

## Developing a Community-Based Ice Arena

by **Bradford A. Lemberg, P.E.**

The sport of ice skating has grown tremendously over the last 150 years. It has gone from wooden blocks with primitive metal strips (blades) strapped to boots or shoes allowing the wearer to glide across a frozen pond or river to today's commercially manufactured skates for hockey, speed skating and figure skating used on groomed ice sheets of various sizes and configurations. Ice skating has become an international sport enjoyed by recreational and competitive skaters and teams.

The advent of refrigerated ice sheets was a major factor in the growth of ice skating. These "artificial ice sheets" provide quality ice, in many locations year-round, relieving the limitation of skating as a winter sport on frozen lakes, ponds and rivers.

Competitive ice sports include speedskating, hockey, bandy and figure skating. They are tremendous sports enjoyed by all ages – kids from three to 93. It's the spreading desire by persons of all ages to participate in these great ice sports that precipitates the need to build ice arenas.

What if a community or individual, in conjunction with a figure skating club and/or the local youth hockey association, proposes to build an ice arena? What is needed to make the dream a reality when developing an ice skating facility, be it a small outdoor pleasure rink or a larger multi-purpose arena with spectator seating.

The following steps can be used as a guideline to bring the dream of building an ice arena to possible fruition:

1. An encompassing committee should be assembled, including members from all interested groups. This committee should include a wide spectrum of interest groups, including figure skaters, hockey players, recreation representatives, senior citizens, financial representatives (bankers), legal representatives, community leaders, and building contractors, all with an expressed interest in such a community endeavor.
2. The committee should seek and retain a recognized and competent firm to prepare a broad, but concise, feasibility study for the development of an ice skating facility. This firm may be an architectural/engineering firm with experience in both ice arena feasibility studies and design or a firm specializing in feasibility studies and ice arena consulting. It is extremely important to carefully check the firm's experience and credentials to assure that their feasibility studies reflect specific communities' needs and demographics rather than just changing report covers and community names.

The final feasibility study should carefully and completely cover the following items relative to the community involved:

### A. Site analysis

1. Major traffic flows and impact on area
2. Soil conditions and water table for effects on arena
3. Availability of utility services

### B. Area demographics

1. Population and potential growth
  2. Survey of other comparable facilities in area
  3. Need/demand for facility
  4. Average means (salary or income level)
- C. Facility needs and amenities
- D. Accurate determination of probable costs
- E. Economic feasibility
1. Projections of operating costs
  2. Revenue projections
- F. Funding possibilities and their probability
- G. Management and maintenance recommendations
- H. Preparation of preliminary floor plan sketches
- I. Conclusions and recommendations

Each of the above items must be carefully analyzed to determine the overall feasibility of building an ice skating facility.

Situations such as ground water table or frost susceptible soils under an ice rink create havoc if not properly addressed. The cost of these corrections must be carefully assessed during the feasibility study so no unforeseen financial surprises greet the owner at the time of construction. Considering the possible pitfalls, an experienced evaluator's analysis of a project of this magnitude is essential.

Value analysis during the study and design of the project will also prove invaluable. An engineer and architect, with specialized value analysis training and job performance in value analysis, can save a client both time and money.

Life cycle costing must be considered. Quality materials used at the onset will out-perform and greatly extend the repairs-free and replacement-free time of operation of the facility.

3. If the feasibility study suggests "a go" for developing an arena, it is advisable to break down the original committee into sub-committees to cover the following items:

- A. Design - select qualified design team and work with team throughout design
- B. Financial - work out financial details
- C. Public relations – work with media and public
- D. Management – search for arena management staff to operate and promote the facility, set up scheduled tournaments and competitions, and establish a team network that produces the revenue to make the facility a financial success.

Once the design team is brought on-board, following well thought-out proposals and interviews, the design should proceed based on the feasibility study, determined needs and projections of probable costs. It is important for local contractors, building inspectors and materials suppliers to be part of the design team to assure a facility's compatible with the community's needs, desires and finances.

5. Once the facility is designed, it should be put out for bid to attract the best possible contractors in all disciplines in order to construct a facility that will benefit the community.

Your ice arena project is completed. The doors are open. Kids from three to 93 flock to the ice. Is it what you dreamed? Does it meet all expectations? Only if it's properly staffed, managed and promoted to bring in users who will provide the necessary revenue to pay for the arena can your dream come to proper fruition. You cannot just "build it and they will come." An ice arena must be promoted and managed properly and efficiently for the total endeavor to be successful.

So, you want to build an ice arena! Our hats are off to you. Good luck and may it be a thriving success. There is nothing more gratifying than seeing hundreds of kids of all ages skating, laughing and having the time of their lives in a successful ice arena.