

June 15, 2018
File: 160410230.101.104

Attention: Paul Justice
P.W Justice Holdings Ltd.
paul.justiceconstruction.ca

Dear Paul Justice,

Reference: 2164 Old Prescott Road, Aggregate Impact Assessment

INTRODUCTION

Stantec has been retained by Justice Construction to prepare an Aggregate Impact Assessment in support of a Zoning By-law Amendment application for their property at 2164 Old Prescott Road (subject property). The owner is proposing to construct a detached dwelling and ancillary building, both on private services, on the subject property.

This Aggregate Impact Assessment letter will address the requirements from section 4.3 of the "*Mineral Aggregate Resource Reference Manual For Policy 2.2 Of The Provincial Policy Statement*" (MNR 2001). The reference manual was provided by the local office of the Ministry of Natural Resources and Forestry (MNR) in response to a request from Stantec for terms of reference.

SITE LOCATION AND DEVELOPMENT PROPOSAL

The subject property is located south of the community of Greely at the northeast corner of Stagecoach Road and Old Prescott Road (**Figure 1**). The property is municipally known as 2164 Old Prescott Road and legally described as *Part of Lot 15, Concession 4, Geographic Township of Gloucester, part of Part 1 on Plan 5R-684 save and except Parts 1 to 10 on 4R-18771, City of Ottawa*. The property has an area of approximately 9.2 hectares (22.8 acres) with 203 metres of frontage on Stagecoach Road and 478 metres of frontage on Old Prescott Road.

The subject property is part of a former sand and gravel pit and is partially covered by an excavated pond. The remainder of the property is covered by mown grass and scattered trees and shrubs. The property generally slopes from its boundaries along Old Prescott Road and Stagecoach Road down to the excavated pond.

The aggregate licence for the former sand and gravel pit (Aggregate Resource Act Licence No.: 4047) was surrendered on December 10, 2012. Justice Construction has previously severed three lots from the original licenced area and has constructed three detached dwellings on the respective lots.

The subject property and surrounding lands are designated as Sand and Gravel Resource Area on Schedule A of the City of Ottawa Official Plan. The property is currently zoned ME2- Mineral Extraction, with the surroundings lands being zoned for Mineral Extraction, Rural and Rural Residential uses.

The following land uses surround the subject property:

North: Osgoode Sand and Gravel Ltd. operates a Class A sand and gravel pit north of the property at 2094 Old Prescott Road.

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East: Three detached dwellings on private services, constructed by the client, are located to the east of the property at 2162, 2160 and 2158 Old Prescott Road. As mentioned above, the three lots were severed from the area covered by Aggregate Resource Act Licence No.: 4047.

South: Old Prescott Road (designated as a collector road) bounds the property to the south. Meadowlands Village, a mobile home park, is located at 2183 Old Prescott Road and surrounds 2191 Old Prescott Road, a detached dwelling on private services opposite the property.

West: Stagecoach Road (designated as an arterial road) bounds the property to the west. A detached dwelling and paving company are located to the west of the property at 2136 Stagecoach Road.

DEVELOPMENT PROPOSAL

The owner is proposing to construct a detached dwelling with a secondary dwelling unit and an ancillary building which would accommodate the owner's growing construction and renovation business. Both buildings would be on private services. Please see the planning report for details on the proposed buildings.

An amendment to the Zoning By-law is required to permit the proposed development. The intent of the ME2-Mineral Extraction zone is to recognize lands with aggregate resource potential and limit land uses which would preclude extraction of these resources. The subject property is part of a previously licensed aggregate operation (Aggregate Resource Act Licence no.: 4047). The available aggregate resources on the property have been extracted, the site has been rehabilitated and the license has been surrendered. The current zoning would be amended to a RU- Rural special exception zone. The special exception zone is required to allow a habitable dwelling within 5 metres of the excavated pond and permit an ancillary office, vehicle and equipment storage use.

METHODS

This Aggregate Impact Assessment is based on a desktop analysis using publicly available information. General assumptions regarding the extent to which the proposed development of the subject property could pose future constraints on existing aggregate operations and undeveloped aggregate resources have been based on the author's experience with aggregate operations and licence application processes across Ontario. We have considered possible impacts due to:

1. Direct impacts of resource sterilization, and
2. Indirect impacts due to potential complaints about
 - a. Noise, dust and vibration
 - b. Traffic
 - c. Well interference
 - d. General nuisance complaints

This Aggregate Impact Assessment includes consideration of possible conditions that could be applied to approvals for the proposed development in order to protect existing and future aggregate development within 300 m.

