary Service Area 30 minutes	Secondary Service Area 45 minutes
Performing Arts Events	$ 2,668,316	$ 2,597,543	$ 2,730,492
Live Sporting Events	$ 886,496	$ 861,357	$ 916,133
Fees for Sports, Sports, Recreation Facilities, Health Clubs	$ 11,166,559	$ 11,000,244	$ 11,450,270
Sports, Athletic Equipment	$ 5,309,278	$ 5,158,089	$ 5,594,161
Children's Camps	$ 779,528	$ 773,737	$ 807,838

SPM, Data Sources: Recreation Spending – ESRI Business Analyst, 2022

3.2 CBRM Future Population Dynamics

The Cape Breton Regional Municipality (CBRM) is a regional municipality comprising 95% of population in Cape Breton County. Eskasoni and Membertou are growing First Nations communities with 2021 Census population of 3,521 and 1,103, respectively.

Amalgamated in 1995, CBRM comprises of eight municipal entities - the Municipality of the County of Cape Breton, the City of Sydney as well as the Towns of Glace Bay, Sydney Mines, New Waterford, North Sydney, Dominion and Louisbourg. Larger communities of Sydney, North Sydney, Glace Bay, and New Waterford represented 54% of the CBRM population in 2021.

Exhibit 11: Population in Select CBRM Communities, Comparison

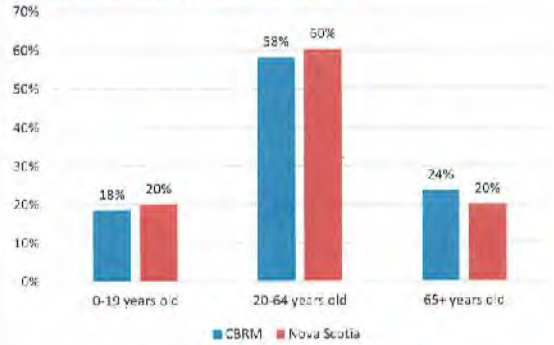
	Population, 2021	% of Total CBRM pop.	Change 2016-2021
CBRM	**93,694**	**100%**	**-0.6%**
Sydney	30,960	33%	2.6%
Glace Bay	16,915	18%	-3.9%
North Sydney*	5,622	6%	-1%
New Waterford	6,723	7%	-9.3%
Share of Total CBRM pop.	**60,220**	**64%**	**-0.5%**

*SPM, Data source: Statistics Canada Census, 2016, 2021; *ESRi Business Analyst.*

Both the County and the CBRM populations have been decreasing and ageing. (Exhibits below demonstrate these trends.)

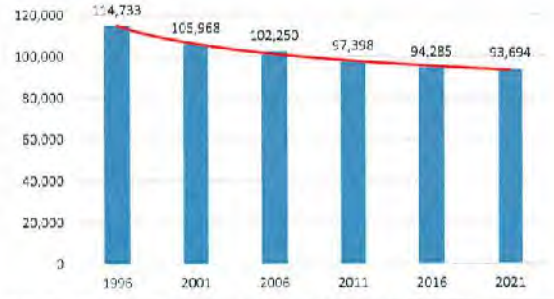
- The population has been decreasing since 1996. The decrease has slowed down from -4.7% (2006-2011) to -3.2% (2011-2016) and then to -0.6% (2016-2021).
- Based on the 2016 census data, the proportion of younger age cohorts (0-19 years old) is 18%, which is lower than in Nova Scotia (20%).
- The proportion of senior adults 65+ years old in CBRM (24%) is higher than in Nova Scotia (20%) and considerably higher than in Canada (16%).
- Median age in CBRM is 50 years old, which is higher than in Nova Scotia (45.5 years old).

Exhibit 12: CBRM Population Age Structure, 2016



SPM, Data sources: Population Statistics Canada Census, 2016

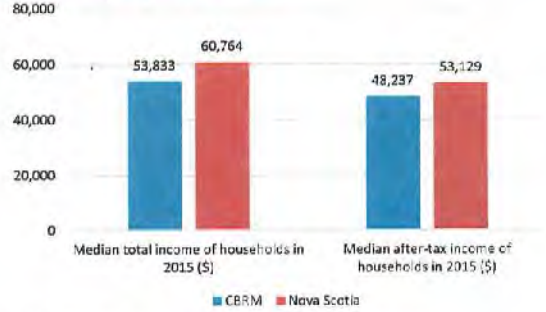
Exhibit 13: CBRM Population 1996 - 2021



SPM, Data Source: Population Statistics Canada Census, 2016, 2021.

Household income both before and after tax in CBRM is somewhat lower than in the province as shown on the exhibit below.

Exhibit 14: CBRM Population 1996 - 2021



SPM, Data sources: Population Statistics Canada Census, 2016

Comprising of several distinct communities, CBRM is a single-tier municipality. There are no upper- or lower-level governments; CBRM and the First Nations provide all administration and service delivery to their respective communities in the Cape Breton County.

3.3 Broad community Recreation Needs

CBRM developed a Recreation Master Plan to guide the delivery of and investment in recreation facilities and programs, infrastructure in the next 15 years.

The Master Plan considers two issues that influence recreation in CBRM: the population trends and the need to respect cultural independence of the pre-amalgamation communities.

The plan supports equitable recreation, facilities and programming for youth and young adults as well as for the population over 55. The plan proposes facilities and program delivery in a manner that respects the cultural independence of CBRM communities.

Recreation needs outlined in the Recreation Master Plan include:

- Inclusiveness and equitable opportunities for people of all ages and abilities;
- Creating opportunities for youth, young adults and seniors;
- Year-round recreation and sport opportunities;
- Supporting the informal street and park play as traditional gateways to sport;
- Accessibility by active transportation and public transport
- Careful location planning and design;
- Different types of parks and trails; and
- New community assets.

3.4 Multi-Purpose Dry Floor Space Needs

CBRM offers a variety of recreation and community space, including a range of non-municipal assets. CBRM owns two arenas - Centre 200 Arena and Cape Breton County Arena – and Centennial Complex Bi-centennial Gym. Non-municipally owned sports complexes include Cape Breton University Sports Complex, Sydney Curling Club, and Dan K. Stevens Memorial Arena, and District 7 Sports Complex (Whitney Pier Rink).

The CBRM Recreation Master Plan estimates CBRM level of service for ice (1 facility per 10,200 population). This is somewhat higher compared to Fredericton (1 facility per 12,750 population) and significantly higher than the Halifax Regional Municipality (1 facility per 27,857 population). CBRM Centennial Complex had an ice pad and a gymnasium at the time of publication of the Master Plan.

3.4.1 Inventory and Service Standards

CBRM and local communities have a variety of recreation and sports facilities. Facilities include arenas, pools, community and recreation centres, and a curling club. CBRM owns two facilities with ice pads – Centre 200 and Cape Breton County Recreation centre. The third CBRM facility, Centennial Complex's ice surface was recently repurposed into a gymnasium. At the regional level, CBRM "supports ice surface use based on the pre-amalgamation town-based model at locally owned and aging facilities" (CBRM Recreation Master Plan, pp.6-7). Newer facilities include the Membertou Sports Complex built in 2016 and the Glace Bay Miners Forum renovated in 2020. Regional ice surface supply includes The Dan K. Stevens Memorial Arena in Eskasoni.

The local indoor recreation and sports facilities are as follows:

- **CBRM owns and manages Centre 200 and the Centennial Complex (Bi-centennial Gym) in Sydney, the Glace Bay Miners Forum, and the County Arena in Coxheath).** The Centennial Complex used to have an ice pad but it was closed and re-purposed. It is currently being used for training purposes for the police services. Centre 200 and the Centennial Complex are in the above average/good general condition (CBRM Recreation Master Plan, 2018). The Glace Bay Miners Forum was renovated in 2020.
- **Other Arenas / recreation centres** are locally owned and managed by local boards or the Cape Breton University. Ice usage is town-based. Arenas receive financial support from CBRM. General conditions vary;
- **Community Centre are in below average** – poor condition. CBRM Recreation Master Plan, 2018);
- **The facilities are ageing.** Most facilities were built 30-50 years ago, with the exception of Membertou Sports Complex built in 2016;
- **Aquatic Facilities:** CBRM has four aquatic facilities. Three of them are located in Sydney (Kiwanis Pool, YMCA of Cape Breton, and Coast Guard College Pool) and Northside Pool in Sydney mines;
- **Other indoor facilities:** Sydney Curling Club.

Non-municipal partnerships are important component of service delivery. Community and Institutional Use Space and Services include:

- YMCA – 60,000 sq. ft. facility with a small gymnasium.
- Schools offered recreation facilities; however, the COVID-pandemic has limited accessibility of school-based facilities to the general public. Additional issues pre-pandemic included rental agreements, quality and size of gymnasia.
- Non-municipal cultural uses provided for in other spaces.

Exhibit 15: Indoor Sports Facilities in CBRM

Facility	Address / year opened	Facility type
Sport Complex, Arena, Gym		
Centennial Complex (Bi-centennial Gym)	Sydney	• Gymnasium
Centre 200	Sydney / 1987	• A full-service arena complex • 5000 seats for ice events; and 6500 for concert events • One ice surface
Glace Bay Miners Forum	Glace Bay / reopened in October 2020	• Regulation-size ice surface • 6,000 sq. ft banquet/community space • Community room, restaurant, lounge an canteen • Major Renovations – reopened in October 2020
Cape Breton County Recreation Centre	Coxheath / 1977	• NHL sized-ice surface • Special event room
Emera Centre Northside	North Sydney	• NHL sized-ice surface • Special event room Indoor Walking track
District 7 Sports Complex, (Whitney Pier Rink)	Sydney / 1959	• NHL sized-ice surface • Meeting / Events room
CBU Canada Games Complex, Cape Breton University	Sydney / 1987	• Triple Gymnasium • Olympic sized-ice surface (decommissioned) • Special events room
Dan K. Stevens Memorial Arena	Eskasoni	• Arena
Membertou Sports Complex	Membertou / 2016	• 2 NHL sized-ice surfaces • Meeting / Events room
Community Recreation Centres		
Sydney Mines and District Community Centre	Sydney Mines / 1974	• NHL sized ice surface • Special event room
New Waterford District Community Centre	New Waterford / 1973	• NHL sized-ice surface • Special event room
Dominion District Community Centre	Dominion / 1979	• NHL sized-ice surface Special event room
Pools		
Kiwanis Pool	25 Inglis St. Sydney	• Pool
YMCA of Cape Breton	399 Charlotte St. Sydney	• Pool
Northside Pool	82 Memorial Dr. Sydney Mines	• Pool
Coast Guard College Pool	1190 Westmount Rd. Sydney	• Pool
Sport Clubs		
Sydney Curling Club	George St. Sydney,	• Curling Club

SPM, Source – CBRM Recreation website, 2022

Exhibit below shows the current level of Service for indoor facilities – derived from the Master Plan. The map below shows all indoor facilities. The table presents the level of service. The following table presents ratios from the CBRM Recreation Master Plan updated by Sierra Planning and Management.

Exhibit 17: Level of Service - Indoor Facilities

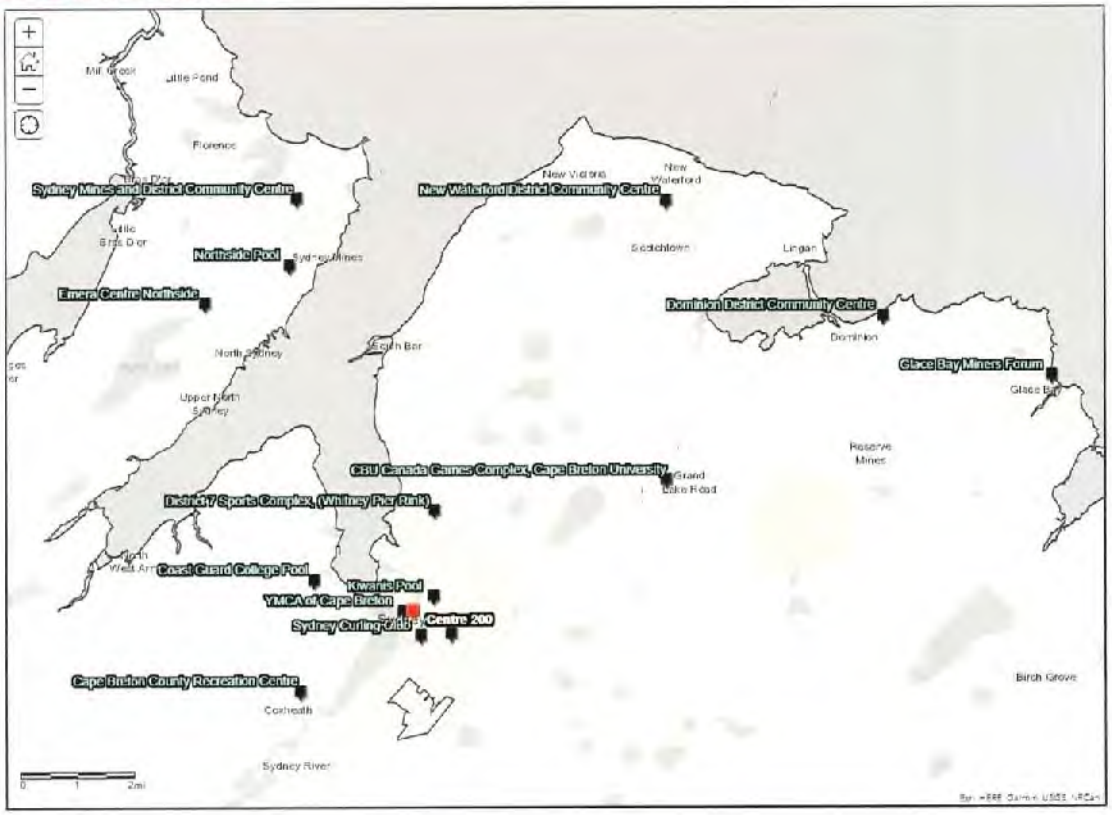
Facility Name Indoor Facilities	CBRM owned	Other	Total	Regional LoS	Current - 2021 Pop.: 94,524
Community / Recreation Centres	5		5	1 per	18,905
Arenas / Ice Pads*	3	9	12	1 per	7,877
Indoor Pool	0	4	4	1 per	23,631
*Gymnasiums**	*1*	*0.25*	*1.25*	*1 per*	75,619
Curling	*0*	*1*	*0*	*1 per*	94,524
Tennis (indoor)	*0*	*0*	*0*		

SPM, Note: *Included in the regional LoS calculations - The Dan K. Stevens Memorial Arena, Eskasoni. **Gymnasium calculations include Canada Games Centre Gym at the Cape Breton University.

Without non-municipal partnerships, the municipality is in deficit for community court/gym space despite range of supply. There is a need for municipal regional recreation services.

- CBRM would likely be adding not replacing ice in the regional ice market.
- Centre 200 has significant locational advantages and could grow programming. Design and sizing of (ice) pad should maximize utility year-round for the public, for organizing events, and curling.

Exhibit 16: Indoor Recreation Facilities



3.4.2 Current Deficit in Higher Quality Supply

CBRM recreation facilities were built to serve communities within the boundaries of individual pre-amalgamation municipalities.

The Master Plan points to the issue of ageing indoor sports and recreation facilities. A regional approach and recreation service delivery model could provide opportunities to "right-size" assets, replace facilities and address facility ageing issues. However, gaining support for "right-sizing" assets in the declining population may be challenging.

CBRM Recreation Master Plan Recommendations include the following:

- Dissolving Recreation Community Boundaries.
- "Several community-based recreation program providers are struggling to sustain activity delivery under the stress of declining participation and/or volunteer commitment.
- Funding New Community Assets.
- Equitable Opportunity (especially for youth and seniors).
- Provide opportunities for different types of sport activities during all seasons.

Source: CBRM Parks and Recreation Master Plan, pp 15-18

The CBRM Recreation Master Plan includes the recommendation to retain and expand Centre 200 "to increase regional attraction to the facility and adjacent lands".

The Master Plan recommends that CBRM explores the opportunity to add an ice pad at the Centre 200 location to increase regional service provision. Combined with the other sports venues, this would provide additional opportunities for hosting events and supporting regional economy.

"This facility, when considered with facilities in Glace Bay, The CBU Canada Games Complex, and the County Arena, come together to provide significant event hosting capability that supports regional economic development." (CBRM Recreation MP, p.87)

Expanding Centre 200 will provide additional capacity for both live sports and arts events. Spendings in these categories are significant in the Service Areas.

Exhibit 18: Spending on Live Entertainment

Spendings, 2021	CBRM	Centre 200 (30 minutes)	Centre 200 (45 minutes)
Live Sporting, Performing Arts Events	CA$ 3,554,812	CA$ 3,458,900	CA$ 3,645,625
Performing Arts Events	CA$ 2,668,316	CA$ 2,597,543	CA$ 2,730,492
Live Sporting Events	CA$ 886,496	CA$ 861,357	CA$ 916,133

SPM, Data Sources: Recreation Spending – ESRI Business Analyst, 2022.

Additional capacity to organize both live sporting and performing sporting arts events and creating new recreation and employment opportunities will benefit the region. First, a larger regional facility has a potential to attract wider audiences from within and outside the region and, importantly, contribute to the regional economic growth. As the Recreation Master Plan points out – new opportunities for the economic growth are critical for increasing the share of younger residents in CBRM and reversing the declining population trend in the future.

3.4.3 A Note on Ice Pad Supply

While the Master Plan identifies strategies such as right-sizing and infrastructure replacement, as it relates to the opportunities at Centre 200, we are less convinced of the need for a second ice surface in that location. By ice surface we refer to a second regulation sized ice surface for ice sports (excluding curling which is a specialised surface).

A note too about the concept a general ice surface that can be utilized for general ice use and curling. These are in place in some facilities but are ice surfaces which are occasionally – not regularly – converted to curling ice. The conversion process takes about a day to achieve, which renders that time lost revenue. It is also not a practical solution for replacement of the existing curling club building in Sydney as the club will require essentially a dedicated ice facility during its playing season.

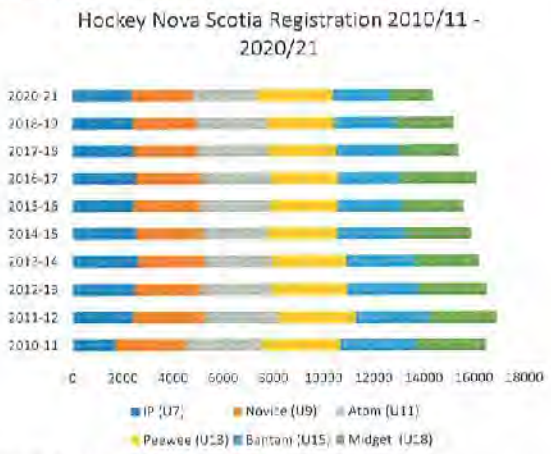
It should also be borne in mind that the demand for ice – while a mainstay and anchor of any municipal recreation service – is changing and the opportunity is very much to centralize ice into twin pad facilities or larger. The existing pre-amalgamation model recommended by the master plan may be worth reviewing at some point in the future as the opportunity and need arises for active strategies to replace ice into larger, more regional-serving buildings.

As shown in the charts below, hockey registration has been on a decline over the last 10 years.

Exhibit 19: 10-Year Hockey Registration

Source: SPM based on Hockey Nova Annual Reports
Note: Registration numbers for 2019-20 were not available at the time of this report

Exhibit 20: 10 Year Hockey Registration



Source: SPM based on Hockey Nova Annual Reports
Note: Registration numbers for 2019-20 were not available at the time of this report

3.4.4 Projected Needs

Based on the current supply of indoor facilities discussed above, the future needs for indoor flexible uses can be estimated based on the population change data. Table below estimates the level of service for the existing indoor facility.

CBRM appears to be within the recommended level of service for arenas and ice pads and pools. However, additional flexible space is needed, e.g. more community and recreation centres and gymnasia.

Exhibit 21: Projected and Recommended Level of Service

Indoor Facilities, CBRM 2022		2021 Population 94,524		2031 Population 84,768		Recommended Regional standard	
Community / Recreation Centres	5	1 per	18,905	1 per	16,954	Urban: 1 per 15,000 Rural: 1 per 5,000	residents
Arenas / Ice Pads*	12	1 per	7,877	1 per	7,064	8,000 to 10,000	residents
Indoor Pool	4	1 per	23,631	1 per	21,192	20,000 to 35,000	residents
Gymnasiums	*1*	*1 per*	-	*1 per*	-	*15,000 to 20,000*	*residents*

SPM. Data Sources: Population: Statistics Canada Census 2021; ESRI Business Analyst projections 2031; Facilities: CBRM Recreation Master Plan and CBRM Recreation Facilities Website.

3.4.5 Emerging Best Practice in Facilities

1. **Indoor Recreation**

- **Flexible multi-use, multi-generational** – increasing focus on creating flexible multi-use "destination" facilities as recreation, entertainment and family centres and community hubs.
- **Sport tourism** – throughout Canada, sport tourism represents a growing market and providing facilities to accommodate this is an important consideration.
- **Aquatics** – emerging aquatic facility designs (fitness and leisure swimming, therapeutic programs for seniors, and splash pads/water parks for children).
- **Sustainability** – increasing focus on the overall sustainability of a facility (e.g., net zero/carbon neutral).
- **Accessibility** – making indoor and outdoor facilities accessible for people of all ages and abilities. Indoor facilities must comply with the provincial Accessibility regulations. Encouraging cycling and walking to access facilities.

2. **Programming & Events**

- Trends & shifts in recreation participation are being observed at the national & provincial level, including:
  - Promoting and fostering participation in physical activity for all ages;
  - The need to (re)assess opportunities that diversify the suite of program options to address changes in preferences for participation;
  - The decline in sport participation in favour of unorganized and/or self-directed leisure activity;
  - Effective monitoring systems to help inform municipal responses to parks and recreation program demand;
  - Coordinated and simplified web-based (online) registration systems (with an application for ease of use) to provide access to all facilities and programs and information on the availability of facilities and services.

New addition to Center 200 should be an inclusive, universally accessible, state-of-the-art, multi-purpose, modern facility that promotes in a comprehensive way, the wellbeing of its users.

