

Gardiner Expressway York/Bay/Yonge Interchange Reconfiguration - Municipal Class Environmental Assessment

Date:	July 28, 2010
To:	Public Works and Infrastructure Committee
From:	General Manager, Transportation Services
Wards:	Wards 20 and 28
Reference Number:	P:\2010\ClusterB\TRA\TIM\pw10014tim

SUMMARY

The City of Toronto Official Plan and the Central Waterfront Secondary Plan (2003) each have policies to promote the creation of pedestrian friendly environments, as well as improving conditions for cyclists. In line with these policies, several studies and plans, including the Central Bayfront Ramp Study and the Central Waterfront Secondary Plan, have identified possible modifications to the road network in the vicinity of the F. G. Gardiner Expressway York, Bay and Yonge Streets eastbound off-ramps and Bay Street on-ramp to improve conditions for pedestrians and cyclists as well as the urban fabric of this downtown neighbourhood.

The need to make these changes to the original (1960s) Gardiner Expressway ramps stems from the vastly different demands and uses of today. The current volume of pedestrian, cyclist, and vehicular activity in the central waterfront, in association with extensive development and further planned intensification, requires a re-working of the road system so as to preserve its operational integrity while improving conditions for all users.

A Municipal Class Environmental Assessment (EA) study has been undertaken to identify modifications to these York, Bay and Yonge Street ramps. The EA study included the identification and evaluation of a reasonable range of alternatives in consultation with the public and review agencies.

The resulting Recommended Design is to reconfigure the eastbound off-ramps to a single shorter direct off-ramp to Harbour Street at Lower Simcoe Street. This shorter ramp will

allow exiting motorists to turn right or left from Harbour Street to Lower Simcoe Street (right only), York Street, Bay Street, and Yonge Street. In addition, a new north-south road is recommended, connecting Harbour Street to Queens Quay east of York Street. These modifications will maintain acceptable traffic conditions and improve mobility within the area while freeing up road space, sidewalks, and open space to enable improvements to the public realm.

The entry ramp from northbound Bay Street to the eastbound Gardiner Expressway was also assessed during this study. The ramp is recommended to be closed to general traffic but remain available as a bus-only ramp. This reduction in ramp volume will significantly improve the conditions for pedestrians and cyclists crossing the ramp on the east side of Bay Street, while maintaining emergency vehicle access to the elevated Expressway and avoiding disruption to service from the nearby GO Transit Bus Terminal.

The Harbour Street off-ramp and the Bay Street on-ramp can be treated as two distinct entities, despite having been the subject of a combined EA study. The Bay Street proposal is an operational change that is pre-approved under the Municipal Class EA, whereas the Harbour Street ramp, as a new facility, requires that a Notice of Study Completion be issued and the Environmental Study Report filed in the public record for a minimum 30-day review period per the Municipal Class EA procedures.

RECOMMENDATIONS

The Transportation Services Division recommends that:

1. Authority be granted to the General Manager of Transportation Services to issue a Notice of Study Completion and to file the Environmental Study Report for the “Modifications to the York/Bay/Yonge Ramps to the Gardiner Expressway – Class Environmental Assessment Study” in the public record for 30 days in accordance with the requirements of the Municipal Class Environmental Assessment; and
2. The appropriate City officials be authorized and directed to take the necessary action to give effect thereto.

Financial Impact

There is no immediate financial impact resulting from the recommendations contained in this report.

The preliminary construction cost of all elements of the Recommended Design is approximately \$12 million although the costs of these modifications will be refined during the course of securing further required approvals. Currently no funds are provided for these works in the Transportation Services 2010 Capital Budget or 10-year Capital Plan and Forecast. Funding sources and schedules for implementation will be included as part of future year Capital Budgets for Transportation Services. A future staff report will be

submitted that provides a funding and staging strategy for implementing the reconfiguration of these Gardiner Expressway ramps.

