

CITY OF HAMILTON

OFFICE OF THE CITY MANAGER

TO: Mayor and Members Committee of the Whole	WARD(S) AFFECTED: CITY WIDE
COMMITTEE DATE: August 31, 2010	
SUBJECT/REPORT NO: International Event Opportunities – 2015 Pan Am Games Update (CM09006(g)) (City Wide)	
SUBMITTED BY: Chris Murray City Manager	PREPARED BY: David Adames (905) 546-4132
SIGNATURE:	

RECOMMENDATION:

That Report CM09006(g) be received.

EXECUTIVE SUMMARY

The purpose of Report CM09006(g) is to provide a follow up to Report CM09006(f) and outline options for Council's consideration for a path forward on the Pan Am stadium and its location. On August 12, 2010, Council, having approved the West Harbour for the stadium location, directed staff to engage the Hamilton Tiger-Cats organization and meet with the Pan Am Host Corporation as well as provincial and federal representatives. In addition, the City was tasked, by Host Corporation through correspondence received on July 29, 2010 with developing a program plan for the stadium based around soccer, the stadium's intended use for the 2015 Pan Am Games. Since the previous report, CM09006(f), the Hamilton Tiger-Cats organization continues to indicate that it will not discuss a West Harbour stadium. In addition, the Host Corporation expects to receive a sustainable business plan for a stadium from the City that Host Corporation would deliberate with its Board of Directors before making a recommendation on funding to the provincial and federal governments. Although staff believes that there is tremendous upside for soccer in the new stadium, staff recognizes the community interest in having the Tiger-Cats as a key tenant and partner in the new

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facility and that the best solution for a stadium is to see it realize its full multi-use purpose. Based on discussions with the Host Corporation, it appears doubtful that Host Corporation staff would recommend to its Board of Directors to construct the Pan Am stadium with 15,000 permanent seats without the Hamilton Tiger-Cats agreeing to be a legacy tenant. Current business plan estimates set the net annual operating loss for a 15,000 seat Stadium between \$2.0 to \$2.3 million a year.

During the Committee of the Whole meeting of August 10, 2010, Council heard from a large number of delegations who provided well considered perspective on Hamilton's involvement in the Pan Am Games, insights on the stadium location question and general input to city-building concepts that Hamilton's participation in the Games offers. This latest input, along with previous public debate, Council direction, feedback from Host Corporation, provincial and federal representatives as well as from the Hamilton Tiger-Cats organization has led staff to the following conclusions:

1. Hamilton should remain involved in the 2015 Pan Am Games
2. Hamilton's investment in the Games, and the stadium in particular, must leverage broader community benefits
3. The Pan Am stadium was originally envisioned as a replacement for Ivor Wynne stadium and a new home for the Hamilton Tiger-Cats and as such, the Tiger-Cats organization needs to be part of the new stadium
4. Should the Pan Am stadium not be built at the West Harbour, that a re-development plan for the West Harbour needs to be moved forward in a timely fashion with community input

Putting a plan in place to address the four conclusions above could produce a "win-win-win" for Hamilton. The following direction could provide the framework for moving forward:

- The City Manager negotiate with the Hamilton Tiger-Cats organization on a new location for the stadium; and
- The City and the Hamilton Tiger-Cats work together and meet with the province, federal government and Host Corporation on a financial and logistics plan for the stadium

The following objectives, first presented to Council in April 2008 and repeated in subsequent reports, were provided to rationalize Hamilton's participation in the Pan Am Games:

- Constructing new facilities to enrich the capital infrastructure of the city

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- Leverage investment – attract private funding and senior levels of government funding in particular for a new CFL sized stadium, which the City could not afford to finance on its own
- Image and profile enhancement
- International ties
- Urban regeneration
- Tourism development
- Healthy lifestyles and sport development
- Economic and cultural impacts

The Pan Am Games Host Corporation has reiterated the importance of Hamilton's involvement in the Games. Hamilton is slated to host soccer, track cycling and court volleyball as well as a cultural festival. The City's investment in two new facilities, the stadium and velodrome, has been the cornerstone of Hamilton's involvement in the Games. The plans for the velodrome are moving forward as outlined in Report CM10015, and staff will be reporting to Council in the fall with more information. The stadium has always been envisioned as a multi-purpose facility to host sports at various levels including football, soccer, lacrosse, rugby and community events such as concerts.

