

## Proposed Milton Quarry East Extension JART COMMENT SUMMARY TABLE – Traffic

Please accept the following as feedback from the Milton Quarry Joint Agency Review Team (JART). Fully addressing each comment below will help expedite the potential for resolutions of the consolidated JART objections and individual agency objections. **Additional, new comments may be provided once a response has been prepared to the comments raised below and additional information provided.**

	JART Comments (August 2022)	Reference	Source of Comment	Applicant Response (December 2022)	JART Response (June 2023)
<b>Report/Date: Traffic Impact Study/ Haul Route Assessment October 2021</b>		<b>Author: The Municipality Infrastructure Group</b>			
1.	It is unclear if MTO or other jurisdictions were consulted prior to the preparation of the Traffic Study. If they were, consultation correspondence should be provided.		Town of Milton	Halton Region, Town of Milton, and Town of Halton Hills were consulted prior to the preparation of the Traffic Study. The subject lands are located beyond MTO's permit control area. TYLin will circulate MTO a copy of the Traffic Impact Assessment, but does not anticipate any response or comments since it is not within their permit control area.	Comment addressed.
2.	The intersection of No. 5 Sideroad at James Snow Parkway should be analyzed.		Town of Milton	As noted in the TIS, 5 Side Road is not part of the haul route and therefore it is TYLin's opinion that this intersection does not warrant further assessment.	Comment addressed.
3.	Future horizon/analysis should be reanalyzed with a peak hour factor of 1.00 for the Town of Milton owned Roads.		Town of Milton	Noted. However, it was decided to maintain the existing peak hour factors in order to maintain a more conservative analysis.	Comment addressed.
4.	A figure should be provided showing the net increase in the quarry trips on the road network as a result of this expansion.		Town of Milton	There will be no net increase in the number of quarry trips due to the extension, therefore no figure is shown.	Comment addressed.
5.	Has Dufferin reached out to MTO for feedback on the proposal and proposed haul routes?		Halton Region	No, the subject lands are located beyond MTO's permit control area. TYLin will circulate MTO a copy of the Traffic Impact Assessment, but does not anticipate any response or comments since it is not within their permit control area.	Comment addressed.

6.	The TIS was to have reviewed the issue of heavy vehicles travelling on 5 Side Road from Milton quarry to Brampton and what mitigation measures can be implemented to avoid this. The Town has confirmed that the presence of heavy vehicles are cutting through the new 5 side road, to/from Trafalgar Road. Please identify mitigation measures, i.e.. Truck Monitoring Station, to eliminate cut through heavy trucks.		Town of Halton Hills	<p>It is our understanding based on discussions with Dufferin, that this is an infrequent event and 5 Side Road permits truck traffic. Furthermore, Dufferin has a close working relationship with the Town of Halton Hills Public Works Department and if an issue is identified, Dufferin works closely with Town Staff to resolve the issue.</p> <p>Also, as mentioned in Item 13, it is suggested a traffic group be established to encourage ongoing liaison between the municipalities and Dufferin. Furthermore, Dufferin agrees to install a sign at the entrance/exit on Dublin Line instructing drivers not to use 5 Side Road except for local delivery.</p> <p>This issue is further discussed by the peer reviewer in Comment #26 and CIMA+ was satisfied that this has been addressed.</p>	<p>Comment addressed.</p> <p>The Town of Halton Hills will be entering into a haul route agreement with Dufferin.</p>
7.	The TIS was to have reviewed ongoing queuing issues on Dublin Line and 5 Side Road during the A.M. quarry peak time. Field review of existing conditions should be incorporated into the report to describe the real-time operations.		Town of Halton Hills	<p>Dufferin has existing protocols in place in the event of queueing, and will arrange a meeting with the Halton Hills Director of Public Works to discuss further and ensure the existing measures are sufficient.</p> <p>Also, as mentioned in Item 13, it is suggested a traffic group be established to encourage ongoing liaison between the municipalities and Dufferin.</p> <p>This issue is further discussed by the peer reviewer in Comment #27 and CIMA+ was satisfied that this has been addressed.</p>	<p>Comment addressed.</p>
8.	The TIS was to have reviewed mitigation measures to reduce Illegal parking on 5 Side Road. Additional discussions with The Town of Halton Hills and the applicant/owner and TIS consultant is required on this to remedy any parking issues.		Town of Halton Hills	<p>Please also see response to Items 6 and 7 above.</p>	<p>Comment addressed.</p>
9.	The TIS was to have evaluated existing and/or proposed haul routes for the existing and future road network (i.e., Hwy 401/Tremaine interchange). The Town would like to have a Haul Route agreement, and options provided to mitigate 5 Side Road (not limiting a Truck Monitoring Station i.e., similar to Maple Avenue).		Town of Halton Hills	<p>Future haul routes were discussed in Section 5.3 of the TIS.</p> <p>Regarding a haul route agreement, the situation at 5 Side Road is quite different than the situation at Maple Avenue. Furthermore, it is noted that 5 Side Road is a truck route and is already used by non-site related trucks due to the proximity of the Milton 401 Industrial Business Park. Please also see responses to Items 6 and 7 above.</p>	<p>Comment addressed (Dufferin entering into haul route agreement with the Town)</p>

