DILLON CONSULTING

Ganatchio Gardens Inc.

Official Plan and Zoning By-Law Amendments

Environmental Evaluation Report
Southwest Corner of Florence Avenue and Wyandotte Street East, Windsor

May 2022 – 21-1691

Table of Contents

Figures

Tables

Appendices

References

1.0 Introduction

Dillon Consulting Limited (Dillon) was retained by Ganatchio Gardens Inc. (the "client") to conduct natural environment studies and prepare an Environmental Evaluation Report (EER) for the proposed residential development located southwest of Wyandotte Street East and Florence Avenue (the "Project Location") within the City of Windsor, County of Essex (Figure 1). For the purposes of documenting existing conditions of the natural environment, an area extending 120 metres (m) beyond the Project Location was used (the "Study Area"). The EER will form part of an application package for submission to the City of Windsor.

The Project Location is 3.3 hectares (ha) in size and consists of agriculture (last farmed in 2020), with treed areas mainly along the western and southern boundary. The purpose of the EER is to document existing conditions of the natural environment; determine the potential limits of development; evaluate the potential for environmental impacts associated with the proposed development activities; and recommend mitigation, restoration, enhancement measures, and/or compensation measures, where necessary, to avoid impacts to the natural environment as a result of the proposed development.

The Terms of Reference (Appendix A) for this EER was sent to the City of Windsor on April 25, 2022, and is in keeping with the general policies of the City of Windsor Official Plan (2013) and the Essex Region Conservation Authority Environmental Impact Assessment Guidelines (2019).

2.0 Background and Policy Context

The following section has been prepared to identify the applicable land use planning policies related to the natural environment. Various regulatory agencies and legislative authorities have established policies with the purpose of protecting the ecological features and functions within the province of Ontario and within the City of Windsor specifically. This section is not intended to constitute a complete land use planning assessment as it focuses on the relevant environmental policies and regulations. The documents referenced below can be read in their entirety for a more detailed understanding of the land use policy framework applicable to the Study Area (Figure 1).

2.1 Information Sources

Secondary source information was used to identify known environmental constraint areas and to map the significant natural heritage features such as watercourses, woodlands, and potential wildlife occurrences. Table 1 lists the relevant policies and legislation applicable to the protection of natural heritage features within the City of Windsor, and more specifically, the Study Area; as well as supporting guidance documents and resources consulted respective to each policy. This table also includes additional background information sources used to help identify and define natural heritage features within the province of Ontario, and Eco-region 7E specifically.

Table 1: Policies, Legislation, and Background Resources Searched

Source	Record Reviewed/Requested
Government of Canada	
Environment Canada	• Species at Risk Registry: Accessed to determine the at-risk status of wildlife species under Schedule 1 of the Species at Risk Act (SARA; 2002)
Fisheries and Oceans Canada (DFO)	• Aquatic Species at Risk Map: Accessed to determine aquatic at-risk occurrences
Government of Ontario	
Provincial Policy Statement (2020)	• Policies within Section 2.1 related to natural heritage features • Policies within Section 2.2 related to water
Ministry of Environment, Conservation and Parks (MECP)	• Endangered Species Act (ESA; 2007) • Species at Risk in Ontario (SARO) List (O. Reg. 230/08) • Client's Guide to Preliminary Screening for Species at Risk (2019)
Ministry of Natural Resources and Forestry (MNRF)	• Natural Heritage Information Centre (NHIC) database (Squares: 17LG4088, 17LG4187, 17LG4188, 17LG4189, 17LG4287, 17LG4288, and 17LG4289; MNRF, 2022) • MNRF Make a Map: Natural Heritage Areas (MNRF, 2022) • Natural Heritage Reference Manual, Second Edition (OMNR, 2010)

