

March 7, 2014

Carly Bowman  
City of Toronto Waterfront Secretariat  
100 Queen Street West, East Tower, 12<sup>th</sup> Floor  
M5H 2N2

**RE: Response to Additional Transportation Submissions Received from Dillon Consulting and WSP Group on BA Group BBTCA Transportation Assessment**

Dear Carly:

The purpose of this letter is to provide a brief response to various transportation submissions made by Dillon Consulting, WSP Consulting regarding Billy Bishop Toronto Central Airport (BBTCA). The following submissions have been reviewed by BA Group and are responded to in this letter:

- *Porter Airlines BBTCA Traffic Diversion Assessment*, Final Report, by Dillon Consulting, dated November 6<sup>th</sup> 2013
- A memorandum to the Toronto Port Authority from Dillon Consulting reviewing BA Group's November 2013 Transportation Assessment, dated January 16<sup>th</sup> 2014
- A table of Proposed BBTCA Transportation Improvements from Dillon Consulting, dated January 16<sup>th</sup> 2014
- A memorandum from WSP Group, dated January 10<sup>th</sup>, 2014, with a Strategic Vision for Peak Hour Passenger Forecast for BBTCA.

A brief response to each of the above submissions is provided below.

### **Dillon Consulting Traffic Diversion Assessment**

We have reviewed Dillon's report and generally agree with its overall conclusion that the existence of BBTCA does likely result in fewer Vehicle Kilometres Travelled (VKT's) on an overall City-wide basis compared to what would occur in the City of BBTCA were not to exist. While we do have some comments with respect to some of the background assumptions used in the analysis to the way in which the VKT estimates were calculated, it is my opinion that impact of our comments would not affect the overall conclusion and as a result I have not included detailed questions / comments related to the methodology in this memorandum.

Our broader concern with the analysis contained in the Dillon analysis is whether VKT's it is appropriate to use VKT as the sole metric for evaluating the transportation benefits of BBTCA. While BBTCA may result in a reduction of VKT when measured on an overall City-wide basis, VKT does not account for, or reflect, any localized impacts of traffic generated by BBTCA. Moreover VKT does not take into consideration any of the planning related impacts to the waterfront of increased traffic generated by BBTCA (e.g. congestion, reduced accessibility, the need to construct additional road infrastructure which may conflict with pedestrian / cycling

goals) which could be argued to be equally, if not more, important considerations with respect to airport expansion.

Based on the foregoing we recommend that the City receive the Dillon Traffic Diversion Assessment report for information, but not lend the traffic diversion significant weight when considering the transportation implications of the BBTCA proposal as VKT, in my opinion, is not an appropriate metric, at least in isolation, for measuring the impact of BBTCA.

## WSP Group Passenger Forecast

WSP Group / Genivar submitted a Technical Memorandum on January 10<sup>th</sup> 2014. My comments on the WSP submission are set out below.

### Peak Hour Assumptions

The WSP memorandum adopts several assumptions which differed from what we assumed in our Transportation Study based on discussions with Martin Leprahon of AirBiz. They are:

- Number of seats per plane – Our analysis assumes 68 seats on a Q400 and 107 on a CS100 plane. This compares to WSP analysis which assumes 70 seats Q400 and 110 for the CS100.
- Passenger load factors – Our analysis assumes an 85% load factor consistent with what was adopted in the AirBiz Report. This compares to the WSP analysis which uses 90%.
- Percentage of connecting flights – the WSP analysis uses a range of rates between 17% and 27% whereas we used a standard 25% factor.

We note that the WSP assumptions generally result in a higher forecast of passenger activity per flight compared to what has been assumed in our previous analysis. A table comparing the differences is provided below.