For the Pan Am Games, the stadium would host soccer, potentially upwards of 30 matches. At the direction of both Council and the Host Corporation, staff has been creating a program plan around soccer. This work has included liaising with the Canadian Soccer Association and the Ontario Soccer Association. Results of this dialogue are further outlined in the Analysis section of this report. Additional work still needs to be completed, particularly with the local soccer clubs and associations.

The involvement of the Hamilton Tiger-Cats in the stadium is of great community interest. On August 9, 2010, the Hamilton Tiger-Cats organization sent correspondence to the City re-confirming its position that it does not support a West Harbour stadium, but also that it was walking away from further stadium discussions. Following the August 10, 2010 Committee of the Whole and the August 12, 2010 Council meeting, the Tiger-Cats position on the West Harbour has not changed. However, staff, Councillors and members of the community have engaged representatives of the Tiger-Cats to gauge interest in resuming discussions about the stadium and the results of those discussions are encouraging provided that those discussions include alternate sites.

Through Report CM09006(b), Council approved the following motion: "That should the West Harbour Plan fail, that the City explore other options as potential sites including

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the East Harbour Front among others”. Therefore, Council could still direct the City Manager or his designate to explore alternate locations with the full participation of the Tiger-Cats, and report back to Council in September. Staff is confident that Host Corporation will, should all partners indicate support for this direction, extend the August 31, 2010 deadline on the stadium location. Staff believes that this extension, if granted, would be the last opportunity to identify a stadium location that meets the objectives of both the City and the Tiger-Cats organization.

Regardless of the location decision, there remains a funding gap to build an enhanced stadium beyond what was included in the Pan Am Bid Book, that stadium being a modestly appointed 15,000 seat stadium. Already-committed public funding from the City, the Province and Federal Government will fund the original stadium concept. A larger stadium (25,000 to 30,000 seats) with enhanced amenities will require additional funding that has not yet been secured.

FINANCIAL / STAFFING / LEGAL IMPLICATIONS
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Financial:

Current Situation: Capital costs

Through Report CM09006, the City committed \$60 million net toward Hamilton’s participation in the Pan Am Games. The funding source is the Hamilton Future Fund. The \$60 million is to be divided between the capital costs for the stadium (\$45 million) and velodrome (\$5 million) plus \$10 million for land acquisition. The Host Corporation will provide a portion, 56% of capital funding for a Pan Am quality 15,000 seat stadium that was costed originally at \$102 million (in 2008 dollars). Those funds would come from senior levels of government. To date, the City has spent approximately \$8.3 million acquiring land in the West Harbour.

In preparation of Report CM09006(f), the Host Corporation updated its costing based on the two stadium sites that were being assessed: the West Harbour and the East Mountain sites. The Pan Am quality stadium construction costs (i.e. excluding land acquisition and remediation) was priced at \$116 million for the West Harbour site and \$110 million for the East Mountain site. The additional costs and cost differences were driven mostly from site conditions and their effect on foundation costs. No funding sources have yet to be secured to build the larger (25,000 plus seats) and Canadian Football League quality stadium.

Current situation: Operating costs

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Today, the City's net operating costs for Ivor Wynne stadium are approximately \$1.25 million a year. Through Report CM09006(b) and further updated in Report CM09006(f), net operating costs for a 25,000 seat plus new Pan Am stadium would range from as low as \$255,000 with a CFL team using the stadium to as high as \$1.3 million without a CFL team using the stadium (assuming an annual \$250,000 contribution from the Pan Am Legacy fund).

The annual net operating costs for a 15,000 seat stadium, without a CFL team using the stadium would range from approximately \$2.0 million with a professional soccer team to \$2.3 million without a soccer team. These figures would be reduced by a contribution from the Pan Am Legacy fund which may be \$250,000 a year or less.

All operating costs for the Games are to be covered through the Host Corporation operating budget.

Legal:

N/A

HISTORICAL BACKGROUND

Chronology of Pan Am Games Reports and Milestones

August 12, 2010: Council approved Report CM09006(f).

July 6, 2010: Council approved Report CM09006(e) approving the Facilitators Report and authorizing evaluation of the East Mountain site.

June 7, 2010: Council approved Report CM09006(d) approving the terms of reference for the facilitation process.