Source	Record Reviewed/Requested
Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)	• MNRF Significant Wildlife Habitat Technical Guide (OMNR, 2000) • Significant Wildlife Habitat Eco-region 7E Criterion Schedules (OMNRF, 2015) • Technical Memo: Aylmer District MNRF Guidance on Identifying Activities/Areas not Likely to Contravene the Endangered Species Act, 2007 in the County of Essex & City of Windsor (2016) • Agricultural Information Atlas (OMAFRA, 2022); reviewed area drains
Municipal Government(s)	
City of Windsor	• Update to the CNHS Inventory (2008) • Official Plan (2013)
Additional Sources	
Wildlife Atlases and Distribution Data	• Ontario Breeding Bird Atlas (OBBA; Cadman et al., 2008). Second Atlas (2001-2005) – data for square 17LG48 – grid based on 10 km^2 system.
	• Christmas Bird Count (CBC; Birds Canada, 2022). Count circle North Shore (ONNS) – Historical Records from 2000 – 2019.
	• Rare Vascular Plants of Ontario (Fourth Edition; Oldham and Brinker, 2009). Distribution data for rare vascular plants.
	• Ontario Reptile and Amphibian Atlas (ORAA; Ontario Nature, 2022). List of reptile and amphibian species occurrences for square 17LG48. • Ontario Butterfly Atlas (OBA; Toronto Entomologists Association, 2022). List of butterfly species occurrences for square 17LG48.
	• Atlas of the Mammals of Ontario (Dobbyn, 1994). Distribution data for mammals. • Bumble Bees of North America (Williams et al., 2014). Distribution data for bumble bees.
Essex Region Conservation Authority (ERCA)	• Environmentally Significant Areas of the Essex Region (Oldham, 1983) • Essex Region Natural Heritage System Strategy (2013) • Environmental Impact Assessment Guidelines (Nelson and Lebedyk, 2019)
Bedrock Geology of Ontario, Southern Sheet	• Reviewed bedrock geology of Ontario (Ontario Geological Survey, 1991)
Physiography of Southern Ontario	• Reviewed the physiography of Ontario (Chapman and Putnam, 1984)
Soil Survey of Essex County	• Reviewed the soil classification of Essex County (Richards et al., 1949)
Previous Consultants	• Tree Inventory and Preservation Plan Report (Jackson Arboriculture Inc., 2018) • Natural Site Features Inventory & Preservation Study (Goodban Ecological Consulting Inc., 2018)

2.1.1 Provincial Policy Statement

The Provincial Policy Statement (PPS; 2020), provides overall policy direction on matters of provincial interest related to land use planning and development in Ontario. The PPS sets forth a vision for Ontario's land use planning system by managing and directing land use to achieve efficient development and land use patterns, wise use and management of resources, and protecting public health and safety. This report deals specifically with Policy 2.1, Natural Heritage, and Policy 2.2, Water, which provides for the protection and management of natural heritage and water resources, which include the following:

- significant wetlands;
- significant coastal wetlands;
- significant woodlands;
- significant valleylands;
- significant wildlife habitat;
- significant areas of natural and scientific interest (ANSIs);
- coastal wetlands;
- fish habitat;
- habitat of endangered species and threatened species;
- sensitive surface water features; and
- sensitive ground water features.

The PPS defines "significant" to mean:

- in regard to wetlands, coastal wetlands, and areas of natural and scientific interest, an area identified as provincially significant by the MNRF using evaluation procedures established by the province, as amended from time to time;
- in regard to woodlands, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources and Forestry; and
- in regard to other features and areas in policy in 2.1, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or natural heritage system.

In regard to surface and ground water features, the PPS defines "sensitive" to mean:

- areas that are particularly susceptible to impacts from activities or events, including, but not limited to, water withdrawals and additions of pollutants.

2.1.2 Endangered Species Act

In June 2008, the Endangered Species Act (ESA; 2007) came into effect in Ontario. The purpose of the ESA is to identify SAR based on the best available scientific information; to protect SAR and their habitats, to promote the recovery of SAR; and to promote stewardship activities to assist in the protection and recovery of SAR in Ontario. There are two applicable regulations under the ESA; *Ontario Regulation* (O. Reg.) 230/08 (the SARO List); and, O. Reg. 242/08 (General). These regulations serve to identify which species and habitat receive protection and provide direction on the current implementation of the ESA by the MECP.