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

DECISION HISTORY

City Council, at its meeting on July 15, 16 and 17, 2008 adopted the report “Environment Assessment for Changes to York and Bay Ramps of Gardiner Expressway” (EX22.2), authorizing the General Manager, Transportation Services to undertake a Class Environmental Assessment Study to examine potential modifications to the York/Bay/Yonge Streets eastbound off-ramps and the Bay Street northbound to eastbound on-ramp to the Gardiner Expressway.

ISSUE BACKGROUND

In 1987, the former City of Toronto completed a comprehensive study of potential modifications to the F. G. Gardiner Expressway ramps in the downtown area, titled the Central Bayfront Ramp Study. The study recommended several modifications to Gardiner Expressway ramps, including the removal of the southbound Yonge Street to eastbound Gardiner Expressway ramp and the shortening and reconfiguration of the York/Bay/Yonge Streets eastbound off-ramp. The southbound Yonge Street to eastbound Gardiner Expressway ramp was subsequently removed.

In 2001, Waterfront Toronto (formerly Toronto Waterfront Revitalization Corporation) was established by the Government of Canada, the Province of Ontario and the City of Toronto to lead and oversee the revitalization of the Toronto's waterfront, to design and implement the redevelopment of what are largely publicly-owned lands across the waterfront and to foster economic growth. Removing barriers and providing continuous public access to the waterfront are key priorities of its vision. The examination of alternative configurations to the York/Bay/Yonge ramps of the Gardiner Expressway and the enhancement of the public space beneath both support this vision.

The City of Toronto Official Plan and the Central Waterfront Secondary Plan (2003) each have policies to promote the creation of pedestrian friendly environments, as well as improving conditions for cyclists which are important city building activities. The Central Waterfront Secondary Plan also contains policies promoting the improvement of connections between the downtown core and adjacent neighbourhoods, and with the Central Waterfront. The Railway Lands East Secondary Plan includes Objective 2.1 that states "The Railway Lands East are to be developed as an integral part of the Downtown so that the barrier effects of the road and rail corridors are minimized and the central City reunited with the Waterfront". Removing barriers and/or improving pedestrian connections are some ways of achieving the goals set out in the above city building policies.

The study recommendations are designed to support these stated city-building policies.

COMMENTS

Study Process

A Class Environmental Assessment (EA) Study was initiated to evaluate a range of options for modifying the York/Bay/Yonge Streets eastbound off-ramp and removing the Bay Street northbound to eastbound on-ramp to the Gardiner Expressway. The EA study has been completed according to the requirements for a Schedule "C" project under the Municipal Class Environmental Assessment (The Class EA). The Class EA process requires that the City confirm the need (i.e. define the problem/opportunity), identify feasible solutions, evaluate the impact of the alternative solutions on the natural, social and economic environments, and select an alternative for construction.

As a requirement of Schedule “C” projects, if City Council endorses the recommendations of this study, the Environmental Study Report (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 the 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 ESR describes in detail the first three phases of the five-phase environmental planning process set out by the Class EA:

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 itself 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 “Modifications to the York/Bay/Yonge Streets Ramps of the Gardiner Expressway” Class Environmental Assessment 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 Transportation Services, City Planning, Technical Services, Waterfront Secretariat, Waterfront Toronto and GO Transit.

Public Consultation

Public involvement is an integral and ongoing part of the EA Study process. The public consultation requirements of the Class EA were met and exceeded in this study. The public consultation program included two Public Information Centres (PICs), held at key decision points during the study, a pedestrian survey, and a stakeholder urban design charrette. In addition, the City of Toronto’s website provided a link to all pertinent information related to the Study as well as contact information.

Participants in all the public consultation activities related to this project represented a wide range of interests, including area residents, property owners, business owners, motorists, cyclists, and pedestrians.

Notice of Study Commencement

A Notice of Study Commencement was provided through newspaper advertisements in NOW Magazine on June 11 and 18, 2009. Notices were also directly mailed to relevant government agencies, local Business Improvement Associations and Ratepayers Associations. Approximately 20,000 flyers were delivered by 'premium' unaddressed airmail to all addresses within the study area. The geographic limits for the mail drop were King Street to the north, Jarvis and Lower Jarvis Streets to the east, Lake Ontario to the south and Bathurst Street to the west.

