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Dear Sirs,

**Re: Rockfort Quarry Peer Review of Supplementary Information
Traffic Impact and Haul Route Component**

On November 3, 2008 we had submitted to you our Peer Review related to the Traffic Impact and Haul Route component for the proposed Rockfort Quarry. Our November, 2008 submission was in response to the Traffic Impact and Haul Route Evaluation Study report (four volumes) prepared by URS Canada Inc. in May, 2005, as well as the Addendum to the Rockfort Quarry Town of Caledon Traffic Impact and Haul Route Evaluation Study Report issued by URS Canada Inc. in July, 2008.

In response to the comments and issues raised in MMM's November 3, 2008 peer review document, on January 30, 2009 URS Canada Inc. provided a further document. Additional information that was requested by MMM Group was also supplied, including the detailed analysis files and the URS December 31, 2008 letter to Student Transportation at Peel District School Board/Dufferin-Peel Catholic District School Board asking if there have been any significant changes to the school bus routes/stops in West Caledon since 1998, as well as a further e-mail detailing the disaggregated school bus/stop information by road segment.

Our responses to the comments and additional information that have been received are detailed below in the same order as presented in the January 30, 2009 URS letter addressed to the undersigned.

1.0 SECONDARY HAUL ROUTE(S) FOR THE QUARRY

1.1 Issue

Previously MMM had stated that secondary truck haul routes have still not been identified, notwithstanding the fact that local deliveries were noted as anticipated to occur. In Section 2.3 of the November, 2008 Peer Review (Conclusions within the Context of OPA 161) we note that “A secondary truck route should have been considered for deliveries to the north and west of the site since there are no guarantees provided that deliveries will not occur to destinations in those areas with respect to ongoing local deliveries”.

1.2 URS January 30, 2009 Response

In the recent submission URS notes the following:

“JDCL has confirmed that given the projected location(s) of market demand, a secondary truck route to the north and west is not required for the successful operation of the proposed Rockfort Quarry. Notwithstanding the above, there is expected to be some sporadic demand from land uses in the general vicinity of the proposed quarry that would result in what can be categorized as local deliveries, these are expected to be less than 1% of the overall deliveries. It is understood that when such deliveries are required municipal permission to use the necessary roads to provide the required access is provided on an as needed basis.”

A map was also attached which indicates three potential local delivery areas.

1.3 MMM Response in View of the Additional Information Provided

We appreciate that local deliveries are forecast to be a very small component of the overall deliveries.

Local Delivery Area 1 as indicated on Attachment 1 to the URS submission, is to the west in Halton Region, as well as within the County of Wellington south of Erin and North of Glen Williams. Travel would be required along at least a portion of Winston Churchill Boulevard to the north or south before proceeding westerly along an east-west roadway to the market destination.

Local Delivery Area 2 is to the north and north-east extending to about Highway 24 (Charleston Sideroad) in the north and Creditview Road to the east. The Forks of the Credit are located in this area. The routing options may include Winston Churchill Boulevard, Olde Baseline Road and one or more roadways under Caledon’s jurisdiction, again depending on the destination and the availability and suitability of the roadways.

Local Delivery Area 3 is shown to be located to the south, east and south-east. It is located west of Highway 10, north of King Street and east of Winston Churchill Boulevard. In part deliveries can be addressed by the proposed haul route including Mississauga Road and King Street. Again this will be dependent upon the specific destination within this market area.

We are prepared to accept the premise that a secondary truck haul route to the north and west is not required provided that:

- Acceptable substantiation is provided to support the ‘less than 1% of overall deliveries’ assumption. For example, this may include data from another comparable quarry where the proportion of local deliveries is clearly identified as distinct from that which uses the primary haul route.

2.0 ENTRANCE DESIGN

2.1 Issue

If as the proponent has recommended, the recommended haul route is to/from the east via Olde Baseline Road abutting the quarry, MMM previously recommended that the entrance design preclude movements to and from the west to ensure that the established haul route is indeed used.

2.2 URS January 30, 2009 Response

“As noted at the meeting a single entrance is proposed for the site and some local deliveries, visiting and worker vehicles may still need to access the site from the west. Therefore, completely precluding movement to and from the west is not a viable option. It is anticipated that final entrance design details including any necessary detailed curbing or shoulder treatments at the entrance will be determined during the EA and/or final design of the upgrading of Olde Baseline Road.”

2.3 MMM Response in View of the Additional Information Provided

We do not take issue with the need to allow visiting and worker vehicles to access the site to and from the west. We also agree that the final entrance design details can be determined during the EA and/or final design of the upgrading of Olde Baseline Road, to the satisfaction of the Region of Peel.

