MINIMUM DISTANCE SEPARATION REPORT
In support of Draft Plan of Subdivision

Riverbend Subdivision
8089 Franktown Road
City of Ottawa

January 4, 2011

Prepared by:

NOVATECH ENGINEERING CONSULTANTS LTD.
200-240 Michael Cowpland Drive
Ottawa, Ontario
K2M 1P6

Novatech File: 109097
Ref: R-2011-006
Table of contents

1. Introduction .............................................................................................................................. 3
2. Methodology ............................................................................................................................ 3
3. Analysis ................................................................................................................................... 5
4. Conclusion ............................................................................................................................. 15

Appendix 1 ................................................................................................................................ 16
Appendix 2 ................................................................................................................................ 18
Appendix 3 ................................................................................................................................ 20
Appendix 4 ................................................................................................................................ 25
Appendix 5 ................................................................................................................................ 27

References ................................................................................................................................ 29
1. Introduction

This report was prepared for 1039724 Ontario Limited (1039724) in support of the proposed development of their property located at 8089 Franktown Road. 1039724 is proposing to develop a country estate subdivision on their property. Section 1.1.4.1 c) of the 2005 Provincial Policy Statement (PPS) states that:

New land uses, including the creation of lots, and new or expanding livestock facilities shall comply with the minimum distance separation formulae.

The City of Ottawa Official Plan (OPA 76) designates the property as General Rural Area. Policy 7 e) i) of Section 3.7.2 – General Rural Area of the City of Ottawa Official Plan (OPA 76) states:

7. Country lot subdivisions will be considered within the General Rural Area designation subject to the following criteria. The extent to which any of these apply will be determined through pre-consultation with the applicant:

e. Subdivisions will not create conflicts with non-residential uses that need to locate in the rural area, and the proposed location of country lots will be evaluated relative to:

i) Agricultural operations and Agricultural Resource Area designations in the context of the Minimum Distance Separation guidelines.

This report will demonstrate that the proposed development complies with the Minimum Distance Separation and will demonstrate that it will not create conflicts with non-residential uses in the context of Minimum Distance Separation from existing livestock facilities.

2. Methodology

As part of our study of the subject property, we undertook a thorough review of the surrounding properties to determine Minimum Distance Separation (MDS) separations from potential and existing livestock facilities. The Ontario Ministry of Agricultural, Foods and Rural Affairs’ (OMAFRA) MDS Implementation Guidelines (publication 707) and the MDS Training Manual were consulted and used as our basis for evaluating livestock facilities.

MDS 1 is applied to all livestock facilities reasonably expected to be impacted by the proposed development. Below are some of the Implementation Guidelines that were used to assess the applicability of MDS 1 to the surrounding livestock facilities.

Implementation Guideline #2 provides clarification on what MDS 1 does and does not apply to:

“MDS 1 does not apply to abattoirs, apiaries, assembly yards, fairgrounds, feed storage, field shade shelters, greenhouses, kennels, livestock facilities that are less than 10m² in floor area, machinery sheds, mushroom farms, pastures, slaughter houses, stockyards, or temporary field nutrient storage sites.”

Implementation Guideline #6 provides clarification on MDS 1 and surrounding development:
“MDS 1 is applied to all livestock facilities reasonably expected to be impacted by 
the proposed development, lot creation, rezoning or redesignation. For Type B 
applications apply MDS 1 for livestock facilities within a 2000m radius. Separate 
MDS 1 calculations should be undertaken for each livestock facility located on a 
separate parcel of land...”

Implementation Guideline #12 provides clarification on the application of MDS 1 when there are 
surrounding non-farm uses:

“Where there are four, or more, existing non-farm uses closer to the subject 
livestock facility and in immediate proximity to the current application, MDS 1 will not 
be applied. The current application must not be located closer to the livestock 
facility then the four, or more, existing non-farm uses.”

Implementation Guideline #14 provides clarification on how to measure the MDS 1 
separation:

“MDS is not applied to portions of the livestock facility where livestock are not 
normally present for a long enough time for substantial amounts of manure to 
accumulate. For example, this includes feed bins, feed preparation areas, field 
shade shelters, livestock assembly areas, livestock loading chutes, machinery 
sheds, milking centres, offices, riding arenas, silos or washrooms.”