**Table 1: Comparison of WSP & BA Group Passenger Forecasts Based on Differing Assumptions**

	Phase 1 16 Q400 flights / Hour (Existing Conditions)		Phase 2 20 flights / Hour (including jets)		Phase 3 24 flights / Hour (including jets)	
	Total Passengers	Passengers Accessing Mainland	Total Passengers	Passengers Accessing Mainland	Total Passengers	Passengers Accessing Mainland
WSP Analysis Assumptions (Based on Jan 10, 2014 Memo)	1,008	837	1,460	1,139	1,778	1,298
Application of Assumptions used in BA Report	979	735	<b>1,350</b>	1,015	1,652	1,239
Comparison to Growth Baseline with Jets' Forecast Analysed in BA Report			<b>1,120<sup>1</sup></b>	840		
Comparison to "Max Operations Without Jets" Forecast in BA Report					<b>1,730<sup>2</sup></b>	1,297

*Note 1: This number is consistent with the 1120 passenger / hour forecast threshold shown in Figure 8 of our report*



*Note2: This number is consistent with the 1730 passenger / hour forecast threshold shown in Figure 8 of our report.*

With respect to the validity & appropriateness of the WSP assumptions versus what was adopted in our report we defer to AirBiz given that the assumptions are generally a factor of airport operations.

### **Slot Allocation & Phasing**

The WSP memorandum also contains three estimates of future hourly flight activity. Phase 1 generally represents existing conditions (with no jets), Phase 2 is an estimate of a 1-2 year horizon including jets, and Phase 3 is an estimate of a 5 year horizon with jets. The following are our observations comments:

- The WSP Phase 2 hourly flight forecast would result in a slightly higher passenger forecast (by about 200 passengers) than the comparable 'Growth Baseline with Jets Scenario' in our November 2013 report. On this basis the recommended improvements associated with the Growth Baseline with Jets scenario would generally be applicable to the WSP Phase 2 scenario.
- The Phase 3 WSP forecasts mirror closely to the passenger estimates analysed in our November 2013 report for the 'Max Operations without Jets' Scenario. The conclusions in our report for the Max operations without jets scenario therefore will match very closely the traffic impacts associated with WSP's Phase 3 analysis. Based on our previous analysis for this scenario, the WSP Phase 3 hourly forecast may still require potentially significant infrastructure improvements in order to avoid increases in vehicle delays in the area. Additional analysis and discussions between TPA & the City of Toronto will be required to confirm an agreeable solution.
- The 5 year analysis assumed in the WSP report may not be sufficiently long-term in order to fully evaluate the ultimate infrastructure improvements. Our understanding from AirBiz indicates that the capacity of the runway itself could be as high as 30-36 flights an hour. This implies that the hourly flight slot could increase beyond the 24 flights per hour planned in the WSP report through additional expansions to the terminal capacity and/or further refinements to the groundside operations. It is acknowledged that the number may be lower however and the City should clarify whether the 24 flights / hour number will be committed to by TPA staff as the long term upper limit of flight activity.

### **Dillon Memo Response to BA Group Study**

We have also reviewed Dillon's comments on our November 27<sup>th</sup> BA Group transportation study for BBTCA provided in their memorandum dated January 16<sup>th</sup>. Generally Dillon's comments indicate they are supportive of some of the recommendations provided in our study. Key comments we would like to respond to are provided below.

Item 1 – Dillon suggests that the doubling of hourly flights is an unrealistic assumption. We note that the assumption of the estimated number of flights was based on discussions with Martin Leprahon of AirBiz who suggested the upper range based on the potential capacity the airport operation and runway capacity. We defer to AirBiz with respect to vetting of assumptions with respect to the number of flights as this is related to the capacity of the airside operations.

Item 2 – It is suggests that the TPA does not consider sanctions for not achieving modal split targets as appropriate. While they City may be a partner in helping achieve the modal shift at BBTCA, we suggest that



the responsibility for managing the modal split should ultimately fall on BBTCA given that they are the generator of the demand, and given the impact not achieving the goals might have on the adjacent neighbourhood.

Item 3 – We note that recommendation of speed humps or a raised crosswalk was made by BA Group independently of City Staff based on a review of other best practices for improving pedestrian priority and visibility at intersections. We acknowledge that City Transportation staff may have counter opinions on this matter and the implementation is ultimately at the discretion of City Staff.

Item 6 – We agree that additional investigation to vet a design for the improvement to the westbound left turn at Dan Leckie Way and Lake Shore Boulevard is required. We recommend that the City undertake additional study to confirm the details of this improvement.

Item 7 – We recognize that the TPA may have contractual obligations for long term parking in close vicinity to the terminal. However based on our review of operations on Eireann Quay it is my opinion that the parking spaces closest to the terminal are more beneficial serving a short term pick-up / drop-off function in order to provide some additional space to accommodate activity that happens currently along Eireann Quay because of insufficient space resulting in congestion.