Pedestrian Survey

A pedestrian survey was conducted on Friday May 29 and Sunday May 31, 2009 at the intersections of York Street and Harbour Street, Bay Street and Harbour Street, and York Street and Queens Quay. The purpose of the survey was to gauge the opinions of pedestrians on the existing strengths and weaknesses of the pedestrian conditions and amenities in the area as well as to determine what pedestrians felt were potential changes that could improve the walking experience in the area.

Approximately 270 pedestrians participated in the survey. The survey questions included whether the pedestrian lived in the area or not, how often they walked in the area, what they perceived as pedestrian realm strengths or weaknesses, and if they could change pedestrian connections what changes would they make.

The most frequent responses regarding the strengths of the area included:

- good access to the waterfront and to the lake;
- it is a nice area with a pleasant atmosphere;
- there are wide sidewalks on Queens Quay; and
- it has good scenery and views.

The most frequent responses regarding the weaknesses of the area include:

- there is too much traffic in the area;
- it is too dirty;
- intersections under the Gardiner are not comfortable;
- there is too much construction already; and
- the Gardiner Expressway is a barrier.

The most frequent responses regarding suggested pedestrian improvements include:

- providing more pedestrian crossings under the Gardiner Expressway;
- providing a covered connection to Union Station;
- providing sidewalk connections where missing;
- providing grade separated pedestrian crossings; and

- adding greenery to improve the pedestrian environment.

Public Information Centre No. 1

The first Public Information Centre was scheduled for June 24, 2009. Due to the civic workers labour disruption the meeting was cancelled and rescheduled for September 23, 2009. This PIC was advertised in NOW Magazine and the Toronto Star (via <http://www.thestar.com>) and approximately 20,000 notices were distributed to all addresses within the study area. Approximately 95 members of the public attended the public information centre.

The purpose of the public information centre was to:

- Introduce and provide background information on the study;
- Explain the Municipal Class Environmental Assessment process;
- Present the proposed alternatives;
- Present the evaluation criteria; and
- Outline the next steps in the study.

Generally residents expressed a desire to do nothing with the ramp from northbound Bay Street to the eastbound Gardiner Expressway. Many comments indicated that the participants were in favour of improving the public realm by reconfiguring the off-ramps to York, Bay and Yonge Streets.

Stakeholder Design Charrette

A stakeholder design charrette was held on Saturday, February 6, 2010 at the Harbourfront Community Centre located at 627 Queens Quay West. Representatives from the following major stakeholder groups were invited to attend:

- Business owners and operators
- Transportation agencies and operators
- Community/property owners

The purpose of the charrette was to engage community members in generating, expanding and providing substance to ideas around community improvements that may be made possible by various potential reconfigurations of the York/Bay-Yonge interchange.

The participants at the charrette identified in general, Option 2 (Connection to Lower Simcoe Street) as a preferred option for the reconfiguration of the off-ramps.

Public Information Centre No. 2

The second Public Information Centre was held on Tuesday, April 13, 2010. This PIC was advertised in NOW Magazine on April 8, 2010. Notices were also directly mailed to all identified stakeholders (including attendees from the first PIC) and delivered by 'premium' unaddressed aemail to all addresses in the study area. The Toronto Star was not used this time as few previous attendees had cited it as a source and it was not deemed

cost-effective. Approximately 65 members of the public attended the second information centre.

The purpose of the public information centre was to:

- Present a summary of the feedback collected from Public Information Centre No. 1;
- Present the evaluation of the alternatives;
- Present and gather information of the presented technically preferred solution; and
- Outline the next steps in the study.

Generally participants expressed that they were in favour of the technically preferred solution for the reconfiguration of the off-ramps. Some participants indicated that they were not in favour of closing the on-ramp from northbound Bay Street to the eastbound Gardiner Expressway. These participants also questioned the results of the traffic studies which concluded that this change will have minimal impact on traffic conditions in the area.