Implementation Guideline #20 provides clarification on the application of MDS to empty livestock 
facilities:

“MDS 1 applies to empty livestock facilities if they are structurally sound and 
reasonably capable of housing livestock, or storing manure...”

Further to Implementation Guideline # 20, Section 9 of the MDS Training Manual states:

“The test for determining if an empty barn is in fact an empty livestock facility has 
two parts: first is the barn structurally sound; second, is the barn reasonably capable 
of housing livestock or storing manure. Both of these parts must be satisfied in 
order to label the barn an empty livestock facility.”

In addition to OMAFRA publication 707, the Ministry’s Minimum Distance Separation (MDS) 
Formulae Training Manual provides additional information and assistance with implementation of 
the 2006 MDS formulae. Specifically, Section 9.2 of the MDS Training Manual provides ten key 
elements to consider to determine if a barn is structurally sound and reasonably capable of 
housing livestock. According to the MDS Training Manual, key elements to consider include the 
barn’s foundation, walls, roof, internal structure, location, size and shape, last use as a livestock 
facility, era, current use and presence of related buildings on site.

Further, Section 9.2 of the Training Manual states that in some cases, if the answer to any one 
question relating to the state of the barn with regards to the ten key elements stated above is ‘yes’, 
then that may be sufficient to discount it as a livestock facility.
Implementation Guideline #6 states that MDS 1 should be applied to all livestock facilities within 2000m of the proposed development. This report will demonstrate that livestock facilities housing horses or cattle (beef or dairy) are very unlikely to generate a setback greater than 500m regardless of the size of the heard, barn or tillable hectares associated with the farm. Examples of livestock facilities that tend to generate greater setbacks which would warrant a 2000m radius include pig farms, mink farms and chicken farms, none of which are located in the general vicinity of the proposed development.

As stated in the Preface of the MDS Implementation Guidelines, today’s “large barns are commonly triple the size of those of the past, accommodating 2000 feeder hogs, 250 dairy cows, or 50,000 chicken broilers at one time.” Barns of these sizes can be considered large-scale industrial farming operations and are not characteristic of the farming operations in the vicinity of the proposed subdivision. Most livestock operations in the vicinity of the proposed subdivision are older traditional smaller scale farms with some barns dating back several decades.

The livestock facilities in this area of former Goulbourn are predominantly dairy farms and horse stables. Expanding our analysis beyond 500m of the proposed development would not result in any additional setbacks. Additional livestock facilities beyond the 500m study area would be discounted by Implementation Guideline #12 because there are four or more non-agricultural uses between the proposed development and any livestock facilities. It is our opinion that a radius of 500m is sufficient for the proposed study. The adequateness of the 500m study area was discussed with City Staff during a telephone conversation on September 8th, 2010.

Finally, MDS 1 separations were calculated using the OMAFRA’s MDS 1.0.1 (2006) software.

3. Analysis

Aerial photography (Google Maps, City of Ottawa eMap and Microsoft Bing Maps) and field and windshield surveys conducted on Thursday December 3rd, 2009 were used to assess buildings on properties within 500 metres of the proposed development that exhibited a potential to house livestock.

Appendix 1 provides a map showing parcels within a 500 metres radius of the proposed Riverbend subdivision and Appendix 2 is a table providing information about the properties. The table in Appendix 2 also provides general comments and observations gathered from our review of the aerial photography. We initially identified 18 properties within 500 metres of the proposed development.

Our review of the aerial photography allowed us to eliminate several vacant properties, those with no livestock facilities as well as those with single detached dwellings and associated accessory buildings such as detached garages or storage sheds. Eleven properties were eliminated through this initial screening. Seven properties remained to be further evaluated as potential livestock facilities. The seven properties are listed below and were the subject of our windshield and field surveys conducted on December 3rd, 2009 and form the basis of MDS analysis.

1. 8230 Bleeks Road
2. 8172 Copeland Road
3. 8037 Franktown Road
4. 8040 Franktown Road
5. 8120 Franktown Road
6. 3780 Wood’s Road
7. 8286 Franktown Road
8230 Bleeks Road

The property at 8230 Bleeks Road is owned and occupied by Jockvalley Farms Ltd. The Jockvalley Farm owns approximately 1500 acres over two separate properties (8230 & 8331 Bleeks Road) and has approximately 200 dairy cows in several livestock facilities spread over their two properties.

