



THE TORONTO AND REGION CONSERVATION AUTHORITY

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### SUSTAINABLE COMMUNITIES BOARD #1/04

**Friday, February 6, 2004**

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THE TORONTO AND REGION CONSERVATION AUTHORITY

**MEETING OF THE SUSTAINABLE COMMUNITIES BOARD #1/04  
February 6, 2004**

**The Sustainable Communities Board Meeting #1/04, was held in the South Theatre, Black Creek Pioneer Village, on Friday, February 6, 2004. The Chair Suzan Hall, called the meeting to order at 11:25 a.m.**

**PRESENT**

David Gurin	Member
Suzan Hall	Vice Chair
Colleen Jordan	Member
Glenn Mason	Member
Elaine Moore	Member
Dick O'Brien	Chair, Authority
Gerri Lynn O'Connor	Member
Andrew Schulz	Member
John Sprovieri	Member

**REGRETS**

Maria Augimeri	Member
Glenn De Baeremaeker	Member
Michael Di Biase	Chair
Linda Pabst	Member

**RES.#E1/04 - MINUTES**

Moved by: Dick O'Brien  
Seconded by: Gerri Lynn O'Connor

**THAT Public Use Advisory Board Minutes of Meeting #2/03 and Sustainable Communities Board Minutes #3/03, held on July 4, 2003 and October 3, 2003, respectively, be approved.**

**CARRIED**

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**PRESENTATIONS**

- (a) A presentation by Ian Jarvis, President, Enerlife Consulting, in regards to The Living City Centre.

- (b) A presentation by Reneé Jarrett, Manager, Education, TRCA and Dave Green, Program Coordinator, TRCA, in regards to the scope of future education programs.
- (c) A presentation by Brian Denney, Chief Administrative Officer, TRCA, in regards to item 7.1 - Toronto and Region Conservation Authority Role in Sustainability.

**RES.#E2/04 - PRESENTATIONS**

Moved by: Elaine Moore  
Seconded by: Glenn Mason

**THAT presentations (a) and (c) be heard and received.**

**CARRIED**

**RES.#E3/04 - PRESENTATIONS**

Moved by: Elaine Moore  
Seconded by: Andrew Schulz

**THAT presentation (b) be heard and received.**

**CARRIED**

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**SECTION I - ITEMS FOR AUTHORITY ACTION**

**RES.#E4/04 - TORONTO AND REGION CONSERVATION AUTHORITY ROLE IN SUSTAINABILITY**  
Overview of the work of the Toronto and Region Conservation Authority (TRCA) in furthering in development of more sustainable urban and rural communities.

Moved by: Colleen Jordan  
Seconded by: John Sprovieri

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT the program of activities set out in the staff report and as presented in the summary of The Living City Centre programs be endorsed;**

**AND FURTHER THAT staff be directed to seek further opportunities and new partnerships which will support the efforts of the Toronto and Region Conservation Authority's member municipalities to create more sustainable urban and rural communities.**

**CARRIED**

**BACKGROUND**

The following preamble from the TRCA's draft strategic plan provides the context for the current agenda of activities in which the staff are engaged, or propose to become engaged, to achieve more sustainable communities:

## "Our Vision

**A new kind of community, The Living City, where human settlement can flourish forever as part of nature's beauty and diversity.**

*A new kind of community, The Living City, where human settlement can flourish forever as part of nature's beauty and diversity.* This is the vision set out by the Toronto and Region Conservation Authority (TRCA) to guide us over the next half of the 21st century. Our mission points to the way, and to the union of three major objectives necessary to achieving The Living City. We can only realize a better future by working in partnerships. We can only restore biological systems through the redesign of human systems in relation to the natural environment. Thus our mission, to work with our partners to ensure that The Living City is built upon a natural foundation of healthy rivers and shorelines, regional biodiversity and sustainable communities, recognizes people as architects of our future.

This future is complex. Every issue is multifaceted; every decision is a factor towards a sustainable future.

## Our Mission

**To work with our partners to ensure that The Living City is built upon a natural foundation of healthy rivers and shorelines, greenspace and biodiversity, and sustainable communities.**

The Greater Toronto Area (GTA) is growing rapidly. It's growing because it is recognized worldwide as a wonderfully livable place, yet it faces drastic challenges to manage growth, maintain a high quality of life and to simultaneously restore biological diversity and water resources to new levels.

The Living City is an attainable vision of nature in the city where human systems (belief systems, governance systems, built systems and economic systems) mimic and assimilate nature's processes to achieve resource efficiency, well-being and prosperity. Cities are part of, not separate from nature.

Our ability to realize this vision has necessary global implications since Canada consumes two-thirds of the world's resources, has the highest consumption of energy per capita and plays an important continuing role in fostering global peace and equitable resource distribution. We hold within our borders approximately 20 percent of the world's fresh water, including 7 percent of the world's fresh renewable water, a resource facing impending pressures and shortages in this century.

The future of the planet will be determined in cities. By 2030, 61% of the world's population will be living in cities. The Greater Toronto Area (GTA) is the largest urban area in Canada. With over 5 million inhabitants, the GTA contributes to one-fifth of Canada's entire gross domestic product. Increasing the livability of the GTA by conserving freshwater and biological resources for future generations, is imperative and our commitment.

