



**Dean Fitzgerald, M.Sc., Ph.D.**  
**Director of Environmental Services**  
**ELM Inc.**  
**Cambridge, Ontario**  
**Mobile: (226) 606-1072**

## **ENVIRONMENTAL IMPACT SUMMARY**

**4063 UPPER MIDDLE ROAD**  
**PROPOSED ZONING BY-LAW AMENDMENT APPLICATION**  
**FILE NUMBER 520-03-17**

**December 20, 2018**

### **PROPOSAL:**

This proposal pertains to land at 4063 Upper Middle Road in Burlington (hereinafter, the Site). The proponent submitted a proposal to redevelop the Site for an 8 storey, high density condominium apartment building after thorough public consultation including four public meetings. The subject site has a gross land area of 0.55 hectares (1.4 acres). Net of related setbacks and prescribed road widenings, the developable site area is 2,060 m<sup>2</sup> / 0.2 hectares (0.494211 acres). The setbacks are required, as the development is adjacent to greenlands including a portion of Shoreacres Creek.

Thirty-two (32) residential apartment units are proposed, serviced by 57 parking spaces, located at grade, 2nd level, and underground. The proposed building has a total gross area that includes Main Level Parking & Terraces of 7070 m<sup>2</sup> (76,100.8 Sq Ft) and Gross Floor including Basement Parking: 8,115.5 m<sup>2</sup> (87,354 Sq Ft).

A single full turns access to the site is proposed from Upper Middle Road.

The access point aligns with Park City access on the south side of Upper Middle Road  
16 bicycle parking spaces are provided (12 indoor and 4 outdoor).

The net density of the project is 188 units per hectare or 76 units per acre.

The following responses will show that the minimum 23.5m (8.5m+15m) buffer will create adequate protection of the natural core feature east of the developable area by proposing a number of steps to prevent damage to the slope, wildlife, woodlands and Shoreacres Creek.

A list of environmental management strategies are described for implementation for the proposed development, based on the findings from the Environmental Impact Study (EIS) completed by Premier Environmental Services. The application of the environmental management strategy is intended to reduce or eliminate the possible disturbance on the core natural heritage feature. This strategy will also actively enhance the vegetation buffer to provide added protection to the core natural heritage feature. This enhancement will represent a major improvement over the past land use that involved a single residential house surrounded by a manicured lawn, fruit trees, and flower beds. As reported in the Premier EIS, the past land use included regular vegetation cutting in the Cultural Woodland area, in close proximity to the core natural heritage feature. Also, the average distance between the Top of Bank and the Development Boundary in most areas is 10.0m. For this reason, the actual distance between the proposed development and the core natural feature will be 23.5m wide. This area of Top of Bank setback with environmental buffer with width of 23.5 m will initially have invasive plant species removed followed by plantings of native woody and herbaceous species leading to the enhancement of this vegetation community. Then the enhanced 23.5 m buffer is expected to provide protection to the core natural heritage feature.

## REFERENCES DRAWINGS AND STUDIES

The Environmental Impact Summary references the following Drawings and Studies:

- thinkGiraffe A1 Site Statistics & Key Plan, December 2018
- thinkGiraffe A2 Site Plan, December 2018
- thinkGiraffe A3 O2 Zone / Developable RH5 Boundary, December 2018
- thinkGiraffe A4 Elevations, December 2018
- thinkGiraffe A5 / A6 Plans, December 2018 (Available upon request)
- S.Llewellyn & Associates Ltd Preliminary Grading and Soil Erosion Plan, December 2018
- S.Llewellyn & Associates Ltd Preliminary Site Servicing Plan, December 2018
- S.Llewellyn & Associates Ltd Functional Servicing Report December 2018
- L1 Reynolds & Associates Tree Inventory & Preservation Plan, December 2018
- L2 Reynolds & Associates Landscape Master Plan, December 2018
- L3 Reynolds & Associates Woodlot Planting Plan, December 2018
- Corbett Land Strategies Inc. Planning Justification Report, November 2018
- Phase 1 ESA Premier Environmental Services Inc., October, 2014, November 2018