For the purpose of demonstrating the appropriateness of a 500m study area for the proposed development, we used a worst case scenario approach and calculated the MDS 1 distance based on the total number of cows assembled on both properties (8230 and 8331) and based on the entire land holdings of the farm (607 ha). The MDS 1 distance generated for the Jockvalley Farm is 500m. The actual distance between the proposed development and the nearest livestock facility is approximately 1.3km. MDS 1 calculations are attached as Appendix 3.

Conclusion: MDS 1 does not impact proposed development.

8172 Copeland Road

The property located at 8172 Copeland Road is occupied by a single detached dwelling, two vehicle storage buildings (garages) and an old barn. Our review of existing aerial photography indicates that livestock may have been located on the property in years past.

Novatech conducted a field visit on December 3rd 2009 to confirm the status of the accessory building. There was no livestock present at the time and no indication that livestock has been on the property in recent years. The old barn is in need of major repairs and is several decades old; it does not meet the following tests of Section 9.2 of the MDS Training Manual.

- The outside walls of the buildings show evidence of water damage and are rotting;
- There is no modern ventilation system for livestock facilities (exhaust fans, air inlets);
- The buildings was constructed more than a generation ago (several);
- The buildings have not been used as a livestock facility for many years;
- The main structure has shifted and walls are leaning;
- There is no evidence of stalls, water and feed troughs or manure system within the buildings;
- Livestock infrastructure (i.e. silos, stalls, water and feed troughs, manure systems) could not be replaced without requiring a building permit.

Additionally, due to the proximity of the existing Heron Lake Estates Subdivision to the west, the property at 8172 Copeland Road is unlikely to attract new owners wanting to establish a livestock operation.
Pictures of the accessory building at 8172 Copeland Road.

The pictures above attest to the numerous wind gaps in the walls, structural issues and to the age and general state of disrepair of the building. All pictures NECL.

Conclusion: MDS 1 does not impact the proposed development.

8037 Franktown Road

The property as 8037 Franktown Road is owned by the Sample family and is occupied by a dairy farm. The property is approximately 42 hectares in size and is occupied by residential dwelling, a silo, two accessory buildings used to store farm equipment, a livestock facility and finally another farm accessory building. Access to the property was granted by Mr. Sample on December 3rd 2009 to conduct a field survey of the accessory buildings on the property. During this field visit, Mr. Sample confirmed that the larger building has capacity to house 45 cows. Mr. Sample also confirmed that approximately 20 additional animals are kept in the field in permanence in an open side cattle assembly shelter in addition to several young animals which are also kept outside in hutches.
In accordance with Implementation guideline # 2, MDS 1 does not apply to the field shade shelter/cattle assembly area nor does it apply to the outdoor hutches as they have a floor area smaller than 10m².

**Pictures of the livestock facility and accessory buildings at 8037 Franktown Road**

Clockwise from top left: temporary open sided cattle assembly building in forefront with larger main livestock facility in background, inside view of the open sided cattle assembly building, main livestock facility and outdoor hutches (white), accessory building for machinery storage. All pictures from NECL.

The open sided cattle assembly accessory building does not meet the test for a livestock facility. Principally, it is open sided, it lacks a modern ventilation systems, it does not have a modern feeding system or manure collection system, the roof is in need of major repair, there are holes in the walls and the structure is water damaged.

MDS 1 calculations were based on the main livestock facility with a housing capacity of 45 cows. We subtracted the amenity space associated with the residential dwelling as well as the area occupied by the accessory buildings, cattle yards and machinery yards from our calculations for tillable acreage. As such, the subject property is estimated to have 38 tillable hectares, as demonstrated in Appendix 4. MDS 1 calculations are included in Appendix 3 and indicate that a setback of 491 metres is required from the livestock facility and manure storage area. This is demonstrated in Appendix 5.
The proposed development will conform to policy in the Provincial Policy Statement by complying with the minimum distance separation formulae. The new residential dwellings will be outside the 491 metre minimum distance separation calculated for the adjacent livestock facility.

Implementation Guideline # 42 provides information on lot creation:

For MDS 1, measurements are taken as the shortest distance between the lot line of the lot being created and the livestock occupied portion of the livestock facility (or storage). Where larger lots may be permitted (generally larger than 1 hectare), a suitable location must be identified for a 1 ha building envelope outside the MDS 1 separation.