**The sustainability lens looks across disciplines – environmental, social, political and economic – and well into the future, working in partnership, to find the optimum benefits and solutions in everything we do.**

**The sustainability lens provides a well-rounded way to look at the complex issues facing us today. Using the lens we consider the environmental, social, political and economic dimensions of any issue, to identify the root causes of environmental decline and to develop effective, impacting solutions. We recognize that a cross-disciplinary approach and strategic partnerships are the most effective means for action.**

The TRCA is embarking on a new era of conservation – with a refocused effort to harness our strengths and experience, and to address today’s issues as we work to achieve our mission. We recognize the importance of learning from the past to envision a sustainable future.

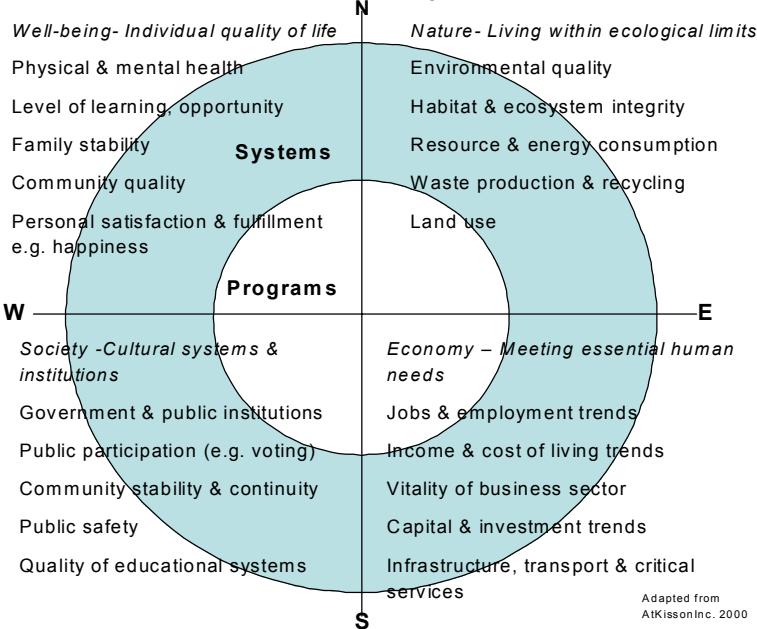
Over the past forty-six years, the TRCA has mastered an ability to integrate multiple-use issues, diverse interests and objectives for healthier communities. Partnership approaches have been paramount from the beginning. The quest for sustainable development has always been at the forefront of TRCA's work – balancing human and natural environment objectives and working with the community. Today the issues and the context have changed and so have the means to achieve our objectives. Since 2000, the TRCA has been working to review its challenges and accomplishments and to reinvent its mandate to be effective in the 21st century.

In The Living City, we recognize the economic and social value of natural resources, that natural systems have limits and the true cost associated with degrading or destroying these systems. With nature as our guide, we find new and sustainable ways to live in our cities that enrich our communities and improve the quality of our lives.

McLean, Bill. 2002. *Paths to The Living City: The Story of The Toronto and Region Conservation Authority.*

A healthy natural environment is the basis for economic vitality, social equity and well-being. Since the United Nations Johannesburg Summit, 2002, sustainable development is regarded as improving the quality of life for everyone without increasing the use of natural resources beyond the earth’s carrying capacity. The original Bruntland Commission’s definition of sustainable development from 1987 was “meeting the needs of today without compromising the ability of future generations to meet their own needs.” Inherent in both of these definitions are positive social change (development), preservation and restoration of finite natural resources and an economy that’s based on these.

# Sustainability Lens



**Social and Economic Prosperity**

The TRCA endorsed the Earth Charter in 2002 as a set of principles to guide its future business. “The ethical principles of the Earth Charter are described as ‘interdependent principles for a sustainable way of life’ that provide a common standard for individuals, organizations, communities, and governments.”  
 Rockefeller, Steven. Winter, 2002. *Earth Ethics: Evolving Values for an Earth Community*.

The Earth Charter brings together science, philosophy, religion and law to form a comprehensive understanding of what’s required to achieve sustainable development and sustainable living. The Earth Charter provides a vital link between scientific and moral understanding, a set of universal principles that can guide our behavior and actions on multiple levels – global, national, local and personal.

**Sustainable Governance and Community Engagement**

*The Living City actions are guided by the following principles:*

Recognize the intrinsic value of all life and that biological diversity is essential for healthy, resilient ecosystems.

*Respect for life in all its diversity*

Protect and restore the integrity of the Earth's ecological systems, with special concern for biological diversity and the natural process that sustain life.

Prevent harm as the best method of environmental protection, and when knowledge is limited, apply a precautionary approach.

Adopt patterns of production and consumption that safeguard the Earth's regenerative capacities, human rights and community well-being.

Advance the study of ecological sustainability and promote community exchange and wide application of the knowledge acquired.

