

## **COMMITTEE OF THE WHOLE**

### **RE: TWIN PAD ARENA ARCHITECT PROPOSALS**

County Council Chambers  
Monday, November 26, 2007  
9:00 a.m.

**Present:** Mayor Eddy, Councillors Wheat, Simons, Powell, Atfield, Chambers, Coleman (10:25 a.m.) and Gatward

**Regrets:** Councillors Schmitt, Haggart and Hodge

**Staff:** Underwood, Leask, Wamstecker, Ayres, Gaukel, M. Davidson and Boyd

Moved by – Councillor Powell  
Seconded by – Councillor Wheat

That Council now convene as Committee of the Whole, with the Mayor serving as Chair.

.Carried

Mayor Eddy in the Chair.

### **DIRECTOR'S OPENING REMARKS**

The Director reviewed that these presentations represent 25 of the total 110 points under the Council-approved evaluation criteria. She noted that following this meeting, staff will finalize the overall evaluations and bring forward a recommendation to the next Parks and Recreation Committee meeting. Copies of the full proposals are available from the Building and Maintenance Manager.

### **GB ARCHITECT INC.**

Guy Bellehumeur distributed a summary of their presentation and a cost and construction analysis from the Township of Wilmot Multi-Use Recreational Facility (M.U.R.F.) project. He highlighted the following:

- GB Architect Inc. incorporates a hands-on philosophy. Key personnel (Mr. Bellehumeur and Paul Jackson) will be in direct communications with the County, oversee the project and frequently be on site during construction. GB Architect Inc. will work as a team with the County to design a structure that both meets the community's needs and reflects local characteristics.
- GB Architect Inc. has comprised a project team that has worked together for approximately 7 years and includes various consulting / engineering firms that have extensive experience in the recreation field.
- GB Architect Inc.'s most recent projects including recreation facilities in North Simcoe and Wilmot. Several County representatives had the opportunity to view the Wilmot site during construction. Now that the facility is complete, County representatives are welcome to contact GB Architect Inc. to arrange for a further tour.
- The cost and construction analysis for the Wilmot facility was reviewed and Mr. Bellehumeur noted that this project was similar in scope to the County's proposal, with a total project cost of \$9,500,000 and a 9.5 month construction schedule, keeping in mind approximately 10% per year for construction cost increases.

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- The County should consider if attaining silver Leadership in Energy and Environmental Design (LEED) certification is a necessary component of this project or if it would be more cost effective to incorporate many of the LEED design features without being financially encumbered by some of the specific certification requirements.
  - GB Architect Inc. is proposing a fixed, basic fee of \$390,000, which the firm would stand by, only making amendments if significant changes to the scope of the project are made. An additional \$92,000 is estimated as the professional fees related to LEED certification and the County could also anticipate an approximate 4% increase in construction fees, costs and schedule delays for this certification.
  - Mr. Bellehumeur suggested that construction be timed to not take place during the winter, which increases heating costs and is a detriment to the quality of trades work.
  - Mr. Bellehumeur reviewed the "Behlen" Corr-Span steel building system, which is a unique innovation that eliminates the need for columns throughout the building. This system has been used in the last five projects designed by GB Architect Inc.
  - Mr. Bellehumeur suggested that in order to mitigate delays, the County pre-qualify key contractors (general, HVAC, electrical and refrigeration), hire only contractors with sufficient staff to complete the work on-time and include time commitments in tender documents.
  - Mr. Jackson reviewed that the majority of GB Architect projects come within 3% of the total project budget. He noted that since the client's initial budget estimates are generally completed more than two years before construction, these figures will need to be updated. He noted that with the firm's recent and local experience, GB Architect Inc. can provide very accurate and detailed budget estimates and can work with the County to ensure that costs stay within a reasonable limit.
  - Mr. Jackson reviewed that GB Architect firmly believes in energy conservation through insulation. He suggested that the building be built with premium insulation for the floors, walls and roof, through to the dressing rooms. These measures should significantly reduce the County's energy costs.
  - Mr. Jackson proposed that design features be incorporated to reduce the operation and maintenance costs of the building (such as pre-moulded vanities, tile walls, tile floors, automatic flushers and hand washers, etc.).