May 19, 2010: Council approved motion appointing Michael Fenn as Facilitator.

February 24, 2010: Council approved Reports CM09006(b) and CM09006(c) "International Event Opportunities – 2015 Pan Am Games Update".

January 11, 2010: Council received Report CM09006(a) "International Event Opportunities – 2015 Pan Am Games Update".

November 6, 2009: Pan American Sports Organization awarded the 2015 Pan Am/Parapan Am Games to Canada.

September 14, 2009: Staff provided City Council with an Information Update to report on activities during the bid phase, as communication follow up to Report CM09006 "International Event Opportunities – 2015 Pan Am Games Bid Update".

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February 25, 2009: Through Report CM09006 “International Event Opportunities – 2015 Pan Am Games Bid Update” City Council approved Hamilton’s participation in the bid and Games.

January 12, 2009: Through Report PED08091(b), City Council approved Hamilton’s list of sport venues and sites to be investigated to locate the stadium and velodrome as part of the bid process.

November 12, 2008: Through Report PED08091(a), City Council approved the establishment of a Community Advisory Committee and staff secondments to work on the bid.

May 5, 2008: Staff provided City Council with an Information Update to report on activities related to Report PED08091 “International Event Opportunities”.

April 7, 2008: Through Report PED08091 “International Event Opportunities”, City Council authorized staff to participate in the Pan Am Games bid process.

POLICY IMPLICATIONS

The City’s participation in the 2015 Pan Am Games relate to the:

- City’s 2010 Corporate Priority Plan and the City’s Strategic Plan;
- Hamilton Future Fund Mission and Guiding Principles

RELEVANT CONSULTATION

Corporate Services Department – Clerks Division, Treasurer, Financial Planning & Policy Division, General Manager’s Office
Hamilton Tiger-Cats
2015 Pan Am Games Host Corporation
Province of Ontario
Planning and Economic Development Department

Clerk’s Division:

Clerks has confirmed that on February 24, 2010, Council approved Committee of the Whole Report 10-008 that contained Item 1, subsection (a) approving the West Harbour site as the location for the stadium, warm-up track and velodrome, and also subsection (m) that allows for an alternate site "should the West Harbour Plan fail".

The receipt of staff report CM09006(f) by Committee of the Whole and Council on August 10th and 12th, 2010 did not change the February 24th, 2010 decision of Council with respect to a location of the stadium at the West Harbour precinct. The City Clerk’s

advice is that Council can still select an alternate site, without the requirement for a reconsideration vote, by deeming the West Harbour Plan approved February 24th as having failed. The City Clerk can provide further procedural advice, as required, once this report is presented to Committee and Council on August 31st

ANALYSIS / RATIONALE FOR RECOMMENDATION

Current Situation

Through Report CM09006(b) and Report CM09006(f) Council made a decision on the location for the Pan Am stadium, the West Harbour. By receiving Report CM09006(g), the West Harbour would remain as the site for the Pan Am stadium. However, the Hamilton Tiger-Cats have indicated that the organization will not play at the West Harbour location. Further, the Host Corporation is expecting a sustainable business plan for the new facility. Based on the predicted/estimated operating losses, from a financial perspective, a 15,000 seat Stadium is not financially viable. Without the Tiger-Cats as a tenant and partner, the justification for a 15,000 seat stadium or larger, is difficult to make.

Host Corporation

The Host Corporation is expecting a response from the City on August 31. The Host Corporation will brief its Board on the progress of the stadium discussions and associated plans. Eventually, the Host Corporation Board of Directors will make a recommendation on funding for the stadium that will then be sent to the provincial and federal governments for consideration and approval. Following the August 10, 2010 Committee of the Whole, the Host Corporation sent staff correspondence, attached to Report CM09006(g) as Appendix "A". The correspondence outlined both Pan Am Venue Principles and Go Forward Guidelines and staff offers the following comments on the Principles and Guidelines:

Principles:

For the sustainable legacy after the Games, the February 2010 Deloitte business plan for the stadium outlined multiple uses for the stadium including:

- 10 Hamilton Tiger-Cats games
- 15 soccer events/matches
- 2 concerts (conservative projection)
- 525 hours of community use (community access agreements would be put in place)