A well designed recreation facility incorporates the following design principles:

1. Good Planning and Layout
   - Is easily understood and navigated by users
   - Has secure control points
   - Logical floor plan
   - Welcoming to all genders and ages
2. Exterior Design
   - Reflects the vitality of users and activities within
   - Incorporates modern materials and technology
   - High performance envelope systems – thermal, air, and moisture barriers
   - Optimised glazing for energy performance, vision, and daylighting.
3. Interior Design
   - Welcoming and uplifting
   - Abundance of natural light
   - Durable low maintenance materials
   - Open and transparent spaces – "see and be seen"
   - Extra tough finishes in high traffic areas
   - Public and user safety issues at forefront
   - Gender neutral amenities
4. High Quality System Design
   - HVAC and control systems
   - Lighting, technology, and IT
5. Accessible Design
   - Rick Hanson Accessibility design standards
   - Designed for all ages, gender, and ethnicity
   - Intuitive layout and wayfinding
6. Sustainable Design
   - Optimized energy and water efficiency
   - Energy producing technology (e.g. PV Panels)
   - Green building design certifications (e.g. LEED, Green Globes)
   - Carbon-neutral design

Brooklin Library and Community Centre, Brooklin, Ontario
Maximizing Value through Multi-Use

Best Practice: Brooklin Library, Brooklin, ON

The Brooklin Community Centre and Library is a 3,716 square metre, two storey building incorporating open areas within a natural forest setting.

- branch library
- pre-school program
- senior's activity room
- youth centre
- gymnasium

Best Practice: Abilities Centre, Whitby, ON

Abilities Centre is recognized as an International Centre of Excellence. It is important to note, that **it is not a standalone facility but is part of a larger complex** (including an indoor path linking it together) that includes the Iroquois Park Sports Centre.

The state-of-the-art centre, located just east of Toronto off Hwy 401 and next to the Whitby GO Station, is complemented by a variety of recreational amenities including:

- Three FIBA basketball courts
- 6-lane, 200-metre IAAF approved indoor track
- Cardio and free weight areas
- Aerobics and specialty fitness rooms
- High-performance training
- In-house sports medicine clinic
- Variations in sport: access to range of equipment, including parasport options
- Children's playground
- Theatre
- Sensory room
- Board room
- Studio 2

Abilities Centre, Whitby, ON
Walking Track Around Gym/Workout Space

Iroquois Sports Centre Amenities:

- 6 arenas
- 25-metre, deep water swimming pool and a wading pool
- 6 lit tennis courts
- 4 baseball/softball/hardball diamonds, (3 are lit and all are equipped with spectator seating)
- 1 lit soccer field
- A strength and conditioning training centre
- 400-seat licensed restaurant
- Full-service pro shop
- Children's playground
- Parking to accommodate 750 vehicles
- Several meeting rooms

Best Practice: Dakota Field House, Winnipeg, MB

The Dakota Fieldhouse is an addition to the Dakota Community Centre, located in Winnipeg, adjacent to the Jonathan Towes Sportsplex.

Dakota Fieldhouse Amenities:

- 3 wooden floor courts
- Elevated 3 lane walking/running track
- Multipurpose studio
- Mobile retractable bleachers,
- Canteen with seating and eating areas
- Covered and heated connection to the Jonathan Toews Sportsplex

Other Dakota Community Centre Amenities:

- two indoor ice rinks
- a gymnasium
- nursery school
- skate shop
- weight room
- strength training facility
- a canteen
- the Centre's administrative offices
- numerous multi-purpose spaces
- three outdoor multi-season rinks

4 STAKEHOLDER CONSULTATION: WHAT WE HEARD

4.1 Method

The relatively recent recreation master plan offers a data and consultation-driven lens on community recreation needs. This includes a service standards-based approach which generally confirms the needs across a full range of indoor and outdoor activities. To test the feasibility of the specific project, building or complex of activities, it is important to undertake primary consultation alongside an analysis of existing facilities, their utilization and population-based demand likelihoods for the future.

To that end, the consulting team undertook a series of individual interviews with those sport and other groups that are potential users of the proposed building.

A summary of these discussions is provided below.

4.1.1 Curling

The proposition of creating a curling rink and associated spaces within a new Centre 200 complex is one of internalizing the service from its current arms length from the municipality. Regardless of whether the club functions as the service provider (and that certainly is recommended), the fact is that curling is not currently a municipal fiscal liability (notwithstanding annual operating grants that the CBRM may have provided in the past, if any). By funding, and operating the building (the indirect, facility costs, rather than direct programming costs), CBRM is taking on liability and accordingly, measures and agreements need to be put in place to ensure that the risk and reward is balanced out.

Financially, payment will be necessary to cover the costs of this additional building component. The details of a possible approach to a governance and operational model are addressed later in the report. Before that, the following outlines the opportunities and challenges of incorporating curling into Centre 200 as a community use.

- The Sydney Curling Club is relatively healthy and a renewed emphasis on growing the base of members has netted positive results. Three years after the Scotties Tournament, there are approximately 265 members or more. This compares to a low of 130 members in 2016.
- The average age of curlers is lower than it was and this is reflected in the volunteer base and in the composition of the board of directors.
- Programming has expanded and is differentiated into a range of offerings from junior programs, seniors programs, specialised programs, and the range of adult teams and leagues.
- While the leadership promotes the concept of six (6) sheets to facilitate growth and tournament capacity (we agree), the real issue at hand is the need for replacement of the existing asset. There is a belief, likely well founded, that the club cannot expand much further until a new facility is developed. Whether a new facility can spur growth is entirely dependent on the business arrangement and partnership support from the CBRM and this particular aspect is addressed later in the report.
- The original building dates to 1910 and the club itself is 144 years old. The City of Sydney is invested in its curling club and this should be an important consideration in outlining options for further renewal of the club.
- The opportunity of creating a curling venue at Centre 200 is significant in our view. Specifically, there is an event hosting contribution to the rationale for the project, as well as the potential operational financial impacts of CBRM-owned curling facilities. This event hosting capability and its economic impacts should be considered in full when addressing the likely subsidy that CBRM will take on with the addition of curling as a community activity operated in a CBRM owned and operated building.

In terms of demand, while many clubs throughout Canada are facing critical infrastructure challenges, dwindling or stagnant memberships, closures of curling at golf clubs, it is also true that some municipalities are beginning to actively plan for the re-investment in curling as a community cultural sport of importance. Municipalities are actively considering expansion of multi-use community recreation complexes that already feature ice to include curling. Recent builds in Nova Scotia include the Kings Mutual Centre (Appledome) in Berwick which houses curling and a 1200 seat arena.

In other contexts (e.g., Toronto) community curling is supported not only by private clubs but in City facilities that are operated as Boards of Management and subject to full financial liability for operational costs and revenues (the City acting effectively as a partner by providing and maintaining the built asset but sourcing out the liability of operations). There are many models which can be reviewed but the underlying message is that curling in Canada, and particularly in smaller communities, is a reasonable focus for municipal recreational service delivery.

In terms of demand, the national picture is as follows according to the Curling Canada Annual Report 2019:

- Curling participation has grown steadily since 2015.
- In 2015, 1,512,000 Canadians aged 14 and over curled at least once; that number increased to 1,986,000 in 2019.
- Seeding the development of the youth game through program development1 has helped.
- According to Curling Canada, Curling participation among Canadian youth is growing:
    - Two per cent annually in the 14-to-17 age group;
    - Even higher in the 18-to-24 age group.

4.1.2 Basketball

Nationally, provincially, and locally, basketball continues to be a growth sport. Unlike other mainstream sports such as ice sports, soccer, baseball/softball, and other field games, typically the municipality is NOT the provider of space.

In many jurisdictions – nationwide - the pattern is repeating itself in terms of constrained demand and the relative inability to properly plan for and execute programming to meet the growing needs. Minor sports in Canada are provided primarily by non-profit community groups, supported and governed by regional associations, provincial sport organizations (PSOs) and national bodies. Yet, the provision of facilities is often out of the control of the groups, and even the municipalities. In growing urban areas, a range of models exist for provision – ranging from private providers to community organizations, YMCA, Boys and Girls Club, non-profit social clubs, schools, colleges, universities, the military, churches and municipalities.

In smaller urban centres, municipalities are providers often when the opportunity presents itself to develop new multi-use recreation centres. In places without newer facilities, reliance on the other providers is essential. All these other providers are both necessary but often constrained in terms of either community access capacity, physical design of the space (some are not gymnasia), or both.

The problems are thus on the supply side; demand is growing and ticks many of the social, recreational, equity and wellness policies that municipalities, school boards, and provincial and federal governments and their agencies aspire to.

Based on our conversations with Basketball Nova Scotia, demand is significant and growing:

- From 2017 – 2018 BNS saw an increase in registrations of 9.23%.
- From 2018 – 2019 BNS saw an increase in registrations of approximately 20% - a gain of almost one third since 2017.

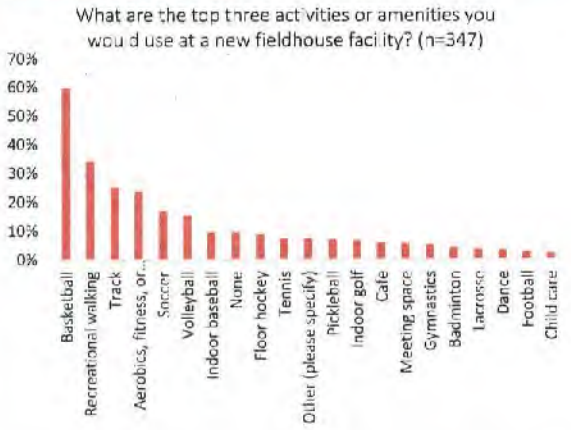
The pandemic has halted that growth explicitly due to the closure of programs and inability to access facilities – including the predominant supply of space: Schools. It should also be borne in mind that the number of registrants and their growth only includes Basketball Nova Scotia Member Clubs and Athletes. It does not represent school basketball and other leagues/programs.

There was significant momentum for the growth of basketball in NS prior to Covid-19 and it is expected to continue following the full re-opening of the society.

It is understood from the PSO that in a typical year, BNS will host a U10 Jamboree with about 70 – 80 teams. Additionally, it will host Provincial Championships for U12, U14, U16 and U18 over three weekends in partnership with the Clubs. These are multi-venue, multi-community tournaments with up to 4,000 athletes in total.

By way of further example, recent work completed by Sierra Planning and Management in Pictou County reinforced the strong demand and preferences from households for dry-use indoor recreation facilities.

Exhibit 22: Survey Results for an Indoor Field House Assessment, Town of New Glasgow and Pictou County, 2019



The consulting team met with Basketball Cape Breton (BCB). The provincial and national pattern of strong demand, limited access to facilities, and lost opportunities to both meet demand and achieve the full community and social benefits associated with this and other gymnasium sports, is apparent.

In terms of the stated requirements of BCB, this ideally comprises a hardwood gymnasium floor, three (3) FIBA full size courts and a triple gymnasium scale.

Other key findings include:

- Pre-pandemic demand for basketball in Cape Breton was logged at over 600 minors (the vast majority from CBRM); as of 2021, a total of 200 reflects the stifling of opportunities to play as a result of closures of facilities and public health restrictions. Programming has been impacted for two years. In our view, the demand, evident pre-pandemic, is likely to bounce back in significant numbers – because of the affordability, ease of taking up the sport (children begin

Basketball in Grade 4 typically), and the popularity of pro-Basketball.

- The school system has limited capacity and the restricted access during the pandemic has served to highlight the precarious nature of access to indoor gymnasia in the school system.
- Pre-pandemic, access to the school system was not assured as school use takes precedence, and rates associated with rental of space can vary depending on whether the event booking coincides with the presence of custodial staff – where it does not, high rates are sometimes necessary.
- Effective planning for programming, tournament hosting and development required certainty of access. The school system should not be held to account for any constraints as it is fundamentally tasked and funded for day-time school education and physical education and not as a service provider for community groups. In our view, this increasingly falls to the municipalities and should be further viewed as an opportunity for greater partnership between the municipality and volunteer user groups, fulfilling the mandate of the community development model for recreation.
- Tournament capacity – both for minors and adults – is apparent based on historic interest but facilities are lacking; the participation by girls and boys is evenly split according to BCB and is enabling greater integration between ethnicities. Equity, Diversity and Inclusivity (EDI) can be effectively supported with the right balance of programming, facilities and geographic access.
- The Centre 200 site would operate as the geographic and functional centrepiece of a tournament hosting capability, but it is likely that a range of other venues would still be required to service the scales of tournaments which are likely.

4.1.3 Pickleball

At the provincial level, Pickleball is growing significantly and reportedly over 700 (from 200 to 900) in the three years prior to 2021. Based on our communications with Pickleball Nova Scotia, as of December 31, 2021, the number of registered participants is 1,070. This reflects the national picture of dramatic growth, which itself follows strident growth in North America as a whole. As of December 31, 2021, Pickleball Canada has 28,000 active members. At this point, Pickleball is rapidly transitioning from niche sport geared only to active seniors, to a more multi-generational sport

which offers a range of experiences from participation to maintain social interaction and wellness, to elite player competition.

As with tennis, Pickleball is an outdoor sport in summer, with different balls designed to compensate for wind impacts. Unlike tennis, pickleball is easily transferable to an indoor sport, and can be accommodated in a range of spaces including those which are not primarily designed as gymnasia – this includes church halls, community halls, and small school gymnasia.

At the national level, Pickleball Canada is managing the deepening presence of the game in communities. Its Strategic Plan 2021-2023 is predicted on a proactive approach to **Govern, Grow and Develop** the sport.

Research conducted by Ipsos-Reid has indicated that the number of people who play pickleball in Canada may be as high as 350,000. While this undoubtedly includes people who play only occasionally and are otherwise unaffiliated with organized play, this finding and more importantly the scale of it, suggests that accommodating year-round pickleball is a clear mandate of municipal recreation services – if not now, it will increasingly be so.

As such, the demand for indoor opportunities in the CBRM jurisdiction can be expected to increase significantly – so too can the opportunity to leverage the attraction of this sport to achieve the range of policies that CBRM and the Province have targeted in terms of community health and wellness, access to affordable recreation, and active living strategies in both urban and rural communities. Pickleball in Sydney is growing and regardless of its limited current capacity to fund the operating costs associated with a new gymnasium, pickleball is likely to form a core use of the facility.

The consulting team met with representatives of the local pickleball community. Based on these discussions, pickleball will represent one of the potential court sport users of the facility. The gymnasium will not be dedicated to anyone group, but rather each group may have dedicated time allocations. An allocations policy and fee schedule will be essential prior to the commissioning of this building.

A brief history of pickleball in CBRM is as follows:

- Began in 2015 at the badminton courts of the YMCA in downtown Sydney;
- Sydney River Elementary School is generally available (pre-pandemic) providing three courts on two evenings;
- Outdoor, non-dedicated courts are available at Our Lady of Fatima Church in Sydney River;
- Currently approximately 50 players (latent demand likely higher given the recent history of limited access to schools due to the pandemic);
- Beginners programs are being developed (e.g. at Shipyards School);
- While two thirds of players are age 55+, the 33% of players below this age group signal the potential to increase the interest in the sport in younger age groups;
- Approximately two thirds of players are men.

The current challenges include a lack of access to the school facilities (not only due to the pandemic but because of the primacy of the gymnasia for student activities). Accordingly access times are restricted and, we understand, access on the weekend is highly restricted (possibly due to a lack of custodial services availability on weekends relative to weekdays).

In addition, the YMCA is accessible but requires a daily pass which, on the basis of a limited duration of play (e.g. 1 or 2 hours) does not necessarily lend itself to regular, weekly or daily access by couples and others that are not already members of the YMCA.

All in all, the lack of municipal capacity to program buildings for pickleball is likely to become a more pressing concern over time. It is also a missed opportunity:

- Pickleball is often in high demand during the otherwise non-prime period of municipal recreation assets (daytime before 4 pm).
- The growth and interest in the sport is generating opportunities for sport tourism. In order to maximise that potential for tournaments small and large, access to a major indoor venue is required.
- The opportunity that is provided by the CBU Canada Games Centre is also a significant plus for growing the sport as a multi-venue tournament location.

Currently pickleball is organized only in as much as a core group of players offer their time and energy to volunteer to administer and schedule the venues and game formats. Going forward, a new, CBRM operated venue is the stimulus that should result in a more formal organization for pickleball. Typically, this means a non-profit incorporation.

This is important because the development of a municipal controlled gymnasium will result in high demand and therefore considerable opportunity cost if time is committed to a group that is not a long-term partner. In order to achieve a satisfactory level of time allocation at a new municipal facility, pickleball will need to demonstrate its capacity for long-term organization and value as a recipient of subsidized fees. It is unlikely, in our view that pickleball would use a new venue if the fees charges were predicated on full cost recovery in the short term rather than the longer term.

If pickleball can demonstrate its emerging structure, the CBRM existing policies of maximizing affordable access to recreation would likely support subsidization of gymnasium rental fees.

On the question of whether CBRM should organize the sport, there is a case to be made that the municipality could, with a new venue in its portfolio, begin to program for specific sports in order to maximise the use and value of the facility. However, the likely approach is one continuance of the CBRM policy, restated in the Master Plan, of pursuing a **community development model** whereby its primary role is one of provision (and rental) of facilities, and delivery of programs where these are focused on larger events that benefit all residents. On that basis, CBRM could take an active role in the sport tourism mandate of the new facility.

4.1.4 Tennis

With specific regard to the capacity of the gymnasium to accommodate tennis as a use, the following should be noted:

1. There is growing recognition that in order to grow the game in Canada, access to affordable indoor (winter) courts is necessary. It is also recognized that this is not possible in most communities and generally is not a level of service provided by municipalities.
2. In view of that, Tennis Canada, working alongside a range of consultants including ourselves, and through pilot projects, developed a framework for potential municipal delivery of indoor tennis – mainly through the winterizing of outdoor courts with air supported bubbles. The strategy can be found at the following link: https://www.tenniscanada.com/wp-content/uploads/2019/07/02-Executive-Summary.pdf.
3. In general terms, indoor tennis is supplied through winter bubbles, permanent air supported domes as one of a number of uses of the interior space, as part of a multi-use sports court gymnasium (with sport court flooring) or as dedicated indoor tennis venues of which there are a few across Canada (see for example the Abony Centre, Fredericton: https://www.abonytennis.ca/.

Almost all these options are third party driven (meaning not a fundamental part of the municipal service offering, and more likely to be provided by universities and colleges, private tennis clubs and / or private recreation centres. Hence, the aims and intents of Tennis Canada to development a greater role for municipalities.

The nature of the building contemplated for Centre 200 does not lend itself to indoor tennis in anything other than potential for including lines and post mountings to support one or two courts. This building will almost certainly include a sprung floor and as such is not an ideal playing surface for tennis. Discussion can evolve about alternative floor in part, but a serious attempt at developing indoor tennis would be better undertaken on a site with multiple courts (Abony for example has 5 courts, and an air bubble developed with appropriate grade beam technology could be used to envelope a large number of outdoor courts – 4, 5, or greater and may involve some level of municipal partnership.

4.1.5 Volleyball

Volleyball offers another growing opportunity as a use within a multi-use gymnasium. There estimated to be about 600 participants in volleyball across the CBRM region including minors and adults.

4.2 Internal Stakeholder Consultation

4.2.1 Centennial Arena Conversion Project

The idea of transfer and conversion of the decommissioned Centennial Arena to a third party to house youth basketball dates to 2018 with a proposal from BCB.

It is further understood that CBRM has, thus far, declined to undertake a renovation of the facility pending the outcome of other studies, including the present assignment. Earlier use of the decommissioned ice arena for court sports exposed the limitations of such re-use in the absence of significant upgrades. A lack of heating and lower than desirable floor to ceiling heights rendered the well intended re-use problematic.

The current proposal from a group named Legends of Tomorrow includes the development of basketball and volleyball courts set within the existing limitations of the roof pitch. The configuration of courts would enable the following courts:

- 1 x Regulation-size Basketball Court,
- 1 x Youth Basketball Court (30' x 60'),
- 1 x Full-Size Volleyball Court.

The front lobby would be gutted and change rooms and washrooms renovated. The second floor community room would be renovated for a media/hospitality suite. The plans also call for 500 spectator seats. The cost of the upgrades is estimated at $2.8 million (as of sometime in 2021 and likely escalated at this point), with rooftop solar designed to meet and far exceed the energy needs of the building and so create an additional source of funds to subsidize programming and operations. The next stage is an engineering study to confirm proof of concept and develop working drawings.

The are a number of questions raised by this proposal:

1. Is the nature of the use likely to compete with CBRM services such as that in an expanded Centre 200, or is it complementary?

2. Does the funding of this project potentially reduce grant funding available to the CBRM's project?

Based on our review of demand and supply, it is accurate to note that a declining population in CBRM does not equate to justifiable concerns as to whether additional indoor facilities are needed for dry-use activities – they are required because of the limited CBRM-owned supply and additional supply constraints generally. **Population decline and right-sizing are only relevant where there is an excess supply of infrastructure.**

The development of the Centennial Arena for the proposed use is likely to offer the potential for complementarity more than it is for competition with a gymnasium at Centre 200:

- Part of the reason relates to the need for more than one additional venue for organized community court sports and their attendant tournament hosting opportunities; and

- Part relates to the design advantages of a new, modern gymnasium adjacent or connected to Centre 200.

However, if the intent of the conversion project is to host events and accommodate a spectator audience, this element of the project should not be supported as it is direct competition.

It is therefore recommended that alongside any agreement to dispose of the Arena, an assessment is undertaken of the benefit of certain covenants, non-compete clauses, exclusivity rights, or right-of-first refusal for CBRM to host major community events. We understand that the proponent is focused on development of youth participation and skills development - community programming first - but it is important for the CBRM and the proponent to have a clear understanding of the intended functioning of each venue and to plan to maximize programming synergy and limit competition. It is also important that CBRM ensure that the proponent cannot assign or sell its rights to the building, negating any obligation to ensure non-competition or maintain the exclusive rights of CBRM to host events. CBRM may also want to assess the merit of retaining the option of re-acquiring the property on a nominal basis should the proposed business venture and operational programming at the arena terminate within a specified period.

It may also be worth considering a long-term lease of the building as opposed to outright sale.

As it pertains to funding, it is recommended that the CBRM obtain certainty, to the extent possible, that government grant funding for the conversion project (under the Green and Inclusive Communities Fund or any other fund) will not lessen the potential for government funding to be attracted to the Centre 200 expansion. Of the two projects, the expansion of Centre 200 has by far the greater capacity for maximizing program development and community benefit across a range of sports.

In the final analysis, CBRM has previously assessed the potential for repurposing the arena and concluded that it was not cost-feasible. The third party proposal based on grant funding and roof top solar may be relevant to a sustainable business case but more detailed review is warranted. CBRM's focus should be placed on the Centre 200 expansion including any application for funding from upper levels of government.

4.2.2 CBRM Recreation Programming and Facilitation

The proposed new building offers the potential for CBRM to extend its reach into programming. Indeed given the investment required to implement the building, it is recommended that CBRM undertake a detailed assessment of the potential for expansion of direct programming by CBRM.

