Comox Valley Feasibility Study for Curling and Ice Rink Facility

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cei ARCHITECTURE PLANNING INTERIORS

RECRESYNTHESIS CONSULTING Inc.

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Introduction

CEI Architecture was retained by the Comox Valley Regional District (CVRD) to conduct a needs assessment and feasibility study concerning the provision of winter sports programs and facilities to its constituents. Recresynthesis Consulting Inc. joined CEI's team to provide recreation consulting expertise, allowing the study to be as rounded as possible and include areas of study ranging from demographics and projected population growth, operations plans/ costing, existing building assessment, programming needs & wishes, surveys, magnitude of cost budgeting for new facilities, etc. The study included as series of announced public meetings attended by user groups and interested parties.

The primary purpose of the study was to develop information, facts and opinions that could be presented to the CVRD concerning the status/ future of the existing curling rink, and to make recommendations concerning if and when the provision of new curling rink and/ or participation ice arena facilities can be objectively recommended.

The recommendations by CEI Architecture and Recresynthesis are also made within the context of our ongoing experience working within the recreation field in British Columbia and nationally. We have used that experience to help us analyze how recreation facility and program provision within the CVRD compares to other Canadian communities. Additionally we have taken care to try to best understand the unique conditions and circumstances of the CVRD recognizing that acknowledging the unique characteristics of the CVRD will help develop recommendations in context with your community.

Our table of contents identifies the areas of study developed in some detail, while the executive summary provides a quick reference to key findings and recommendations.

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EXECUTIVE SUMMARY

Described in detail in the body of the study several key observations have been made

- Statistical Demographic information suggests a slow but steady growth for the CVRD. What is unknown at this time is the realization of several proposed residential developments that could have a significant effect on population growth in the region and corresponding needs for new and/ or improved recreation amenities. In terms of national averages related to curling rinks and ice rinks per capita, the CVRD is somewhat underserved. This statistical condition cannot be viewed in isolation to validate needs for new facilities and must be weighed in balance with demonstrated needs for new facilities.
- The current curling club is well used and maintained. The building faces a combination of challenges that include a series of non conforming building code conditions, an anticipated limited continuing lifespan for key building systems and the likelihood of refrigerant leaking into the soil below the ice slab. At 50+ years of age it is reasonable to say that the building has exceeded what might normally be expected a typical lifespan for this kind of facility.
- If / when the existing curling club is decommissioned, there is demonstrable need and demand that suggests a new curling club will be needed and used.
- Current demands for ice time for hockey, figure skating, public skating etc. appear generally to be served effectively within existing arena infrastructure. Anticipated growth through planned residential developments in the CVRD will likely provide a growing population base that will demand ice programming that may exceed the current capacity of existing facilities.
- Public Meetings held during the course of the study suggested there is support within the recreation community to replace the curling club with a new facility, and there was interest in a new participation recreation arena. The meetings did not uncover a pent up demand for ice requiring immediate action in provision of a new arena.
- Several potential sites in the CVRD are possible and viable. The site appearing to have the most immediate potential is at North Island College where provision of a new curling rink and/ or ice arena could provide great synergy and opportunity between CVRD and the campus and create a recreation hub similar to the existing recreation centre/ and exhibition grounds sites. The most speculative site is the Sage Hills area where the proposed development potentially presents interesting partnering opportunities. How partnering could work with the development group was not part of this study. The most intriguing site is the Trilogy property in Cumberland in which if the planned residential development goes forward could result in the CVRD's largest area of population growth.
- Consideration of operational cost models comparing operations of a stand alone curling rink versus a combined curling/ participation ice arena suggest a relatively modest operating cost difference.
- While the capital cost of building a stand alone curling rink will be less than a combined curling/ participation ice arena, current construction cost escalation would suggest that combining the facilities now or planning for the addition of a new ice arena in the near future will result in a lower long term capital cost investment than if a participation arena is completely deferred to a yet to be determined date.
- There is opportunity to pursue significant sustainable design standards in the construction of a new curling arena, similarly decommissioning of the existing curling club will help address some out of date systems that are not as energy efficient as what would be provided in a new building.
- Though not the focus or mandate of the study, the CVRD may have several partnering discussions with groups such as CFB Comox, North Island College, Sage Hills that may help inform or influence preferred site selection, and identify other desired program spaces of mutual benefit to the partnering group and the CVRD.

Recommendations

- The CVRD should plan to replace the existing curling facility within 3- 5 years. It is not reasonable that the facility be expected to continue to serve the community for the long term, and the CVRD will increasingly be faced with "band aid" solutions that will solve immediate problems but not support long term solutions.
- With some additional study and improvements, the existing curling club may prove to be a viable facility for other lower risk (i.e. lower occupant load) activities such as equestrian- which may fit in well with long range plans being developed by separate study for the Exhibition Grounds.

- There is current demand for a curling facility in the CVRD, and thus a new curling facility should be planned for to replace the existing club.
- There is not currently demonstrated need for a new participation ice arena however potential growth in the area suggests need could arise depending on realization for several proposed developments. The CVRD should consider a plan in which the provision of a new curling facility anticipates the addition of a new participation arena as a second phase at a time to be determined.
- The North Island College Campus appears at the time of writing of this report to offer the best site opportunities in terms of location, synergy, and possible partnering.
- With volatile construction market pricing, the CVRD may wish to consider and research the several methods of construction procurement available in order to best choose a methodology best addressing the risks and needs specific to the CVRD.

Part 1 Needs Assessment

1.1 A DEMOGRAPHIC REVIEW

The population of the study area is expected to increase by ±18% over the next 10 years. This growth however ***will not*** be distributed evenly among all age groups in the population.

Some important aspects of this growing trend are:

- The proportion of children and youth (ages 0-19) is expected to continue to decrease. This age group, an important one in terms of recreation programs and services, will also decline in real numbers over the next 10-15 years.
- The *seniors* group (60+) will increase proportionately over the 10-15 year time period, increasing to ±30% of the study area population.
- The Boomer Generation will, however, show the largest population growth to ±35% of the area's population.

There is nothing on the horizon that is likely to significantly shift these trends in the foreseeable future. Like most of B.C. and Canada, the birth rate is low. One of the contributors to study area's population growth at the present time is movement from within the province as well as migration from other provinces. With even a major injection of children into the study area, population is not likely to significantly alter the aging trend.

The Boomer generation is also aging. Nationally by 2030, the number of adults over the age of 65 will comprise a major portion (+ 20%) percent of our population. Collectively, these aging baby boomers will be healthier, wealthier and better educated than any preceding generation of older adults. Their decisions and preferences regarding the services they expect, where they choose to live and the lifestyles they prefer to lead have already shaped our present community landscape. As their preferences change in response to their evolving needs, they will continue to shape communities in these ways. CVRD Parks and Recreation Services must be prepared to refine their recreation facilities and services to meet these community demographic changes.

Here are a few questions to ponder:

- Given that the percentage of children and youth in the study area's population is expected to decline, should the proportion of recreation, leisure and social service resources committed to serving this age group be adjusted proportionately?
- The large and growing segment of the population in their fifties presents a looming healthcare challenge for our society. The next few years most likely presents our last opportunity as recreation and wellness professionals to continue to encourage this group to embrace a healthier lifestyle. This age group will be placing increasing, and new types of demands on the local recreation facilities and services.
- Participation in adult and senior programs and sports will increase, in part due to the aging of the population and this segment of our society interested in taking on new challenges. With this in mind, is the CVRD Parks and Recreation Services continuing to analyze these needs and work with the participants and user groups to provide appropriate facilities and services – curling being just one?
- In addition, to meeting these new demands, the CVRD Parks and Recreation Services should be addressing the issue of removing and/or replacing surplus or outdated facilities that may require expensive ongoing maintenance or upgrading costs. The existing curling facility is a prime example.
- Should more time and resources be devoted to this growing population of seniors? It is recommended that this may be a good idea that would assist the CVRD Parks and Recreation Services in preparing for the huge wave of Baby Boomers that will become their next 'senior' generation.

Despite statistics about the overall national reluctance to exercise, Boomers understand the value of physical exercise and will seek programs and facilities to find it. At 30%, and growing, of the study area's population, those 45-65 known as the "third age" are opting to stay at work or to shift their attention to doing a different kind of work, learning new skills including physical activity (i.e. recreation hockey for both sexes) , or becoming more involved in meaningful and purposeful activities within their community.

Studies have shown that most local governments generally offer the basic health and wellness programs, but do not have the policies, procedures or services in place to promote quality of life and the ability of older adults to contribute to their communities for as long as possible. Ensuring that the CVRD Parks and Recreation Services department is "age ready" in the provision of their facilities and services through engagement of this segment of the population will enhance the quality of life for all residents of the community.

Demographic / Growth Statistic Estimates

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Courtenay	21940	22576	23230	23904	24598	25311	26045	26800	27577	28377	29200
Comox	12136	12293	12466	12640	12792	12958	13322	13496	13671	13849	14028
Cumberland	2762	2817	2859	2902	2945	2975	3004	3049	3092	3123	3154
Electoral Area A	4885	4933	4983	5033	5070	5108	5147	5152	5190	5229	5268
Electoral Area B	7219	7291	7364	7437	7493	7549	7587	7625	7663	7701	7778
Electoral Area C	7441	7515	7590	7666	7743	7801	7859	7918	7977	8037	8056
Electoral Area K	2169	2210	2254	2294	2335	2379	2424	2461	2498	2533	2566
TOTAL	58552	59635	60746	61876	62976	64081	65388	66501	67668	68849	70050

Age Breakdown % of total [±to nearest %]

	0-19	20-29	30-44	45-65	65+	75+	Median
B.C. Median	23.2	12.4	21.4	28.4	14.6	7	40.8
[CVRD Median]	[23.5]	[8.8]	[18.8]	[33]	[16]	[7]	[44.3]
Courtenay	23	10	19	28	14	7	43
Comox	22	6	18	28	23	11	46.2
Cumberland	25	10	21	29	13	7	40.6
Electoral Area A	19	6	17	38	18	7	48.7
Electoral Area B	22	6	16	38	16	6	47.4
Electoral Area C	24	7	19	36	12	4	44.4
Electoral Area K	18	5	14	43	21	8	53

Age breakdown (±3%) higher than BC median

Age breakdown (±3%) lower than BC median

1.2 EXISTING FACILITY ANALYSIS

Currently the study area with a population of ±64,000 is well endowed with public recreation facilities and services supplied by either CSRD or the local municipalities of Courtenay and Comox. Add to these the facilities located at CFB Comox that are available to residents on a limited basis and the area's supply of sport and leisure facilities is more than comparable to similar sized communities throughout the province.

SPORT & LEISURE SERVICE FACILITIES			
Name	**Owner/Operator**	**Facility Assets**	**Function**
Comox Valley Sport Centre	CSRD	indoor pool, sauna, weight-room/wellness centre, two ice arenas, meeting rooms & adjacent 400M track	Regional recreation centre for aquatic, wellness and skating activities. Main arena has seating for ±1200 hosting major spectator events
Comox Valley Aquatic Centre	CSRD	wave pool, 2 indoor water slides, 8 lane fitness pool, weight-room, sauna, steam-room, meeting rooms and swim shop	Regional aquatic centre wellness, and fitness programming
Comox Valley Curling Club	CSRD (operated by CVCC during season)	6 sheet curling facility with lounge & meeting/banquet room	Regional curling club & dry floor uses in the non-curling season
Glacier Gardens Arena	DND	Skating arena with non-conventional ice size (±185x85)	Hockey & skating activities for both on and off Base residents, ±500 seating
19 Wing Fitness Centre	DND	weight room, cardio room, aerobics room, squash courts, gym, swimming pool, meeting room	Fitness & community centre for CFB Comox related recreation programs and activities
Filberg Centre	Courtenay	Meeting rooms/crafts room	Conferences, meetings, social functions
Lewis Centre	Courtenay	2 gyms/meeting rooms/squash/day care/weight room/crafts room	Local recreation activity centre with adjacent outdoor pool and park area
Native Sons Hall	Courtenay	Meeting rooms	Conferences, meetings, social functions
The LINC	Courtenay	Indoor skate park/games room/meeting room	Youth Centre catering to a multitude of games for youth up to 18 years of age
Comox Recreation Centre	Comox	Gymnasium, meeting rooms, squash courts, weight room	Local recreation activity centre

Indicates ice skating facility Indicates indoor swimming pool Indicates gymnasium

1.2.1 ANALYSIS OF CAPITAL COSTS TO UPGRADE EXISTING CURLING FACILITY

A. Introduction

As part of the feasibility study, CEI has reviewed and commented on the Condition Assessment Report of the Comox Valley Curling Club completed by PBK Architects in May 2005. The context of CEI's review has been to consider how the report and recommendations of PBK Architects can help inform recommendations concerning the feasibility of upgrading the existing facility for an extended long term versus upgrading as required pending the completion of a potential new facility. Also included in CEI's review concerning the existing curling facility assessment are comments on new information subsequent to the 2005 report.

B. Analysis and Recommendations based on PBK findings

For purposes of clarity, CEI's summary of PBK's report follows the same numbering sequence as the PBK report, and therefore we recommend this summary be read in conjunction with the afore mentioned document.

1.0 General

Two key factors outlined in the introduction to the PBK report are that no material testing was conducted, and that minimal drawings were available for review. Both factors should be recognized in a cautionary way in the event any upgrades or additions to the existing curling rink were contemplated. While its not unusual for buildings of this vintage to lack "record" and/or "as built" drawings, the lack of these documents makes it difficult to accurately confirm what has actually been built. In turn this makes the projection of anticipated or needed upgrades difficult and adds guesswork. Survey drawings can be commissioned and these can provide accurate base building information that confirms dimensions, elevations, wall locations, etc. but without material testing- some of which is destructive its not always possible to guess all existing conditions until work commences. In other words, contingency funds should be planned for to deal with unexpected conditions that are likely to be uncovered in the event of renovations or upgrades.

2.0 Architectural Systems

CEI's brief building visit and review suggested a well maintained and cared for facility. In our opinion, the degree of care taken in maintaining the facility has allowed it to remain more functional than most buildings of its vintage. That said, PBK's report made several observations that CEI believe warrant comment within the context of contemplating the need for a new facility and/ or significant existing facility upgrades and renovations.

Roofing - appears generally to be in good shape. If roof work is considered, it may be prudent to retain a building envelope specialist to confirm if the recommended scope of work can be limited to the report's recommendations.

Interior Walls - The unrated condition of the Ice Plant Room is reason for concern. It is CEI's understanding that the life safety improvements recommended by the assessment report are being adopted. These upgrades should occur irrespective of other future plans for the facility. From discussion with CVRD staff it is also our understanding that there is some concern that some brine from the refrigeration plant may be leeching into the ground below the facility. This may be difficult to confirm, but should be investigated if and when the facility is eventually demolished as ground contamination may have an affect on potential future use of the site.

Ice Slab in Curling Rink - Although it appears that no notable slab heaving has occurred, the fact that the refrigerated slab appears to be a slab on grade (with no insulation, under slab heating and/ or slab/ sand below) leaves the facility vulnerable and as noted in the report, limits the ability of the facility to offer year round ice. This fact limits potential revenue raised through additional programs. The recommendation to replace the slab in the near future is prudent if the long range plan for the facility is to continue to operate as a curling facility. CEI's view is that the costs projected for the new slab in the mechanical section of the report are low and may not contemplate the costs of demolishing and removing the existing slab and related old refrigeration pipes. Should the facility at such point be converted into dry floor use (e.g. indoor soccer, equestrian, etc.) the slab may well suit those uses with no other changes required other than decommissioning the refrigeration system.

3.0 Structural Systems

Two key factors emerge from the structural assessment. First, the structure likely does not meet the BC Building Code (1998) seismic requirements. The lack of existing drawings exacerbates the uncertainty of this condition because it makes it impossible to accurately determine the degree of upgrades required without destructive testing to confirm structural support systems. So long as the building continued to function as is, there is no requirement to upgrade the structure, however any significant upgrades, renovations, or additions that were contemplated would likely trigger a response from the building authority and design engineers to upgrade the seismic capacity of the building.

In CEI's recent experience, the building authorities tendencies are towards accepting that existing buildings built under previous codes are not likely to be able to reasonably achieve full code compliance and therefore an attempt to meet between 70 -80% of the seismic capacity requirement is often accepted. If an addition were contemplated, CEI's opinion is that the costs associated with providing seismic upgrades may not provide the community with as much long term value as considering building a new facility that meets current code requirements.

The second factor concerned changes to the structure resulting from additions and renovations in the two storey portion of the building. We concur with PBK's recommendation that this condition receive further investigation and mitigate any potential that the structure has been compromised.

4.0 Mechanical Systems

The mechanical systems will continue to require ongoing maintenance and repair as any building does. At a certain point the CVRD will need to determine at what time does continuing to maintain aging systems become less cost effective than building new. Key to making this decision is the program demand for new versus existing (discussed elsewhere in this report).

Fire protection is noted as inadequate related to sprinklering requirements. Because the building is of combustible construction, this issue is of higher priority than it would be in a non combustible construction. Thus, any additions, or major renovations to the existing building would likely trigger the requirement to sprinkler the building.

Some current non code compliant mechanical issues such as the presence of a boiler in the refrigeration room cause problems with imperfect solutions. Because these are life safety issues, properly fire separating the spaces that house these in compatible pieces of equipment must be endorsed. That said, the costs associated with providing the fire rated building spaces are likely to prove to be more expensive that any adjustments or relocation costs of the actual mechanical equipment.

Key recommended mechanical upgrades such as desiccant dehumidification and new HVAC are expensive. They are also essential for energy efficient operations. In our view, a decision to move forward with these items within the existing building is hard to recommend as those costs may be better directed towards the capital costs of new systems in a new building.

On a mechanical basis we would only recommend moving forward with life safety upgrades and defer all other mechanical upgrades until the CVRD has determined the long range plan for the curling facility.

5.0 Electrical Systems

The electrical system review results in a similar observation as the mechanical review. Life safety issues should be addressed. Other upgrades should be considered with caution as some of the additional spaces potentially required to house equipment, are likely to be more expensive than the new or relocated equipment.

The nature of the wiring causes concern. From a life safety point of view, items that are known to compromise life safety should be addressed. Additionally, without available drawings, it's hard to guess if unseen electrical systems all conform to current code requirements (and likely don't). From a renovation point of view, the design of upgrades and additions is very difficult with the lack of existing information meaning that contingencies would need to be available as the contractor inevitably uncovered conditions not acceptable during any proposed upgrades.

Like mechanical, we would only recommend moving forward with life safety upgrades and defer all other electrical upgrades until the CVRD has determined the long range plan for the curling facility.

6.0 Building Code/ Life Safety

They key issue under the original assessment review concerning code review is that the building is of combustible construction while the current code calls for non combustible construction. This condition is not unique amongst recreation buildings of this vintage in BC, and the recommendation of ongoing periodic discussion with the building authority to determine code upgrades on an "as required" basis is prudent if the building is to be continue functioning as a curling facility. If it is to be converted to other uses, similar discussions should ensue to ensure upgrades related to alternate building uses can be reviewed.

7.0 Hazardous Materials

Hazardous materials such as asbestos are common in facilities of this vintage. As such specialty environmental consultants can be brought in to provide a thorough survey in advance of any significant renovations or upgrades.

C. Key changes since 2005 Report Date

Construction cost escalation - It has been close to three years since the May 2005 assessment report was completed. During that time construction costs have escalated at a rate averaging in the range of 1% per month. For basic budgeting purposes, our recommendation would be that the cost summary provided at the conclusion of the PBK report be escalated in the range of 33% to end of January 2008. While there is conjecture that this escalation will slow in 2008, similar projections of slowed escalation for 2007 proved not to materialize. Most of the construction managers and quantity surveyors CEI currently engage with continue to recommend an anticipated rate of escalation of .75% per month range for 2008. This escalation is a factor that should be accounted for in any building renovations or upgrades.

