



**STAFF REPORT
ACTION REQUIRED**

Queens Quay Revitalization Environmental Assessment Study

Date:	May 14, 2009
To:	Executive Committee
From:	Richard Butts, Deputy City Manager
Wards:	Ward 20 – Trinity Spadina and Ward 28 – Toronto Centre-Rosedale
Reference Number:	P:\\2009\\Cluster B\\wf\\ec09002

SUMMARY

The decision to proceed with the Queens Quay Revitalization Environmental Assessment (EA) followed a well-received international design competition in February 2006 which produced, as part of the winning design, a dramatic re-imagining of Queens Quay as Toronto’s signature waterfront street. That summer, Waterfront Toronto (WT) modelled the winning design over a 10 day period, attracting a high level of public interest and support.

In September 2007, WT and the City of Toronto initiated the Queens Quay Revitalization Environmental Assessment (EA). The EA study area is Queens Quay between Bathurst Street and Yonge Street. A companion EA, the East Bayfront Transit EA, has provided the opportunity to integrate the surface design investigation of Queens Quay between Yonge Street and Parliament Street. A separate report on the Transit EA, forwarded by the Toronto Transit Commission (TTC), appears on this agenda.

The evaluation of a reasonable range of alternative solutions, which included extensive consultation with the public and review agencies, resulted in a Recommended Design which rebalances transportation functions on Queens Quay and greatly enhances the public realm. The Recommended Design involves the conversion of the two travel lanes north of the existing TTC median to a single lane in each direction. This frees up the two south lanes and sidewalk for the extension of the Martin Goodman Trail (MGT) through this corridor and an extensive pedestrian promenade. The TTC median remains in its current location.

An Executive Summary of the Environmental Study Report (ESR) appears in Appendix 1. The ESR itself is currently being completed by WT and will be submitted to the City for review. Once staff has completed its review, in accordance with the contents of this staff report and recommendations, a Notice of Study Completion will be issued by WT. The ESR is filed in the public record for a 30-day review period in accordance with the requirements of the Municipal Class Environmental Assessment.

RECOMMENDATIONS

It is recommended that:

1. Authority be granted to Waterfront Toronto to issue a Notice of Completion following completion of the Environmental Study Report to the satisfaction of the General Manager, Transportation Services, substantially in the form outlined in this report, and to file the ESR for the Queens Quay Revitalization Environmental Assessment Study in the public record for 30 days in accordance with the requirements of the Municipal Class Environmental Assessment;
2. The General Manager, Transportation Services and Waterfront Toronto, in consultation with the relevant City divisions, study the opportunity to provide a new north-south road connection linking Queens Quay West to Lake Shore Boulevard opposite the Fire/EMS driveway, west of Rees Street, and if feasible, to bring forward the necessary report(s) to Council for consideration;
3. The General Manager, Transportation Services, the Director, Waterfront Secretariat and Waterfront Toronto, in consultation with the relevant City divisions, local Councillors and impacted stakeholders, continue to refine the Preliminary Curb Management Plan appearing in Appendix 6, together with the development of a waterfront bus management strategy consistent with the timing of detailed design and the reconstruction of Queens Quay;
4. The appropriate City officials be authorized and directed to take the necessary action to give effect thereto.

Financial Impact

Costs associated with the implementation of the Queens Quay Revitalization EA will be the responsibility of Waterfront Toronto. The Five Year Business Plan/Ten Year Forecast (2008-2017) for Waterfront Revitalization, approved by City Council in October 2008, allocates \$192.562M to the implementation of the Central Waterfront Public Realm over the next ten years, including costs for the completion of Queens Quay between Lower Spadina Avenue and Parliament Street. Of this amount, \$40.733M is to be funded by the City from the Council-approved Waterfront capital account, and has been included in the "Sports Fields, Facilities, and Parks Development" sub-project of the 2009 Capital Program for Waterfront Revitalization approved by Council in December 2008.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

ISSUE BACKGROUND

In April 2003, Toronto City Council adopted the Central Waterfront Secondary Plan. At its essence, the Plan speaks to four core principles to guide revitalization. The four core principles are:

1. Removing barriers, making connections;
2. Building a network of spectacular waterfront parks and public spaces;
3. Promoting a clean and green environment; and
4. Creating dynamic new communities.