*Ecological Integrity*

Provide equitable access to a healthy natural environment that provides spiritual well-being, educational and recreational opportunities.

Strengthen democratic institutions and program delivery, and provide transparency, accountability and participation in governance and decision-making.

Integrate into formal education and life-long learning the knowledge, values and skills needed for a sustainable way of life."

A presentation will be made to the Sustainable Communities Board to outline the programs of The Living City Centre , which are at the heart of the TRCA's initiatives. The agenda also contains a report on the proposed retrofit of the Kortright Centre for Conservation to improve its function and make it a more powerful example of green building technology. The TRCA's emerging programs and partnerships for sustainability education will also be highlighted as part of the agenda. In addition to these many initiatives there are some other projects which contribute to the TRCA's overall role in sustainability issues.

**Other Sustainability Related Activities**

*Canada Green Building Council - Toronto Chapter*

The TRCA has joined this effort led by members of the Toronto design community. Our intention is to assist in the development and identification of appropriate green building technologies for use in the GTA, and assist where possible in the implementation of these new approaches by identifying suitable projects and willing proponents.

*Pembina Institute for Appropriate Development*

Staff are exploring opportunities for joint research with the Pembina Institute on sustainable community planning and development approaches and the current barriers to these types of solutions.

### *metroQUEST*

This computer based simulation of city building on a regional scale was developed by researchers at the University of British Columbia and is promoted and implemented by a B.C. based consulting company called "envision". Staff are considering participation, along with numerous other partners in a project to develop the simulation tool for the GTA. This is recognized internationally as one of the best techniques in the world to engage the public and decision makers in a dialogue about values, choices and implications, on a 40-year time scale, in the city building context.

### *Sustainability Lens for TRCA Decision Making*

Staff would like to begin a discipline of commenting within traditional TRCA reporting procedures on issues of sustainability. While we would not propose to alter our recommendations in the short term based on the sustainability lens, we believe it would be a good transition and valuable learning experience to look at the various decisions the TRCA is required to make through a sustainability lens. In the short term, staff would continue to make recommendations based on TRCA's existing policy framework which is driven by concerns for public health and safety within the natural environment. In the meantime, we would be also searching out and applying sustainable community criteria as a means of evaluating the same proposals which we are reviewing within our traditional techniques and approaches.

### *Expediting Sustainable Projects*

Staff propose to try to identify those projects which are consistent with the principles of sustainable community planning and implementation and move those projects toward the front of the line for review. For example, projects which utilize renewable energy technologies, implement high levels of energy efficiency, employ green building technologies, reduce green house gas emissions, achieve efficient public transportation etc. would be rewarded by the fastest possible review time.

### *Sustainable Development Technology Canada*

This federal organization is mandated and funded to help innovative technologies become commercially successful. TRCA's role can be to connect real urban needs with possible technologies so that the research and development funds are applied as efficiently as possible.

### *Environment Canada's Toronto Region Sustainability Program*

TRCA is positioned as a delivery agent for Environment Canada for several aspects of their department's sustainability strategy. In particular, working with the Ontario Centre for Environmental Technology Advancement, the TRCA will be implementing a program designed to help small manufacturing enterprises to improve their energy and environmental performance.

### *Seaton Community*

The proposed new community in the City of Pickering offers tremendous opportunity and responsibility to achieve a community which is planned and implemented under sustainability principles. TRCA's *A Watershed Plan for the Duffins Creek* has provided the environmental baseline and required approaches to development to ensure that the watershed health can be enhanced through careful community building and watershed scale regeneration investments.

#### *Canadian Urban Institute (CUI)*

Staff are considering a number of sustainability related initiatives with the CUI. In the short term, we anticipate working together on the regional environmental report card as well as projects to promote and implement the TRCA's natural heritage strategy.

#### *Markham Centre*

The Town of Markham has been working for several years on a new urban core for the municipality. TRCA will be assisting with sustainability criteria and approaches for integrated energy planning and green building design, including Leadership Environment and Energy Development (LEED) certification, in accordance with The Living City programs. TRCA staff anticipate learning a great deal from this community based process which can be applied in other communities.

#### *City of Vaughan Environment Committee*

This new initiative of Vaughan Council is anticipated to start this spring. TRCA staff are looking forward to participating in this process as a way of further incorporating sustainability principles into planning in Vaughan and connecting with the objectives of The Living City Centre, which is located in Vaughan.

#### *Toronto Waterfront Revitalization Corporation*

TRCA staff have been heavily involved in sustainable community planning for the new waterfront projects, initially through the City of Toronto's Sustainability Round Table. TRCA expects to continue to be involved on various levels, including implementation of the new Toronto Waterfront Aquatic Habitat Restoration Strategy as part of the basic requirements for the new communities to contribute to the health of the natural environment. In addition, TRCA looks forward to assisting with other aspects of the sustainability agenda including integrated energy planning, green building design and successful inclusion of the "new mouth of the Don" as a focal point and catalyst for an exciting new community.

