

## GIBSON CONSULTING SERVICES

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November 25, 2010

Township of Woolwich  
24 Church Street  
P.O. Box 128  
Elmira, Ontario  
N3B 2Z6

Attention: Mr. Jeremy Vink, Planner

Dear Jeremy,

SUBJECT:           Zone Change Application 13/2008  
                  D & J Lockhart Excavators Ltd. Pit Expansion  
                  Part Lots 72 & 73, G. C. T.  
                  Township of Woolwich  
                  Regional Municipality of Waterloo

On behalf of Ivan Martin, Grant Bauman and D & J Lockhart Excavators Ltd., we are responding to comments that you provided in a series of letters regarding the above noted zone change to allow for the establishment of a licensed pit by D & J Lockhart Excavators Ltd. on the subject lands owned by Mr. Martin and Mr. Bauman.

We wish to address the points raised by you in your letter dated July 26, 2010.

### Geological Resources

In our Summary Statement Report we estimated that approximately 1,000,000 tonnes of aggregate may be available for extraction. This estimate was based on calculations using the total proposed area to be extracted and the estimated depth of the granular deposit determined through a series of test pits that were dug throughout the site.

### Transportation

An inspection of the entrance was undertaken and it was our opinion that the existing entrance is suitable to withstand the current traffic conditions. We are not proposing to increase the amount of truck traffic entering and leaving the site, however, should the cracking that you have suggested deteriorate to a condition that is unsuitable, we will make the necessary repairs.

The existing haul road has been resurfaced for a distance of 75 metres from Middlebrook Road as recommended by our dust consultant and we feel no further action is required.

We will install the necessary truck turning signs on either side of the entrance as suggested. We would like to consult with staff of your Transportation Department to ensure that signage is installed to meet all provincial and municipal standards. We would appreciate if you could provide us with contact information of the staff who we should contact.

### Environmental

We note that there are no environmental issues.

### Visual

The Operational Plan (Page 2 of 3) of the site plan have a schematic drawing providing details of any proposed berming or topsoil/subsoil stockpile proposed within the pit area. It should be noted that the berm/stockpiles noted are not specifically designed for noise attenuation however in order to enhance the best management practices of the pit operations, the location of the south berm/stockpile has been strategically placed along the southerly limits of the pit in order to provide additional visual and noise attenuation.

The location of the two berms/stockpiles along the north and east boundaries is intended to visually demonstrate to the reader the intent of Note 10 on the Operational Plan which states that topsoil and overburden will be stockpiled separately and placed around the perimeter of the site in order to ensure that those materials are not located within the aggregate processing area.

The berms/stockpiles will be constructed as soil stripping operations are initiated and placed in locations where they will not interfere with the aggregate processing operations. As extraction progresses, it is expected that the stripped topsoil and overburden will not be stockpiled but placed directly on the pit floor and side slopes as part of the progressive rehabilitation operations.

It is not anticipated that dwellings on Katherine Street will be impacted due to the combination of the separation distance from the site and the forested lands along the Grand River. The applicant has personally contacted many of the residents along Katherine Street and no concerns were expressed with either the existing pit or the proposed pit. It should also be noted that there have been no public objections or concerns received during the licensing application under Aggregate Resources Act. Your office advised us that during the zone change application, your office received two letters of support and one letter of objection to the proposal. Upon review of the objection letter, it is evident that the concern expressed by the resident of West Montrose relates to the gravel pit proposal "within a stone's throw" of the West Montrose covered bridge and not specifically directed to this proposal.

### Water Resources

We wish to advise that a series of groundwater monitoring wells have been established and four sets of monitoring readings have undertaken as requested in your August 20, 2010 letter. Enclosed with this submission is a report prepared by ARL Groundwater Resources Ltd. which identifies the water level elevations. Monitoring will continue as recommended in the report by Mr. Lotimer. The following notes outlining the recommended monitoring program will be added

to the Operational Plan of the site plan to ensure compliance under the Aggregate Resources Act.

