



October 18, 2022

Lehigh Hanson Materials Limited
1370 Highway 49
Picton, ON K0K 2T0

Attention: Mr. Nick Papanicolaou
Environmental Manager

**Subject: Lehigh Alternative Low Carbon Fuel Transport
Traffic Impact Brief
Our File: 221-03473-00**

Dear Mr. Papanicolaou:

We have prepared this Traffic Impact Brief in support of the proposed change in plant operations to include the transport of Alternative Low Carbon Fuels (ALCF) from off-site processing plants to the Lehigh site on Highway 49 in Picton, Ontario. Our opinion is that the incremental travel demand will not have noticeable traffic impacts along Highway 49 between the plant driveway at 1370 Highway 49, and Highway 401 interchange. The following summary documents our understanding of the anticipated travel demand and our rationale for our opinion regarding the nominal impact.

Traffic level of service impacts are typically assessed on the basis of peak hour travel demand. A summary of the basis for the estimate of the peak hour incremental truck travel demand, related to the transport of the ALCF, is provided below:

- We understand that the daily incremental truck travel demand related specifically to the proposed operations i.e., transport of ALCF, will range between approximately 6 and 12 semi tractor-trailer trucks with 100 yard walking floor trailers or dump trailers.
- While the weekly incremental truck traffic generation is not expected to exceed 70 vehicles between Monday and Sunday, the majority of these vehicles will arrive at and depart from the site between Monday and Friday.

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- While the incremental daily truck travel demand will be generated by the site between 7:00 a.m. and 7:00 pm., we understand that the peak arrival and departure period will typically lie between 9:00 a.m. and 3:00 p.m., during which period, approximately 75% of the incremental truck arrivals and departures will be expected. Based on up to 12 additional trucks daily, 9 trucks are expected to arrive and depart between 9:00 a.m. and 3:00 p.m.
- We understand that none of the incremental truck travel demand is expected to approach from or depart towards the west, through Picton, and that all trucks will approach from and depart towards Highway 401.

Based on our understanding of the magnitude and temporal distribution of the incremental truck traffic generated as a result of the approval of the ALCF permit, the peak arrival and departure of 9 trucks over a six-hour period between 9:00 a.m. and 3:00 p.m., reflects an average arrival and departure rate of only 1.5 vehicles per hour. Even if this were to double in a particular hour to 3 trucks in a single hour, the demand would reflect only a single truck every 20 minutes, in each direction.

Intersection operating performance is measured on the basis of capacity utilization measured as volume-to-capacity ratios, and levels of service that reflect average delay. It is clearly reasonable to conclude that a single site-generated truck in each direction every 20 minutes, would not result in any noticeable incremental peak hour operational performance impacts at any of the intersections along the planned travel route between the plant driveway and the Highway 401 interchange ramp terminal intersections.

We trust that this summary adequately addresses the magnitude of the potential incremental truck traffic generation related to the planned transport of low carbon fuels. However, please do not hesitate to contact us at your convenience if you have any questions or requests for clarification.

Yours very truly,

WSP CANADA LIMITED



J. Scott Fortner, P.Eng.
Senior Project Manager

cc. Jamie McEvoy WSP Earth and Environmental
Nadia Dabagh WSP Earth and Environmental