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Since August 12, 2010, staff has had discussions with both the national and provincial sport organizations for soccer regarding possible high performance sport development use of the new stadium. Attached to Report CM09006(g) as Appendix “B” is correspondence from the Ontario Soccer Association (OSA). The OSA is investigating establishing a series of regional training centres for player development, requiring upwards of 26 hours of training and six hours of game time each month for 10-11 months annually. The OSA believes that the new stadium would make an appropriate location for a regional training centre. The Canadian Soccer Association (CSA) is assessing bidding opportunities for international events, including the 2015 Women’s World Cup. As part of the tournament, multiple venues would be required to host the event, and the new Hamilton stadium could be one of those venues. The CSA also identified the need for affordable alternative stadia for hosting international soccer matches and indicated that the Hamilton region is a viable market for professional soccer in either the United Soccer League (USL) or North American Soccer League (NASL).

Staff met twice with Host Corporation, on August 12 and 19 to discuss the Principles and Guidelines. Host Corporation indicated that should a sustainable plan not be developed for a 15,000 seat stadium on the West Harbour, that Host Corporation would be open to working with Hamilton on a “scaleable” stadium. Under this scenario, a large stadium would be designed, including foundation and servicing, but that a smaller stadium, perhaps with 5,000 permanent, and 5-10,000 temporary seats would be constructed for the Pan Am Games. Host Corporation indicated that for Games purposes, a stadium comprising 15,000 permanent seats was not required. With the larger stadium design in hand, and the foundation and services built, a larger stadium (25,000 plus seats) could be built in stages at a future date(s). With limited time to contemplate this scenario, staff finds it difficult to recommend to Council an investment in a scaleable stadium. Hamilton already has a stadium, McMaster University’s Ron V. Joyce stadium, with 5,500 permanent seats that can be scaled to 12,000 with temporary seats.

Go Forward Guidelines:

Host Corporation made it clear that the Go Forward Plan must be based on facts as they exist currently. With the Tiger-Cats organization indicating no interest in a West Harbour stadium and no signed agreements for a soccer franchise, there is no committed main stadium tenant at the time of writing this report. Therefore the justification to fund a 15,000 seat stadium, never mind a larger stadium, and provide for on-going operating costs of a new stadium is difficult. This scenario provides the rationale for staff suggesting to Council that more work be undertaken to re-visit an alternative stadium location that would secure the participation of the Tiger-Cats organization. With the facts as they currently exist, it is likely that Host Corporation would recommend a scaleable stadium for Hamilton.

Cultural Festival:

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Host Corporation has indicated that its vision is to have public gathering spaces in both Toronto and Hamilton during the Games. The intention is to have a celebration of Pan Am culture – music, art, and food. Host Corporation is looking to the City to identify local leadership to help with the program plan for Hamilton.

West Harbour

The site has long been identified for renewal. It is a brownfield site with environmental issues. The City has a policy priority of cleaning up and re-purposing brownfield sites to improve the environment in Hamilton while providing better investment prospects. Without a public investment, it is unknown at this time whether the private sector would develop the site on its own. Should the stadium not be constructed there, staff will bring forward a plan for Council's consideration that will provide options for an appropriate land use for the land that the City has already acquired. While there have been no concrete private investment plans come forward to date for the West Harbour, a number of investors has expressed interest and staff believes that a viable plan can be prepared for the West Harbour.

Through Report CM09006(f), staff requested DCS Limited, the company undertaking the environmental testing on the West Harbour as approved through Report CM09006(b) and (c) to comment on options for development for the West Harbour site should Council decide to locate the stadium there. The full set of comments is outlined in Appendix "C" to Report CM09006(g).

The public good of constructing a new stadium:

The stadium has long been envisioned to be a multi-purpose stadium, to be the new home for the Hamilton Tiger-Cats, to house a new soccer franchise, host local amateur sport events, the Grey Cup, concerts, Canadian Football Hall of Fame, and public gatherings as well as provincial, national and international events. It is intended to be a point of pride, a new community asset and legacy to Hamilton's part in the 2015 Pan Am Games, similar to the legacy of Ivor Wynne stadium and Jimmy Thompson pool that were built for the 1930 British Empire Games. Wherever the stadium is constructed, there will be community access agreements put in place to ensure good access for amateur sport and recreation purposes. Planned and developed right, the stadium could leverage private investment to augment public investment and mitigate potential long-term public subsidy.