In terms of the range of programs, CBRM engages in a range of program facilitation as well as direct delivery. CBRM is innovative in making use of existing space. The consulting team addressed the opportunities with CBRM professional staff responsible for arts and culture, outdoor recreation and equipment loans, seniors, children and youth, and events and festivals. In addition the municipality's role in the co-ordination of sport development and co-ordination of rural needs in access to recreation, was assessed as it relates to program and space needs in the proposed Centre 200 expansion.

- As it regards to cultural activities and space requirements, while CBRM has limited access to space, there are a number of non-municipal venues that are utilized for programming. As a result there is a sufficient emphasis on introductory programming.

- As it regards to other functions such as outdoor recreation and equipment loans, improved customer service space and storage is a municipal requirement.

- With regards to children and youth, the CBRM has a positive working relationship with user groups and program providers such as the YMCA; the new multi-purpose gym space and meeting rooms, as well as summer access to a flat floor building, will significantly enhance programming capacity.

- From the rural co-ordination perspective, it is recognized that the investment in Centre 200 does not, in and of itself, provide improvements to localized rural services. However, the addition to the Centre 200 complex is a regional project and should represent a centralized service hub.

- For adult and seniors needs, the addition of a multi-functional gymnasium space represents a sizeable opportunity for volunteers and CBRM to capitalize upon.

4.2.3 Centre 200 Event Development and Operations Planning

Discussions were held between the consulting team and the operators of the Centre 200 in its event centre capacity.

Specifically, aside from community programming capability, what is the opportunity associated with the proposed addition? In summary, the proposed project has the potential to create community and economic development potential that is greater than the sum of its parts. Put another way, the fact of co-location offers the potential to achieve both improved event hosting and community programming.

The particular balance between these two opportunities needs to be carefully weighed. Elsewhere in this section we have identified the community needs for key sports and fundamentally the prevailing use privileges should fall to community recreation and the participatory tournament capacity that exists.

That does not imply that the use of the facility for hosting purposes and major events is not part of the mandate of the facility. Rather, we recommend that the existing operational oversight and management of the Centre 200 be extended to include the new spaces. The expectation of management to achieve balance between event hosting and community access should be established in a detailed operational plan.

Unless there is a clearly articulated policy in this regard, it is likely that an imbalance will occur over time. As with other event centres where community groups generally feel that they have secondary rights behind those of the events and the primary tenants, it is important for the curling ice and the gymnasium to be subject to clear allocation policies and principles developed by the CBRM corporately.

It is important also to plan as far in advance as possible with respect to likely facility black-out days arising from prospective event bids (sometimes years in advance for rotational bids) and to ensure an effective communications mechanism for inter and intra-departmental agreement of priorities year to year.

The potential for economic impacts should not be lost; nor should the community development and programming potential but this requires clarity of access rights, just as if this were a licensing agreement between a building owner and primary tenant.

4.3 Outcomes

4.3.1 Commitment to Multi-Purpose Functionality and Multiple Community Users

Based on the range of community needs for an effective, large scale recreational programming space, the development of the gymnasium is the primary advantage of the project from the community-use perspective. Both curling ice (in season) and flat floor (summer use) raise the economic development benefits associated with events. And the large volume gymnasium space which should also more properly be considered as multi-use flex space, also has significant event potential to improve its use – particular in the summer months.

However, it is the programming of the new gymnasium that will offer the potential to maximize the number of users of the space - considerably higher than that of Curling and on a per use basis, at lower operational subsidy.

A breakdown of sport court use potential of the gymnasium, for illustrative purposes, based on the primary options contained in this report, includes the following:

Exhibit 23: Sport Court Uses

Sport	Area
Pickleball	8
Floor Hockey	2
Tennis	2
Badminton	8
Training & pickup (e.g. baseball, soccer, volleyball)	2
Basketball	2
Other Floor Uses (Dance, Ultimate Frisbee)	2
Gymnastics	1

Both the Curling and Gymnasium space are justified primarily on the basis of contributions to meet community needs. CBRM does not have a significant number of facilities of its own to program and while that may reduce the fiscal burden, there is a justifiable question of the municipality not meeting community needs. This same point, of course, was identified in the Recreation Master Plan and this report is the implementation of the recommendation to assess the potential of a Centre 200 expansion.

The need is apparent and the opportunity to create synergy with Centre 200 can be expected, with careful management, to enhance hosting capacity and competitiveness in bidding for a range of events, in different seasons.

CBRM does not have a dedicated conference centre and given the potential associated with the Meetings, Conventions and Incentives Travel (MCIT) tourism market in Cape Breton, the capacity to deepen the role of the Centre 200 in providing flat floor gathering for conferences, trade shows, banquets and other related activities, should be explored.

The Membertou conference centre operates alongside the hotel and in proximity to the twin community rinks complex. Cape Breton University has hosting capacity in terms of meeting rooms, halls and lecture space, the Nova Scotia Community College is developing a state-of-the -art downtown campus. The addition of event capacity at Centre 200 in the heart of downtown can help leverage all of these assets combined to create the conditions for improved investment and a sustainable downtown.

Indeed, as described later in the report, the Centre 200 expansion can also be viewed as a campus style development that can stimulate a more creative approach to land use planning and development. With land assembly and a commitment to existing businesses if any require relocation, the combination of event Centre, community uses, casino, hotel accommodations and moderate restaurant development, could elevate the capacity of downtown for tourism on a year-round basis.

4.3.2 Accommodation of Administrative Space Needs

The proposed design of the Centre 200 addition includes administrative as well as storage space. Based on discussions with the CBRM recreation co-ordinators responsible for a range of service areas, there appears to be better administrative and storage space to ensure more effective program delivery. It is agreed that the proposed building has the potential to house some of these recreation services and staff, relieving some of the current space constraints which also have service implications (the example cited was skate and other equipment rentals being offered from the second floor of City Hall. A more appropriate location is a ground floor with direct access from the concourse in a recreation centre).

Accordingly, the space plan includes general provisions for administrative space.

5 CONCEPTUAL PROGRAM

5.1 Confirmation of Functional Space Program

Upon synthesizing and analyzing the feedback and information, received from the stakeholders and community, the Design Team has confirmed Functional Program of requirements for the addition of the new Fitness Center to the existing Center 200. Design Team proposed 5 different options. Design approach, functional program, and floor plan drawings for each option will be discussed separately, followed by a comparison of options at the end of this report.

5.2 Scenario A1: Remaining Within Current CBRM Property Boundaries

The new recreation center as an addition to the existing Center 200 will become a community hub and gathering place. A new and vibrant energy for the region providing feeling of vitality and lightness. The new facility will be welcoming and uplifting both inside and out.

5.2.1 Option 1

Site and Urban Planning

New Fitness Facility is proposed on the North-East edge of Center 200 Drive. Proposed location provides good visibility from George Street and Prince Street to assist with promotion and orientation to the city.

A pedestrian walkway designed on the North of the Center 200 Drive with trees, greenery and bench seating will hide existing old buildings and create an appealing and inviting urban environment that leads toward the new facility entrance.

New green space is proposed to continue in front of the building and additional forestation is proposed on the East to separate train tracks and industrial/service area from the Center 200 Sport Complex.

For ease of access to the service function and storage for the new building new service lanes were incorporated, one on the North of the new facility and one on the East. Service lane on the East of the new facility will allow direct entrance to the parking lot at the back of the building from the second busy street (Prince Street), and also provide ease of access for delivery vehicles to the existing Centre 200 and the new one as well.

As the new building took over the portion of the parking lot approximately 60 existing parking space for the Center 200 were lost. Remaining parking lot does not provide enough parking spots for existing Center 200 and new facility. There are two possible solutions to add additional parking space. One would be developing underground garage as a part of the new facility, and the second would be incorporation of new parkade at the location of the existing parking lot at the back.

Functional Program and Design Approach

Upon Synthesizing and analyzing the information from the client group, Design Team has developed functional program of requirements which includes:

- 4 sheets curling
- Multipurpose Gym (Basketball, Volleyball, Badminton etc)
- Curling Club
- Viewing Gallery/Lounge
- 11 Offices + Reception
- 2 Meeting Rooms
- Kitchen
- Change Rooms
- Officials Room
- First Aid
- Public Washrooms
- Storages
- Building Services

Proposed new facility is one storey + mezzanine in building height with Curling and Multipurpose Gym both located on the ground level.

Centrally located lobby with reception desk will provide ease of access to all users and control to both curling and gym area. New curling space with 4 curling sheets and two change rooms is adjacent to the Curling Club on the ground level with designated kitchen. On the same level new Multipurpose Gym with the size of two full basketball court, 4 change rooms and storage space on the south.

Open viewing gallery on the mezzanine level allows view for spectators to both curling and gym space. Access to the viewing gallery is provided directly from the two story heigh lobby space.

Elevator and additional stairs and entrance on the south allow ease of access to the mezzanine with office space and two meeting rooms.

Sloping the gym area roof toward South will allow installation of the photovoltaic panels. This could potentially cut down the life cycle cost of the building.

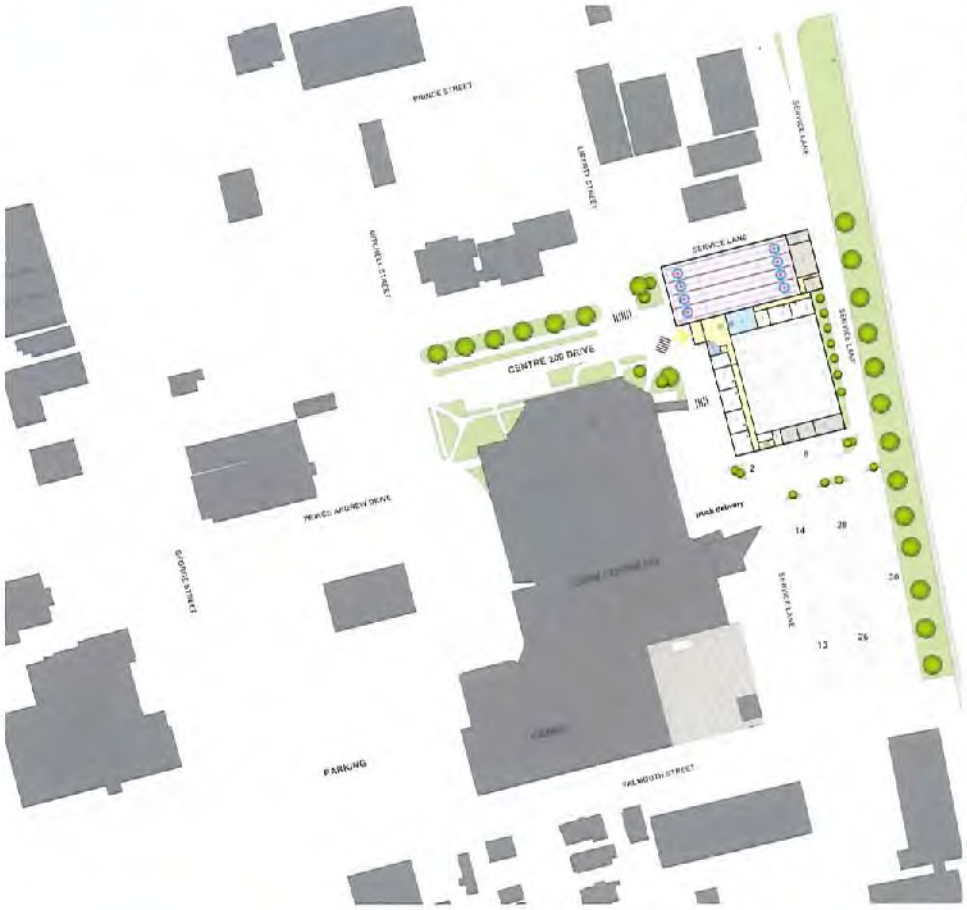
Connection to the existing Center 200 building can be provided with the incorporation of the new pedway which will connect Spectator's area in the existing Center 200 with the new facility mezzanine space.

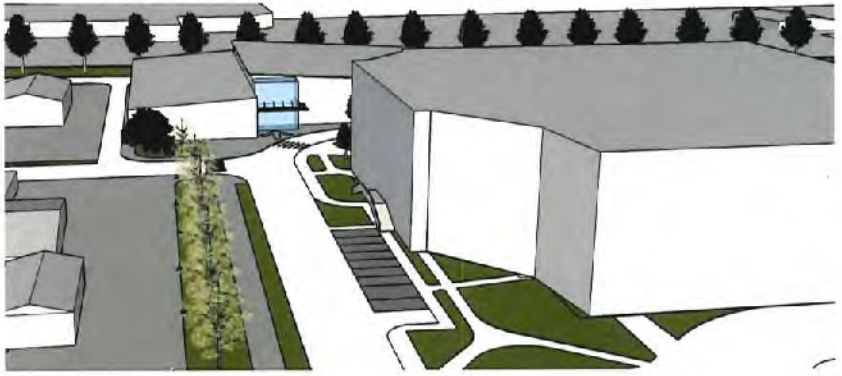
The glazed entrance will be inviting and obvious directly from the Center 200 Lane.

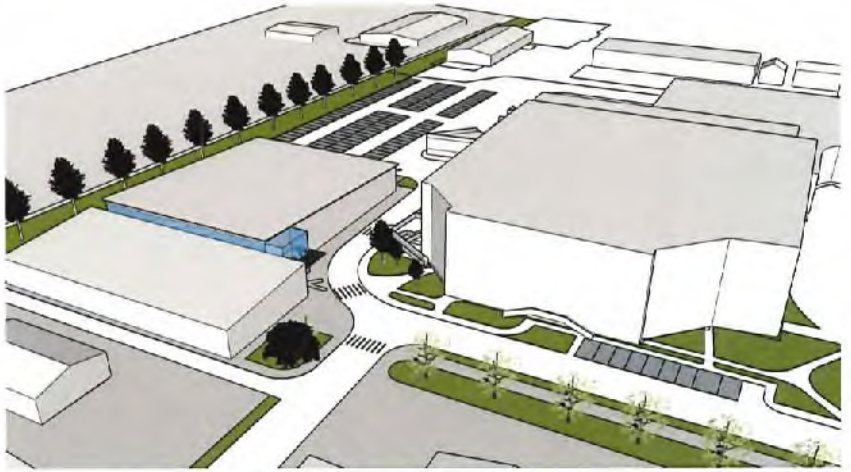
Pros and Cons of the proposed solution

Pros	Cons
City owned land	Distance from the existing building
Visible from the Main Streets	Need for additional Ice Plant
Easy access to the main entrance	Insufficient parking space
All the fitness activities on the same level	
Low construction cost	

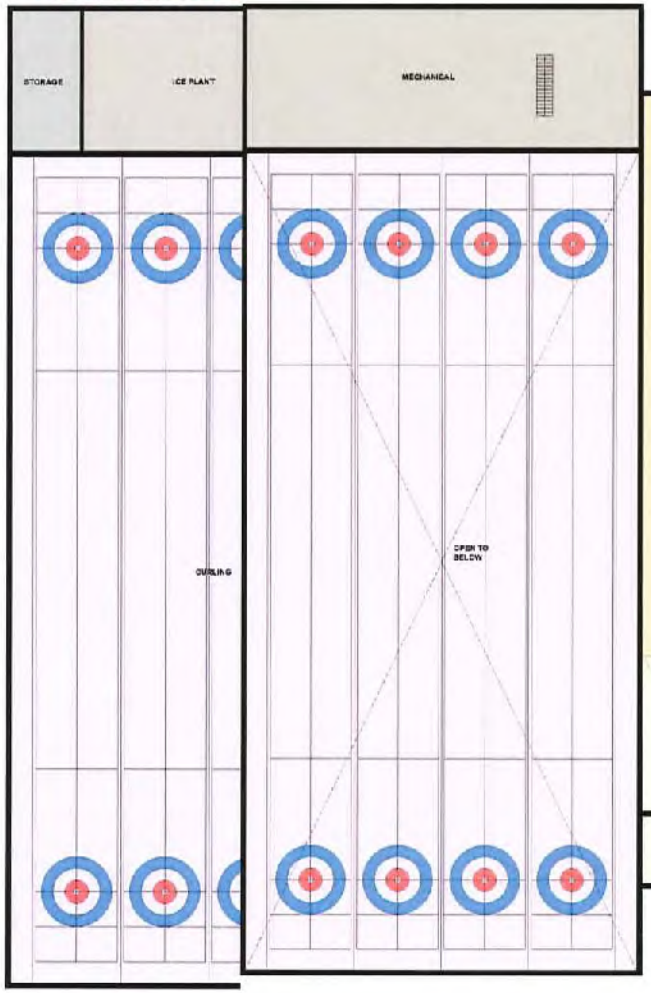
5.2.2 Option 1 Site Plan







Floor Plan Ground Level



Floor Plan Mezzanine

PROGRAM ELEMENTS	AREA/SQM
ADMINISTRATION	312 m2
BUILDING SERVICES	178 m2
CIRCULATION	185 m2
VIEWING GALLERY	255 m2
WASHROOMS	32 m2
NET FLOOR AREA	962
GROSS FLOOR AREA	1126

5.2.3 Option 2

Site and Urban Planning

Similarly to Option 1, Option 2 proposed location North-East of the existing Center 200 allow new facility to be visible from George Street.

New proposed pedestrian alley on the West with trees, greenery and bench seating will not just hide existing old buildings but also make an appealing and inviting urban environment.

New green space is proposed to continue in front of the building and additional forestation is proposed on the East to separate train tracks and industrial/service area from the Sport Complex.

For ease of access to the service function and storage for the new building, we proposed two new service lane, one on the North and one on the East. Service lane on the East will allow direct entrance to the parking lot at the back of the building directly from the second busy street (Prince Street).

As a future development green space on the East between the service street and train tracks can be developed as a walking trail, and green area on the East in between the train tracks and river could be developed as an open socker field or tennis courts.

Location and footprint of the Option 2 allow for more parking space at the back parking lot (difference in parking space count between option 1 and option 2 would be around 30 parking spots).

Functional Program and Design Approach

Upon Synthesizing and analyzing the information from the client group, the Design Team has developed functional program of requirements which includes:

- 4 sheets curling
- Multipurpose Gym (Basketball, Volleyball, Badminton etc)
- Curling Club
- Viewing Gallery/Lounge
- 12 Offices + Reception
- 2 Meeting Rooms
- Kitchen
- Change Rooms
- Officials Room
- First Aid
- Public Washrooms
- Storages
- Building Services

Proposed Option 2 is two story in building height with the second-floor mezzanine.

Curling space is located on the ground level with 4 curling sheets, two change rooms and services needed to properly function.

On the West end of the curling space is the new viewing area for curling directly connected with the entrance and lobby. Adjacent to the viewing area is the curling club and one multipurpose room for small classes (yoga, pilates, etc.).

Multipurpose Gym with two full size basketball court is located on the second level with 4 change rooms on the North and viewing gallery on the North and West end.

Large space on the second floor mezzanine level is allocated for the office space (12 offices), 2 meeting rooms and possible conference room. Elevator and additional stairs and entrance on the South are provided for ease of access to the second level mezzanine.

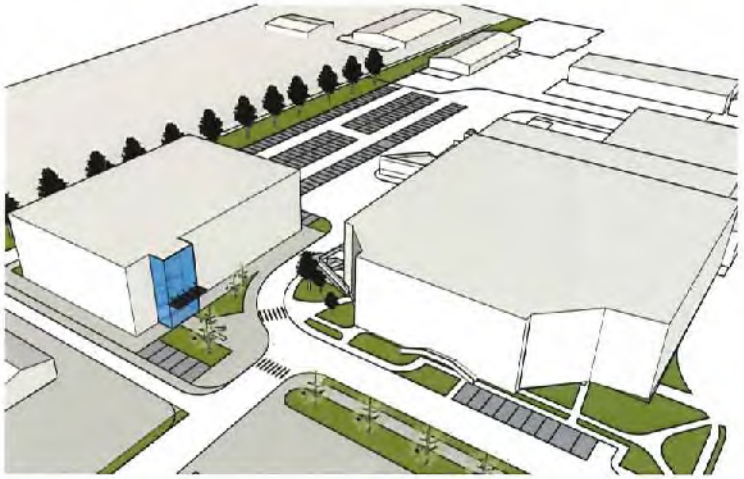
Additional stair on the south will work as fire exit as well.

If the connection with the existing Center 200 building is preferable this can be allowed with the new pedway which would connect Spectator's area in the existing Center 200 with Viewing Gallery on the second level of the new building (approximate location of the new pedway is shown on the level 2 drawing).

