

TECHNICAL MEMORANDUM

Date: November 27, 2012
To: Transport Canada - Sarah O' Keefe, Laureen Chung, Ronald Hall
Cc: Dan Stamper (CTC)
From: Scott Korpi (ACP)
Subject: Responses to Comments by Federal Review Team on Summary of Ambassador Bridge

Purpose:

As part of the ongoing environmental assessment process, this document summarizes the comments resulting from the initial review of the revised EIS document and the technical memorandum to the EIS by the federal environmental assessment review team.

Documents Reviewed:

Ambassador Bridge Enhancement Project revised Environmental Impact Statement (May 2012) prepared by the Canadian Transit Company

Ambassador Bridge Enhancement Project Technical Memorandum (August 2012) prepared by the Canadian Transit Company

Reviewing Departments:

Transport Canada, Windsor Port Authority, Environment Canada, Health Canada, Fisheries and Oceans Canada, Canada Border Services Agency.

Comments and Responses:

1. Among the mitigation measures for noise and vibration is the statement that "sound and vibration levels will be monitored during pile driving within 100 m of sensitive receptors. If excesses are noted, reduced driving force or equipment will be used." It is not clear how 'excesses' are defined. Is it based on the real time monitoring results and a specific dba or vibration level reached? And if so, can those levels be defined at this time? Alternatively is it in some combination with public complaints received? Further details here could assist the RA's in defining the specific mitigation measures and thresholds.

Response: As part of the Noise Management Plan, CTC will retain an expert to address noise related complaints or concerns and conduct any necessary field work related to noise during construction, when necessary. If numerous public complaints regarding noise and vibration occur during construction, the CTC will set up monitors in the field to determine the noise and vibration levels. The builder will be required to comply with the City of Windsor Noise Ordinances.

2. The federal review team is satisfied with the proposed monitoring; however we do have concerns with the choice of instrument for PM_{2.5} measurements. Both EC and the Ontario Ministry of Environment deploy PM_{2.5} instruments in our monitoring networks that are approved by the US EPA as Class III federal equivalent method (FEM) instruments. The proposed instrument for PM_{2.5} (GRIMM EDM 107) is not an FEM-approved instrument, therefore it is unknown if it will generate reliable data that will also be comparable to the MOE or EC networks. Due to the existing concerns regarding air issues at Huron Church Road (and associated sensitive receptors), the predictions that PM_{2.5} concentrations will be close to the Ambient Air Quality Standard (AAQS), and the predictions that PM₁₀ concentrations will occasionally exceed AAQS around Huron Church Road, it is important that the monitoring instruments that are used are known to generate reliable data. It is therefore recommended:

- A federal equivalent method (FEM) instrument approved by the US EPA should be used as the choice of instrument for PM_{2.5} measurements. For advice on the monitoring instrument and methodology the proponent may contact:

Dennis Herod

Science and Technology Branch - AQRD - Analysis and Air Quality Section,
335 River Road, Ottawa, Ontario K1A 0H3
(613) 949-0149

- Since the Air Quality Monitoring Plan is intended to monitor the air quality during construction phase and allow the proponent to take timely mitigative measures as necessary, the results must be analyzed as soon as possible and adaptive mitigative measures implemented without delay. The monitoring locations and results should also be reviewed by the responsible authorities and applicable expert federal authorities on a regular basis to ensure any necessary mitigative measures are taken in a timely fashion to reduce air quality impacts.

Response: The Proposed Air Monitoring Concept for the Canadian Transit Company has been updated to address the comments. Specifically, Section 2.1: PM, was updated to replace the Grimm EDM 107 with a Thermo Scientific SHARP model 5030 real-time monitor. One will be configured for PM_{2.5} and the other for PM₁₀. These monitors are currently installed in many of the Ministry of the Environment monitoring sites in Ontario. The SHARP 5030 monitor combines light scattering photometry and beta radiation attenuation for continuous measurement of either PM_{2.5} or PM₁₀. Digital filtering is used to continuously mass calibrate the nephelometric measurements resulting in accurate and precise data.

In Section 3: Reporting, the proposed reporting was clarified to reflect a more timely manner in which a result will be provided. The revised monitoring plan is attached to this technical memo.

3. Please provide clarification on what is meant by the “enhancements” to the Peregrine nest ledge that are referred to in the EIS. Does this refer to structural changes/additions?

Response: Enhancements would mostly likely include the addition of or improvement to a nesting box or tray. Potential other improvements include enlarging the area underneath the bridge that is utilized by the falcons, or drainage improvements if found necessary.

4. Understanding that the Peregrine Falcon Management Plan (PFMP) will be finalized prior to construction and provided to responsible authorities for review, the precise distance from the Peregrine Falcon nest to the proposed structure should be clearly stated in the PFMP Introduction.

