



## THE CIRCLE RINK

### Overview

The idea for the Circle (Curling-Ice Research Centre for Leisure and Excellence) was conceived about five years ago, before work was started on the production of *Curling Ice Explained*. During the process of refining and testing the parameters required for the production of good curling ice it was discovered that very few so-called curling rinks could meet these parameters and, while some modern arenas had adequate equipment installed, many of these needed additional equipment before a serious championship could be staged. It soon became clear that curling rinks failed in the design stage and then had to pay the price with poor ice for many years, and only those that invested in additional equipment were able to make advances in the production of good curling ice. In most cases the maintenance of curling ice became expensive and wasteful, with little understanding of the intricate interaction of the elements within a curling rink, which invariably led to economic failure of the facility itself and eventual closure.

Detailed research has revealed startling information. It is not the purpose of this report to explain how to build a curling rink or how not to build a curling rink, it is simply to explain that the Circle is based on sound research in every field with information drawn from rinks all over the world. It is, in essence, the result of such research, in the certainty that a research facility is not only a good idea, but it should also be a model and prototype for those seeking to build a modern curling rink.

The philosophy of curling now has two distinctly different fields: the game, as a social passtime unrivalled by any other, and the sport, as the culmination of massive development at national and international level. On the leisure side the Circle has to be accessible to all curlers who will be able to curl on the best possible ice every day and enjoy the social experience, while the excellence side has to provide championship ice to WCF specification for occasional competitions. Research has identified and proved that these two requirements are in fact the same, and that it is in reality perfectly achievable to have championship ice in a curling rink on a daily basis, almost indefinitely, provided that the facility is properly equipped to do so.

Now the concept of the Circle is that of an ordinary but modern curling rink that can be built anywhere and provide the same quality ice anywhere. Modern techniques of making curling ice can do that, but there are limits and restrictions, and then there are many misconceptions in the curling world about what constitutes good ice (see Problems). The biggest single misconception is that good curling ice can be produced from any surface, and in particular from skating ice, without sacrificing quality. There are technicians that can do this very well, but not many, and it is not easy. It is also expensive, labour intensive and often heart breaking. The modern requirements and expectations of curlers are now such that anything less will not do and detracts from their experience, yet they are increasingly forced to accept the lesser standard or give up their participation in the game. And when they do give up their game it is said that curling is in decline and therefore not economically viable, while dedicated curling rinks with good ice continue to prosper.

### How many sheets of ice

Because even a small skating rink can provide five sheets of curling ice, with larger ones six sheets or more, it has become accepted that this is normal. Yes, it is possible to fit five sheets of curling ice into a skating rink, but it is seldom curling ice. There are many dedicated six-sheet rinks in the world and a few that are much larger, but these are all in populated areas where there is a high demand. Research clearly shows that large curling rinks do not survive in rural areas unless there is a large demand, while four-sheet rinks or smaller can survive. It is in rural areas that there is a social demand for curling ice more for leisure than sport, and four-sheet rinks make the most sense.

Most small curling rinks will typically employ one dedicated ice technician, with some part-time assistance as required by the amount of curling. Such a technician can easily deal with the maintenance of the facility, including the ice and the building, and it is a cost-effective arrangement. Increase the number of sheets and he soon runs out of time and energy to do the essential work, and the wage structure escalates to accommodate three technicians on a shift pattern. Also, for one competent technician to deal with the damage and changes to the ice surface is not too difficult in a four-sheet rink, while a larger rink soon becomes impossible to keep track of – not only do the sheets not receive the same amount of wear (in a larger rink the outer sheets are usually used less), but it becomes very difficult to track the changes to each sheet and the required changes in work routines to rectify these. Divide the burden between three technicians and it becomes impossible to track anything, and what could be easier than to blame the ones who are not on duty.

All the research indicates that, where an independent curling rink is required in a rural setting, the four-sheet rink is the ideal. The size of the building is cost-effective, the requirements in plant and equipment are affordable and the workload is manageable. It has a good social atmosphere and, under normal demand, is usually fully occupied during curling sessions, which is the most cost-effective arrangement all round.

In populated areas six-sheet rinks are common enough, but of course the building has to be larger with a significant increase in the roof span and the refrigeration capacity. When looking only at the capital cost of the building the extra two sheets in reality will double the cost, while the employment costs will treble. Trying to recover these costs by including skating in the regime is another misconception that only tries to make use of ice not required for curling during the full week – perhaps a four-sheet rink would have been a better investment to fill the ice with curling for the full week.