### **FINANCIAL DETAILS**

It can be argued that all of TRCA's activities are related to sustainable communities, as we seek to provide the environmental foundation for good community planning, and therefore that all of TRCA's diverse funding sources are applied to sustainability issues. The fact remains however, that we continue to have serious problems of declining biodiversity, deteriorating air quality and ever increasing energy demands which can only be addressed by a more rigorous approach to sustainable community development.

The TRCA's participation in specific, sustainability focussed initiatives, is being funded from a variety of sources and new partnerships but principally by The Conservation Foundation of Greater Toronto. Other support has been received from the participants in The Living City programs such as the area municipalities . Natural Resources Canada and Environment Canada are also providing federal support as is the Federation of Canadian Municipalities. We anticipate that our funding base can be expanded in the future by the addition of support from utility companies and growing support through the Conservation Foundation.

**Report prepared by: Brian Denney extension 6290**  
**For Information contact: Brian Denney, extension 6290**  
**Date: January 28, 2004**

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**RES.#E5/04 - PEEL AND YORK CHILDREN'S WATER FESTIVALS**

Report on 2003 festivals and direction to participate and deliver Toronto and Region Conservation Authority (TRCA) programs at the 2004 York and Peel Children's Water Festivals.

Moved by: Glenn Mason  
Seconded by: David Gurin

**THE BOARD RECOMMENDS TO THE AUTHORITY THAT staff continue to work with the Peel and York Festival Planning Committees to deliver the education and stewardship programs and products to achieve the objectives of TRCA's watershed management plans and The Living City program;**

**THAT staff continue to work with the Regions of Peel and York to assist them in achieving sustainability objectives in the planning and delivery of the children's water festivals;**

**THAT members of the Authority be invited to attend the VIP day at the festivals (Peel Festival on May 31, 2004 and York Festival on Tuesday, May 18, 2004);**

**AND FURTHER THAT staff report back to the Sustainable Community Board on the progress of these festivals.**

**CARRIED**

**BACKGROUND**

At Authority meeting #3/03, held on April 25, 2003, resolution #A61/03 was approved as follows:

*THAT the members of the Public Use Advisory Board attend the VIP luncheon on Monday, June 2nd, 2003 at Heart Lake Conservation Area as part of the Peel Children's Water Festival;*

*AND FURTHER THAT staff report back on the TRCA projects of the Festival and partnership with the Region of Peel.*

The 2003 Peel Children's Water Festival was held at Heart Lake Conservation Area from Thursday, May 29th to Wednesday, June 4th, 2003, with Saturday, May 31st as Public Day. The festival hosted 5,000 grades two-five students from Mississauga, Brampton and Caledon, 1,000 adult chaperones and 500 high school volunteers. There was also a waiting list of close to 1,000 children. Public Day on Saturday May 31st drew approximately 2,500 members of the general public (more than double the number of people compared to last year) despite the threat of rain. Approximately 9,000 people in total passed through Heart Lake Conservation Area in the six days of the festival. The children participated in over 50 water-related interactive and educational activities, including seven developed and coordinated by the TRCA and the Etobicoke & Mimico Creek Watersheds Coalition. The VIP day was well attended by municipal politicians, staff and the Honourable Tony Clement. Local politicians took part in one of the restoration projects by planting white water lilies. Three of the activities were restoration projects, ranging from the driest of vegetation communities to regionally rare aquatic plants. The three restoration projects injected biodiversity into the Heart Lake area by establishing 47 different species and a total of 5000 trees, shrubs, herbaceous sand dune and aquatic plants, accelerating the restoration work at Heart Lake Conservation Area by years.

The 5th Annual York Children's Water Festival was held from Tuesday, May 20th to Friday, May 23rd at Bruce's Mill Conservation Area. In total, 3,300 school children from grades two-to-five attended the festival throughout the week with many more on the waiting list. A large contributing factor to the festival's success was the help of 350 high school volunteers from various schools throughout the region, as well as 30 volunteers each day from York Region, TRCA and other government and non-profit organizations. Forty-two interactive displays and activities gave the children a chance to learn about the importance of clean water and a healthy environment. The VIP day on Wednesday, May 21st was well attended by a number of mayors and regional councillors, TRCA and York Region staff, along with representatives from supporting and sponsoring agencies. During the week, 600 trees and shrubs were planted, bringing the total trees planted in the past 5 years to over 3,500. This activity restores under-utilized picnic areas and expands forest buffers, contributing to habitat and biodiversity while fulfilling expanding natural heritage objectives.

## **RATIONALE**

To build capacity and foster community responsibility by providing meaningful opportunities to participate and partner, and to offer life-long learning programs that foster commitment to healthy rivers and shorelines have been identified as key service area objectives within the 2003-2007 TRCA business plan.

The benefits to the TRCA in delivering the festivals in partnership with York and Peel include:

- delivery of The Living City message (healthy rivers & shorelines, regional biodiversity, sustainable communities and business excellence) to approximately 14,000 children and adults;
- the opportunity to leverage TRCA education, stewardship, watershed management, conservation area and restoration resources;
- the establishment and completion of large-scale, community-based ecological restoration projects;
- media exposure for conservation areas and their environmental value; and
- leveraging of funding from outside sources.