The revitalization of Queens Quay is one of the primary ambitions of the Secondary Plan as is the Plan's priority to promote sustainable modes of transportation (transit, cycling walking and water transport). These core principles form the foundation of the Queens Quay Revitalization EA.

In May 2006, WT launched the Central Waterfront International Design Competition, a competition which attracted submissions from around the world. Two "big moves" characterized the winning design. The first "big move" was to transform the water's edge through a series of pedestrian bridges, widened pedestrian platforms at the heads (north end) of slips and generous promenade, all conceived to improve the connectivity of the Central Waterfront from one end to the other. The second "big move" was a dramatic plan for the repositioning of Queens Quay as Toronto's signature waterfront street. The revitalized Queens Quay was envisioned as a street accommodating the full range of transportation uses (cycling, transit, motor vehicles and walking) set amidst a beautiful transformed pedestrian street.

Acting on a key recommendation of the competition jury, WT undertook a pilot project modelling the elements of the future design for a 10 day period in August 2006. In addition to allowing the public the opportunity to immediately experience the impact of the rebalancing of transportation functions on Queens Quay, the project provided valuable qualitative and quantitative data. Of the nearly 1,000 responses received to public opinion surveys, 70% expressed support for the concept. Those who did not support the concept were mostly concerned with access to properties on the south side of Queens Quay given the elimination of the eastbound lanes and the impact on local businesses including traffic flow, parking opportunities and customer access to area businesses. The resolution of these issues was incorporated into the EA work program.

As traffic volumes on Queens Quay West are generally higher on the four lane section between York and Yonge Streets than on the two lane section west of Spadina Avenue, WT and the City recognized that the reduction in traffic capacity in the central section could have operational impacts. Accordingly, a traffic feasibility study was undertaken in May 2007 prior to proceeding with the EA. Analysis of network-wide and key route statistics suggested minor changes to average travel time and speed would occur as a result of reducing the roadway capacity on Queens Quay from four to two lanes. On this basis, the EA was initiated.

Concurrent with this EA is the East Bayfront Transit EA which looks at the extension of transit from Union Station east along Queens Quay East to Parliament Street in East Bayfront. In addition to examining the preferred underground alignment from Union Station to surface along Queens Quay East, the EA makes recommendations on the surface treatment for Queens Quay East. To ensure a consistent design treatment for Queens Quay, the two EA's have been closely linked throughout both processes.

COMMENTS

Study Process

The Queens Quay Revitalization Class EA has been completed according to the requirements for a Schedule 'C' project under the Municipal Class Environmental Assessment (the Class EA). As a requirement of Schedule 'C' projects, if City Council endorses the recommendations of this Study, the ESR will be filed in the public record for a minimum 30 day review period. During this period, members of the public, and any other interested individual, interest group, or government agency, may request that a Part II Order be issued. A Part II Order, if granted by the Minister of Environment, elevates the status of the project from a Class EA Study to an Individual Environmental Assessment. If this occurs, the project cannot proceed until the proponent completes an Individual Environmental Assessment Study and receives approval from the Minister. If a Part II Order is not granted or if no requests or objections are received during the filing period, the project is approved under the Environmental Assessment Act and may proceed.

The first three phases of the five-phase environmental planning process set out by the Class EA are as follows:

Phase 1 – identification of the problem or opportunity;

Phase 2 – identification and evaluation of alternative solutions; and

Phase 3 – identification and evaluation of alternative design concepts for the preferred solution.

The preparation of the ESR and the filing of the document in the public record constitute Phase 4 of the environmental planning process. Phase 5 is the construction and operation or implementation of the project, and monitoring of impacts, in accordance with the terms of the EA approval. The Queens Quay Revitalization Class EA Study is currently at Phase 4 of the process.

The Class EA Study was carried out with the assistance of technical consultants and supported by a Technical Advisory Committee comprised of staff from a wide variety of City divisions and agencies including Transportation Services, City Planning, Fire, Emergency Services, the Marine Police Unit, TTC, Tourism and the Waterfront Secretariat.

Recognizing the need to integrate both design and transit considerations within and between the two studies, WT, City and TTC staff formed a study team to steer both EA's and to ensure an appropriate balance and delivery of the design aspirations and transit priority considerations for Queens Quay as expressed in the City's Central Waterfront Secondary Plan.