In addition, an Information Request was submitted to the MNRF on April 12, 2017. The MNRF indicates the potential for Eastern Foxsnake (Pantherophis gloydi) and Butler's Gartersnake (Thamnophis butleri) in the general area. For more information about the Information Request for SAR, refer to **Section 3.2.7**.

2.1.3 City of Windsor Official Plan

The purpose of the City's Official Plan is to provide guidance for the physical development of the municipality over a 20 year period while taking into consideration important social, economic, and environmental matters. As such, the City's Official Plan provides policy framework that will guide: where new development can locate; how existing and future neighbourhoods will be strengthened; how Windsor's environment will be enhanced; what municipal infrastructure, such as roads, watermains, sewers, and parks, will be provided; and when and in what order Windsor will grow (City of Windsor, 2013).

The City's OP designates the Project Location as Community and Regional Parks (Schedule B) and Open Space (Schedule D; Appendix B). The closest natural heritage designation (Environmental Policy Area A) is located approximately 230 m to the east of the Project Location (Schedule C; Appendix B).

2.1.4 Essex Region Conservation Authority (Ontario Regulation 158/06)

In accordance with Section 28 of the *Conservation Authorities Act* (1990), ERCA is authorized to implement and enforce the Regulation of Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses (O. Reg. 158/06). Section 2(1) of this Regulation lists areas within ERCA's jurisdiction where development is prohibited without proper permissions from ERCA. Such areas include, but are not limited to, those adjacent or close to the shoreline of inland lakes, river or stream valleys, hazardous lands, and wetlands.

In participating in the review of applications under the Planning Act and Environmental Assessment Act(s), ERCA ensures that applicants and approval authorities are aware of any Section 28 Regulation requirements under the *Conservation Authorities Act*, where applicable. Further, ERCA assists in the

coordination of these applications to avoid ambiguity, conflict, and unnecessary delay or duplication in the process.

ERCA's Regulated Area is not located within the Study Area.

3.0 Results of Background Review

The Project Location is located southwest of Wyandotte Street East and Florence Avenue. The Project Location consists of agriculture (last farmed in 2020), with treed areas mainly along the western and southern boundary. The surrounding land uses are varied and are described as follows:

- North: residential;
- East: residential;
- South: Ganatchio Trail (Regional Park/Open Space), vacant residential; and
- West: Ganatchio Trail (Regional Park/Open Space).

The following sections provide a brief summary of the existing environmental conditions within the Study Area as identified through the background review. This information provides the basis upon which the biophysical inventory and overall EER is based.

3.1 Aquatic Environment

The Study Area lies within the Lake St. Clair watershed and the Little River sub-watershed (Hayman et al., 2005) and currently drains via overland flow pathways to the Old Little River. Large variations in annual flow within the streams and drains of this area have been recorded, dependent on rainfall, resulting in intermittent flows and dry periods during the summer months. Storm pulses in the area, have destructive powers following rain events and cause significant erosion which negatively impact fish habitat (Hayman et al., 2005). According to Hayman et al. (2005), the water quality within the sub-watershed is generally poor.

The potential for aquatic environments to be present within the Study Area is discussed further in **Section** 5.1.

3.2 Terrestrial Environment

3.2.1 Landforms, Soils, and Geology

The Study Area lies over Middle Devonian, consisting of limestone, dolostone, and shale (Ontario Geological Survey, 1991). The physiography of the area is described as Clyde Clay (Chapman and Putnam, 1984). A review of the Soil Survey of Essex County (Richards et al., 1949) indicates that soils within the Study Area have been described as Clyde Clay. Clyde Clay is poorly drained with a topography being level to slightly depressional. The Project Location itself has a level topography. Agricultural tile drainage is not found within the Study Area (OMAFRA, 2022).

3.2.2 Significant Woodlands

A review of background mapping and resources did not identify forest/treed areas designated as Natural Heritage, Environmental Policy Area A or B, or Candidate Natural Heritage Sites within and/or adjacent to the Project Location.

The potential for Significant Woodlands to be present within the Study Area is discussed further in **Section** 5.2.5.

3.2.3 Significant Wetlands

A review of background mapping and resources did not identify wetlands within the Study Area.