BC Building Code Changes - The BC Building Code's most current edition (2007) was released and effective December 2006. The impact of this new code on the curling rink assessment is related primarily to seismic and snow load requirements that have been dramatically increased. While the new code will not require the CVRD to make immediate seismic upgrades that are more stringent than the old code, the new requirements will cause a significant degree of added seismic (and potentially snow load) capacity to be provided if and when the building is renovated or upgraded. What this means is that the cost of seismic upgrade to the building under the new code is likely to be significantly higher than it would have been under the old code.

D. Recommendation

The current condition of the curling facility suggests a building that is well maintained. With the average age of a recreation facilities in BC generally being related to the 1967 Canadian Centennial, the Comox Valley Curling Club, at close to 50 years old, is almost ten years older than the provincial average. At 50 years, there is a tendency for this building type to have exhausted its natural lifespan. While life safety deficiencies should always be maintained at regulation compliant levels, it is difficult to recommend that money be invested in the building for long term building life extension. In CEI's experience, there is a general owner expectation that a recreation building should remain viable for up to 50 years, after which replacement is considered an acceptable and expected course of action. Due to the known and unknown conditions of the structure, code changes, existing mechanical and electrical deficiencies, non code conforming construction assemblies and programming limitations brought on because of some of these deficiencies, it is CEI's opinion that the CVRD should not invest capital into the curling club facility with any expectation other than ongoing maintenance. Major renovation or

expansion is not recommended. Within the context of assessment of the building related to curling remaining a viable participation sport in the region, it is CEI's recommendation that a long term plan to consider replacing the curling facility within the next 3-5 years be seriously contemplated. At this stage ongoing work on the building is likely to result in a "band aid" approach that may well allow the facility to continue to operate but will increasingly become a financial burden with diminishing returns and potentially growing risk related to non conforming code issues that remain in their current condition.

1.2.2 PROGRAMING OPTIONS

Recreation professionals are asked to provide their constituents with a variety of excellent recreation programming options. Because approval of capital costs spending for the provision of new recreation facilities is typically a long process requiring levels of approval at both administrative staff and ultimately political levels, a key task of recreation providers is to creatively provide as much "multi use" programming as possible to maximize the use of facilities. One of the key questions for the CVDR is that should a new curling facility be provided, what are some of the ramifications to program options available to the region if that curling facility is a curling only (stand alone) facility versus it being combined with a recreational participation arena, versus the status quo of the existing curling facility?

The chart that follows examines by comparison a range of potential programmed activities that may or may not be able to take place in the four configuration models noted. The chart indicates several activities typical to arena type buildings and is intended to indicate what kind of facility tends to offer the most multi use functionality and programming flexibility.

Facility Options	Existing Curling Rink	Stand Alone Curling Rink	Stand Alone Skating Rink	Combined Curling/ Skating
Curling Programs				
Regular League Play	Yes	Yes	Yes	Yes
Small Bonspiels	Yes	Yes	Yes (with skating converted to curling)	Yes
Large Bonspiels	No	No	No	Yes (with skating converted to curling)
Learn to Play Mini Rinks	No (if on 200' x 85' pad)	Yes (if on 200' x 85' pad)	No (seasonal conflict)	Yes (if on 200' x 85' pad)
Hockey Programs				
Minor Hockey	No	No	Yes	Yes
Adult Hockey	No	No	Yes	Yes
3 on 3	No	No	Yes	Yes
Mini Rink Hockey	No	No	Yes (with dasher board kit)	Yes (with dasher board kit)
Other Ice Sport Programs				
Figure Skating	No (ice plant cannot run year round)	Yes (if ice converted in summer)	Yes	Yes (skating to curling rink in summer)
Ringette	No (seasonal conflict/ no dasher boards)	No (seasonal conflict/ no dasher boards)	Yes	Yes
Public Skating	No (ice plant cannot run year round)	Yes (if ice converted in summer)	Yes	Yes
Sledge Hockey	No (seasonal conflict/ no dasher boards)	No (seasonal conflict/ no dasher boards)	Yes (ice slab details must allow for)	Yes (ice slab details must allow for)
Broomball	No (seasonal conflict/ no dasher boards)	No (seasonal conflict/ no dasher boards)	Yes	Yes

Short Track Speed Skating	No	No	Yes (need pads and storage for pads)	Yes (need pads and storage for pads)
Skating School/ Camps	No	Yes	Yes	Yes
Dry Floor Sport Programs				
Lacrosse	No (surface too small/ no dasher boards)	No (surface too small/ no dasher boards)	Yes	Yes
Indoor Soccer	Maybe (with netting/ turf could play futsal)	Maybe (with netting/ turf could play futsal)	Maybe (non ideal boards/ needs turf)	Maybe (non ideal boards/ needs turf)
Ball Hockey	No (no dasher boards)	No (no dasher boards)	Yes	Yes
Basketball	Maybe (concrete surface)	Maybe (concrete surface)	Maybe (concrete surface)	Maybe (concrete surface)
Volleyball/ Badminton	No (no floor sockets in ice slab)	Maybe (need floor sockets in ice slab)	Maybe (need floor sockets in ice slab)	Maybe (need floor sockets in ice slab)
Recreation Inline/ Roller Skating	Yes	Yes	Yes	Yes
Dry Floor Social Programs				
Dances/ Beer Gardens	Yes	Yes	Yes	Yes
Banquets	Yes	Yes (if multi use room included)	Yes (if multi use room included)	Yes (if multi use room included)
Trade Shows/ Exhibitions	No (likely permit challenges- exiting/ w/cs)	Yes	Yes	Yes
Equestrian/ Rodeo	Maybe (future use?)	Maybe (if special features provided)	Maybe (if special features provided)	Maybe (if special features provided)
Concerts	No	No (limited seating/ poor acoustics)	No (limited seating/ poor acoustics)	No (limited seating/ poor acoustics)

1.3 CURLING FACILITY COMPARISON SUMMARY

Over the course of this study, CEI solicited responses to a survey questionnaire from numerous curling clubs throughout Canada (but focused in B.C.) While not scientific in nature, the survey provides direct comment and opinion from curling arena operators and City Recreation Managers that may be used to help suggest preferred directions the CVRD may wish to consider.

Facility	City of Comox	Springbank Park for All Seasons	City of Chilliwack	Chilliwack Curling Club	CFB Cold Lake Curling Club	Juan de Fuca
City	Comox, B.C.	Calgary, AB	Chilliwack , B.C.	Chilliwack , B.C.	Cold Lake, Ab	Colwood, B.C.
1. Facility Age (as of 2007)	1949, 58 years approx.	1984, 23 years	1954, 53 years	1952, 55 years	2003, 34 years	1977, 30 years
2. Facility upgrades	Yes, banquet room addition, roof upgrades, mechanical code upgrades	Yes. Roof was replaced in 2005.	Yes. Low e-ceiling and dehumidifiers.	1961 2 sheets were added; 1988 dance floor, change rooms added; Ice plant is constantly being upgraded.	No	Yes. 1985 addition to lounge and kitchen.
3. Is curling a growing or declining sport in the community?	Slight growth	It has maintained it's numbers for the last couple of years.	Growing	Staying the same - growing	This is relatively stable in terms of community but declining in the military as it is not considered a 'sport', there for not part of the PT.	Declining
4. Curling sheets in the facility	6	6	6	6	6	8
5. How many sheets should be provided in a new facility?	6, but might need 8 in the future - Curling Club comment.	6. This gives you the flexibility to host events spiels.	If there is strong support 8 sheets otherwise no more than 6	6 to 8	Depending on your curling population, I would not go with anything less than 4. However, be very sure that there is a stable curling base, then a commitment from the area schools to include curling in their PT programs to that there will be continuum of curlers.	8
6. Is the curling rink column free?	Yes.	Yes. We are able to host many different events as a result.	Yes. But it has a sand floor.	Yes.	Yes, when the ice goes out we have used it for functions like a grad dinner, then we store golf clubs there for the summer.	Yes.
7. Is the existing facility stand alone or attached?	Stand Alone but part of the Comox Valley exhibition grounds.	Attached to a twin arena.	Stand alone.	Stand alone.	Attached to a golf course	Attached
8. Would you benefit from additional programming opportunities if the curling ice was on a 200' x 85' ice sheet (allowing it to convert to hockey and figure skating use in curling off season/ or in the event of a drop in curling popularity)?	Yes.	In a 6 sheet rink it is easily able to be converted to a mini hockey sheet with dressing rooms (using 4 sheets for the rink and 2 sheets for the dressing rooms). In my experience the younger kids would be better served in a smaller ice surface.	No.	No.	Perhaps, although debatable as we have many other ice surfaces in the area.	Yes.
9. How much spectator seating does the facility have?	60 presently and would need a similar amount.	Unless you are doing a provincials or bigger event, none.	150	200 is enough	We have approx. 100+ seating capacity at the windows, with the availability of 6 TV screens for viewing throughout the 250 capacity lounge area. The area at ice level could accommodate additional seating as well.	Lower level 32, Upper lounge 64
10. Number of bonspiels hosted during the year	Yes.	Yes, about 12 events a year.	2 to 4	6-10 per year.	Yes, we have 5 spiels but that does not include the squadrons and other companies/ organizations who have their own fun spiels.	6 hosted by the Club.
11. Yearly membership (participation) fee for curling per person	$210-220 per year	$210/person; $840/ team	$175	$100-175/ League	Membership is $65, the first league fee is $120, the second and subsequent leagues are $60 each. Membership is mandatory as it give you membership in the club, the leagues are different. At the moment, they pay $2/participant/sememster. Seniors also pay differently as it is a drop in fee at $2/player/wk.	The curling fees go directly to the curling club (the club rents the ice from JdF) and range from $117(once per week/daytime) to $191 (once per week/evening). These rates include the league dues and the affiliation fees.

Facility	City of Comox	Springbank Park for All Seasons	City of Chilliwack	Chilliwack Curling Club	CFB Cold Lake Curling Club	Juan de Fuca
City	Comox, B.C.	Calgary, AB	Chilliwack , B.C.	Chilliwack , B.C.	Cold Lake, Ab	Colwood, B.C.
12. Hourly ice rental fee	Rental by sheet only. Cost $15-20 per sheet per game.	$35/hr	$30/hr/sheet	$30	Yes, for non military it is $20/hr, for military it is $15/hr. – per sheet. We also rent it as the entire surface for $200 for military and $250 for non military.	We have a variety of rates depending on the time of day or type of use. The rate is based on 2 hours (as this is the length of time required to play an 8 end game). Daytime rate - $37 per sheet. Night time rate/ mini spiels - $62.15 per sheet. Juniors – $28.50 per junior player. Interclub daytime spiels - $ 21 per sheet.
13. Number of members (approx.)	550	400	600	600	225 without seniors	480
14. How many seats should be provided in a recreational ice arena (whose focus is on minor and/or adult recreational hockey)?	200-300	If you do not have Competitive hockey anywhere from 100-300 seats should be plenty.	300-500	300	unknown	800
15. Advantages of a combined ice arena/ curling rink from an operational and staffing perspective	Similar staff, same mechanical system, shared food services, shared meeting program space.	Staff being able to have to different skill sets.	There could be sharing of plant room and staff if operated as one identity.	Combined plant	Our combination (golf/curling) works well as a combination as we transition from one sport to the other in a very seamless manner. Many people do both sports, so it is a good fit. Staff can also transition from one area to the other if they are so qualified. The facility is year round so the 'club house' is as well.	Versatility and single refrigeration plant
16. Disadvantages of a combined ice arena/ curling rink.	Please refer to the comments from the user group meetings. Curlers mentioned a few items of concern.	The curling component is more of a financial burden on the facility unless the facility is utilized with leagues most of the day and weekends. The staff is stretched to the max trying to please both sports.	Most culing clubs have their own governance and their own way of operating could be different than what the arenas would be. Also large events on either side could cause some traffic issues, vehicles and people.	Staffing and operational conflicts	Staff burn out without a break, having qualified staff to run both facilities, affording speciality staff (i.e. golf pro), having two + entities that have a stake in the 'club' and wanting their say or input, hours of operation can be consuming.	Cost
17. Choice of stand alone or combined facility	Combined.	It's kind of a loaded question, let me start by saying a stand alone rink unless you have a thousand member and 70% of them frequent the Bar often, would have a hard time surviving on the other hand a single ice rink in my opion could not generate enough revenue to stay open over the long haul. If I was putting my own money into building an ice complex it would be a twin facility with a fitness componet(gym,weight room,etc).	I would think a stand alone curling rink would be best.	Stand alone.	A combination is always more economical, as you can share ice plants (curling/skating), club houses (like ours), staff, utilities, etc.	Combined
18. Additional comments			The City of Chilliwack does not operate the curling rink. the curling club members back in 1954 built the rink on city land. That was the council of the times contribution. So legally the building belongs to the City. The City of Chilliwack does not contribute any funding for the operation or maintenance of the building. There is a management agreement between the two for the operation of the curling rink building.	Combined rinks in my opinion do not work. Curling & hockey are different sports with different participants & values. Culing rinks should be stand alone buildings running in an autonomous situation.		

Facility	Cranbrook Recreation Complex	Cranbrook Curling Club	North Delta Recreation Centre	Delta Thistle Curling Club (North Delta Recreation Centre)	South Delta Recreation Centre	Tunnel Town Curling Club (South Delta Recreation Centre)
City	Cranbrook, B.C.	Cranbrook, B.C.	Delta, B.C.	Delta, B.C.	Delta, B.C.	Delta, B.C.
1. Facility Age (as of 2007)	1972, 35 years	1973, 34 years	1972, 35 years	1972, 35 years	1971, 36 years	1971, 36 years
2. Facility upgrades	An addition was added to the facility in the early 80's to accommodate the Club. A new floor was laid over the old concrete, paid 4 years ago with new brine lines. A new condenser was purchased 3 years ago and the roof over the ice sheet was repaired 3 years ago.	Yes. 1985 addition to lounge and kitchen.	Yes. 1974, 2 sheets added to Curling rink. 1992, renovation of: main entry, offices, concession, bar server, class/meeting room, viewing/banquet/ program room, dressing room wing, washrooms, switched location of refrigeration plant & split system and cement floor for curling rink.	Yes. 2 sheets were added in 1974	Yes, throughout the 1990's	Two sheets were added later after four sheets were originally built.
3. Is curling a growing or declining sport in the community?	Curling has been declining in our community over the past 7 years.	Status quo - membership has stabilized at 275 after peaking at 780 in the mid 1990's.	Declining.	Declining.	Staying about the same.	Holding steady or a slow decline from what I can see.
4. Curling sheets in the facility	8	8	6	6	6	6
5. How many sheets should be provided in a new facility?	4 to 6	6	Think about off season use of space.	6	Depends on enrolment and size of community.	Don't know.
6. Is the curling rink column free?	No, but we do have other events in the off season.	No. There is one column of beam supports down the center (between sheets 4 & 5).	No. 2 sheet, 4 sheet split.	Yes.	We have a walkway that runs between sheets 2 and 3	One row of columns between sheets 2 and 3.
7. Is the existing facility stand alone or attached?	Standalone	Standalone	Attached.	Attached to a hockey arena.	We have both curling and hockey in our building.	Attached to a hockey rink.
8. Would you benefit from additional programming opportunities if the curling ice was on a 200' x 85' ice sheet (allowing it to convert to hockey and figure skating use in curling off season/ or in the event of a drop in curling popularity)?	Yes.	Possibly.	Yes, good point.	No.	We run dry floor sports in the curling rink in the off season.	Yes, I believe so. This has worked well at the Golden Ears Winter Club in Maple Ridge. They have ball hockey leagues in the off-season.
9. How much spectator seating does the facility have?	I think they could accommodate around 100 people with the viewing area on the main floor and combined with the lounge area. When they had the Skins game, we brought in bleachers and covered one or two rinks to provide more spectator seating.	200+ in lounge	Approx. 150	100	About 300 total for upper and lower lounges.	Don't need spectator seating other that what is already in the bar.
10. Number of bonspiels hosted during the year	2 to 3 hosted by the Club.	Yes, 2 to 3 per year	Curling season, run by Club not Municipality. Approx. 6.	Yes. 2 adult and 3 senior.	Yes, the club hosts 5 or 6 a season.	4 per year.
11. Yearly membership (participation) fee for curling per person	varied depending on what league you're playing in. Men's and Ladies pay $220.00 per year to curl once a week. There are Administration, Affiliation and GST fees attached to that. Friday night Mixed pay $120.00 per year to curl every second Friday. The above fees apply to this league as well. Junior Curlers pay $64.00 per year to curl once a week. They have an Affiliation fee as well as GST. Seniors pay $220.00 per year to curl twice a week. There are Administration, Affiliation and GST fees attached to that as well.	Men, Ladies, Seniors: $220 fees + $10 club admin fee + $12 Curl BC affiliation + $14. 52 GST = $256.52 (based on 20 weeks of curling). Juniors: $64 fees + $6 Curl BC affiliation + $4.20 GST = $74.20 (based on 13 sessions). Mixed league: $120 fees + $10 club admin fee + $12 Curl BC affiliation + $8.52 = $150.52 (based on 12 games per season).	Men's $210 for 20 games.	$214/ season/ adult. $6.50/ game/ senior.	I don't know as we look after the ice only and the Club is separate from the maintenance.	For one evening, league is $272 including GST and a year-end awards banquet.