*"A groundwater level monitoring program shall be implemented as part of the aggregate extraction operation. Groundwater levels shall be recorded at the onsite monitoring wells on a monthly basis for an initial period of 2 years. At the end of the initial 2 year period, the data shall be reviewed by a hydrogeologist, and the frequency of monitoring may be adjusted at that time, if recommended by the hydrogeologist."*

*"Prior to the start of aggregate extraction, water samples are to be collected from the monitoring wells, where possible, and submitted to a laboratory for analysis of water quality indicator parameters including nitrate and chloride. These analyses will serve as background indicators of water quality at the site. Water quality samples shall be collected from the monitoring wells every 2 years, where possible, for the first four years that the license is in effect and aggregate extraction is occurring. Upon the recommendation of a hydrogeologist, and under the direction of a hydrogeologist, samples for water quality analysis shall also be collected on a more frequent basis, where possible, if there are legitimate concerns of potential impacts on groundwater quality associated with the pit operation."*

As a result of your request to install and implement a groundwater monitoring program as directed in your August 20, 2010 correspondence, the monitoring program that we originally proposed utilizing a series of monitoring test pits excavated on the pit floor will be removed from the Operational Plan of the site plan.

It is noted in the November 2010 ARL Groundwater Resources Ltd. report, that as a result of the recent monitoring of the wells, the water level elevations are determined to be lower than the original water levels as interpreted in the ARL Groundwater letter of June 17, 2008 which were purposely conservative in nature. Because the water level elevation in the southerly part of the pit is deemed to be approximately 3 metres lower than originally estimated, we feel there is no longer a requirement to show the hatched area as being a "no extraction" zone.

There is no storage of fuel to occur within the site. Any fuelling of equipment will be conducted utilizing a fuel truck and in accordance with the Liquid Fuels Handling Code, Technical Standards and Safety Act, 2000, as amended. The existing note on the Operational Plan will be revised as follows:

*No permanent fuel storage facilities will be located on site. All fuelling activities will be in accordance with the Liquid Fuels Handling Code, Technical Standards and Safety Act, 2000, as amended.*

It is noted that the ground elevation of Test Pit 1 is 344.5mASL.

The water level elevation at Test Pit 1 was originally estimated by ARL Groundwater Resources using a conservative elevation, however the November 2010 report identifies the water level elevation at 337mASL based on the results of the monitoring well readings.

Details regarding neighbouring wells and the artesian well located at Line 86 are described in the ARL Groundwater Resources November 2010 Report.

## Noise

It is our opinion that noise monitoring as suggested is not required as sufficient best management practices have been implemented in the Operational Plan of the site plan that are enforceable under the Aggregate Resources Act. It is important to recognize that there is no increased extraction activity proposed for this expansion proposal that currently occurs within the existing pit that has been operated by the applicant for the past 6 years. During that time period, it is important to note that there have been no recorded complaints to the MOE and MNR regarding noise from those operations. As previously stated no objections or concerns have been raised by the public during both the licensing application under the Aggregate Resources Act and the zone change application and no concerns have been expressed by any neighbours when contacted by the applicant during this process. The following note will be added to the Operational Plan of the site plan.

*Should there be a complaint received regarding noise and if it is determined that the noise complaint is a result of the pit operations, the licensee will take immediate action to provide remedial measures to reduce or eliminate the concern. The licensee will notify the MNR and the Township of the complaint and advise of the remedial action undertaken.*

## Dust/Air Quality

In addition to Notes 12 and 18 of the Operational Plan regarding the seeding and maintenance of the vegetation of the berms/stockpiles and the placement of water or other approved dust suppressants on the internal haul roads, the following note will be added to the Operational Plan to enhance the best management practices already described:

*The licensee shall use the following best management practices to mitigate dust on site:*