Public Consultation

Public involvement is an integral and ongoing part of the EA study process. Given the extensive scope and significance of the Queens Quay Revitalization EA, WT conducted a highly collaborative and intensive process of obtaining public input through all stages, meeting or exceeding the public consultation requirements of the Class EA. These included stakeholder and public meetings at each phase of the process augmented by newsletters, press coverage and the creation of a project website. In addition, over 50 meetings were held with local property owners, condominium and resident associations, the Queens Quay Harbourfront Business Improvement Area (BIA) and individual businesses and other stakeholders.

Public consultation efforts are summarized in the Public Consultation Summary Report produced by WT. This may be obtained on WT's website at www.waterfrontoronto.ca. A discussion of the main issues raised and proposed mitigating measures is also provided later in this report.

Environmental Assessment Findings

(1) Identification of the Problem or Opportunity

The Study Area for infrastructure modifications on Queens Quay West extends from Bathurst Street to Yonge Street. A larger Context Area was also used to identify broader network implications of any proposed changes on Queens Quay. These areas are illustrated in Figure E - 1 of the Executive Summary of the ESR (Appendix 1).

Queens Quay West generally consists of two traffic lanes plus bike lanes between Bathurst Street and Lower Spadina Avenue and four traffic lanes between Lower Spadina Avenue and Yonge Street. The TTC operates streetcars in an exclusive right-of-way in the centre of Queens Quay West between Bathurst Street and Bay Street. Parking is prohibited at all times throughout the corridor. Typical weekday peak hour mid-block traffic volumes are shown in Table No. 1.

Table No. 1 Queens Quay Weekday Typical Mid-Block Peak Hour Traffic Volumes (vehicles/hour)				
Road Section	Eastbound		Westbound	
	AM Peak	PM Peak	AM Peak	PM Peak
Bathurst St – Spadina Ave	550	400	300	500
Spadina Ave – York St	575	500	300	550
York St – Bay St	575	700	550	700
Bay St – Yonge St	550	700	625	675

Although potential design modifications were developed for Queens Quay West as part of the design competition in 2006, the first stage of a Class EA Study is to establish the conditions that warrant the consideration of physical modifications to a roadway. This was accomplished through a review of relevant City plans and policies, and detailed analyses of existing physical and operating conditions, and projected future operating conditions in the Study Area. The main findings of these activities are summarized in Sections E.1 through E.3 of the Executive Summary of the ESR (Appendix 1). The key points from these findings are summarized as follows:

- The aspirations for Queens Quay articulated in the Central Waterfront Secondary Plan as a scenic water view drive that meets the diverse needs of all travelers, including pedestrians and cyclists, cannot be achieved with its current design and operation;
- It is not physically possible to extend the MGT through the Central Waterfront within the existing Queens Quay West right-of-way without implementing changes to the design of the road;
- The existing streetcar platforms are substandard and the speed and reliability of streetcar operations can be improved; and

- The streetcar tracks east of Lower Spadina Avenue are in need of rehabilitation, which presents the opportunity to coordinate other modifications to Queens Quay West.

Section E.3 of the Executive Summary provides the full Problem/Opportunity Statement that was developed based on the analysis of existing and future conditions.

(2) Identification and Evaluation of Alternative Solutions

Using the issues identified in the Problem/Opportunity Statement as a guide, four Alternative solutions were generated and evaluated. Alternative solutions are functionally different ways of addressing the problems and opportunities, which are described in general terms and evaluated or “screened” using a number of broad criteria. A brief description of these alternatives and the results of the evaluation are provided below.

Alternative 1: Do Nothing

The “Do Nothing” alternative is required to be included as a benchmark for the assessment of the other planning alternatives. As the name suggests, the “Do Nothing” alternative involves maintaining the existing physical and operating conditions on Queens Quay West.

Alternative 2: Modify Operations

This alternative could include traffic signal modifications and changes in the usage of the existing traffic lanes, but would not include any physical reconstruction.

Alternative 3: Physical Modifications within the Right-of-Way

This alternative could include changes in the number of traffic lanes, relocation of the streetcar right-of-way, the addition of bicycle lanes or trails, and improvements in the boulevard areas.

Alternative 4: Physical Modifications within an Expanded Right-of-Way

This alternative could include the same components as Alternative 3, but would also include the acquisition of private property to provide new or expanded infrastructure.