In response to questions, Mr. Bellehumeur addressed the following:

- GB Architect would discuss with the County expectations for public / user group consultation. What has typically been successful is a series of user group meetings, where preliminary designs can be reviewed and commented on. Input received from one meeting would be incorporated, where feasible, and presented in a revised design at the next. Questionnaires and polls could also be used to obtain preliminary input.
- Generally a combination of bucket, bench and accessible seating with radiant heating in the main arena area and additional seating inside a heated lobby is the most successful configuration.
- As part of the design process, GB Architect Inc. would meet with the County to review potential long-term plans for the site so that any facilities to be considered in the future can be accounted for in the layout and construction of the twin pads.
- Accommodating uses such as sledge hockey would present challenges, mostly in terms of visibility of the ice surface from the benches, where a solid board surface is mandated, however accessibility features would be incorporated for both spectators and participants.
- A convex roof structure provides improved performance and longevity over a flat roof and in the long-term would be more economical than a double sloped roof in terms of heating and insulation.

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- Designer stone, glazing, colour and landscaping could be used as accents to both highlight the entrance to the facility and to recognize that this facility will serve as a gateway to the community. It is also proposed that the aesthetics of the foyer be enhanced through the use of high-end materials to create a sense of entry, while clearly delineating where various amenities are located in the building.
  - If retained, GB Architect Inc. would complete a topographical survey of the site as a starting point for the design. He recognized that the sloping landscape may present challenges for site access and layout.

The Committee recessed at 10:10 a.m. and reconvened at 10:30 a.m.

### **BARRY-BRYAN ASSOCIATES LIMITED**

Dennis L. Bryan gave a brief overview of the County's project, including an approximate \$11.5 Million construction budget and attaining silver LEED certification. He introduced his project team in attendance, noting that he would serve as the project director and the primary point of contact for the County. The following was highlighted:

- The Barry-Bryan Associates Limited project team has extensive experience in recreational facilities of varying scope and significance, including works on the Vancouver Olympic facilities.
- Brian Saul, Barry-Bryan Associates, introduced himself as the Project / Design Architect.
- Brian Duffield, Barry-Bryan Associates, introduced himself as the Manager of Contracts Administration and advised that he is a certified construction estimator and would be in charge of budget / cost control for this project.
- Bob Martin, UEM Consulting, reviewed his firm's past and current projects with the County of Brant and advised that they would be providing civil engineering, site servicing and stormwater management design services for this project. He noted several environmental features that can be incorporated into the site servicing to help attain points for LEED certification.
- Lisa Pinkus, LKM, Partner of SNC-Lavalin, reviewed that her firm specializes in energy-efficient systems, which, whether or not LEED certification is achieved, would be designed to optimize the County's return for investment. She further highlighted her firm's experience in the field of mechanical and electrical engineering.
- Greg Leskien, Enermodal Engineering, advised that this firm would serve as the LEED consultant for the project and are a leading sustainability consultant. He reviewed various successful LEED projects, noting one recreation facility in Kitchener which is expected to achieve the first gold standard in Ontario. Possible initiatives include the recovery of refrigeration products and collecting rainwater to flush toilets and flood the rink. Enermodal would work with the County at every stage of the design to identify cost-effective and energy efficient features.
- Barry-Bryan Associates Limited would provide full architectural services from schematic design through the warranty period. They promote strong team building and communications and key personnel would meet regularly with County representatives to review process, gain consensus and move the project forward. A meeting would also be held prior to the end of the warranty period to review any outstanding deficiencies.
- Barry-Bryan Associates Limited would invite County officials to tour a number of facilities to view features that may be desirable for this project. User groups and public representatives would be invited to Open Houses and meetings to review potential designs, discuss the community's needs, receive input and develop solutions for this project. County staff would be invited to participate in an Icemakers' Workshop with industry experts to share ideas and discuss best practices in ice and arena maintenance.