TRCA recently initiated the development of a management master plan for the Heart Lake Conservation Area in partnership with the Region of Peel and the City of Brampton. Considering the projected population growth, Heart Lake Conservation Area will become a popular environmental, outdoor education and tourism centre in the Region of Peel. Recreation and educational opportunities have been identified as an important component of the master plan. Future public uses and educational opportunities including the Peel Children's Water Festival will be addressed in the plan keeping in mind the long term vision of ecological and economic sustainability.

**FINANCIAL DETAILS**

In the past, funding for the festivals has been provided through a mix of sponsorships and grants from a variety of private companies and grant agencies as well as the Regions of York and Peel and in-kind and cash contributions from TRCA.

The total budget (Peel Region) for the Peel festival was approximately \$200,000. TRCA 's in-kind and cash contribution was approximately \$85,000. The 2003 York festival generated continued growth in community participation through expanded in-kind contributions. The total budget (York Region) for the festival was approximately \$75,000. TRCA's in-kind and cash contribution was \$25,000.

Funding for 2004 TRCA activities (Peel and York)

- TRCA Cash and In-kind (Estimated)      \$ 60,000
- Peel Natural Heritage (Confirmed)      \$ 20,000
- York Natural Heritage (Confirmed)      \$ 20,000
- Other Estimated In-kind  
    (Watershed Groups, Volunteer Network Program)      \$ 10,000

TRCA staff involved with last years and this years festivals include Education (development and delivery of activities), Human Resources (TRCA volunteer program), Resource Science (development of activities, committee membership and inventories and restoration projects), CAO's Office - Sustainability (resources and research for sustainability activities), Environmental Services (stewardship staff and resources, and environmental services for restoration projects), Conservation Areas (Bruce's Mill and Heart Lake staff), and Watersheds Specialists (staff representative). Darryl Gray, Superintendent Bruce's Mill Conservation Area, is co-chair of the York festival. Paul Willms, watershed resources planner for Etobicoke and Mimico Creeks, is the staff representative for the Peel festival.

## **DETAILS OF WORK TO BE DONE**

### **The Future of the Festivals**

The Region of York has recently stabilized funding for the program under York Region's "Water For Tomorrow" program. As a function of this, a full-time coordinator has been hired. Bruce's Mill, as host-site for the past 5 years, has become the permanent home of the festival. Long-term objectives include investing in permanent interpretive and educational displays at Bruce's Mill aligned with the sustainable communities programming objectives of the Children's Safety Village, further complementing the festival and providing additional recreational and educational value to Bruce's Mill's current business model. At the time of submitting this report, the York festival has enrolled over 5,000 students and has a waiting list of another 1,200.

The Region of Peel festival will once again return to Heart Lake in 2004. The festival committee members have discussed the centrally located Heart Lake Conservation Area as a permanent storage facility for activities, the potential for developing a permanent educational display, combined with an on-line presence for the festival. This would provide opportunities for delivering water-based messages, including The Living City, year-round through the internet or at Heart Lake itself, instead of only during one week of the year. This provides an added value and focus on the conservation area's interpretive signage, restoration projects and value as an environmental resource area within the region. The concept needs to be further detailed and discussed at the committee level and with Region of Peel staff. Staff will ensure that this process is carried out in conformity with the process of Heart Lake Master Plan development and in consultation with TRCA, City of Brampton staff and the Etobicoke and Mimico Creeks Watershed Coalition.

TRCA staff are creating an activity system that incorporates The Living City and sustainable communities messages for the 2004 festivals. The circuit of activities will be delivered at both the York and Peel festivals and will represent an "ecosystem" contribution to the festivals from TRCA.

Additional work to be done for the festivals include:

- attend planning committee meetings and assist Peel and York Region staff with festival planning and delivery;
- secure in-kind support and partnerships for festival activities; and
- develop and deliver education activities incorporating The Living City messages.

**For Information contact: Chandra Sharma, extension 5237 or Paul Willms, extension 5316**  
**Date: January 28, 2003**

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## **SECTION IV - ITEMS FOR THE INFORMATION OF ANOTHER BOARD**

### **RES.#E6/04 - PHASE 2 CONSULTING ASSIGNMENT FOR THE SUSTAINABLE REDESIGN OF THE LIVING CITY CENTRE AT KORTRIGHT**

The re-evaluation of the Toronto and Region Conservation Authority's (TRCA) sustainable building opportunities with respect to the redesign of The Living City Centre at Kortright, and subsequent revision to Phase 2 of the consulting team's scope of work for professional services.

Moved by: Elaine Moore  
Seconded by: Colleen Jordan

**IT IS RECOMMENDED THAT the staff report below, as presented to the Executive Committee on February 6, 2004, be received.**

**CARRIED**

#### **BACKGROUND**

The TRCA invited consultants to submit proposals outlining a detailed work plan, budget and schedule to develop designs and specifications for a sustainable retrofit of The Living City Centre (LCC) at the Kortright Centre for Conservation, site servicing and other site plan issues as they relate to the proposed operational and functional changes to the facility. The TRCA was looking to undertake modifications in a manner that supports its new environmental sustainability program.