Facility	Cranbrook Recreation Complex	Cranbrook Curling Club	North Delta Recreation Centre	Delta Thistle Curling Club (North Delta Recreation Centre)	South Delta Recreation Centre	Tunnel Town Curling Club (South Delta Recreation Centre)
City	Cranbrook, B.C.	Cranbrook, B.C.	Delta, B.C.	Delta, B.C.	Delta, B.C.	Delta, B.C.
12. Hourly ice rental fee	$25/hr/sheet	$20/hr/sheet	Prime adult $200/2 hrs/ 6 sheets. Youth $50/ 2 hrs/ 6 sheets.	$3/ youth. $65/ 2 hrs/ sheet (adult).	The Club has but we have a basic use agreement with them.	$50/ 2 hrs/ sheet
13. Number of members (approx.)	265± 10	270	Not answered.	350	unknown	430
14. How many seats should be provided in a recreational ice arena (whose focus is on minor and/or adult recreational hockey)?	200	400 or less	Between 300 to 500. Remember tournaments.	N/A	You would want no less than seating for 350 people.	N/A
15. Advantages of a combined ice arena/ curling rink from an operational and staffing perspective	Staffing, multi use, easier to maintain ice and facility.	Primarily in cost savings for ice plant operation; possible combined use of concession facilities, washrooms, etc.	Variety of use as to ice and off seasons. Effective and efficient use of staff.	None.	I don't. I see it as a nightmare.	Sharing a refrigeration plant probably saves costs.
16. Disadvantages of a combined ice arena/ curling rink.	Pressure from ice user groups to use the ice for their functions (hockey)	Most hockey rink ice techs know very little about curling ice making and maintenance; ice plant demand in a shared facility can have negative effects on curling ice quality (i.e. curling ice quality often suffers when there is high demand by the hockey ice for tournaments and events where there is a large group of spectators.)	If curling popularity drops off, ice season usage would be limited.	None.	You would lose members and the ice conditions would bad. You can not put curling and hockey on the same sheet. Hockey would be o.k. but curling take a lot more maintenance and requires more attention for keen ice and to make your rocks curl etc. It would be hard to put bonspiels on and to have your Club taken seriously. A stand alone is the way to go.	Having arena personnel do the curling ice doesn't work as well as having the Club with it's own dedicated curling ice makers.
17. Choice of stand alone or combined facility	combined	If I were building a new facility I would likely vote for a combined facility from a cost and environmental perspective; however, as a curler I would have some concerns about the potential impacts of a shared ice plant.	Side by side arenas.	It wouldn't matter as long as there was one person dedicated to the ice making of the curling rink.	Standalone.	A combined facility but the curling club runs it's own operation with its' own staff.
18. Additional comments						

Facility	Archie Browning Sports Centre	District of Lake Country	Golden Ears Winter Club	City of Moose Jaw	City of Prince George	Prince George Golf and Curling Club
City	Esquimalt, B.C.	Lake Country, B.C.	Maple Ridge, B.C.	Moose Jaw, Sk	Prince George, B.C.	Prince George, B.C.
1. Facility Age (as of 2007)	1961, 46 years	1977, 30 years	2000, 7 years	1967, 40 years (Centennial Project)	1974, 33 years	1973, 34 years
2. Facility upgrades	Second story lounge added between the arena and curling facility in the 80's. New slabs in both Arena and Curling Rink in the 80's.	The curling facility has received cosmic changes mostly over the past 10 years. It has included renovations to the lounge which overlooks the ice surface, Low E Ceiling (last year), and some equipment upgrades that were done in conjunction with a more significant arena upgrade (same facility) last year.	No	Yes. Originally it was a 16 sheet curling rink, in 2002 it was downsized to an 8 sheet curling rink. A partition was installed and the space created is now rental for the gym club.	Raquetball courts were added in 1978 and a new kitchen in 1992.	New chiller, brine system, condenser tower, 2001-2003
3. Is curling a growing or declining sport in the community?	Numbers in our facility have grown due to the Oak Bay facility being closed as well as rumours about the Victoria Club being discontinued. Another factor in increased numbers is the excellent job the volunteer Executive has done with their leagues as well as the addition of Jet Ice.	Reported numbers appear to be level.	Steady	Huge decline about 10 years ago and has now levelled out.	This could be answered by the Curl BC group.	About the same
4. Curling sheets in the facility	6	4	6 regular, 3 short	8	8	8
5. How many sheets should be provided in a new facility?	Depends on size of community.	6 min.	Depends on the interest within the community and how many members the existing club has.	8	N/A	6
6. Is the curling rink column free?	Yes, however due to the dry floor only being available during Spring & Summer when many other local dry floor facilities are available, trade show usage has been down.	Yes.	Yes.	No.	One set of columns down the centre between each 4 sheet section.	No.
7. Is the existing facility stand alone or attached?	Attached	Attached to the arena	Attached	Stand alone	Attached to the golf club spaces.	Golf course and club house.
8. Would you benefit from additional programming opportunities if the curling ice was on a 200' x 85' ice sheet (allowing it to convert to hockey and figure skating use in curling off season/ or in the event of a drop in curling popularity)?	Recently discontinued a "mini" ice rink we installed in the facility and put ice in the main rink instead. Saved two weeks labour in board installation and increased rentals. I don't think the size of facility has ever been an issue in renting the space, mostly time of year it is available and competition.	No. For the most part these activities are at the same time and the possibility of converitng back and forth is expensive and time consuming. Better option is to have the curling space column free so in the event that the activity drops, your large flat floor can be used for other events.	This explains the answer to question #2 and why we have 3 shorts sheets behind the far end of our regular curling sheets. Starting this past spring we had Ball Hockey using the dry floor. The Minor Ball Hockey association has grown very large in our community and needed the floor time. They purchased hockey boards. We also host a large Home show and grad dinners and dance for 4 of the high schools in town.	No. With the decline of curling, hockey is one of the major winter sports in Moose Jaw. Hockey and figure skating would not benefit as the set up and take down to convert would be cost preventative as those cost would be passed onto hockey or figure skating. If it was the other way around, a 200x85 hockey rink converted to curling events, that could be a benefit. We currently do that with our WHL arena occasionally and the costs are charged back to the user.	We use our 6000 seat CN Centre for major curling events like the Tournament of Hearts when appropriate.	Yes,
9. How much spectator seating does the facility have?	Viewing available from three areas - approx. 150. Seldom an issue.	150 seats	600-800 total	Currently about 400, they only need this for special events.	Don't know. I know that for the Bonspiels they weel sometimes augment the end of the rink viewing gallery with portable bleachers set up on the outer sheets.	230 in bleachers and another 40 in lounge.
10. Number of bonspiels hosted during the year	Yes. There are approx. 10 per year.	Yes. Approx. 6 although these are run by the Curling Club so they can fluctuate year to year.	We host 5 in our Club, 2 are junior events. We also host 3 to 6 private bonspiels each season along with at least on Provincial Play down event each season. We are hosting the Men's Provincial, Feb. 2009 at the legion Nationals in March 2009.	Only 1 or 2 per year for the last 6 or 7 years as the quality of the ice is not that good, these are local.	Don't know.	Ladies, mixed, men's, Legion, Seniors as well as commercial, zones and regional events.
11. Yearly membership (participation) fee for curling per person	Esquimalt Parks & Recreation rent out the curling ice to the Esquimalt Curling Club's leagues. Each League pays curling ice fees based on how many sheets of ice they use and when they use it. Each league then charges the league members a seasonal fee. (Leagues only curl from the end of September to the end of March) Not all leagues curl the full time. Some leagues start later and finish earlier. Some leagues includes banquets (Christmas and end of the year) when they charge a member the seasonal fee. (some do not) The Esquimalt Curling Club charges each League affiliation fees. (These fees are included in each members seasonal fees). All leagues take a Christmas Break of approx two weeks.	Unknown.	For one of our Mon-Fri evening leagues it will cost someone $240.00 to curl. We do have discount rates for more then one league	Youth - under 14 - $118/once/week; 15-18 yrs. - $127/once/week; Adult - $265/once/week & receive a 20% reduction for extra leagues; Friday night fun league - $160 less as to attract recreational curlers on a Friday night; We also have "commercial" rentals for highschool leagues - $13/game; Elementary & Highschool Phys. Ed. classes which we are seeing more and more bookings at $13/sheet/hr; commercial ice rental for groups $48/sheet; Youth birthday parties $5/child (birthday child free); Hillcrest Bonspiels $22/sheet (adult) & $18/sheet (youth) prices based on 8 end games. Cost per end if less or more than 8 - youth $2.25/end & adult $2.75/end.	Don't know.	$340 for both mens and ladies. $240 for seniors. $80 for juniors.

Facility	Archie Browning Sports Centre	District of Lake Country	Golden Ears Winter Club	City of Moose Jaw	City of Prince George	Prince George Golf and Curling Club
City	Esquimalt, B.C.	Lake Country, B.C.	Maple Ridge, B.C.	Moose Jaw, Sk	Prince George, B.C.	Prince George, B.C.
12. Hourly ice rental fee	Based on 2 hours per sheet: Monday to Friday 6pm onwards the cost per sheet is $67.25 (includes GST). Monday to Friday 8am to 6pm the cost per sheet is $41.75 (includes GST). Saturday and Sunday all day the cost per sheet is $59.25 (includes GST). Youth Curling League the cost per sheet is $4.75 (includes GST). During Bonspiels the cost for the ice is 10% of the entry fees + GST). Shorty Bonspiel Special is $150.00 for the Curling ice (including GST) for up to 4 hours PLUS $10.00 person in food services. (Minimum 24 people). Practice Ice $5.00 per hour (including GST) a person for Non members. Practice ice No charge for Members (per person). Practice Games (regular fees indicated above would apply for Members or Non Members).	No.	$40/hr/sheet	We have various rates depending on winter/summer and the user group. Please follow this link for information. http://www.moosejaw.ca/cityhall/parks/recprogs/rentals.shtml#indoorwinter	Don't know.	$30/hr
13. Number of members (approx.)	not answered	350	475 active	300. 30% youth, 63% senior, 13% 30-50	Don't know.	570
14. How many seats should be provided in a recreational ice arena (whose focus is on minor and/or adult recreational hockey)?	500 would be sufficient for this community	If there is no change for junior team to play then 500 seats max. If you want to have the opportunity to have a BCJHL team, then about 1500 seats.	unknown	200-500	Ours vary from 100-1000 seats for the recreational arenas. Depends on what other resources you have. We also have larger facilities to use when necessary.	Not answered.
15. Advantages of a combined ice arena/ curling rink from an operational and staffing perspective	Use of plant. None for staffing as we contract out Curling ice maintenance at $55,000 seasonally	If the curling facility ice/maintenance is done by facility employees then there is a definite cost effectiveness of staff working in both facilities. A number of curling clubs manage their own facility so the staff crossover is limited. There is advantages of shared facilities such as concessions, parking, plant rooms and energy savings. Further, if sponsorships are jointly done there is an advantage because of per visit capacity that may increase sponsorship packages.	None, our experience being connected with a private hockey/ice facility (Planet Ice) has been a very negative one.	Staffing and energy costs.	If you are talking having a side by side curling and ice arena, you could use a single ice plant and dehumidification system to service both facilities. Staff could operate both reducing your operation costs.	Proper scheduling could lead to less overall staff.
16. Disadvantages of a combined ice arena/ curling rink.	Biggest disadvantage to a curling facility is being single use. Our curling facility is used an average of 4 hrs a day compared to 12 hrs a day in the arena. This is based on 365 days.	Very few disadvantages to houseing except at times there is conflicting use (ie. Lounge that is shared by hockey and curling)	Too many to mention!	Staff who can take care of both curling ice and hockey ice as they are both different (require additional training).	None if they are side by side. I couldn't see having a single facility that is used for both curling and skating due to the change over times needed and the ice paint issues between hockey and curling.	None
17. Choice of stand alone or combined facility	My choice would be to keep facilities as multi-purpose as possible. Curling ice does not lend itself to this	Combined.	Stand alone	Combined	Stand alone ice rink and curling rink.	A multi use building is the only way to go.
18. Additional comments				Curling is run by a board of directors appointed by City Council and we have one staff member and one council member who sit on this board, this board is responsible for its own operation, the curling rink is a city owned facility though and we assist with funding for the operation and capitol repairs. We are in the process of developing a proposal to replace the curling rink along with a 50 year old arena, we have been at it for about 10 years now.	City does not own a curling facility. The Prince George Golf and Curling Club operates the only curling rink in Prince George in the winter months.	

Facility	Alberni Valley Multiplex - City of Port Alberni	Alberni Valley Curling Club	P.M. Recreation Complex	City of Quesnel	Quesnel Curling Club	Lakeshore Curling Club
City	Port Alberni, B.C.	Port Alberni, B.C.	Port Moody, B.C.	Quesnel, B.C.	Quesnel, B.C.	Sackville, NS
1. Facility Age (as of 2007)	Curling 1953, 54 years; Arena 2001, 6 years	Curling 1953, 54 years; Arena 2001, 6 years	1973, 34 years	Unknown	1960, 47 years	1999, 8 years
2. Facility upgrades	Changed plant to free-on in early 90's. Roof 4 years ago. Interior here and there.	Reflectant ceiling put in. Fire exits from lounge were upgraded to meet fire code.	Replaced curling slab. Added international sized rink. Ice rink replaced last year. Added double gym, sauna (view website for complete details).	The City is not associated with the curling facility.	The original building had 4 sheets and then in the 70's 2 more were added. Additional support spaces were also added at that time.	No.
3. Is curling a growing or declining sport in the community?	Declining, growing for seniors in the mornings.	Picked up this year but declining. Growing for seniors (community demographic).	Steady. Leagues are full, developing junior curling, gaining players from Coquitlam. Club has good non-resident support.	Unknown	Maintaining	Growing slightly.
4. Curling sheets in the facility	6	6	6	6	6	6
5. How many sheets should be provided in a new facility?	6	6	For competition 8, but it's not really a drive.	Unknown	6	6
6. Is the curling rink column free?	No.	No.	Yes.	No	No.	Yes.
7. Is the existing facility stand alone or attached?	Attached to one rink at the beginning, then it was converted to an industrial heritage museum.	Attached	Standalone	Stand alone	Stand alone	Attached
8. Would you benefit from additional programming opportunities if the curling ice was on a 200' x 85' ice sheet (allowing it to convert to hockey and figure skating use in curling off season/ or in the event of a drop in curling popularity)?	Yes.	No. There is plenty of ice space in the community, plus for the cost, not sure if the costs could be recouped.	No. There is plenty of available.	Unknown	No - we do not rent out the facility in the off season.	It would benefit the City's desires.
9. How much spectator seating does the facility have?	Tournament of Hearts rented seating, permanent has 120.	Donated theatre seats: 70 on the bottom, 60 up top.	Lower lounge & restaurant = 50 + 80 to 100, but it is packed, window views are about 40 on each floor.	Unknown	Upstairs 160, downstairs has 2 rows of bleachers	50 (approx. 500 sq.ft.)
10. Number of bonspiels hosted during the year	Yes.	Yes, approx. 50 teams come for the men's tournaments,	Yes for each league. 5 to 6 per year.	Unknown	Approximately 20	6. Junior, opens, mixed, provincial, in house, wheelchair championships.
11. Yearly membership (participation) fee for curling per person	Answered by Club	165.00 for once a week for regular members. Seniors have there own league at 125.00 for once a week. We have other fees on top of that which add up to 33.00 dollars more.	Not Answered.	Unknown	1 night per week = $200; Seniors $160	$325 for one night or 2 mornings

Facility	Alberni Valley Multiplex - City of Port Alberni	Alberni Valley Curling Club	P.M. Recreation Complex	City of Quesnel	Quesnel Curling Club	Lakeshore Curling Club
City	Port Alberni, B.C.	Port Alberni, B.C.	Port Moody, B.C.	Quesnel, B.C.	Quesnel, B.C.	Sackville, NS
12. Hourly ice rental fee	Answered by Club	We do not have an hourly rate. We charge by the person which is 7.00 per person and they generally use the ice for 3 hours.	Not Answered.	Unknown	No	$100/2 hours
13. Number of members (approx.)	Answered by Club	350	Not Answered.	Unknown	400	300
14. How many seats should be provided in a recreational ice arena (whose focus is on minor and/or adult recreational hockey)?	1853 main, 200 bare bones rink, design was based on 1500 seats (junior A hockey) but would want to up it to 2000.	1000 a smaller packed arena creates a more festive atmosphere but that may not create enough income.	450 old, 400 new	Arena #2 has 200 seats and is not lacking. We are going to referendum for a multi-centre of 2000 seats but we do have a BCHL team here.	N/A	200' x 5 rows
15. Advantages of a combined ice arena/ curling rink from an operational and staffing perspective	Similar to what they have now at the Ice Rink. Shared plant.	Shared concession/ lobby space; visibility and advertising would be created for both uses	Single ice plant, staff for refrigeration on site, zamboni, during March and June convert to figure skating. July-August they host dry floor events.	Not answered.	Refrigeration plant would be share as well as ice maintenance. A proper heat recovery system could be used.	Shared refrigeration, parking
16. Disadvantages of a combined ice arena/ curling rink.	None.	parking, would have to have a separate ice plant because the ice temperature is different for each, cold ice isn't that good for curling. (not sure what the temperature needs to be for an ice rink)	Parking, trying to serve a wide spread community	As for putting the two together, I have never been involved with curling ice, but I hear the people that curl are a lot pickier than hockey players.	If done properly, there aren't any disadvantages.	Controlled by the City of Halifax who have been driving to have the club removed/ relocated
17. Choice of stand alone or combined facility	If there was room, we would have joined.	combined	combine	Not answered.	Combined.	Stand alone because of the conflicts with the City
18. Additional comments	City does promote for the Curling Club.	for a combined facility there should be visibility between the two uses	if there is interest, a tour can be arranged of the new facility after completion.			Club is used for wheelchair curlers, there are Summer Spiels (e.g. Parksville, Nelson)

Facility	City of Williams Lake	Williams Lake Curling Club
City	Williams Lake, B.C.	Williams Lake, B.C.
1. Facility Age (as of 2007)	1992, 15 years	1969, 38 years
2. Facility upgrades	2006 an office was built for the Timber Wolves Junior A Hockey Club, a new dressing room separated from the minor hockey and recreational league dressing rooms was created for female hockey players and figure skaters from a program space and a second dressing room for girls was doubled in size.	Yes. Stairway to upstairs moved.
3. Is curling a growing or declining sport in the community?	Declining	Declining
4. Curling sheets in the facility	6	6
5. How many sheets should be provided in a new facility?	4	4
6. Is the curling rink column free?	Yes.	Yes.
7. Is the existing facility stand alone or attached?	Stand alone.	Stand alone
8. Would you benefit from additional programming opportunities if the curling ice was on a 200' x 85' ice sheet (allowing it to convert to hockey and figure skating use in curling off season/ or in the event of a drop in curling popularity)?	No real benefit	No.
9. How much spectator seating does the facility have?	Suggest 250-500	130
10. Number of bonspiels hosted during the year	3 plus odd years there are regional's and provincials.	3 of our own and playdowns
11. Yearly membership (participation) fee for curling per person	Unknown	260/league

Facility	City of Williams Lake	Williams Lake Curling Club
City	Williams Lake, B.C.	Williams Lake, B.C.
12. Hourly ice rental fee	Unknown	$20/sheet/hr
13. Number of members (approx.)	Unknown	200
14. How many seats should be provided in a recreational ice arena (whose focus is on minor and/or adult recreational hockey)?	250-500	not answered.
15. Advantages of a combined ice arena/ curling rink from an operational and staffing perspective	One building to maintain and staff, one building to market	None.
16. Disadvantages of a combined ice arena/ curling rink.	Parking requirment increase	not answered.
17. Choice of stand alone or combined facility	Combined.	Stand alone
18. Additional comments		

Summary

While there were no definitive findings in the survey, some tendencies that were observed are:

1. The majority of facilities are 30-50 years old. Comox is among the oldest facilities.
2. Growth of curling appears to be regional and site specific. Stable would probably be the best terms to characterize.
3. Most facilities seem to have 6 sheets of ice.
4. Numerous responses suggested building curling on a 200'x85' sheet would add value to programming flexibility. Those who were negative tended to be curling operator who see the flexibility a potential threat to the curling program.
5. Seating capacity of 100-150 (can be in warm viewing area) appears to be fairly typical.
6. Yearly fees and hourly rental charges vary, but in general are quite economical compared to other ice sports.
7. Operators tended to suggest that a combined curling/ ice arena complex would be more efficient for energy consumption and staffing perspectives. The disadvantages appear to be that with a combined operation, the curling club may lose its ability to control the quality of ice pebbling.
8. Respondents had a tendency to suggest that a combined curling/ ice rink facility was preferred to stand alone facilities.

1.3.1 NATIONAL CURLING SURVEY

The Canadian Curling Association produced and circulated a survey in 2006 but have not received a satisfactory return on the survey (just over 100 responses from 1200 buildings total) to be able to give proper national trends. They are going back into the field this winter to improve the response rate.

Thus far, they suggest that the sport is growing and mainly in urban areas over 10,000 people and there will be a need for renovation or retrofit of most of those buildings as they were built in the 1960s or earlier. There are new operations being built or considered and they range from new clubs replacing old to new clubs forming to rent arena ice on a regular basis. There are also community centres being built that include curling ice.

- Danny Lamoureux
Manager of Curling Club Development & Championship Services
Canadian Curling Association

At time of writing of this report, the national curling survey had not yet received definitive response. In addition to the information provided by our survey of curling clubs canvassed across Canada noted above, our own experience in working with curling groups combined with statistical rinks per capita information allows that several tendencies can be suggested:

A. With six sheets of curling ice, the CVRD is currently served at a ratio of approximately 1 sheet per 10 300 population. The national average is 1 sheet per 7- 9000, meaning that the CVRD is currently offering slightly less than the national average of sheets per population. This suggests that notwithstanding a sudden surge in curling registration, that the CVRD is probably providing sufficient numbers of curling sheets to support current demand.

B. In order to provide for long term use and flexibility, several Canadian communities have been building or planning curling rinks based on the use of a 200'l x 85'w ice slab situated in a free spanned space. The purpose for this is to allow in the future (in the event curling popularity erodes) that the ice surface can be converted to NHL size hockey ice and serve hockey needs. This configuration also allows figure skaters and public skate programs to use the space as an ice arena in non curling season. A current example of this is in Maple Ridge BC. CEI are currently doing the design for a similar configuration in the City of Coquitlam.