Each alternative was screened to assess its potential for addressing the problems and opportunities utilizing a broad set of criteria represented by answers to the following questions:

- Can the planning solution achieve aspirations for Toronto’s main waterfront street?

- Can it improve north-south connections?
- Can it improve east-west connections, including the MGT?
- Can it provide an aesthetically vital and vibrant atmosphere?
- Can it provide adequate or more efficient operations?
- Can it provide a grand and beautiful boulevard?
- Can it implement City policies for the street and the waterfront?
- Can it leverage other infrastructure renewal programs?
- Can it provide sufficient access to properties?
- Can it fit within the space available without extraordinary land acquisition?

The detailed results of the screening are shown in Appendix 2 and are also summarized in Table E-1 of the Executive Summary. The conclusion of the screening was that Alternative 3, Physical Modifications within the Right-of-Way (ROW), was the preferred alternative solution. This alternative was judged to possess the highest potential to address the identified problems and opportunities while minimizing potential environmental impacts. More specifically, this alternative provides for improvements to transit, pedestrian and cycling operations, provides adequate opportunities to improve the streetscape and aesthetic character of the street, and has fewer potential impacts on private property.

(3) Identification and Evaluation of Alternative Design Concepts for the Preferred Solution

Four alternative design concepts were prepared for further evaluation. Alternative design concepts are different methods of implementing the same functional alternative solution. In addition to the four alternative designs, the Do Nothing alternative was also carried forwarded to be evaluated for comparison purposes. The four alternative designs, along with Do Nothing, are illustrated in Appendix 3 and are briefly described below:

- **Centre Transit with On-Street Bike Lanes:** Under this design, the dedicated streetcar right-of-way remains in the centre of Queens Quay West, and a single traffic lane and bicycle lane are provided on each side of the streetcar right-of-way. Left-turn lanes are provided at signalized intersections and on-street parking spaces are provided;
- **Centre Transit with MGT:** This design is similar to the first, but instead of on-street bicycle lanes, a MGT facility is provided in the south boulevard area;
- **Southside Transit with Expanded Public Realm and Two-Way Operations:** Under this design, a single traffic lane per direction and a single parking/loading lane is provided on the north side of the streetcar right-of-way, and a MGT facility and expanded streetscaping area are provided in the south boulevard, south of the streetcar right-of-way;

- **Southside Transit with Expanded Public Realm and One-Way Operations:** This design is similar to the previous southside transit option, except that all traffic lanes north of the streetcar right-of-way operate in the westbound direction only.

A preliminary screening of these alternative designs, using the same criteria as was used to screen the alternative solutions, was first undertaken to identify any potential fatal flaws among the alternatives. This process resulted in the elimination of the Centre Transit with MGT alternative. This was due mainly to a lack of available boulevard area for additional streetscaping, and the physical inability to provide adequate separation between the roadway, the MGT and the dedicated sidewalk area at signalized intersections.

The remaining three alternative designs and the Do Nothing alternative were subjected to a detailed evaluation using the following criteria groups:

- Transportation;
- Safety/Emergency Response;
- Urban Design/Quality of Place;
- Socio-Economic Conditions;
- Natural Environment;
- Cultural Environment; and
- Cost.

Over 50 individual criteria and 400 individual measures were used to represent these criteria groups for the evaluation of the alternative designs. The detailed evaluation matrix appears in Appendix 4. The results are summarized in Table E-4 of the Executive Summary.

The overall conclusion of this detailed evaluation was that both of the Southside Transit alternative designs were equally preferred, each having slight differences in their advantages and disadvantages regarding access and operations. The key features of both alternatives include:

- Balanced space for all modes of travel;
- Continuous off-street MGT completing the missing link in the Central Waterfront;
- Separate, generous pedestrian facilities;
- Significant opportunities for new tree planting and streetscaping;
- Improved transit operations and passenger platform areas;
- Parking and loading opportunities; and
- Adequate traffic operations and property access.