The purpose of Guideline #42 is to minimize nuisance complaints due to odour and thereby reduce potential land use conflicts. The Guideline does permit larger lots to be created within the minimum distance separation. The Guideline acknowledges that lots can be created within the minimum distance separation provided there is a location for a building envelope outside the distance separation. The Guideline states that these lots are “generally” larger than 1 hectare. The proposed Riverbend subdivision will have lots that are over 0.8 hectares in area in conformity with the Official Plan. The lots will have a location for a building envelope outside the minimum distance separation. The lots will not have a 1 ha building envelope outside the minimum distance separation. We believe that this still conforms to the policy of the Provincial Policy Statement.

It is important to emphasize that the MDS Guidelines are not regulation which must be strictly adhered to by law but rather a guideline to assist in the implementation of the minimum distance separation formulae. This interpretation of guidelines was recently upheld by the Ontario Municipal Board on another development issue in the City of Ottawa. Creating a building envelope outside the minimum distance separation, whether it is over 1 ha or not, is consistent with the PPS and with the general intent and purpose of the Official Plan.

We have provided two scenarios shown as Figure 1 to support this position. Lot 1 depicted on Figure 1 is a lot “generally” larger than 1 ha in area. Lot 1 also includes a one hectare building envelope outside the MDS 1 setback. Lot 2 depicted on Figure 1 is a lot that is similar to the proposed Riverbend subdivision lots. Lot 2 includes a 0.6 hectare building envelope outside the MDS 1 setback. Both lots meet the minimum lot area of 0.8 ha in conformity with the Official Plan. Both lots show the location of the dwelling outside the minimum distance separation that is consistent with the PPS. Lot 1 strictly adheres to Guideline 42. Lot 2 is consistent with the general intent and purpose of the minimum distance separation. Either scenario requires the implementation the minimum distance setback through a site specific rear yard setback in the zoning by-law.
Lot 1 will provide no greater mitigation from odour emanating from the nearby livestock facility when compared to the scenario depicted by Lot 2. Lot 1 only results in more land being allocated to the new lot within the minimum distance setback. We do not see any advantage to include more land within the minimum distance setback.

The Guidelines acknowledge that the application of a minimum distance separation will not eliminate all potential odour complaints, nor will it address other nuisance issues such as noise, dust, light, smoke, vibration or flies, or the application of manure to the land. Potential odour does not stop at the edge of the minimum distance separation arc. Either scenario has the potential to be impacted by odour from the nearby livestock facility. Any lot in the area has the potential to be impacted by odour including those within the existing Heron Lake Estates subdivision.

Rather than the strict “black and white” application of the Guidelines, we believe that potential nuisance issues can be more suitably addressed through notice requirements in all purchase and sale agreements and subdivision agreements notifying any purchaser of the potential odour from any nearby farm or livestock facility. This would be consistent with the City of Ottawa’s standard conditions for notices that pertain to noise or any nuisance from an adjacent land use. Notices on
title would provide any future purchasers with advance notice that they are moving into an area with farms and that they are advised of the potential for some noise, dust, and possibly odour from adjacent livestock facilities.

Proposed Lots 15 to 21 on the Draft Plan have areas that meet or exceed the required 0.8 hectare lot area for country estate subdivisions. The area outside of the MDS 1 arc for lots 15 to 21 will range from approximately 0.51 ha to 0.96 ha as shown in the table below. These building envelopes are more than adequate to accommodate a single detached dwelling and amenity area. MDS is not applied to the location of wells, septic systems, garages, gazebos, greenhouses, outbuildings, decks, patios, or sheds that could be permitted on the balance of the lots within the minimum distance setback.