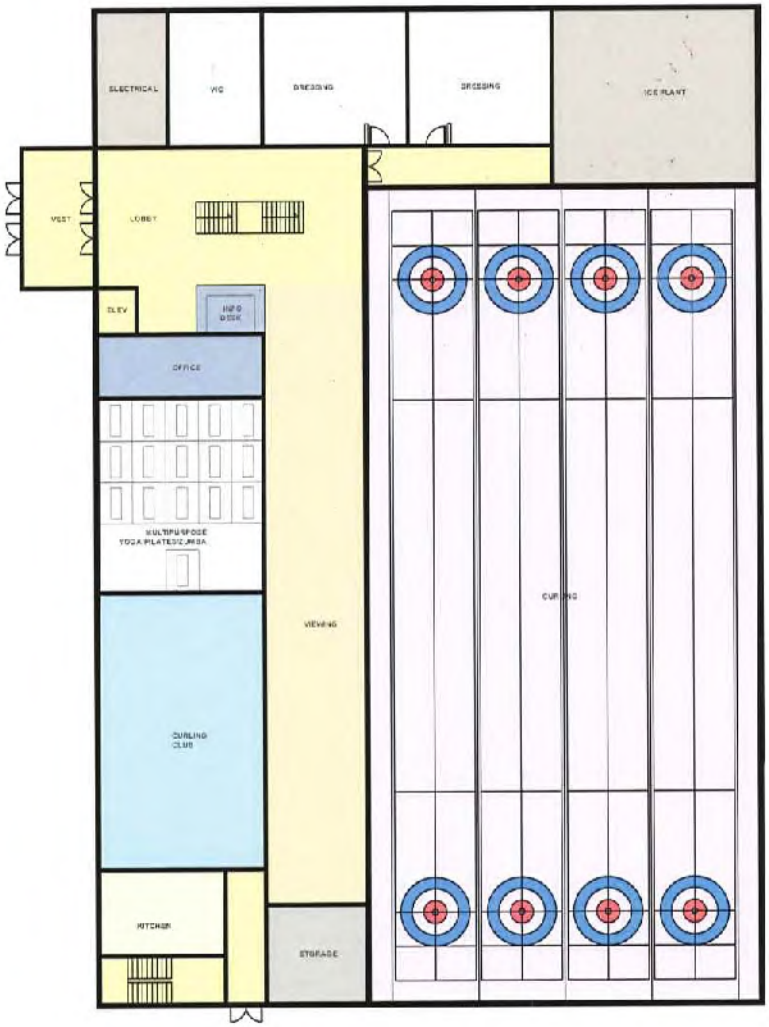
Pros and Cons of the Proposed Solution

Pros	Cons
City owned land	Distance from the existing building
Visible from the Main Streets	Need for additional Ice Plant
Easy access to the main entrance	Insufficient parking space
All the fitness activities on the same level	
Low construction cost	

5.2.4 Option 2 Site Plan

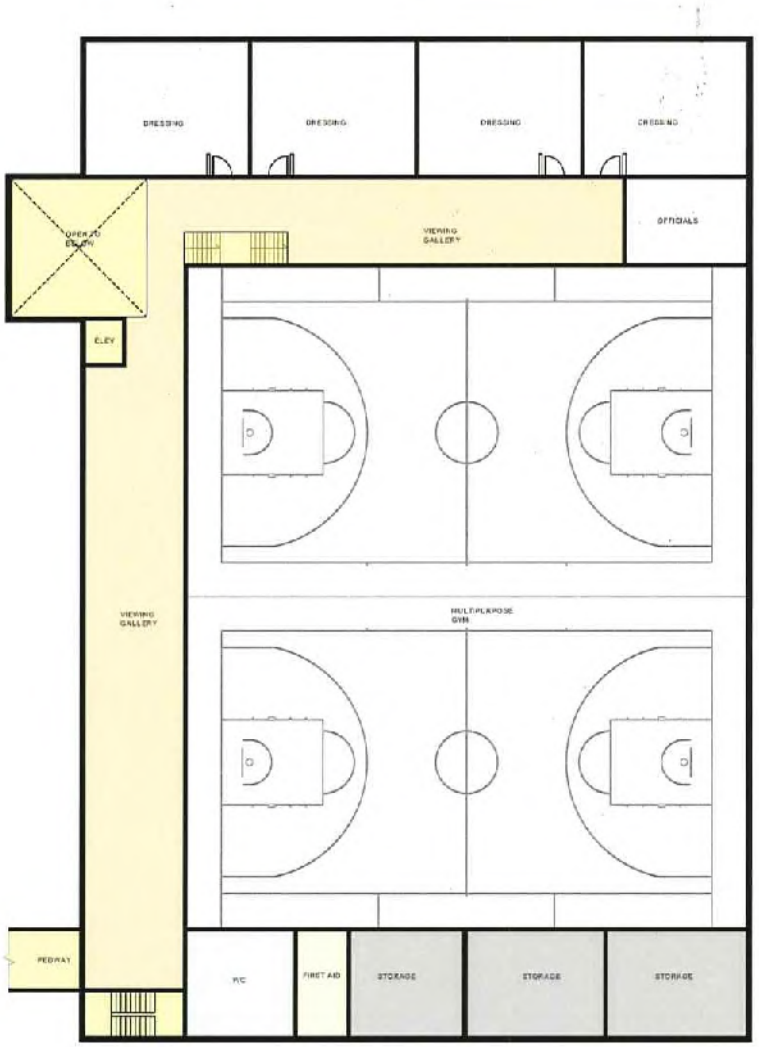


Floor Plan Ground Level



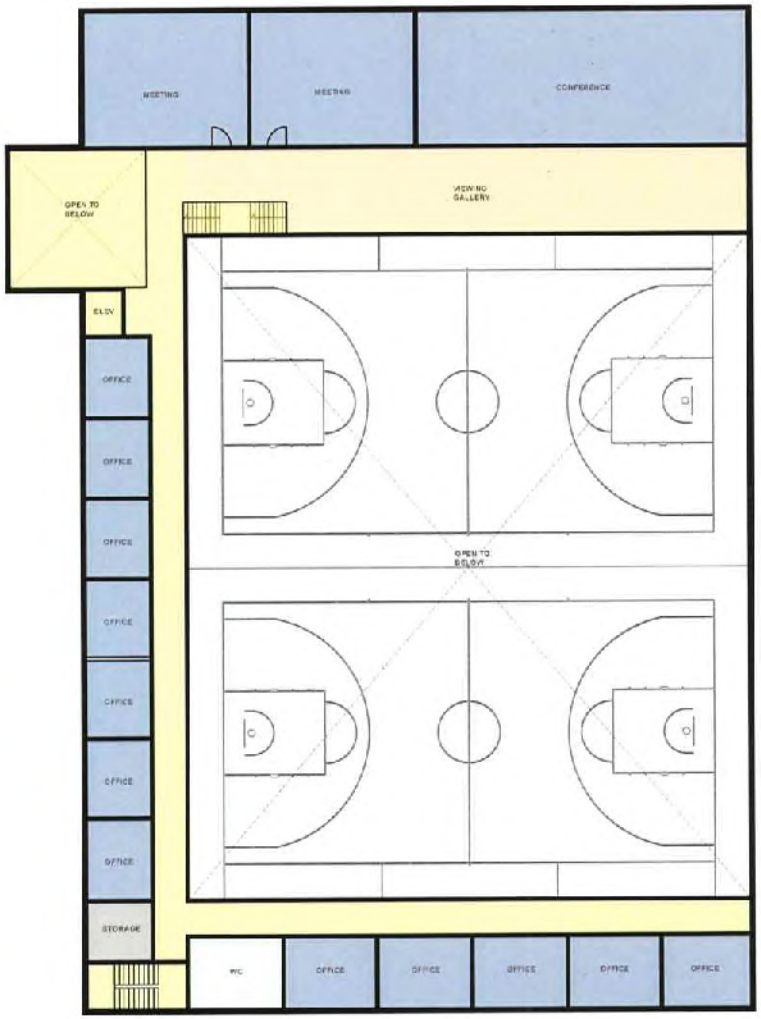
PROGRAM ELEMENTS	AREA/SQM
AMENITIES	34 m2
BUILDING SERVICES	144 m2
CIRCULATION	223 m2
CURLING	1048 m2
CURLING CLUB	148 m2
VIEWING LOUNGE	201 m2
DRESSING ROOMS	126 m2
MULTI-PURPOSE ROOM	104 m2
STORAGE	31 m2
WASHROOMS	40 m2
ADMINISTRATION	43 m2
NET FLOOR AREA	2142
GROSS FLOOR AREA	2257

Floor Plan Second Level



PROGRAM ELEMENTS	AREA/SQM
AMENITIES	17 m2
CIRCULATION	30 m2
DRESSING ROOMS	319 m2
MULTI-PURPOSE GYM	1218 m2
VIEWING GALLERY	339 m2
STORAGE	135 m2
WASHROOMS	37 m2
NET FLOOR AREA	2093
GROSS FLOOR AREA	2194

Floor Plan Second Level Mezzanine



PROGRAM ELEMENTS	AREA/SQM
ADMINISTRATION	503 m2
VIEWING GALLERY	146 m2
CIRCULATION	131 m2
STORAGE	12 m2
WASHROOMS	21 m2
NET FLOOR AREA	863
GROSS FLOOR AREA	978

5.3 Scenario A2: Partially Within Current CBRM Property Boundaries

5.3.1 Option 3

Site and Urban Planning

Regarding the location of the new facility Option 3 would be the most preferable option. Positioned in the block between Prince Street, Mitchell Street, Liberty Street and Center 200 Drive new Facility has one elevation directly on Prince Street and it is clearly visible from the second busy street, George Street.

Large canopy and glazed entrance are inviting and obvious from Mitchell Street. Service/delivery entrance and additional exit/ entrance are provided at the back of the building from Liberty street.

Open parking space on the East from Center 200, for 265 vehicles, will serve both Center 200 and new Fitness Facility.

Functional Program and Design Approach

Upon Synthesizing and analyzing the information from the client group, the Design Team has developed functional program of requirements for Option 3 which includes:

- 6 curling sheets
- Multipurpose Gym (Basketball, Volleyball, Badminton etc)
- Multipurpose Fitness Room
- Open Fitness area adjacent to Gym
- Elevated Walking Track (3 lanes)
- Curling Club
- Viewing Gallery/Lounge
- Spectator's seating 300 spaces
- 12 Offices + Reception
- 2 Meeting Rooms
- Kitchen
- Change Rooms
- Officials Room
- First Aid
- Public Washrooms
- Storages
- Building Services

Proposed new facility is one storey & mezzanine in building height with Curling and Multipurpose Gym both located on the ground level.

The glazed entrance with large canopy will be inviting and obvious directly from the Mitchell Lane.

Centrally located lobby with reception desk will provide ease of access to all users and control to both curling and gym area. New curling space with 6 curling sheets and two change rooms is adjacent to the Curling Club on the ground level.

On the same level new Multipurpose Gym (1353m2) with the size of two full basketball court and an open fitness area, 4 change rooms and storage space on the south. Directly connected with the lobby and lounge is 220m2 large Multipurpose Fitness Room with its own change room.

Open viewing gallery located on the mezzanine level allows view for spectators to both curling and gym space. Access to the viewing gallery is provided directly from the two story heigh lobby space.

Mezzanine level is designed as a fully accessible to all users by elevator provided in the lobby.

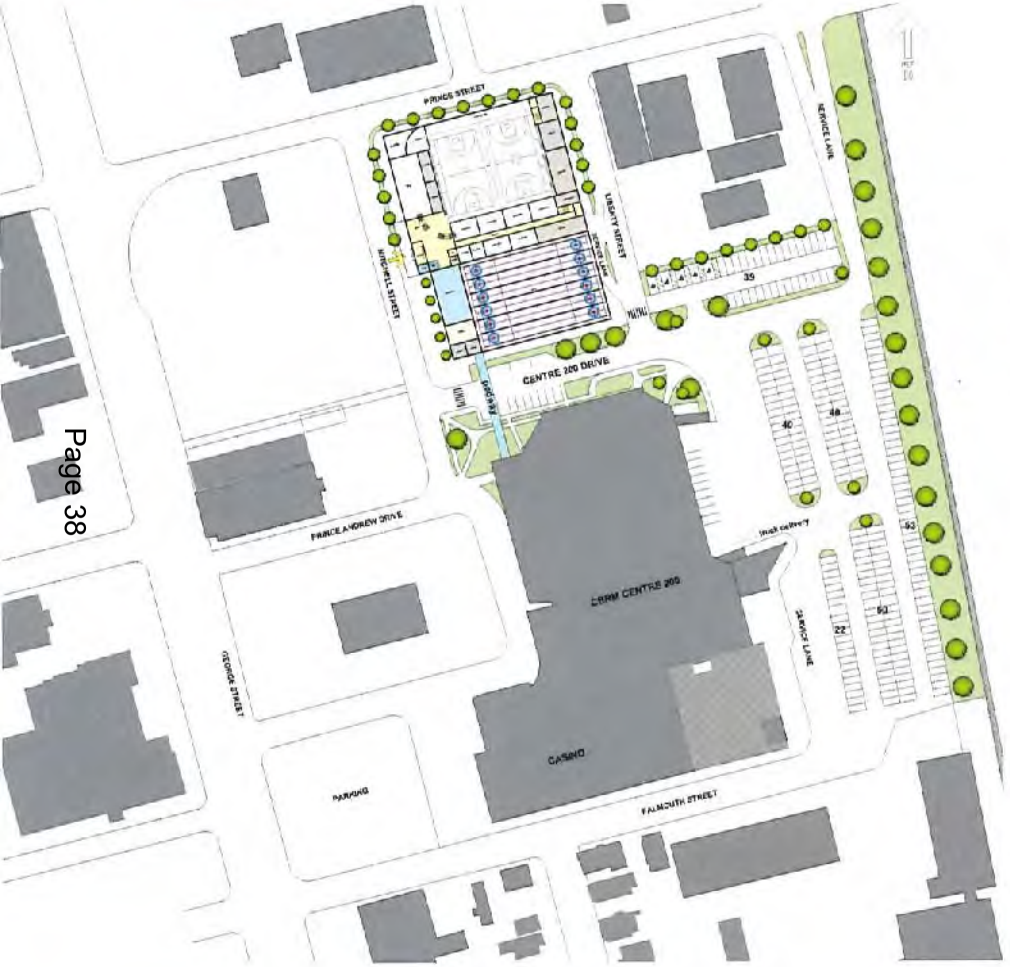
Connection to the existing Center 200 building is provided with the incorporation of the new pedway which will connect Spectator's area in the existing Center 200 with the mezzanine level of the new building (refer to mezzanine level floor plan).

The new recreation center as an addition to the existing Center 200 will become a community hub and gathering place. A new and vibrant energy for the region providing feeling of vitality and lightness. The new facility will be welcoming and uplifting both inside and out.

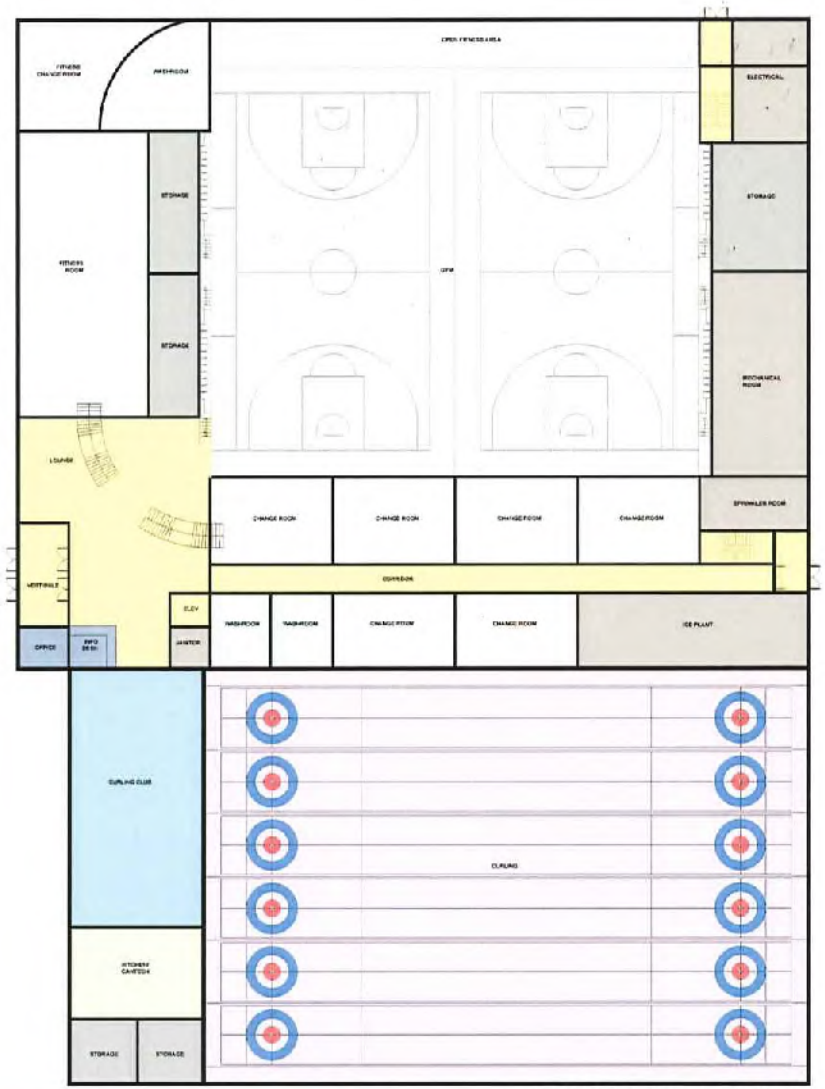
Pros and Cons of the proposed solution

Pros	Cons
Directly on one Main Street	Privately owned land
Easy access to the main entrance	Distance from the existing building
All the fitness activities on the same level	Insufficient parking space
Low construction cost	
6 sheets curling	
3 lanes elevated walking tracks	
300 bleachers seating	

5.3.2 Option 3 Site Plan

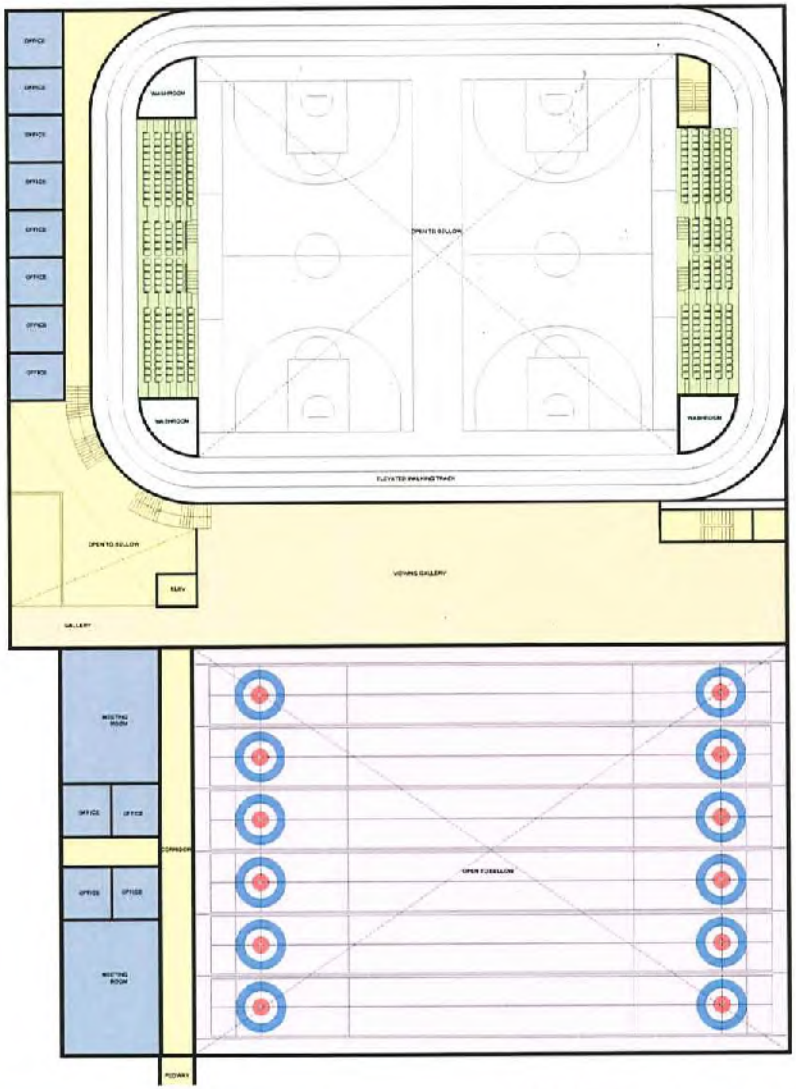


Floor Plan Ground Level



PROGRAM ELEMENTS	AREA/SQM
AMENITIES	71 m2
BUILDING SERVICES	313 m2
CIRCULATION	390 m2
CURLING	1515 m2
CURLING CLUB	203 m2
CHANGE ROOMS	421 m2
GYM AND FITNESS ROOM	1674 m2
STORAGE	204 m2
WASHROOMS	106 m2
ADMINISTRATION	23 m2
NET FLOOR AREA	4822
GROSS FLOOR AREA	5065

Floor Plan Mezzanine



PROGRAM ELEMENTS	AREA/SQM
CIRCULATION	207 m2
VIEWING GALLERY	535 m2
WASHROOMS	45 m2
ADMINISTRATION	545 m2
WALKING TRACK	585 m2
SEATING	210 m2
NET FLOOR AREA	1927
GROSS FLOOR AREA	2153

5.4 Options Comparison

5.4.1 Site Plan Comparison

5.4.2 Area Comparison

	Option 1	Option 2	Option 3
Net area sqm	4290	5098	6750
Gross area sqm	4616	5429	7220

5.4.3 Cost Comparison

The following estimation of capital costs are prepared by the study team based on our recent experience. These costs are an illustration of general scale and include contingencies at this initial level of concept plan. The reality of project escalation in 2021 and 2022 will make it important to subject the next stage of concept development to capital costing prepared by a professional cost consultant.

There is no provision in the estimates for cost escalation between the date of this report and the point at which construction agreements are executed. This is due to the fact that the date of potential construction is not yet known.

CAPITAL COST ORDER OF MAGNITUDE - OPTION 1

Item NO ESCALATION: Q1 2022	Elemental Quantity (Sq. M)	Elemental Quantity (Sq. Ft)	Elemental Unit Measure (Hard Costs per Sq. Ft.))	Hard Costs ($)
A BUILDING HARD COSTS	4,616	49,686	$308	$15,288,050
B BUILDING SOFT COSTS (Incl. FF+E)		30%	$92	$4,586,415
Total Building-Related Costs			$400	$19,874,465

Site Development - Allocation

Item ALLOCATION	Hard Costs ($)
A WATER, SANITARY & STORM WATER MANAGEMENT	$300,000
B SITE DEVELOPMENT, ROAD & PARKING	$830,000
C ELECTRICAL	$350,000
D PROVISION FOR GRADING, REMOVAL OF MATERIAL, EXCAVATION ETC	$450,000
E TOTAL SITE WORKS	$1,930,000.00
TOTAL	*$439* *$21,804,465*

Contingency for Class D Order of Magnitude Estimate		
1. Design and Pricing	15.0%	*$3,270,670*
2. Construction	10.0%	*$2,507,513*
Total contingency	25.5%	*$5,778,183*

Grand Total for Option 1 → *$27,582,648.17*

CAPITAL COST ORDER OF MAGNITUDE - OPTION 2

Item NO ESCALATION: Q1 2022	Elemental Quantity (Sq. M)	Elemental Quantity (Sq. Ft)	Elemental Unit Measure (Hard Costs per Sq. Ft.))	Hard Costs ($)
A BUILDING HARD COSTS	5,429	58,437	$308	$17,980,681
B BUILDING SOFT COSTS (Incl. FF+E)		30%	$92	$5,394,204
Total Building-Related Costs			$400	$23,374,885

Site Development - Allocation

Item ALLOCATION	Hard Costs ($)
A WATER, SANITARY & STORM WATER MANAGEMENT	$350,000
B SITE DEVELOPMENT, ROAD & PARKING	$830,000
C ELECTRICAL	$430,000
D PROVISION FOR GRADING, REMOVAL OF MATERIAL, EXCAVATION ETC	$450,000
E TOTAL SITE WORKS	$2,060,000.00
TOTAL	*$435* *$25,434,885*

Contingency for Class D Order of Magnitude Estimate		
1. Design and Pricing	15.0%	*$3,815,233*
2. Construction	10.0%	*$2,925,012*
Total contingency	26.5%	*$6,740,245*

Grand Total for Option 2 → *$32,175,129.83*

CAPITAL COST ORDER OF MAGNITUDE - OPTION 3

Item NO ESCALATION: Q1 2022	Elemental Quantity (Sq. M)	Elemental Quantity (Sq. Ft)	Elemental Unit Measure (Hard Costs per Sq. Ft.))	Hard Costs ($)
A BUILDING HARD COSTS	7,220	77,715	$308	$23,912,418
B BUILDING SOFT COSTS (Incl. FF+E)		30%	$92	$7,173,725
Total Building-Related Costs			$400	$31,086,143

Site Development - Allocation Item ALLOCATION				Hard Costs ($)
A WATER, SANITARY & STORM WATER MANAGEMENT				$458,704
B SITE DEVELOPMENT, ROAD & PARKING				$830,000
C ELECTRICAL				$573,380
D PROVISION FOR GRADING, REMOVAL OF MATERIAL, EXCAVATION ETC				$500,000
E TOTAL SITE WORKS				**$2,362,083.86**
TOTAL			*$430*	*$33,448,227*
Contingency for Class D Order of Magnitude Estimate				
1. Design and Pricing	15.0%			*$5,017,234*
2. Construction	10.0%			*$3,846,545*
Total contingency	26.5%			*$8,863,780*
Grand Total for Option 4			→	*$42,312,007.23*

5.5 Scenario B: Toward a Campus of Community and Event Centre Opportunities

Successful developments integrate with their context as opposed to standing alone.