Environmental Assessment Findings

1. Study Area

The Study Area, shown in Attachment 1, was focused on the York Street, Yonge Street and Bay Street ramps of the F.G. Gardiner Expressway. However, the geographical limits for the purpose of undertaking a traffic systems/network analysis are broader, encompassing an area generally bounded by King Street to the north, Queens Quay to the south, Jarvis Street to the east and Spadina Avenue to the west.

2. Identification of the Problem or Opportunity

A review of the existing conditions indicated that the study area supports a busy environment in terms of pedestrian, cycling, transit and traffic movements, especially during events at major venues in the study area, such as the Air Canada Centre. In addition, seasonal activities and the presence of major attractions add to the transportation demands, particularly during the summer months. Continued growth in development along the waterfront is expected to further increase transportation demands in the study area.

A traffic analysis of the existing conditions indicated that all intersections in the focused study area are currently operating at an acceptable level of service of 'C' or better during both the AM and PM peak periods. However, certain movements operate at congested or unacceptable levels of service during peak times of the day.

Historically, little attention has been paid to ensuring that that the pedestrian environment is adequate in terms of capacity, quality or directness of linkages. Much of the road configuration dates to the Gardiner Expressway's construction in the early 1960s.

Currently there is no north-south pedestrian access on the east side of York Street between Queens Quay and Harbour Street. Pedestrians wishing to make this movement must either use the west side of York Street and then cross at Harbour Street or at Queens Quay or they must cross the park and then cross the traffic exiting the loop ramp. Uncontrolled right turn crossings in the study area also create an unpleasant and sometimes dangerous experience for pedestrians, specifically at the terminus of the loop ramp and Harbour Street and the northbound Bay Street on-ramp to the eastbound Gardiner Expressway. The conclusion can be made that an improvement in the pedestrian environment, while maintaining acceptable levels of traffic operations, will benefit the area in terms of support for local development, urban design, tourism and recreational potential.

Based on the conclusions drawn from the review of the existing and future conditions the following problem/opportunity statement was developed:

The York/Bay/Yonge Streets (YBY) ramps of the F. G. Gardiner Expressway and the ramp terminal intersections at York Street, Bay Street and Yonge Street are a major barrier to the walkability and overall sense of place of the central waterfront area. There is the opportunity to propose and evaluate options for the redesign of the York/Bay-Yonge Streets eastbound off-ramp, as well as the removal of the Bay Street eastbound on-ramp in a manner that is consistent with the following objectives:

- Enhance the sense of place;
- Maintain existing traffic capacity;
- Improve the pedestrian experience;
- Improve transit access; and
- Enhance pedestrian and cycling connections;

3. Identification and Evaluation of Alternative Solutions

a) York / Bay / Yonge Streets Off-Ramp

To address the problem and opportunity as outlined above, six (6) alternative solutions for the reconfiguration of the eastbound Gardiner Expressway off-ramp to York, Bay and Yonge Streets (YBY) were identified and evaluated as part of this study. A brief description of these alternatives and results of the evaluation are provided below.

Option 1 – Do Nothing

The “Do Nothing” option is included as a benchmark for the assessment of the other planning alternatives. As the name suggests, the “Do Nothing” option involves leaving the ramps as they exist now with no other changes to the road network. The existing ramp conditions are identified in Attachment 2.

Option 2 – Connection to Lower Simcoe Street

This option replaces the YBY ramps with a single off-ramp linking to Harbour Street at Lower Simcoe Street. The existing ramp would be shortened by approximately 500 m and would terminate at the west side of Lower Simcoe Street immediately south of Lake Shore Boulevard West / Harbour Street. The loop ramp at York Street would be removed. Through traffic from the new off-ramp would merge with Harbour Street on the east side of Lower Simcoe Street. Eastbound right turns from Lake Shore Boulevard West to southbound Lower Simcoe Street would be prohibited due to the conflict with the new eastbound off ramp. Eastbound right turns from the new eastbound off ramp to southbound Lower Simcoe Street would be permitted. Eastbound left turns from the new eastbound off-ramp to northbound Lower Simcoe Street would similarly be prohibited due to the presence of Lake Shore Boulevard West immediately north of the new off-ramp. These operations are similar to the current operations at the intersection of Bay Street and Harbour Street where the current YBY ramp terminates at Bay Street immediately south of Harbour Street. A schematic of this option is provided in Attachment 2.