3.0 PERMITTED LAND USES

3.1 Issue

In commenting on conformance with respect to OPA 161 Policies our November, 2008 Peer Review noted that “This item is addressed in the 2005 report. Section 6.E of that report provides descriptions of the existing land uses, the land use activities and the character of the adjacent lands. This section also includes descriptions of the environmentally sensitive features present along each haul route. However, no mention is made as to the permitted land uses along each alternative haul route as per the Town of Caledon Official Plan, or the Zoning By-law. These should have been included. Appendix F of the 2005 report includes the locations and detailed descriptions of driveways and existing land uses along each proposed haul route.”

3.2 URS January 30, 2009 Response

The URS January 2009 submission referenced the following response which had been provided by MHBC:

“Your comment raised the concern that additional information was required related to permitted uses along each of the potential haul routes. OPA 161 requires this information for the preferred haul route, and the MHBC Planning and Justification Report includes information about land use along the haul route on page 55. The various haul routes are also described in Section 6 of the MHBC report. Regardless, JDCC has undertaken to prepare a table of all the permitted uses along each of the potential haul route in order to address your comment. The table is broken up into road segments and permitted uses per the Niagara Escarpment Plan or the applicable Zoning By-law are listed. Zoning maps/Niagara Escarpment Plan maps can also be made available should you require these.”

3.3 MMM Response in View of the Additional Information Provided

MMM is satisfied with this update/additional information from a transportation perspective. The Town of Caledon is still evaluating this from a Social Impact perspective.

4.0 SCHOOL BOARD – UPDATED BUS STOP INFORMATION

4.1 Issue

The November, 2008 peer review notes that the data related to bus stop impacts presented in the 1998 report should have been updated.

4.2 URS January 30, 2009 Response and Other Additional Information

URS has indicated that “In the May, 2005 Report it was indicated that bus routings and stops can vary on a day-to-day basis as well as from year-to-year and that within the rural sparsely populated areas of Caledon where land use change is minimal variations through time are generally not significant.” However in response to MMM’s request URS contacted Student Transportation of Peel Region (STOPR) and attached their response. “STOPR have confirmed that there has been no significant change to the school bus activity in this area and the recent stop information provided is consistent with the information provided in Table 7.2 of the May 2005 Report and does not change the ranking of potential haul routes in that category.”

A copy of the letter from STOPR dated January 22, 2009 was appended to the January 30, 2009 response.

MMM has contacted URS directly and requested the following:

- A copy of URS’s letter to STOPR requesting the updated information. (This letter of December 31st, 2008 was readily provided. The request of STOPR states, “For this update we are asking whether there have been any significant changes since that time and, if significant changes have occurred, it would be appreciated if this updated information could be provided.”)
- For the information provided in the STOPR letter dated January 22nd, 2009 to be disaggregated by road segment. This requested information was provided attached to an e-mail from Roy Pritchard of URS to the undersigned on February 18th. The e-mail states:

“Student Transportation has provided below the enclosed bus stop information for each of the haul route alternative segments which allows a direct comparison with the information previously provided in our May 2005 Report. In addition to the approximate number of stops they have also provided the number of buses that make this total number of stops as well as the time periods when the stops are being made. As you will see the number of stops shown below even varies slightly from the information provided to us less than a month or so ago, thus confirming the general variability of this factor.

In assessing the various haul route alternatives as per Table 7.2 of the May 2005 Report it is noted that there has been relatively little change with Alternatives A and C but Alternative B has now several more stops than it had previously such that it has 1 or 2 more stops than Alternative A. Although Alternative B may be marginally the second best (or possibly tied for first given the typical variability) in the bus stop factor, it is still clearly the best alternative under the Social Assessment category.”

4.3 MMM Response in View of the Additional Information Provided

MMM is in agreement that Alternative B is still the best alternative under the Social Assessment category and for the evaluation as a whole.

However the school bussing/stop information points to the need to exercise caution particularly along Olde Baseline Road between Winston Churchill Boulevard and Mississauga Road where currently these are five school bus stops served by three school buses. For the balance of the proposed haul route there are three school bus stops served by two buses along Mississauga Road between Olde Baseline Road and King Street and 19 stops served by eight buses along King Street between Mississauga Road and Highway 10.

5.0 CURRENT ROAD CONDITIONS – STRUCTURAL INTEGRITY

5.1 Issue

In the November, 2008 Peer Review it was noted that “No further updates have been provided, for example related to the current structural integrity of the roads.”

5.2 URS January 30, 2009 Response

“Additional non-destructive load/deflection testing for the proposed new section of truck haul route was undertaken in early December, 2008. The results of this testing, undertaken by LVM – JEGEL is provided in Attachment 4.