C. Facility operation is also an interesting topic. While there is probably no consensus here, the tendency CEI has witnessed is for operations of new curling facilities to be taken on by the local municipal government's parks and recreation department (where previously many curling clubs operated their own rinks and food and beverage services on $1/ per year lease arrangements). Some of the reasons for this have been liability concerns (especially related to liquor sales), technical "ticketed" requirements for facility operators, effectiveness of municipal trained staff. One item that tends to come up and is often left within the control of the curling club has been the pebbling of the ice. Somewhat of an art form, the ice pebbling is often a skill that is acquired through years of practice and can be best provided by members of the curling club. The operation of the refrigeration system still needs to remain the domain of a ticketed refrigeration operator.

D. Youth participation in curling appears to be a realistic objective, but is only successful where curling clubs and schools work together to promote the sport. The "mini" curling sheets that can be achieved using the afore mentioned 200' x 85' sheet of ice can be programmed to enhance these opportunities.

E. The curling lounge remains a key part of the curling experience for all users. While trends in liquor sales can vary and tend to be dropping, the desire for a social space that overlooks the ice and provides opportunities for casual socialization and more formal banquet functions remains and intrinsic and fundamental component of the culture of curling. Without this feature, we suspect curling's popularity would suffer significantly.

1.3.2 ICE ARENA DESIGN TRENDS IN CANADA & BRITISH COLUMBIA

Ice Arenas continue to be a core component in the provision of community recreation facilities in Canada. The CVRD currently provides the region with very well used and maintained facilities. The CVRD currently has three ice surfaces serving recreation needs. Glacier Gardens is included here, but it must be noted that it is really a private arena. Based on the three facilities the CVRD is served by a ratio of 1 rink per 20 000 population compared to the national average of 1 rink per 7/10 000. While on the surface it would appear that the region is underserved, current demand for ice and feedback from users do not suggest that there is a definitive need at this time for additional recreation ice surfaces. Should some of the planned residential developments in the region go forward it may be reasonable to project that demand may increase. With the potential, but not yet definitive need identified, for a new arena, we have taken the opportunity to provide a series

of current arena design trends that can be considered as a means of informing what a new arena is likely to need to include in its program. Some of these features are noted and described below.

1. Spectator seating capacity and seating type
    a. Expanded upon under separate section in this report, the typical number of seats (in the cold air arena environment) typically being provided at recreational arenas in BC ranges between approximately 200-400 seats. Recent BC examples include, Nanaimo Ice Centre, Gibsons Arena, Armstrong Spallumcheen Arena, Surrey Sport & Leisure Centre 3rd rink addition, and the Coquitlam Ice Centre renewal project (currently under design).
    b. Due to competitive pricing, the trend in seating type is moving away from the traditional bench seats to the stadium style bucket chairs.
    c. Accessibility requirements are considerably more definitive under the current BC Building Code, and as such, provision must be made to provide accessible seating in a much more inclusive fashion than that which tends to prevail in the average BC recreation arena that predates current codes.
    d. Nationally, the trends in seating are similar. In Calgary the new Hockey Canada/ CODA facilities being design at Canada Olympic Park are being planned to accommodate 200 spectators for each of the three recreational arenas.

2. Size of Ice Surface
    a. Standardization of arena ice surface size to conform with NHL standards (200'l x 85'w) is a current trend provincially and nationally. Some cities do have standards that recreation arenas are smaller (i.e. 180'l x 80- 85'w) however this is not the prevailing trend. Recent provincial arenas such as the Nanaimo Ice Centre, Gibsons Arena, and Coquitlam Sport Centre (under design) are all NHL sized surfaces.
    b. Olympic size (200'l x 100'w) was a popular discussion on the announcement of Vancouver's winning 2010 Olympic bid. There was an initial expectation that the Olympics may cause standard arena sizes to sway towards the Olympic model. Port Moody's new arena is an example of a new arena that did adopt Olympic size. Following Vancouver's successful bid, an agreement was negotiated between VANOC, the IIHF, and the IOC that the 2010 games could use NHL size ice for the hockey competition. The about to open Gibsons arena changed in design from Olympic size to NHL size shortly after the VANOC announcement concerning NHL size ice. It is the opinion of CEI that the combination of additional construction cost (primarily associated with the additional span required), VANOC decision, and the lack of a definitive programming advantage to providing Olympic size ice, the provision of Olympic size ice will not be a trend and will remain applicable and desirable only on a case by case basis.
    c. An alternate arena size such as those provided by National Training Rinks (NTR) in Langley for example, is a smaller than NHL size surface ranging from 165- 180'l x 75- 80' w. This size has been primarily promoted by private arena operators whose focus is on skill development within a training rink model. The philosophy extends that skill development (especially amongst younger players) can be enhanced on a smaller surface. These surfaces are also popular for adult 3 versus 3 leagues. While there is support for this size of arena it does have more limited programming options than fuller sized rinks (see separate section), and is currently not a growing trend. Should a private operator be partnered with, it is possible their teaching programs may wish to consider the smaller ice surface.
    d. Leisure Ice for public skating is an option promoted by rink designers and advocacy groups. To date, leisure ice surfaces are not a highly popular national or provincial trend and must be studied on a case by case basis to determine demand and feasibility.

3. Recreational arena dressing room design requirements
    a. Current trends are towards larger dressing rooms that suit from 18- 22 players comfortably.
    b. Four team rooms are typically provided (sometimes owners request 5- especially if there is a dedicated "home" room requirement).
    c. Accessible shower, toilet and sink are not required in each dressing room by code but the practice of providing all rooms to be accessible is a trend.
    d. Dry off areas adjacent to showers are designed more frequently in new facilities and shower heads range from 4- 6. The column gang shower is no longer popular.
    e. "Flex Rooms" (smaller dressing rooms for 8 -12 players) are becoming increasingly popular and are recommended by experienced arena designers. Containing all the standard dressing room features, these rooms are used by opposite sex members on teams (e.g. female player on a male team), hockey school instructors, tournament coach's office, boy's figure skating change room). Usually one flex room per ice

sheet is provided although some owners request two. If the referee room is designed large enough, it can normally serve both functions.

f. Some arenas are moving to providing to referee rooms – recognizing that a growth in female referees mirrors the growth in female hockey.

4. Accessibility
   a. Full accessibility for persons using wheelchairs or encountering other physical challenges is an increasingly responded to requirement in which active user groups will often request accessibility above and beyond minimal code requirements. Adherence to code requirements affects spectator areas, as well as participation areas.
   b. There is a growing awareness of sledge hockey as a popular sport and as such consideration should be given to designing the ice slab at the same elevation as the dry slab to facilitate ease of use for sledge hockey players as well as public skating users. A flush slab edge is quite common in Alberta but prevails less in BC. Recent examples where sledge hockey requirements have been anticipated in the design include the Coquitlam Sport Centre and the CODA facilities in Calgary.
   c. Accessibility also includes design features that are respectful of the religious and cultural differences within Canada's increasingly diverse population. This typically means enhances privacy in showers and washrooms for example.
   d. Worth mentioning is that a key disadvantage of maintaining an existing facility is converting to full accessibility would be costly.

5. Safety/ violence in rink
   a. There is a growing awareness of violence within arenas and several high profile parent assaults in both Canada and the US have received significant media coverage, and the courts have responded seriously.
   b. There is a growing trend to design arenas in such a fashion that spectators can be separated from players within the lobby of the facility. Side loaded arenas where dressing rooms run along the 200' length of the ice tends to be easier to accomplish this objective than end loaded rinks, however both models can effectively be designed to provide enhanced player safety.
   c. CPTED (Crime Prevention Through Environmental Design) practices are also becoming more desired in arena designs. These design standards focus on creating safer buildings through passive design features.

6. Sustainable Design
   a. Sustainable design opportunities are no longer simply a value added option for owners to consider. The BC Green Building Code is close to being issued and will make key sustainable design practices project requirements.
   b. LEED™ certification of recreation buildings is a growing trend. Similarly some communities choose to follow sustainable design initiatives without going through the formal process of LEED™ registration.
   c. Numerous highly efficient and sustainable design practices are now commonly applied to arenas that include use of T5HO lighting, light louvers, utilized heat recovery from refrigeration to augment heating, environmentally friendly refrigeration, high performance building envelope systems, etc. Many of these initiatives do not have significant capital cost premiums and are treated as standard good practice by experienced arena builders and designers.

7. Growth in female hockey & participation of new cultural groups in ice sports
   a. The success of the Canadian and US Women's national teams and their participation at the last two Olympics has been the most visible sign of the growth in popularity of female hockey. Combined with figure skating and ringette, female usage of ice arenas is significant. There have been notable effects on how arena design must evolve to serve needs. For example, the use of shared showers (such as at Great Pacific Forum) that worked very efficiently for arenas focused on men's recreational hockey does not work in public arenas now due to the regular use of female teams and corresponding needs of privacy.
   b. Similarly there is growing participation in ice sports by cultural groups typically new to Canada and often with different cultural and religious values. Privacy in showers, etc. can be a significant issue for some members of Muslim faith for example. While not a national trend, awareness by the owner of a regions demographics can help identify where adding privacy design features will help encourage the growth of ice sports amongst new Canadians.

8. Technical standards- e.g. boards, glass, ice slab elevation
   a. Dasher Board systems have evolved such that there are several excellent providers of steel and aluminium dasher board kits. Wood stick systems are no longer popular. Aluminium systems tend to be more

expensive and are preferred where removable options are desired. Permanently mounted steel sets tend to be the most popular for recreation arenas. Drop in kits can also be provided that divide the arena into two surfaces thus providing "mini surfaces" ideal for kids hockey and 3 on 3 play.

b. The CSA now has recommendations concerning dasher board glass height and protective netting. These are not code requirements, however most arena designers tend to recommend general conformance to the CSA recommendations. Protective netting, typical at the ends of many arenas is becoming more prevalent along the sides of arenas now as well (in an effort to protect spectators from flying pucks).

c. Arenas in BC have typically been designed in such fashion that the ice slab is lower in elevation than the surrounding floor slab. By contrast, Alberta tends to have both slabs at close to the same elevation. If accessibility for sledge hockey is desired, the flush slab conditions should be considered.

9. Sound & Acoustics systems

a. Resulting from the types of buildings (often pre-eng. steel) used to house ice arenas, effective acoustic control and sound systems have long been a challenge in arenas. The trend in recreation arenas tends to be budget based. An effective response is often to issue the sound system and acoustic baffling requirements as design build packages that are designed to reflect budget allowances available after base building components have been tendered.

10. Building Systems- pre-eng, eng-steel, tilt up, wood

a. There tends not to be a particular trend with respect to standard arena building type as local, regional, and national market conditions vary, making various different options more popular depending on region.

b. Pre-Engineered building kits are popular for recreation arenas. They are simple systems and cost effective. Drawbacks are that because they are kits, customized design features to reflect the arena design requirements are not always easy to accomplish. A recent example of a pre-eng. solution is the Nanaimo Ice Centre.

c. Engineered Steel Buildings are growing in popularity. Steel prices are currently high, however this option is still cost effective. Its advantage over pre-eng. is that design features are more easily coordinated since the structure is designed by the structural consultant rather than a pre- eng. building company. A recent example of an engineered steel arena is the new Gibsons Arena.

d. Wooden Arenas are not as common but highly desired by many BC communities as a proud reflection upon a key community industry. Code challenges make arena design in wood somewhat more complex (although entirely achievable). Costs tend to be higher due to the costs associated with wooden structure that span the ice surface. As of the writing of this report however, there are some indications that wood structural spanning systems are becoming cost competitive with steel. If a community desires a wood solution it is highly recommended that this be planned for well in advance. The Canadian Wood Council has proven to be a strong advocate of such projects. A recent example of an all wood arena is the Armstrong Spallumcheen Arena.

e. Tilt Up Concrete with Steel or Wood roof structure is another common approach to recreation arenas. This can be an effective system for arenas as the concrete wall panels offer excellent durability and can sometimes be provided without insulating the walls (where climate conditions allow). An example of a tilt up option is Planet Ice in Coquitlam.

11. Support spaces

a. Large public lobbies with an ability to serve as a public skate change room is growing in popularity.

b. Warm viewing spaces to complement spectator seating located on the "cold" side of the building is popular and highly used.

c. Administration spaces tend to fall into two typologies: a. where admin and maintenance staff are located in a central office (e.g. Nanaimo Ice Centre) or b. where administration offices are located near the entry and maintenance offices are located near the ice plant (e.g. Armstrong).

d. Storage spaces are critical and usually not provided in sufficient amount. Budget constraints typically result in storage space being the first spaces to be reduced during any necessary costs savings.

e. Kitchens versus Concessions tends to be a contentious issue. Trends suggest a move away from the more expensive commercial kitchen that comes with additional fire protection requirements to meet needs of deep fat fryers etc. to warming kitchen style concessions that can provide healthier choices. Operational costs for warming kitchens are lower than commercial kitchens. Urban centres tend towards warming kitchens while there is still a desire in rural centres for the commercial kitchen. Key to the decision process is an analysis by the owner as to who will operate the food and beverage (i.e. volunteer team fund raisers, staff or subbed out to a private vendor).

12. Figure Skating
    a. A music room is a requirement to be able to offer meaningful figure skating. Ideally the room is easily accessed from the ice and has views to the ice.
    b. Previously mentioned flex rooms can add to the versatility of the arena and load on dressing rooms.

13. Public Skating
    a. The increasing usage of high efficiency T5HO lighting (see Nanaimo Ice Centre) now provides arena operators with highly energy efficient systems that offer vastly quicker and more effective light dimming options appropriate for figure skating and public skating.
    b. Skate rental rooms/ services tend to be requested on a case by case basis.

14. Lacrosse
    a. Popularity of box lacrosse has a definitive effect on arena design requirements. Ceiling height should be higher than ice arenas (to allow for ball play), lighting fixtures should be selected in anticipation of being hit more often with a lacrosse ball than is normal with a puck, and locations and conduit for shot clocks must be planned for.
    b. Both the Armstrong Arena and the Coquitlam Sport Centre (under design) arenas have ceiling heights based on lacrosse requirements.

15. Indoor Soccer
    a. Indoor soccer enjoys growth in popularity however it is becoming increasingly more likely that purpose built indoor soccer facilities be used rather than use the dry floor of an existing ice arena. While the use of an arena floor with a removable turf can still provide viable indoor soccer programming, often times serious demand for indoor soccer results in purpose built facilities that include features such as soccer specific dasher boards, lighting, dressing rooms, etc that are different than a typical ice arena. That said ice arenas can function to house indoor soccer.

16. Dry floor events
    a. Expanded programming opportunities for events such as trade shows, dog shows, community fairs, etc. are all made possible by designing the ice slab to bear additional floor loads when the ice is out. Similarly, planning for sufficient exiting doors from the event level is critical if floor events are desired. The types of events feasible can normally be determined during project programming.
    b. If dry floor events are desired, consideration should be given to providing storage space for equipment used during these events.

17. Refrigeration systems (geothermal)
    a. Ammonia based systems are most common in BC. Ammonia is an environment friendly system, but is hazardous to humans and therefore ticketed operators are required on site during operations.
    b. Freon based systems are common in other parts of Canada, especially in Quebec. These systems do not require ticketed operators on site which reduces staffing costs however these systems are environmentally unfriendly.
    c. Geothermal systems are increasingly incurring interest. Both generic and proprietary systems are available. In all cases, the mechanical and/ or refrigeration consultant should conduct an energy analysis to confirm the applicability and type of system than can be recommended for the particular site and climate in question. Caution should be taken with respect to some proprietary systems that are touted as cost competitive with traditional systems as these systems sometimes require larger refrigeration rooms to house them (i.e. added building cost) and/ or sometimes require more refrigeration tonnage to be able to produce quality ice during spring and fall shoulder seasons.
    d. Heat recovery as a means of saving energy costs and practicing environmental stewardship is possible with all systems.

1.4 POPULATION/ FACILITY RATIOS

Recreation facility provision ratios are not standards; whether parks, green space, cultural amenities, ice arenas or swimming pools, they are very subjective to their respective service area. These ratios should not be the sole basis for providing facilities. If, for example, you took the ratio of arenas per capita, communities across Canada would certainly exceed the norm as most small town rural communities have their own skating arena and perhaps a community centre. However, in conjunction with other indicators, ratios can represent a useful guideline to use when identifying future community recreation facilities.

FACILITY TYPE	PER 1000 POPULATION
Recreation skating arena	1/7-10000
Major skating arena w/spectator seating (+1000)	1/20-30000
Curling rink	1 sheet/7-9000
Aquatic facilities (indoor)	1/25-30000
Multi-use community centre	1/30-40000
*Municipal gymnasium (full size)	1/20000
Indoor field house	1/40-45000
Fitness/wellness centre	1/15-20000
*does not include school district facilities that may be accessible through joint use agreements	

1.5 OBJECTIVES OF FEASIBILITY & NEEDS ASSESSMENT

At the outset of this planning process, provision was made to involve the local citizens for whom the proposed recreation facility is being developed. Only in this way can the CVRD Parks and Recreation Services be sure that its plans, when finally implemented, are a relevant response to the needs of the users and community at large.

By providing an opportunity for interested citizens to participate, the outcome of the project is more likely to be successful. By incorporating the ideas, suggestions and criticisms of citizens, the project can become a community effort. Citizen involvement helps to create and sustain greater community support for the facilities and services being planned.

While there is little disagreement with the basic premise that the people who are to be affected by a planning decision should have a voice in its determination, opinions vary widely when questions are considered about who should be involved, when and how they should be involved and how much influence they should have on the final plan. The resolution of these questions is essential for CVRD Parks and Recreation Services in establishing a definite strategy when encouraging citizen participation.

1.6 PUBLIC CONSULTATION PROCESS

The community consultation process for this study was qualitative in nature and involved three phases of user and public-at-large discussions, including the Comox Valley Curling Club executive, existing ice facility users, CVRD Parks and Recreation Services staff and a community open house dialogue. Outcomes from each meeting can be found in Appendix A. The following are general comments associated with the development of a new curling facility to replace the existing club that is in dire need of upgrading to meet several code issues as well as a major 'facelift' to the building itself.

THE CLUB

Presently, the Comox Valley Curling Club (CVCC) with a retained membership of approximately 550, services a similar area as local School District #71, that being Courtenay, Comox, Cumberland, Electoral Areas A, B, C. There are also a few members from as far away as Campbell River. Although not without its challenges the club membership has remained relatively consistent over the past several seasons and represents approximately 9% of the total area population.

THE WISH LIST

The CVCC believes that a six sheet curling facility will suffice the long term requirements of the sport locally. Although it would be ideal to have the potential for more (8 sheets) they cannot justify the expense of construction and operation. As well, it was mentioned that the Club would rather have a 'full' facility at capacity than the struggle to make the most of the extra two sheets of ice for each draw. It was felt the extra ice capacity would only come into play during larger bonspiels, such as Provincial Playdowns, which are not on any regular basis.

Second to the ice, the most important function within the new facility would be the upstairs viewing lounge (licensed) which at present is too small. The Club feels that an area to accommodate ±130 patrons would be ideal not only for curling functions, but for potential private social events that could be hosted in the lounge area. As the major revenue source for the CVCC it is critical that the Club would retain responsibility for management and operation of this area in the proposed facility. Bearing mention is that in considering operations policies the CVRD would be well advised to plan Food and Beverage sales models carefully as there can be significant risk associated with allowing outside parties to manage beverage sales in particular.