<table>
<thead>
<tr>
<th>Lot #</th>
<th>Total Lot Area (ha)</th>
<th>Lot Area outside of MDS arc (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>0.8015</td>
<td>0.6777</td>
</tr>
<tr>
<td>16</td>
<td>0.8097</td>
<td>0.5314</td>
</tr>
<tr>
<td>17</td>
<td>0.8089</td>
<td>0.5111</td>
</tr>
<tr>
<td>18</td>
<td>0.8097</td>
<td>0.5283</td>
</tr>
<tr>
<td>19</td>
<td>0.8081</td>
<td>0.6179</td>
</tr>
<tr>
<td>20</td>
<td>0.8055</td>
<td>0.7334</td>
</tr>
<tr>
<td>21</td>
<td>0.9703</td>
<td>0.9611</td>
</tr>
</tbody>
</table>

Additionally, Guideline #42 fails to take into account any site specific condition or setting that could potentially influence how future residents perceive any nuisance. In this case, the proposed lots are not immediately adjacent to a livestock facility or farm. The proposed lots are buffered from the livestock facility on the nearby Sample farm by the existing golf course and the Jock River. Guideline #12 states that MDS 1 does not apply where there are four, or more, existing non-farm uses closer to the subject livestock facility. There are not four or more existing non-farm uses between the proposed lots and the nearby livestock facility; however, there is a large golf course. We believe this to be a superior location from other similar developments that are not buffered and may be situated immediately adjacent to a farm or farm fields that may or may not hold livestock or be treated with manure.

We believe that the intent and purpose of Guideline #42 and the policy of the PPS can be successfully met by providing a building envelope outside the minimum distance separation, by zoning the rear portion of each lot to be consistent with the setback, and by providing notice in both the purchase and sale agreement and on title. It is important to recognize that the recommendation to zone the rear yards and to include notice on title is not new or groundbreaking. It has been successfully employed by the City of Ottawa on other subdivisions with portions of lots created within the minimum distance separation. As noted above, our recommendations are entirely consistent with Guideline #42. The only difference will be in the amount land that will ultimately be included within the balance of the lot subject to the minimum distance separation.

**Conclusion:** MDS 1 can be adequately mitigated with a site specific zoning amendment implementing minimum rear yard setbacks equal to the MDS 1 arc, and with notices in all purchase and sale agreements and on title.
8040 Franktown Road

The property at 8040 Franktown Road is occupied by a single detached dwelling and several accessory buildings. Our initial review of the aerial photography indicated that the property warranted further investigation to determine if any livestock facilities are located on the property. The property is owned by Mr. and Mrs. Garland. Novatech contacted Mrs. Garland by phone on September 14, 2010. Mrs. Garland confirmed that there is no livestock on the property and that they ceased having livestock on the property in 1997. She also confirmed that the accessory buildings are used for storage.

We calculated a hypothetical MDS 1 distance based on 200 cows and the entire property as tillable hectares. The MDS 1 distance is 496m; the actual setback to the proposed development is approximately 850m. MDS 1 calculations are attached in Appendix 3.

Conclusion: MDS 1 setback does not impact the proposed development.

8120 Franktown Road

The property at 8120 Franktown Road is occupied by an abandoned single detached dwelling and four accessory buildings. Novatech conducted a field visit on December 3rd, 2009 to determine the status of the accessory buildings. The accessory buildings were once part of an operating farm and are currently used to store farm machinery and recreational vehicles. There is no livestock on the property and the accessory buildings do not meet the several of the tests for a livestock facility in Section 9.2 of the Training Manual.

- The outside walls of the buildings show evidence of water damage and are rotting;
- There is no modern ventilation system for livestock facilities (exhaust fans, air inlets);
- The buildings was constructed more than a generation ago (several);
- The buildings have not been used as a livestock facility for many years;
- The main structure has shifted and walls are leaning;
- There is no evidence of stalls, water and feed troughs or manure system within the buildings;
- The buildings are currently used as storage space for machinery and as a personal car repair garage;
- Livestock infrastructure (i.e. silos, stalls, water and feed troughs, manure systems) could not be replaced without requiring a building permit.
Pictures of the accessory buildings at 8120 Franktown Road

The accessory buildings are in need of serious repairs and currently used for storage.

Conclusion: MDS 1 does not impact the proposed development.
3780 Wood’s Road

The property at 3780 Wood’s Road is occupied by a single detached dwelling and several accessory buildings. Our review of existing aerial photography indicates that a farm is located on the property. Novatech contacted Mr. and Mrs. Delahunt (owners of the property) to confirm the status of the accessory buildings.