- Premier Environmental Services Inc. EIS, Feb 2017. Background Information, emails, meeting notes to current EIS. (Available upon request).
- Soil-Mat Supplemental Hydrogeological Considerations, November, 2018
- dBA Acoustical Consultants Noise Impact Study, August 2018
- Kristen Eccles Sun Shadow Study, March 2018
- Soil-Mat Slope Stability Assessment, September, 2017
- Soil-Mat Soils Report, May, 2013 with 2017 Review Letter
- Premier Environmental Services Myotis Habitat Survey, July 2015
- RJ Burnside Breeding Bird Survey, July 2013

POTENTIAL THREATS TO THE CORE NATURAL HERITAGE FEATURE	MITIGATION	SUPPORTING PLANS & STUDIES
<p>1. Burlington Official Plan Designation “Residential High Density and Watercourse”</p>	<p>The Lands associated with the Shoreacres Creek and related setbacks and buffer area will be maintained in the “Watercourse” Designation. Suitable setbacks included within the design.</p>	<p>Corbett Land Strategies Inc. Planning Justification Report, Nov 2018. Premier EIS, Feb 2017</p>
<p>2. Planning Analysis</p>	<p>The Project supports the <u>Provincial Policy Statement 2014</u> and the <u>Growth Plan for the Greater Golden Horse 2017</u></p> <p>The intent of the latter is to “manage growth, build communities, curb sprawl and protect the natural environment”.</p> <p>In this project, the design achieves balance for the needs of the residents in the townhouses to the west and the core natural heritage feature to the east. Four public meetings were conducted and the building was set as far west as possible from the creek. The building width is determined by the combined width of two rows of parking stalls and the centre access aisle and cannot be reduced.</p> <p>The higher density form of development better uses the existing Burlington infrastructure than the former single family dwelling did. The Planning Justification section 5.1 and 5.2 argues that the project contributes to the achievement of low carbon communities. Green roofs are proposed and the Tree Protection Plan proposes significant addition of trees.</p> <p>The proposed project will contribute to Burlington’s 60% increased intensification by</p>	<p>Corbett Land Strategies Inc. Planning Justification Report Nov 2018</p> <p>Section 5.1 and 5.2</p>

	<p>2031. Intensification is balanced with the goal to maintain green space of Shoreacres Creek and associated woodlands.</p> <p><u>The Halton Regional Official Plan</u> is in agreement with the Burlington and Provincial Plans (PJR 5.3).</p> <p>See PJS 5.4 for the <u>Burlington Official Plan July 2015</u>. Section 2 of Part 1 outlines the Planning Horizon and Growth context for 2021. The O2 Lands will be deemed to the City of Burlington and add to the protected green space areas.</p> <p><u>Burlington Strategic Plan Compliance analysis: Table 2</u></p> <p><u>3.2 Environmental and Energy Leadership</u></p> <p>3.2(a) The City has a healthy natural heritage system that is protected, well connected, conserved and enhanced and forms a fundamental component of the City’s Urban and Rural Areas.</p> <p>There is no doubt that even though this is a small project in scale, it will significantly protect the Shoreacres Creek natural heritage core area. The City of Burlington does not have the funds and people power to buy all parcels of land similar to 4063 Upper Middle Road and turn it into parks. It needs partnerships with developers such as the proponents to protect significant core areas. This project also includes extensive enhancement activities of the disturbed lands within the Cultural Woodland on-Site, a cost borne by the project proponent.</p>	<p>Section 5.3</p> <p>Section 5.4</p> <p>Table 2 3.2</p>
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<p>3. Existing Site disturbance</p>	<p><u>See Phase 1 ESA</u></p> <p>4.1 Residence constructed in 1954 and demolished in 2014</p> <p>6.1 Describes site after demolition</p> <p>It appears that the owners extended gardening efforts downslope and planted non-native tree species in the woodlands. This activity converted the natural woodlands to Cultural Woodlands. The effects of the interference with the slope will be mitigated with the Landscape and Tree Protection guidelines to restore the Cultural Woodlands as well as the vegetation buffer area.</p>	<p>Phase 1 ESA Premier Environmental Services Inc Oct 2, 2014</p> <p>L3 Reynolds &amp; Associates Woodlot Planting Plan</p>
<p>4. Core Natural Feature Description</p>	<p><u>See Phase 1 ESA</u></p> <p>Appendix A Maps</p> <p>A1 Site Location map</p> <p>A4 Surrounding Land Use Map</p> <p>4.3.2 Geology, Topography, Hydrology</p> <p>4.3.4 Water Bodies and Areas of Natural Significance</p>	<p>Phase 1 ESA Premier Environmental Services Inc, Oct 2014</p>
<p>5. Boundary between proposed O2 Zone and Developable Land</p>	<p>A Zoning By-law Amendment is required to facilitate this proposal. The rezoning application proposes to rezone the lands to “Residential High Density (RH-5)” and “Open Space (O2)”. The <u>Boundary between the RH-5 Zone and O2 Zone is proposed to be a 7.5m setback from the Stable Top of Bank and the staked Tree Dripline – whichever is the greatest.</u> This boundary will be referred to as the <b>most westerly boundary between the O2 Zone and Developable Area.</b> The Stable Top of Bank and Tree Drip Line have been plotted on the A2 thinkGiraffe Site Plan, A3 thinkGiraffe O2 Zone / Developable Land Boundary and Reynolds &amp; Associates L2 Landscape Master Plan. The 7.5m setbacks from both of these have been shown.</p>	<p>A2 thinkGiraffe Site Plan</p> <p>A3 thinkGiraffe O2 Zone / Developable Land Boundary Plan</p> <p>L2 Reynolds &amp; Associates Landscape Master Plan.</p>