Time Implications:

The stadium needs to be constructed and operational in the summer of 2014 in order to host test events in advance of the 2015 Pan Am Games. Construction itself will take approximately two years, with a one year design phase. Therefore, staff needs to work through the Host Corporation and Infrastructure Ontario to ensure that special consideration be given to the stadium project to comply with timelines. However, given Hamilton's experience with large-scale capital projects and the fact that at the time of

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this report there is a four year time horizon, there is adequate time to undertake a stadium project. Given the present net operating costs of Ivor Wynne Stadium and the current losses indicated by the Hamilton Tiger Cats football Club, if a new CFL-sized Stadium were to be built in Hamilton, it would be in everyone's interest to have the new facility constructed and operating by the 2013 season.

ALTERNATIVES FOR CONSIDERATION:

Alternative A: Council authorizes the City Manager or his designate to investigate alternate sites for the Pan Am stadium that meets the needs of the Hamilton Tiger-Cats organization and the City's objectives and staff recommends:

- (a) That the City Manager or his designate be authorized to negotiate with the Hamilton Tiger-Cats organization on a stadium proposal and report back to City Council in September 2010;
- (b) That Council authorize staff to prepare a new plan for the West Harbour and that a community liaison committee be created for this initiative and that staff report back in January 2011 with an action plan for the consideration of the new Council that would aim to produce benefits for the West Harbour that are at least as significant and sustainable as a stadium.

Risks associated with this alternative option include the time extension required to be given by the Host Corporation and the Tiger-Cats organization willingness to work with the City on identifying an alternate site that would work for its business model. At the time of this report, a business or development plan had yet to be produced by the Tiger-Cats and provided to the City.

Alternative B: Council, through Report CM09006(d) approved the West Harbour precinct for the stadium and velodrome. Should Council continue with the West Harbour precinct, staff recommends:

- (a) That the City Manager or his designate be authorized to negotiate an acceptable agreement with the Hamilton Tiger-Cats under which the team would play at the stadium, and/or to prepare a proposal that outlines the terms and options that the City would be prepared to offer to the Tiger-Cats to become a tenant or an operator of the stadium, and report back to Council; and
- (b) That should the Tiger-Cats organization not wish to enter into an agreement to use a West Harbour stadium, that the City Manager or his designate be authorized to seek a professional soccer franchise to use the new stadium

- (c) That, in keeping with a sustainable post-Pan Am Games use, staff negotiate with the Host Corporation for as large a stadium, as possible
- (d) That staff create a development plan that leverages the stadium development for further precinct development and report back to Council.

Risks associated with the West Harbour include the position of the Hamilton Tiger-Cats and whether the team will play at the new stadium. The City could build a scaleable stadium to participate in the Pan Am Games and work to secure other tenants such as a soccer team. The stadium could be designed with a future expansion in mind to ensure a more cost effective expansion. The Host Corporation has discussed the concept of a scaleable stadium with the City.

Alternative C: Council could decide not to construct a new stadium and instead re-visit the plan to renovate Ivor Wynne stadium. The Hamilton Tiger-Cats and Council have previously turned down the option of renovating Ivor Wynne stadium.

Risks associated with this plan include the longevity of the Tiger-Cats organization in Hamilton and how long the stadium would be structurally sound even with renovations due to the overall age of the structure of Ivor Wynne stadium.

Alternative D: Council could decide to not build a new stadium, and invest additional capital funds towards the velodrome project.

CORPORATE STRATEGIC PLAN

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

Skilled, Innovative & Respectful Organization

- ◆ More innovation, greater teamwork, better client focus

Financial Sustainability

- ◆ Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner

Intergovernmental Relationships

- ◆ Influence federal and provincial policy development to benefit Hamilton
- ◆ Acquire greater share of Provincial and Federal grants (including those that meet specific needs)
- ◆ Maintain effective relationships with other public agencies

Growing Our Economy

- ◆ A visitor and convention destination

Healthy Community

- ◆ An engaged Citizenry

APPENDICES / SCHEDULES

Appendices:

- A Host Corporation Pan Am Venue Principles
- B Correspondence from the Ontario Soccer Association
- C Decommissioning Services Brief

DA:mh/ct
(Attachments)

Hamilton West Harbor

A. Pan Am Venue Principles

1. Venue must be used for 2015 Pan Am Games – Soccer
2. Facility must be ready on time and on budget
3. Facility must comply with FIFA International Federation specifications
4. Facility design must support execution at Games time
5. Facility must provide a sustainable legacy after the Games;
 1. To support community access and involvement
 2. To support high performance sport development
 3. Must provide a business plan that provides a sustainable business case capable of supporting 1. & 2.

