
SS WILSON ASSOCIATES

Consulting Engineers

January 8, 2020

David Welwood
Principal Planner
Planning, Development and Legislative Services
Region of Waterloo, 150 Frederick Street, Kitchener, ON

By e-mail: dwelwood@regionofwaterloo.ca

Dear David,

**Re: Peer Review # 2 – Noise Impact Assessment of Above Water Extraction
Shantz Station Pit Proposed Gravel Pit, Township of Breslau,
Regional Municipality of Waterloo.
SSWA File No.: WA19-031**

SS Wilson Associates (SSWA) was retained by the Region of Waterloo to undertake a Peer Review of the Response to Peer Review Comments prepared by Valcoustics Canada Limited (VCL), dated November 20, 2019 submitted to the Township on behalf of German Tract Company.

1. Purpose/Introduction

The objective of VCL's study is to undertake an analysis of the potential noise impact at sensitive receptors neighbouring the proposed Shantz Station Gravel Pit resulting from the proposed gravel pit extraction. SSWA had conducted a Peer Review of VCL's Noise Impact Study for the above water gravel pit extraction dated May 10, 2019. VCL had responded to the Peer Review on November 20, 2019. SSWA has reviewed the Response to the Peer Review Comments, and provides this letter in response.

2. Comments Regarding the Haul Route Analysis

We have no objection to the use of the quantitative assessment undertaken based on the MECP Landfill Sites. However, seeing as the MNR addresses the issue as well, we recommend that VCL tailor their report to also include reference to the MNR policies (the applicable policy numbers were previously transmitted to VCL) for the sake of completeness, since MNR is the ultimate authority for such applications.

3. Comments Regarding Quarry Excavation Assessment

We agree with VCL that their initial assessment for the commencement of the quarry excavation was undertaken at ground level. This will result in acceptable sound levels at all receptor locations with their proposed mitigations. Our concern is that during subsequent phases, if the equipment were to continue to operate on ground level, there will be a significant noise impact. However, it appears that VCL intended for all equipment to operate within the pit at a lower elevation from the previous phase, thus taking advantage of the future existing grade difference which provides natural attenuation from the pit walls as a result. Therefore, VCL should clearly

SSWA INC. 15 Wertheim Court, Suite 211, Richmond Hill, Ontario, L4B 3H7

Tel: (905) 707-5800 Fax: (905) 707-5801 e-mail: info@sswilsonassociates.com

www.sswilsonassociates.com & www.noisetraining.com

articulate this process in their recommendations and we will then have no issues with this concern.

4. Comments Regarding Barrier and Berm Recommendations

The explanation provided by VCL in regards to the stability of the constructed berms/barriers is somewhat beyond our scope of acoustical engineering work as VCL is providing a position that such berms can be much higher using “telescoping radio stackers”. Such details should be vetted by the Site Engineering Consultant as stability of a berm is not an issue that we deal with, except to flag any berm height to base ratio that may not present a stable situation or where such height could cause a significant loss of floor space. Note that VCL is showing a very thin green line, which could be interpreted to be a sound barrier wall 11m high, equivalent to a four-storey building.

5. Recommendation for Sound Level Monitoring

In view of the extent of the questionable issues related to Site operations, it is our recommendation that the Noise Study be changed to include a recommendation to the Region to commission the services of an independent third-party acoustic consultant to undertake periodic monitoring. The periodic monitoring should monitor the sound levels at the closest points of reception, and to report the results directly to the Region. The report should note that this item is a recommendation and not a requirement.

6. Conclusion

We are satisfied that the acoustic concerns have been addressed, however, there are two issues that should be looked at in detail by the site engineer: firstly, excavation and pathing of the excavation so that a significant drop in elevation be maintained at all times for acoustic reasons and secondly, on the specific details of the 11m high barrier being recommended by VCL.

If you have any questions, please contact our office.

Prepared by;



Derek Ly, B.Eng., E.I.T.
Acoustics Analyst

Reviewed By,



Hazem Gidamy, M.Eng., P.Eng.
Principal