<p>6. Proposed Naturalized Buffer. Combined width more than 7.5m</p>	<p>See the applicable plans for a description of the proposed Naturalized Buffer composition between the <b>Top of Bank</b> and <b>westerly O2 Zone Boundary</b>. IT SHOULD BE NOTED THAT THE <u>NATURALIZED BUFFER WILL BE ON AVERAGE 10.0m OR MORE. THE MINIMUM WIDTH IS 8.5m.</u> See the A3 thinkGiraffe O2 Zone / Developable Land Boundary attached. The buffer is on average 10.0m because it extends from the developable RH-5 east boundary to the Top of Bank. The 7.5m Tree Dripline Buffer is located WITHIN in Naturalized Buffer.</p>	<p>L1 Reynolds &amp; Associates Tree Inventory &amp; Preservation Plan</p> <p>L2 Reynolds &amp; Associates Landscape Master Plan.</p> <p>L3 Reynolds &amp; Associates Woodlot Planting Plan</p>
<p>Proposed 15m wide Cultural Woodland downslope</p>	<p><u>In addition to this naturalized buffer, the land downslope was identified as Cultural Woodland with a minimum width of 15m.</u> Hence, the core natural heritage feature along Shoreacres Creek is separated from the proposed development by the <b>naturalized buffer</b> along with the <b>15+m Cultural Woodland</b>. This project is proposing to plant native trees and remove non-native trees from this Cultural Woodland, as a strategy to provide additional protection of the core natural heritage feature. <u>Thus, the actual natural vegetation buffer will be minimum 23.5 m wide (8.5m Naturalized Buffer + 15m Cultural Woodland).</u> <u>This document will show how the vegetation buffer will provide protection of the core natural heritage feature.</u></p>	<p>L3 Reynolds &amp; Associates Woodlot Planting Plan</p>
<p>7. Stable Top of Bank Demarcation</p>	<p>The Stable Top of Bank as determined by Soil-Mat has been plotted as per request of Conservation Halton on the Site Plan, Grading Plan and Landscape Plan. The building size has been cut back in the north easterly corner as per request of Halton Region and Conservation Halton to allow for the 7.5m tree line setback which is more</p>	<p>Soil-Mat Slope Stability Assessment Sept 27, 2017</p>