The owners confirmed that they ceased to operate a livestock facility on the property roughly one year ago and that there are no current plans to have livestock on the property. Mr. Delahunt confirmed that their facilities had the capacity to accommodate 20 beef cattle. Mr. Delahunt confirmed that the buildings making up the farm range in age from the early 1900’s to as recently as approximately 25 years ago. The buildings have been decommissioned (feeding systems removed, manure collection system remove, etc.)

Novatech did not visit the property and therefore cannot attest to the state of the accessory buildings and cannot confirm whether if they meet the test for a livestock facility. In the abundance of caution, we calculated MDS1 based on the maximum capacity of 20 beef cattle and the entire property area as tillable hectares. MDS 1 requires a setback of 542m from the inhabited portion of the livestock facility to the nearest lot created in the proposed development. The actual distance between the livestock facility and the nearest proposed lot line is approximately 790m.

Conclusion: MDS1 does not impact the proposed development.

8286 Franktown Road

The property located at 8286 Franktown Road is occupied by a single detached dwelling and two accessory buildings. Our review of existing aerial photography indicates that a farm is located on the property.

In accordance with Implementation Guideline #12, MDS 1 does not apply to these buildings as there are four or more non agricultural uses between the proposed subdivision and the agricultural buildings at 8286 Franktown Road. The four non-agricultural uses are single detached dwellings located in the existing Lakewood Estates Subdivision, being 1 Matilda Gate, 2 Matilda Gate, 3 Matilda Gate and 4 Matilda Gate.

Conclusion: MDS1 does not apply.
4. **Conclusion**

Our review of the MDS 1 separation requirements demonstrates that the proposed development is not impacted by neighbouring livestock facilities with the exception of the Sample Farm located at 8037 Franktown Road. The minimum distance separation from the nearby Sample livestock facility will affect the rear yards of proposed Lots 15 to 19. Each lot will have an area outside of the MDS 1 arc that will provide an adequate building envelope for a single detached dwelling. We believe that we meet the intent of the PPS that states new land uses “shall comply with the minimum distance separation formulae”. No new land uses will be permitted within the minimum distance separation.

We propose a site specific rural residential exception zoning that would implement a minimum rear yard setback equal to the MDS 1 arc for the lots affected by the nearby Sample Farm MDS 1 arc. This will prevent dwellings to be located within the MDS arc. We also recommend that notice be included in all purchase and sale agreements as well as registered on title to notify any purchaser of the potential odour from any nearby farm or livestock facility. We believe that this fulfills the intent of the PPS.

We trust that the above MDS issues have been resolved to your satisfaction.

Yours truly,

**NOVATECH ENGINEERING CONSULTANTS LTD.**

[Signature]

Gregory Winters, MCIP, RPP
Project Manager-Planner

Hugo Lalonde
Planner
Appendix 1
Appendix 2
### Appendix 2
MDS 1 Setback - Proposed Riverbend Subdivision, 8089 Franktown Road

<table>
<thead>
<tr>
<th>Municipal #</th>
<th>Street</th>
<th>PIN</th>
<th>Ownership</th>
<th>Property size (ha)</th>
<th>distance of potential livestock facility to nearest proposed residential lot</th>
<th>comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8230</td>
<td>Bleeks Road</td>
<td>044410025</td>
<td>Jockvalley Farms Ltd</td>
<td>125</td>
<td>1.34 km</td>
<td>property warrants further investigation</td>
</tr>
<tr>
<td>8104</td>
<td>Bleeks Road</td>
<td>044410030</td>
<td>Thomas Cavanagh</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8282</td>
<td>Copeland Road</td>
<td>044410013</td>
<td>Dorothea Elizabeth Bendall, Richard David Bendall</td>
<td>0.43</td>
<td>n/a</td>
<td>single detached dwelling</td>
</tr>
<tr>
<td>8107</td>
<td>Franktown Road</td>
<td>044410007</td>
<td>Fern Hartin Sample</td>
<td>42</td>
<td>approx. 500 m</td>
<td>property warrants further investigation</td>
</tr>
<tr>
<td>8109</td>
<td>Franktown Road</td>
<td>044410008</td>
<td>Hilliard Lloyd William Sample, Lot May Saunders</td>
<td>0.46</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>8120</td>
<td>Franktown Road</td>
<td>039360005</td>
<td>Herbert Stanley Lackey (Estate), Kathy Darlene Roesler, Deborah Smith</td>
<td>38.7</td>
<td>approx. 850 m</td>
<td>property warrants further investigation</td>
</tr>
<tr>
<td>8198</td>
<td>Franktown Road</td>
<td>039360004</td>
<td>Bruce Thomas Delahunt, Brenda Rose Fay Delahunt</td>
<td>34.4</td>
<td>790 m</td>
<td>property warrants further investigation</td>
</tr>
<tr>
<td>8238</td>
<td>Franktown Road</td>
<td>039360149</td>
<td>Lee Jones</td>
<td>0.8</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>8238</td>
<td>Franktown Road</td>
<td>039360151</td>
<td>Lee Jones</td>
<td>36.2</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>8286</td>
<td>Franktown Road</td>
<td>039360002</td>
<td>Christopher De Beauchamp</td>
<td>39.1</td>
<td>445m</td>
<td>property warrants further investigation</td>
</tr>
<tr>
<td>8290</td>
<td>Franktown Road</td>
<td>044410018</td>
<td>Ronald Sheldon Mayhew, Lois Ann Mayhew</td>
<td>38.4</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>8295</td>
<td>Franktown Road</td>
<td>044410014</td>
<td>Her Majesty the Queen in Right of Canada</td>
<td>4</td>
<td>n/a</td>
<td>single detached dwelling</td>
</tr>
</tbody>
</table>