It is noted in their report that the structural integrity of the new section of the proposed haul route on Mississauga Road has deteriorated since the original investigations, such that a full pavement reconstruction would now likely be necessary to provide the Region with the traditional 20-year pavement design life.

Our recent experience for such rural reconstruction shows that the cost of this work would fall into the range of approximately \$500/m. For the appropriate 3.2 km of Mississauga Road in question, with 10% for engineering and 25% for contingencies, this would translate into a total cost of approximately \$2,160,000 versus the total reconstruction cost of \$1,737,180 shown in the July, 2008 Addendum.”

5.3 MMM Response in View of the Additional Information Provided

We are in agreement that full pavement reconstruction would now likely be necessary.

With regard to the updated cost estimate the identified cost reflects a reasonable order of magnitude estimate for pavement reconstruction. Addition costs may be incurred if the Environmental Assessment identifies the need for geometric improvements or other enhancements to adequately accommodate hauling.

6.0 FUTURE ROAD CONDITIONS – SIGHT DISTANCES/SHOULDER WIDTHS

6.1 Issue

In the 2005 reports prepared by URS sightlines and shoulder widths are included in Appendix I as part of the Safety Review of Proposed Haul Route. It is MMM's opinion that sight distances, and shoulder widths at major points of interest such as the proposed entrance to the quarry and major intersections should also have been discussed in the body of the report.

6.2 URS January 30, 2009 Response

URS's most current response states: "Sight distances at driveways, intersections, and at the proposed quarry entrance were detailed in Appendix I of the May, 2005 Report, and all sight distances meet the requirements of the design standards for the respective roadways. For OBL the design standard is assumed to be 70 kph. This is consistent with the original EA, Appendix L the May, 2005 Report, and your letter of December 18, 2008."

6.3 MMM Response in View of the Additional Information Provided

Based on the assumed 70 km/h design speed, we concur that the sight distances meet the design standards. With respect to lane and shoulder widths the recommendations for each segment of the haul route should be discussed in the main body of the report.

7.0 PROXY SITE INFORMATION

7.1 Issue

MMM noted that the additional information to justify the Adjala Pit as a proxy site has not been provided.

7.2 URS January 30, 2009 Response

“The use of the Adjala Pit as a proxy site in earlier work was just to show the arrival pattern of trucks in the early morning for a facility that had an opening hour restriction that is similar to that proposed for Rockfort. Since 1998 the operations at that pit have significantly diminished such that there would be no further benefit in seeking to obtain more recent information for that facility.”

7.3 MMM Response in View of the Additional Information Provided

We are satisfied with this response.

8.0 TRAVEL TIME/DELAY STUDY

8.1 Issue

In the November 2008 Peer Review MMM indicated that the travel time/delay survey undertaken in 1998 should have been repeated to reflect current conditions.

8.2 URS January 30, 2009 Response

In the most current submission URS noted that “The primary purpose of the original travel time/delay study was to assess whether trucks would be able to negotiate the recommended haul route without unduly impacting other traffic. This was shown to be the case at that time. Since 1998 the only physical change to the proposed haul route on Mississauga Road has been the installation of traffic signals at the Mississauga Road/King Street intersection which was not estimated to materially change travel time/delay for truck traffic. Also, since 1998 traffic volumes on Mississauga Road and King Street have only increased by approximately 2% per year and this increase also was considered to be insufficient to materially affect traffic operations in the area. Given these minimal changes in conditions together with the current bans on truck traffic on Mississauga Road and Olde Baseline Road we considered an update of the previous information to be unnecessary.”

8.3 MMM Response in View of the Additional Information Provided

While we appreciate that traffic increases may have been relatively small we still believe that there is merit in updating this to understand the actual impacts and assess whether any related improvements may be required.

9.0 SATURDAY SHIPPING

9.1 Issue

Previously URS had noted that Saturday shipping may be necessary at times to fulfill demands. In the November, 2008 Peer Review MMM had noted that the frequency of this occurring should be estimated and quantified. If Saturday shipping is anticipated more than just a few times a year, then the traffic impact should account for such a scenario.

9.2 URS January 30, 2009 Response

In the current submission URS notes that: “Analysis of the 9 years of data for the Caledon Sand and Gravel operations (1990 – 1998) shows that Saturday shipments occurred on average less than 4 times per year. The average tonnage shipped on those days represented between 1 and 2% of the average daily shipments. This low level of trucking activity when applied to the Rockfort situation is considered unlikely to cause any undue impact to area residents.”