Kortright, located on 324 hectares of pristine woodlands and wetlands (Boyd North Conservation Lands) along the Humber River valley in the City of Vaughan, is operated by the TRCA. The site itself is made up of the Kortright building, woodland (most of it forested slope), reforested farmland and meadow. Formal educational hiking trails traverse the property, which is interspersed with a number of smaller ancillary buildings. With approximately 130,000 visitors of all ages annually, Kortright is Canada's largest public environmental and outdoor education facility. Its mission is to promote the wise and appropriate use of natural resources through educational (programs, presentations, workshops) walks, exhibits, demonstrations and special events.

The Kortright building is approximately 2,900 m<sup>2</sup> and features a theatre, café, gift shop, class rooms, office space and two levels of exhibit space. The building is normally described as a three level, open concept, laminated post and beam structure. The architect was Shore Tilbe Henschel Irwin, and the building was completed in November 1977 at a cost of \$1.2 million. It was officially opened to the public on June 21, 1979. In 1982, a glass and wood pavilion was added, and in 1999 a new sewage treatment facility (Living Machine) was added adjacent to the main building.

In 2000, the TRCA embarked on a redesign of Kortright to update its facilities and programs to meet the demands and pressures of an evolving society. It was the intent that The LCC become a world-class education and demonstration hub linked to other sustainability centres across the globe - a physical and virtual meeting place for dialogue and for learning consistent with The Living City vision and strategy approved by the Authority in May 2003. The TRCA, through The Living City vision, is taking a leadership role in the development of the greater Toronto region as a more sustainable community. The Living City Centre at Kortright is to be

the strategic heart of the vision, a window into The Living City, promoting in every way possible the active implementation of sustainability in community life. The LCC's vision is to engage leadership in transforming the greater Toronto region into one of the most sustainable, liveable communities in the world. The LCC will become the heart of sustainable living in the greater Toronto region, recognized for designing and implementing powerful transformational initiatives with measurable improvements. Reflecting the values and multicultural nature of the city region, it will be a highly visible education and demonstration centre. The LCC will connect local and global initiatives, linking with other centres across Canada and around the world, and will promote sustainable living by employing a wide range of mechanisms, including research, education, demonstration, advocacy, training, promotion, celebration and partnerships aimed at developing innovative projects and programs. It will be an example of sustainability in terms of its physical structure and in terms of its operation. The LCC will incorporate and model new types of construction, energy use and waste management that will be practical and realistic, yet environmentally friendly.

To this end, the TRCA embarked on the development of a case for support to identify key issues necessary to attract partnerships and to develop a detailed plan for The LCC. The five main components are:

1. A needs assessment to identify the rationale and TRCA interest and strategic benefits to developing such a centre.
2. A building assessment to address the current condition of facilities on site, renovations and costs to make them functional as part of the new centre.
3. Sustainability Education Program scoping - preliminary program scoping and design.
4. Preliminary conceptualization of the program/activities, exhibits, demonstrations, site development and buildings and costs to develop and operationalize The LCC.
5. Business plans including: market assessment, feasibility study and implementation plan to assess the viability of the project.

As a framework for the eventual building redesign, TRCA commissioned a pre-engineering building assessment to address the condition of the facility, the required renovations, and the anticipated costs. On May 3, 2002, the Executive Committee approved Resolution #B50/02 which follows:

*THAT Enermodal Engineering Ltd. be hired to undertake the Kortright Building Assessment;*

*AND FURTHER THAT we approve the extra costs associated with the Ergonomic and Functionality Assessment.*

The review was completed in January 2003 by Enermodal Engineering Limited. Their findings indicated that although the building was considered to be structurally sound, it was in dire need of extensive repairs (roof, siding, windows, mechanical systems, etc.), and of additional operating space to effectively meet its program objectives. Enermodal's preliminary estimates to undertake these repairs in a sustainable manner were in the order of \$2 million.

Subsequent to Enermodal's assessment, TRCA let a consulting assignment in July 2003 to a consulting team lead by architectsAlliance to build on this pre-engineering work and to develop detailed designs, in consultation with staff, for the sustainable retrofit of The Living City Centre at Kortright. At Authority meeting #6/03, held on July 25, 2003, Resolution #A142/03 was approved as follows:

*THAT Phase 1 Pre-Design of the consulting assignment to provide professional services for the sustainable building, site and infrastructure design for The Living City Centre at Kortright be awarded to the consulting team led by architectsAlliance at a cost not to exceed \$25,000 (excluding GST);*

*THAT architectsAlliance be awarded Phase 2 (Detailed Design, Tendering and Construction Administration) of the consulting assignment at a cost not to exceed \$254,250 (excluding GST), upon completion of the Phase 1 work to the satisfaction of TRCA staff;*

*THAT staff be authorized to approve additional unspecified expenditures to a maximum of fifteen percent of the total design fees, as a contingency allowance, to architectsAlliance if deemed necessary;*

*AND FURTHER THAT staff provide a status report to the Authority on the completion of each Phase of the work.*

architectsAlliance's fee proposal was based on the completion of the following tasks, and on the assumption that the construction costs would be in the order of \$2 million:

#### General

- Prepare and submit preliminary and final design drawings providing all necessary information for approvals from all approval agencies;
- Prepare conceptual plans for the proposed new office/conference building;
- Prepare tender specifications and contract documents ready for tendering;
- Review and provide recommendations of tenders received;
- Review and approve shop drawings;
- Issue addendums and change orders;
- Provide on-site periodic inspection when requested by TRCA;
- Attend meetings during design and construction stages;
- Review final as built drawings;
- Prepare a detailed work plan, work schedule, budget and delivery plan to be included with the proposal; and
- Prepare a manual for the general building maintenance and for the operation and maintenance of all equipment and fixtures, including manufacturing specifications and brochures.