After the in-depth evaluation of the needs and views of community and stakeholders, design team saw the opportunity to propose the rehabilitation of the whole area that will positively impact the community.

Between 2011 and 2016 CBRM Municipality saw decline in population of 3.2%, especially in the younger population. While in the last 5 years the decline slowed down, CBRM population continued declining (-0.6% between 2016 and 2021). In 2016, Median age in the CBRM was 50 years.

Block in between the Prince Street on the North, George Street on the West, Falmouth Street on the South and train trucks on the East could become a community hub and gathering place with a new and vibrant energy for the whole region. This could positively impact the region as it will attract younger people and families with children to move and stay in the close proximity of the new community hub. Connecting our cities to younger generations is strong way of ensuring they grow to appreciate the cities worth.

"When it comes to delivering great urban design, investment spread too thin is far less impactful than investment focused in the right place in the right time".

5.5.1 A Vision for the Future

Proposed Master Plan for the block in between the Prince Street on the North, George Street on the West, Falmouth Street on the South and train trucks on the East incorporates New Fitness Center, New Event Center, Hotel, Restaurants, Park, Underground Garage and New Parkade into the existing urban fabric.

Fitness Center: Proposed new facility is one storey & mezzanine in building height with Curling and Multipurpose Gym both located on the ground level.

The glazed entrance with large canopy will be inviting and obvious directly from the Mitchell Lane.

Centrally located lobby with reception desk will provide ease of access to all users and control to both curling and gym area. New curling space with 6 curling sheets and two change rooms is adjacent to the Curling Club on the ground level.

On the same level new Multipurpose Gym (1353m2) with the size of two full basketball court and an open fitness area, 4 change rooms and storage space on the south. Directly connected with the lobby and lounge is 220m2 large Multipurpose Fitness Room with its own change room.

Open viewing gallery is located on the mezzanine level and allows view for spectators to both curling and gym space. Access to the viewing gallery is provided directly from the two story heigh lobby space.

Mezzanine level is designed as a fully accessible to all users by elevator provided in the lobby.

Connection to the existing Center 200 building is provided with the incorporation of the new pedway which will connect Spectator's area in the existing Center 200 with the mezzanine level of the new building (refer to mezzanine level floor plan).

For the Functional Program and Concept Plan refer to Section 5.3.1 Option 3

The Event Center: The growing role of events as urban policy tools highlights their increasing utility in the network society. As cities have recognized this potential, events, rather than being a scenario for furthering other policy goals, have become an area of urban policy development in their own right.

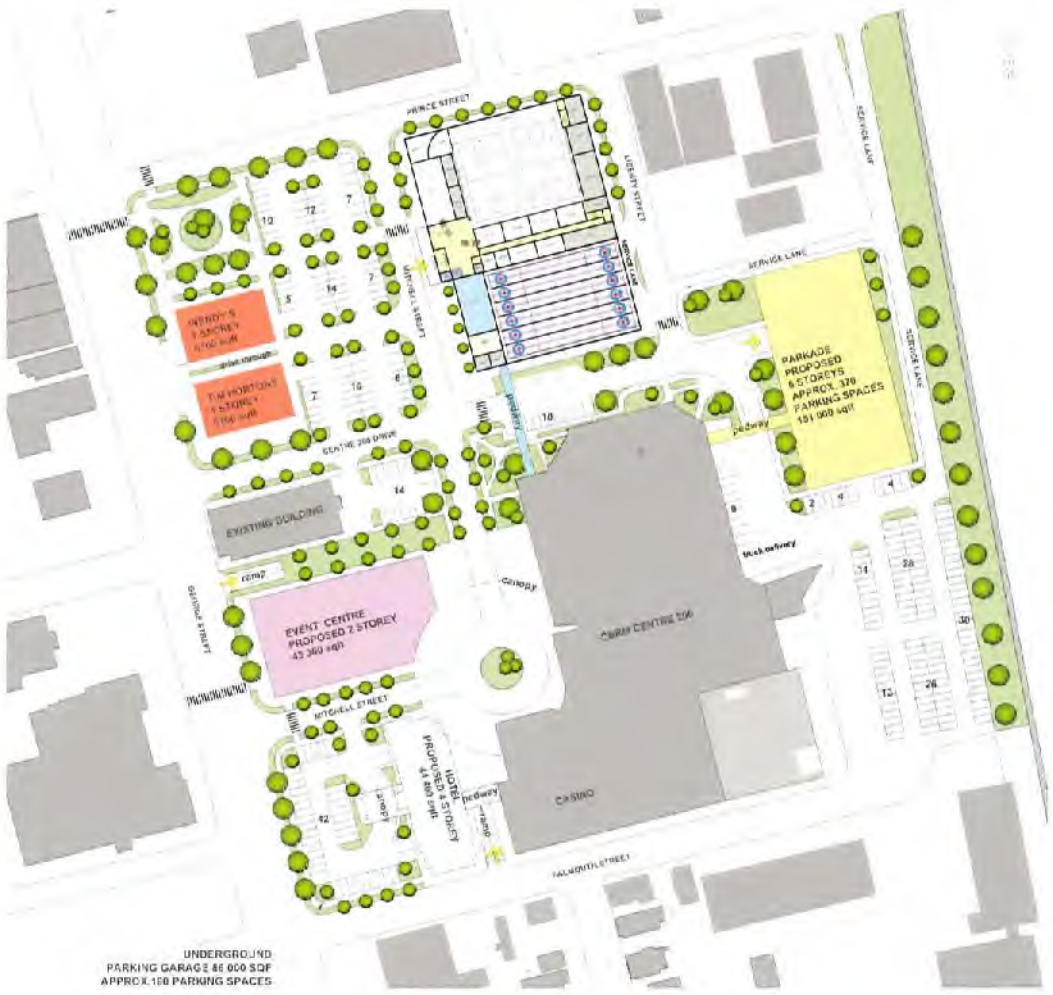
More and more cities are establishing dedicated events units or departments in order to develop events policies and opening 'one stop shops' to facilitate the organization of events. Bringing people from entire city to the new core on a regular basis, once a week or even just once a month, serves to make citizens aware of the unique amenities that exist in the central part of their community.

With more than 43,300 ft2 (4,025m2) of highly flexible two storey function space, new Event Center is designed to be configured to meet the needs of any event. Ground level is imagined as one large open exhibition space that can be divided in the smaller spaces as needed. Ballroom on the second level with approximate net area of 1,600m2 will be the largest ballroom in the area, as much as 1000 guests would be able to dine in its full configuration or more than 2000 could be arranged in the theatre set up. Events on the second floor could be further expanded onto the canopy that will serve as an outdoor plaza with designated greenery and possibility of seating. Canopy will connect new Event Center with existing CBRM Centre 200, Casino and a Hotel.

Hotel: Existing Casino building and a new Event Center gives an opportunity to develop new Hotel directly connected to these buildings. Seen as a private sector investment on the 44,400 ft2 (4,140m2) new Hotel will be equipped with 72 rooms. Proposed Hotel is connected with the existing Casino with enclosed pedway and with an open space canopy. Main entrance opens toward George Street with the greenery and 42 parking spots in front of the Hotel.

Underground Garage: In order to achieve enough parking spaces for Event Center, Hotel and Casino new underground garage is proposed with two entrances/exits, one from The George Street and the second one from Falmouth Street.

Restaurants: Existing Tim Hortons restaurant is proposed to be relocated closer to the corner of George and Prince street, and in front of the new Fitness Facility. One more restaurant approximately the same size 6,160 ft2 will be located north of the Tim Hortons with the drive through in between them. Parking area is located at the back of the restaurants with the 57 parking spaces allocated for restaurants customers.



The Park: An open park that can constitute an area reserve for future needs. It also supplements the above-mentioned projects with a more flexible and general green space with lawns, trees and lighting for walking, cycling, playing, agility and so on. The park is located at the corner of the two busy streets Prince and George Street giving a sense of lightness and openness of the whole area.

New park could become a venue for a wide range of activities in addition to the above mentioned, for instance art exhibitions or other important public events. After the development of the new Parkade on the East, park area could expand taking over part of the proposed open parking space in front of the new fitness facility.

This new area can be used as an opportunity to further answer to the fitness needs of the community by developing space used as an open skate rink during the winter months and for running, jogging and rollerblading during the rest of the year.

Parkade: Existing Center 200 already lack parking spaces. Parking lot at the back of the building cannot accommodate all the users needs especially during events in place. In order to achieve number of parking spaces needed for the Center 200 and his addition (Fitness Facility) new Parkade at the back of the Center 200 with the direct entrance from the Center 200 Drive is proposed. Proposed Parkade is five storey in building height, 151,000 ft2 and can accommodate approximately 370 vehicles. Additional 127 parking spaces are provided at the existing parking lot at the back of the Center 200, and an open parking area designated for new Fitness center and Park users with 29 parking spots is proposed in front of the new fitness facility with the direct entrance from Michell Street.

5.5.2 Required Steps to Achieve Campus Plan

The 'Barcelona Model' of governance, which was heavily based on public-private collaboration could be used as a starting point toward achieving Campus plan for the whole area and includes:

1. Creating consensus between public administrations
2. Involving the private sector in the financing of projects
3. Creating autonomous entities to control planning and finance
4. Supporting an architectural approach to redevelopment
5. Introducing strategic planning
6. Placing 'good ideas' before 'large finance'

6 PROGRAMMING AND OPERATIONAL PLAN

6.1 Governance and Management of Access

The most effective management model for the proposed addition to Centre 200 is the continuation of the existing municipal departmental model. The reasons for this are clear enough in terms of the ability to create a one window approach to management, staffing, cost control, programming, and revenue generation, purchasing, asset management and marketing.

A municipal agency model is not required and is not currently utilized for Centre 200. A partner operator with experience such as the YMCA is also not required in our opinion and would perhaps represent an option for rental of programming (gymnasium) space in the building and / or the delivery programs.

6.1.1 Priorities

This building – based on our research – has the capacity to respond to a definable *community need*. This need pertains primarily to the range of court sport uses that should be accommodated and, to a lesser extent, the opportunity to take on a new service mandate as it pertains to Curling. That mandate is in fact a new partnership with the 144 year old club. A tournament centre focus becomes a real possibility for the overall Centre 200 complex.

The *opportunity* is for creating a complex of additional space that significantly enhances the hosting capacity of the CBRM.

The recommendation is to scale the facility large enough to meet both of these goals while fundamentally meeting the community needs which will translate into an actively used building on a daily basis year-round.

6.1.2 Curling Club License

It is assumed that CBRM would fund the design, construction and annual operations of a new curling rink. It is further assumed that the Curling Club would not provide significant capital funding of their own save and apart from the sale proceeds from the disposition of the existing Curling Club property.

The requirements of the club would no doubt include the necessity of a bar/lounge for Food and Beverage services, club events, and viewing space onto the ice. We would also anticipate locker space requirements and sufficiency of storage.

The business arrangement to implement this proposed relocation would need to address unequivocally the expectations of the club for dedicated space, when such dedication should occur on a daily, seasonal or even a year-round basis, and determine willingness and capacity to pay for these amenities.

The question of blending curling use into the building alongside other demands placed on the same space (meeting room, lounge, etc.) will need to be addressed in a license agreement.

With respect to the financial liability of developing a municipal curling facility, it will be incumbent on CBRM to establish the rights and obligations of the corporation relative to the curling club and vice versa. Central to that will be the determination of whether the business arrangement should include full cost recovery on operations for the City or establish targets for modest subsidization.

The role of CBRM in helping to grow the sport of curling may or may not extend into permitting a degree of subsidization of costs. This is a decision point that will need to be further analysed and discussed by CBRM administration. We would suggest that a starting point is the consideration of for whom subsidy, if any, is justified - youth curlers, elite curling, in support of tournament play and competitiveness, or seniors and lower income target groups. The risks involved in a municipal facility model for curling will require mitigation through clear communication and ultimately license agreements for the club to use the newly built space.

At this time, the financial model assumes a level of subsidization of the curling rink. This is based on:

- A recognition of the hourly cost of ice;
- The annual fee structure for curling currently in place; and
- The limited capacity and/or interest of the CBRM currently to develop its own curling development program and generate revenues

Given this, an approach that seeks to create a suite of regional and provincial tournaments (bonspiels), replicable annually, is likely going to be important to the eventual business case. So too is the value of the ice surface in its capacity to be converted to a second, practice pad for any major tournament involving Centre 200. This also extends to its value for a range of dry-floor uses – trade shows, convocations and ceremonies, banquets, independent of, or combined with, the main Centre 200 event bowl.

6.2 Indicative Operating Performance

The following summary of financial performance of the facility is based on its role as a community focused recreation centre operated as an integrated operation along with Centre 200. Financial projections of operating performance as provided below based on operations at a normalized state; that is, with the facility operating at full capacity in response to the growing level of demand. As with all such financial projections, there are a number of key assumptions explained below which are critical to understanding the future operating risks associated with this investment.

The financial estimates are, at this stage, illustrative and designed to inform further discussion on the issues of revenue generation, staffing needs, potential efficiencies, and integration with existing staffing on-site, and approach to pricing for different uses and users.

6.3 Key Assumptions

Revenue Sources

As a community recreation centre that offers flexibility in programming and a broad base of revenue generating potential, revenue sources are potentially as follows:

- Program-related and drop-in fees
- Annual/seasonal recreation space rental fees
- Meeting room rentals
- Specific contracted license fee payment in respect of Curling Club licensed use of CBRM-owned rink
- Event rental (net of costs)
- Sponsorship, advertising and naming rights opportunities specific to the new facility;
- Long-term facility rental agreements (sports teams, community groups and others)

These revenues are assumed to be augmented by concession sales located inside Centre 200.

Staffing

Core staffing from Centre 200 is assumed to be available to program events which utilize both the main arena and the new addition. Any requirement for event planning and implementation for the curling rink in off-season dry-floor mode, as well as the multi-purpose gymnasium, is assumed to be the role of the existing staff complement at Centre 200 with additional staff capacity sourced as needed.

The senior management of Centre 200 are assumed to oversee the combined complex, but additional operational staff are assumed. At 50,000 square feet (minimum), this is a sizeable addition comprising uses of different nature. This will require additional full-time staff as well as additional part-time staff to cover the required hours of operation (assumed to be 16 hours a day, 7 days a week excluding statutory holidays. Reduced staffing is possible during the off-peak period of the summer when neither the gymnasium nor the curling rink will be in high demand.

Utilities and Other Operational Costs

Further analysis is required as to the potential utilization of existing building heating, cooling, electrical and other services. Whether there are cost efficiencies to be achieved depends on the location of the new building, its level of connectedness to the existing main building, and the capacity of the existing building systems.

Compared to developing the equivalent building as a standalone enterprise on a separate site which is not in proximity to the Centre 200 complex, we anticipate that building on the Centre 200 Site will create meaningful savings in staffing and in a range of other indirect building costs. However, for purposes of the analysis and in specific regard to those larger operating cost categories it is assumed that independent systems will be required in the new building with costs per square foot similar to other standalone buildings.

6.4 Indicative Performance

The preliminary financial results are provided below showing the amount of deficit for the proposed development.

A variety of assumptions necessary to create a financial picture of how the facility might operate under normalized conditions have been developed, and include the following key areas of operating revenues and expenses:

Facility Revenues

The approach to revenue generation is to recognize the limited capacity of general recreational users to pay high fees; it is also based on a discounted approach to utilization – the assumption that bookings will not be as high as the demand suggests. We have also excluded the potential associated with naming rights and advertising for purposes of this core revenue assessment. The achievement of advertising and naming rights is expected to provide annual operational revenues.

With specific regard to curling, the analysis assumes that a general annual fee includes full occupancy of the curling rink during prime-time hours on weekdays and at weekends. We have assumed no demand during the working day. This may be inaccurate when judged against the desired range of usage times that some members may have.

The question for curling is how to keep the costs associated with using a new facility in line with reasonable annual fees. In the example below, the application of rate and utilization assumptions would likely create a cost structure that is difficult to achieve. The resulting subsidy is at 50%.

Exhibit 24: Curling Revenue

Curling Ice			4 Sheets	
Gross Hours Available for Rental				
			24	weeks
	Prime Time		87	per week
	Non-Prime Time		45	per week
	Total Per Week		112	hours
Utilization	Prime Time		100%	
	Non-Prime		0%	
Total Hours Utilized			1808	hours
Total Rented Hours			1808	hours
Hourly Rental Rates	*Type*	*Rental Rate:*		*Split:*
	Child/Youth	$	150	30%
	Adult	$	200	70%
	Blended Rate	$	**185**	100%
	Annual Revenue	$	**297,480**	
	@50%	$	**148,740**	

We recommend a more detailed assessment of the cost of maintaining curling ice and the incremental building and staffing-related costs associated with the curling rink and its lounge. That will require a more detailed discussion of operating costs and should be undertaken as a separate exercise as part of further discussions with the Curling Club. Other models that we are aware of establish different approaches including club responsibility for staffing and maintenance. For additional amenities such as storage space, these are subject to separate, shorter lease agreements. In the final analysis, how the partnership with curling is conceived has a critical impact on the financial position of the building.

Facility Expenses

Facility expenses are comprised in a number of operating departments. These costs include general fixed costs as well as those related to the scale of activity (events) at the venue.

Net Operating Income

In other sectors where a private market exists, the resulting net operating income (NOI) can be evaluated in terms of its ability to offer a sufficient debt service ratio: that is the amount of coverage from operating surpluses to adequately cover annual repayment of debt. For CBRM, it is not anticipated that the new building would operate at full cost recovery.

Capital Reserve

Any major capital facility should have provision for the payment of a contribution from operating revenues to a reserve, the purpose of which is to fund future life cycle repairs to the facility. A growing number of municipalities have adopted policies to collect these payments, which in those instances where deficits exist, amounts to a commitment to fund a reserve from general municipal revenues.

Generally speaking, there is no consistent practice across Canadian municipalities with regard to the calculation and implementation of a capital reserve and the amount diverted to these reserves is generally defined in relation to the specific infrastructure in question. For this exercise we have assumed an annual reserve allocation of $100,000. In other places, capital reserve policies vary – with some not instigating any requirement for a reserve until the asset reaches a certain age.

Asset management practices are evolving, and we therefore assume that the funding of a reserve from year 1 of operations should be a working target.

The following projection of operating performance is based on the assumption of the facility operating at full market capacity in year 1. This is for simplicity to demonstrate how the facility should ultimately perform and perform quickly assuming sufficient time and effort has been placed into pre-opening business planning, marketing and sales.

Exhibit 25: 5-Year Operating Revenue/Cost Projections

Building Size: 49,686 s.ft.

		Year 1	Year 5	Year 10	Year 15	Year 20
Escalation (p.a.)	*3.0%*	*1.00*	*1.13*	*1.30*	*1.51*	*1.75*
Revenue						
Annual Curling Ice Lease		**$150,000**	**$168,826**	**$195,716**	**$226,888**	**$263,026**
Spectator Events (Ticketed)		$42,000	$47,271	$54,800	$63,529	$73,647
Gymnasium Rentals		$228,780	$257,494	$298,506	$346,050	$401,167
Drop-In (Free Youth / Seniors / Community Use)		$0	$0	$0	$0	$0
CBRM Programs		$64,000	$72,033	$83,505	$96,806	$112,224
Meeting Room Rentals		$33,075	$37,226	$43,155	$50,029	$57,997
Rental Based External Events (trade show, convention, etc.)		$24,000	$27,012	$31,315	$36,302	$42,084
Total Revenue		$541,855	$609,863	$706,998	$819,604	$950,146
Gross Margin		$541,855	$609,863	$706,998	$819,604	$950,146
Expenses						
Payroll (Labour)		($361,820)	($407,232)	($472,093)	($547,285)	($634,454)
Utilities		($248,431)	($279,611)	($324,146)	($375,774)	($435,625)
Other Operating Costs						
Administration		($10,000)	($11,255)	($13,048)	($15,126)	($17,535)
Repair and Maintenance		($20,000)	($22,510)	($26,095)	($30,252)	($35,070)
Janitorial Contract and Supplies		($27,093)	($30,493)	($35,350)	($40,980)	($47,507)
Grounds Maintenance / Snow Removal / Waste Mgt		($20,000)	($22,510)	($26,095)	($30,252)	($35,070)
Marketing		($10,000)	($11,255)	($13,048)	($15,126)	($17,535)
Insurance		($30,000)	($33,765)	($39,143)	($45,378)	($52,605)
Total Expenses (Excl. Debt and Capital Reserve)		($747,344)	($841,142)	($975,114)	($1,130,424)	($1,310,471)
Net Income (NOI) Before Capital Reserve		**($205,489)**	**($231,279)**	**($268,116)**	**($310,820)**	**($360,325)**
Capital Reserve		($100,000)	($112,551)	($130,477)	($151,259)	($175,351)
NOI after Capital Reserve		**($305,489)**	**($343,830)**	**($398,593)**	**($462,079)**	**($535,676)**

7 ECONOMIC IMPACT POTENTIAL

7.1 Types of Impact

Economic Impact Assessment (EIA) studies measure the positive change in economic activity as a result of hosting an event in a specific municipality.

EIA addresses the local and regional economic impacts of event hosting estimating the amount of new money being spent in the host community as a direct result of hosting the event, and then the impact these new monies have on the regional, provincial and national economy.

An EI assessment considers three factors:

1. the spending of out-of-town visitors while they attend the event;
2. the expenditures of the event organizers in producing the event;
3. capital construction costs that are directly attributed to hosting the event.