Option 3 – Connection to York Street north of Harbour Street

This option replaces the YBY ramps with a single off-ramp connecting to York Street immediately north of Harbour Street. The existing ramp would be shortened and would terminate at York Street on the west side immediately north of existing Harbour Street. The loop ramp would be removed. A median would be required to separate eastbound Harbour Street traffic from traffic on the new eastbound off-ramp (similar to the one that currently exists at the intersection of Bay Street and Harbour Street and the existing Yonge Street off-ramp). Through traffic from the new eastbound off-ramp would merge with eastbound traffic on Harbour Street east of the York Street and Harbour Street intersection. This new eastbound off-ramp would operate in a similar manner to the eastbound off-ramp currently at Bay Street. However, with the new off-ramp north of Harbour Street left turns from the off-ramp to northbound York Street would be permitted but right turns from the new off-ramp to southbound York Street would be prohibited. A schematic of this option is provided in Attachment 2.

Option 4 – Connection to York Street north and south of Harbour Street

This option replaces the YBY ramps with a single off-ramp connecting to York Street in the west side. The loop ramp would be removed. This option differs from Option 3 in that the new off-ramp would split into two segments separating left turns from through and right turns. The road/ramp segment for the through/right turn traffic would intersect York Street just south of the existing York Street and Harbour Street intersection with a median separating the new off-ramp traffic from Harbour Street traffic. Through traffic would merge with Harbour Street traffic east of the York Street and Harbour Street intersection. The road/ramp segment for the left-turn traffic would intersect York Street just north of the existing York Street and Harbour Street intersection with a median separating the ramp traffic from Harbour Street traffic. The only traffic movement permitted from this leg of

the ramp would be an eastbound to northbound left turn movement. A schematic of this option is provided in Attachment 2.

Option 5 – Connection to York Street south of Harbour Street

This option is similar to Option 3 however the connection to York Street would be made south of Harbour Street instead of north of Harbour Street. The York / Bay loop ramp would be removed. The alignment and operation of this new off-ramp permits right turns and through movements for eastbound traffic from the new off-ramp but prohibits eastbound left turn movements from the new off-ramp. Due to conflicts with through movement traffic from the new off-ramp eastbound right turn movements from Harbour Street would be prohibited. A schematic of this option is provided in Attachment 2.

Option 6 – Connection to Bay Street

This option replaces the YBY ramps with a single off-ramp connecting to Bay Street. The York / Bay loop ramp would be removed. The new ramp would be aligned closer to the Gardiner Expressway and would intersect with Bay Street south of Lake Shore Boulevard West on the west side of Bay Street. Both eastbound left turn and right turn movements would be permitted from the new off-ramp but through traffic would be prohibited since Lake Shore Boulevard West is one-way westbound. A schematic of this option is provided in Attachment 2.

b) New North-South Road

In conjunction with the removal of the York / Bay Streets loop ramp, there is an opportunity to introduce a new north-south road connecting Harbour Street and Queens Quay east of York Street. This option was identified during the earlier Queens Quay reconfiguration initiative and was considered as an element of this EA study.

c) Bay Street Ramp

The option of closing the ramp from northbound Bay Street to the eastbound Gardiner Expressway was reviewed during the YBY study. Additional alternatives were identified, namely reconfiguring the ramp entrance to a right turn so as to remove the “free flow” operating condition that currently causes a conflict with pedestrian traffic, converting the ramp to High Occupancy Vehicle (HOV) use, or converting the ramp to bus-only use. It is noteworthy that the option of physically removing the ramp was not considered; its role in providing an emergency response route for access to the elevated portion of the Gardiner Expressway will be maintained under all scenarios.