---

*denotes properties reviewed in report*
Appendix 3
Minimum Distance Separation I (MDS I) Report

File: Riverbend_MDS.mds

Application Date: 30-Nov-2009
File Number: GP - 8089 Franktown Road

Preparer Information
Greg Winters
Novatech Engineering Consultants Ltd.
Suite 200, 240 Michael Cowpland Dr.
Ottawa, ON, Canada K2M 1P6
Phone #1: 613-254-9643
Fax: 613-254-5867
Email: g.winters@novatech-eng.com

Applicant Information
Unspecified
City of Ottawa

Calculation #1
8037 Franktown Road
Residential area, amenity space and barn areas removed from tillable area.

Adjacent Farm Contact Information
Fern Sample
8037 Franktown Road
Ottawa, ON, Canada

Application Information
City of Ottawa
Geotownship: GOULBOURN
Concession: 4
Lot: 7

<table>
<thead>
<tr>
<th>Manure Form</th>
<th>Type of Livestock/Material</th>
<th>Existing Capacity</th>
<th>Existing NU</th>
<th>Estimated Barn Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Dairy; Milking-age Cows (dry or milking) Large Frame (545 - 636 kg) (eg. Holsteins)</td>
<td>45</td>
<td>64.3</td>
<td>Unavailable</td>
</tr>
</tbody>
</table>

Encroaching Land Use Factor: Type B Land Use
Tillable area of land on this lot: 38 ha

Manure/Material Storage Type: V3. Solid, outside, no cover, >= 30% DM

Factor A (Odour Potential): 0.7
Factor B (Nutrient Units): 456
Factor D (Manure/Material Type): 0.7
Factor E (Encroaching Land Use): 2.2
Total Nutrient Units: 64

Distance from nearest livestock building ‘F’ (A x B x D x E): 491 m (1611 ft)
Distance from nearest permanent manure/material storage ‘S’: 491 m (1611 ft)

Required Setback: 491 m (1611 ft)
Actual Setback: 460 m (1509 ft)

Signature of Preparer: ________________________________ Date: __________________

Greg Winters, Novatech Engineering Consultants Ltd.
Calculation #2
8230-8331 Bleeks Road - Jockvalley Farms
Both Jockvally Farm parcels calculated as one parcel to demonstrate worst case scenario and appropriateness of 500m radius.