9.3 MMM Response in View of the Additional Information Provided

MMM is satisfied with this response. Please note that although the 9 years of data as described is not being requested currently, it should be available in the event that it is required in the future.

10.0 HORIZON YEARS

10.1 Issue

In the July, 2008 Addendum Report the horizon years were delayed from those reflected in the May, 2005 report (2011, 2014 and 2017 instead of 2006, 2009 and 2012, with 2017 estimated to be the earliest year of full capacity production and normal shipping levels).

In the November, 2008 Peer Review (2.2 (g)) MMM had noted that “Recognizing the time requirement for the OMB hearing Board decision, environmental assessment, any potential appeals, detailed design and construction related to the required road improvements, a 2011 horizon year is not realistic”. That peer review also recommended the analysis of a longer term horizon year (eg. 2025). Subsequent to this the Region requested that this be further revised to 2031.

10.2 URS January 30, 2009 Response

In the January 30, 2009 response URS has noted that this has been a moving target. They state that: “Given this new horizon year and your opinion that 2017 would be the earliest year for full quarry operations we have now provided haul route traffic operations analysis of both the 2017 and 2031 scenarios herein”.

10.3 MMM Response in View of the Additional Information Provided

Please note that we had referenced URS’ 2008 Addendum report as stating that 2017 was estimated to be earliest year of full quarry operations. It was not our opinion that 2017 would be the earliest year for full quarry operations.

We are in agreement with the use of 2017 and 2031 as the horizon years for analysis purposes.

11.0 PLANNED ROAD NETWORK IMPROVEMENTS AND TRAFFIC FORECASTS

11.1 Issue

In the November 2008 Peer Review Section 2.2(i) MMM noted that it had been confirmed with the Region that the growth rates reflected in the Addendum Report are appropriate with one exception. A reconfiguration of the Olde Baseline Road/Winston Churchill Boulevard intersection is being contemplated by the Region to encourage traffic which is southbound on Winston Churchill Boulevard to make the southbound left turn onto eastbound Olde Baseline Road, rather than continuing southbound along Winston Churchill Boulevard. “This would increase the traffic along Olde Baseline Road. At this stage it is not possible for the Region to forecast what that increase might be. Use of the zero percent growth rate in the interim needs to acknowledge that the projected volumes will need to be adjusted upward in the future in view of this Regional initiative.”

11.2 URS January 30, 2009 Response

URS notes that with the forthcoming OMB Hearing it is unlikely that any significant work on either Winston Churchill Boulevard or Olde Baseline Road would occur prior to the finalization of the OMB decision. They acknowledge that the EA, design and construction would not be completed before 2017. “Without those improvements, in our opinion it is not appropriate to apply the 5% per annum growth rate until after the reconstruction has been completed. Consequently in our current analysis we have assumed that traffic growth for the period 2008-2017 on those specific roadways would be as previously estimated in the July 2008 Addendum but growth for the period 2017-2031 traffic growth would be determined using the stipulated 5% per annum figure.”

The forecasted traffic volumes under both Typical Year and Maximum Year 95 percentile Day and Maximum Day conditions have been updated for 2017 and 2031 conditions.

11.3 MMM Response in View of the Additional Information Provided

We agree that the 5 percent per annum growth rate would not apply until the reconstruction has been completed.

12.0 TRAFFIC ANALYSIS

12.1 Issue

The traffic analysis would need to be updated to reflect the updated traffic forecasts.

12.2 URS January 30, 2009 Response

This was done and presented as Attachment 6. The detailed computer printouts were also provided, as requested by MMM.

12.3 MMM Response in View of the Additional Information Provided

The recently provided information found in Attachment 6 and additional capacity analysis printouts that have been provided have been reviewed and checked. Some minor anomalies have been identified:

- In two cases the levels of service noted in the Summary Tables are not correct as compared to the analysis:
 - For 2017 for the King Street at Highway 10 intersection the Level of Service for the 6 to 7 a.m. period is D, not C as indicated in the table.
 - For 2031 for the Olde Baseline Road at Mississauga Road intersection for the 7-8 a.m. period the Level of Service should be C not B as shown.
- The footnotes to the Summary Tables for 2017 and 2021 indicate that the intersection of Olde Baseline Road/Mississauga Road was analyzed as a signalized intersection, however it was analyzed under two-way stop control in some cases.
- Delay is rounded in the Summary Table for 2017, but not in the Summary Table for 2031.

- Some of the critical V/C ratios noted in the Summary Table for 2017 refer to the wrong movement as compared to the printouts. In all cases the V/C ratios are in fact better than those stated in the table.

13.0 COLLISION DATA

13.1 Issue

The November 3, 2008 traffic analysis noted that the collision analysis needs to be updated.