*The licensee shall maintain an ongoing visual monitoring program to observe the internal haul roads and processing operations for dust emissions. Should visible dust emissions be observed, immediate mitigation measures will be undertaken. Measures to mitigate dust during the processing operations (crushing and screening) may require the installation of spray bars on processing equipment or spraying the aggregate stockpiles with water or other approved dust suppressants.*

We are unable to confirm whether a Certificate of Approval will be required for the processing equipment at this time since contractor crushing and screening equipment will be used by the applicant. RWDI AIR Inc, consultants retained to conduct a dust assessment of the proposal have indicated on Page 3 of their report that under Section 9 of the Environmental Protection Act, a Certificate of Approval will not be required for portable crushing and screening equipment if located below grade within a pit or quarry operated in accordance with a licence issued under the ARA. Certificates of Approval are issued on an individual basis and are specific to the individual piece of equipment; however, if it is deemed that a Certificate of Approval is required to operate processing equipment within the site, a copy will be provided to the Township.

It should be noted that a number of license conditions are added to all licenses issued by the Ministry of Natural Resources. Specifically relating to dust controls, the following conditions will be applied to the license:

- Dust will be mitigated on site.
- Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust.
- Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 300 metres of a sensitive receptor.
- If required, a Certificate of Approval will be obtained for processing equipment to be used on site, prior to the operation of the plant.

The recommendations noted in Section 7 of the RWDI Dust Assessment will be added to the Operational Plan of the site plan.

The requirement for processing equipment being equipped with dust suppressing or collection devices are addressed by the license condition noted above as well as the recommendation of the RWDI report.

Section 7 - Recommendations of the RWDI report does not make specific reference to periodic sweeping/flushing of Middlebrook Road. There is discussion in Section 6 of the report regarding the potential of dust being generated along Middlebrook Road based on the entrance and road exiting the site not being paved. RWDI proposes the option of resurfacing the entrance road with recycled asphalt, or tar and chip for a distance of 75m into the site from Middlebrook Road. This recommendation has been satisfied by the proponent as the entrance has been resurfaced.

We acknowledge your comment regarding a reference on Page 4 of the RWDI Dust Assessment should be “approximately 4 trucks” and not “2 to 4”, however, we don’t understand the relevance of your suggestion. It is our interpretation that RWDI are acknowledging that the pit will not be operating at full capacity at all times.

We acknowledge your discussion relating to the MOE guidelines and agree with your assessment that the reports have addressed this.

We acknowledge your suggestion regarding a compilation of a daily log and an annual summary report to be provided to the Township. Given the fact that there have been no complaints registered regarding the operation of the existing pit any kind since it has been opened (6 years), we feel compiling a daily log of dust conditions etc. is unnecessary. However, we suggest that the Township can be advised of any complaints by noting it on the Annual Compliance Assessment Report that is required to be submitted to the MNR as well as the Township. The following note would be added to the Operational Plan:

*Any dust complaints received by the licensee and subsequent mitigation measures required will be noted on the annual Compliance Assessment Report that is submitted to the MNR and copied to the Township of Woolwich.*

### Land Use

Note 13 of the Operational Plan of the site plans reference the importation of topsoil for resale and rehabilitation and provide details regarding its location and requirement to meet MOE Standards. It is not the proponent’s intention to operate a soil recycling operation, however

periodically, topsoil is available and it is considered good resource management to have the ability to import it on site either for rehabilitation purposes to enhance the capability of the agricultural land or have the ability to screen the topsoil utilizing any stone material for aggregate purposes and resell the topsoil. Given the decision not to import topsoil for resale by the proponent, any reference to the resale of topsoil will be removed from the site plan

In order to address how and when the Extractive Zoning designation will be removed from the pit, we propose to add the following note to the Rehabilitation Page of the site plan:

*Once the lands have been deemed by the MNR to be fully rehabilitated and the license has been recommended to be surrendered, a zone change to return the lands to an agricultural zoning will be initiated.*

### Site Plans

We are unaware of the Township's noise bylaw and the hours of operation permitted under that bylaw as we were not made aware of them during any of our pre-consultation meetings. We would appreciate it if you could provide those hours to us. If further discussion is required I suggest that it be included as an agenda item during an upcoming meeting with you.