The model outputs estimate the economic impacts as follows:

- Gross Domestic Product (GDP)
- Wages & Salaries
- Employment
- Taxes

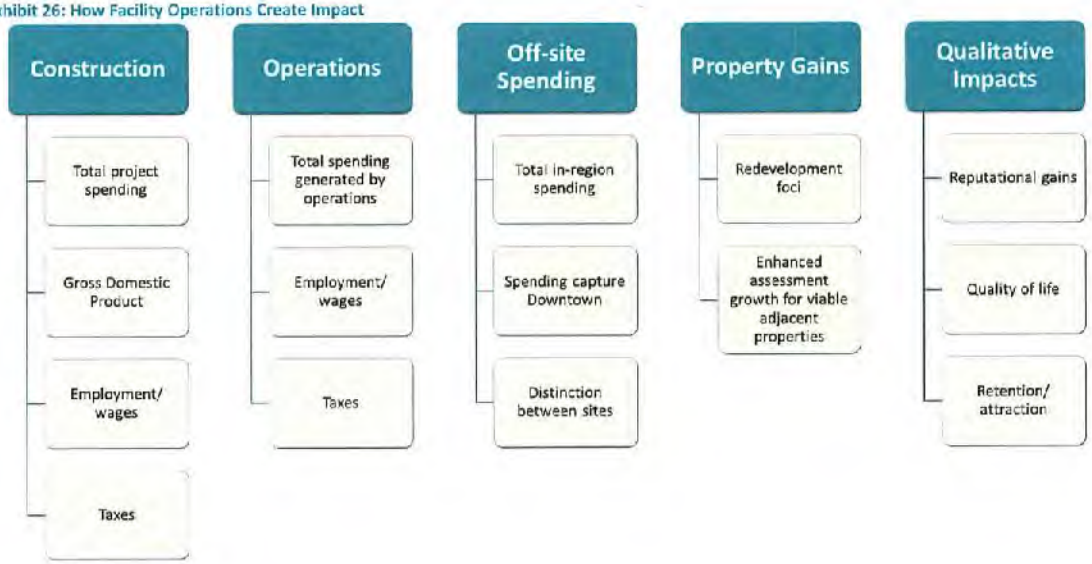
The model is *predictive* as it is designed to determine the expected economic impact of hosting a sport event based on actual spending data.

The core of the methodology is based on the following quantitative analysis:

1. Estimating the economic impact of construction and ongoing operations of the facility in terms of a range of measures: Gross Domestic Product (GDP), capital spending, income, employment, as well as income taxes generated provincially and nationally;
2. The impacts of spending at a facility – this represents a direct impact on an ongoing basis and is therefore an estimate of economic impact in its own right.

Several measures of impact assessment including **direct, indirect** and **induced** effects are employed in the analysis which follows. These terms are briefly described below.

Exhibit 26: How Facility Operations Create Impact



Direct Impact: Direct effects are associated with immediate changes in demand generated by employment, personal and household income, government expenditures, and private and public capital investment. This includes investment in construction, the spending and wages in the facility, and the spending outside of the facility by patrons. Direct impacts can be measured in a number of ways – all of which are alternatives and not cumulative measures. These include total spending, Gross Domestic Product (GDP), income, employment and of other related measures such as sales and income taxes generated. Direct investment and employment will create iterative rounds of income, employment creation and spending. These multiplier impacts are referred to as indirect effects and induced impacts.

Indirect Impact: Indirect effects essentially are inter-industry impacts. Changes in employment, household income, governmental expenditures, and private and public capital investment added from industry purchases of all items needed to furnish a product or service are measured. Indirect effects measure the impacts of these purchases.

In terms of the employment impacts during construction, indirect employment refers to the employment created in other industries which supply the materials (goods) and other inputs (services) necessary for the construction work. In terms of the ongoing operations of any facility or surrounding business, indirect impact relates to employment created in businesses which supply goods and services necessary for the ongoing operations of the business.

Induced Impact: Input-Output modeling also can potentially estimate induced effects. Induced effects are changes in spending patterns of households caused by changes in household income generated by direct and indirect effects. These new expenditures are reintroduced into the economy as a new demand and are more diffused across the national economy. Given this, we focus on the direct and indirect impacts which have a greater regional impact.

7.2 Event-Related Example of Impact

2019 Scotties Tournament Of Hearts, – Sydney, NS (McGuire, T. CSTA EI Consultant, 2019)

2019 Scotties Tournament Of Hearts was held on February 16-24, 2019 at Centre 200 in Sydney, NS. The event welcomed sixteen teams (14-member provinces and territories, Team Canada and Wild Card) and nearly 14,000 unique spectators, including over 5,000 out-of-town visitors.

Expenditures by the event organizers:

The event organizers' expenditures approximately $1.2 million. Top expenditure categories included:

- Salaries, Fees and Commissions $331,000
- Advertising Services $395,000
- Accommodation $130,000
- Rent $90,000
- Food and Beverages $69,000
- Professional Services $40,000
- Personal Travel $30,000
- Communication $29,000

Spendings by participants and spectators:

Expenditures, spending of out-of-town participants, delegates, spectators and other people who visited Sydney, NS for the event nearly $3.9 million, including $2.3 million (or 60%) on accommodations and restaurants/bars.

Economic Impacts:

During the 2019 Scotties Tournament Of Hearts at Center 200 the combined expenditures by the organizers, participants and out-of-town visitors totaled over $5.2 million.

These expenditures supported $7.8 million in economic activity in Nova Scotia, including $6.9 million of economic activity in Sydney and CBRM.

The total net economic activity (GDP) generated by 2019 Scotties Tournament Of Hearts in Sydney, NS at different levels:

- National: $4.9 in GDP to the Canadian economy through direct and spin-off impacts;
- Provincial: over $4 million (82%) of the total GDP impact remained in the province of Nova Scotia;
- Local: $3.4 (70%) accrued in the CBRM.

Exhibit 27: Gross Domestic Product (at Basic Prices), 2019 Scotties Tournament Of Hearts

2019	CBRM	Nova Scotia	Canada
Direct Impact	2,171,096	2,210,409	2,210,409
Indirect Impact	736,042	1,109,788	1,586,442
Induced Impact	499,133	748,746	148,971
Total	**3,406,271**	**4,068,943**	**3,945,822**

Wages & Salaries and Employment supported by the combined expenditures:

- National impact: $ $9.6 million of economic activity; supporting 66.6 jobs and $3.1 million in wages and salaries;
- Provincial: $7.8 million of economic activity million of economic activity; supporting 59.7 jobs and $2,6 million in wages and salaries in Nova Scotia;
- Local: $6.9 million of economic activity million of economic activity; supporting 54.5 jobs and $2,3 million in wages and salaries in CBRM.

Taxes: 2019 Scotties Tournament Of Hearts in Sydney, NS supported tax revenues totaling just over $1.6 million across Canada.

2020 Tim Hortons Brier – Kingston, Ontario (Mager, D., EI Consultant, 2020)

The 2020 Tim Hortons Brier, Canada's national men's curling championship was held from February 29 - March 8 at Leon's Centre in Kingston, Ontario. The event attracted 8,900 out-of-town participants.

Expenditures by the event organizers:

The 2020 Tim Hortons Brier hosting costs were $2.2 million. Top expenditure categories included:

- Facility, Venue, and Office Rent $550,186
- Marketing & Advertising Services $440,626
- Professional Services $325,844
- Accommodations $161,740
- Salaries, Fees and Commissions $135,604
- Food and Beverages $96,077
- Travel $79,171

Spendings by participants and spectators:

Out-of-town participants, delegates, spectators and other people who visited Kingston spent over $4.3 million, including $3.5 million (81%) on accommodations and restaurants/bars.

Economic Impacts:

The combined expenditures by the organizers, participants and visitors totaled over $6.5 million. These expenditures supported $5.8 million for the province of Ontario, including $3.3 million for the City of Kingston.

The total net economic activity (GDP) generated by the 2020 Tim Hortons Brier at different levels:

- National: $6.2 million for Canada;
- Provincial: $5.8 million for the province of Ontario;
- Local: $3.3 million for the City of Kingston.

Exhibit 28: Gross Domestic Product (at Basic Prices), 2020 Tim Hortons Brier

2020	Kingston	Ontario	Canada
Direct Impact	2,101,974	2,154,419	2,154,419
Indirect Impact	804,284	2,391,650	2,654,023
Induced Impact	412,397	1,226,409	1,418,714
Total	**3,318,655**	**5,772,478**	**6,227,156**

Wages & Salaries and Employment supported by the combined expenditures:

- National Impact: $12.4 in economic activity in Canada; supported 61.4 jobs and $3.9 million in wages and salaries;
- Provincial: $11.4 million in economic activity in Ontario; supported $3.6 million in wages and salaries in the province through the support of 58 jobs in Ontario;
- Local: $8.2 million of economic activity in the Kingston area; supported 42 jobs and $2.3 million in wages and salaries in Kingston, Ontario.

Taxes: The 2020 Tim Hortons Brier supported tax revenues totaling over $2 million across Canada; $1.9 million across Ontario and $1.3 million in Kingston.

7.3 Economic Impact Assessment (STEAM)

The analysis undertaken in this report is described more fully below and includes an assessment of the potential impact of an addition to Centre 200 in CBRM. Measures of impact illustrated in the analysis include:

1. **Localized Spending Impacts:**

Spending in the facility by patrons is part of the facility operating revenues and costs which support the income and employment created at the facility. Those impacts are captured as part of the employment impacts of the on-going operations of the facility.

2. **Off-Site Spending:**

Localized off-site spending impacts are defined as the direct spending impacts from spending by patrons off-site from the facility. This spending also creates multiplier impacts resulting from the initial input of spending. Applicable sector multipliers include the following and are applied to the specific types of offsite expenditure identified in the analysis include accommodation and food services, retail and arts, entertainment and recreation.

3. **Taxes:**

Property taxes on municipal properties in Nova Scotia are collected by the Province. Sales tax portions are 15% - 10% provincial and 5% federal.

Other measures currently not included in the model results are impacts of building construction (hard and soft costs), building operations costs, and qualitative factors of increasing capacity of the recreation centre. Qualitative factors can have impacts on the health and wellness of residents, promote physical activity and lead to an improved quality of life. These qualitative impacts can have broader benefits related to health care needs over one's lifespan. Relevant factors that can be assessed in the analysis include wellbeing and wellness, physical activity and its beneficial relationship to overall health.

7.3.1 STEAM model results for two hypothetical events in 2022

Event 1: Scotties Open Provincials, Sydney, NS

There are a number of curling events of significance in the province in a typical year. The following example is one of the larger events.

Assumptions

- Type of event: provincial event - spectator-based
- Event duration: 5 days (4 nights)
- Year: 2022
- Participants: 10 teams
- Total participants: 90 (assumed)
- Total maximum number of guests: 360 (Attending family and friends (average 3-4 people).
- Total attending the event: 450
- Percent local / percent out-of-town participants: 20%/80%
- Duration of stay for out-of-town participants: 4 nights
- Number of trips per party: 2 (to/from the event)

Estimated spending of out-of-town spectators and participants, visiting CBRM for the 2022 Scotties Tournament Of Hearts is $127,283, supporting $176,959 in economic activity (industry output – total impact) in Nova Scotia, including $152,100 of economic activity in Sydney / CBRM.

These expenditures would support 2 new jobs and $45,566 in wages and salaries in Sydney and overall $52,177 in the province, and $67,431 in Canada.

The total net economic activity (GDP) generated by the 2022 Scotties Tournament Of Hearts is estimated

- $68,604 for Sydney
- $82,621 for the Province of Nova Scotia
- $110,455 for Canada as a whole

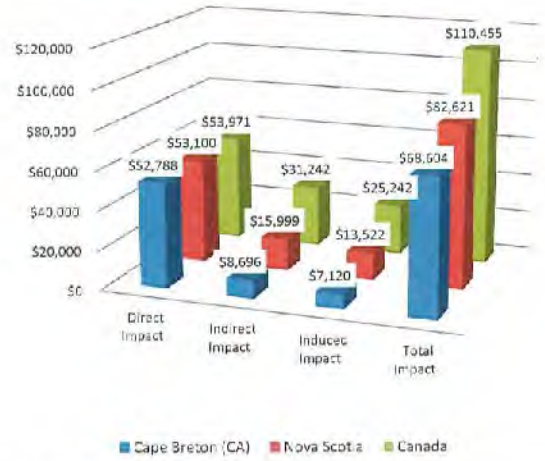
Participants and visitors' spendings alone, could support tax revenues of $54,975 across Canada, $40,544 across Nova Scotia and $35,275 in Sydney NS.

Exhibit 29: Economic Impact Assessment (2022)

Curling Event 2022	CBRM	Nova Scotia	Canada
Initial Expenditure	$127,263		
GDP (Direct, Indirect, Induced Impact at basic prices)	$68,604	$82,621	$110,455
Employment (full-year jobs)	1.7	1.8	2.1
Wages & Salaries	$45,566	$52,177	$67,431
Taxes (Direct & Indirect)	$35,274	$40,083	$54,976
Federal	*$14,372*	*$16,100*	*$24,182*
Provincial	*$18,147*	*$21,688*	*$27,551*
Municipal	*$2,756*	*$2,756*	*$3,242*
Industry Output (Total Net Economic activity)	$152,100	$176,959	$237,782

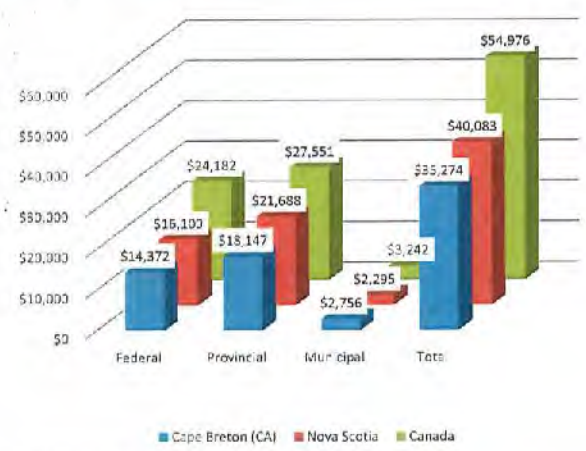
Note: These economic impacts are based on the participants' spending only. Adding capital costs and operational expenditures by the organizers to the model would increase these impacts (GDP, employment and taxes).

Exhibit 30: Curling Event Gross Domestic Product (at Basic Prices) 2022



Source: SPM, STEAM Model, 2022

Exhibit 31: Curling Event - Taxes (Direct, Indirect and Induced Impact), 2022



SPM, STEAM Model, 2022

Event 2: Basketball - Cape Breton Classic, Sydney, NS

Assumptions

- Type of event: provincial - youth event
- Event duration: 5 days (4 nights)
- Year: 2022
- Participants: Youth – 10 years of age (Grade 4/5) to Senior High School Age
- Total participants: 600 participants (60 teams x 10 players)
- Total maximum number of guests: 1,200 (Parents and others (avg. 2 spectators per player)
- Total attending the event: 1,800
- Percent local / percent out-of-town participants: 40%/60%
- Duration of stay for out-of-town participants: 2 nights
- Number of trips per party: 2 (to/from the event)

Estimated spending of out-of-town spectators and participants, visiting CBRM for the 2022 Cape Breton Classic is $181,833, supporting $252,799 in economic activity (industry output – total impact) in Nova Scotia, including $217,286 of economic activity in Sydney / CBRM.

These expenditures would support 2 to 3 new full-year jobs and $65,094 in wages and salaries in Sydney and overall $74,539 in Nova Scotia, and $96,329 in Canada.

The total net economic activity (GDP) generated by the 2022 Scotties Tournament Of Hearts is estimated

- $98,005 for Sydney
- $118,030 for the Province of Nova Scotia
- $157,794 for Canada as a whole

Participants and visitors' spendings alone, could support tax revenues of $41,537 in Sydney/CBRM, $41,656 in the province, and $46,329 million across Canada.

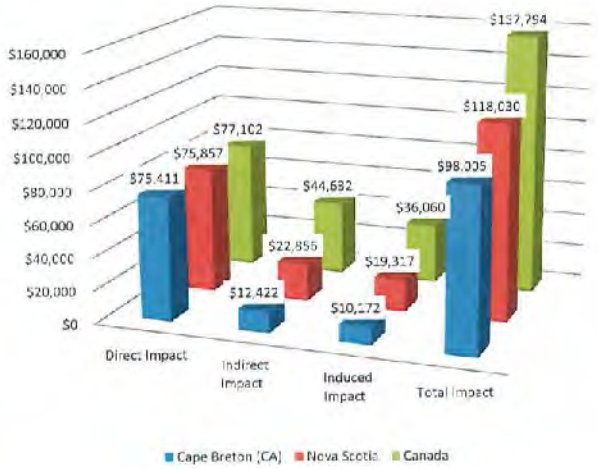
The Economic Impact Assessment results are summarized in the table and charts below.

Exhibit 32: Economic Impact Assessment Results

Basketball Event 2022	CBRM	Nova Scotia	Canada
Initial Expenditure	$181,833		
GDP (Direct, Indirect, Induced Impact at basic prices)	$98,005	$118,030	$157,794
Wages & Salaries	$65,094	$74,539	$96,329
Employment (full-year jobs)	2.4	2.6	2.9
Taxes (Direct & Indirect)	$50,392	$57,262	$78,537
Federal	*$20,531*	*$23,000*	*$34,546*
Provincial	*$25,924*	*$30,983*	*$39,359*
Municipal	*$3,936*	*$3,279*	*$4,531*
Industry Output (Total Net Economic activity)	$217,286	$252,799	$339,688

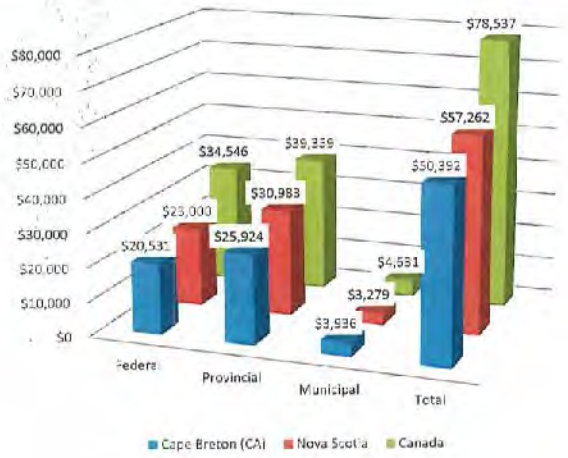
Note: These economic impacts are based on the participants' spending only. Adding capital costs and operational expenditures by the organizers to the model would increase these impacts (GDP, employment and taxes).

Exhibit 33: Basketball Event - Gross Domestic Product (at basic prices, 2022)



SPM, STEAM Model, 2022

Exhibit 34: Basketball Event - Taxes (Direct, Indirect and Induced Impact), 2022



SPM, STEAM Model, 2022

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8 RISKS

8.1 Capital Costs

Capital costs for facilities of this type are not pre-determined and decision makers have considerable control in establishing the balance between budget and what goes "into" a building for this budget. Decision makers, through their advisors, can control scale, quality and business conditions surrounding the allocation of risks in delivery of the project.

The capital cost estimates contained in this report are estimated based on the potential scale of development recommended in this report. Capital cost estimates at this time are reasonable estimates of possible cost, excluding land (not relevant on CBRM-owned parcels) and any extra-ordinary development costs that may arise.

8.1.1 Development, Design and Construction Risks

All construction projects involve risk in their design, development and construction. These risks relate to a range of factors including the following principal elements:

- *Insufficient detail in design* leading to scope creep to meet anticipated functional requirements - this translates into longer timeframes for completion and often increases in capital costs as well as insufficiencies in design and layout of buildings;
- *Design errors and omissions* – this is the risk associated with building features and requirements being either underrepresented or absent and necessitating patched design and construction solutions and potential cost additions in addition to usual project delays associated with such changes in scope. Additionally, there is an ultimate risk in any development project that the intended design is not fulfilled due the failure of the constructor to build the facility to design;
- *Procurement risks* – these risks pertain to problems which arise between prospective contractors and the procurement authority;
- *Construction delays* – from a variety of potential sources related to overall management, individual trades, materials or unforeseen site-related matters; and
- *Cost overruns* – for a variety of reasons, there is a risk associated with the capital cost as estimated in the design stage.

8.2 Operating Risks

Facilities, and in particular public sector municipal capital facilities, have a number of operating risks related to revenue generation, operating costs reduction and expense management. There is the additional market dynamics of the event markets which can be expected to change over time, and which otherwise represent a specialized business niche activity for a municipally owned facility. The following outlines specifically how these combined risks should be (1) anticipated and (2) mitigated.

Some of the principal operating risks for this facility include:

- **Macro-economic shock:** the potential for global economic conditions to impact consumption of entertainment and other event products due to constraints on discretionary income or currency impacts. As it relates to this facility, the basis for operational cost/revenue modelling should be a community use facility, with event potential and other non-sport revenue opportunities as a secondary goal. This represents (or should) the inverse of the operating model for the Centre 200 main bowl which operates firstly as a commercial event centre, with community recreation use as a secondary draw on time allocation.
- **Revenue Risk:** as in any exercise, the budgeting and estimating process with regard to operating performance should be developed as the design of the facility is further specified and as more certainty exists regarding the range of operating costs closer to the time of the commissioning of the building. Achieving events through competitive bid processes is part and parcel of any spectator facility business plan but is inherently a risk. Accordingly, our analysis at this stage excludes any event days and revenues associated with large-scale competitively won hosting opportunities.
- **Competition:** Less significant when considering the use of the facility in its primary community-access role; As such, the expected financial performance of the new space should be more stable compared to that of an event-centre;
- **Primary Tenant:** The decision if made between CBRM and the SCC, CBRM will need to ensure that the curling club is able to take on a long-term commitment to the building which includes revision of license agreement and required fees at appropriate intervals.
- **Operating costs risk:** There is a risk that some operating costs will be higher than projected due to the range of factors some of which can be estimated and some of which are difficult to estimate in advance. In a new facility, this risk should not be significant.
- **Management performance:** The management performance is a significant risk and can often be the difference between revenue growth and systemic revenue attrition. The approach of the management team to operating and marketing the facility is particularly important. Important: because this building is designed to meet community needs and participatory tournament opportunities before it is utilized for larger sport and non-sport events, trade shows and conferences, a municipal management model is more appropriate than operation and management by a professional event centre management firm.

Risk mitigation strategies that can be undertaken to reduce the range and scale of risks include:

- **Establish Principles of Use** – governing the rationale for and intent of the new addition, an allocation policy for time at the facility, the protocols around scheduling events and framework within which community use and event development are balanced year to year.
- **Pre-opening business planning** –a detailed plan of action is undertaken to create the necessary departmental operating cost budgets, marketing resource requirements, and pre-opening expenses.

8.3 Project Delivery Options

8.3.1 The Traditional Public Procurement Approach

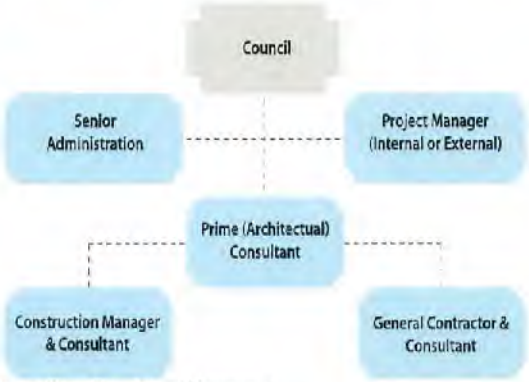
This is less likely in the case of a building of this scale and specificity. In the traditional municipal procurement method, municipal or other public sector funds are used to fund capital construction costs and the municipality is responsible for facility operation, maintenance and life cycle works.