4. Detailed Evaluation

A preliminary evaluation of the alternatives based on the problem/opportunity statement was undertaken for each of the alternatives.

a) York / Bay / Yonge Streets Off-Ramp

Based on an initial traffic analysis of each of the YBY ramp options it was determined that Options 5 and 6 would not be carried forward for further evaluation as the resulting traffic impacts would not be sustainable and there were no mitigating measures that could be applied to offset the negative impacts to the traffic network.

The following criteria were used to evaluate each of the four remaining options:

- Urban Design;
- Transportation;
- Community and Business;
- Natural Environment; and
- Cost.

Based on the results of the analysis and evaluation, Option 2 – Connection to Harbour Street at Lower Simcoe Street was identified as the preferred solution. This solution best reflects Official Plan objectives and offers the most potential to improve pedestrian and cycling opportunities within the study area while maintaining an acceptable level of traffic operations. The proposed modifications also enhance the public space, meeting the objectives of the Promenade Plans in the study area and providing the greatest opportunities for improving urban design features. Operationally, the ramp reconfiguration allows motorists to use Harbour Street more effectively to distribute to various Central Business District and the central Waterfront destinations:

Accessibility for Eastbound Gardiner Expressway York/Bay/Yonge Off-Ramp Users

Destination	Existing	Recommended Plan (Option 2)
Lower Simcoe Street	To north and south via York Street exit to westbound Lakeshore Boulevard	To south at ramp terminal
York Street	To north only from ramp terminal	To north and south from Harbour Street
New Street	Does not exist	To south from Harbour Street
Bay Street	To north via loop ramp and Harbour Street; to south via direct ramp	To north and south from Harbour Street
Yonge Street	To north and south from Harbour Street	To north and south from Harbour Street

The removal of the loop ramp east of York Street provides the opportunity to enhance the park space there, potentially in combination with the opportunity identified by Toronto Water to locate a potential underground water storage shaft. This storage shaft would be in support of their current Environmental Assessment study aimed at upgrading the trunk sewer system in order to improve water quality in the lower Don River, including Taylor Massey Creek and the Inner Harbour.

A detailed evaluation chart of the options is provided in Attachment 3.

Intersection Level of Service analysis for the proposed traffic network indicates that reducing the York/Bay/Yonge off-ramp length would not have significant impacts on traffic delay within the study area. Average intersection delays along Harbour Street and Lake Shore Boulevard would increase or decrease only a few seconds at signalized intersections while continuing to operate within a better-than-average service level range. This is illustrated by comparing the “Option 2” and “Existing” Levels of Service as tabulated in Attachment 4, and noting that Level of Service “D” or “E” is typical for busy urban arterials during peak periods.

Attachment 6 shows the plan in detail, noting that the south side of Harbour Street between Lower Simcoe Street and Bay Street, currently occupied by the Yonge Street off-ramp structure, would be reconfigured to provide turn lanes and on-street parking. The three existing through lanes on Harbour Street will remain. The removal of the elevated ramp structure will significantly improve the pedestrian environment along Harbour Street.

The recommended plan would also respond somewhat to area pedestrian aspirations (per the 2009 survey), by providing a new pedestrian crossing under the Gardiner Expressway on the east side of York Street, significantly reducing the traffic conflicts facing pedestrians on the east side of Bay Street, removing the elevated loop ramp from the green space east of York Street and opening it up as an attractive non-vehicular plaza, and providing space for pedestrian realm improvements along Harbour Street. The cycling environment in the area would be improved, particularly at the complex intersection of York Street and Harbour Street from which the off-ramp terminal would be removed and on northbound Bay Street, where conflicts would be removed between on-ramp motorists and curbside cyclists.

b) New North-South Road

This proposed new road is situated east of the existing loop ramp (approximately 90 m east of York Street) and would form an eastern road frontage for the open space that would remain with the removal of the loop ramp and would also provide road frontage and access to the property east of the park should this be redeveloped. Provision of this new road would also result in a new access for trips destined to the central waterfront, compensating somewhat for the elimination of right turns from eastbound Lake Shore Boulevard at Lower Simcoe Street.