Associated with the lounge area, a multi-purpose room available for CVCC functions, community and private rentals is essential to the continued success of the Club – as well as making the facility more multi-use in capacity. This space, with seating ±150 for banquets and sound barrier dividing doors could be accessible on a regular basis for non-curling functions such as training courses, low impact wellness/fitness classes, card/table games and private social gatherings. Adjoined to this area would be food services kitchen. Some thought should be given as to the level of function this space should be capable of: a full service preparation and cooking facility or a warming and serving area, both have their pros and cons. Whereas a full service facility could provide on-site food services for a variety of facility functions and be used for potential programming space (i.e. food preparation courses, etc.), the upfront cost for equipment and meeting code requirements may place a negative financial impact on the overall project. If CVCC food service was contracted out ,in all likelihood food preparation for major functions would be done off site and in that case a warming/serving kitchen working in combination with the lower concession area would suffice.

Other items discussed included: (in general order of priority)

- Food services (lower) concession
- Office space – minimum of two (one for manager and one for staff)
- Pro shop – could be a display space
- Entry lobby & lower viewing area – ice slab below entry level?
- Locker rooms (2) – with ±125 lockers each and small change area, no mechanical required
- Washrooms (5) – two up and two down with designated handicap on lower floor
- Storage – ice equipment / tables & chairs / lounge supplies / food services
- Custodial (2) – with mop sinks
- Electrical (2)
- Mechanical (2) – refrigeration w/extra capacity for future
- Coaches/meeting room – does not have to be large
- Computer / media room – these could be combined
- Showers

Due to the factor of maintaining critical ice conditions, the use of the CVCC for other ice related activities during the regular season is not a viable option. Discussion regarding appropriate partnering uses in an adjoining annex focused on ice skating activities in order that the refrigeration plant could potentially serve both ice slabs. As well, both skating and curling operate during very similar seasons which could mean shared use of operation/maintenance staff, common spaces and equipment, creating economies of scale. The combining of activities under one roof also creates the opportunity for the CVCC to expose the game of curling to potential new members who would not normally visit their curling venue. There was, however, a general concern of substantial increase in charges (rental) to the CVCC if a new facility was built. If club fees were to increase to any great amount it is anticipated that the total number of playing members would decrease accordingly.

In today's society, support for and feasibility of designing and constructing a single focus, stand alone community recreation facility is limited. To be sustainable the proposed facility will need to become a centre of regional activity; a multi-use building designed to meet the region's requirements for curling, sports and recreation, active living, and community meetings, gatherings and events as well as providing the capability for enhancing the region's ability to host special events.

Part of the community consultation process involved discussions with current ice facility users. For the most part deliberations included: their organization needs for the future; potential to partner with CVCC in a new facility and how that would look. Representatives from Leading Edge Hockey School, Glacier Kings Jr. B Hockey Club and three adult hockey organizations had the opportunity to express their thoughts including:

- A combination curling/skating facility could work if promoted properly to the community as a multi use complex that houses skating and curling as just part of its capacity.
- A mini rink as a skating surface would work well for many programs from youth to adult, but if building a new facility it should be regulation size.
- Dual use of ancillary facilities (i.e. banquet, lounge, viewing/meeting rooms, and concessions) makes sense and would create the ability to host tournaments and other special events requiring these types of spaces not currently available at existing facilities.
- Majority of the organizations interviewed were satisfied with their present ice allotments and arrangements with the CVRD. It was a consensus, at least from the adult user groups, that at this time a third sheet of ice in the community is not warranted. The skating portion of a new facility would be difficult to fully program based on existing ice usage at the Sport Centre and CFB Comox.

- Comox Valley Minor Hockey (at the public open house) indicated that they could use up to forty hours of ice time more than they currently receive. However, they also stated that although their numbers have remained stable ±800 with the number of recent school closures predicting future registration numbers would be difficult.

A meeting with CVRD staff indicated that should a new facility be built, whether stand alone curling or a combined curling/skating complex, it would be operated by certified CVRD employees, especially the refrigeration, ice making, daily maintenance and repairs. If the curling club were to undertake custodial duties in their respective building it would have to be done to CVRD standards. The multi-use areas could be utilized for department programming such as first aid, day care and workshops, as well as rented out for private use. The CVCC would be a main tenant paying negotiated rent as well as a portion of food/beverage sales and miscellaneous rentals to the regional district. Spectator seating in the arena portion would be ±300 with a minimum of six dressing areas. Common entry as well as shared (upper) viewing areas would be ideal.

Discussions with the third area skating facility, Glacier Park Arena at CFB Comox, the operators indicated that their facility was well used by the local community – both youth and adult programs outside of the Base activities, averaging ±55 hours per week during the main skating season. Their main concern with the development of another skating surface in the area is a potential drop in these non-resident users. The rental rates are maintained at a similar level as facilities in the CVRD with the user fees being utilized for CFB Comox recreation programs. Potentially losing users to another facility would create a challenge in being able to provide leisure programs for youth, adult and family in the future. At present the working arrangement with the CVRD is good and will hopefully continue.

The final consultation session, the public open forum echoed many of the thoughts and concerns in the earlier gatherings and general consensus was the existing curling facility is on its last legs. Comments from the floor included; making the facility as multi-functional as possible, design for the long term, greater use of the dry floor capacity in the off season, cost (capital) of a new facility, maintaining the CVCC identity (society) allows flexibility to raise funds, exterior look not as important as interior, locating the facility with other activities (i.e. golf club) to create more use and revenue (food/beverage), suitable on-site parking, cost (fees) to CVCC members in a new facility and ensuring the location is relatively accessible to the entire service area.

The activity of public engagement is an integral part of planning and delivery; it should not be an afterthought. Whenever decisions are being made about issues that will impact on the people and communities of the CVRD engagement must be a primary consideration. Citizens and stakeholders should be given the opportunity to contribute to the decision making process at each stage, from defining issues, which is where we are now, to formulating and implementing the outcomes of decisions. This input is important as workable solutions often depend on local knowledge and on the support, expertise and understanding of particular stakeholders. The public engagement process is, therefore key to ensuring that this knowledge influences decisions and, in the end, a successful conclusion to this proposed project.

Part 2 Feasibility

2.1 LOCATING A POTENTIAL SITE

A community's demand for types and levels of community services depends on the density of development, neighbourhood characteristics, the present availability of services, and the accessibility of existing facilities or service alternates. Service providers in making their location decisions must take into account such factors as public need, location of target clientele, financial obligations, present and anticipated resource availability, and costs of physical plant and program development. Taken together the siting and expansion of community recreation facilities must be at locations reflective of community needs and the ability of the service agency to deliver services.

During the community consultation process one of the discussion topics focused on where a site for the proposed new multi-use ice facility should be located. There was a consensus on a few locations – not in the downtown area of Courtenay or near the freeway (Island Hwy.). Other criteria regarding suitable location included:

- Co-locating the facility near or adjacent to other community facilities in order to make the new facility more multifunctional in program and sharing of common grounds (i.e. parking)
    - The Fairgrounds as an example
- If freestanding, then in an area where the surrounding space has some potential for future development such as a community park and/or other facilities
- Easily accessible by local arterial roads and/or near major corridors
- Make the best use of existing community resources
- Select a site that may provide the opportunity to partner with community groups and organizations and even the private sector to develop a facility supporting community recreation activities
- Select a site that is already in public hands which could potentially reduce the overall cost of the project

The CVRD, when determining a suitable site for the proposed multi-use ice complex or any community recreation facility for that matter, should develop a course of action that:

- Encourages land use development that supports the efficient use of existing and/or planned community facilities;
- Classifies community recreation facilities according to their function and scale of operation;
- Supports the siting and development of facilities and services based on the location and the scaling of these facilities and services meets the needs of the overall community and reinforces community identity;
- Support the development of a unified approach to long range community facilities planning and capital investment programming in the CVRD;
- Encourage the siting of community recreation facilities at locations that reinforce orderly and timely development and efficient provision of all recreation services and facilities.

The CVRD and its respective members have made substantial investments in the past years in acquiring park land, developing indoor and outdoor recreational facilities and in supporting programs that set a high standard for the region's residents. In order to position the CVRD Parks and Recreation Services as a major element of pride in the region and as a viable service worth investment; an ongoing needs assessment strategy for all facilities and services will ensure a lasting legacy for existing and future residents of the region. The time is now to act before identified CVRD Recreation and Park assets decline to a point that will cost substantial amounts of dollars to rebuild the system.

Site Name	Service area		Partnering Potential	Services				Access			Score
	SITE SIZE	LOCATION		Hydro	Gas	Water	Sewer	Arterial	Transit	Vehicle	
Exhibition Grounds	Excellent (42A)	Good	Yes – with other Fairground uses	YES	YES	YES	YES	C+	C	B	B+
Cumberland (Recreation Ctr.)	Requires more	Average	Yes – with a new Recreation Centre	YES	YES	YES	YES	C+	C-	C+	C+
CFB Comox	Good	Good	Yes – with existing recreation facilities	YES	YES	YES	YES	B+	B	B	B
SD#71 Maintenance Yards	Adequate	Good	Yes – with Vanier HS & Sport Centre	YES	YES	YES	YES	B	C	B	B-
Alders Hall (Area A)	Adequate (8A)	Average	???- with existing site facilities	YES	?	YES	?	C+	D	C+	C+
Sage Hills Dev. (Area A)	Not determined	Good	To be determined with development	YES	Future	Future	Future	B+	Future	B+	B-
Cumberland (Village Park)	Requires more	Average	Yes – with Village playfields	YES	YES	YES	YES	C+	C-	C+	C+
Cumberland (Trilogy Dev.)	Not determined	Average	To be determined with development	YES	YES	YES	YES	C+	C-	C	C
Kensington Properties	Not determined	Poor	No	YES	YES	YES	NO	C+	Future	C+	C
Indian Reserve (Area C)	Not determined	Average	No	YES	NO	NO	NO	C	D	C	C-
North Island College	Excellent	Excellent	Yes – with North Island College	YES	YES	YES	YES	A	A	A	A

COMMENTS:

The above chart was developed from a physical site visit as well as using a variety of criteria, including: utility services readily available at the time of the study (or potentially near future – 2 years maximum); ease of access via arterial connections using a personal vehicle, local transit system and/or perhaps other methods (walking, bicycling); potential to partner with other ancillary facilities and/or agencies; site size to accommodate a facility of this nature (including parking); and, of course, the physical location of the site keeping in mind the service area of the Multi-use Ice Complex.

THE PROS [+] & THE CONS [-]

Exhibition Grounds

- \+ Opportunity to use facility on a 12 month basis [non-ice related] when tied in to other on site activities [i.e. Exhibition Events]
- \+ Large site [42ac] providing potential space for required ancillary space [parking, vehicle circulation]
- \+ Required utility services on site
- \+ No site acquisition costs – owned by CVRD
- \+ Relative proximity to Sport Centre & Vanier High School
- \+ Community familiarity as location of existing Curling Club
- – Vehicle access [Headquarters Rd.] is average and with a new facility, potentially increasing traffic, would require upgrades
- – Soil stability – a preliminary soil suitability assessment would be required [potential previous soil contamination from brine leaking (CVRD staff)
- – With a new facility [and potentially more usage] consideration should be given to more frequent Transit System schedule to site
- – Concentration of facilities in and around this site would provide uneven distribution of recreation facilities in the region

Cumberland [Recreation Centre]

- \+ In centre of the community with major arterial [need upgrading] connector
- \+ Required utility services on or near site [may have to be upgraded for new facility]
- \+ Potential to partner with [new] community recreation centre
- – Current site requires additional space acquisition for a new facility
- – Location may deter a few current [and potential] users from commuting to this site
- – Transit system service is minimal, especially on weekends – all users [except Cumberland residents] would have to use vehicle transportation

Cumberland [Village Park Playfields]

- \+ Pros and cons similar to the Recreation Centre site with exception to potentially partner uses with adjacent community playfields

CFB Comox

- \+ Arterial connectors are good as is Transit service to the area
- \+ Partnering with the existing recreation facilities would provide for potentially more facility [curling] use during daytime hours [Base programs]
- \+ Certified staff [arena] already exist on site
- \+ Utility services on site
- \+ Site use requires negotiation
- \+ Sufficient space, including parking, exists adjacent to current arena
- – Uncertain as to what CFB Comox long term land use assembly plans may be
- – Require a well documented use agreement [long term] ensuring adequate facility access and use by both parties
- – Community may be hesitant in supporting a new facility on the Base

School District #71 Maintenance Yards

- \+ Site adjacent to both Comox Valley Sport Centre and Vanier High School providing for facility exposure and shared program space
- \+ Site size is just barely adequate with the premise of utilizing auxiliary parking, when required, at adjacent facilities
- \+ Arterial connectors adequate – Transit service may have to be improved
- \+ Community is familiar with the area due to the neighbouring Sport Centre and High School
- \+ Utility servicing at or near property line

- Negotiations required for site acquisition [potential purchase costs]
- Gary Oaks on site [removal difficult?]
- Sport Centre is already compromised for parking and access – would a new facility only compound the existing problem?

Sage Hills Development

+ Arterial connectors good at present and with development complete Transit service would, in all likelihood, be adequate
+ Site has excellent visual exposure
+ Potential to partner with recently announced IMG Sport Academy [2007/12/15]
+ Negotiate from the outset with the development for a suitable multi-use ice complex site [through DCC's?]
+ Sage Hills Development, when complete, will comprise of a complete community combining commercial, residential and institutional operations
- Timing: what is the anticipated start and completion date as well as the anticipated phasing of the project
- Receptiveness of the developer to include this type of facility within the overall proposal
- Site acquisition and development costs may be high

North Island College

+ Great location with good arterial connectors, including Transit system
+ Community already familiar with area as Aquatic Centre is across the street from NIC
+ Utility services at/or close to site
+ NIC property has several suitable locations for a multi-ice complex
+ Depending on location, need for complete complex parking could be minimized by sharing existing NIC parking
+ Huge partnering potential with NIC who currently have no major athletic components on campus [develop a dry floor facility in conjunction with curling complex?]
+ Potential for NIC student programming [intramurals] and college athletic programs
+ Minimize the multi-ice complex footprint by sharing of NIC facilities [classrooms, meeting space]
+ May have opportunity for heat exchange with pool
- Understanding of NIC philosophy and developing a "community connection"
- Negotiating of suitable lease terms and facility usage for all stakeholders
- Operating of proposed facility on the NIC site may be some cause for concern [union contracts?]
- Design and construction costs may be high in order to complement the existing structures on campus
- Determining the long term goals of NIC and their vision for site usage, including timing of new structures

Trilogy Development [Cumberland]

+ Significant residential development is proposed on the Trilogy site and nearby. If development goes ahead, this region may incur largest population growth in CVRD and need recreation facilities.
+ Site location offers good highway access and could help identify a recreation campus in the southern region of the CVRD
+ Depending on specific site location, a facility on this site may enjoy good visual exposure.
- If proposed Trilogy or similar development are not realized siting a recreation facility in this location places it in a region of the district with a relatively small population base.
- Uncertainty concerning receptiveness by developer interests to potential partnering. (would need to be explored)

Other sites

- Alders Community Hall
    - Cost to provide utility services / site barely adequate [8ac] / would eliminate existing open space at Hall / site 'out of the way'
- Kensington Properties Development
    - No sewer services / cost of acquiring land / area 'out of the way' / land assembly for adequate site would be difficult / development underway now

2.2 OPERATING COSTS COMPARISON

Part of the study completed includes consideration operational costs models for two distinct operational models (stand alone curling versus combined curling & recreation arena). The chart below identifies project key sources of operations costs and revenues.

Year One Operating Estimates - Dual Shared Facility

Function		Arena		Curling	
Administration			5,400		
Staffing		110,925	Ⓟ	60,000	
Benefits		28,840		6,300	
Staffing (miscellaneous)				20,000	
Gas & Oil (ice equipment)		3,000		500	
Supplies (office)		1,050	Ⓟ	2,150	
Maintenance (regular)		6,000	Ⓟ	2,000	
Snow Removal			2500		
Vehicle (ice resurfacer)		3,000			
Tools (hand)			1000		
Merchandise/pro shop		1,000		9,000	
Lounge supplies				50,000	
Marketing & advertising		1,500	Ⓟ	2,000	
Licenses		500		1,500	
Training		1,500		500	
Insurance (property)		8,500		4,250	
Telephone		1,100		1,000	
Utilities (hydro/natural gas)		78,000	Ⓟ	21,500	
Water, Sewer, Garbage		4,800	Ⓟ	2,350	
	Totals	249,715	8,900	183,050	**441,665**
Revenue Estimates					
Ice rentals (regular users)		102,200			
Ice rentals (non-regular users)		6,000		25,000	
Private functions		1,000		2,000	
Miscellaneous programs		1,500		1,000	
Lounge/liquor sales				47,700	
Concession/food (contract)			8,000		
Merchandise/pro shop sales		500		3,500	
Memberships				115,000	
Advertising/sponsorships		4,000		6,500	
Rentals - dry floor		2,500		2,500	
	Totals	117,700	8,000	178,200	**303,900**
Estimated operating costs - Year 1					**137,765**

Ⓟ shared function between CVRD & CVCC

NOTE: no requistion to capital debt retirement shown above

Ice rentals (regular users)	These revenues potentially reflect a revenue decrease
Ice rentals (non-regular users)	in other local skating facilities in CVRD

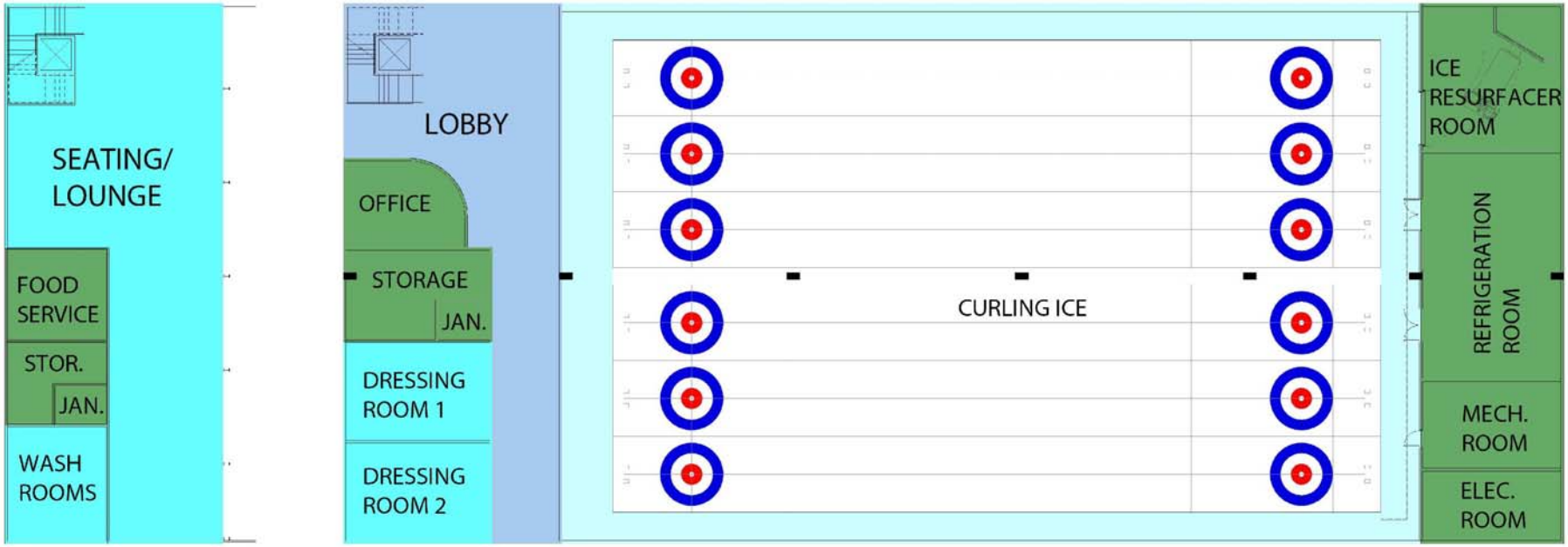
Year One Operating Estimates - Curling Facility Stand Alone		
Owned & Operated by CVRD		
Function		
Administration	5,000	
Staffing - maintenance	110,925	
Benefits	28,840	
Staffing - Beverage	25,000	
Gas & Oil (ice equipment)	1,000	
Supplies (office)	2,500	
Maintenance (regular)	10,000	
Snow Removal	2,500	
Vehicle - equipment & expense	2,000	
Tools (hand)	1,000	
Merchandise/pro shop	9,000	
Lounge supplies	50,000	
Marketing & advertising	3,000	
Licenses	1,000	
Training	2,000	
Insurance (property)	6,500	
Telephone	1,000	
Utilities (hydro/natural gas)	42,000	
Water, Sewer, Garbage	4,500	
Totals	307,765	**307,765**
Revenue Estimates		
Ice rentals (special events)	25,000	
Ice rentals (non-club users)	2,000	
Private functions (non-ice)	3,000	
Miscellaneous programs	2,500	
Lounge/liquor sales	45,000	
Concession/food (contract)	4,500	
Merchandise/pro shop sales	4,000	
Memberships	115,000	
Advertising/sponsorships	5,000	
Rentals - lockers	2,500	
Rentals - dry floor	2,500	
Totals	211,000	**211,000**
Estimated operating costs - Year 1		**122,265**

Note: no requisition to capital debt retirement shown above.

