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**Re: Pedestrian Bridge Over Highway 401 Class Environmental Assessment
Responses to Questions and Comments from the Public**

Through the course of the *Pedestrian Bridge Over Highway 401 Class Environmental Assessment*, the City has received questions and comments from the public either through the two Public Open Houses held on October 19, 2005 and December 15, 2005, or in response to information posted on the City's web site. For the benefit of all who expressed interest in the project, we have summarized the public input through a series of questions and have provided the corresponding Project Team (City and TSH) responses and information.

Why a pedestrian bridge over Highway 401?

Over ten years ago, in the *Town of Pickering Trails and Bikeway Master Plan (Totten Sims Hubicki Associates, October 1995)*, concerns had been expressed regarding Highway 401 as a barrier to north-south non-motorized (bike and pedestrian) travel in Pickering. There were also concerns expressed regarding the safety, comfort, and convenience for bicyclists and pedestrians using Liverpool Road to cross over Highway 401. The latter concerns relate to the high traffic volumes, the lack of separate bike facilities, the proximity of the sidewalk to the traveled lanes, and the need to cross the high volume Highway 401 ramp terminal that serves westbound on and off freeway traffic movements.

Given the limitations of the Liverpool Road bridge for both wider curb lanes (to accommodate cycling) and wider sidewalks, the idea for a pedestrian only bridge was conceived. In support of that idea, and at the City's cost, piers for a future pedestrian bridge were built into the Highway 401 median areas as part of the widening of the highway through Pickering in the mid 1990's.

Who will use the proposed pedestrian bridge?

Recent traffic counts indicate that the current volume of pedestrians crossing Highway 401 on the Liverpool Road bridge is approximately 250 to 300 trips per day. It is not possible to accurately forecast the number of pedestrians who would use the proposed pedestrian bridge, however, it is anticipated that the overall number of pedestrian crossings would increase. The potential future pedestrian traffic would be drawn from the following sources:

- A transfer of part of the existing pedestrian and bicycle traffic using the Liverpool Road bridge;
- The latent demand for pedestrian crossings of Highway 401 as represented by people who do not walk or cycle across the Liverpool Road bridge due to concerns related to safety, comfort, and/or convenience;
- GO patrons who may be dropped off or picked up by private automobile or public transit on Pickering Parkway at the north end of the proposed bridge. This would have the benefit of reducing traffic on Bayly Street and within the GO Transit station parking lot;
- GO patrons who may park at the Pickering Town Centre (subject to further discussion with representatives of Pickering Town Centre); and

- Employees and other users of future downtown developments including a possible office tower on the Pickering Town Centre lands that could be directly linked to the proposed bridge. This would provide employees and visitors of that development with direct, enclosed access to the GO Transit system.

How will the proposed pedestrian bridge be used?

Access to the bridge terminals on the north and south sides of Highway 401 would be provided by an enclosed terminal structure with stairs and an elevator. A walkway within the fully enclosed structure will accommodate two-way travel for pedestrians and cyclists walking their bikes. The physical separation of pedestrians and bikes within the structure will be considered as part of detailed design.

What measures will be taken for the safety and security of those using the proposed bridge?

To enhance the safety and security for pedestrians and cyclists using the proposed bridge, there will be illumination within the structure, and both internal and external illumination for the terminals. Other measures that will be addressed through the detailed design include security video cameras and emergency phones.

The hours of operation for the proposed bridge have yet to be determined, except that it is very unlikely that the bridge will be accessible 24 hours a day, seven days a week. One option under consideration is to close the bridge overnight, when GO Transit service is unavailable.

How will the safety of motorists passing under the proposed bridge be addressed?

Like other roadway and railway structures over Highway 401, the design will include features to manage and contain rain water, snow, and ice so as to minimize weather-related effects on the roadway below. With a fully enclosed structure, there will be no opportunity for users of the bridge to drop objects on the highway. Also, the design will address potential driver distraction concerns such as glare or other external impacts through the selection of appropriate construction materials.

Have other alternatives to the proposed pedestrian-only bridge been considered?

Alternatives to the proposed bridge have been considered and rejected. For example, a tunnel under Highway 401 and the rail line would be too costly, and the security concerns would be greater compared to a bridge. Upgrading the Liverpool Road bridge has been considered, however, that alternative has been determined to be unsatisfactory in comparison with the proposed pedestrian-only bridge for a number of reasons. The Liverpool Road bridge would require widening to increase the width of the northbound and southbound curb lanes for safer on-road cycling. To enclose the sidewalk for improved safety and weather protection would also require widening. Increasing the width of the bridge deck would have significant structural implications and associated costs, and would not address the safety issue of pedestrians and cyclists having to cross the high volume Highway 401 ramp intersection on Liverpool Road. As well, the existing Liverpool bridge does not provide as direct a connection between the GO Transit station and Pickering's downtown compared to the proposed new bridge. Because of this, there would be a reduced opportunity for increased GO Transit ridership, and a reduced likelihood of establishing new office development in Pickering's downtown.