We acknowledge your comment regarding defining "Operations" on the site plan; however, we do not understand the relevance of the comment. The term "operate" as defined under the Aggregate Resources Act is as follows:

**"operate", when used in relation to a pit or quarry, means "work" and includes all activities associated with a pit or quarry that are carried out on the site"**

Note 2 of the Operational Plan describes the development of the internal haul road; however we will add the proposed internal haul road on the site plan.

We disagree with your comment regarding the aggregate stockpiles not to exceed the height of the berms. If the stockpiles are reduced to the height you are suggesting (4-6 metres), the footprint of the stockpile could easily double or triple in size which would restrict the movement of the equipment on site as well as reduce the ability of the licensee to perform progressive rehabilitation of the pit floor. We suggest adding the following note to the Operational Plan:

*Aggregate stockpiles will be located on the lowest elevation of the pit floor where possible and will not exceed 20 metres in height.*

### Comments specific to Operational Plan

It is required under the Aggregate Resources Act that all topsoil and overburden stockpiles are to be vegetated and maintained. The usage of the word "temporary" topsoil piles refers only that they may be temporarily located offsite during the initial start up of the pit when the pit floor is being established. All stockpiles need to be seeded and the vegetation maintained so no silt fencing will be required.

The reference to a "minimum 2:1" slope in Note 12 is intended to relate to the Schematic of the Typical Berm where it demonstrates that the slope is at least 2 horizontal metres for every vertical metre.

Drainage will continue as it currently exists within areas that are undisturbed during the pit operation and it is anticipated that surface drainage will continue to percolate naturally through the granular material. In areas of the pit that have been extracted and rehabilitated, the proposed contouring of the final rehabilitation plan on Page 3 of 3 indicates that drainage will continue to drain in an easterly manner similar to present conditions.

Note 14 will be revised to indicate that the depth of topsoil and subsoil reapplied on the pit floor and side slopes will generally be equal to the depths removed. It should be recognized however, that the majority of the site is currently used for hay production and pasture while the large esker area is currently unsuitable for productive cropping due to the steep slopes and droughty conditions. The usage of the term "grass-legume mixture suitable for the soil conditions" is not intended to reflect that it is unsuitable for farmland. It should also be noted that with the removal of the large esker and having the ability to import topsoil for rehabilitation purposes is intended to increase the overall farming capability of the site once it is rehabilitated.

#### General Comments

We do not understand how the residence of the property being occupied by the property has an effect on noise and dust/air quality and the purpose of your request to add a note to a site plan indicating that the dwelling shall not be rented to another party for the duration of the extraction lease. Since the dwelling is not located within the proposed licensed area, it is our understanding that MNR would not consider this enforceable under the Aggregate Resources Act.

Again, we don't understand what yearly reports you are referring to on all functions of the pit and its operations.

In order to discourage trespassing and inadvertent access to Mr. Bauman's property, we propose to erect "No Trespassing" signs along the boundary line adjacent to the trail (former rail line) to discourage trespassing by the public. We feel that proper signage advising the public that no trespassing is allowed is equally effective as fencing. It should also be noted that trespassers would have to travel across a farm field in excess of 150 metres before accessing the licensed pit.

If you have any questions, please contact me at my office. Thank you.

Yours truly,



Robert J. Gibson

- cc. Laurel Gibson, Region of Waterloo
- Diane Schwier, MNR
- Ron Davidson, Land Use Planning Consultant Inc.
- Don Lockhart, D & J Lockhart Excavators Ltd.
- Ivan Martin
- Grant Bauman