Addendum No.1

Future Interprovincial Crossings in the National Capital Region Environmental Assessment Study

Study Design Report

September 9, 2010

Appendix B

Technical Tasks

Revision to Appendix B - Technical Tasks

The following two technical tasks have been updated to reflect comments received following publication of the final report:

1.0 Traffic/Transportation

Name of Study	Analysis of Truck Traffic
Objective	Determine the differences between the corridors related to the attraction and accommodation of heavy truck traffic. *Heavy trucks are defined as a commercially licensed motor vehicle having a carrying capacity in excess of one (1) tonne or any vehicle having a gross weight in excess of four and one-half (4.5) tonnes, but does not include a bus travelling on an established bus route, an ambulance, or a school bus* Estimate the volume of heavy truck traffic diverted to each of the three potential future Interprovincial Bridges under the following scenarios: 1. Truck route designation removed from King Edward Avenue, Rideau, Waller, Nicholas. 2. No "larger" heavy trucks (trucks with 3 or more axles and tractor trailers) permitted on the King Edward Avenue, Rideau, Waller, Nicholas route with the exception of vehicles making local deliveries. 3. Heavy truck traffic use of the King Edward Avenue, Rideau, Waller, Nicholas route limited to the hours of 7 p.m. to 7 a.m. 4. Heavy truck traffic status quo. All scenarios assume that the rest of the truck route designation in the National Capital Region remains the same.
Inputs	• Daily interprovincial heavy truck information for 2031 developed in Phase 1 • Latest available heavy truck survey data from provincial agencies to obtain the proportion of different classifications of trucks within the interprovincial traffic stream • Latest available classification traffic counts at intersections and along city streets/highways from the cities of Gatineau and Ottawa and from MTQ to provide heavy truck traffic data at various points along the current heavy truck routes • TRANS peak period traffic model for 2031 • Available input from the proposed strategic level Goods Movement Study
Scope and Methodology	• Discuss/refine scenarios and data collection activities with Study Team and City Transportation Planning groups • Undertake data collection to support the estimation of the proportion of local versus interprovincial trucks on King Edward-Rideau-Waller-Nicholas (potentially a license plate survey) • Consult with the trucking and business community in Ottawa and Gatineau through trucking associations, Business Improvement Associations and other relevant groups. The purpose of this consultation is to understand truck use characteristics and requirements from the user's perspective, to provide input to the economic impact analysis such as the potential impact of the various scenarios on business. Consultation approach will be decided in discussion with the relevant organizations. Methods may involve member mail-outs, group meetings and/or telephone interviews. • TRANS will run the daily truck model where feasible to assess defined scenarios for each of the three potential future Interprovincial bridge corridors (the daily truck model includes interprovincial truck traffic only under free flow conditions). In addition, TRANS will run the current peak period model, where feasible, for the defined scenarios (i.e. with status quo heavy truck traffic and with reduced heavy truck traffic on the Macdonald Cartier Bridge). The TRANS model includes both passenger cars and heavy vehicles in the peak period. Where necessary, the consultant team will complete analysis outside of the model to generate results for the different scenarios for each of the three potential future Interprovincial bridge corridors • Review and analyze results of the TRANS model forecasts with regard to traffic on all existing and potential future Interprovincial Bridges for the defined scenarios.

	Determine the differences between corridors 5, 6 and 7 with respect to heavy truck traffic, and compared to the base case. • Consider qualitative input provided by businesses and truckers in the assessment of potential business impacts of each corridor (5, 6 and 7). Consider additional travel distance and travel time for truckers based on peak period transportation demand modelling for various scenarios and data on daily distribution of trucks.
Output	Determination of proportion of local versus interprovincial heavy truck traffic on King Edward Avenue. Estimation of the number and size of trucks that travel from Highway 417 to Highway 50 and the number and size of trucks in Ottawa and Gatineau that do not cross the river to indicate the data used in the analysis for public information Differences between the corridors and the status quo: • Heavy truck volumes on Interprovincial bridges in the NCR under a variety of scenarios and with a future Interprovincial Bridge in each of the three corridors (5, 6 and 7) (diagrams of modelled movements may provide a visual explanation of the output.) • Percentage trucks in the various size and weight classifications as provided by inputs and data collection, using the various existing bridge crossings. • Overall travel distances involved in reaching the destination and the traffic conditions along the routes as identified by the TRANS peak period model. This is a measure of the amount of out-of-way travel and travel time when comparing one corridor to another. It may also provide an approximate comparison of fuel consumption. • Qualitative differences in the impact on businesses resulting from each of the scenarios (not captured in the other bullets) and resulting from each of the potential future Interprovincial Bridges Draft and Final stand-alone report for the truck analysis, including data collection, analysis and results

Name of Study	**Analysis of Traffic Safety**
Objective	Determine the differences between the corridors with regard to traffic safety:
Inputs	Geometric design of corridor alignments to be considered Design speed of roadway elements Length of each classification of roadway Number of intersections and the type of intersection control Turning movement volumes and classification data at the intersections Pedestrian and cyclist volumes and patterns Location and type of land uses in the vicinity including schools, parks, playgrounds, seniors residences, community centres, churches
Scope and Methodology	• Characterize the safety-related elements of each of the alignments to be assessed (from Autoroute 50 to Highway 417). Safety-related elements to be considered for motorized traffic and vulnerable road users. Safety-related elements are: o Safety related to operations: ▪ Number of signalized intersections with arterial roads/highways ▪ Number of signalized and unsignalized intersections with collector roads ▪ Number/type of intersections with local roads ▪ Number and character of driveways ▪ Number and character of vulnerable road users in the area, moving along or across the corridor ▪ Length of controlled access divided highway ▪ Length of divided arterial ▪ Roadside character (land use such as day cares, schools, retirement residences, parks, hospitals, open space) ▪ Traffic composition (automobiles, heavy vehicles, cyclists, pedestrians) ▪ Infrastructure provided for vulnerable road users (sidewalks, multi-use pathways, on-street cycling lanes)

	○ Safety related to construction: ▪ Length of existing road/highway to be widened ▪ Length of greenfield construction ▪ Potential staging of vehicular traffic and vulnerable road users during construction • Considering the input data, assess the differences between the alignments with respect to traffic safety during and after construction
Output	Differences between the corridors: Assessment of the anticipated overall safety performance of each of the corridors (5, 6 and 7) and the status quo for all road user types (cars, trucks, cyclists, pedestrians) with respect to conflict points, potential for speed variations and driver expectancy.