	westerly than the 7.5m Stable Top of Bank Setback.	
8. Definitions in the PJR	The Planning Justification Report defines the Boundary between the O2 Zone and Developable area conforming to this document. The Report also states that the O2 Zone will be transferred to the City of Burlington. See the PJR attached.	Corbett Land Strategies Inc. Planning Justification Report Nov 2018
9. Justification of proposed 7.5m setback from Stable Top of Bank / Tree Dripline	It would be typical to apply a 10m buffer to help mitigate potential negative impacts resulting from development on lands adjacent to significant woodlands in infill situations. However, a reduced buffer is appropriate and this document and the Landscape Drawings / TPP will provide further justification to support this reduction. Per ROP policies, buffers are to be considered components of the Regional Natural Heritage System located adjacent to key features of the natural heritage system and watercourses. They are intended to provide physical separation between development and site alteration and adjacent natural areas to help mitigate potential negative impacts on these features and their associated ecological functions. In this project they are proposed in conjunction with other suitable mitigation measures. Their extent (width) is deemed sufficient to ensure that the buffers will perform their intended function in light of the likely negative impacts resulting from the adjacent development or site alteration (before, during and after construction). Other measures will be implemented to mitigate these impacts (e.g., vegetated buffers and permanent fencing), to ensure the sensitivity and significance of the features and ecological functions will be protected. These measures are listed in this document. Supporting documents are listed.	L1 Reynolds & Associates Tree Inventory & Preservation Plan  L2 Reynolds & Associates Landscape Master Plan.  L3 Reynolds & Associates Woodlot Planting Plan  Soil-Mat Slope Stability Assessment Sept 27, 2017

<p>10. Fence between O2 Lands and Developable Area</p>	<p>The Developer will provide a fence and gate on or west of the boundary between the proposed O2 Lands and Area of Development. See the Landscape Plan for the Fence location and specification.</p>	<p>L2 Reynolds &amp; Associates Landscape Master Plan.</p>
<p>11. Fence between O2 lands and Upper Middle Road</p>	<p>The proposed O2 Lands will be conveyed to the City of Burlington and it is assumed that the City will provide a fence and gate of the boundary abutting Upper Middle Road.</p>	
<p>12. Drainage patterns on site will be maintained post development.</p>	<p>No water from the Developable Area will enter or drain on the O2 lands.</p>	<p>S.Llewellyn &amp; Associates Ltd Dec 2018 Preliminary Grading and Soil Erosion Plan  S.Llewellyn &amp; Associates Ltd Dec 2018 Preliminary Site Servicing Plan  S.Llewellyn &amp; Associates Ltd Dec 2018 Functional Servicing Report</p>
<p>13. Static Groundwater table not anticipated to depth of excavation</p>	<p>The total infiltration is expected to be considerably less than 50,000 litres/day and a Permit to Take Water is not required for low volumes. The low permeability of the clayey silt and the Queenston shale bedrock is expected to prevent static groundwater to reach the depth of the excavation.</p>	<p>Soil-Mat Supplemental Hydrogeological Considerations Nov 28, 2018 Letter</p>
<p>14. Proposed 15m wide Cultural Woodland downslope Tree Plantings</p>	<p>The Proposed 15m Tree Buffer Zone has an existing tree grid of approximately 3m on centre. That adds up to approximately 180 trees. Of these approximately 20% or 36 trees are non-native or diseased and recommended for removal. We proposed</p>	<p>L1 Reynolds &amp; Associates Tree Inventory &amp; Preservation Plan</p>