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- Opportunities to enhance the facility as the gateway to the community while increasing environmental responsibility would be presented, such as incorporating transparent features so that natural light could be used for daytime lighting.
  - Revenue-generating opportunities such as allowing a private sector business to run (i.e. sports store or food service) in the arena were discussed, however it was noted by Committee that the agreement for use of the land places restrictions on the scope of private enterprise that can be contemplated.
  - Provision would be made for barrier-free access for participants and spectators, including dispersing accessible seating amongst the regular seating (rather than having one designated section) and accommodations for sledge hockey. A meeting would be held with the Accessibility Advisory Committee to review these matters.
  - Cost control would be achieved through working with the cost consultant to review budget projections at every stage of the design and the implications of each feature being considered. Pre-qualification of contractors and incorporating time commitments into tender documents are also recommended.
  - Mr. Duffield emphasized that the key to the project being completed on-time and on-budget is communication between the sub-contractors, the general contractor, the architect, the County and the users. He noted that regular site meetings would be scheduled to keep things on track, to review the budget and project schedule and to address any issues that may arise in a timely fashion.
  - Mr. Duffield suggested that the quality of the ice will ultimately determine the success of the facility and advised that every stage of the ice development would be closely monitored, inspected and administered.

In response to questions, Mr. Bryan addressed the following:

- Roof would be constructed to have a slope sufficient to allow for the collection / runoff of water.
- The ice surface floor will be designed for a 25 – 30 year life expectancy.
- Part of the initial project design would involve working with the County to consider possible future uses and accommodating potential expansion.
- It is expected that 8 months will be required for the design, site plan and tendering components of this project. Approximately 18 – 20 months would be required thereafter for construction.

Council recessed at 11:10 a.m. and reconvened at 11:25 a.m.

### **PBK ARCHITECTS**

Conrad Boychuk and Stan Zalewski reviewed PBK Architects' experience specializing in recreation projects. Mr. Boychuk outlined the other members of their team, noting that PBK offers a unique combination of specialized engineers, particularly their acclaimed in-house refrigeration system design team. He highlighted the following:

- PBK Architects would incorporate a collaborative process, bringing their firm's expertise to work with the County, user groups and the community to develop a design that represents the greatest value for the available budget. PBK proposes extensive public and user group involvement in the design process, to identify any features that are important to the community which may not be identified by the consultants. Consultations would also be held with staff to review current practices and specific requirements.
- The proposed mechanical and electrical engineers for this project are all LEED certified and energy efficiency / sustainability is fundamental to PBK Architects projects. Potential initiatives in this regard include natural lighting for daytime operations, heat recovery from the refrigeration system being used to heat seating areas and use of light coloured / "green" roofing materials.

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- PBK Architects also proposes to reflect the character of the community in the architecture of the building. Elements such as the renaturalization of stormwater management areas into walking trails, parks or picnic areas may be achieved at a minimal cost.
  - PBK Architects are a leader in designing barrier-free and dignified accessibility for all participants and spectators. He suggested that if the County is considering sledge hockey as a use, transparent panels and oversized doors could be incorporated into the bench design.
  - Mr. Boychuk presented several projects undertaken by PBK Architects, highlighting various features of each which may be of interest to the County for either the current or future phases. Many of these features (i.e. unconventional leisure ice configurations, aquatics, walking trails, etc.) help to promote use of the facility for sectors of the community that would not normally be interested in using a standard ice pad.
  - Mr. Zalewski reviewed an approximate 20 – 21 month design and construction schedule, which means that if the project were approved in January, 2008, the facility could be available for opening some time in September, 2009. He noted that with estimated construction escalation costs of 10% per year, this means that every 2 months the project is delayed relates to approximately the cost of one dressing room.

In response to questions, Mr. Boychuk addressed the following:

- In general, a public / private partnership would involve a private firm constructing the facility for the municipality on the basis that they would be granted the operations contract for the building. There have been both successful and unfortunate examples of these arrangements and the County should follow-up with a private firm for additional information if they are interested in considering this option. He noted that one consideration is that the municipality can generally borrow money at a lower rate than a private firm and that the municipality may have limited or no control over facility rental costs under such an arrangement.
- The life expectancy of the building and its structures will depend on the quality of materials used. Further, the use of high-quality construction and insulation materials can help control operational and energy costs.
- If the County is considering other uses for this site in the future, early in the design process these uses should be contemplated as to how they would be situated in the overall site envelope. This would allow the building, specifically the lobby and service areas, to be designed to efficiently accommodate the future use. Mr. Boychuk suggested that in recognition of the County of Brant, in particular the area immediately surrounding the proposed site, as a growing community, it is important to provide for future features / amenities in the design.
- PBK Architects would utilize the experience and specialization of their engineering and consulting teams in their main Vancouver office, while having the majority of the site engineering, liaison and administration completed out of their Ontario office.
- PBK Architects staff is accredited in Canada LEED standards, noting that since this program was originally initiated in the United States, some staff still retain their U.S. credentials. Mr. Zalewski noted that a balance would have to be struck for PBK Architects to meet the double mandate of designing a LEED certified and a buildable / operable facility within the County's budget.
- Different roofing configurations would be considered in terms of cost and functionality.
- Different seating configurations would be presented. Where 700 – 1000 seats are proposed for an ice pad, an opportunity is created to house the dressing rooms below the seating areas. Other options are for two ice pads side-by-side to have dressing rooms on the main floor in the middle and utilize the upper floor for enclosed, heated seating or other purposes.