10.	Halton Hills is concerned with operational issues (i.e., dirt tracked on Dublin Line). Add the condition for sweeping and cleaning frequency into the ARA site plan/agreement.		Town of Halton Hills	Dufferin currently, and will continue to, operate with a Sweeping Plan in place. Additionally, monitoring of operations and establishment of the liaison team will assist with resolving these issues.  This is not appropriate for inclusion on an ARA site plan as it deals with lands outside of the Licence boundary.	Comment addressed.
11.	Update the TIS pertaining to the Dublin Line access pertaining to operational review (i.e., collisions, sightlines). Provide a figure with an aerial, confirming sightlines are met.		Town of Halton Hills	This was addressed in TYLin's Safety letter and Sightline Memo dated March, 2022, and July 2022 respectively (Attachments #1 & 2).	Comment addressed.
12.	The proponent shall consult with Halton's Transportation Planning prior to preparing the revised version of the TIS in order to confirm methodologies and assumptions for existing traffic data use and future volume forecasts in the study area.		Halton Region	Halton Region was consulted during the pre-consultation / Terms of Reference stage where methodologies and assumptions for existing traffic data use and future volume forecasts in the study area were agreed upon.	The submitted materials address Halton Region's previous comment and thus are satisfactory to Transportation Planning.

**CIMA Original Recommendation**

13.	The following comment was made on the Impact of Haul Route on Multiple Municipalities about the impacts to the road network should be coordinated between the municipalities, due to the haul route crossing municipal boundaries.  <b>This has not been addressed:</b>  No mention in the report about how coordination between the various stakeholders will occur.		CIMA+	To address this comment, Dufferin commits to adding the following requirement to the ARA site plans for the proposed extension:  "The Licencee shall invite the Region of Halton, the Town of Halton Hills, and Town of Milton to an annual meeting to discuss and address any truck traffic concerns including, but not limited to, the use of 5 Side Road, off-site queuing, and street sweeping on Dublin Line."	<b>Addressed</b>  Dufferin's commitment, as part of ARA site plans for the proposed extension, to inviting the Region of Halton, Town of Milton and the Town of Halton Hills to an annual meeting to discuss/address truck traffic concerns.
14.	The following comment was made on the Study Area Intersections about how it should include No. 5 Sideroad at James Snow Parkway (signalized) intersection and the stop-controlled quarry site access on Dublin Line, and provide clarification for the current and future use of the existing quarry site access on Sixth Line Nassagaweya located approximately 2.85 km east of 15 Side Road.  <b>This has been partially addressed:</b>  Section 2.2-Study Intersections discussed reason for the omission of No. 5 Sideroad at James Snow Parkway (signalized) intersection  <b>This has been addressed:</b>  Section 5.3 discussed future haul route option 1 and 2. Neither option used Sixth Line Nassagaweya access. • Pre-consultation response #7 states that the Sixth Line Nassagaweya quarry access is currently being utilized by staff to enter and exit the premises. The access is projected to remain exclusive to staff use under future conditions, with staff trips not projected to change. Accordingly, operations at the existing staff access were not		CIMA+	As noted in the TIS and in the responses to Items 2 and 6 above, 5 Side Road is not part of the haul route and therefore it is TYLin's opinion that this intersection does not warrant further assessment.	<b>Addressed</b>  Analysis of the intersection of No. 5 Side Road and James Snow Parkway was included as part of the TIS Addendum & response – Section 5. Future Conditions