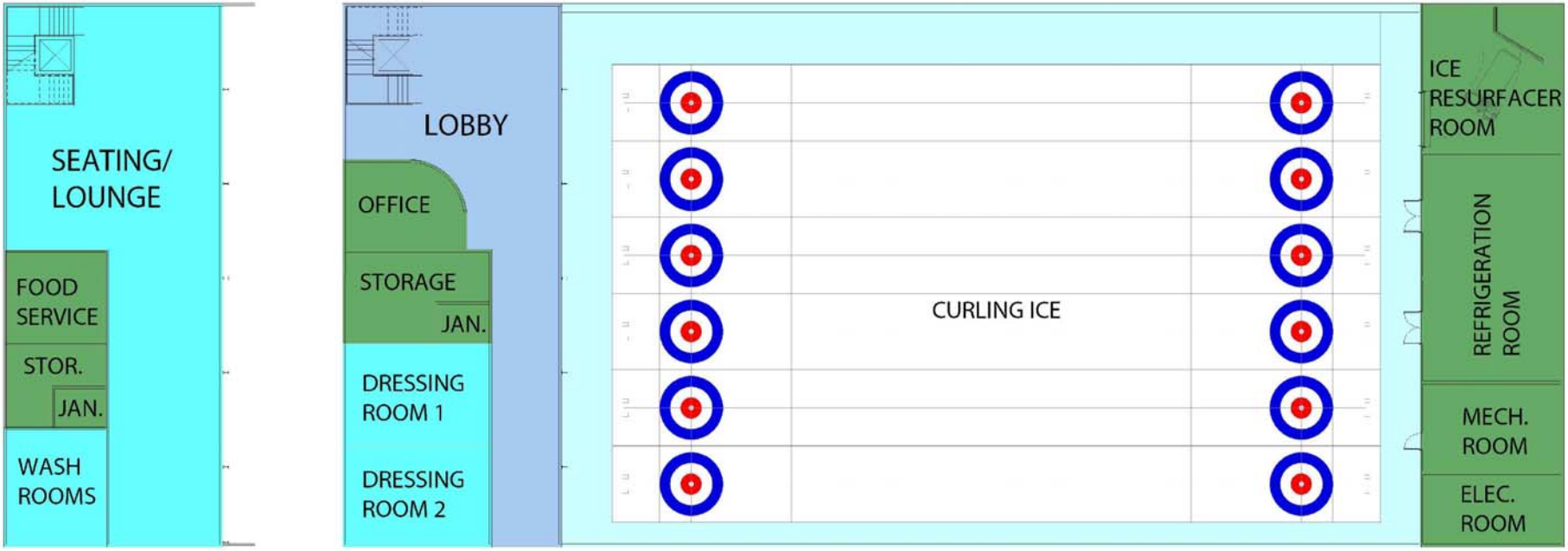
2.3 BUILDING OPTIONS AND COSTS

Part of the study completed includes consideration of projected capital costs for the construction of a new facility. The charts below identify conceptual program options (shown graphically in order to illustrate typical components of curling and arena facilities) as well as projected capital building costs for various options and combinations. The diagrams should in no way be interpreted as design solutions and instead simply as diagrams indicating general ways that spaces are typically organized in curling and ice arenas.