B. Go Forward Guidelines

1. The Go Forward Plan must be based on the facts as they currently exist.
2. Time is of the essence. Extensions have been exhausted.
3. The Facility end use must be established first – with a supportable business plan. Legacy and supporting business plans are scalable.
4. Based on 2. above , define the seating and scope/scale for the end use.
5. Consistent with 2. and 3. above, determine how best to deliver the Games content including the correct seating capacity for the content.
6. Hostco will not consider a stadium in excess of 15,000 seats nor of a greater quality than the Pan Am standard.
7. Stadium design flexibility to allow expansion capability for post-Games use in the event that the City secures future tenant.
8. Velodrome business case and costing support is totally independent and separate from stadium
9. Zoning/OMB issue(s) cannot impact “ready to build” land delivery schedule.
10. Other Risk Factors.



August 16, 2010

Trish Chant-Sehl
Acting Manager -Hamilton Pan AM Initiatives
Tourism Hamilton
34 James Street South
Hamilton, Ontario
L8P 2X8

Dear Trish,

This is to acknowledge that the Ontario Soccer Association is currently reviewing our delivery system regarding player development. The current operation is centralized from our home base however the review is considering various options including a de-centralized regional approach. This would mean that we could have as many as 6 or 7 regional centres throughout Ontario with a minimum of 4 teams each.

Each regional centre would have a compliment of some 110 players, coaches and other support personnel. The centres would operate on a 10-11 month basis with each new cycle beginning in the Fall of each year. We are still reviewing the operational aspects of such a program however it is envisaged that each team would train a minimum of four times per week with one training game. This would entail a minimum of 26 hours of training and 6 hours of game time at each centre.

Further to our discussion, the proposed Pan Am facility would be deemed to be an appropriate location for a regional training centre. I look forward to continuing our discussions regarding this project.

Yours truly,

Guy Bradbury

Chief Executive Officer

Cc: Randy Ragan – Chief Technical Officer (Soccer Operations)

SUMMARY OF WEST HARBOUR SITE DEVELOPMENT OPTIONS

The proposed development, as originally planned, included construction of a 20,000 seat multi-purpose stadium that is intended to replace Ivor Wynne Stadium, a velodrome, an outdoor warmup running track and associated greenspace, all to be located on a 9.5 ha site bounded by Barton Street West, Bay Street North, Stuart Street and Victoria Street North in Hamilton. The land proposed for the Pan Am Games venue, and now being assembled by the City through purchase or expropriation, is known as the West Harbour Site and comprises five moderately to large sized industrial properties, three of which have been vacated, several small commercial sites including a service station, some 45 residential properties, the majority of which are single family dwellings and three vacant lots. The industrial properties and the service station site have all been determined, as was expected, to exhibit varying degrees of soil and groundwater contamination associated with their past use and with industrial activity on other properties in the general vicinity of the site. Some degree of soil and/or groundwater contamination will also be expected to be encountered on all of the commercial sites and, to a lesser degree, on at least some of the residential properties.

A municipal master plan evaluation for redevelopment of the Hamilton West Harbour Planning Area had previously identified this area for high density private sector residential developments. Site preparation of the lands for construction for this purpose would thus have required full depth, boundary to boundary soil and groundwater cleanup meet MOE Table 3 residential site condition standards (SCS) from *Soil, Ground Water and Sediment Standards for Use Under Section XV.1 of the Environmental Protection Act*, (MOE 2004, as amended under O.Reg. 511/09) to meet generally accepted requirements imposed by most commercial lenders due to concerns relating to the value of the land as security against default. Based on initial estimates of approximately 220,000 m³ of soil exceeding the applicable SCS, full scale cleanup costs for the site were estimated to be of the order of \$37,000,000, including \$31,000,000 for soil and groundwater cleanup and \$5,000,000 for shoring, in addition to investigation, assessment, engineering design, implementation management, testing and reporting services.

