



## Report:

VRANCOR Developments  
Land Use Compatibility – Dust and Odour Nuisance  
Mixed Use Building  
53-71 Plains Road East, Burlington, Ontario

Date: April 27, 2017



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## VRANCOR Developments Land Use Compatibility – Dust and Odour Nuisance Mixed Use Building 53-71 Plains Road East, Burlington, Ontario

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### Revision History

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1	October 4, 2016	None
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## 1. INTRODUCTION

ORTECH Consulting Inc. (ORTECH) was retained by VRANCOR Developments (VRANCOR) to provide a Land Use Compatibility Study and Report for a proposed mixed use development site on 53-71 Plains Road East in Burlington, Ontario, as indicated on Figure 1.

The objective of the study was to evaluate the air quality compatibility with regard to dust and odour impacts on the site due to the existing land uses in the vicinity, with reference to the Ontario Ministry of the Environment and Climate Change (MOECC) Guideline D-1 on Land Use Compatibility and D-6 on Compatibility between Industrial Facilities and Sensitive Land Uses, and the Region of Halton Land Use Compatibility Guidelines.

This report describes the surrounding industrial and commercial facilities that have a potential to impact dust and odour levels at the development site. The assessment was based on readily available information (e.g. MOECC and facility websites, etc.) and direct observations during a site visit to the area.

Guideline D-6 recommends a 1,000 metre Study Area for land use proposals and defines three classes of industrial facilities: Class I, Class II and Class III. It also defines Minimum Recommended Separation Distances, Potential Influence Areas and Actual Influence Areas between industrial facilities and sensitive uses for each Class. The class designations are based on the potential for noise, dust and odours.

Although the D-6 guideline suggests that distances are normally measured from property line to property line, there is allowance for measuring from specific sources to sensitive receptors. D-6 also provides for exceptions to the Minimum Recommended Separation Distances for certain development sites including infilling.

The D-6 guideline provides definitions and examples to illustrate the three classes. The definitions and examples in the MOECC Guidelines relevant to odour and dust concerns were used to characterize each of the nearby facilities. Facilities that do not meet the definition of any one of the three classes are expected to have virtually no potential for creating odour or dust that would give rise to complaints (noted in this report as Class 0, or not applicable [NA]).

As noted above, ORTECH was retained to specifically evaluate and provide this study report to address the compatibility of potential adjacent dust and odour sources with the proposed residential development site. Noise sources are not addressed in this report.

## 2. IDENTIFIED FACILITIES WITH ODOUR AND DUST EMISSION POTENTIAL

Table 1 provides the name and address of each of the identified industrial and commercial facilities within 1,000 metres and summarizes:

- the minimum property line to property line distance from each facility to the development site;
- identification of operations of each facility;
- the identification of potential odour and dust emission sources; whether the facility has MOECC air permits (ECAs) and the anticipated MOECC industry Class for each facility based on potential for dust and odour impact

The following provides an overview of the area and information on how the MOECC classes were assigned to the surrounding facilities. This assessment methodology for the proposed development site at 53-71 Plains Rd. East follows protocols and guidelines outlined in the MOECC D Series Guidelines and the Region of Halton Land Use Compatibility Guidelines.

The area immediately surrounding the 53-71 Plains Road East proposed mixed use site includes The Cooke Blvd. Industrial Park to the north, retail and commercial along Plains Road, both East and West, with residential across Plains Road to the south. On Plains Road, west of Waterdown Road, there are retail and commercial businesses and further to the west and north-west are manufacturing facilities.

## 3. POTENTIAL AIR EMISSION IMPACTS

All surrounding facilities within 1 kilometre are considered Class II or less. As per Guideline D-6, Class II facilities have a Minimum Recommended Separation Distance of 70 metres and a Potential Influence Area of 300 metres. Class I facilities have a Minimum Recommended Separation Distance of 20 metres and a 70 metre diameter Potential Influence Area.

The Region of Halton Land Use Compatibility Guidelines refer to MOECC regulatory permitting requirements and the D –Series guidelines. In addition, the Region of Halton Land Use Compatibility Guidelines refer to Ministry of Transportation required approval for buildings within ‘control areas’. For controlled access highways, such as Hwy 403, MTO ‘control area’ permits are required for buildings within 395 metres of the highway intersections.

The CBM / St. Mary's Cement (Blue Circle Canada Inc.) operation is a Class II facility located at a minimum separation distance of 370 metres from property line to property line of the proposed development. The CBM ready-mix concrete facility faces Howard Road, with shipping and receiving occurring at the entrance to the site off Howard Rd. Material storage for batch concrete production occurs north east of the Howard Road entrance and the concrete plant. The separation distance from the proposed development site west boundary to the potential dust emission source at the material storage area is approximately 425 metres. The concrete plant is located approximately 590 metres from the proposed development site. This facility operates typically 5 days per week during the hours of 7 am to 7 pm. This facility does not store or handle large quantities of hazardous materials and operates under an MOECC Environmental Compliance Approval (ECA).

KPM Industries Ltd. is a Class II facility located at a minimum separation distance of 250 metres from property line to property line of the proposed development. The KPM industries hot-mix asphalt facility is permitted at a moderate production rate of 190 tonnes per hour and operates seasonally from early May to early December. The KPM hot-mix asphalt and aggregate handling facility faces Howard Road, shipping and receiving occurs at both the Howard Road entrance and an entrance to the east off of Railway Road. Material Storage for hot mix asphalt production occurs in the east part of the project boundary, closest to the Railway Road entrance. This facility does not store or handle large quantities of hazardous materials and operates under an MOECC Environmental Compliance Approval (ECA).