Public and agency consultation on the alternative designs provided further input to assist in evaluating the two Southside Transit alternatives, resulting in the recommendation to identify Southside Transit with Expanded Public Realm and Two-Way Operations as the preferred alternative design concept. The key issues that contributed to this recommendation are as follows:

- **Network Flexibility**

Where one-way roadways are located in a dense urban grid, with many alternative routes, an incident on one adjacent route should not have a significant impact on the accessibility of properties on the one-way street. Queens Quay's location adjacent to Toronto Harbour results in very few alternative routes. This makes accessibility to properties on Queens Quay more susceptible to disruption by an incident on an adjacent route. For this reason, from a network perspective, the two-way option for Queens Quay is preferable to the one-way option.

- **Network Continuity**

The two-way option provides for consistent travel operations for the full length of the street from Bathurst Street to Parliament Street. Implementing one-way westbound operation on Queens Quay West only between Yonge Street and Bathurst Street would introduce a break in network continuity for eastbound motorists, which could result in more circuitous travel patterns and increased risk of "wrong-way" travel. We would anticipate public complaints regarding this type of operation.

- **Transition Concerns at Bathurst Street**

Under the Southside One-Way option, a transition to one-way operation on the east side of Bathurst Street would be problematic. Transportation Services staff has concerns about non-transit vehicles entering the streetcar right-of-way. Southbound traffic from Bathurst Street and eastbound traffic approaching the intersection on the west branch of Queens Quay might inadvertently enter the streetcar right-of-way and continue east from Bathurst Street. Providing a physical deterrent to resolve this issue is preferred. However, there are design constraints at the intersection since continuous northbound, southbound and westbound traffic must be maintained.

- **Toronto Fire Services Concerns**

Toronto Fire Services staff has indicated that a two-way roadway would be preferable. This, in combination with the adjacent streetcar right-of-way as a potential secondary response route, provides them more flexibility when answering emergency calls along Queens Quay. However, Toronto Fire Services has expressed concern regarding the clear width of the travel lanes, and will be involved as this issue is addressed during the detailed design phase of the project.

- **Community/Urban Design Considerations**

One-way street operations are generally considered less conducive to creating and supporting main streets that are successful retail environments and desirable

places to live, work and experience. Comments received from the public and the BIA support this position, as a vast majority of stakeholders have indicated a preference for two-way traffic operations on Queens Quay West.

Recommended Design

The Recommended Design, illustrated in geographic segments in Appendix 5, includes the following key components:

- A single traffic lane provided for each direction of travel;
- A parking/loading lane provided at mid-block locations adjacent to the north curb of the street;
- A dedicated streetcar right-of-way located on the south side of the eastbound traffic lane;
- A landscape zone and MGT located on the south side of the streetcar right-of-way; and
- Sidewalks adjacent the north and south limits of the Queens Quay West right-of-way.

A new traffic control signal would be provided between Yo-Yo Ma Lane and Lower Spadina Avenue to permit the transition of the road design from a centre transit configuration to the new southside transit design. Eastbound Queens Quay West traffic would cross from the south side to the north side of the streetcar right-of-way under the control of this new signal.

The position of the streetcar right-of-way on the south side of the traffic lanes requires that all access points on the south side of Queens Quay West be controlled by traffic signals to prevent conflicts between streetcars and general traffic. Where feasible, the consolidation or closure of outlet streets which would cross the TTC median and therefore necessitate traffic control signals was explored. This was desirable to reduce the potential safety and operational impacts of closely-spaced signalized intersections as well as the impacts on the speed and reliability of transit services. This process resulted in the following being included as components of the Recommended Design:

- The access to 401 Queens Quay West would be controlled by the existing traffic control signals at the TTC streetcar loop east of Lower Spadina Avenue. Access to/from 401 Queens Quay West would be limited to westbound left turns in and northbound right turns out (Appendix 5-2);
- A new traffic control signal would be provided to control the access to 350 Queens Quay West and the combined Toronto Fire Services and EMS facility access on the south side of the street. Access to the Fire/EMS facility would be restricted to westbound left turns in for general traffic (Appendix 5-2);

- The east leg of Robertson Crescent would be closed for general traffic access to Queens Quay West, but would be available for emergency services access. This requires modification to the east-west portion of Robertson Crescent to provide for access by buses and other large vehicles. Modifications include the widening of Robertson Crescent and the construction of a turning facility as generally illustrated in Appendix 5-3;
- Access to the existing parking facility for Harbourfront Centre and the future Canada Square underground parking facility would be provided through the existing traffic signal at the Lower Simcoe Street intersection; the existing parking facility access east of Lower Simcoe Street would be closed (Appendix 5-4);
- A new traffic control signal would be provided at the access to 207 Queens Quay West (Queens Quay Terminal); the existing semi-circular driveway at the front of the property would be closed (Appendix 5-5);
- The existing traffic control signal at Harbour Square, east of York Street, would be removed and access to the Harbour Square driveways on Queens Quay West would be provided through a one lane, one-way eastbound service road on the south side of the streetcar right-of-way (Appendices 5-5 and 5-6).