The suggestion from the public to construct a new bridge that would accommodate both vehicular and pedestrian traffic was considered, but was determined to be physically infeasible. The clearance requirements over Highway 401 and the rail lines would not allow the road approaches at either end of the bridge to meet acceptable standards without significant property impacts and reconfiguration of existing roads.

In terms of alternative locations for the proposed bridge, the proposed location has several advantages, which include but are not limited to:

- Cost efficient in that the supporting structures have already been built into the Highway 401 medians (as part of the widening of the highway);
- Ideal location to directly serve both the GO Transit station and the site of potential office development on the Pickering Town Centre lands; and
- No interference with the visibility of the overhead sign structures on Highway 401 in proximity to the Liverpool Road interchange or other adjacent interchanges.

What materials will be used to construct the proposed bridge, and what considerations have been made in the design of the proposed bridge?

The pedestrian bridge will consist of a structural steel truss with a concrete deck, glass curtain wall, metal wall cladding, and steel or membrane roofing. The access stairs and ramps, and piers, will be reinforced concrete. Prefabricated components will be used for the construction of the bridge to minimize disruptions to Highway 401 traffic during construction.

Central to the design of the bridge, sustainable or ‘green’ technologies are proposed. This will include such considerations as: high efficiency glazing; high recycled material content in both interior and exterior finish materials; low energy lighting, such as LED type fixtures; and the integration of solar energy generation. The latter will involve the installation of solar panels on the roof of either the bridge or the companion terminal buildings at each end. This technology will generate electricity that can be used either to provide power for the various bridge electrical needs, such as lighting, or conversely be fed back into the ‘energy grid’. Although the project is not intended to be evaluated for LEED™ Certification, the design goal is to create a bridge that makes optimum use of current sustainable ideas that will characterize and promote this project as a ‘green’ project.

How will the construction and maintenance of the proposed bridge be financed? What is the business case?

The cost of the proposed bridge has been estimated at approximately \$4.5 million. Once the bridge design is completed, a more precise estimate of capital and associated maintenance costs can be established. Related to future maintenance costs, it is anticipated that the inclusion of various green technologies in the design of the bridge, such as solar panels, LED lighting, passive ventilation, and recycled materials, would reduce future operating and maintenance costs.

The sources of financing for the construction of the proposed bridge are a combination of provincial grants, federal gas tax funds, other grants that the City will be apply for (such as through the Federation of Canadian Municipalities Green Municipal Fund), City reserve funds, and debt financing. Future maintenance costs would be the responsibility of the City, but may be offset directly by revenue generated from potential advertising opportunities within the structure and indirectly by the economic benefits related to the new development that may be partially triggered by the proposed bridge.

A formal business case has not been developed as part of the Environmental Assessment study, however, the need and justification for the project is reflected in the numerous anticipated benefits to the general public and private business interests. The benefits, which are not possible to quantify, include but are not limited to the following:

- Improved safety for the general public with respect to pedestrian and cycling activities, and related health benefits;

- Reduced automobile use and dependency, and related environmental benefits;
- Opportunity for the creation of a City of Pickering landmark, and related marketing and economic benefits;
- Potential for GO Transit ridership increases;
- Potential for increased GO Transit parking (subject to discussions with Pickering Town Centre);
- Improved accessibility for existing and potential customers of Pickering Town Centre and adjacent commercial and institutional land uses; and
- Potential for economic development and employment opportunities for businesses that wish to relocate close to the proposed bridge, including a new office tower on the Pickering Town Centre lands that may be directly linked to the bridge.

Are there other pedestrian only bridges crossing 400 series highways in Ontario?

Similar pedestrian bridges constructed over major highways in Ontario, and at other locations in North America and Europe, have been considered in developing the design concept. There are actually very few fully enclosed bridges for pedestrian only use in Ontario. One example is a pedestrian only bridge that spans Highway 417 in Kanata, Ontario. It is enclosed with glass walls and a solid roof. The Skywalk in downtown Toronto, which crosses the main rail corridor is another example of a pedestrian only bridge.

A number of other pedestrian bridges have been constructed over major highways including Highway 401, but these structures are generally fully exposed to the elements. An example of that type is the pedestrian bridge that recently opened in the Kitchener-Waterloo area and spans Highway 401.

Final Remarks

This study is following the planning process for a Schedule C, Municipal Class Environmental Assessment project in accordance with the Ontario Environmental Assessment Act. An Environmental Study Report (ESR) is currently in progress, and will be filed with the City at the conclusion of the study. A public notice will be prepared (Notice of Completion) to advise when the ESR will be available for public review and the length of the review period (minimum 30 days). The ESR will be made available at the City Clerk's Department at the Pickering Civic Complex (City Hall), Pickering Central Library, and on-line at the City's web site (<http://www.cityofpickering.com>). Also, a Notice of Completion will be sent to the Ministry of the Environment, Class EAs and Declarations Section, Environmental Assessment and Approvals Branch, to advise of the ESR filing and the beginning and duration of the public review period.

In closing, we thank you for your comments and interest in this project.

Yours very truly,

Laurence Cudlip, OAA
Project Manager

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