The advent of the Pan Am Games, ushering in a change from a market residential development by the private sector to community recreational use by a public body for the City, has provided the opportunity to consider other significantly less costly alternatives to full scale cleanup based on the use of risk assessment. Risk assessment permits contaminants in soil and groundwater to be left safely in place at concentrations that exceed the applicable generic SCS through the application of risk management measures to reduce exposure by site users. Although risk assessment permits safe use of the site, it does not result in the removal or treatment of contaminants and thus the environmental liabilities associated with the affected soil and groundwater remain. Thus while the utility of the site for its intended use is unimpaired and the cost of site preparation is minimized, the value of the land remains unimproved. Based on the findings of a preliminary screening level risk assessment conducted using information on site conditions available at the commencement of the site evaluation program, the costs of

implementing the risk management measures that would permit safe use of the site as a sports stadium, greenspace area and velodrome will be of the order of \$3,500,000 the majority of which covers the placement of a clean soil/composite protective cap to be carried out as part of the stadium construction. The principal cost saving that arises from the adoption of a risk assessment-based approach is the avoided cost of soil disposal. Little reduction in the overall cost of site preparation, therefore, would accrue if construction of the facility requires the removal of large volumes of contaminated soil.

Since the commencement of the West Harbour Site assessment program, a proposal has been made to relocate the stadium to an alternate site that better suits the interests of the Hamilton Tiger-Cats football team organization. The site suggested for the Stadium, known as the East Mountain Site, is situated on City-owned greenfields lands located at the junction of the Red Hill Valley Parkway and the Lincoln M. Alexander Parkway. The East Mountain proposal specifically excludes the velodrome which would thus either be left at the West Harbour site or relocated elsewhere in Hamilton. If the Stadium, and possibly the velodrome, were to be relocated, the City would have to find some alternative use for the land currently designated for the Pan Am Games track and field facilities in order to realize on its acquisition.

Although in theory any land use can be considered for the site if the owner or developer and the financial institution underwriting the development is prepared to accept the concept of risk assessment and the retention of soil or groundwater contamination at concentrations that exceed applicable generic SCS established by the MOE, in practice, unfortunately, this is not yet the case. Virtually all privately, as opposed to publically, financed residential developments and the vast majority of private commercial developments only proceed when a contaminated property has been, or is to be, cleaned up as part of site preparation by the vendor before sale of the property. A full site cleanup will result, therefore, in either:

- a reduction in the return realized by the vendor, in this case the City, during the transaction or
- an increase in the sale price or lease cost for the final product if the market can accommodate the environmental premium in the cost.

A second approach to site development revolves around soil management and the actual landuse to which all of the lands that make up the entire assembly will ultimately be put. In this soil management approach, the overall site is divided into separate:

- private development blocks for, say market residential purposes and
- public blocks that will be used for parkland, roadway, community/recreation centre and/or school construction purposes.

Any soil that underlies the market development parcels and that exceeds the applicable Generic SCS can then be excavated from the private lands and placed beneath the future public lands (subject to the provisions of a risk assessment with the acquiescence of the City and if an

increase in grade across the assembly can be accommodated) at a fraction of the cost of full scale cleanup. This approach can be undertaken with the full concurrence of the Ministry of the Environment and can result in the provision of an acknowledged RSC for the property.

Assuming a decision was to be made not to locate the new stadium at the West Harbour site, using this soils management approach would allow a wide range of landuses to be accommodated, as summarized below.