13.2 URS January 30, 2009 Response

“The Region of Peel (through the office of MMM Group) has recently provided additional collision information, covering the period 2003 – 2007 for the Olde Baseline Road, Mississauga Road and King Street sections of the recommended haul route and this has been used to update the information provided in Appendix H of the May 2005 Report. This Appendix H supplement is attached herein as Attachment 7.”

13.3 MMM Response in View of the Additional Information Provided

Under 1. Collision History (Attachment 7, Appendix H (Supplement) Collision Analysis) URS notes that “the rates of Olde Base Line Road during the most recent period are somewhat similar to the rates experienced in the much earlier 1992 – 1997 period. This pattern is not unfamiliar for low volume roadways with somewhat substandard geometrics where a few additional accidents, due perhaps to particular weather conditions at the time, can cause a significant change in calculated rates.” While we are in agreement that for these types of roads with relatively low volumes of traffic the rates can fluctuate, we question the use of the term ‘somewhat similar.’ Between 1992 and 2002 the average rate was 2.18, whereas between 2003 and 2007 it had increased to 3.6 collisions per year on average.

The collision prediction model used in the current assessment appears to be the same as that used in the May 2005 report, reflecting collision modification factors based on the TAC manual. This should be confirmed.

14.0 WORDING/TERMINOLOGY CLARIFICATIONS

14.1 Issue

The November, 2008 Peer Review requested clarification as to the meaning of terms ‘generally’ and ‘slightly substandard’ used in the May, 2005 report.

14.2 URS January 30, 2009 Response

URS has provided clarification related to three circumstances in the report where such terms have been used:

- In Section 7E of the May, 2005 Report slightly sub-standard was used where minor local improvements could be made to bring that section to standard.
- Regarding Section 6D of the same report clarification is provided that ‘the granular base equivalent (GBE) of the pavement structure indicated in the earlier EA Report for Olde Base Line Road is shown as being 665 which is marginally less than the GBE of 680 indicated in the Region of Peel’s typical Two-Lane Rural Road Cross-section Standard. These two figures are considered virtually the same at this stage of the process, however, it is understood that the final pavement design required would be based on a detailed geotechnical assessment of the road sub-grade that is normally undertaken in conjunction with the subsequent detailed design of the roadway.’
- The third relates to Section 6E of the same report where reference had been made to “generally consistent with transportation policies and objectives.” This is within the context that “all of the sections of the road considered have been designated by the Region as Major Roads, and by the Town as Arterial Roads, and as such all would have the potential of becoming part of a truck haul route subject to structural suitability.”

14.3 MMM Response in View of the Additional Information Provided

MMM is satisfied with the responses to the first two points.

On the third point the potential of becoming part of a truck haul route is subject not just to the structural suitability, but to other matters related to the geometric design. As previously noted, this is premised on a suitable Environmental Assessment study being completed and approved.

15.0 SUMMARY

In summary although many of the data/clarification requests made in the November, 2008 Peer Review have now been addressed a few matters still remain outstanding.

These include:

- Further justification related to potential secondary haul routes
- An updated travel time/delay study

Again, we would reiterate the desirability of providing a comprehensive set of updated reports that consolidate the updated information with that which is still relevant from the previous reports. This would include for example detailed information with respect to necessary improvements anticipated for each segment of the haul route within the main body of the report.

We would also like to reiterate that the fundamental question remains about whether or not Olde Baseline Road will be upgraded from its current status to function as a haul route for the proposed quarry. These questions are beyond the scope of this peer review and need to be determined by Regional Council. Firstly, Olde Baseline Road is not currently identified as a truck route by Regional by-law. Heavy trucks are restricted at all times. The Rockfort Quarry application assumes that Olde Baseline Road will be designated as a truck route from the proposed site entrance just east of Winston Churchill Boulevard, through to Mississauga Road. Alternatively, Winston Churchill Boulevard would need to be upgraded and used. Winston Churchill Boulevard also has a commercial vehicle axle load restriction at all times from Bovaird Drive West through to Bush Street. This includes the area adjacent to the proposed Rockfort Quarry. Hauling by rail is not an option since the proposed quarry is not situated near an existing rail line. The structural and other upgrades that would be necessary to convert Olde Baseline Road between Winston Churchill Boulevard and Mississauga Road into a truck route would require an updated Environmental Assessment Study to be undertaken, including public consultation, with the subject project approved and the capital improvements scheduled and then implemented.

Yours truly,

MMM GROUP LIMITED

A handwritten signature in black ink, appearing to read 'Geri Kozorys-Smith'.

Geri Kozorys-Smith, MCIP, RPP
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