	reviewed as no changes are projected to the traffic volume or distribution/assignment as part of the proposed quarry extension.				
15.	<p>The following comments were made on the future roadway network on how Section 2 should include a map showing the future roadway network and modified haul route along the Tremaine Road realignment and new Highway 401 interchange as part of the ToR. Study scope includes future Highway 401 ramp terminals on new Tremaine Road. As these ramp terminals are MTO jurisdiction, the Town of Milton should ensure that the study is circulated to the MTO for their review.</p> <p><b>This has been addressed:</b></p> <p>Figure 5-1 illustrates both future haul route options. It includes the modified haul route along the Tremaine Road realignment and new Highway 401 interchange. Report does not mention circulating the report to the MTO for review.</p>		CIMA+	Noted.	<p><b>Addressed</b></p> <p>Figure 1 of the Safety Analysis Letter (Attachment #1) illustrates the preferred future haul route Option 1.</p> <p>It includes the modified haul route along the Tremaine Road realignment and new Highway 401 interchange.</p>
16.	<p>The following comments were made on Future Conditions on how it should include a comparative analysis of the existing and future haul routes, analyze and compare future traffic operations for both the existing haul route and modified haul route to determine the impacts to traffic operations of modifying the haul route vs. maintaining the existing haul route, and provide justification and demonstrate that the proposed modified haul route is feasible from a traffic operations perspective</p> <p><b>This has not been addressed:</b></p> <ul style="list-style-type: none"> <li>Report does not conduct a comparative analysis of the existing and future haul routes. The existing haul was examined under 2021 existing conditions.</li> <li>In Section 5.3 Future Haul Route Option 1 is the preferred option, as it does not encroach on the Niagara Escarpment Natural Area among other issues such as reduced distances and noise pollution; therefore, it was the only studied haul route in the future scenarios.</li> </ul> <p><b>This has been addressed:</b></p> <p>Future haul route option 1 is expected to operate well under 2026 future total conditions. Section 8.2 summaries intersection operational results.</p>		CIMA+	<p>TYLin has reviewed traffic operations analysis of the scenario in which the existing haul route is maintained under future conditions, as part of a comparative future analysis. The results of the analysis are presented in Tables 1 and 2 (Attachments #3 and #4), compared to operations using the future haul route; Arcady was used for roundabout analysis, and Synchro was used for all other intersections. Synchro and Arcady reports outputs are included in Attachment #5.</p> <p>Under both existing and future haul routes, all study area intersections are operating well within capacity and acceptable delays during the AM peak hour as shown in Table 1 (Attachment #3). Overall, intersections are operating with LOS D or better. Critical movements included the eastbound through movement at Regional Road 25 / Highway 401 Eastbound Off-Ramp with a LOS E. While this movement experiences an LOS E, its v/c ratio is 0.94, indicating reserve capacity remains. It should be noted that additional lane improvements are expected at the Highway 401 off-ramps; both improvements are expected to improve the capacity issues and operations at this interchange in the future.</p> <p>Under both existing and future haul routes, all study area intersections are operating well within capacity and acceptable delays during the PM peak hour as shown in Table 2 (Attachment #4). Overall intersections are operating with LOS D or better. Critical movements include the eastbound through movement at Regional Road 25 / James Snow Parkway with an LOS E. While this movement experiences an LOS E, its maximum v/c ratio is 0.46, indicating reserve capacity.</p>	<p><b>Partially Addressed</b></p> <ul style="list-style-type: none"> <li>The report provides a comparative analysis of both truck haul routes under future background and future total scenarios in section 6. Section 5 of the document goes into descriptive detail as to the 3 potential haul route options, while Section 6 provides operational analysis of the first and second haul route options under future background and future total scenarios. Figure 5-12 provides the net trip difference between the two analyzed haul routes.</li> <li>Figure 3-1 shows the trip distribution applied to the existing quarry trips, which is the same distribution applied to the quarry trip generation shown in Figure 3-3 and the future total volume for the existing haul route (Option 1) in Figure 5-8. Additionally, Figure 3-1 indicates the proportion of trucks that make local deliveries and the proportion of truck taking the WB off-ramp.</li> <li>For Option 2, the quarry trips are shown in Figure 5-10 where truck traffic has been reassigned to Tremaine Road. Figure 5-11 shows future total volumes, while 5-12 shows a comparison between Options 1 and 2.</li> <li>However, the traffic distribution issue has not been resolved. It is still not clear where the truck for the existing haul route is originating as Figures 3-3 and 5-8 shows no volumes coming from the 401 ramps.</li> </ul> <p><b>Recommendations:</b></p> <ul style="list-style-type: none"> <li>It is recommended that the proponent complete the necessary changes to Figures 3-3 and 5-8 to address the missing information.</li> <li>It is recommended that the proponent complete a similar review of the information</li> </ul>