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The distance is derived from Section 4.3 of Mineral Aggregate Resource Reference Manual for Policy 2.2 Of the Provincial Policy Statement (MNR 2001), which states:

Where a development application occurs within:

- 300 metres¹ of a known unconsolidated deposit (e.g., sand, gravel, clay) or a mineral aggregate pit operation; or
- 500 metres 1 of a known bedrock deposit or a bedrock quarry operation

The applicant should be required to assess the impact of the proposed development on the mineral aggregate resource and the mineral aggregate operation(s).

There are no bedrock deposits or quarry operations within 500 m of the property.

ADJACENT MINERAL AGGREGATE OPERATIONS

The most recent aggregate resource inventory for Ottawa (ARIP 191 - Aggregate Resources Inventory of the City of Ottawa, Southern Ontario (Lee, 2013 - <http://www.geologyontario.mndm.gov.on.ca/mndmfiles/pub/data/imaging/ARIP191//ARIP191.pdf>) indicates that there are three current or expired mineral aggregate operations within 300 m of the subject property. Table 1 is an extract from Table 2 of Lee (2013). The locations of the operations relative to the Subject property are shown on **Figure 1**.

Table 2 Adjacent Mineral Aggregate Operations

(extract from Table 2 of Lee, 2013)

Pit Number	Owner Operator	Licensed Area	Face Height	% gravel (approx.)	Remarks
65 (south-east of subject property)	614791 Ontario Limited	15	4-8	20	Pit has been developed in an ice-contact deposit that has been differentially re-worked by glaciomarine shoreline processes (beach)
67 (subject property is part of this Pit)	P.W Justice Holdings Ltd.	12	-	-	Pit has been developed in an ice-contact deposit that has been differentially re-worked by glaciomarine shoreline processes (beach). Pit appears to be in the final stages of rehabilitation
68 (north of subject property)	Osgoode Sand & Gravel Ltd.	42	7-10	20	Pit has been developed in an ice-contact deposit that has been differentially re-worked by glaciomarine shoreline processes (beach)

Osgoode Sand and Gravel Ltd. (number 68 in Table 1) operates a Class A sand and gravel pit that directly abuts the northern limit of the subject property. The subject property forms part of a rehabilitated sand and gravel pit along with three residential units that have been built on the remainder of the rehabilitated sand and gravel pit (number 67 in Table 1). Number 65 in Table 1 is an operation approximately 260 m to the south east of the subject property. There are currently five rural residential uses to the immediate north of Pit Number 65.

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NATURE AND EXTENT OF MINERAL AGGREGATE DEPOSITS

The subject property is part of a primary aggregate sand and gravel resource area (Lee, 2013). The deposit is labelled number 1 in Lee (2013).

Table 3 in Lee (2013) provides the following summary of the resource:

- Deposit No. – 1; Unlicensed Area - 2599.2 ha; Cultural Setbacks - 741.74 ha; Extracted Area - 85.4 ha; Possible Resource Area - 1772.1ha ; Estimated Deposit Thickness - 8.75 m; and Possible Aggregate Resources - 274.5 million tonnes.

The subject property is not part of any selected bedrock resource areas, with the nearest resource area being located approximately 1500 m to the east (Map No. 2 Lee, 2013). Table 6 in Lee (2013) provides the following summary of this selected bedrock resource area:

- Area Number – 2; Depth of Overburden - <8 m; Unlicensed Area - 54,501.54 ha; Cultural Setbacks - 5803.5 ha; Extracted Area – 7.0 ha Possible Resource Area 48,691.0; Estimated Workable Thickness 15.0 m; Possible Bedrock Resources – 19,347.4 Million Tonnes.