#### Detailed Design Work Plan

Using the Building Assessment completed by Enermodal Engineering Limited and the overall vision for The LCC as a foundation, undertake a review and design of:

- Daylighting with respect to window area and placement, window glass properties, room size and function, space configuration, room colour, etc.;
- Solar thermal air heating with respect to ventilation, air heating and domestic hot water preheating;
- Mechanical distribution system;
- Water supply system with respect to capacity, plumbing and treatment;
- Electrical distribution system, controls and fixtures;
- Internal and external communications systems;
- Installation of energy management controls such as economizers, natural ventilation, temperature setback and zoning;
- Interior design elements that considers:
  - removal of most of existing offices and conversion of existing mezzanine to exhibit space,
  - building an upper viewing platform (clerestory),
  - extend level 2 floor to provide additional space,
  - add windows to level 2 roof,
  - extend level 1 balcony and add north and west glass wall,
  - add sub-floor below level 1 for possible office relocation or storage space or propose alternate area for this function,
  - noise proofing throughout,
  - enlarging the entrance and foyer,
  - enlarging and equipping washrooms and kitchen to accommodate larger groups,
  - replacing gazebo,
  - all finishes, hardware, and fixtures, and
  - fire and security systems;
- Structural impacts due to building modifications;
- Exterior design elements that consider replacement or improvements to: wall cladding, roofing, overhang floor upgrade and general weatherproofing;
- Site plan issues required to accommodate the proposed building modifications, including:
  - servicing and supply,
  - septic system,
  - solid waste removal,
  - storm water management,
  - fire access,
  - all traffic flow,
  - site security,
  - facility entrances, and
  - parking;
- Landscape elements within the identified construction limits; and
- Conceptual floor and site plans and architectural elevations for new office/conference building.

In their proposal, architectsAlliance provided design fees for alternate construction estimates (Table 1) on a sliding scale basis, in the event that the proposed construction costs exceeded the preliminary project estimate. The fees on this table formed the basis of staff's recommendation with the assumption that the projected construction costs will now range from and estimate of \$3.9 million to \$5.4 million. The estimated construction costs reflect the options (1 and 2) that the staff and consulting team recommended that the TRCA pursue, following the completion of the Phase 1 Pre-Design work. Further, the increase in costs from an estimate of \$2 million, can directly be attributed to a recommendation by staff that the design for the site and building should address the space requirements of the existing and proposed programming, and also embody and demonstrate leading edge sustainable design principles, rather than simply repairing the building in a sustainable way.

*Table 1*

**Estimated Fees and Expenses Based On Construction Costs of \$5.4 Million:**

<b><u>TASK</u></b>	<b><u>COST</u></b>	<b><u>STATUS</u></b>
<b>Pre-Design</b>	<b>25,000</b>	Phase 1 - Completed (December 2003)
<b>Architectural Services</b>		
Schematic Design (15%)	60,750	Phase 2a
Design Development (10%)	40,500	Phase 2a
Contract Documents (45%)	182,250	Phase 2b
Tendering (5%)	20,250	Phase 2b
Construction Administration (25%)	101,250	Phase 2b
<b>Total Architectural Fees (100%)</b>	<b>405,000</b>	(7.5% of 5.4 million)
Site Services Design	8,250	Phase 2a
	24,750	Phase 2b
Estimated Disbursements	7,725	Phase 2a
	23,175	Phase 2b
Exhibit/Interpretive Design	18,200	Phase 2a
Cost Estimating	11,000	Phase 2a
	19,000	Phase 2b
Development Approvals	10,000	Phase 2b
<b>Sub-Total Phase 2a (Detailed Design)</b>	<b>146,425</b>	
<b>Sub-Total Phase 2b (Tendering and Construction)</b>	<b>380,675</b>	
<b><u>TOTAL UPSET FEE</u></b>	<b><u>527,100</u></b>	

Note: Fees would be pro-rated to exact final construction costs (i.e. less costly option would see a reduction in the total upset fee.)

## RATIONALE

Meetings, discussions and a workshop were held over the last six months in conjunction with the consulting team in order to identify priorities and goals of The Living City Centre, functional use of the Kortright building, space program, site plan, building opportunities and exhibit scope.

The general consensus was that the building must “walk the talk”, and that therefore we should go beyond a standard retrofit of the existing building and take advantage of the circumstances to investigate opportunities that:

- considered a site and building approach which embodied and demonstrated sustainable design principles and practices;
- re-focused the building to look externally by maximizing daylighting opportunities;
- created an inspiring sustainable campus and meeting place; and
- looked to increase visitor capacity without increasing wear on natural landscape or harming sensitive environmental areas.