			<p>Additionally, the southbound approach of the Dublin Line is projected to operate at LOS E under both the existing and future haul routes. As noted in the TIS, this delay is projected at LOS E due to the high volume of westbound left-turning vehicles from James Snow Parkway to Tremaine Road accessing the planned interchange, reducing gaps for southbound vehicles to enter the roundabout. Nonetheless, the delay projected along Dublin Line for both haul routes during the PM peak hour is below 40 seconds per vehicle, with operations below capacity, which is considered acceptable.</p> <p>When the existing and proposed future haul route operations are compared against each other under future conditions, operations including v/c ratios and LOS are largely similar in both the AM and PM peak hours. In both peak hours, the future haul route is expected to have minor increases in delay at the roundabout. In the AM peak hour, increased v/c ratios are noted at the 401 Westbound Tremaine Road offramp with corresponding increase in delay; however, the LOS remains the same. As well in the AM peak hour, the intersection of James Snow Parkway at Regional Road 25 is expected to improve from LOS C to LOS B in the AM peak hour, largely due to the reassignment of truck traffic from the intersection to the Tremaine Road interchange. Beyond these minor differences, future operations under either haul route are expected to be similar and acceptable. TYLin continues to support the future proposed haul route, however, as the diversion of trucks to the Tremaine Road interchange will lessen the amount of truck traffic on regional/local roads, and also reduce the distance travelled on regional/local roads leading to reduced fuel consumption and travel times for drivers.</p>	<p>presented in Figure 5-12 to address the observed trip distribution disparities between the two haul routes.</p>
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17.	<p>The following comments were made on Trip Distribution and Assignment on how it should indicate what are the intended trip distribution assumptions (e.g. truck routes data collected from Dufferin Aggregate - Milton Quarry)</p> <p><b>This has been partially addressed:</b></p> <p>No trip distribution assumptions were made. Section 3 states that TMIG utilized historical haulage data provided by the project team from 2020 as well as existing truck assignment along the haulage route. Section 5.4 discusses the use of the MRC study for directional distribution at the future Tremaine interchange.</p>		CIMA+	<p>No trip assumptions were made because of the use of historical haulage data to provide actual assignment. Explanation of the future haul route assumptions (from the MRC study) was provided in Section 5.4 of the TIS dated October 2021.</p>	<p><b>Partially Addressed</b></p> <ul style="list-style-type: none"> <li>Section 5.3 outlines that for haul route Option 2, assumed that all vehicles travelling via Highway 401 would now do so via the planned Tremaine Road interchange.</li> <li>Section 5.5.4 outlines that in Option 2, the assumption is that most (not all) of the truck traffic from the existing haul route will be reassigned to Tremaine Road and the new Highway 401 access.</li> <li>As mentioned in the previous comments, trip distribution disparities between the two haul routes have been provided in Figure 5-12.</li> </ul>
18.	<p>The following comments were made on Study Parameters:</p> <ul style="list-style-type: none"> <li>Discusses a review of the projected queues at the turning movements impacted by the truck routes;</li> <li>Include existing and projected queue lengths (per Region's TIS Guidelines, Section 3.6.1) at all study area intersections as well as mitigation measures for queues that are expected to exceed available storage. The use of SimTraffic is recommended for the queuing analysis.</li> </ul> <p><b>This has not been addressed:</b></p> <ul style="list-style-type: none"> <li>No review of the projected queues at the turning movements impacted by the truck routes (due to some study area intersection queue analysis not done).</li> <li>Section 6.1 indicates that the trip assignment to JSP @ RR25 and RR25 @ HWY 401 are negligible; therefore no assessment was done.</li> </ul> <p><b>This has been partially addressed:</b></p> <ul style="list-style-type: none"> <li>Study area intersections including RR25 @ JSP, RR25 @ HWY 401 WB off-ramp and RR25 @ HWY 401 EB off-ramps were not assessed.</li> <li>Arcady is used for assessing the roundabout at Dublin Line / Tremaine Road at James Snow Parkway / Campbellville Road and the longest reported 95<sup>th</sup> percentile queue is 36 m.</li> <li>SimTraffic was used for assessing the queues at Tremaine Road at Highway 401 Eastbound and Westbound Off-Ramps. The 95<sup>th</sup> percentile queues are all less than available storage.</li> </ul>		CIMA+	<p>SimTraffic Queuing report outputs have been included in Attachment #5.</p> <p>Under the existing haul route, all movements operate with acceptable 95<sup>th</sup> percentile queues during the AM and PM peak hours as shown in Table 3 (Attachment #6), with the exception of the northbound left movement at Regional Road 25 / James Snow Parkway. Although the 95<sup>th</sup> percentile queue length for this movement exceeds the available storage by 34 metres, this is not anticipated to occur regularly and the majority of the queue will be accommodated within the effective taper. Notably, the 50<sup>th</sup> percentile queue is only expected to exceed the available storage by less than one car length, and is expected to be accommodated within the effective taper. Additionally, the 95<sup>th</sup> percentile queue for the westbound right movement at the same intersection is expected to exceed the available storage by 11 metres, but can be accommodated in the effective lane taper.</p> <p>Under the future haul route, the 95<sup>th</sup> percentile queue for the northbound left movement at Regional Road 25 / James Snow Parkway is expected to continue to exceed the available storage but significantly less than compared to the existing haul route (13 metres) as shown in Table 3 (Attachment #6). This is likely due to the reassignment of site traffic to the Tremaine Road intersection. The 50<sup>th</sup> percentile queue is not expected to exceed the available storage under the future haul route scenario. As in the existing haul route, the 95<sup>th</sup> percentile queue for the westbound right movement is expected to exceed the available storage (by 14 metres) and accommodated in the effective lane taper.</p>	<p><b>Addressed</b></p> <ul style="list-style-type: none"> <li>Section 6.3 of the acknowledges all movements which exceed their 95<sup>th</sup> percentile storage lengths, within all future scenarios and outlines that queues expected because of the increased truck traffic, can be either accommodated by the existing effective taper length or addressed as part of future planned road improvements along Regional Road 25 and Highway 401 ramps.</li> </ul>