Council recessed at 12:15 p.m. and reconvened at 1:05 p.m.

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### **PARKIN ARCHITECTS LIMITED**

Lind Nyman reviewed that background information pertaining to Parkin Architects' references and experience and a detailed workplan are included in the proposal documents. The firm's main office is in Toronto, with smaller offices in Ottawa and Edmonton. Mr. Nyman reviewed a number of large-scale and small-scale recreational facility / arena projects undertaken by Parkin Architects and highlighted the following:

- Parkin Architects would encourage involvement from all existing and potential user groups to determine their specific needs. He noted that although each group has the same general requirements (decent dressing rooms, good ice surface, easy access, etc.), there are varying requirements for each group.
- Mario Pistone presented an interactive visualization software which would be used at meetings with County representatives, the public and user groups to present and consider different options for basic building and amenity configurations, taking into consideration features such as site topography. Building materials, colours and other aesthetic features can also be visually demonstrated.
- Parkin Architects has in-house resources to pursue the silver LEED certification. Mr. Nyman reviewed that given the site location and configuration, some of the more straightforward LEED points (redevelopment, urban area, bus route) will not likely be attainable. The County would be provided with a cost/benefit analysis for each of the LEED point measures. It could then be evaluated which measures are worth incorporating and whether or not the facility could realistically achieve a silver certification.
- The proposed design would be configured to minimize conflict between user, spectator and staff / maintenance areas, while ensuring an efficient use of available space.
- Mr. Nyman reviewed several innovations recently incorporated by Parkin Architects, including ice storage tanks, so that the refrigeration system is running at a constant level rather than turning off and on and utilizing this tank to assist with building cooling, use of natural lighting when possible to light the lobby and ice pad areas and use of improved, energy-efficient fluorescent lights rather than metal halide lights.

In response to questions, Mr. Nyman addressed the following:

- Various seating configurations would be reviewed in conjunction with the location of other amenities;
- Preliminary layout designs would consider the eventual full build-out of the site, incorporating any future facilities the County may wish to implement. This would ensure that there is sufficient space for these uses and that they can be conveniently located for shared amenities (parking lot, lobby, etc.).
- Even if the County cannot attain the full silver LEED certification, there would still be benefit in terms of energy efficiency and the environment to incorporate as many of these design features as possible.
- The design and tendering of this project should be completed within 6 to 8 months, followed by approximately 12 to 16 months of construction.

The Committee recessed at 1:45 p.m. and reconvened at 1:55 p.m.

### **SHORE TILBE IRWIN & PARTNERS**

D'Arcy Arthurs, Shore Tilbe Irwin introduced Andrew Frontini, Shore Tilbe Irwin and Steven Carpenter, Enermodal Engineering, noting that Shore Tilbe Irwin is an award-winning firm involved in the design and construction of approximately 15 new multi-use recreation centres. He highlighted the following:

