Town of Caledon IFRQ #23-142 Peer Review of the Transportation Impact Study and Haul Route Assessment – Round #2

Date:	Friday, December 05, 2025
Project:	Town of Caledon IFRQ #23-142 – Peer Review of the Transportation Impact Study and Haul Route Assessment for Proposed Official Plan Amendment (POPA 2022-0006) and Zoning By-law Amendment (RZ 2022-0010) – CBM Caledon Quarry
To:	Town of Caledon
Cc:	Peel Region
From:	HDR
Subject:	Peer Review of the Transportation Impact Study and Haul Route Assessment – CBM Caledon Quarry – Round #2

1 Introduction and Background

HDR was retained by the Town of Caledon to undertake peer review of a report entitled **Transportation Impact Study and Haul Route Assessment prepared by T.Y. LIN International Canada Inc. (TYLin)** dated December 2022 (Revised July 2023) and referred to herein as the "Transportation Study". A peer review was submitted to the Town in the form of a comment-response matrix and memorandum dated November 25, 2024 summarizing the findings of the peer review.

Since the peer review, TYLin has updated the Transportation Study, and the updated report is dated March 2025. Subsequent to preparing the March 2025 Transportation Study and in advance of HDR's review of the March 2025 Transportation Study, a meeting was held on September 26th, 2025 with attendance of TYLin, HDR, Peel Region, and Town of Caledon.

During the meeting additional requests were made to TYLin relating to the trip generation methodology and the traffic signal warrant which was conducted. A memorandum dated October 31, 2025 and prepared by TYLin addressing these comments was circulated to HDR and is included in this review, with the information in that memorandum superseding or supplementing some information contained in the March 2025 Transportation Study.

One of the primary revisions in the March 2025 Transportation Study was the shifting of the proposed site driveway on Charleston Sideroad to the west, to avoid overlap with the snow storage facility driveway. The new proposed location of the site driveway is acceptable.

2 Round #2 Peer Review Comments

Comments on the March 2025 Transportation Study are provided in **Appendix A**. Many of the comments have been adequately addressed and are verified as noted in the response matrix.

However, there are outstanding comments that have not been addressed and require additional information or revised presentation. The outstanding comments are detailed as follows:

1. **Truck trip generation** – The truck trip generation in the report is based on first principles calculations which are based on the tonnage capacity of a typical truck as well as the yearly tonnage limit for the site. A surge factor has been applied to account for the fact that truck arrivals throughout the day are not equally distributed. There is no supporting data for the surge factor.

   A comparable quarry and proxy site is referenced to support the truck trip generation calculations, referred to as the 'Aberfoyle' site in the October 31st memorandum. A monthly material shipping estimate is referred to and provided in Table 6-2. However, the proxy site and the monthly material shipping estimates are not utilized in the truck trip generation and there is no clear connection between the first principles calculation and the proxy site.

   If the Aberfoyle site is considered comparable to the subject site in terms of material type, quantity, and truck activity, then a traffic count at the Aberfoyle site driveway should be collected and used as proxy for the subject development. If there is weigh scale data from that site indicating which month experiences peak demand, that can be used to adjust the driveway traffic count volume to be representative of a peak month. Weigh scale data is preferable over 'monthly material shipping estimates', if available, or if rationale is not provided to not utilize the available weigh scale data.

   If the material tonnage limits are not consistent between the subject development and the Aberfoyle site, then converting the site trips to a tonnage-based trip rate may be required.

   The results of the proxy site trip generation should then be compared with the results of the first principles calculation to validate the calculation. If there is a major discrepancy between the two results, the higher trip generation should then be used in the analysis to be conservative. Preference should generally lean towards real-world data.

   The non-truck traffic trip generation estimates based on first principles are acceptable.

2. **Sightline assessment** – the graphics and summary of required and available sight distances is not clear. The graphics should depict the sight triangles based on the field-collected sight distances and should have the required sight distances overlaid so that they can be easily compared for each driveway location.

Separate figures may be required for turning sight distance and stopping sight distance as there would be overlapping measurements.

Separate figures may be needed for driveways along Main Street and Mississauga Road as there may be overlapping measurements.

It is noted that the sightline must pass through the property line to achieve adequate sight distance. If this is the case, a commitment to maintaining unobstructed sightline must be made by not constructing any buildings or placing objects on site that would interfere with sightlines.

The photographs in Appendix E should be updated to indicate the location of the driveway or obstruction so the locations can be more easily references against the sight triangle graphics.

3. **Hurontario Street at Charleston Sideroad analysis and operations** – The revised analysis is reporting worsened operations at this intersection as a result of removing the lost time adjustment of -2s, adding additional site traffic, and extending the horizon year from 2032 to 2037 resulting in more background traffic. The report notes that the majority of the operational deficiencies and queue storage deficiencies are present under background conditions and that the site has marginal contribution to the degrading operations. Considering that this is an MTO intersection, if the MTO accepts the conclusions of the report then no additional action is required.

4. **Truck use of surrounding roadways and Truck restrictions** – The report does not include any discussion to address the concern that site traffic may use alternative roadways that are not along the site specific designated haul route. Some discussion should be added. HDR provided example rationale in previous comments.

   The graphic showing truck restrictions does not depict truck restrictions posted on the roadway. The graphic shows ‘designated haul routes’ but would be better suited to depicting actual posted truck restrictions based on in-field signage.

5. **Site driveway signalization** – The March 2025 report includes analysis of the site driveway under stop control and indicates that the driveway would operate satisfactorily under stop control. A revised signal warrant was conducted using the latest methodology contained in the Ontario Traffic Manual Book 12 and with truck volumes adjusted to Passenger Car Equivalents. The warrant is not met. Despite this, the report concludes that a signal is still desired to facilitate outbound truck movements from the site. In consideration of the updated analysis, the report should acknowledge that introducing a traffic signal would introduce delays to traffic passing the site along Charleston Sideroad, as demonstrated in Table 10-3.

APPENDIX A

COMMENT RESPONSE MATRIX WITH ROUND #2 COMMENTS