				<p>The eastbound left movement at the Regional Road 25 / Highway 401 Eastbound Off-ramp exceeds the available storage by 2 to 4 car lengths in the AM peak hour for both the existing and future haul routes. However, this is expected to be resolved with the extension of the left-turn lane to the mainline with the proposed Highway 401 improvements, effectively increasing the storage length from 130 to 470 metres and resulting in no queuing concern for this movement in the future.</p> <p>The above noted 95th percentile queues projected at the roundabout as shown in Table 4 (Attachment #7) do not encroach onto any adjacent intersection. Accordingly, TYLin does not foresee any queuing concerns at the roundabout and expects queues to be lower during a typical day when the quarry trip generation is reduced compared to this conservative site trip forecast scenario.</p> <p>Overall, it is projected neither the existing nor the future haul route are expected to result in significant 95th percentile queueing issues at any of the movements affected by either haul route, with the exception of the northbound left queue at Regional Road 25 / James Snow Parkway. However, the future haul route impacts to this movement are less significant than those resulting from employing the existing haul route under conditions. This provides further justification for the use of the future Option 1 haul route over the existing haul route.</p>	
19.	<p>The following comments were made on Safety Analysis:</p> <ul style="list-style-type: none"> <li>Discuss potential safety or operational issues (per Region's TIS Guidelines, Section 3.6.2) in the study area.</li> <li>Assess the heavy truck routing to and from the quarry and provide justification and demonstrate that the proposed modified haul route is feasible from a traffic safety perspective.</li> </ul> <p><b>This has not been addressed:</b> A Safety Analysis was not discussed.</p> <p>Note that the future traffic operations analysis in Section 6 does not indicate any operational issues.</p>		CIMA+	<p>This was addressed in TYLin's Safety letter and Sightline Memo dated March, 2022, and July 2022 respectively (Attachments #1 &amp; #2).</p>	<p><b>Addressed</b></p> <p>Attachments #1 and 2 examine potential safety and operational conflicts (TYLin's Safety Analysis Letter) as well as conduct a Sightline Review (TYLin's Sightline Analysis Memo) respectively.</p>

20.	<p>The following comments were made on the Region's Aggregate Resource Reference Manual:</p> <ul style="list-style-type: none"> <li>• Section 4.0 which identifies the purpose and objectives of each study</li> <li>• Section C identifies all policies in any Provincial, Regional or local planning document that deal with the subject matter of the report</li> <li>• Appendix A (specifically Section 8.0) - include and address the requirements identified by the most current versions of the PPS, Greenbelt Plan and Niagara Escarpment Plan</li> <li>• Consideration should be given to traffic safety components including (but not limited to) heavy truck maneuverability at the Dublin Road and James Snow Parkway roundabout and the impacts of increased truck volumes on both the existing and modified haul routes.</li> </ul> <p><b>This has been addressed:</b></p> <ul style="list-style-type: none"> <li>• Section 1.2 outlines the study objectives.</li> <li>• Section 1.1 outlines all the policy documents that apply to the TIS.</li> <li>• The preferred route option avoids the Niagara Escarpment Area; however, Section 1.1 indicates that an amendment to the Niagara Escarpment Plan and a Niagara Escarpment Development permit is needed.</li> </ul> <p><b>This has not been addressed:</b></p> <p>No traffic safety components, such as those listed, were included in the report.</p>		CIMA+	<p>As there are no increase in truck volumes, additional truck safety components were not considered. It is noted that the existing quarry has been in operation since 1962 and has utilized this haul route with no documented safety issues. Furthermore, Dublin Line is a straight road, with good visibility and no blind spots.</p> <p>Regarding the Dublin Line roundabout and the remainder of the haul route, which are major arterial roads (e.g. James Snow Parkway and future Tremaine Road), it is assumed that this infrastructure was designed by the Region to safely accommodate heavy trucks based on existing truck trips to/from the subject lands and background truck traffic originating and destined to the Milton 401 Industrial Business Park.</p>	<p><b>Addressed</b></p> <p>TYLin's Safety Analysis Letter examines the following potential safety impacts from heavy truck movements:</p> <ul style="list-style-type: none"> <li>• Weaving and Merging</li> <li>• Transit Conflicts</li> <li>• Corner Clearances</li> <li>• Sight Distances</li> <li>• Active Transportation Conflicts</li> <li>• Traffic Infiltration</li> <li>• Access Conflicts</li> <li>• Heavy Truck Movement Conflicts</li> <li>• Queuing</li> </ul>
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**Pre-Consultation Inquiries**