In order to increase network flexibility, WT and City staff are currently looking into the feasibility of a new north-south road connection linking Queens Quay West to Lake Shore Boulevard opposite the Fire/EMS driveway, west of Rees Street. This investigation will involve impacted City divisions, Harbourfront Centre and adjacent property owners and businesses. As stated in Recommendation 2 of this report, if this connection proves feasible, staff will bring forward the necessary report(s) to Council for consideration.

Public/Agency Concerns

Throughout the public consultation process, a wide variety of valuable comments were received from the general public, waterfront stakeholders, local property and business owners and review agencies which assisted in the development and evaluation of the alternatives. The primary concerns identified through the consultation process and our responses are summarized below:

1. Ensuring Transit Priority

TTC representatives expressed a concern that the speed and reliability of the future streetcar operations under the Southside option could be negatively impacted by the number of required additional traffic signals. This concern required detailed analysis to carefully balance the waterfront “Transit First” policy with other important waterfront public realm policies.

In response to this concern, transit signal priority would be employed to manage transit operating conditions and minimize delay to Queens Quay streetcar service. Where uniquely close spacing of signalized driveways has the potential to impact streetcar operations causing “bunching and gapping” conditions (e.g. in the vicinity of Queens Quay Terminal and Harbourfront Centre), signal operations would be carefully designed to benefit transit service. In these cases for example, exiting driveway vehicles may be held when in the presence of an approaching streetcar, to allow the streetcar through the intersection unimpeded before driveway traffic is permitted to proceed.

Given the variety of competing demands at the signalized intersections in the Central Waterfront, effort will be required to ensure transit priority is not compromised. For instance, north-south pedestrian crossing movements would be provided adequate green time to cross but may experience some delay during very busy periods in order to provide an appropriate level of transit service in the area. In these circumstances, sidewalks and intersection queuing areas for pedestrians would be designed to accommodate anticipated peak activity safely.

The City, TTC and WT will continue to work collaboratively to minimize the impact to transit that might otherwise result from the proposed Queens Quay signal arrangements.

2. Reducing Four Lanes to Two Lanes

As is noted earlier in this report, prior to the initiation of the Queens Quay Revitalization Class EA, WT undertook a traffic feasibility study to assess the reduction in number of traffic lanes on Queens Quay. A traffic micro-simulation exercise was used to test a comparative weekday morning peak hour “Opening Day” scenario, comprising existing traffic flows and existing transportation network but with a two lane cross section on Queens Quay. Comparing these scenarios, the analysis of the network-wide and key route statistics generally suggest a 2-3% increase in travel time as a result of reducing the roadway capacity on Queens Quay from four lanes to two lanes.

A summary of the technical measures of effectiveness is presented in Table No. 2.

Table No. 2
Comparison of Network Traffic Operations
Existing 4-Lane Queens Quay versus 2-Lane Queens Quay
Spadina Avenue to Parliament Street

Scenario	2006 Existing Condition (4-lane Queens Quay)	Opening Day Condition (2-lane Queens Quay)	Percent Change (Opening Day vs. Existing)
Network Wide Statistics (All streets in the study area)			
Total Travel Time (hrs)	2600	2650	2%
Avg. Travel Time/Veh. (min)	6.6	6.7	2%
Veh. Speed (km/hr)	35.3	34.4	-2%
Key Route Statistics	Travel Time (min.)		Percent Change (Opening Day vs. Existing)
Queens Quay EB	7.6	7.8	3%
Queens Quay WB	7.1	6.7	-6%
Lake Shore EB	9.8	10.1	3%
Lake Shore WB	12.0	11.8	-2%
Gardiner EB	7.4	7.6	3%
Gardiner WB	7.3	7.3	0%

The results of the feasibility study were further tested throughout the course of the EA study, including the examination of traffic operations during other time periods for all alternative design concepts. The conclusions from the initial study continue to be valid, due in part to the opportunity to make improvements to the traffic signal operations strategy in conjunction with the change in the design of Queens Quay.