There are many examples in the world of skating arenas with curling rinks attached, and the facilities share the refrigeration plant. Many of these facilities have discovered that curling becomes the poor neighbour, with the social atmosphere seriously compromised. A curling rink without a clear curling identity suffers, because it cannot ever fulfil the potential inherent in its identity. It often also cannot meet the required parameters because these are set to suit the skating first and the curling second, with a consequent loss in ice quality and soon a loss of curlers. Suddenly, again, it is said that curling is a dying game, savings have to be made, close the bar, lose the ice technician, let the curlers do the work themselves – it is a vicious and not uncommon spiral.

A curling rink needs an identity, a cost-effective structure and workload, financial independence and a competent curling-ice technician, and a four-sheet rink is the ideal size. It is also the smallest size suited to the running of bonspiels and smaller serious competitions.

*The Circle will be a four-sheet rink for the reasons investigated above. For any research facility to be worth its standing, it should be of a size that can be usable anywhere, and in fact it should be in regular use for the effects of curling and curlers on the facility to be studied in unprecedented detail.*

#### Where to build

From the above it is clear that four-sheet rinks are more suited to rural areas, while populated areas will usually have larger rinks. The present situation in Scotland is that many rural rinks are closing for good, due to a variety of reasons, while new rinks are planned or built in populated areas. Of course financial survival of a curling rink must be paramount and it makes sense to build in the cities, but the result is that rural players have to travel to the cities for a game or not curl at all. Considering the social requirements of those who curl for leisure this is not an ideal arrangement.

An informal survey of how far curlers are prepared to travel for a bit of fun curling reveals that anything up to 40 minutes will be acceptable. However, if the game starts as late as 2130 or even later, as games can do in cities, this travelling time is considered too much. Rural curlers also have less clout when it comes to booking ice, so they are usually the ones who are allocated the late sessions. It is not uncommon for rural curlers to leave home at 2000 and only return home at 0130 the next morning, which can only be sustained by the most dedicated and determined curlers. City curlers, usually members of large city clubs, will have the earlier sessions and can be in bed by 2230 if they so wish, a much more favourable situation.

A rink that has to be accessible to rural curlers must be within 40 minutes of the rural curlers, and must get them to bed before 2300. A rural rink will therefore have a catchment area with a radius of about 30 miles, which is substantial, and anything within 30 miles of a city could be considered ideal. Because of the earlier final session, say finishing at 2230, even the city curlers can get to bed at a reasonable time, well on par with the rural curlers, most of whom will be well within 10 miles or 30 minutes of the rink. So the ideal location of a rural curling rink will be within 30 miles of a city and in a catchment area sufficiently large to supply the number of curlers needed for financial viability, with good access even in poor weather.

Considering its identity, there is nothing to gain by building any curling rink in an industrial area, on waste ground or neatly tucked away behind a skating arena. Curlers might well mostly curl at night and always curl out of sight of the real world, but again research reveals that location and identity are closely linked. A beautiful rural setting attracts many city curlers and also instills pride amongst the local players, often serving as a venue for functions or small wedding parties and of course corporate outings. Also, it is often possible to combine curling with other activities, which could be golf, horse riding, shooting, motorcycling, etc., all contributing to the financial well-being of the facility. There is clearly much to gain by a rural or semi-rural setting, especially if the rink is intended to serve a rural community of curling inclination.

*The Circle will be in a rural or semi-rural setting to serve an area where there is sufficient demand, but still within reach of a larger population and a transport infrastructure.*

### How to build

A curling rink is essentially a very simple structure. Usually a portal frame, either of wood or steel, will be built to support the roof. The sides are walled, the floor supplied with refrigeration and soon the curling can begin. This used to be the way, and nowadays there is still the tendency to follow what has been built before. We are told that this is also the case in most other branches of construction, certainly in the design stage, because no-one really knows any better. Unfortunately modern curling and especially modern curling ice require much, much more. All possible aspects of the requirements have been carefully studied and analysed by experienced and highly competent curling-ice technicians, from the floor to the roof and everywhere between. Very little data of significance is available and much of the data that is available can be considered unreliable or outdated. The result is a comprehensive rethink of the entire building and the development of many new ideas that should, and probably will, make a very large difference to the challenge of producing good curling ice as economically as possible. One day, when the proof has been established beyond all doubt, the information will be published – meanwhile the research continues as we try to find ever better ways of solving the problems. To date we are confident that the design is simple, effective and as good as modern science will allow it to be.