21.	<p>The following comments were made on Operational Review about the Dublin Line and Main Access - operational review (i.e., collisions, sightlines).</p> <p><b>This has not been addressed:</b> Response (shown below) was a review based on solely aerial and street imagery. Not site visit was conducted to confirm sightlines. A collision analysis or influence of heavy truck traffic on safety was not mentioned in the report. Response: Dublin Line is a relatively flat and straight roadway, with a posted speed limit of 60km/h. Based on the Transportation Association of Canada (TAC) Geometric Design Standards (2017), a stopping sight distance requirement of 130m is applicable to a design speed of 80km/h (assuming 20km/h over the posted speed CRH Canada Group Inc. Traffic Impact Study/ Haul Route Assessment Dufferin Aggregates Milton Quarry East Extension TMIG PROJECT NUMBER 10108 limit). Based on the vertical and horizontal curvature of the roadway (as reviewed based on aerial on street imagery), it is TMIG's opinion that the stopping sight distance requirement is met at the existing quarry access intersection.</p>		CIMA+	<p>This was addressed in TYLin's Safety letter and Sightline Memo dated March, 2022, and July 2022 respectively (Attachments #1 &amp; #2).</p>	<p><b>Partially Addressed</b></p> <ul style="list-style-type: none"> <li>• Section 7 of addendum provides collision analysis of incidents along haul route intersections and midblocks. Additionally, Tables 7-1 and 7-2, provide collision statistics specifically in regard to collisions involving truck traffic.</li> <li>• Although TYLin show that 47 out of 124 total collisions involved a truck (not necessarily a quarry truck), out of those 47 truck collisions, 10 resulted in injury, but the collision review provides no recommendations and considers the routes appropriate for truck use.</li> <li>• Since the information provided does not specify the type of vehicle, clarification regarding the number of quarry trucks involved in those collisions is required to confirm the validity of the appropriateness of the route.</li> </ul> <p><b>Recommendation:</b></p> <ul style="list-style-type: none"> <li>• It is recommended that the proponent includes clarification regarding the number of quarry trucks involved in the collisions identified in Table 7-1 and 7-2 to confirm the validity of the appropriateness of the route.</li> </ul>
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22.	<p>The following comments were made on Trip Distribution:</p> <p>Trip distribution is to be based on anticipated truck routes to/from the site, with detailed justification provided.</p> <p><b>This has been partially addressed:</b></p> <p>Trip distribution is based on the future planned truck route (Option 1). Justification for Option 1 is for short travel distances, preventing encroachment on Niagara Escarpment Plan. More detailed justification should be provided in Section 5.3.</p>		CIMA+	<p>It is TYLin's opinion that no further justification needed. Sufficient justification has been provided in Section 5.3 regarding the future planned truck route. Regarding trip distribution, sufficient justification has been provided since it is based on actual trip distribution data from the existing quarry operation.</p>	<p><b>Partially Addressed</b></p> <ul style="list-style-type: none"> <li>As previously mentioned, Figure 5-12 highlights the volume differences between the two haul routes. Additionally, Figure 3-3 provides the conservative quarry trips for option 1, while Figure 5-10 provides the conservative quarry trips for option 2.</li> <li>However, as previously mentioned, Figure 3-3 does not show the truck volume coming from the Highway 401 off-ramp. Additionally, Option 2 for the future truck route does not send 100 percent of the truck traffic to Tremaine Road with the remaining traffic still assumed to use Regional Road 25.</li> <li>Details were not provided for the proportion of truck traffic diverted to Tremaine Road.</li> </ul> <p>Recommendations are noted in the JART response to Comment #16.</p>
23.	<p>The following comments were made on Electronic Synchro Analysis Submission to please provide the synchro analysis electronically as part of the submission.</p>		CIMA+	<p>Noted: Synchro files have been attached as a zip file.</p>	<p><b>Addressed</b></p> <p>Synchro files have been provided to CIMA+ on behalf of TMIG.</p>
24.	<p>The following comments were made on Processing Site to identify local aggregate processing sites (i.e., Armstrong Avenue, Georgetown plant).</p> <p><b>(Not addressed)</b></p>		CIMA+	<p>This was deemed outside the scope of work in the Terms of Reference. Furthermore, trip distribution has been provided for this operation based on actual conditions and the appropriate haul route analysis has been completed.</p>	<p><b>Addressed</b></p> <p>Deemed outside scope of work based on Terms of Reference.</p>
25.	<p>The following comments were made on Education for Truck Routes to identify the measures implemented by the Milton Quarry to educate truck drivers with regard to truck route.</p> <p><b>(Not addressed)</b></p>		CIMA+	<p>This was deemed outside the scope of work in the Terms of Reference. However, Dufferin will provide updated signage on-site to remind drivers of the haul route and to encourage drivers to use James Snow Parkway and Tremaine Road.</p>	<p><b>Addressed</b></p> <p>On-site signage will be provided to remind drivers of the haul route and to encourage drivers to use James Snow Parkway and Tremaine Road.</p>
26.	<p>The following comments were made on heavy traffic: Review of the issue of heavy vehicles travelling on 5 Side Road from Milton quarry to Brampton and what mitigation measures can be implemented to avoid this.</p> <p><b>This has been addressed:</b></p> <p>Under existing conditions, 5 Sideroad terminates in a cul-de-sac east of Dublin Line and no longer intersects with Dublin Line / Campbellville Road. Accordingly, traffic to/from the quarry no longer has direct access to 5 Sideroad via Dublin Line. (Confirmed in Google Street view that there is no longer access to 5 Sideroad.)</p>		CIMA+	<p>Noted.</p>	<p><b>Addressed</b></p> <p>Town of Halton Hills will be entering into a haul route agreement with Dufferin.</p>
27.	<p>The following comments were made on queuing issues: Review of ongoing queuing issues on Dublin Line and 5 Sideroad during the AM quarry peak time</p>		CIMA+	<p>Noted.</p>	