The PFMP states, “The new six-lane cable-stayed bridge will be located approximately 30.5 metres (100 feet) west of the centre line of the existing Ambassador Bridge to the centre line of the proposed bridge which is referred to as the replacement span.” (Sec. 3.0, p. 2, para. 3). This description is misleading, since as is noted in the Comment/Response Table (#57 and #96), “The location of the proposed bridge is approximately only 20 feet from the existing nest.” The very close proximity of the Peregrine Falcon nest to the proposed structure is the reason EC recommended that a PFMP be prepared, so the actual distance should be clearly stated in the PFMP Introduction (Sec. 1.0).

Response: The proposed bridge span is a minimum of approximately 5 meters (17 feet) from the current peregrine falcon nest. The proposed tower pier, where more extensive work will be conducted, is approximately 152 meters (498 feet) from the current falcon nest. These measurements have been added to Section 1.0 of the PFMP. However, if a nesting box is placed on the southeastern side of the bridge as suggested and is successfully used by the birds, the nest will be an additional 17 meters (55 feet) from the proposed work.

5. The CTC must consult with MNR regarding the level and frequency of activity that they believe is most appropriate to acclimatize the Peregrine Falcon to the activities of maintenance personnel. Results must be incorporated into the PFMP final draft.

Response: CTC will continue coordination with the MNR regarding the PFMP.

6. The proponent must consult with MNR regarding the relocation of Peregrine Falcon chicks. The PFMP should summarize communication with named MNR staff, and if moving the chicks is a viable option, a section should be included which outlines all of the necessary steps to safely relocate the chicks, including the acquisition of permits – in particular a provincial Endangered Species Act (ESA) permit.

Response: CTC will continue coordination with the MNR regarding the PFMP. If nest relocation is necessary, a section will be added to the Final PFMP.

7. Monitoring of Peregrine Falcon during construction should be conducted in cooperation with MNR, and a list of experienced individuals likely to be members of the monitoring team should be included in the PFMP.

Response: CTC will continue coordination with the MNR regarding the PFMP. A list of individuals likely to be conducting the monitoring activities will be added to the Final PFMP after coordination with MNR. Suspected individuals include the following: Mark Nash, David Jolly, Yves Scholten, and/or Dan Werner.

8. Please clarify exactly what is meant by “capture” of Peregrine Falcon, whether MNR is supportive, and, whether ESA permit(s) are required for the activity.

Response: If nest relocation is necessary, the chicks would need to be captured prior to the nest relocation. As stated in the PFMP, this would be proposed only as a last possible resort. The person(s) conducting the relocation would be required to obtain a SARA permit. Further, a permit under the Ontario Endangered Species Act (ESA) would be obtained from the MNR prior to conducting any field work. Any relocation or capture activities would only be done after consultation and approval from the MNR.

9. Please provide us with additional details on the monitoring at the Ambassador Bridge that was used to develop the 200 m and 400 m Peregrine Falcon buffer zones. How exactly were these distances derived?

There are several references to “buffer zones” (Sec. 8.1, p. 9, point 4), more specifically a “Restricted Zone” which includes the nest site and extends 200 m from the nest (Sec. 8.2, p. 10, para. 3), and a “Sensitive Zone” which is the area adjacent to the Restricted Zone and extends approximately 400 m away from the nest (Sec. 8.2, p. 10, para. 4). EC questioned these buffer zone distances in previous comments but the PFMP still does not provide a detailed explanation as to how they were derived. It is stated that, “Management zones have been determined from past monitoring efforts, the design of the bridge, and the line of sight from the nest site to the activity.” (Sec. 8.2, p. 10, para. 2). As was noted by EC using the example of the Burlington Lift Bridge Management Plan, Peregrine Falcon nest sensitivity is usually addressed according to the specific circumstances of the project and the resultant behavior of the birds during the various stages of nesting. It would be helpful to have some additional details on the monitoring at the Ambassador Bridge that was used to develop the 200 m and 400 m zones.

Response: The zone boundaries were based on the factors mentioned above as well as observed areas used by the falcons. The Restricted Zone is generally considered a high use area for the peregrines for foraging and roosting. This would encompass much of the bridge, several nearby parks and the river bank, where prey may frequent. The Sensitive Zone is generally considered a moderate use area for the peregrine falcons. A statement has been added to the PFMP that states the boundaries of these zones are subject to change once construction begins based on the behavior of birds. The zones were set up prior to construction in order to help lay out areas considered safe for staging and to help determine the sequence of construction.

Detailed observations of the falcons nesting on the Ambassador Bridge can be found through the Canadian Peregrine Foundation as well as other birding sites. These observations were used to help determine the draft management zones for the peregrine falcons.