The separation distance from the proposed development site west boundary to the KPM Industries boundary where potential dust emission sources from material handling is located is approximately 305 metres. The separation distance from the proposed development site property line to where the potential odour emissions from the hot-mix asphalt plant are located is approximately 585 metres.

Also associated with the KPM Industries site is the King Truck Centre, where trucks are serviced. This truck centre is a Class I facility with incidental dust emissions from vehicle traffic on the unpaved on-site roads. The King Truck Centre is located 650 metres from the proposed development site.

Both the CBM concrete plant and the KPM Industries hot-mix asphalt plant operations are well beyond the Minimum Recommended Class II Separation Distance (70 metres). The potential sources of dust from material handling at the CBM facility are beyond the potential Class II influence area of 300 m at 305 metres. The KPM facility's material handling dust source is just beyond the 300 m potential influence area designation for Class II sources. However, the hot-mix asphalt plant odour source is well beyond the 300 m distance at 585 metres. The KPM hot-mix asphalt plant has the potential of causing infrequent odours in the neighbourhood. Winds will blow from the KPM hot-mix asphalt plant towards the development site approximately 20% of the time.

As previously stated, the Cooke Blvd Business Park is located immediately north of the proposed development site. This industrial park includes a mix of service businesses, offices, an analytical laboratory, digital printing and high tech manufacturing, see Table 1. These facilities are considered Class I, 0 or not applicable, with very little or no potential to release dust or odours. These facilities are located at distances from a shared property line to 200 metres from the proposed development site at 53-71 Plains Road East. Two of the facilities operate under MOECC ECAs.

In addition to these surrounding facilities and businesses, the intersection of Highway 403 is located 735 metres north of the proposed development site and, therefore, an MTO 'control area' permit is not required

#### 4. SUMMARY AND CONCLUSION

The land use and facilities surrounding the 53-71 Plains Road East, Burlington proposed mixed use / residential site would not be expected to cause odour or dust complaints at the proposed development. Most of the industrial and commercial facilities are anticipated to be Class I, 0 or not applicable (i.e. no potential for odour or dust issues) and are beyond the minimum separation distances, and in many cases beyond the potential influence area, for their class.

The Class II CBM ready-mix concrete plant dust emissions are not anticipated to have an adverse impact on the 53-71 Plains Road East Site. The Class II KPM hot-mix asphalt plant dust and odours emissions are also not anticipated to have an adverse impact on the 53-71 Plains Road East Site. There is only one Class I facility (Category 5 Imaging printing) north of the site on Cooke Blvd, with the other businesses and facilities have very little or no potential for emissions or adverse impacts. With Category 5 Imaging at 130 metres from the site and beyond both the Class I Minimum, 20 metres, and the Potential Influence Area 70 metre separation distances, there is no potential for adverse impact on the site.

There are no facilities which store or handle large quantities of hazardous materials.

The five facilities which operate under MOECC ECAs are regulated such that there are no adverse air quality health related impacts from these facilities.

**Table 1: Summary of Industries with Potential Air Emission Issues**

Facility Name	Address	Operations	MOECC ECA	Potential Emissions	Approximate Distance from Proposal (PL to PL) (m)	D-6 Guideline Class for Air Emissions
CBM/St. Mary's Cement (Blue Circle)	1093 Howard Road	Ready-Mix Concrete Batch Plant	Yes	Dust	425	II
KPM Industries Ltd.	1077 Howard Road	Permanent batch-type hot mix asphalt plant	Yes	Dust/Odour	300/585	II
Ted's Service Centre Ltd.	1176 Howard Road	Auto Repair	No	Incidental	Greater than 500 m	0
Cosmos Concrete & Paving	1160 Waterdown Rd.	Concrete contractor	No	Dust	Greater than 500 m	I
Cougar Boots	2 Masonry Crt.	Office		na	175 m	na
King Truck Centre	1077 Howard Rd.	Truck repair centre	No	Dust	Greater than 500 m	0
Etratech Inc.	1047 Cooke Blvd.	Circuit Boards	Yes	Incidental	Shared property line	0
pv labs inc.	1074 Cooke Blvd.	Aerial imaging systems	No	Incidental	160 m	0
Category 5 Imaging Ltd.	1062 Cooke Blvd.	Printing	Yes	Incidental	130 m	I
Primary Fluid Systems	1050 Cooke Blvd.	Process equipment supply		na	125 m	na
ISI Investigative Science Inc.	1050 Cooke Blvd.	Analytical Laboratory	No	Incidental	65m	0
Burlington Pump	1038 Cooke Blvd.	Pump supply		na	60 m	na
Burlington Toner	1038 Cooke Blvd.	Toner cartridges supply		na	60 m	na
Odell Associates	1038 Cooke Blvd.	HVAC System design		na	60 m	na
Burlington Steel	1026 Cooke Blvd.	Welding supplies		na	35 m	na
DeLuca Roofing	1026 Cooke Blvd.	Office, Roofing Contractor		na	35 m	na
Jerry's Automotive Inc.	7 Plains Rd. W.	Auto Repair	No	Incidental	135 m	0
Plains Road Auto	93 Plains Rd. W.	Auto Repair/Sales	No	Incidental	180 m	0
Burlington Retirement Group Inc.	300 Plains Road W.	Retirement Home (standby diesel generator)	Yes	Incidental	Greater than 500 m	0

PL – Property Line

ECA – Environmental Compliance Approval

MOECC – Ministry of the Environment and Climate Change

na – not applicable

Figure 1: 53 – 71 Plains Road East and Surrounding Area