	<p>that only 36 replacement trees be planted. The 3m on centre grid should not be intensified. The replacement trees will be a minimum of 5'-0" tall. The species proposed are as follows:</p> <ul style="list-style-type: none"> <li>• Towards the top half of the bank: Sugar Maple, Burl Oak and Bitternut Hickory</li> <li>• Towards the bottom half of the bank: Eastern White Cedar, White Pine and Red Maple.</li> </ul>	L3 Reynolds & Associates Woodlot Planting Plan
15. Tree Plantings on the west and north boundaries of the Developable Area	See Landscape and TP Plans for additional trees on the west and north boundary of the Developable Area as requested by the residents of the adjacent townhouse complex during four Public Consultations.	<p>L1 Reynolds &amp; Associates Tree Inventory &amp; Preservation Plan</p> <p>L2 Reynolds &amp; Associates Landscape Master Plan.</p>
16. Maintain existing trees on west boundary	Existing trees on the west boundary of the Developable Area will be retained as requested by the residents of the adjacent townhouse complex during four Public Consultations. Gaps in the tree line will be filled in according to the TPP and Landscape Plan	L1 Reynolds & Associates Tree Inventory & Preservation Plan
17. Increase plantings at Top of Bank	Plantings at the Top of Bank will be increased as per the Landscape Plan. The proposed plantings will vary in size and species in order to appear more natural.	<p>L1 Reynolds &amp; Associates Tree Inventory &amp; Preservation Plan</p> <p>L2 Reynolds &amp; Associates Landscape Master Plan.</p>

<p>18. Erosion prevention in 15m Naturalized Buffer</p>	<p>Lower Infill Plantings less than 0.4m to be planted by hand in 15m Naturalized Buffer. See L3 for proposed deciduous and coniferous shrubs specification and plan.</p>	<p>L3 Reynolds &amp; Associates Woodlot Planting Plan</p>
<p>19. Removal of Invasive Species in Naturalized Buffer</p>	<p>Invasive species within the naturalized buffer will be removed by hand prior to native tree planting. This will involve the removal of a total of 40 Buckthorn (<i>Rhamnus cathartica</i>) and 20 Manitoba Maple. Invasive herbaceous plants will also be removed by hand. This removal will involve an area of 10-15m<sup>2</sup> of Garlic Mustard (<i>Alliaria petiolate</i>), Common Mullein (<i>Verbascum thapsus</i>), Wild Carrot (<i>Daucus carota</i>), along with 30m<sup>2</sup> of Common Periwinkle (<i>Vinca minor</i>).</p>	<p>L3 Reynolds &amp; Associates Woodlot Planting Plan</p>
<p>20. Mitigating Potential Bird Strikes</p>	<p>Light can be a concern where it is directed towards a variety of natural features and functions). Primary sources for “new light” on-Site will be from the proposed development. It is also prudent to review that a mounted light can illuminate in three directions; directly upward, directly to the ground, or at an angle away from the ground. For this Site, it is recommended that the placement of lights on the future building and in the parking area avoid illumination of the adjacent O2 Zone. Different strategies can be used to achieve this goal. For example, to minimize light being directed into the O2 Zone, outdoor common area lighting for walkways and parking spots should be directed toward the ground and/or angled toward the building. For this Site, it is recommended to minimize impacts of light on birds, use of upward light should be avoided and lighting should illuminate only non-reflective surfaces.</p> <p>The Architect will also specify window glass for the building that reduces the risk of bird strikes. This glass is available for use, and was designed to reduce harm to birds.</p>	

<p>21. Myotis Assessment</p>	<p>Myotis Survey in 2015 conducted by Premier Environmental shows no tree cavities consistent with Myotis habitat within 120 m of the development property.</p>	<p>Myotis Survey July 2015 Premier Environmental Services</p>
<p>22. Species at Risk</p>	<p>The 2013 Survey done by RJ Burnside lists the species at risk birds in the area. A list of species at risk from the MNRF was also generated in 2013, and was reported in the Premier (2017) EIS. Findings reported in the Premier (2017) EIS identified no observations of species at risk during multiple field surveys, attributed to the highly disturbed nature of the land covered previously by the single residence ornamental gardens and fruit trees. The Premier (2017) EIS also identified low chance of species at risk on-Site to be encountered in the future, due to the disturbed habitat.</p> <p>For the proposed development on-Site, great care is being taken with the creation of a naturalized buffer along with improvements to the 15+m Cultural Woodland. Hence, the actual natural vegetation buffer will have a minimum width of 23.5 m (8.5m Naturalized Buffer + 15m Cultural Woodland). This project is proposing to plant native trees and remove non-native invasive trees and herbs from this Cultural Woodland, as a strategy to provide additional protection of the core natural heritage feature. Since this area of buffer and Cultural Woodland gradually slopes to the Shoreacres Creek valley, it is well suited for removal of invasive trees and herbs as well as the planting of native trees. This slope toward the creek also indicates the existing drainage to the valley will remain unchanged following the completion of the development. A fence will also be installed to separate the 23.5 m vegetation area from the proposed development and thereby afford additional protection of this area from disturbance. This fence plus plantings represents a significant</p>	<p>RJ Burnside Bird Survey July 2013</p> <p>Premier Environmental Services EIS 2017</p> <p>L2 Reynolds &amp; Associates Landscape Master Plan.</p>