3. TTC and Toronto Fire Services Design Concerns

TTC and Fire Services staff have expressed concerns with the width of the proposed travel lanes on Queens Quay and width of the separation between the roadway and the TTC streetcar right-of-way. In response, WT and City staff have committed to working closely with TTC and Fire Services during the detailed design phase of the project to address these concerns. Furthermore, to ensure that all possibilities for design improvements are explored, commitment has been made to retain an independent firm to conduct a detailed safety audit of the recommended design. The safety audit will assess potential cumulative effects of the physical design and operating strategies for TTC

streetcars, Fire Services vehicles and general traffic. TTC and Fire Services staff have indicated they are in agreement with this approach.

4. Robertson Street Closure

The intersection of Queens Quay West/Robertson Crescent currently exists as an unsignalized right-in/right-out facility, serving a number of properties on Robertson Crescent including the Radisson Hotel, the hotel's 350+ space commercial parking garage, Police Marine Unit, Admiralty Point Condominium and various businesses and services on Robertson Crescent and at Pier 4. The street also provides metered parking and is used by tour companies to drop off patrons accessing tour boats.

Measured two-way peak hour turning volume activity at this intersection ranges from 35 to 45 vehicles for the morning and evening peak hours, respectively. The intersection also accommodates bus activity associated with the hotel which reportedly approaches 12 bus movements per day.

The need to ensure priority for streetcar operations has required some consolidation of access on the south side of Queens Quay West, including the proposed closure of the Robertson Crescent/Queens Quay West intersection. In addition, due to space limitations within the Queens Quay right-of-way, the recommended design precludes a westbound left-turn lane at the Rees Street/Queens Quay West intersection.

Closure of the Robertson Crescent/Queens Quay West intersection would require redistribution of local traffic to the west end of the crescent served by the signalized intersection of Rees/Queens Quay West and improvement to the portion of Robertson Crescent that remains. Specific improvements include a landscaped plaza, capable of allowing vehicle turnaround located at the (closed) east terminus of Queens Quay West and Robertson Crescent and the widening and reconfiguration of the east-west section of Robertson Crescent to improve two-way traffic flow and curbside parking conditions. Additionally, a turnaround facility of sufficient dimension to accommodate frequent bus activity would be provided as shown in Appendix 5-3, in close proximity to the hotel entrance. New curbside management regulations would be developed by the City in consultation with the hotel and adjacent property-owners and businesses to ensure their needs are addressed to the greatest extent possible.

In response to concerns, the BIA retained an independent traffic consultant to review the traffic projections and traffic capacity analyses performed for the proposed closure. Preliminary results of this independent review indicate that updated traffic data collection is required to assess the impacts of recently-opened businesses on the usage of Robertson Crescent. This information will be used in updated capacity analyses to confirm whether or not the recommended design can satisfactorily accommodate all Robertson Crescent traffic requirements.

The new analysis will be undertaken in consultation with the BIA and their independent traffic consultant. Should the results indicate the need to modify the recommended

design, this will be documented in a future staff report. The staff report, if required, will also include an assessment of any requirements for an amendment to the EA Study.

5. Harbour Square Access

Initial design concepts developed for the section of Queens Quay West between York Street and Bay Street involved the potential closure of access points from Harbour Square onto Queens Quay West. This would have included significant physical modifications to the interior parking structures at Harbour Square so that all access could be accomplished on the south side of the Harbour Square buildings through the intersections of Queens Quay West at York and Bay Streets.

Consultation with the various condominium boards within Harbour Square revealed significant concern with any possible interior alterations to the parking structures and with the introduction of any increase in service access activity in front of the main lobby accesses at the rear of Harbour Square. Further review of the required structural modifications revealed that the construction costs for this work would exceed \$1 million, and would also require the removal of approximately 10 parking spaces.

In response, WT and City staff developed an eastbound-only service lane concept providing right-in/right-out access to Harbour Square on the south side of the streetcar right-of-way. This could be accomplished without the need to add additional traffic control signals on Queens Quay because the service lane would rejoin Queens Quay east of the TTC portal where the streetcars operate in an underground tunnel. While this means that the new landscape zone cannot be provided in this location, it maintains the current Harbour Square access points and, in conjunction with the removal of the existing traffic control signal at 55 Harbour Square, improves operations for transit vehicles.