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- Enermodal Engineering is a leading sustainable design and energy conservation firm.
  - Shore Tilbe Irwin proposes a participatory approach for the design, incorporating town hall / focus group meetings involving key stakeholders and user groups to review any changes that may have arisen since the Feasibility Study was completed by Nustadia, to refine the necessary components of the project and to build consensus regarding the proposed design. Shore Tilbe Irwin would then work with the County to reconcile the program and the budget.
  - Shore Tilbe Irwin's objective in this project is to design a building that will bring pride to the community and express the character and unique qualities of the area. Mr. Arthurs reviewed that a logical layout and a strong visual connection from the main entrance / foyer through to the ice and spectator areas helps to tie in these spaces. It is also proposed that space be provided to preserve some of the history of the Syl Apps Community Centre and the area.
  - Mr. Arthurs reviewed that the site is ideally situated in terms of access from both within and outside of Paris and is situated in a dramatic, natural setting. He suggested that this facility would help create a sense of community for the County of Brant and for the emerging development in the area.
  - Mr. Carpenter advised that Enermodal Engineering would work with the County of Brant to facilitate the LEED certification process. The County would be provided with information on the cost and benefits of each LEED technology and would be assisted in deciding which measures to implement. He suggested that an aggressive water conservation strategy may be one feature that the County deems valuable as well as any energy conservation efforts, which typically have reasonable payback periods (i.e. upgraded refrigeration systems, natural & fluorescent light technologies), etc.
  - Mr. Arthurs reviewed the proposed workplan and schedule, noting that the design / tendering process is estimated to take 8 months, with an additional 12 – 14 months for construction. Parallel to this work program, Enermodal Engineering would be challenging every design feature in terms of efficiency and sustainability.
  - Mr. Arthurs reviewed that reasonable milestones would be identified to review and address any critical line items that may be falling behind. The critical path of the schedule would be assigned to various team members, accounting for frequent updates, client review time, design changes, etc.
  - Shore Tilbe Irwin has extensive experience in this field and in the local construction market and as such will provide reliable budget documents and develop a mechanism for value engineering to deal with unforeseen challenges.

In response to questions, Mr. Arthurs addressed the following:

- Shore Tilbe Irwin encourages the development of multi-use facilities to tie in as many recreational opportunities as possible and has extensive experience in preparing master site layout plans and designing buildings with future expansion in mind. Potential future uses will impact servicing requirements so it is far more economical to contemplate servicing infrastructure that will meet eventual capacity needs.
- Mr. Arthurs suggested that the County consider expending additional costs on design features for "accent" areas of the facility (i.e. entrance), with more conventional building materials being used for the remainder.
- Mr. Carpenter suggested that the County aim for a silver LEED certification, noting that if this cannot be achieved within a reasonable budget, a lower certification could be sought. He expressed the opinion that this project should be able to attain either a silver or gold certification and indicated that in reviewing the options with the County, a business case for implementing the various features would be presented.

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- Mr. Frontini reviewed that the first step would be determine primary points of communications between the County and the consultant, to establish a project committee and to discuss with the County the level and format for community involvement and any community input that may have already been received. If necessary, town hall / public meetings could be held to garner additional input and then a preliminary design would be prepared for presentation at an information session for further comment / consideration.

The Committee recessed at 2:45 p.m. and reconvened at 2:55 p.m.

### **DISCUSSION ON THE PROPOSALS**

The following was noted in discussion on the presentations:

- Councillor Atfield noted that when comparing the capital cost of implementing LEED design features with the anticipated operational savings, the cost of borrowing the money for the capital investment must also be considered.
- In response to a question, the Building and Maintenance Manager advised that once LEED certification has been attained, the County would receive a plaque for its facility. The certification is based on the building and standards at the time of construction.
- In response to questions, the Director noted that the next step would be for staff to review both staff and Council comments on the presentations to determine an evaluation of the 25 points allocated for this component. The revised evaluations would then be presented to the Parks and Recreation Committee with a recommendation for award. In discussion, concern was expressed about the delay in presenting this report to the December 17 Committee meeting for Council's consideration on January 8 and it was suggested that consideration be given to rescheduling the Parks and Recreation Committee meeting. Councillor Wheat, Chair of the Parks and Recreation Committee, will investigate this matter.
- The Director reviewed that once the work has been awarded, staff would begin working with the consultant to discuss long-term options for the site and community consultation options. Also, the County could then proceed with fundraising and seeking Federal / Provincial grants in earnest. Councillor Gatward spoke in support of investigating potential future uses for the site now to mitigate duplication of efforts that may be required if expansion is contemplated later.
- In response to a question, the Building and Maintenance Manager advised that once Council has awarded the design, staff would proceed to arrange for an archaeological assessment of the site, likely early spring, 2008.

Several Councillors provided comments on the individual presentations, expressing an appreciation for those firms that focus on a team approach, community involvement, innovative ideas, site-specific considerations and straightforward financial information.

Moved by – Councillor Chambers  
Seconded by – Councillor Simons

That Committee of the Whole now resume the meeting in Open Council.

.Carried

The meeting adjourned at 3:10 p.m.

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Secretary