Item 8 – BA Group’s observations of the ‘finger lot’ activity suggest that the finger lot lanes are largely unutilized during significant portions of the day. We recognize that any redesign or adaptation of the finger lot to better accommodate pick-up / drop-off, bus access, etc. would need to be done thoughtfully and include TPA as a stakeholder. Notwithstanding it is my opinion that the conflict identified in the memo between ferry-bound vehicles and the pick-up / drop-off activity could be managed through a re-design that better allocates the available space to the activity that currently occurs.

Item 9 – We agree that some form of alternative access may be required in order to accommodate any significant alteration to Eireann Quay such as constructing a pedestrian tunnel, extending an LRT loop south the terminal etc.

Item 10 – We agree with the TPA that any long term infrastructure improvements be assessed including consideration of the Malting site.

## **Dillon Transportation Improvements Table**

Dillon provided a preliminary list of transportation improvements to City Staff in a table dated January 16<sup>th</sup> 2013. My comments are as follows:

- Generally speaking the improvements targeted at improving the mode split at BBTCA should be focused in Phase 1 to ensure an improvement in the mode split before additional flights occur. In this regard items such as improving the TTC streetcar platforms / interface would be better implemented in Phase 1. Similarly, the weather protected walkway is also a strategy to increase transit use and should be considered for implementation in Phase 1 as well.
- The improvement of the curbs-side pick-up / drop-off area in the finger lot should be generalized into maximizing the utilization of the finger lot space for all modes. In this regard a transit lane could be



considered in lieu of the additional curbside pick-up / drop-off area. City staff should evaluate the relative merits of different alternative uses for the finger lot and work with TPA to confirm a design that best addresses overall transportation needs.

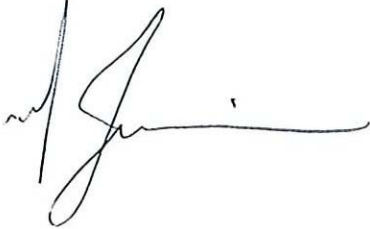
- We agree with the proposal to improve the shuttle bus and taxi operations and recommend that these be implemented in Phase 1.
- Further clarification on what is meant by the modifications to the interim Canada Malting parking & taxi queue area should be provided. We agree that significant alterations would logically be timed in Phase 2 however consistent with our November 2013 report there may be some minor operational or physical changes that could be implemented in Phase 1 that may yield a positive benefit. For example, I would suggest re-allocating the existing parking spaces on the Malting Site for short-term pick-up / drop-off activity and reducing (or eliminating) the parking charge for people who park for under 5-10 minutes. This will increase the amount of space available for pick-up / drop-off activity which during certain peak periods (e.g. Sunday evenings). In turn this will likely improve operations during these times.
- With respect to the Dan Leckie / Lake Shore Boulevard improvement, we note that the City may not want to consider this as a Phase 1 improvement because it in some respect will counter the intent to shift away from vehicle based modes. This item may be better positioned as a provisional item that could be implemented by the City if mode changes are not achieved and additional traffic causes significant impacts to the area signal operations.
- Also with respect to the Dan Leckie / Lake Shore Boulevard improvement we note that Dillon's cost estimate for the project is significantly higher than the preliminary order of magnitude estimate we provided in our previous report. City staff should initiate a more detailed design & cost estimate for this project to better understand its financial implications.
- We agree with Dillon's recommendation for signal improvements / lane striping improvements. In this regard we recommend that the City review potential upgrades to the traffic signal infrastructure along Lake Shore Boulevard / Queens Quay and identify any infrastructure (i.e. new traffic signal controllers) that might be required in order to achieve signal coordination between Lake Shore Boulevard and Queens Quay. Cost should then be identified so that they can be considered as part of the overall Phase 1 improvements that could be implemented to improve traffic operations in the area for existing traffic.



We hope that the above feedback proves useful. If you have any questions please feel free to contact me directly.

Sincerely,

**BA Consulting Group Ltd.**

A handwritten signature in black ink, appearing to read 'Mark D. Jamieson', with a long horizontal flourish extending to the right.

Mark D. Jamieson, P.Eng.  
Associate

Cc: Nigel Tahair, City of Toronto  
Chris Dunn, City of Toronto  
Ralph Bond, BA Group  
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