Representatives of the condominium boards of Harbour Square have generally expressed satisfaction with this proposed access arrangement with one exception. The Recommended Design does not include the provision of an eastbound right-turn movement at the intersection of Queens Quay West and York Street. Residents currently use this movement to access some of the parking facilities and lobby areas on the south side of Harbour Square and have requested that this turning movement be maintained. After assessing this request, WT and City staff have concluded that the physical and operational impacts associated with providing this movement at the York Street intersection are more significant than the impacts on accessibility at Harbour Square. Eastbound passenger vehicles on Queens Quay West can access the south side of Harbour Square via Bay Street and larger vehicles can access York Street via a minor detour along Simcoe Street and Harbour Street.

6. Curb Management Issues

One of the top community issues raised throughout the EA process was how tour buses, school buses and taxis would be accommodated under the Recommended Design. In terms of school buses, discussions are underway with Harbourfront Centre regarding the

accommodation of school buses on site under the future Canada Square development. For tour buses, it is recognized that short term drop off and pick-up is required in the vicinity of the major attractions on Queens Quay as well as opportunities for medium and long term parking. Opportunities for taxi pickup/drop off are also part of the equation as is on-street parking for the general public.

In response, a Preliminary Curb Management Plan (Appendix 6) has been produced focusing on curbside opportunities for short term bus drop off and pick up on Queens Quay and the north/south street approaches. In addition, the plan proposes several locations for bus lay-by facilities and taxi stands. While outside the scope of the EA, opportunities for short and medium term bus parking on Lake Shore Boulevard are also being investigated.

WT and City staff have met with a significant number of impacted stakeholders to date to obtain their input. This process will continue in parallel with detailed design and construction to provide adequate opportunities to manage bus and taxi parking on Queens Quay and the north/south street approaches. This will be supplemented by a waterfront bus management strategy focused on locations for medium and long term parking, education and awareness of the strategy by the tour bus industry and enforcement requirements.

7. Impact on Queens Quay Business Environment

The Queens Quay Harbourfront BIA has been an active participant in the EA process. Concerns have focused on logistical details of the redesign, future traffic congestion, parking of buses, taxis and cars and impact on business environment. Of late, the BIA has been particularly outspoken regarding two fundamental concerns with the Recommended Design. First, the BIA is opposed to the closure of Robertson Crescent. The staff comment on the closure appears in Comment 4 above. The second concern relates to the pedestrian environment on the north side of Queens Quay and that it be as consistent and expansive as possible. WT and City staff acknowledge this objective and are committed to consulting with the BIA during detailed design on this and other issues.

Property Impacts

No significant property takings are required to implement the EA nor will a widening of the right-of way throughout the corridor be required. However, it has been determined that some site-specific property widening or easements may be necessary. This will be further determined during detailed design in consultation with impacted property owners.

Next Steps

Pending approval of this report by City Council, the ESR, once signed off by the City in accordance with the contents of this staff report and recommendations, will be filed in the public record for a minimum 30 day period. Once EA approval is received, design and construction of the Recommended Design may proceed.

It is anticipated that the detailed design process will take approximately one year. If EA approval is obtained in Fall 2009, construction can begin Fall 2010. It is proposed to proceed in a series of phases by area in coordination with the TTC trackage rehabilitation program for which the TTC has already secured funding.

Road traffic operations are planned to be maintained throughout the construction period. The travel lanes, although in a reduced capacity, would be open either north or south of the TTC median. The proposed asymmetrical street arrangement allows construction to occur on one side and retain east-west traffic on the other. Traffic flows would be restored to the new street as soon as the new facilities are available. Transit service would be temporarily provided by surface bus routes until the new trackage is in place and available. The entire construction process is expected to take 36 months.

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SIGNATURE

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ATTACHMENTS

Appendix 1: Executive Summary of the ESR - Queens Quay Revitalization EA
Appendix 2: Evaluation Matrix of Alternative Planning Solutions
Appendix 3: Alternative Design Concept Cross Sections
Appendix 4: Evaluation Matrix of Alternative Design Concepts
Appendix 5: The Recommended Design
Appendix 6: Preliminary Curb Management Plan