Adjacent Farm Contact Information
Shane Mowat
8230-8331 Bleeks Road
Ottawa (Ashton), ON, Canada K0A 1B0
Phone #1: 613-838-3747
Phone #2: 613-838-4444

Farm Location
City of Ottawa
Geotownship: GOULBOURN
Concession: 1
Lot: 1

<table>
<thead>
<tr>
<th>Manure Form</th>
<th>Type of Livestock/Material</th>
<th>Existing Capacity</th>
<th>Existing NU</th>
<th>Estimated Barn Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Dairy: Milking-age Cows (dry or milking) Large Frame (545 - 636 kg) (eg. Holsteins); 3 Row Free Stall</td>
<td>200</td>
<td>285.7</td>
<td>1951 m²</td>
</tr>
</tbody>
</table>

Encroaching Land Use Factor: Type B Land Use
Tillable area of land on this lot: 607 ha
Manure/Material Storage Type: V3. Solid, outside, no cover, >= 30% DM

Factor A (Odour Potential): 0.7
Factor B (Nutrient Units): 464
Factor D (Manure/Material Type): 0.7
Factor E (Encroaching Land Use): 2.2
Total Nutrient Units: 286

Distance from nearest livestock building 'F' (A x B x D x E): 500 m (1640 ft)
Distance from nearest permanent manure/material storage 'S': 500 m (1640 ft)

Required Setback: 1300 m (4265 ft)
Actual Setback: 1300 m (4265 ft)
Calculation #3
8040 Franktown Road

Entire property assumed tillable for the purpose of worst case scenario.

Adjacent Farm Contact Information
Elmer Bruce Garland
8040 Franktown Road
Ottawa, ON, Canada K0A 2Z0
Phone #1: 613-838-5907

<table>
<thead>
<tr>
<th>Manure Form</th>
<th>Type of Livestock/Material</th>
<th>Existing Capacity</th>
<th>Existing NU</th>
<th>Estimated Barn Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Dairy; Milking-age Cows (dry or milking) Large Frame (545 - 636 kg) (eg. Holsteins); 3 Row Free Stall</td>
<td>200</td>
<td>285.7</td>
<td>1951 m²</td>
</tr>
</tbody>
</table>

Encroaching Land Use Factor: Type B Land Use
Tillable area of land on this lot: 39 ha
Manure/Material Storage Type: V3. Solid, outside, no cover, >= 30% DM

<table>
<thead>
<tr>
<th>Factor (Odour Potential):</th>
<th>Factor B (Nutrient Units):</th>
<th>Factor D (Manure/Material Type):</th>
<th>Factor E (Encroaching Land Use):</th>
<th>Total Nutrient Units:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7</td>
<td>460</td>
<td>0.7</td>
<td>2.2</td>
<td>286</td>
</tr>
</tbody>
</table>

Distance from nearest livestock building 'F' (A x B x D x E): 496 m (1626 ft)
Distance from nearest permanent manure/material storage 'S': 496 m (1626 ft)

Required Setback: 496 m (1626 ft)
Actual Setback: 790 m (2592 ft)

Signature of Preparer: ___________________________ Date: ___________________________
Greg Winters, Novatech Engineering Consultants Ltd.
Calculation #4
3780 Wood’s Road

Entire property used as tillable hectares.

Adjacent Farm Contact Information
Bruce Delahunt
3780 Wood’s Road
Ottawa, ON, Canada K0A 2Z0
Phone #1: 613-838-2773

<table>
<thead>
<tr>
<th>Manure Form</th>
<th>Type of Livestock/Material</th>
<th>Existing Capacity</th>
<th>Existing NU</th>
<th>Estimated Barn Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Beef; Feeders (7 - 16 months); Yard/Barn</td>
<td>20</td>
<td>6.7</td>
<td>84 m²</td>
</tr>
</tbody>
</table>

Encroaching Land Use Factor: Type B Land Use
Tillable area of land on this lot: 34.4 ha
Manure/Material Storage Type: V3. Solid, outside, no cover, >= 30% DM

Factor A (Odour Potential): 0.8
Factor B (Nutrient Units): 440
Factor D (Manure/Material Type): 0.7
Factor E (Encroaching Land Use): 2.2
Total Nutrient Units: 7

Distance from nearest livestock building ‘F’ (A x B x D x E): 542 m (1778 ft) 750 m (2461 ft)
Distance from nearest permanent manure/material storage ‘S’: 542 m (1778 ft) 750 m (2461 ft)

Signature of Preparer: ______________________________________ Date: ____________________
Greg Winters, Novatech Engineering Consultants Ltd.
Appendix 4
Appendix 5
References

City of Ottawa Official Plan (OPA 76), City of Ottawa, June 24th, 2009.


Provincial Policy Statement, Ministry of Municipal Affairs and Housing, Queen’s Printer for Ontario, Toronto, 2005.