Taking this into consideration, several alternative approaches were identified and reviewed (see Table 2).

*Table 2*

<b>Option #</b>	<b>Option Name</b>	<b>Total Gross Force Area</b>	<b>Estimated Construction Cost (building only)</b>
<b>Option 1</b>	Retain existing building + Retrofit were necessary	<b>33,800 square feet (sf)</b> (28,800sf renovated 5,000sf new infill)	<b>\$3,880,000</b>
<b>Option 2a</b>	Retain and retrofit existing building + Expand to address program needs	<b>38,600sf</b> (28,800sf renovated, 9,800sf new infill)	<b>\$5,335,000</b>
<b>Option 2b</b>	Retain, reconfigure, and retrofit existing building + Expand to address program needs	<b>38,600sf</b> (28,800sf renovated, 9,800sf new infill)	<b>\$5,335,000</b>
<b>Option 3</b>	Retain and retrofit existing building + Reorient (reusing structural material) + Expand to address program needs	<b>38,600sf</b> (20,600sf renovated, 18,000sf new)	<b>\$6,072,000</b>
<b>Option 4</b>	Reuse + Reorient at new location on site	<b>38,600sf</b> new construction (recycled materials)	<b>\$7,720,000</b>

Table 2 presents a summary of the four options and sub-options that were prepared and evaluated during the pre-design phase of the work. In addition to their presentation and evaluation at a formal workshop held on November 7, 2003 and follow-up, architectsAlliance held informal meetings with TRCA staff and potential funding agencies. Based on these discussions, the consulting team is recommending that TRCA proceed with a more detailed design and analysis of options #1 and #2 during the detailed design phase, for the following reasons:

- a) Options #1 and #2 present a range of sub-options which appear to be either affordable to TRCA or with reasonable limits for fundraising.
- b) Options #1 and #2 both have the potential to fulfil the basic space requirements of the TRCA by allowing for the provision of a Gross Floor Area of at least 33,000 square feet; therefore, the projected construction costs will now range from an estimate of \$3.9 to \$5.4 million.
- c) Options #1 and #2 present an opportunity to demonstrate a good range of sustainable and/or green building strategies, including those related to the adaptive re-use of existing buildings.
- d) While considered interesting, options #3 and #4 are expensive and the goals they set would be accomplished more effectively by an entirely new building, which the TRCA is not in a position to fund.

As a result of this analysis, the following recommendation is being made to the Executive Committee for review and consideration at its meeting to be held on February 6, 2004:

*THE EXECUTIVE COMMITTEE RECOMMENDS THAT Phase 2 of architectsAlliance's consulting assignment to provide professional services for the sustainable building, site and infrastructure redesign for The Living City Centre at Kortright be revised to reflect the recommended options evaluated during the Phase 1 work by both the consulting team and staff;*

*THAT Phase 2 of the previously approved work plan be sub-divided into detailed design, tendering and construction administration components, costing \$146,425 (excluding GST) and \$380,675 (excluding GST), respectively, to reflect a new construction limit of \$5.4 million, based on a 7.5% architectural fee;*

*THAT the design fees be allocated on a sliding scale basis, as contained in the architectsAlliance fee proposal, and be prorated accordingly, should the final construction costs be lower than the estimated \$5.4 million;*

*THAT staff proceed with the Phase 2 tendering and construction component of the project upon successful completion of a detailed design by architectsAlliance, and once capital funding is secured;*

*THAT staff be authorized to approve additional unspecified expenditures to a maximum of fifteen percent of the total design fees as a contingency allowance to architectsAlliance, if deemed necessary;*

*AND FURTHER THAT staff continue to provide updates to the Authority on the status of the project.*

## **DETAILS OF WORK TO BE DONE**

Consultant work programme for Phase 2 – Detailed Design to include the following:

- 1) Review and revision of the space programme with TRCA staff.
- 2) Preparation of preferred site plan for the Kortright campus as a whole, showing the location of existing and potential new buildings including the potential conference centre.
- 3) Preparation of detailed schematic designs for options #1, #2a and #2b as outlined earlier in the Phase 1 report.
- 4) Preparation of draft interpretive and exhibition programmes.
- 5) Preliminary costing of optional designs.
- 6) Workshop to review and evaluate schematic design options.
- 7) Selection and elaboration (i.e. with two and three-dimensional drawings and models) of a preferred schematic design.

Staff will provide a status report to the Authority on the completion of each phase of the project.

## **FINANCIAL DETAILS**

Funds for the consulting assignment are budgeted in The Living City Centre Project Budget, in account number 314-60.

**Report prepared by: Nick Saccone, extension 5301**  
**For information contact: Nick Saccone, extension 5301**  
**Date: January 23, 2004**

## **TERMINATION**

ON MOTION, the meeting terminated at 12:33 p.m., on Friday, February 6, 2004.

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Suzan Hall  
Vice Chair

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Brian Denney  
Secretary-Treasurer

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