	<p><b>This has been addressed:</b></p> <p>Since implementation of the roundabout, Dublin Line no longer has a direct connection to 5 Sideroad and any concerns regarding queuing on 5 Sideroad would no longer apply. Furthermore, queues projected at the Dublin Line intersection to James Snow Parkway during the 2026 future conditions are projected to be acceptable and would not encroach onto any adjacent intersection.</p>			
28.	<p>The following comments were made on mitigation measures: Mitigation measures to reduce Illegal parking on 5 Sideroad.</p> <p><b>This has been addressed:</b></p> <p>Trucks no longer travel along 5 Sideroad and would no longer park along the roadway. Based on input from the project team, TMIG understands that illegal parking did occur along 5 Sideroad on few instances throughout the year. It should be noted that queuing along the boundary roadway has significantly reduced since the opening of the roundabout and the transition of the truck route to James Snow Parkway.</p>		CIMA+	Noted.
29.	<p>The following comment was made on operational issues: Dirt tracked on Dublin Line.</p> <p><b>This has been addressed:</b></p> <p>Based on input from the project team, TMIG understands that Dublin Line is being swept as required to remove any dirt from the pavement. As the cleanliness of the roadway remains an issue, TMIG recommends that Dufferin Aggregates continue to organize street sweeps on an “as-needed” basis in order to keep the roadway clean, with sweeping frequency as often as daily should it be required to keep the roadway clear.</p>			Noted.
30.	<p>The following comment was made on safety review: Safety review at the Dublin Line roundabout to James Snow Parkway and overall haul route.</p> <p><b>This has been addressed:</b></p> <p>The existing roundabout at Dublin Line and James Snow Parkway, as well as the roadway included within the existing and planned haul routes, have been designed and approved by Halton Region and its consultants to accommodate heavy truck movement along the roadway segments and intersections. For this reason, it is TMIG’s understanding that no safety issues related to heavy truck movement would occur from a design standpoint.</p>		CIMA+	Noted.
31.	<p>The following comments were made on the use of existing access: Clarification on the use of the existing Sixth Line Nassagaweya access.</p> <p><b>This has been addressed:</b></p> <p>As confirmed with the project team, the Sixth Line Nassagaweya quarry access is currently being utilized by staff to enter and exit the premises. The access is projected to remain exclusive to staff use under future conditions, with staff trips not projected to change. Accordingly, operations at the existing staff access were not reviewed as no changes are projected to the traffic volume or distribution/assignment as part of the proposed quarry extension.</p>		CIMA+	Noted.
32.	<p>The following comment was made on impacts to natural area on the Impacts on the Niagara Escarpment Natural Area.</p> <p><b>This has been addressed:</b></p>		CIMA+	Noted.