The new road would create the opportunity for additional on-street parking in the study area. It would be configured as a two lane two way route with parking on both sides, in a 14 m wide pavement envelope. The new road would be right-in right-out at the north end where it intersects eastbound Harbour Street, and would have an unsignalized all-way intersection at the Queens Quay intersection to the south (noting that, as a separate

initiative, Queens Quay will be reconfigured to have a two lane two way roadway within the north part of the right-of-way and a dedicated transit facility to the south of the road).

Should the Toronto Water study noted above result in the construction of an underground water storage shaft in the block east of York Street the new road would provide an easier access to this facility than access from Queens Quay or York Street.

These benefits lead to the conclusion that the new North-South Road would be an asset to the central waterfront transportation network and is recommended.

c) Bay Street On-Ramp

The removal of the northbound Bay Street to eastbound Gardiner Expressway on-ramp was initially compared with the Do Nothing option.

With development proceeding on the east side of Bay Street, over 3,600 new residents will be living in the block south of Lake Shore Boulevard West on the east side of Bay Street. Many of these residents will use walking or cycling as their main mode of transportation in this area. The conflict between users is illustrated by 2009 counts on Bay Street in the vicinity of the on-ramp which indicate that, in the AM peak hour, there were 146 vehicles entering the ramp and 200 pedestrians crossing the ramp, while in the PM peak hour 315 vehicles were counted using the ramp and during the same period 300 pedestrians crossed the ramp. There is not significant use of the ramp by trucks or commercial vehicles.

Motorists that use the Bay Street on-ramp are assumed to be a combination of Queens Quay residents and downtown workers who prefer the out-of-way travel via Queens Quay to more direct Gardiner Expressway access via the Rees Street or Jarvis Street ramp alternatives.

A trial closure of the ramp was conducted between Monday, March 23, 2009 and Tuesday, April 14, 2009. During this period there were major events occurring at the Air Canada Centre and the Rogers Centre along with other area venues. Traffic volume data were collected before, during, and after the trial closure and a review of this data found that there were no measurable effects in terms of traffic disruption. This is consistent with the traffic analysis results, which indicated that most ramp traffic would divert to the Jarvis Street or Rees Street on ramps to the eastbound Gardiner Expressway, and that the diverted flows could be accommodated within the capacity of the alternate routes and related intersections.

However, comments after the second public meeting reflected some motorist and resident opposition to the closure of this entry ramp on the basis of the impact to their established travel patterns and the increased travel time and risk of delay associated with using the available alternative routes.

The ramp closure would impact GO Transit bus operations, which amount to between 20 and 25 buses per peak hour. Given typical loadings, GO bus passenger volume on the ramp significantly exceeds the number of auto users. GO buses currently use the ramp for direct access to the eastbound expressway from the GO Bus terminal located nearby at Bay Street and Front Street. During the trial ramp closure GO bus operators used various alternative routes to reach the Jarvis Street entry ramp, and experienced delays of between two and five minutes during peak periods. Hampering transit mobility would be counter to the City's Official Plan policies, and rerouting GO buses onto Queens Quay would also be inconsistent with the City's plans to reduce Queens Quay to one traffic lane in each direction.

The option of reducing Bay Street entry ramp traffic volume while maintaining bus access was therefore considered. Conversion of the ramp to a bus-only lane would be straightforward and was shown in the traffic analysis to have no different an effect than closing the ramp outright. Conversion of the ramp to an HOV facility was seen as problematic in terms of enforceability, lack of connectivity to other HOV lanes that would generate mode choice impacts, and lack of improvement in pedestrian conditions on Bay Street.

Another approach considered was to reconfigure the entry to the ramp on Bay Street so that traffic would make a right turn, rather than a free flow entry. This would control the vehicle / pedestrian interaction somewhat. It would, however, pose several geometric, operational, and safety problems and would generate significant queues and delays on northbound Bay Street, spilling back to Queens Quay and beyond. It was therefore viewed as impractical and inappropriate.