Under the traditional approach, the public sector owner of the facility separates out the components of project design, construction and delivery, through one or more design development contracts, and a series of construction tenders, managed by a project manager contracted by the municipality.

The operation and maintenance of the facility is the responsibility of the Municipality with necessary short-term contracts with private sector companies to provide supplies and specific services. Under this model, the municipality has 100% control of the facility, its financing and operations, and therefore assumes all risks associated with the project including any delays or cost overage prior to completion, and any ongoing operating liabilities (financial or otherwise) during the operation phase of the project.

With respect to the process to design and deliver the facility under the Traditional Public Procurement approach, this is most appropriately one of two traditional approaches: 1) Construction Management Contract or 2) a Stipulated Sum General Contract. There are other variants of these approaches that involve Cost-Plus contracts, Guaranteed Maximum Price contracts and other more integrative project delivery models (IPDs).

Exhibit 35: Traditional Public Procurement Approach



Source: Sierra Planning and Management

Construction Management Approach

In terms of actions required under this approach the municipality will be required to ensure that the following occurs:

- Select, through competition, a Prime Architectural Consultant (Prime Consultant) to undertake the next steps in functional program development and design. Because the focus is on these initial tasks, it is not necessary to hire a Construction Management firm at the same time as the Prime Consultant. However, it is generally good practice to select a Construction Management firm, if this is the desired approach, relatively early in the detailed design process.
- The Prime Consultant will engage in the following key milestone tasks:
  - Functional Program development (to advance the high-level program to the concept design stage)
  - Schematic Design
  - Design Development
  - Ultimately Contract Drawings, Tendering, and Contract Administration for construction.
- The resulting approach is a collaborative venture in which the qualifications of the Construction Management firm (often these firms are part and parcel of broader construction firms) are of critical importance. Significant reliance is placed on the Construction Management firm to bring the project in on schedule and budget.

A Construction Management contract can help overcome the inherent price uncertainty by establishing a maximum upset price which will factor in contingencies to mitigate the degree of uncertainty in setting the maximum price.

Stipulated Sum Approach (General Contractor)

If this is the chosen approach it is characterized in the following way:

- The contract is between the Owner and Contractor.
- The Prime Consultant is retained by the Owner (as described above) and advances the Owner's interests through the design process.
- The Prime Consultant then acts as an impartial, fair mediator of the construction contract between the Owner and the Contractor during the construction period.

8.3.2 Public-Private Partnership Options

Several essential principles define public private partnerships and the reasons that municipalities and other public sector organizations seek these models:

- Involving the private sector in project delivery and/or operations enables the transfer of risks to the private sector while also providing the necessary profit incentive for the private sector;
- Partnerships are based on reducing overall costs both in the short term and over the long term;
- Roles and responsibilities reflect the relative expertise of the public vs. private sector parties; and
- The arrangement potentially frees-up scarce public sector resources.

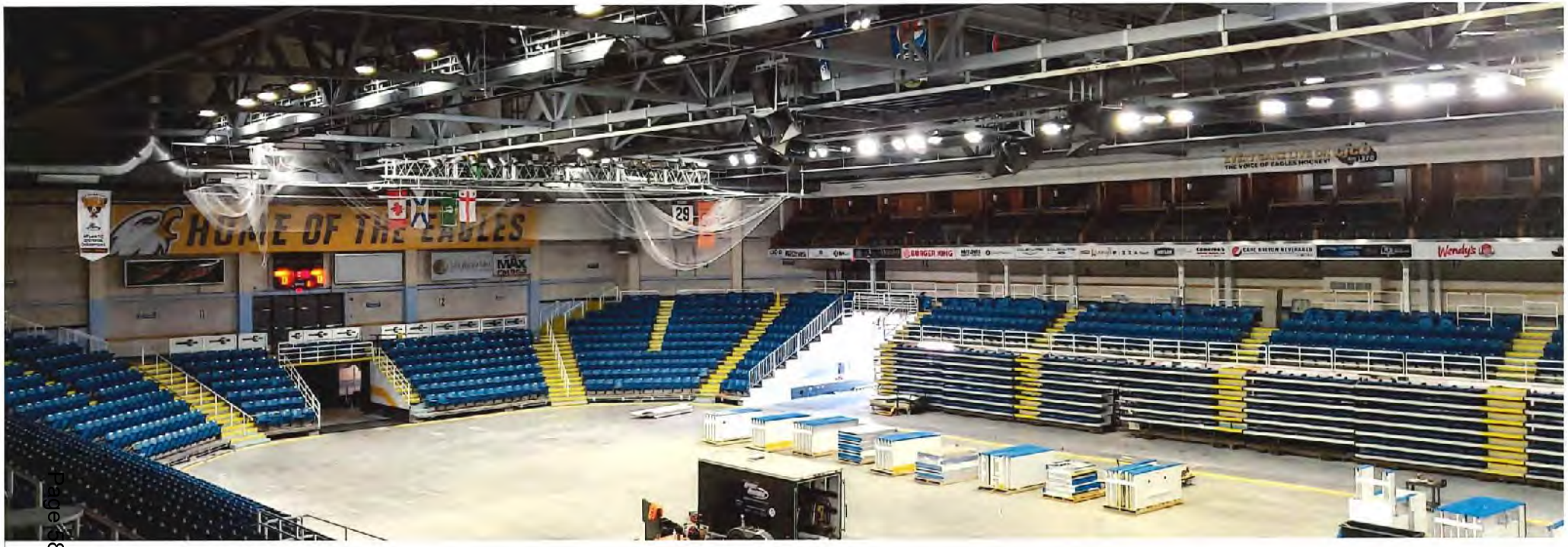
The extent of the private sector involvement, and therefore the degree of project risk transferred to the private sector, varies depending on the type of private sector partnership. In this first limited form, the involvement of the private sector is in the provision of the design-build services whereby the design and construction (not necessarily the financing) is undertaken by the private sector. Ownership and operation of the facility, when complete, remains with the public sector.

At the other end of the spectrum is full-out privatization whereby the private sector fully substitutes the public sector in the provision of the facility, service or other activity under consideration. Between these two limits lie a range of risk transfer mechanisms, which have proven valuable to a number of municipalities in the delivery of large-scale, long-term capital facilities.

Delivery Take-Aways:

For the project under consideration, CBRM can likely consider both a Design-Build approach and a traditional approach of "Design-Bid-Build". Given the importance of the location as part of the region's primary event centre, and the potential associated with developing a downtown destination campus, we recommend utilizing a prime architectural consultant to fully expand upon design opportunities for the building and campus.

If the new building is to be attached to the existing building and shared systems upgraded and utilized, the more complicated nature of that exercise may lend itself to a construction management approach to reduce the project risks.



APPENDIX A:
M&E FINAL DRAFT CONCEPT REPORT

Mechanical & Electrical Final Draft Concept Report

Centre 200
Sydney, Nova Scotia

28 January 2022

Report Prepared by:
M&R Engineering Ltd.
5531 Cornwallis Street
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Tel: (902) 422-7393

Table of Contents

1.0 Design Objectives and Conditions

.1 Design Objectives

The mechanical systems will be designed as part of a whole building systems approach allowing for an integrated design solution that is both energy efficient and provides excellent indoor air quality.

Systems will be designed to comply with the latest codes, standards and guidelines for each aspect of the project. The design team will research standards from code writing authorities such as NBC, NFPA, CEC and standard developing bodies such as ASHRAE, CSA, AABC.

The designs will be assessed using computer energy simulation to establish a baseline energy budget and ensure that the selected matching of mechanical systems with building loads will provide optimum energy efficiency within the project budget.

Sufficient space will be provided for equipment servicing, regular maintenance and eventual replacement. The selection of distribution pathways will be coordinated among all disciplines to ensure minimal interference and that ceiling heights are maintained.

2.0 Site Services Systems and Components

The following new services will be required:

.1 Sanitary Sewer
Due to existing building sanitary main sizing and exiting building on opposite side of new addition, recommend new dedicated sanitary system for new addition

- Line size required at 1% slope – Estimated for domestic load only
- The sanitary drains will be collected below grade and routed from the building towards the municipal services.

.2 Storm Water
Due to existing building storm main sizing and exiting building on opposite side of new addition, recommend new dedicated storm system for new addition

- The requirement for storm water management is assumed as part of good design and therefore sizing of discharge lines will be based on flow control roof drains. Leaving storm line size will be based on plumbing code.
- Storm lines will collect below grade and routed from the building towards the municipal services

3 Domestic Water
Due to existing building domestic water service main sizing and entrance location on opposite side of new addition, recommend new dedicated domestic water service for new addition.

- A new domestic cold water line will enter the building from municipal services on site. A water entry room will be provided to house the water meter and fire protection devices noted below.
- A dedicated reduced pressure principal backflow preventer will be provided for premise isolation.

.4 Fire Protection
Due to existing building fire protection water main sizing and entrance location on opposite side of new addition, recommend new dedicated sprinkler water service for new addition

- A fire line to serve sprinklers will enter into the new water meter room noted above.
- A fire department connection will be provided near the main entrance within 45 meters of a fire hydrant.
- A flow test will be required at nearest existing fire hydrants to determine residual and static pressures near proposed building to determine if a fire pump will be required.
- An approved double check valve back flow preventer will be provided in the water entry room.

3.0 Plumbing Systems and Components

The plumbing systems will be designed to meet or exceed the requirements of the National Plumbing Code and local authorities.

The plumbing systems are broken down into three primary categories:
- Collection system
- Pressure – distribution system
- Plumbing fixtures

The collection system consists of:
- Storm drainage
- Sanitary waste and vent system

.1 Storm Drainage

The storm system will consist of draining rain water from roofs, paved surfaces and perimeter foundation drain tile as required. Storm drainage from site is by Civil engineering design.

.2 Sanitary Waste and Vents

Sanitary waste and vents will be provided for all domestic plumbing fixtures and equipment which discharge regular waste, complete with a vent collection system to atmosphere. These fixtures include low-flow water closets, low flow rate urinals, floor drains, showers, lavatories, hand wash sinks, etc.

.3 Potable Domestic Water

Potable domestic water consisting of cold and hot water will be provided as required throughout the building to all sanitary fixtures. Emergency eyewash and showers will be provided with tempered water mixing valve stations located directly above meeting the latest ANSI/CSA requirements. The hot water to the mixing station will be re-circulated to prevent water stagnation and rust accumulation.

Domestic hot water will be pre-heated from the ice plant waste heat

.4 Plumbing Fixtures

Plumbing fixtures will be water conservation type including dual flush toilets, low flow urinals, low flow electronic infrared faucets and barrier free non-CFC based refrigerated drinking fountains. All toilets will be vitreous china. Lavatories will be vitreous china or stainless steel. Kitchen sinks and convenience sinks will be stainless steel. Shower valves will be commercial quality electronic infrared valves with pressure balancing feature and maximum temperature check stops. Shower heads will be chrome plated brass type with adjustable flow pattern and a water conserving device to limit flow. All plumbing fixtures will be CSA approved.

Other plumbing fixtures include interior hose bibbs, exterior non-freeze hose bibbs, floor drains, funnel floor drains, hub drains, cleanouts, area drains, scupper drains, trench drains, roof drains, planter drains

4.0 Ice Plant

The existing Ice-making Refrigeration Plant will provide cooling for the new addition. The Owner is currently performing separate work to ensure capacity to accommodate the additional load of new ice sheets for curling and building air conditioning. This work should be closely coordinated with new addition planning and work as design progresses.

The associated piping within new addition to new ice pad, buffer, underslab heating, and in-floor radiant heating for seating areas will be cross linked polyethylene. Piping to ice pads will be polyethylene glycol recirculation piping. Estimate of capacity will be approximately 80 tons (to be confirmed as design progresses). The plant equipment will include heat exchangers, pumps, header piping, tubing and controls. The system will incorporate heat recovery for use throughout building

and domestic water heating.

The ice plant will be controlled using infra-red ice temperature sensors along with slab and return temperature sensors. The Ice Plant will be equipped with interface to EMCS for central monitoring and alarm. The plant will be provided with monitoring and controls to qualify for guarded plant status in accordance with the NS Dept of Labor Stationary Engineers Act.

Ice Plant equipment (remote from main building plant) will be housed in a Class T mechanical room per CSA B-15 Refrigeration Code. The room will be provided with refrigerant leak detectors, sensors, alarm, ventilation, and will be constructed to comply with regulations.

Ice sheet floor piping will be nominal 1" polyethylene spaced on 4" centers. Underslab heating piping will be spaced on 16" centers and will be located in a sand bed below the ice sheet insulation layer. Headers will be 6" diameter, constructed of schedule 40 steel piping with 2" polystyrene insulation with Bakor Foil Skin moisture prevention layer.

Plant pumps will include:

- pumps for ice pad
- condenser water pumps
- underfloor heating pumps for permafrost prevention

5.0 Heating Plant

The existing Heating Plant will provide heating for the new addition. The Owner is currently performing separate work to ensure capacity to accommodate the additional load for the new addition. This work should be closely coordinated with new addition planning and work as design progresses.

.1 Heating Distribution

Piping distribution within the main plant will include air separation devices, expansion tanks and headers to distribution pumping. Heating distribution will be separated by terminal use. Each piping circuit shall have a primary and 100% capacity stand-by circulator with variable speed drives; programmed water valves to schedule circuit water temperature for best energy efficiency.

Separate pump and piping circuits will be provided for:

- Air handling unit heating coils
- Common area entrance heating loop
- Common area in-floor radiant heating loop and Curling area in-slab radiant heating (seating areas)
- Domestic hot water heating
- Air Handling unit cooling coils

For heat recovery available from the Ice Plant, heating circuits will include;

- arena seat heating (budget permitting)
- domestic hot water pre-heating
- space heating in arena and locker rooms

Heating hot water piping will be schedule 40 steel, insulated in accordance with National Energy Code for Building requirements. Piping will be distributed in reverse return arrangement to terminal heating units consisting of in-floor radiant heating, unit heaters, low temperature baseboard radiation panels and duct coils as required to best suit each space.

Piping for in-floor heating will be PEX.

Piping to each component of the complex will be routed separately for ease of operation and balancing. All terminal units will be valved for isolation to permit service and eventual replacement.

Heating will be zoned for common thermal (heat loss) loads with each zone controlled by a separate thermostat. Thermostats will be interlocked with space cooling for best energy efficiency.

6.0 Ventilation Systems and Components

.1 Fresh Air Ventilation

Fresh air ventilation including heat recovery on exhaust will be provided to comply with ASHRAE Std. 62- "Ventilation for Acceptable Indoor Air Quality" for all areas of the building.

Fresh air intake locations for the building will be carefully selected. The locations must be suitable to access the cleanest air available on site. Intakes must be far away from pollutant sources such as loading docks, generator flues, sanitary exhaust, kitchen exhaust and parking lots. They must be located so that winter prevailing winds are not in direct line so as to accumulate driving snow or freezing rain into the intakes causing maintenance concerns.

.2 Air Distribution Systems

Building ventilation and air condition systems will be zoned on several separate systems for dedicated space use.

Typical system will be complete with fresh air mixing, filter section, heating coil, cooling coil, humidifier, supply fan, return fan and 100% outdoor economizer capability. The supply fan will be equipped with a variable speed drive to permit balancing and reduced flow operation for energy conservation.

Curling area ventilation will be required to deal with purge requirements for equipment and Edging machine emissions and to provide ventilation for the spectators. The ventilation system for the curling area will consist of a recirculating dehumidification unit with capability to provide fresh air. The unit will include a fresh air / return air mixing section, filter section, dehumidification dessicant wheel with face and by-pass dampers, heating coil.

The locker and service spaces will be provided with ventilation by a 100% fresh air heat recovery ventilation system. The system will provide filtration, heat recovery, heating and ventilation only. The unit will be designed to operate at a positive pressure with respect to the arenas.

This gym area system will be a heat recovery system complete with variable speed drives on the supply and return fan systems. The VSD feature will allow low speed operation in "off hours" to conserve energy and maintain space conditions.

.3 Ductwork and Distribution

Ductwork is intended to be exposed in majority of addition areas.

7.0 Exhaust Systems

.1 Sanitary Exhaust

Sanitary exhaust will be provided for all sanitary fixtures including washrooms, janitor rooms, and showers. The fans will be located on the roof or in a mechanical room and will discharge away from fresh air intakes. Heat recovery from sanitary exhaust will be incorporated for all flows greater than 250 l/s.

.2 Miscellaneous Ventilation

An exhaust fan and duct systems will be provided for spaces requiring task exhaust ventilation or cooling. Spaces with these requirements will include:

- electrical room
- equipment room
- Ice Plant room, etc.

Electrical rooms will be provided with transfer air fans connected to reverse acting thermostats.

8.0 Control Systems and Components

The new system will be integrated into the existing controls work station.

New EMCS (Energy Management Control System) will be provided for the new addition. System component communication protocol will conform to ASHRAE/ANSI Standard 135 (BacNet).

The entire new mechanical system will be controlled and monitored by the EMCS system. The EMCS will also be designed to allow for remote monitoring and trouble shooting.

Trend logging will be specified so that all zone temperatures can be recorded on an hourly basis. Air flow measuring stations will be provided on the outside air systems in order to measure and record the outside air volumes introduced into the building.

All control valves will have strainers specified before the valves to ensure particulates do not enter the valves.

9.0 Fire Protection Systems

The building will be provided with a fully automatic sprinkler system. A site flow pressure test will be carried out during the design phase to establish site water supply conditions. A 200 mm lateral will be run underground from the municipal water main in Cook Street to serve as supply for the building sprinkler system. Within the building the water entrance will be protected using a double check backflow preventer and supervised isolation valve.

The requirement for a fire pump has not yet been determined. It will be determined once site water supply data is provided and reviewed.

Wet Alarm valves and associated sprinkler systems will be provided to serve sprinkler zones throughout the facility. All systems will be designed to NFPA-13 standards and the requirements of the Nova Scotia Fire Marshal. Wet pipe sprinklers may also be provided for the curling area as long as the area temperature is maintained above 5 deg C during winter design conditions. (dry pipe sprinkler system is a possibility).

Sprinkler zoning will be determined by size of zone, fire separations, and hazard classification

Fire extinguishers will be provided as required by NFPA 10. Wall mounted fire extinguishers will be provided in mechanical/electrical rooms and other high hazard areas.

10.0 Integration and Co-ordination

The mechanical system design will be an integrated system with other disciplines including architecture, electrical and structural. Mechanical requirements will be coordinated with these disciplines to ensure constructability is achieved.

11.0 Sustainable Design Options

The following is a list of possible sustainable design features which will be reviewed for implementation in this project.

Mechanical Building Systems:

- Ice Plant waste heat recovery (for DHW, building heat)
- Ice plant heat pumps
- Ice battery
- Curling area dessicant dehumidification
- Heat Recovery on Make-up Air/Relief / Exhaust Air Systems
- High efficiency motors
- Variable speed drives (Coyote Magnetic Clutch type) for pumps, fans, etc
- Free cooling (air side)
- Demand based fresh air ventilation using carbon dioxide sensors
- Occupancy controls for ventilation/temperature setback
- Natural Ventilation Strategies utilizing operable windows & clerestory windows
- Night purging/pre-cooling
- Shower water heat recovery
- Solar heating and hot water heating
- Photovoltaic solar panels
- Rainwater harvesting and storage for grey water system
- Ultrasonic or atomizing type (low energy) humidifiers
- Consider Geothermal (consider alternate fuels)
- Low flow plumbing fixtures
- Low temperature hot water heating panels
- Building energy management system
- Consider high performance building envelope
- Efficiency NS applications
- Low e ceilings over curling ice sheet areas
- VRF heat pumps for AC loads
- Specialty metering

12.0 Basic Electrical Systems

.1 Basic electrical systems for this building consist of the following:
- Power distribution system
- Emergency power system
- Lighting system
- Lighting automation system
- Life safety system
- Security system
- Telecommunications

.2 The electrical system is designed to offer ease of operation, maintenance and flexibility.

.3 All components will be of a modular construction for fast and efficient servicing and to provide flexibility for ongoing reconfigurations.

.4 All electrical work will comply with or exceed the minimum requirements of the applicable codes, rules and regulations of the latest:
- National Building Code of Canada
- Canadian Electrical Code
- National Fire Code of Canada
- Local Electrical Codes and Requirements
- CSA Standards
- IEEE Standards
- IES Standards
- EIA/TIA Communications Standards

.5 All materials will be new and free of defects and carry CSA approval. Canadian products will be used where possible.

13.0 Site Incoming Services

.1 The building will be fed via a pad-mount utility transformer fed from the local 25 kV power grid.

.2 The estimated service size is a 1000 kVA pad-mount transformer with 25 kV primary and 600 V secondary.

14.0 Power Distribution System

.1 Power to the multi-purpose center will be sufficient to accommodate sporting events, concerts, and private functions.

.2 Service Entrance

a. The main entrance board will be manufactured to CSA C22.2 No. 31, EEMAC G8-3, and relevant ANSI specifications.
b. The main board will be complete with main breaker, utility metering cabinet, owner's metering, and distribution sections. It shall be rated 600/347V, 1000 A, 3 phase, 4 wire, 60 Hz. Bus bars will be tin-plated aluminum or silver-plated copper and braced for maximum short circuit current of 25 kA.
c. The cubicles will be free standing, metal enclosed. The main breaker will be 100% rated solid state. The distribution breakers will be moulded case.
d. Transient voltage surge suppression (TVSS) will be provided to protect the entire building from external voltage disruptions.
e. The main entrance board will be located in the main electrical room.

.3 Power Distribution

a. The power distribution will consist of 600/347V and 208/120V systems. 600/347V will be used for mechanical equipment, while the 208/120V system will be used for the remaining building loads.
b. Starters for mechanical equipment will be located in common motor control centers. These MCCs will be 600/347V, 3 phase, 3 wire.
c. Dry-type distribution transformers will be utilized for the 208/120V loads. These transformers will be of low-loss type with efficiencies to CSA 802.2-00.
d. 208/120V loads will be feed from breaker-type panelboards. These boards will contain moulded case circuit breakers and copper bussing. All wiring will be copper.

.4 Wiring Methods

a. All wiring will be installed in EMT conduit. Threaded rigid galvanized steel conduit will be used for wiring where required. In finished areas, all conduits and cable will be concealed above finished ceilings, in walls, and in partitions. Flexible cables will be interlocked aluminum armour (BX) will only be used in accessible ceiling spaces for final fixture drops.
b. All non-current carrying metal parts shall be connected to ground in accordance with the local authorities. A separate insulated ground wire will be provided throughout the complete system, sized as per CEC requirements.