- A. The most cost effective approach to site development will involve site preparation without the need to excavate soil for remedial or construction purposes, thus avoiding the need for shoring, significant soil or groundwater handling and treatment or offsite disposal. Examples include:
- i) installation of a park across the entire assembled property using a combination of clean fill cover and a composite geomembrane/fill cap to reduce exposure opportunities by receptors to chemical contaminants site. Based on data obtained to date, the majority of the site is underlain by low grade inorganic and petroleum hydrocarbon-based contaminants that pose little exposure risk at the concentrations encountered and that can be safely left in place under a 500 mm to 1.0 m thick clean fill cap. A small portion of the site encountered at the south end of the City-owned Rheem site at 285 Barton St. W. has been affected by coal tar wastes from a former coal gasification plant situated to the south and east of the site and a former roofing materials manufacturing concern situated to the south. Construction of supplementary measures including a composite clean soil and geomembrane or asphalt or concrete cap and possibly a vent stack system to exhaust vapours generated from within the coal tar contaminated zone underlying the south end of the Rheem site should provide all of the necessary protection required. The surface of the site could be raised by using it for the disposition of construction fill from other projects owned by the City;
 - ii) construction of the velodrome already proposed for the site and/or similar single or multi-storey slab-on grade recreational, sports, community or public agency buildings constructed at or above a median graded surface, using a combination of clean fill cover and a composite geomembrane/fill cap in exposed areas of the site, as per option A.i) and clean fill and the building floorslab as the protective cover and possibly a vent stack system to exhaust vapours generated from within the above referenced coal tar contaminated zone should provide all of the necessary protection required. Soil removed for caissons installation or excavated for grade beams and municipal and private utilities would be spread across the subgrade surface of the property before placement of the cover and overlying floor slabs. The surface of the site could be raised by using it for the disposition of construction fill from other projects owned by the City;

- iii) construction of lowrise townhouses or commercial development space on a single basement structure founded at or above a median graded surface, using clean fill and the building floorslab as the protective cover and possibly a vent stack system to exhaust vapours generated from within the above referenced coal tar contaminated zone should provide all of the necessary protection required. The access to the development and ornamental gardens at ground surface would be on a podium deck fronting onto Barton St. W. while garage access would be provided from the north off Stuart Street. At this time, it is considered that such a development would either have to comprise public housing, owned by a municipal or provincial agency or coop or market housing constructed on city-owned land under a long term lease. The surface of the site could be raised by using it for the disposition of construction fill from other projects owned by the City.
- B. The next most cost effective approach to site development will involve site preparation for buildings that include below grade parking levels or basement space for other purposes, thus requiring soil excavation into underlying contaminated fill zones, soil handling and management and shoring for construction purposes, with building blocks separated by parkland that would be raised to match Barton St. W. using development block derived excavated soil. The amount of subgrade parking associated with the development would be sized to permit a cut and fill balance to be achieved. Extensive soil handling activities would be conducted however, since onsite management is contemplated, no significant offsite waste soil disposal activity would be involved. Examples include:
- i) construction of market residential or commercial high rise towers on multi level parking garages separated by open space to be used for parkland. Selection of the tower sites would be informed by the distribution of contamination across the site, leaving deeper zones of contamination such as that encountered under the south end of the former Rheem property beneath parkland zones. All fill underlying the development blocks that exceeds the applicable Table 3 SCS, and any additional fill required to reach design depth in the excavation, would be removed and placed across the parkland space, which will remain under City ownership, up to a subgrade elevation established by the thickness of the clean fill cover selected. A composite protective cover and possibly a vent stack system to exhaust vapours generated from within the above referenced coal tar contaminated zone may be required in addition to the general fill and clean soil cover to be placed across the parkland. Such a development could comprise market housing sold in fee simple;
 - ii) construction of market residential or commercial high rise towers on multi level parking garages separated by open space to be used for parkland as per option

B.i), but requiring the excavation of soil for construction purposes only, as opposed to the removal of all fill exceeding applicable SCS. Selection of the tower sites would also be informed by the distribution of contamination across the site, leaving deeper zones of contamination such as that encountered under the south end of the former Rheem property beneath parkland zones. All fill underlying the development blocks would be removed down to design depth in the excavation, and placed across the parkland space, which will remain under City ownership, up to a subgrade elevation established by the thickness of the clean fill cover selected. A composite protective cover and possibly a vent stack system to exhaust vapours generated from within the above referenced coal tar contaminated zone may be required in addition to the general fill and clean soil cover to be placed across the parkland. The land would be leased on a long term basis to the user and owner of the building.

- C. The least cost effective approach will involve the application of conventional site preparation procedures involving the offsite disposal of any excess soil that exceeds the capacity of such parkland space as may be included in the development.

The decision to relocate the municipally-owned stadium, which can be safely and cost effectively constructed on a brownfield such as the West Harbour area without the need for a comprehensive cleanup, to a greenfield site that would be best reserved for a development that is sensitive to the presence of soil or groundwater contamination at concentrations that exceed applicable generic SCS, whether from a landuse or an economic point of view, is inconsistent with the concept of environmental sustainability.