COMPATIBILITY ANALYSIS

There are no known or potential land use conflicts that could occur if the application proceeds. The following issues have been reviewed:

- Direct sterilization of mineral resources - The sand and gravel resource under the subject property has been extracted as far as possible while respecting road setbacks and responsible rehabilitation. The bedrock resource under the subject property is not part of a designated area and is not feasible for extraction. Development of the subject property will not sterilize any currently viable aggregate resources. In addition the information from Tables 3 and 6 of ARIP 191 (Lee, 2013), summarized above, indicates that the vast majority of designated resources in the vicinity of the subject property remain available. There are no resource sterilization issues arising from this application.
- Land use conflicts - The proposed use is rural residential with an associated construction company and accessory buildings. This use is consistent with the surrounding land uses, which include multiple rural residential uses and rural based businesses. The proposed development does not introduce any new land uses or activities that would be incompatible with the activities of existing or future aggregate operations. Any potential concerns from residents regarding noise, dust and vibration; traffic; well interference, or general nuisance complaints already exist due to numerous residential units that are closer to active operations and future resource development areas.
- Increased demand - The proposal will result in a small incremental increase in local residents. There are currently approximately 50 residences and several rural related businesses in the area within 300 m of the subject property. The addition of one in 50 (2%) represents a small increase in traffic on roads that are designated as arterial and collector. The presence of numerous residential and farm wells in the general area reduces the chance that there would be any significant new constraint from one additional well. Any potential well interference issues that might constrain dewatering already exist and the current sources of potential constraint are closer to existing operations than the proposed development will be. Given the small incremental increase of residents and traffic that the application represents there will be no significant increase in competing demands or conflicts between land uses (e.g., conflicts in road traffic, cumulative demand/impact on water resources).

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- Increased restrictions on aggregate operations - The operations of the existing pits are already subject to potential restrictions based on adjacent residences, which are closer to operational facilities than the proposed residence. Given surrounding land uses, the distribution of resources as mapped in Lee (2013) and, past extraction there are no significant available resources or land areas for a new operation to establish within 300 m of the subject property. As a result, the proposal is not likely to result in any increased restrictions on existing or future operations (e.g., cessation of water pumping, additional setbacks for washing, screening and processing sites from the property boundary, public pressure to restrict certain activities within the operation). For the same reasons, the addition of one more residence, in an area of multiple residences is not likely to result in increased difficulty in obtaining licenses to expand existing aggregate operations or to create new operations.

MITIGATION ANALYSIS

Since there is no significant risk of the proposed development creating a new source or type of risk for conflict with existing and/or future aggregate operations, no special mitigation is required. The standard mitigation measures embedded in the planning and development process include the Zoning Bylaw applied to the future residence (e.g. building permits, setbacks, etc.) and the Aggregate Licensing process applied to the existing or future operations (e.g. hours of operation, equipment restrictions, etc.). These well-developed and tested mitigation tools will suffice to reduce and manage any potential conflicts between the proposed development, future residents of the proposed dwelling, and any existing or future aggregate operations.

CONCLUSIONS

The construction of one residential unit and an associated construction business in a portion of a rehabilitated aggregate site where the licence has been surrendered will not sterilize any available aggregate resource.

The addition of one residence and a rural oriented business in an area of more than 50 residences and several rural businesses will not result in any significant increased risk of land use conflicts between residential land uses and existing or future aggregate operations.

Existing zoning and aggregate licensing policies and procedures are sufficient to manage potential land use conflicts. No special mitigation measures are required to protect existing aggregate operations or the responsible development of future aggregate operations in this location.

Regards,

Stantec Consulting Ltd.



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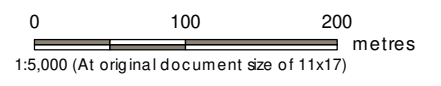
Attachment: Figure 1: Subject Property and Surrounding Area
c. Eric Bays, Stantec Consulting Ltd.

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Legend

- Subject Property
- 300 m Radius Around Subject Property
- ✱ Existing Aggregate Operation from AR11191 (Lee, 2013)
- △ Residential and Business Uses that May Currently Constrain Existing Aggregate Operations



Notes

1. Coordinate System: NAD 1983 UTM Zone 18N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2018.
3. Orthoimagery © City of Ottawa, 2018. Imagery Date, 2017.



Project Location: 160410204 REV C
 2164 Old Prescott Road, Greely ON
 Prepared by CL on 2018-06-25
 Technical Review by PW on 2018-06-25
 Independent Review by DC on 2018-06-24

Client/Project: PAUL JUSTICE
 AGGREGATE IMPACT ASSESSMENT
 2164 OLD PRESCOTT ROAD, GREELY, ONTARIO

Figure No. **1**
 Title **Subject Property and Surrounding Area**

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