	The preferred haul route reviewed as part of the study does not encroach onto the Niagara Escarpment Natural Area, whereas haul route Option 2 partially would. Accordingly, the choice of Option 1 as the preferred alternative is further solidified.				
33.	The following comments were made on reports: Note that traffic count data and Synchro analysis reports shall be appended to the TIS document.  <b>This has been addressed:</b>  Reports in Appendix C.		CIMA+	Noted.	
34.	The following comments were made on truck routes: Review and identify truck route(s) to/from the Milton Quarry.  <b>This has been addressed:</b>  Figures 2-1 and 5-1.		CIMA+	Noted.	The Town of Halton Hills will be entering into a haul route agreement with Dufferin
35.	The following comments were made on study periods: Assess traffic operations under the weekday AM and PM peak hours of the roadway to quantify the impacts of the expansion on the boundary road network.  <b>This has been addressed</b>		CIMA+	Noted.	
36.	The following comments were made on study intersection: <ul style="list-style-type: none"> <li>• Dublin Line at James Snow Parkway (roundabout);</li> <li>• Regional Road 25 at James Snow Parkway (signalized);</li> <li>• Regional Road 25 at Highway 401 WB Off-Ramp (signalized); and</li> <li>• Regional Road 25 at Highway 401 EB Off-Ramp (signalized)</li> <li>• New south leg (New Tremaine Road) at Dublin Line and James Snow Parkway (roundabout); and</li> <li>• The new intersections of New Tremaine Road at the Highway 401 WB Off-Ramp &amp; EB Off-Ramp (signalized).</li> </ul> <b>This has been addressed</b>		CIMA+	Noted.	
37.	The following comments were made on traffic data: AADT is proposed to be used to derive annual historical growth rates along the study roadways to be applied to the historical traffic volumes in order to derive 2021 existing traffic volumes. For the interchange intersections at Regional Road 25, TMIG proposes to acquire various historical TMC surveys to derive an average annual growth for the ramps should AADT not be available. Should historical TMC data sets not be available, TMIG proposes to apply the AADT derived for Regional Road 25 to the Highway 401 ramps as applicable.  <b>This has been addressed</b>  Due to the pandemic historical traffic data used as a baseline within this study is based on surveys completed within the study area (either commissioned by TMIG in the past or provided by Halton Region). TMIG derived 2021 existing traffic volumes based on historical traffic data and adequate growth rates.		CIMA+	Noted.	
38.	The following comments were made on Conservative Baseline Traffic Volumes: <ul style="list-style-type: none"> <li>• remove the surveyed haulage volumes (based on the historical traffic data) from the derived 2021 volumes and replace them with conservative haulage volumes derived based on the operations of the quarry as detailed below.</li> <li>• derive trip generation rates for the development based on standard 'first principles' approach (applying a Passenger Car Equivalent (PCE)) and the existing Quarry operations.</li> </ul>		CIMA+	Noted.	

	<p><b>This has been addressed</b></p> <ul style="list-style-type: none"> <li>Section 3.1 outlines the removal of the surveyed haulage volume followed by section 3.2 a conservative quarry trip generation.</li> <li>Trip generation rates are based on daily highest haulage recorded in 2020, which represents the highest haulage day of the year.</li> </ul>				
39.	<p>The following comments were made on future conditions: 5-year study horizon to 2026 to assess the impact of the proposed expansion.</p> <p><b>This has been addressed</b></p>		CIMA+	Noted.	
40.	<p>The following comments were made on Traffic Data Model Alternative: Using a previous TIS report within the study area. Use Emery Milton Business Park TIS.</p>		CIMA+	Noted.	
41.	<p>The following comments were made on Trip Distribution and Assignment: The Trip Distribution and assignment for the haulage volume substitution and rerouting to the modified route under future conditions will be based on input from the project team.</p> <p><b>This has been addressed</b></p>		CIMA+	Noted.	
42.	<p>The following comments were made on Study Parameters: Assess the following conditions:</p> <ul style="list-style-type: none"> <li>2021 Conservative Existing Conditions</li> <li>2026 Future Conditions</li> </ul> <p>Using Synchro 10 and review of projected queues at turning movements impacted by the truck routes.</p> <p><b>This has been addressed</b></p>		CIMA+	Noted.	
<b>TOR Comments</b>					
43.	<p>The following comments were made on Traffic Data Model Alternative about using a previous TIS report within the study area. Use Emery Milton Business Park TIS.</p>		CIMA+	Noted.	