In light of the ramp itself being retained for use by emergency vehicles and the negative impacts of diverting GO buses, the conversion of the entry ramp to bus-only use is therefore recommended. This will have the effect of significantly reducing the pedestrian conflicts at the foot of the ramp compared to the current condition, will have no noticeable traffic impacts compared to a full ramp closure, and will have a minimal cost (signage).

In the longer term, as Metrolinx / GO Transit rail routes evolve to all-day two-way service, GO bus service may diminish; ramp closure may be reconsidered at that time. A similar caveat applies to the outcome of the current investigation of options for the eastern leg of the Gardiner Expressway, which may affect bus plans. Although TTC buses or intercity coaches do not currently use the Bay Street ramp, they could be considered eligible users should conditions change in the future (e.g. if the downtown bus terminal is relocated).

The ramp would be signed in a manner consistent with other bus-only lanes in the City, and would be subject to the same rules, penalties, and enforcement. Emergency vehicles would be permitted to use the ramp. The single-lane design of the ramp allows for effective random police enforcement. Although a high violation rate is not expected, the ramp should be monitored for misuse. Various enforcement tools are available should violation be found to be a problem: enhanced signage; coloured ramp threshold pavement;

increased fines; overnight gate closure; transponder-actuated signal (similar to ramp metering, but only actuated by buses); transponder-actuated gate; red light running camera enforcement system; etc.

It is noteworthy that the redesignation of a general purpose lane to a transit lane is a pre-approved (Schedule A+) activity under the Municipal Class Environmental Assessment. The Bay Street ramp issue would therefore be removed from the York/Bay/Yonge Ramps Environmental Study Report as no further environmental approvals will be necessary. It could be implemented at any time and need not be tied to the changes proposed for the York/Bay/Yonge ramps.

Recommended Design

The recommended design for the reconfiguration of the York, Bay and Yonge Streets Ramps of the F.G. Gardiner Expressway includes the following elements:

- The reconfiguration of the eastbound York, Bay and Yonge Streets off-ramps to a single eastbound off-ramp to Harbour Street at Lower Simcoe Street;
- The redevelopment of the south side of Harbour Street between Lower Simcoe Street and Bay Street; and
- A new north-south road connecting Harbour Street and Queens Quay east of York Street.

As a separate component of the central Waterfront plan, the following is recommended:

- The redesignation of the entry ramp from northbound Bay Street to the eastbound Gardiner Expressway to bus-only use.

A plan outlining the existing and proposed lane arrangements for the street network in this area can be found in Attachments 5 and 6.

Renditions of the proposed intersections can be found in Attachment 7.

Property Impacts

There are no requirements to acquire private property for this project.

Public/Agency Concerns

No concerns have arisen with the recommended approach to reconfiguring the York/Bay/Yonge off-ramp from the eastbound Gardiner Expressway.

GO Transit has expressed concern about the concept of closing the northbound Bay Street to eastbound Gardiner Expressway on-ramp and supports its redesignation to bus-only use.

Next Steps

Pending approval of this report by City Council, the ESR for the York / Bay / Yonge interchange reconfiguration and the new road east of York Street will be filed in the public record for a minimum 30-day period. Once EA approval is received, detailed design of the Recommended Design may proceed.

The redesignation of the entry ramp from northbound Bay Street to the eastbound Gardiner Expressway to bus-only use will not be included in the ESR, as it is a pre-approved activity under the Municipal Class EA. Its implementation may proceed at any time and is not tied to actions on the York / Bay / Yonge off-ramp.

Construction will be coordinated once funds have been identified to implement this project. As indicated in the Financial Statement of this report, the timing of this funding is unknown at this time.

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ATTACHMENTS

Attachment 1 – Study Area

Attachment 2 – Alternative Solutions

Attachment 3 – Detailed Evaluation

Attachment 4 – Level of Service

Attachment 5 – Lane Configurations

Attachment 6 – Plan

Attachment 7 – Artist Renditions