15.0 Emergency Power System

.1 A permanent standby emergency generator will be provided to power life safety systems during a utility outage. These systems will include emergency lighting, exit lighting, fire alarm, and sprinkler fire pump (if required).

.2 The generator will be a self-contained exterior unit complete with a weatherproof sound-attenuating enclosure. The generator will be a diesel engine, c/w 24-hour sub-base fuel tank.

.3 The emergency distribution system will be 600/347V only and separate from the normal distribution system. An automatic transfer switch will start the generator and connect it to the emergency system in the event of a utility power failure.

16.0 Motor and Apparatus

.1 Disconnect switches, starters, and auxiliary control equipment, which are not an integral part of packaged units described in equipment specifications but which are required for performance and operation of equipment specified under other divisions, will be provided.

.2 Motors ½ hp and above will be three phase. For three phase motor starters, the following will be provided:

a. Magnetic operated motor starter.
b. Fused control transformer for 120 V control.
c. Hand-Off-Auto selector switch where remote control of all three functions are required. Three position HOA selector switches will not be used to operate controls requiring only on/off, two position switches.
d. Solid-state single phasing protection will be provided for ALL motors.
e. LED-type pilot lights.
f. Solid-state overload protection on all three phase.
g. Motor control centers will be used for practical grouping of controls and are to be NEMA standard for class and type. MCCs will be free-stand structures utilizing combination starters.

.3 Single phase motors will be provided with TOL switches or combination starters as required.

17.0 Lighting Design

.1 Special emphasis will be placed on the design of the illumination system and the choice of light sources. Lighting shall be of high energy efficiency and low maintenance.

.2 Average maintained lighting levels shall conform to recommendations set out by the Illuminating Engineering Society (IES).

.3 Lighting fixtures will be tailored to the specific application. Examples include:
   a. Curling rink: Hi-bay LED direct illumination fixtures with multi-level switching to allow for varying lighting levels.
   b. Basketball Courts: Indirect fixtures with asymmetric distribution will be used to reflect light off the ceiling onto the courts to eliminate glare and increase uniformity.
   c. Office spaces: Recessed indirect LED fixtures.
   d. Change rooms: Surface mounted LED fixtures complete with vandal resistant polycarbonate lens.
   e. Atrium and reception: Fixture selection will depend on architectural layout and features.
   f. Exterior: Site lighting will consist of building mounted and pole-top lighting with full cut-off, dark sky compliant LED fixtures, thus minimizing possible light pollution. Building accent and façade lighting will be energy efficient, long-life LED carefully selected to focus lighting on architectural elements and minimize light trespass. Low-level LED lighting will be provided for pathways and entryways to enhance pedestrian experience.

.4 The lighting fixtures will be controlled by a complete lighting automation system, outlined below.

18.0 Lighting Control Devices

.1 A lighting automation system shall be provided to control all lighting in public areas and office spaces. The system will consist of low voltage control devices, occupancy sensors, daylight sensors, and wall controls.

.2 This user friendly and easy to reconfigure system will deliver energy savings through time scheduling, daylight harvesting, and occupancy sensing.

.3 Occupancy sensors will be provided in all washrooms, change rooms, storage rooms and other infrequently used areas to reduce electricity consumptions.

.4 Occupancy sensors will also be provided in office spaces in the building in conjunction with wall control stations.

.5 Daylight harvesting and dimming control:
   a. Daylight harvesting (via photosensor control) and load shedding strategies will be employed to further reduce the energy consumption.
   b. Daylight harvesting, load shedding, and lighting control is to be achieved by dimming certain groups of luminaires or by turning some lights off along the perimeter zones on each floor as indicated.

c. Each day lighting sensor will control the dimming of lights within a few selected lighting control zones that are related and in the vicinity of each other. The day lighting sensor will dim the luminaires in accordance with the preset target lighting level on the work plane and the amount of day lighting available as perceived by the sensor.
d. In all dimming control zones, the luminaires shall employ stand-alone or multi-zone controllers with on/off and/or 0-10V dimming control for LED drivers capable of:
    i. Automatically controlling a space.
    ii. Connecting to a centralized lighting control panel.

19.0 Life Safety Systems

.1 Fire alarm and detection system:
a. An addressable, zoned, non-coded, single stage fire alarm system will be provided. This system will be designed to fully integrate with other life safety, sprinkler, and security systems.
b. The system will employ fully programmable addressable devices, each with their own unique address, allowing the building operators to specifically identify the detector in alarm.
c. The primary means of detection/suppression will be the automatic sprinkler system; however, in certain areas this system will be supplemented by the following types of early warning detection:
    - Smoke detectors located in electrical, mechanical, and storage rooms; and at the top of stairwells and elevator shafts.
    - Duct mounted air sampling smoke detectors on both supply and return sides of recirculating air handling systems.
d. Horn/strobes, field adjustable, will be used for signaling.
e. A central fire alarm control and enunciator panel will be provided at the main entrance.
f. Fire alarm system is to be monitored by a ULC listed 24-hour staffed station.

.2 Exit lighting:
a. Illuminated exit signs will be provided at all means of egress and paths leading to such means. Power supply to these will be from the emergency power system.
b. Energy efficient LED-type in accordance with NBC code requirements.

.3 Emergency lighting:
a. Selected lighting fixtures will be connected to the emergency power system to provide adequate lighting during a utility power failure.
b. Emergency battery pack lighting with quartz lamps will be provided in mechanical and electrical rooms.

20.0 Telecommunications

.1 The telecommunications system design will be in accordance with industry guidelines and standards, in particular:
   a. Canadian Electrical Code (CSA 22.1)
   b. CAN/CSA T527 Grounding and Bonding for Telecommunications in Commercial Buildings
   c. CAN/CSA T528 Design Guidelines for Administration of Telecommunications in Commercial Buildings
   d. CAN/CSA T529 Telecommunications Cabling Systems in Commercial Buildings
   e. CAN/CSA T530 Commercial Building Standards for Telecommunications Pathways and Spaces

.2 Entrance facility:
   a. The main service entrance facility will be located in a secure, above grade Main Telephone Room (MTR). The MTR will be located on the ground floor.

.3 Telecom and CATV service entrance conduits will be installed in an underground concrete encased ductbank horizontal pathways:
   a. Horizontal pathways will be extended from the communications room(s) to all areas.
   b. Cable will be supported in accessible corridor ceiling spaces with approved J-hooks, and run through conduit from corridors to wall outlets.
   c. All telecommunications cabling will be Category 6 UTP copper.
   d. CATV outlets will be provided in locations as required.

.4 Structured cabling system for voice will allow for traditional PBX or VoIP.

21.0 Multimedia Systems

.1 Public address systems are planned for the curling rink and basketball courts.

.2 Public address/paging will be provided for public areas. This system will be integrated with the telecommunications system.

22.0 Security System

.1 A complete intrusion alarm system will be provided to suit building layout.

.2 This system is to include motion sensing on each level in all exterior rooms. Keypads will be installed at the main building entrance and other suitable locations to arm/disarm system partitions. Door contacts will be provided at entry points.

.3 The security system control panel will contain its own dialer to annunciate an alarm, trouble or tamper condition remotely.

23.0 Access Control System

.1 A complete Access Control system will be provided to suit the building layout.

.2 This system is to include door access control panels, door contacts, combination proximity card / keypad readers, proximity cards, power supplies, security management and reporting software, operator's workstation and electrically operated door locking hardware.

24.0 Video Surveillance System

.1 A complete video surveillance system shall be provided to suit the building layout and requirements of the Design Requirements Manual.

.2 The video surveillance system shall be an internet Protocol based, integrated system including HD Network Video Recorder (NVR) Servers, High Definition IP cameras, patch panels, Power Over Ethernet (PoE) switch, optical fibre backbone cables and connectors, optical and copper patch cords, interior and exterior dome enclosures, computer work station with monitors, keyboard and mouse, equipment rack, power supplies, Network Video Management Software (NVMS), site licenses, cable and connectors, wire and conduits, programming, training and commissioning.

25.0 Electrical Room Requirements

- Main electrical room: 500 sq. ft
- Two comms rooms at 80 sq. ft each
- Additional space in mechanical rooms for starters and panels:
- HVAC Heat pump room: 5 feet of clear wall space for starters/disconnects
- Ice Plant Room: 100 sq. ft. for electrical
- Multi-purpose, Offices Ventilation Penthouses: 5 feet clear wall space (each).

26.0 Extending Existing Systems

There is a possibility to extend some existing systems in Centre 200. For example, Section 25.2 Telecommunications would be amended as follows if they were tied to the existing C200 infrastructure:

.2 A main telecommunications room will be provided in the community centre. In lieu of a separate telecommunications service fibre optic and copper backbone cables will be connected to the main telecommunications room within Centre 200 to extend telephone, data, and CATV services.

This would eliminate the need for a ductbank as well (Section 25.3). A similar process can be applied with respect to the fire alarm system and miscellaneous systems (such as public address, intrusion alarm, access control).

APPENDIX B: FINANCIAL ANALYSIS

CBRM Recreation Centre Addition

Financial Feasibility Analysis

5 Year Operating Revenue/Cost Projections

Building Size: 49,686 s.ft.

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Escalation (p.a.)	*3.0%*	*1.00*	*1.03*	*1.06*	*1.09*	*1.13*	*1.16*	*1.19*	*1.23*	*1.27*	*1.30*
Revenue											
Annual Curling Ice Lease		**$150,000**	**$154,500**	**$159,135**	**$163,909**	**$168,826**	**$173,891**	**$179,108**	**$184,481**	**$190,016**	**$195,716**
Spectator Events (Ticketed)		$42,000	$43,260	$44,558	$45,895	$47,271	$48,690	$50,150	$51,655	$53,204	$54,800
Gymnasium Rentals		$228,780	$235,643	$242,713	$249,994	$257,494	$265,219	$273,175	$281,371	$289,812	$298,506
Drop-In (Free Youth / Seniors / Community Use)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CBRM Programs		$64,000	$65,920	$67,898	$69,935	$72,033	$74,194	$76,419	$78,712	$81,073	$83,505
Meeting Room Rentals		$33,075	$34,067	$35,089	$36,142	$37,226	$38,343	$39,493	$40,678	$41,898	$43,155
Rental Based External Events (trade show, convention, etc.)		$24,000	$24,720	$25,462	$26,225	$27,012	$27,823	$28,657	$29,517	$30,402	$31,315
Total Revenue		$541,855	$558,111	$574,854	$592,100	$609,863	$628,158	$647,003	$666,413	$686,406	$706,998
Gross Margin		$541,855	$558,111	$574,854	$592,100	$609,863	$628,158	$647,003	$666,413	$686,406	$706,998
Expenses											
Payroll (Labour)		($361,820)	($372,675)	($383,855)	($395,370)	($407,232)	($419,449)	($432,032)	($444,993)	($458,343)	($472,093)
Utilities		($248,431)	($255,884)	($263,560)	($271,467)	($279,611)	($287,999)	($296,639)	($305,539)	($314,705)	($324,146)
Other Operating Costs											
Administration		($10,000)	($10,300)	($10,609)	($10,927)	($11,255)	($11,593)	($11,941)	($12,299)	($12,668)	($13,048)
Repair and Maintenance		($20,000)	($20,600)	($21,218)	($21,855)	($22,510)	($23,185)	($23,881)	($24,597)	($25,335)	($26,095)
Janitorial Contract and Supplies		($27,093)	($27,906)	($28,743)	($29,605)	($30,493)	($31,408)	($32,350)	($33,321)	($34,320)	($35,350)
Grounds Maintenance / Snow Removal / Waste Mgt		($20,000)	($20,600)	($21,218)	($21,855)	($22,510)	($23,185)	($23,881)	($24,597)	($25,335)	($26,095)
Marketing		($10,000)	($10,300)	($10,609)	($10,927)	($11,255)	($11,593)	($11,941)	($12,299)	($12,668)	($13,048)
Insurance		($30,000)	($30,900)	($31,827)	($32,782)	($33,765)	($34,778)	($35,822)	($36,896)	($38,003)	($39,143)
Total Expenses (Excl. Debt and Capital Reserve)		($747,344)	($769,764)	($792,857)	($816,642)	($841,142)	($866,376)	($892,367)	($919,138)	($946,712)	($975,114)
Net Income (NOI) Before Capital Reserve		**($205,489)**	**($211,653)**	**($218,003)**	**($224,543)**	**($231,279)**	**($238,218)**	**($245,364)**	**($252,725)**	**($260,307)**	**($268,116)**
Capital Reserve		($100,000)	($103,000)	($106,090)	($109,273)	($112,551)	($115,927)	($119,405)	($122,987)	($126,677)	($130,477)
NOI after Capital Reserve		**($305,489)**	**($314,653)**	**($324,093)**	**($333,816)**	**($343,830)**	**($354,145)**	**($364,769)**	**($375,712)**	**($386,984)**	**($398,593)**

CBRM Recreation Centre Addition

Financial Feasibility Analysis

5 Year Operating Revenue/Cost Projections

Building Size: 49,686 s.ft.

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Escalation (p.a.)	*1.34*	*1.38*	*1.43*	*1.47*	*1.51*	*1.56*	*1.60*	*1.65*	*1.70*	*1.75*
Revenue										
Annual Curling Ice Lease	**$201,587**	**$207,635**	**$213,864**	**$220,280**	**$226,888**	**$233,695**	**$240,706**	**$247,927**	**$255,365**	**$263,026**
Spectator Events (Ticketed)	$56,444	$58,138	$59,882	$61,678	$63,529	$65,435	$67,398	$69,420	$71,502	$73,647
Gymnasium Rentals	$307,461	$316,685	$326,186	$335,971	$346,050	$356,432	$367,125	$378,138	$389,483	$401,167
Drop-In (Free Youth / Seniors / Community Use)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
CBRM Programs	$86,011	$88,591	$91,249	$93,985	$96,806	$99,710	$102,701	$105,782	$108,956	$112,224
Meeting Room Rentals	$44,450	$45,784	$47,157	$48,572	$50,029	$51,530	$53,076	$54,668	$56,308	$57,997
Rental Based External Events (trade show, convention, etc.)	$32,254	$33,222	$34,218	$35,245	$36,302	$37,391	$38,513	$39,668	$40,858	$42,084
Total Revenue	$728,208	$750,054	$772,556	$795,732	$819,604	$844,192	$869,518	$895,604	$922,472	$950,146
Gross Margin	$728,208	$750,054	$772,556	$795,732	$819,604	$844,192	$869,518	$895,604	$922,472	$950,146
Expenses										
Payroll (Labour)	($486,256)	($500,843)	($515,869)	($531,345)	($547,285)	($563,704)	($580,615)	($598,033)	($615,974)	($634,454)
Utilities	($333,870)	($343,886)	($354,203)	($364,829)	($375,774)	($387,047)	($398,659)	($410,618)	($422,937)	($435,625)
Other Operating Costs										
Administration	($13,439)	($13,842)	($14,258)	($14,685)	($15,126)	($15,580)	($16,047)	($16,528)	($17,024)	($17,535)
Repair and Maintenance	($26,878)	($27,685)	($28,515)	($29,371)	($30,252)	($31,159)	($32,094)	($33,057)	($34,049)	($35,070)
Janitorial Contract and Supplies	($36,410)	($37,503)	($38,628)	($39,787)	($40,980)	($42,210)	($43,476)	($44,780)	($46,124)	($47,507)
Grounds Maintenance / Snow Removal / Waste Mgt	($26,878)	($27,685)	($28,515)	($29,371)	($30,252)	($31,159)	($32,094)	($33,057)	($34,049)	($35,070)
Marketing	($13,439)	($13,842)	($14,258)	($14,685)	($15,126)	($15,580)	($16,047)	($16,528)	($17,024)	($17,535)
Insurance	($40,317)	($41,527)	($42,773)	($44,056)	($45,378)	($46,739)	($48,141)	($49,585)	($51,073)	($52,605)
Total Expenses (Excl. Debt and Capital Reserve)	($1,004,367)	($1,034,498)	($1,065,533)	($1,097,499)	($1,130,424)	($1,164,337)	($1,199,267)	($1,235,245)	($1,272,302)	($1,310,471)
Net Income (NOI) Before Capital Reserve	**($276,159)**	**($284,444)**	**($292,978)**	**($301,767)**	**($310,820)**	**($320,144)**	**($329,749)**	**($339,641)**	**($349,831)**	**($360,325)**
Capital Reserve	($134,392)	($138,423)	($142,576)	($146,853)	($151,259)	($155,797)	($160,471)	($165,285)	($170,243)	($175,351)
NOI after Capital Reserve	**($410,551)**	**($422,868)**	**($435,554)**	**($448,620)**	**($462,079)**	**($475,941)**	**($490,219)**	**($504,926)**	**($520,074)**	**($535,676)**

CBRM Recreation Centre Addition

Gymnasium and Meeting Rooms Revenue Generating Uses

A. Courts Use

Activity	# of Courts or Surfaces	Standard Rate Per Hour per Court	Utilization of available booking	Summer utilization	Effective Rate Per Hour all Courts	Potential Percentage Use	Available 3 season Hours Per Year	Available Summer Season Hours Per Year	Weighted Revenue Per Hour[1] (3 Seasons)	Weighted Revenue Per Hour[1] (Summer Season)	Annual Revenue
Pickleball	8	$20.00	80%	0%	$128.00	25.00%	2,952	864	$94,464.00	$0.00	$94,464.00
Floor Hockey/Broomball/other niche	2	$25.00	50%	0%	$25.00	5.00%			$3,690.00	$0.00	$3,690.00
Tennis	2	$35.00	50%	0%	$35.00	5.00%			$5,166.00	$0.00	$5,166.00
Badminton	8	$20.00	50%	0%	$80.00	5.00%			$11,808.00	$0.00	$11,808.00
Training & pickup (e.g. baseball, soccer, volleyball)	2	$35.00	50%	0%	$35.00	10.00%			$10,332.00	$0.00	$10,332.00
Basketball - Full size	2	$35.00	100%	0%	$70.00	45.00%			$92,988.00	$0.00	$92,988.00
Other Floor Uses (Dance, Ultimate Frisbee)	2	$35.00	100%	0%	$70.00	5.00%			$10,332.00	$0.00	$10,332.00
											$228,780.00
Average Cost Per Hour						**100.00%**			**$59.95**		

Direct Programming - on half Gym							
Hours per Week	Program Duration		Program Rate per participant	# of Participants	Available Hours Per Year	Risk Factor	Annual Revenue
10 programs	8	weeks	$80	20	960	No Scenario Specified	$64,000.00
	4	per year					
	3	hrs per week					
	960	total hours					
B. Drop-In AND Meeting Rooms							

Additional Facility Activity	Drop-ins/ Membership / Program Registrants		Affiliated Rate Per Hour	Hours Utilized per Week	Hours per Year (Sept. to June)	Risk Factor	Total
Drop-in / Other (Youth, Seniors and other as identified in detailed programming process for gymnasium	Free		$0	10	500	n.a.	$0
Meeting Room 1			$50	14.00	588.00	25%	$22,050.00
Meeting Room 2			$50	7.00	294.00	25%	$11,025.00

CBRM Recreation Centre Addition

Expenses - Schedule of Costs as applicable by Scenario

	Municipal Own/Operate						
Expense Category	**Description**	**Itemization of Cost**					
1. Annual Payroll Costs - FTE	Additional Lead Hand Operators	2 FTE	$45,000	plus	25.00%	Payroll Expenses	$112,500.00
	Customer Service/Reception	1.5 FTE @	$60,000	plus	25.00%	Payroll Expenses	$75,000.00
	Assistant Operator - weekends	1 FTE	$40,000	plus	25.00%	Payroll Expenses	$50,000.00
	Sub-Total						**$237,500.00**
	Direct Programming Cost (labour) of Town Programs	75.00%	of program fee				$48,000.00
	Event Staff	5 staff	108 hours	$20 per hour			$10,800.00
2. Part-Time During Curling Season when Building at Maximum Load	Facility Operator	2.00	$25.00	520			$26,000
	Admin./ Front Desk	2.00	$18.00	520			$18,720
	Custodial	2.00	$20.00	520			$20,800
	Total Payroll, Occasional and Contribution to Direct Programming Labour						**$361,820.00**
Operational Expenses							
3. Utilities (Hydro, Gas, Water)		$5.00	per square foot	49,686	sq.ft.		$248,431
3. Other Operating Costs							$0
4a. Administration (Clothing, office supplies and equipment, communications, travel, professional dues)							$10,000
4b. Repair and Maintenance (incl. Elevator Servicing)							$20,000
4c. Janitorial contract and supplies	Assume 5% of revenues						$27,093
4d. Grounds maintenance/ Snow Removal / Waste Management	Existing Services on site						$20,000
5 Marketing Costs							$10,000
6. Insurance		$30,000	per year				$30,000
Sub-Total Operational Expenses							$385,524
Sub-Total Payroll and Operational Expenses							***$747,343.56***
7. Capital Reserve Fund	1% of original construction cost						$100,000
Total Items 1-6							**$847,343.56**

Ticketing

Ticketed Events - Gymnasium | Assumptions

	Provincial Events	Regional Events	
# of Events	1	3	
# of days per event	2	2	
# of hours per day	6	6	
# of hours for set-up/downtime	6	3	
# of Spectators per day	1,200	600	
Total hours of unavailable	72	108	
Risk Factor on # of Spectators	15%	20%	Note this includes complimentary tickets
# of players per Event	250	250	
# of Support Staff per Event	20	20	
Average Ticket Price	$10.00	$5.00	
% of Box Office	0%	0%	
Surcharge on Box Office	$0.00	$0.00	
Annual Revenue for Event Rental	$24,000	$18,000	
Annual Revenue from Box Office	$0	$0	
Total Annual Revenue	**$24,000**	**$18,000**	**$42,000**

Curling Pad Flat Floor (Day-Use) Event Potential

Corporate / Trade Show Events	Winter	Summer	Total
# of Events	1.0	1.0	
# of days per Event	2	2	
# of Prime Time Hours per event day	7	7	
# of Non-prime Time Hours per event day	2	2	
Rate per Event per Day	$5,000	$5,000	
Risk Factor on # of Marketing Events	20%	20%	
Total	**$8,000**	**$8,000**	**$16,000**

Entertainment Shows	Winter	Summer	Total
# of Events	1.0	0.0	
# of days per Event	2	2	
# of Prime Time Hours	7	7	
# of Non-prime Time Hours	6	6	
Rate per Event per Day	$5,000	$5,000	
Risk Factor on # of Marketing Events	20%	20%	
Total	**$8,000**	**$0**	**$8,000**

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