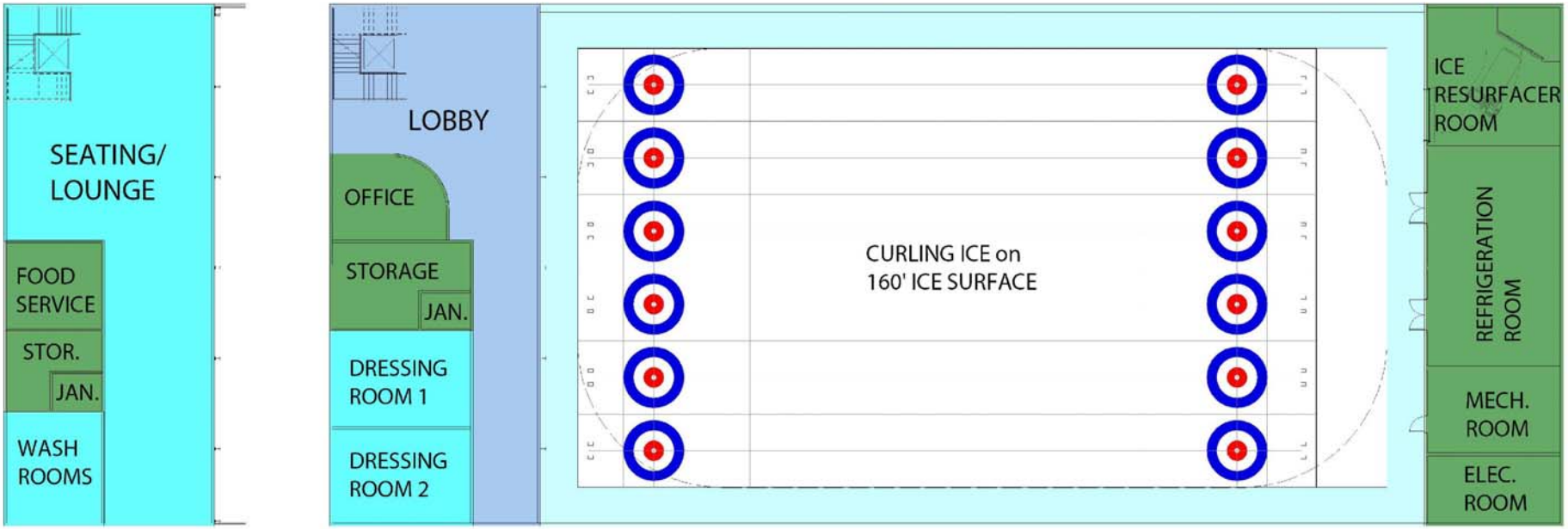
CURLING FACILITY – OPTION A



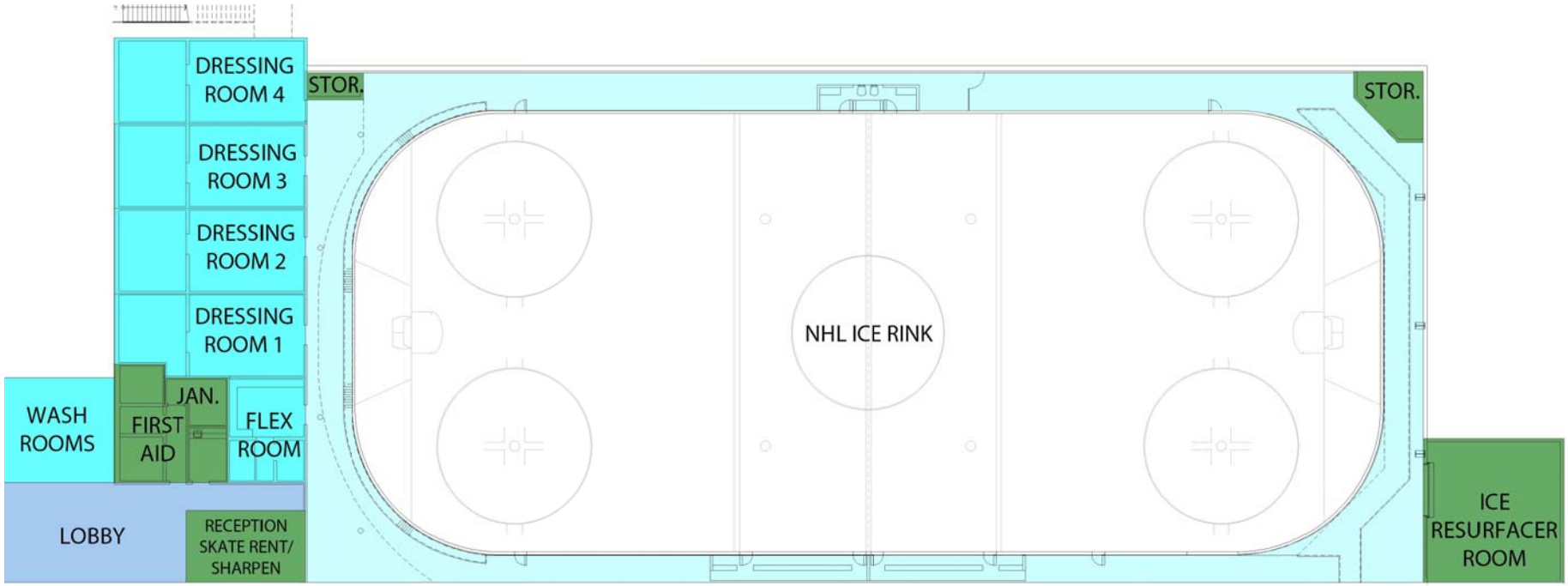
CURLING FACILITY – OPTION B



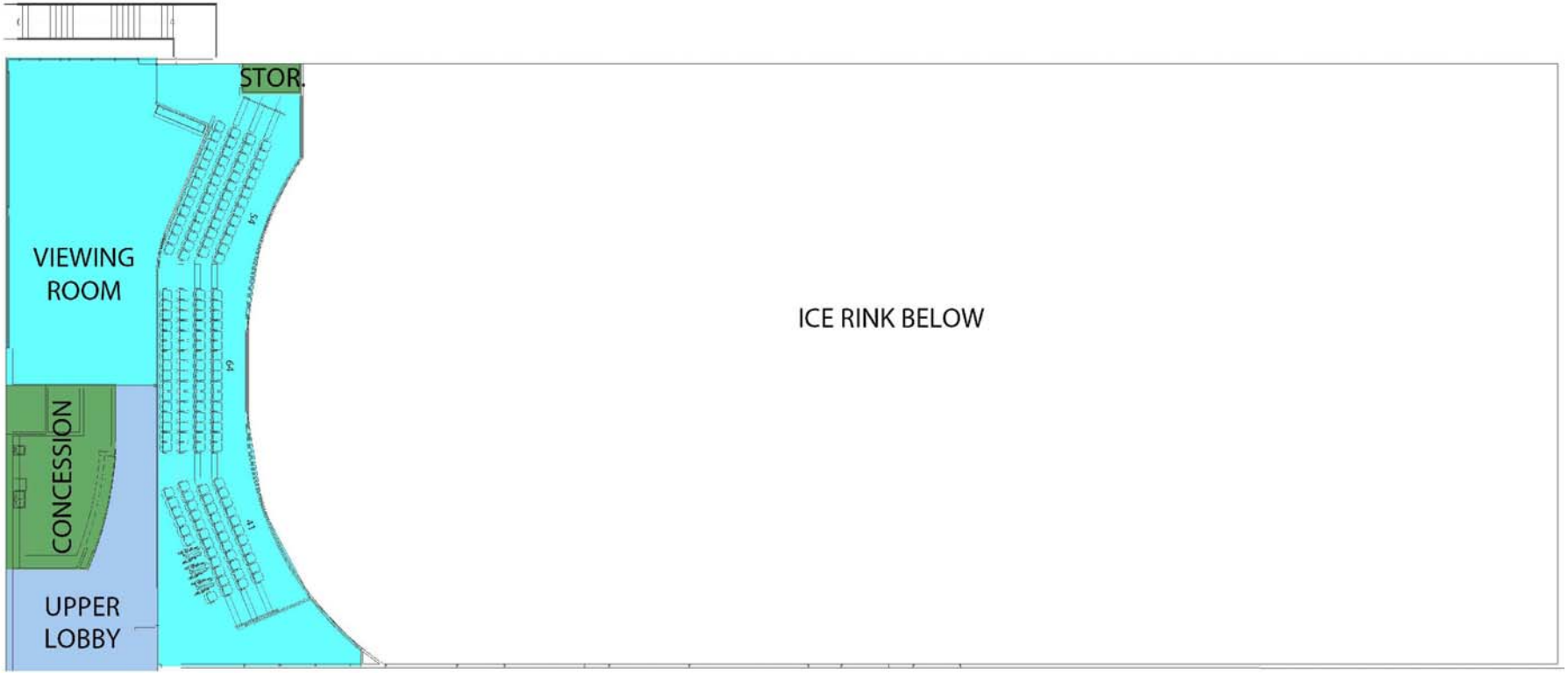
CURLING FACILITY – OPTION C



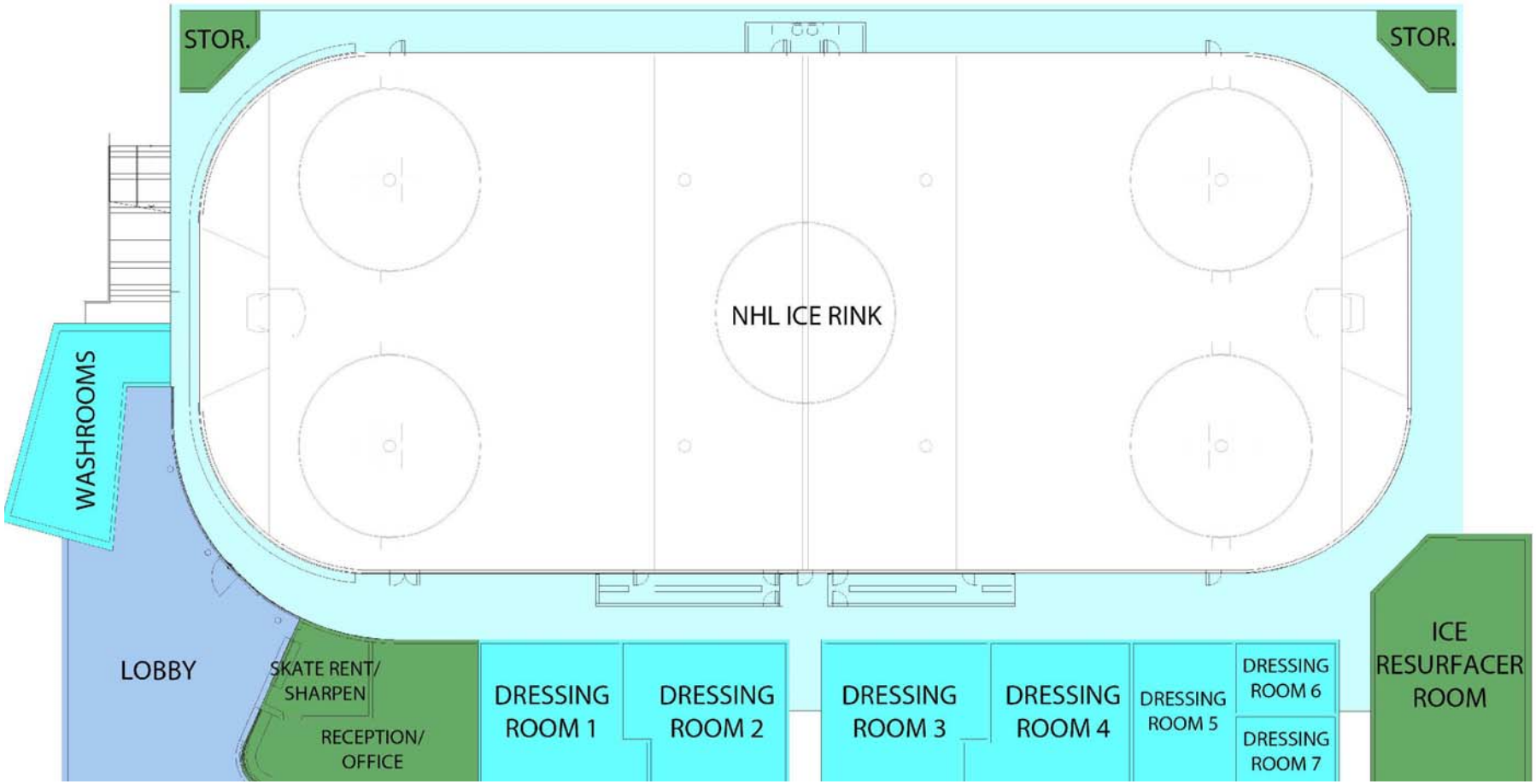
COMBINED ICE FACILITY – OPTION AA MAIN FLOOR



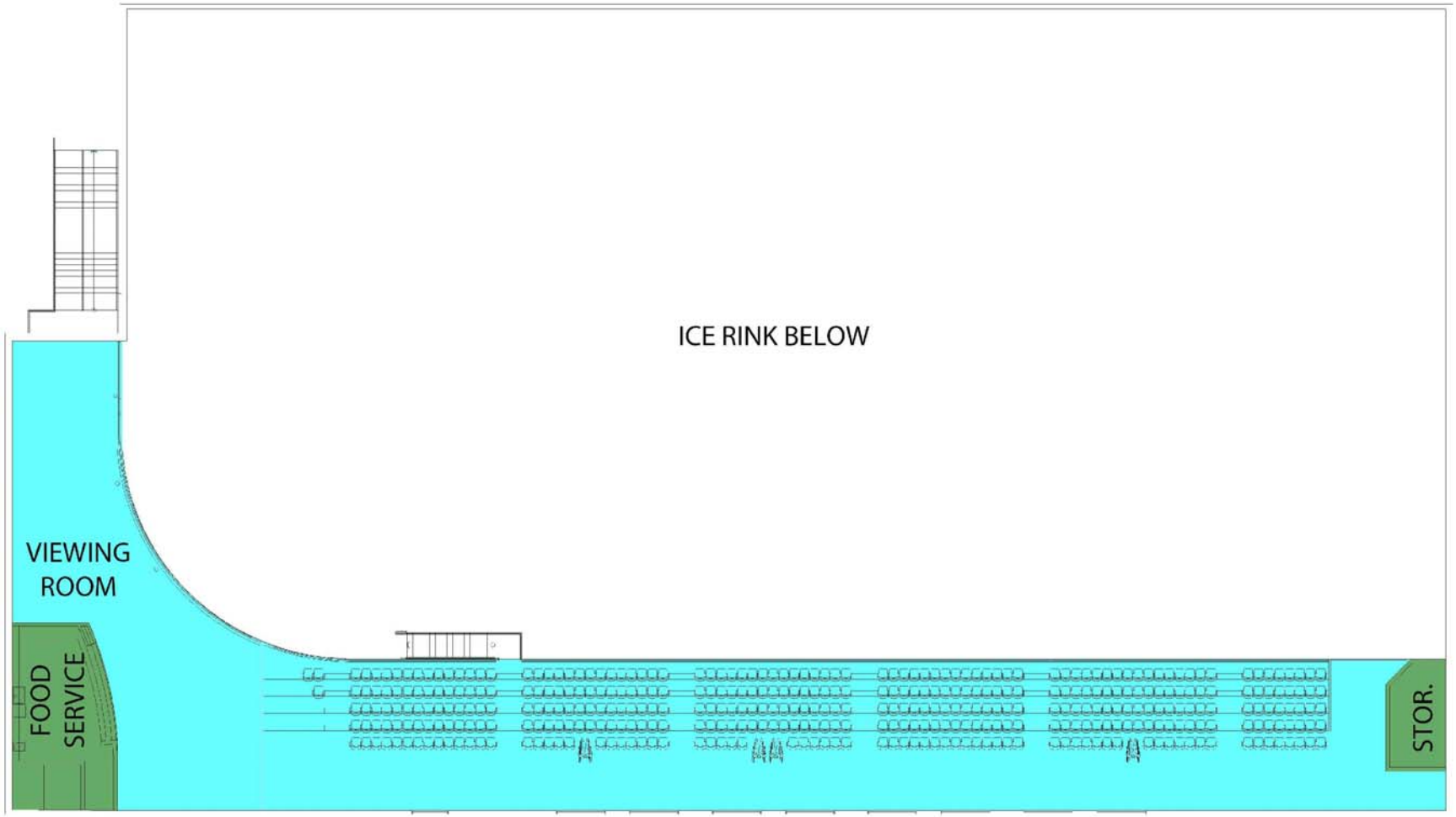
COMBINED ICE FACILITY – OPTION AA UPPER FLOOR



COMBINED ICE FACILITY – OPTION BB MAIN FLOOR



COMBINED ICE FACILITY – OPTION BB UPPER FLOOR



COST COMPARISON

A Design Options	B Estimated Building Area (square feet)	C Construction Cost Rate (per square foot)	D Construction Cost (building only) (B x C)	E Site Development 15% of D	F Soft Costs Design, DCC,s Permits, FFE 25% of D	G Basic Project Cost (D +E+F)	H Recommended Design Contingency 10% of D	I Recommended Const. Contingency 5% of D	J Project Budget for Jan 31/08 (G+H+I)	K Escalation Factor Per Month = 0.75% (.75% x J)	L Escalation Factor To Jan. 31/09 (9% x J)
Curling Rink Options											
A. Basic Curling Rink (columns in m (6 full sheets on 146' x 85' surface)	25,700.00	$ 205	$ 5,268,500	$ 790,275	$ 1,317,125	$ 7,375,900	$ 526,850	263,425.00	$ 8,166,175	$ 61,246.31	$ 734,955.75
B. Column Free Option (6 full sheets on 146' x 85' surface)	25,700.00	$ 221	$ 5,679,700	$ 851,955	$ 1,419,925	$ 7,951,580	$ 567,970	283,985.00	$ 8,803,535	$ 66,026.51	$ 792,318.15
C. Partially Convertible Option (6 full sheets on 160' x 85' surface)	28,500.00	$ 221	$ 6,298,500	$ 944,775	$ 1,574,625	$ 8,817,900	$ 629,850	314,925.00	$ 9,762,675	$ 73,220.06	$ 878,640.75
D. Fully Convertible Option (6 full sheets/ 3 practice on 200' x 85' surface)	32,900.00	$ 221	$ 7,270,900	$ 1,090,635	$ 1,817,725	$ 10,179,260	$ 727,090	363,545.00	$ 11,269,895	$ 84,524.21	$ 1,014,290.55
Participation Arena Basic Options											
AA. End Loaded c/w 200 seats	33,500.00	$ 221	$ 7,403,500	$ 1,110,525	$ 1,850,875	$ 10,364,900	$ 740,350	370,175.00	$ 11,475,425	$ 86,065.69	$ 1,032,788.25
BB. Side Load c/w 200- 400 seat	35,000.00	$ 221	$ 7,735,000	$ 1,160,250	$ 1,933,750	$ 10,829,000	$ 773,500	386,750.00	$ 11,989,250	$ 89,919.38	$ 1,079,032.50
Combined Curling & Ice Arena											
1. Fully Featured Option	70,000.00	$ 221	$ 15,470,000	$ 2,320,500	$ 3,867,500	$ 21,658,000	$ 1,547,000	773,500.00	$ 23,978,500	$ 179,838.75	$ 2,158,065.00
2. Basic Amenities Option	58,000.00	$ 221	$ 12,818,000	$ 1,922,700	$ 3,204,500	$ 17,945,200	$ 1,281,800	640,900.00	$ 19,867,900	$ 149,009.25	$ 1,788,111.00

A *Options described under separate section*
B *Areas are calculated based on previous CEI design work and completed projects*
C *Cost rate based upon recent similar work completed by CEI in 2007*
E *Site costs (grading, landscaping, site services) are typically in the range of 15% of building cost, but can vary depending upon site.*
F *Soft Costs include design fees, development costs charges, permits, FF & E.*
I *Recommended Design Contingency at this stage is recommended at 10% to allow for program changes that may affect buidling design. Amount can be reduced when program confirmed, and then again when design development has been completed.*
J *Recommended Construction Contingency at this stage is recommended at 5%. This amount is normally carried throughout project.*
K *Escalation projections currently vary, but current rate appears to be in the .75% per month range.*
L *Escalation factor shown for information purposes only to illustrate the need to plan for escalated project cost.*

2.3.1 LONG TERM ADAPTABILITY

Multi Use versus Multi Useless is a key design challenge that faces this kind of facility development. Some key design features to consider that will allow for conversion and/or multi use could include:

- Curling rink on 200'x85' pad – allows conversion to hockey rink if/when applicable
- Demountable dasher boards – allows conversion to non ice uses
- 14' high overhead doors – allows access for event trucks
- "fusion" floor in multi use room – allows for hard shoe events and sports (yoga, dance, Pilates, aerobics, etc.)
- Exceeding BC Building Cods accessibility requirements will help create longer term use for aging population
- Exploring partnership options (e.g. North Island College, Sage Hills) may increase program needs partners may have that could be included and result in more successful long term use.
- "flush" ice slab section detail can allow for more versatile dry floor use and flexibility.

2.3.2 SPECTATOR SEATING

Based on existing models, work completed by CEI, and our understanding of the likely uses of new facilities in the CVRD we would recommend the following for seating:

1. Curling Arena – 80-100 in a warm room configuration, with ability to bring temporary bleachers to ice level as required.
2. Ice Arena – 200-400 seats (with some warm viewing)

2.4 IMPACT TO EXISTING FACILITY

Should a new curling rink be constructed, the recommendation would be that it be done concurrent with the decommissioning of the existing facility. In this case there is no negative impact to the existing facility. In fact, with a thorough building assessment and negotiation with the building authority, the existing curling facility may be able to offer other dry floor sport and agricultural/ equestrian opportunities that enhance the region recreation programming.

A new rink should only be built to support demand for additional ice since existing facilities are in excellent shape and are well maintained. The CFB Comox Base Arena could be affected by programs in which a desire to use NHL size ice results in the base facility being less desirable to use. But the same token, the smaller ice surface may be marketed to old timer hockey and beginners for whom the 200' length is not necessarily attractive.

2.5 PARTNERING

As an ever-increasing number of public recreation facility projects include some form of partnership with other communities, public entities, nonprofits and even for-profit organizations, the need to thoroughly plan and prepare before launching into the final design and construction phase becomes more crucial. Should a new facility be endorsed and pursued, consideration should be given to two areas that, strictly speaking require specific investigation that expands beyond the scope of this report.

Civic governments are increasingly considering where partnering exercises can add value and expertise to a project beyond what the civic entity can provide. In this report we have provided a generic overview of partnering as a process and also identified some potential partnering opportunities that the CVRD may wish to investigate.

Similarly there are a number of different methods of procuring the construction of recreation buildings and we have provided a brief summary of some of the more popular delivery methods currently used for public recreation facilities.

Partnering at a Generic Level

The vast majority of public recreation center projects now begin with the completion of a comprehensive feasibility study that defines the basic needs, expectations, scope and financial requirements of the project. This is the time when potential partnerships can be identified and explored. Almost without exception, a partnership will have a profound impact on the overall feasibility of a project.

If identifying a partner is not possible by this point, it has to be accomplished before the ultimate design process begins if the partner is to have any input in the facility's components, layout or design. Garnering capital contributions from a partner for the building's development after the design process has been completed is nearly impossible. Once construction has actually begun, the opportunities for partnerships on a significant scale are almost nonexistent.

One major expectation that needs to be addressed is the desired level of teaming. Partnering is a broad-based concept that can move along a continuum from the simple promotion of each other's facilities, events and activities to joint programming and service delivery to coordinated development and operation of facilities. The commitment and direct involvement in the partnership (not to mention financial implications) obviously go up as the level of teaming becomes more intertwined.

Two basic ways of partnership are the sophisticated Public Private Partnership model and a more simple Public Partnership. The Public Private Partnership model is based upon the premise that if offered the opportunity to earn revenue, the private sector can be attracted to taking the risk of committing resources in which their expertise exceeds that of its public partner in the delivery and/ or operations of a facility. This model is more fully described below under construction delivery methods. Public Partnering involves identifying public (and sometimes private) entities that can mutually benefit by partnering as a single client to procure a project. In this model a partnership would seek out the design and delivery of a facility as a single entity and would share costs and agree on design and program compromises that are mutually beneficial.

Potential Partners

Pursuing partnership opportunities is beyond the mandate of this report however we have identified some potential groups that may be of interest to the CVRD to consider discussions with:

- Sage Hills Development - IMG has announced its intentions to build a sports campus near the community college that would suit high performance athletics and sport development. The concept is still, as we understand, in its infancy however the CVRD are recommended to have discussions with this group to determine if they are in fact serious and if there may be shared synergies and interests.
- Regional Post Secondary Institutions. Under a similar premise as the more specific Sage Hills example, local community colleges can be good partners as they need recreation facilities, tend to use then during daytime hours (a public facility's off peak times) and are often not able to afford facilities on their own.
- YMCA, not-for-profit community organizations and other similar private recreation operations can sometimes be attracted to use and/ or assume operation partnerships.
- Private P3 proponents may emerge a potential partnering opportunities if there are revenue streams that can be identified that can be achievable.

Construction Delivery Methods

What follows is a brief description of several current construction delivery models and some pros and cons related to each. Because each client and community have their own unique circumstances and objectives, there is no right or wrong method. While our description of each method is intended to be impartial it is based on our experience and therefore may not be uniformly held opinions. Nevertheless, the information below is intended to provide the CVRD with the additional information to help plan your process.

A. Design Bid Build- In this traditional model the owner retains a design team who design the project. At the conclusion of design, the project is let for tender and a successful General Contractor is chosen (usually based on the lowest bid) to execute the work. This method is not currently overly prevalent in a marketplace that has unpredictable construction escalation, although it is still used. Most general contractors are busy and as a result competitive bidding does not always result, and bids that do come in have tended to be high over the last couple of years. An advantage of the traditional process is that the owner has control of the design throughout the process and knows at the conclusion of tendering what their financial commitment is (notwithstanding change orders). The key disadvantage to this method is that by nature of the contracts and bidding process, the owner, architect/ engineers, and contractor are engaged in an inherently adversarial relationship when it come time to confirm what is included or not included in drawings, construction scope, etc.

B. Construction Management (CM) - In construction management, the owner assigns a construction manager to coordinate and oversee various construction subtrades that have direct contracts with the owner. This model is currently used on an increasing number of projects where the owner seeks the advantages of a team approach. In this model the CM and the design team run parallel to one another and work collectively to complete the project. A successful CM delivery relies on the competence of CM, design team and also the owner's ability to direct both the CM and the design consultants. The advantage of this system is that it empowers the construction manager and design consultants to work as a team in planning how to design and execute the work within an expected price range for fees that are fixed, and in which the CM does not benefit financially from change orders since they are in fact a consultant versus a contractor. The disadvantage is that because the CM works with the owner to

secure subtrade contracts individually, there is no overall construction contract that can define a finite cost (in other words costs are not known until all subtrade contracts are in place). Similarly scopes of work that have not been contracted or have been overlooked by the CM require change orders to get coverage.

C. Project Management (PM) - This role simply means that the owner retains a consultant experienced in coordination of building projects to direct their design consultants and contractor on behalf of the owner. The advantage is that in many cases these kinds of consultants have experience in project delivery that exceeds that of civic professionals (especially in smaller communities that do not have the same volume of major projects as larger urban centres). The disadvantage is that if both the construction and design entities are experienced and effective, the added layer of coordination consultant can sometimes cause and unnecessary indirect communication between design team, contractor and owner.

D. Combined PM/CM - The combination of PM/CM is a popular delivery methodology for recreation projects. The primary difference between PM/CM and simple CM is that the owner empowers the PM/CM consultant to direct the project on their behalf. This means that the owner gains a construction manager who can work with the design team and manage the design process in order to gear it towards a successful construction delivery method. The advantage of this system over CM at Risk, CM, and PM is that the owner retains a single entity that will provide guidance and control over the process as a project teammate and remain engaged in the process as the owner's representative throughout. The PM/CM works for a fee and is therefore less motivated by change orders than by agreed upon services. The disadvantages are similar to the CM process.

E. Design Build - in this model the owner retains a general contractor to lead the project for a fixed cost. The architect/ engineers are retained directly by the general contractor and act on the "GC's" instructions in terms of the scope of work provided. This delivery method has been used for numerous recreation projects in the current economic climate. The pros to this system are that the owner retains one contract (the GC) and they know the fixed cost of the project (notwithstanding project scope change costs). The disadvantage to the owner is that this method offers the owner the least amount of control over the design of the project. Because the General Contractor retains the design team, ultimately they are responsible to provide for a scope of work defined by the GC as determined by their contracted financial risk. In a sports project this can be additionally problematic if the either the contractor or design team of the successful proponent does not have sport facility experience.

F. CM at Risk - Similar to the CM process, the key difference is that at the conclusion of construction drawings, the CM converts into a general contractor to complete the construction. The advantage here is that the construction entity used to help assist with advice during the design process is familiar with the project that they will build at a fixed cost. The disadvantage is that the collegial nature of the owner/ architect/ construction manager is replaced by the potentially more adversarial traditional procurement method. This can mean that where during design all parties worked collectively to find solutions, during construction owner, architect, and contractor can find themselves disputing contractual issues where fees are the primary factor rather than the project itself. In addition some projects have made the mistake of removing control of the contingency amount from contractor to owner that can result in increase risk exposure to the contractor that is not of benefit to the project.

G. P3 (Public Private Partnership) - A sophisticated option in which the owner seeks partnership with a private proponent who will be asked to bring to the partnership any number of combinations of capital, operations and management systems, design expertise, construction expertise. These kind of P3s tend to be used for very large projects in which the private partner can be attracted to the project by the opportunity to earn long term revenue based on long term owner commitments (typically from operations contracts), and the owner benefits from the provision of facility and services that exceeds their own ability to provide the same. The disadvantage is that this system takes control of the operations and design of the new facility out of the hands of the owner usually over long renewable agreement periods that typically conclude after 30 years.

Appendix A

Minutes of Public Meetings

ARCHITECTURE
PLANNING
INTERIORS

DATE	December 10, 2007	PROJECT	Participation Arena/Curling Facility Feasibility Study
TIME	2:00pm	PROJECT #	27121
LOCATION	Comox Valley Curling Club	FILE #	
PRESENT	Kevin Roberts, President - CVCC Candace Baker, Secretary - CVCC Scott Gallagher, Past President - CVCC Tony Pisto, 1st Vice President - CVCC Ray Boogards, General Manager – CSRD John Goodwin, Assistant Mgr Operations – CSRD Stephanie Zuke, CEI Architecture Planning Interiors Chris Nelson, Recresynthesis Consulting Inc.	TOTAL PAGES	5 INCLUDING THIS PAGE
CC			
TOPIC	Comox Valley Curling Club Executive		

COMOX VALLEY CURLING CLUB FACT FINDING MISSION

Chris Nelson Runs through PowerPoint

5 A's – Facility Planning

1) Acceptability – suitable for all users
2) Adaptability – what else can you use it for?
3) Accessibility
4) Affordability – bang for the buck (Funds & Resources)
5) Accountability

CURRENT SHEETS OF ICE IN THE AREA

Comox Valley Sports Ctre. – 2 x's NHL size
Glacier Gardens – 1 smaller sheet
Curling Club – 6 lanes
Current population supports either 6 or 8 sheets of curling ice.

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INTERIORS

WHAT ELSE IS NEEDED TO SERVICE THE AREA?

Mission and Objectives

Area that is serviced?

- Curling Club catchment area – same as School #71 – some from Campbell River

Membership

- Membership is steady over the past few years - currently 530 in 2006; slightly up for 2007

LONG TERM REQUIREMENTS?

Number of Sheets: 6 sheets are perfect; 8 might be too many, but should maybe prepare now for the future.

Lounge / Banquet: Helps supplement the cost, help generate revenue.

Viewing and banquet is currently split. Present banquet area works for curling club. Viewing Area with +/- 130 viewers desired. Some do not like banquet area separate from viewing area. Others think you need it separate for multi-use. Moveable divider would help to accommodate +/- 150 viewers, as well as programs. Possible viewing area along side of building.

Concession: walk up counter and refrigerator, breakfast and regular fast food.

Full Kitchen: Presently full kitchen upstairs. Possible dumbwaiter between both food service areas?

Pro-Shop: From manager's office, display items in glass cases.

Office Space: office (1) /manager (1) /staff (1) full size if not inside locker room

Staff Lunch Room: Must be separate from offices according to WCB.

Change rooms: Locker room w/ change area, room with bench and hooks, couple 100 full size lockers - 1 locker for approximately every 3 players. No washrooms inside needed (can use public washroom)

Washrooms: Washrooms should be adjacent to locker room. 2 downstairs and 2 upstairs total of 4 and one accessible located downstairs

Meeting/Coaches Room

Plant – Refrigerator Room – extra power & capacity for the future (summer)

Electrical Rooms (2) – required mechanical / water tank, boilers

Storage:
- Ice making equipment, brooms/ice shaver, rocks and ice cleaner
- Custodial (2) One upstairs with bar supplies / tables / chairs
  One downstairs with food services and catering
- concession(downstairs) / (upstairs)

Meeting Room, Custodial, and Coaches Room: +/- 30 people

Showers

Mechanical – dehumidification

Computer / media room: approximately 100 sf

Wifi

Elevator

Outside patio

Common lobby: possible separate back entrance for curlers.

Multi-use viewing

Common viewing: Overlooking both or 3 facilities

Multi parking area

OTHER USES FOR FACILITY

Gym

Media Room - 100 sf – Real time updates during Bonspiel

Kitchen – Off Banquet (currently has chairs for 150)

Do we want to design for expansion? i.e. 6 sheets to 8 sheets

- Exec does not see need in next 5 yrs

Ray B – *This project could take 8-10 years to go ahead.*

- May need to plan for 8 sheets now!
- Multi-use space promotes other sports to others.

(Orilla Ontario – Major Bonspiel / Put ice in Casinorama)

CSRD – Anticipates 1 plant / 1 maintenance person

- online access to scores – now standard

Dehumidication Required

RB – In a shared/common facility

- common lobby
- common viewing area

Darcy Walters asked if Spectator seating was required → NO! (from Exec.)

<u>WHERE IS THIS FACILITY GOING TO BE LOCATED?</u>

- Accessible from major exits
- Not downtown
- Present location
- Exhibition Grounds
- Arterial Areas
- Anywhere in the valley is OK w/ services.
- Curlers will drive
- Not at Kitty Coleman or freeway

<u>WHAT DOES IT LOOK LIKE?</u>

- Depends on location. i.e. by crown Isl. want timber
- Not a block, square building
- Like Parksville's new facility
- To match community or neighbourhood
- Want sense of pride "My Club"

<u>SHARING CLUB WITH OTHER USER GROUPS</u>

- Summer ice possible
- Recreational curling programs –operated by the local government – possible depends on how busy the season is
- During curling season no other uses
- Summer curling day camps
- Summer skating
- May result in more exposure to the sport and allow for more participants for "Learn to Curl". Non-competitive Friday nights, interest has decreased. Otherwise beginners only have early September to come out and try.
- School teachers – not interested in participating. Has been a downfall to curling, schools steps away.
- Tying in w/ Regional District would be good! Tie in with Fall Program
- Don't care about other users using their facility. It's entirely up to CSRD.
- Open to multi-purpose

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- Open to alternative location

WHAT CURLING CLUB WAS RESPONSIBLE FOR DRY FLOOR?