10. The proponent should contact Catherine Jong, SAR Biologist with the MNR Aylmer District Office to ensure they are following all provincial guidance, regulations and legal requirements with respect to Peregrine Falcon.

Catherine Jong
519-773-4736
catherine.jong@ontario.ca Species at
Risk Biologist
615 John St N Aylmer ON N5H2S8

Response: Attempts have been made to contact Ms. Jong. CTC will continue coordination with the MNR regarding the PFMP.

11. It is noted that "Work outside of the nesting season that does not alter the known nest ledge" (Sec. 7.9.2, p. 258, point 10, last bullet) may be conducted at any time of year without restrictions. This seems appropriate, but it is unclear what the proponent means by "other than enhancements". EC defines "enhancements", as structural changes/additions, but the proponent's definition should be clarified.

Response: Enhancements would mostly likely include the addition or improvement of a nesting box or tray. Potential other improvements include enlarging the area underneath the bridge that is utilized by the falcons, or drainage improvements if found necessary.

12. There are many references to the proponent providing an experienced monitoring team for the peregrine falcon nest to determine if construction of other elements of the project is affecting the nest and to determine when the birds "flee the nest." (Sec.5.7.1, p. 66, para. 6; Sec. 5.8.1, p. 68, para. 2; Sec. 5.18, Table 5.19, point 10, p. 101; Sec. 7.4.6, p. 194, para. 4 ; Sec. 7.4.6, p. 196, para. 3; Sec. 7.4.6.4, p. 203, para. 2; Sec. 7.9.2, p. 257, para. 4). These references should state that the experienced monitoring team will determine when the young birds have fledged, that is, when they have matured and flown from the nest.

Response: The sections mentioned above have been updated as suggested. Specifically "flee the nest" has been updated to read, " fledged the nest."

13. It is stated that, "It is recommended that bridge personnel who regularly work on the bridge should appear on the structure as frequently as possible to enable the falcons to recognize them." (Sec. 7.1, p. 8, para. 2). This statement should be reviewed after the proponent receives input from MNR as to level and frequency of activity that they believe is most appropriate to acclimatize the birds to the activities of maintenance personnel.

Response: Attempts have been made to contact Ms. Jong. CTC will continue coordination with

the MNR regarding the PFMP.

14. With regard to the relocation of chicks from the existing nest site (i.e., SW side of pier) to the nesting box (SE side of pier) it is stated that, "Chicks cannot be moved until at least twelve (12) days after hatching. Any possible relocation may occur after the 12 day period has passed and can only occur under the discretion of an MNR biologist that has the training and experience in relocating falcons." (Sec. 7.1, p. 8, para. 4). The PFMP should summarize communication with named MNR staff, and if moving the chicks is a viable option, a section should be included which outlines all of the necessary steps to safely relocate the chicks, including the acquisition of permits – in particular a provincial Endangered Species Act (ESA) permit.

Response: If nest relocation is necessary, the chicks would need to be captured prior to the nest relocation. As stated in the PFMP, this would be proposed only as a last possible resort. The person(s) conducting the relocation would be required to obtain a SARA permit. Further, a permit under the Ontario Endangered Species Act (ESA) would be obtained from the MNR prior to conducting any field work. Any relocation or capture activities would only be done after consultation and approval from the MNR.

15. It is stated that, "If activities must occur within the nesting season, an experience(d) monitoring team will evaluate if the activity is likely to adversely affect the nesting peregrines and may be required to monitor the nest during the activity." (Sec. 8.0, p. 9, para. 1). Such monitoring should be conducted in cooperation with MNR, and a list of experienced individuals likely to be members of the monitoring team should be included in the PFMP.

Response: CTC will continue coordination with the MNR regarding the PFMP. A list of individuals likely to be conducting the monitoring activities will be added to the Final PFMP after coordination with MNR. Suspected individuals include the following: Mark Nash, David Jolly, Yves Scholten, and/or Dan Werner.

16. There are several vague references to Peregrine Falcon "capture" in the PFMP (Sec. 8.1, p. 9, point 4; Sec. 8.2, p. 11, point 4). It should be clear: (1) exactly what is meant by capture, (2) whether MNR is supportive, and, (3) whether permit(s) are required for the activity.

Response: Capture is meant to describe physically containing the bird. If nest relocation is necessary, the chicks would need to be captured prior to the nest relocation. As stated in the PFMP, this would be proposed only as a last possible resort. The person(s) conducting the relocation would be required to have a SARA permit. Further an ESA permit would be obtained from the MNR. Any relocation or capture activities would only be done after consultation and approval from the MNR.

17. The "Contact Information" section of the PFMP (p. 12) shows the Niagara MNR contact for the Burlington Lift Bridge Management Plan; this should be changed to the contact information of Catharine Jong, SAR Biologist with the MNR Aylmer District Office.

Response: This has been updated.