	<p>improvement over the existing conditions where members of the public and pets freely access and litter the core natural heritage feature. Refer to the proposed fences and gate protection plans on the drawings. In summary, the O2 zone will be controlled by the City of Burlington. We propose that the City in conjunction with Halton Conservation study whether any public access to the Shoreacres Core Natural Heritage Area should be allowed. Due to the absence of species at risk and lack of habitat for species at risk on-Site, no impacts to species at risk are anticipated in the future.</p>	
<p>23. Resident and pet access to the natural heritage features and the vegetated buffer area (O2 Zone).</p>	<p>The O2 Zone is to be conveyed from the Owner to the City of Burlington. The City will propose restricted access via fence or not. It is expected that there will be no access from the developable area to the O2 Zone. Refer to the Landscape Plan for the proposed fence location. (The fence will not be installed beyond the limits of the Developable Area).</p>	<p>L2 Reynolds &amp; Associates Landscape Master Plan.</p>
<p>24. Snow clearing and snow storage.</p>	<p>See Landscape Plan and Site Plan. No snow will be stored piling up against the proposed fence or near O2 zone. This means any subsequent drainage will travel, via natural slope, to Upper Middle Road storm sewers.</p>	<p>L2 Reynolds &amp; Associates Landscape Master Plan.</p>
<p>25. Littering in O2 Zone</p>	<p>The O2 Zone is to be conveyed to the City of Burlington. The City will propose restricted access via fence or not. Hence, it is expected there will be no access from the developable area to the O2 Zone. It is assumed that the City will clean up litter, in the future, should they decide to allow access to the area.</p>	
<p>26. Grading and drainage alterations.</p>	<p>No grading or drainage alterations will occur east of the development boundary. This implies natural runoff from the O2 zone will continue to drain to Shoreacres Creek valley and ensure no change in water balance.</p>	<p>S.Llewellyn &amp; Associates Ltd Preliminary Grading and Soil Erosion Plan</p>

<p>27. Sun shadow impact on vegetation in O2 Zone</p>	<p>See Sun Shadow Study from 2018 attached. Projections show that the building cast shadows into parts of the O2 zone only in the weeks around March 21 at 3:30 in the afternoon and December 21<sup>st</sup> at 12:30 and 3:30. These dates correspond to when the plants are dormant due to winter season and do not have leaves. Consequently shading will not result in any negative effects on these plants from the development.</p>	<p>Sun Shadow Study March 2018 Kristen Eccles</p>
<p>28. O2 Zone Protection during construction</p>	<p>An Erosion and Sediment Control Fence (ESCF) is proposed 1.0m east of the limit of the developable area. The foundation will be shored during construction in areas where the proposed building is within 3.0m from the limit of the developable area. Representatives from Conservation Halton and Halton Region will be informed by the builder if the fence is erected, and can be on site to inspect the location of the ESCF. Details of the location of the ESCF is also specified on the Llewellyn Grading Plan.</p>	<p>S.Llewellyn &amp; Associates Ltd Preliminary Grading and Soil Erosion Plan</p>
<p>29. Noise generated by rooftop Mechanical Units</p>	<p>No rooftop units are proposed. Each apartment will have individual furnaces and air conditioners located in Mechanical "closets". A Noise Study is available for review that shows noise has been reduced.</p>	<p>Noise Impact Study dBA Acoustical Consultants Rev Aug 2018</p>

Dean Fitzgerald, M.Sc., Ph.D.  
Senior Ecologist  
Director of Environmental Services  
ELM Inc