*The Circle will be the best curling rink of its kind, built on the basis of all available knowledge and on the best scientific principles, for the sole purpose of producing excellent curling ice on a daily basis. Every expense will be carefully evaluated and the total cost will be less than is currently the norm, without sacrificing any aspect of quality or specific need.*

*The Circle will also be equipped with sensors and controls to enable detailed scientific study to be done as required over a period of many years, to dispel the many misconceptions about curling ice and establish a valid platform for the future.*

### How to pay for it

Not easy. First the cost has to be established, or the potential cost, or any vague idea of what it might cost. Trying to establish the actual cost in advance seems to be impossible. Consider the following:

- These things cost what they cost (from an engineer)
- Construction costs keep rising (from a building firm)
- Who takes responsibility if anything goes wrong (from another engineer)
- It has to be architecturally pleasing (from a planning authority)
- It must be planned by a competent firm (if one can be found)
- What does it matter, it isn't your money (from yet another engineer)
- There seems to be a cartel between the funding bodies and the construction side that simply doubles the cost, and everyone shares the profit (from an inside source)

Three independent costs were established without consultation between the three parties, all experienced in building matters and curling ice. They agree that a four-sheet rink should cost no more than £1m, while a six-sheet rink should cost less than £1.5m, and these figures agree with international consensus between groups who had built curling rinks. However, an architect responsible for drawing the plans for a six-sheet rink reported that the cost would be nearer £3m, because "they keep adding things they don't need".

A curling rink is a very simple building and only so many items can be put into it. Once built and properly maintained it will have a life of twenty years, while continued small investment can extend that to fifty years. The extras are certainly not within the rink, they are on the outside. Consider that most rinks are built on waste land or sites well tucked away from modern civilisation, forget the bit about "architecturally pleasing". A comfortable club room and changing rooms do not cost a million, a car park only needs to park fifty cars and security is really very simple. Yet the demands and restrictions imposed by planning authorities and funding bodies are such that any application is doomed unless it CAN double the cost. Keep it simple, build a four-sheet rink well to serve a specific community, and the cost should not be more than £1m.

To find such a sum seems impossible, yet it is no more than the cost of four modern – but modest – family homes. Five hundred curling members of a club at £1k each will provide half the money, while a serious fund-raising effort will raise the other half. The problem is not how to raise the money, but who will have control over it, and who will rake in the profits once the place is running smoothly. This is not unique to the curling world, it is the case everywhere. The simplest solution for any community who wishes to build a curling rink is to pay for it themselves and to run it themselves.

The problem of cost can be simplified. Firms that build large structures usually do so for businesses that have access to funding from their product sales, or for organisations such as councils that have large budgets and/or access to government and lottery funding. It is clear that there is money to be made and the estimates reflect this. Curling rinks, on the other hand, do not generate massive profits and have very few resources to draw on other than their members, and unless they can find firms that are prepared to take this into account there is no realistic hope of saving money. On the other hand councils and funding bodies have their own rules and requirements and

have to adhere to these, and a curling rink is clearly not a priority unless it can be combined with other activities that usually detract from the intended purpose of curling.

The requirements of a curling rink are also usually misunderstood. While they are very specific, in order to produce quality ice on a cost-effective basis, they can easily be met, but in the consultation process the people involved are usually from the governing bodies or political structures that do not really understand modern curling ice. Freezing water is one thing, but making good curling ice is another very specific challenge, currently restricted to very few competent curling-ice technicians.

*The Circle can be built for less than £1m and can be privately funded. As a curling academy of some excellence it can function independently as a community facility as well as an international example, providing information, training and curling ice that will be of the highest possible standard.*

#### How to proceed

Here the censors have to step in and prevent us from saying anything further. We have reached the final stages of what we can achieve in Scotland and now simply have to wait and see. When the decision is made that the Circle WILL be built, the news will be here, but if no such decision is made the report of our efforts will be published on the website.

Our thanks go to the thousands who have followed our progress and expressed their support. The curling world is indeed a small one and a very supportive one, and we must all hope that the Circle will become reality and show us a good way forward.

*John Minnaar  
December 2007*

*October 2008 – Nearly a year later and there is no progress. For the full story, please read the Circle Files.*