- Not renting banquet space a lot, but is trying to rent more
- Large dance
- Car show
- Fall fair
- Hockey school dormitory
- Archery
- Golf – netting installed

CURLING CLUBS INTENTION OR ABILITY TO CONTRIBUTE FINANCIALLY

- How will it operate?
- What would the lease look like?
- Would curling club only be tenants?
- Who will operate the facility?
- How much will the CSRD be involved in a joint facility?
- Will dues go up for members with a new building? $220 annual membership currently
- If dues go up then less of a financial contribution may be realized if any
- Financial contribution not off the table but it may be considered
- Curling Club contributions could go a long way with grants.
- At this point, CVCC's capital will be absorbed just by repairs and running of the current facility.
- Ray Boogaards: Additional help could come in "Gifts in Kind" there is a "Wealth of skills available in the 530 members".
- Concerns were expressed from the Comox Valley Curling Club, if dues double, there will be fewer members.

PER CEI Stephanie Zuke

ARCHITECTURE
PLANNING
INTERIORS

DATE	December 10, 2007	PROJECT	Participation Arena/Curling Facility Feasibility Study
TIME	6:00pm	PROJECT #	27121
LOCATION	Comox Valley Curling Club	FILE #	
PRESENT	Dave Creamer, Leading Edge Ray Boogards, General Manager – CSRD Darcy Walters, Manager of Facilities Stephanie Zuke, CEI Architecture Planning Interiors Chris Nelson, Recresynthesis Consulting Inc. A sign-in sheets of attendees is attached.	TOTAL PAGES	1 INCLUDING THIS PAGE
CC			
TOPIC	Youth Users		

The only group that attended from the youth groups were Leading Edge Hockey Training. Leading Edge has been providing hockey training the Comox Valley for 17 Years. No other youth groups participated.

- Possibility for Multi-Use? Possibly 140-150" by 80
- An additional rink could provide additional power skating.
- Hockey school for 5 weeks in the summer.
- High school academy could have additional time available for grades 8, 9, 10
- Smaller rinks – 3 on 3 rinks could also be good for ice skills
- Mini rinks could be used for specialty programs and power skating
- Mini rink and curling facility maybe beneficial – not sure about the numbers
- BC Amateur trying to introduce hockey to high schools
    - Will be more demand
    - need to check demographics for kids
    - Specialty Camps
    - Power Skating
    - Smaller/Younger Hockey groups
- Still sees a demand for ice.
- Larger rink should have been built instead of Arena #2 for 3,000 – 5,000 spectators for
- Junior "A": hockey and events
- Arena #2 – change rooms OK
- Arena #2 spectator area good
- Meeting room: For training, classrooms, space for 20–30 participants. Close to dressing room area
- Dressing rooms leading to the players benches
- Large doors to change room
- Parents like to watch; like Nanaimo Ice Center (good set up)

PER CEI Stephanie Zuke

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INTERIORS

DATE	December 10, 2007	PROJECT	Participation Arena/Curling Facility Feasibility Study
TIME	7:30pm (Glacier Kings) & 8:00pm (Mens Oldtimers joined in)	PROJECT #	27121
LOCATION	Comox Valley Curling Club	FILE #	
PRESENT	Randy Elvis – Mens Old Timers Stuart Lavoie (Islanders Hockey – Mens Old Timers) David Webb (Jr. Hockey Owner/Manager) Ray Boogards, General Manager – CSRD Darcy Walters, Manager of Facilities Stephanie Zuke, CEI Architecture Planning Interiors Chris Nelson, Recresynthesis Consulting Inc. A sign-in sheets of attendees is attached.	TOTAL PAGES	3 INCLUDING THIS PAGE
CC			
TOPIC	Adult Users		

David Webb arrived early, no one showed up from Youth groups, talked with for 1/2 hour before Adult Group started.

Junior B Hockey 16-20 year olds.

- Likes idea of combo rink/curling
- If better facility the team would be a greater success
- Off ice room would be required in an arena
- Christmas banquet for players and billets – need for events such as this.
- Dressing room requirements for Junior "B" team
    - Home team change rooms need to be located to have interaction w/ crowd. Put the visiting team out of the way – exit the back etc. Home team needs to have more interaction with crowd coming on and off the ice.
- Ambulance entrance for emergencies
- Some men's groups would like better ice times
- Old timers during the day good times
- Three practices a week for the junior team
- Game time ice times OK
- Curling 0 would be better if additional youth participated in curling
- Would like to have their own dressing room for the Junior Hockey team
- Hall required for up to 500 people
- 350 people break even
- 200 – 350 average attendance
- Does not think 3500 seats is necessary
- Does not want to pay $200/hr to play. Current rates are: Comox is $125/hr / Campbell River $150/hr.
- More hockey environment (Memorabilia) will help get kids motivated.
- Revenue / Crowd Driven

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Randy Elvis and Stuart Lavoie of Men's Old Timer Hockey arrived at 8:00pm and the discussion continued:

Is there enough ice time in the community available? – Yes

- Latest time adults wish to use the ice Mon – Thurs 11 to midnight Fri – Sun to midnight
- Mini rink concept for 3 on 3 games or figure skating
- Currently, ice is not used to capacity, five years from now maybe a different picture
- Used well –With better ice allocation everyone will/should be happy
- Curling club is an old building, working well now, structural issues are unknown
- If curling club is replaced, it should be multi-use
- Hockey Rink/Curling is a good idea. Would allow for shared maintenance and banquet facilities.
- Add another ice surface next to existing curling facility would work
- League – base – 7 team – 1 league
- 27 time slots per week. CVSC
- Usually 1.25 – 1.50 hours per groups
- 15 – 20 people per team
- Drop in – 20 per ice slot – 5 times per week – day time
- NHL – M/W/F Noon Tues/Thurs 5 times per week
- +65 years – 2 times per week
- Design a building that welcomes the public
- 4 rink complex similar to Pacific Forum in Delta would be perfect for Comox Valley!
- Multi-use facility
- Sell as a complex - to house curling/arena
- Interested in off season activity:
    - i.e. figure skating
    - tradeshows
    - indoor, in-line skating, hockey

- Comox Valley currently cannot host large conventions. Trade & Convention Centre – Does the North Island Need one?
- Campbell River has buss parking. Would be nice to have some in Courtenay too.

PER CEI Stephanie Zuke

ARCHITECTURE
PLANNING
INTERIORS

DATE	December 11, 2007	PROJECT	Participation Arena/Curling Facility Feasibility Study
TIME	9:00am	PROJECT #	27121
LOCATION	Comox Valley Curling Club	FILE #	
PRESENT	Ray Boogards, CSRD - General Manager Jennifer Dickens, Manager Programs Laurel Handry, Manager of Administration John Goodwin, Assistant Manager of Maintenance Les Hokansan, Operations Manager Stephanie Zuke, CEI Architecture Planning Interiors Chris Nelson, Recresynthesis Consulting Inc.	TOTAL PAGES	5 INCLUDING THIS PAGE
CC			
TOPIC	Comox Strathcona Regional District Staff		

1957 Original Building

- Roof was replaced 3 years ago.
- Curling Club does not seem to have a clear direction on how to go about upgrades themselves.
- Dry floor has minimal cracking.
- Floor close to failing (Ray, is this a typo? This means complete failure/catastrophe!)
- Headers rise each year.
- Soil is most likely contaminated.
- Maintenance short cuts are constantly being taken, not up to CSRD Standards
- General condition of curling facility poor and needing upgrade or replacement

CSRD has owned building since 1971

- Exhibition Society built Facility w/ curling
- 2nd floor structural change??
- Punch-out fire walls
- lots of leaks

Possible alternate use for existing facility

- Indoor Farmer's Market

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THE IDEA OF SOMETHING NEW

Department perspective

- Operations should be completed by the CSRD i.e. refrigeration plant, repairs, ice making,
- Cleaning could be the responsibility of the curling club
- Even stand alone facility – curling, CSRD staff would complete all mechanical
- Refrigeration
- training of volunteers
- Curling cannot afford to have 'ice-maker' on staff.
- CVCC already has lowest fees on Island ($220).
- Stand alone facility cannot be handed over to a volunteer group.
- Combined facility w/ CSRD staff would be politically easiest as it would already be staffed by CSRD.
- CSRD could take registrations themselves
- Banquet Room – depends where the facility is located.

Multi-purpose room to be used by department for programs – rentals

- Dry land training
- First-Aid training.
- Yoga/Pilates in dry space
- Kids/Guests need big spaces
- First-Aid Programs
- Leisure Courses
- Lecture Series / workshops
- Day care
- Professional Development Lecture Series
- - must be multi purpose – cardiac program usually best with pool

Possible Locations for a New Facility

- Another arena could be considered on the present CVCC site – however the site is not large enough to suit another building.
- Electoral Area A – no sewage system
- Cumberland has potential
    - 5% Parkland dedication; CSRD owns land
    - Council is open to discussions

- Exhibition Grounds – mostly on Flood Plains
    - How to Fit in Current "Recreation Area"? By Sports Centre, Aquatic Centre, Vanier School
    - all sports centres together would be better from an operations point of view.
    - all ALR land right now

1. Operations & Maintenance - John Goodman
    - Other regional districts / Cities successfully operation some Curling Clubs i.e.: Delta is operated by Parks & Recreation staff.
    - CSRD maintains control of facility; Curling Club comes in as the main tenant.
    - Controlled operation of maintenance results in better trained, ticketed and multitalented staff.
    - Convert to Freon? Get away from ticket issues. Probably not!
    - Buildings run better when Regional staff is involved.

- P3 not an answer
- Control needs to stay w/ Regional District.

What else does a building need to operate?

- Office Space
- Reception: Should be focal point, must have a human receptionist when arriving.
- Storage - *See as shared*
- Common entrance, common hallway overlooking both curling facility and arena
- Bar: Let Curling Club run & operate - percentage of revenue from bar and rentals to the CSRD. All other maintenance be CSRD
- Storage of equipment.
- Program space – size of aquarium at the Sport Centre or large room that can be divided with a portable sound proof wall
- First-aid room
- Kitchen facilities
- Multi-purpose room – storage, water
- Sport development – possible use of Vanier high school – reciprocal agreement between
- Vanier high school and Sports centre
- One common concession

Arena:

- Possible skate rental
- Control – access – egress
- Minimum 6 change rooms
- Change rooms and washrooms without outside access if sport fields surround the facility
- Viewing also on second floor
- Seating – 300 possible – semi-permanent over the change rooms
- power/water – 2" water line behind players bench
- 22 three phase power
- Location of sewers
- Janitorial: Draining & dressing rooms - Not usually enough.
- - heat recovery in change rooms, will dry the floors, better ventilation
- Maximum air handling units for change rooms
- Non use of drywall
- Automatic door entrances
- Room need to be indestructible
- Plastic benches – PVC / Skates chip wood.
- Anti graffiti painting
- Better colours – brighter
- Showers – stalls
- Easy for cleaning floors
- Concrete construction
- Plastic seats
- Dehumidification
- Equipment storage – rock storage
- Scoring devices – electronics

- Ice resurfacer
- Showers – nice to get some privacy more than 4, - Ease of Cleaning.
- Public art

Curling Club Needs

- Flooring Hoses
- Dehumidification
- Place for Rocks in Summer
- Walkways
- Power Spread over other events
- Available of curtain system for dry floor
- For full service venue
- Digital Scoring would be nice, but it's an add on
- Zamboni

2. **Programs - Jennifer Dickens**
   - Multi-purpose / Meeting Space. Common room big enough for various dry floor training, right often use penalty box. Should be versatile to change the uses.
     - Tai Chi
     - Child Minding
     - Birthday parties
     - Tai Chi
     - Pottery
     - Yoga
   - Storage: Lots of storage needed.
   - First Aid Room
   - Kitchen - Sink / water required
   - Fitness / Wellness Center:
     - May be doubling up from other facilities. Not really needed at new facility
     - Improve what we have at Aquatics Centre first.
     - Would need supervision at a fitness centre
   - Walking Track: Must be at least 400 metres
   - Sport Development: Soccer
   - Availability of School space?
     - Have not looked into possible arrangement with Vanier High School next door
     - Vanier uses CSRD space daily, Maybe a reciprocal agreement is required.

3. **Administration**

What needs to be included in a facility?

- Kitchen
- Multi-use Space
- Concession – common
- Skate Rental?? Possibly yes/no
- Storage
- Entrance
- Viewing overlooking booth

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- Sports fields around it
- Exterior Bathroom to accommodate field sports
- Minimum 6 change rooms
- Elevator
- Seating: semi permanent/ permanent seating. Same at NIC 300-400
- Proper Control System & Egress
- 2 separate office staff rooms.
- Anything we build needs to be multi-use.

Larger Screens

Ray asked all other ideas be sent to him and he will forward to Chris / Stephanie / Mark

-What's important to each department?

-Revenue has to come in 12 month per year.

PER CEI Stephanie Zuke

ARCHITECTURE
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INTERIORS

DATE	December 11, 2007	PROJECT	Participation Arena/Curling Facility Feasibility Study
TIME	11:00am	PROJECT #	27121
LOCATION	Comox Valley Curling Club	FILE #	
PRESENT	Andy Moorhead - CFB Comox Bobbie Muir – CFB Comox Ray Boogards, General Manager – CSRD Stephanie Zuke, CEI Architecture Planning Interiors Chris Nelson, Recresynthesis Consulting Inc.	TOTAL PAGES	2 INCLUDING THIS PAGE
CC			
TOPIC	CFB Comox – Glacier Park Staff		

How much Public Time Is Used at the Base Arena?

4 Hours Monday to Friday
34 Hours Weekend
~50 hours Public Use Per week

CFB cannot compete with CSRD for Ice Time… but needs to financially.
CFB has to match CSRD Market Rates. Fees and charges from CSRD sent to base after approval by commission
CFB turns people away. They are always full. Daytime is available.

If community has bought into new curling w/potential add on it should be hockey.
- Aging pick-up /non-committal increasing
- Men's competitive related sports reducing in number as recreational programs increasing.

Family skates increasing in numbers of military families – they can bring a guest 1.5 hours each day

Minor Hockey plays all day weekends!
1.5 hour - Sat/Sun Public family skate only for base + 1 guest.
Ice pad used for … 12 month per year.

When there is no ice in Glacier Park, it normally sits empty. Sometimes cadets use it.

Size of Glacier Park Arena is 185'x85 (smaller than NHL size)

Training (mini) rink may be the better option for allocating ice time more efficiently in the valley. Is there capacity for a whole other NHL size rink?

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Concerns for CFB Comox – Glacier Park:

- Mini Pad – CFB will not lose their current rentals
- Full size NHL size will make CFB lose their rentals
- Minor Hockey fills their weekends increased demand on "Learn to Play"
- Daytime Ice on Weekend
- Minor Hockey has a lot of tournaments.

Ice pad should be used for recreational activities 12 months of the year 185' x 85'

CFB to send ice schedules to Ray/Steph/Chris

PER CEI Stephanie Zuke

ARCHITECTURE
PLANNING
INTERIORS

DATE	December 11, 2007	PROJECT	Participation Arena/Curling Facility Feasibility Study
TIME	7:05pm	PROJECT #	27121
LOCATION	Comox Valley Curling Club	FILE #	
PRESENT	Ray Boogards, General Manager – CSRD Darcy Walters, Manager of Facilities Stephanie Zuke, CEI Architecture Planning Interiors Chris Nelson, Recresynthesis Consulting Inc. A sign-in sheet of attendees is attached.	TOTAL PAGES	3 INCLUDING THIS PAGE
CC			
TOPIC	Public Meeting		

RB: Briefs crowd. Says report will be out and online by end of February.

CN: Gives overview of study process. Explains we are looking for their vision for the future.

<u>COMOX VALLEY CURLING CLUB FACT FINDING MISSION</u>

Chris Nelson Runs through PowerPoint

5 A's – Facility Planning

6) Acceptability – suitable for <u>all</u> users
7) Adaptability – what else can you use it for?
8) Accessibility
9) Affordability – bang for the buck (Funds & Resources)
10) Accountability

Mission & Objectives
Program
Methodology
Design Criteria

In a Public Meeting, the following were discussed and discovered:

- Multi-purpose area can be perceived as unfriendly.
- A lounge is critical to the curling culture. An example was given, of a multipurpose facility where there was on only a restaurant that was run by a private operator. It did not generate any revenue for the Club and was only open when the operator wanted.
- Edmonton has a facility that includes curling, has separate part of lounge for members.
- Sakville - Well adopted (good guideline)
- Sakville - Bad (Has curling areas. Specified area in a lounge, viewing area.
- There was a concern expressed that one plant = poor ice with multiple facilities.
- 8 sheets preferred – membership will only support 6 sheets presently.
- Plain and simple building exterior not as important as the interior.

- CFB Cold Lake built a facility on federal lands & golf course. Curling club building is also used as a golf club house. Both CFB Cold Lake and Prince Albert, Saskatchewan have shared curling/golf and is successful and used year round.
- Multi-use during off curling season is welcome. Other uses could include: Skating, indoor soccer, floor hockey, tradeshows.
- Year round facility will generate more / consistent revenue.
- Curling attendance up and down dependant on year.
- 6 sheets might be better if they are full, verses 8 sheets and not used to maximum.
- Current location ties in nicely with other recreational facilities.
- Need something that will suit the community 10 years from now.
- Cost of curling with a new facility? Will the revenue from dry floor be factored into fees for curling?
- Banquet area usage – rentals – weddings/banquet/private rentals. Not currently being utilized or promoted enough.
- Lounge should be part of viewing area, with restaurant.
- Society – important.
- If curling becomes just another tenant/renter, it could be a problem with curling.
- Currently 800 youths in minor hockey. Could use another 40 hours of ice time presently.
- An additional participation in the Valley would allow minor hockey to expand until June.
- Minor hockey currently does not allow 18 and 19 year olds play because there is not enough ice.
- Open lounge overlooking the ice.
- Bar open all year – open to the public.
- If a participation arena was attached to curling, Old Timers could host tournaments and generate extra revenue for the bar.
- Lockers should be included – large locker room
- Sauna/shower area in curling club, part of locker room
- Usage of buildings during non ice season
- Not a lot of curlers in junior program 15 to 30 years. Exposure to curling to other sports and result in more people wanting to try curling.
- More viewing can attract higher level of curling.
- Media room
- Viewing area – user friendly – stage seating.
- Parking lot considerations. i.e.: size
- Plug-ins for RV's during bonspiels/trade shows/cost comparison – upgrade. 20-50 campers come for Bonspiels over summer.
- Curling/replace curling rink, multi use facility.
- Kitchen facility – commercial kitchen to feed 300.
- Concession area.
- Banquet room – for all users/storage expandability important.
- Proshop – lease area.
- Larger and secure locker rooms – men's and ladies.
- 6 change rooms.
- Greater revenue in summer.
- Can split participation arena in half for younger groups.
- Can turn participation arena temporarily into curling for tournaments. i.e.: NHL size ice could be used for weekend curling Bonspiel.
- Warm viewing area.

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INTERIORS

- Summer use of arena.
- Lacrosse usage. Comox Valley has one of the largest clubs on the Island.
- Referee's room
- Upstairs viewing – wiring for electronics
- Closed circuit viewing from Lounge.
- Full restaurant sees as leased/professional
- Heaters – in the building
- Curling area – heated
- User groups should be compatible.
- Conflicting uses.
- Identity of curling club must be taken into consideration
- Multi purpose centre would increase exposure to curling… not decrease.

PER CEI Stephanie Zuke