The potential for Significant Wetlands to be present within the Study Area is discussed further in **Section** 5.2.6.

3.2.4 Significant Valleylands

A review of background mapping and resources did not identify valleylands within the Study Area.

The potential for Significant Valleylands to be present within the Study Area is discussed further in **Section** 5.2.7.

3.2.5 Areas of Natural and Scientific Interests (ANSI)

A review of background mapping and resources did not identify ANSI's within the Study Area.

3.2.6 Significant Wildlife Habitat

Wildlife habitat is defined as an area where plants, animals and other organisms live, including areas where species concentrate at a vulnerable point in their life cycle, and areas that are important to migratory and non-migratory species (OMNR, 2000). To assist planning authorities, the MNRF developed the Significant Wildlife Habitat (SWH) Technical Guide (OMNR, 2000) that provides information on the identification, description, and prioritization of SWH in Ontario. To account for the ecological diversity across the province, MNRF developed the SWH Ecoregional Criteria Schedules to support the SWH Technical Guide. These schedules are specific to each geographic area of each eco-region. The Study Area is located in Ecoregion 7E (Lake Erie-Lake Ontario); under the Criteria Schedule for Ecoregion 7E (OMNRF, 2015), SWH has been divided into four broad categories consisting of:

Seasonal Concentration Areas of Animals

This category identifies habitat where wildlife species gather annually, at certain times of the year. This SWH category requires the presence of a given species, or several species, in specific densities based on approved survey protocol in order to meet the criteria for significance.

Rare Vegetation Communities or Specialized Habitat for Wildlife

The criterion for rare vegetation communities considers the provincial Sub-national rank (SRank) of a species or community type, and includes SRanks of S1 (extremely rare), S2 (very rare), and S3 (rare to uncommon). The criteria for specialized habitat for wildlife captures sizeable habitat requirements for listed species to carry out key life processes.

Habitat for Species of Conservation Concern

The Significant Wildlife Habitat Technical Guide (OMNR, 2000) defines Species of Conservation Concern (SCC) as species that are globally, nationally, provincially, regionally, or locally rare (SRank of S1 to S3), as well as species listed as Endangered or Threatened federally, but do not include SAR listed as Endangered or Threatened under the ESA. This category identifies habitat for wildlife species that are listed as SC, rare (SRank of S1-S3), and/or declining.

Animal Movement Corridors

Animal movement corridors identify areas that wildlife move between habitats in order to carry out their life processes. Confirmed or candidate SWH are identified by the MNRF or the planning authority.

Through background review, several SCC listed in Table 2 have been identified with the potential to occur within the vicinity of the Study Area, and will help to determine the potential for SWH.

Table 2: Species of Conservation Concern with the potential to occur within the vicinity of the Study Area

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Info Source[4]
Birds					
Haliaeetus leucocephalus	Bald Eagle	---	SC	S2N,S4B	CBC, OBBA
Lepidoptera					
Danaus plexippus	Monarch	SC	SC	S2N,S4B	OBA
Reptiles					
Chelydra serpentina	Snapping Turtle	SC	SC	S3	ORAA
Plants					
Vernonia gigantea	Giant Ironweed	---	---	S1?	NHIC
Vernonia missurica	Missouri Ironweed	---	---	S3?	NHIC
Rosa setigera	Climbing Prairie Rose	SC	SC	S3	NHIC

[1]Status identified under the federal Species at Risk Act: SC = Special Concern; [2]Status identified under the provincial Endangered Species Act: SC = Special Concern; [3]SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S4 =

common and apparently secure, S3 = rare to uncommon and vulnerable, S2 = very rare and imperiled, S1 = extremely rare and critically imperiled, SH = possibly extirpated (historical), SNR = unranked, SNA = not applicable, SX = extirpated, SU or ? = uncertain due to insufficient information, B = breeding, N = non-breeding, M = migrant; [4]Information sources include: CBC = Christmas Bird Count, IBA = Important Bird Area, MECP Reg. Habitat = MECP Regulated Habitat (O. Reg. 242/08), MWH = Digital Distribution Maps of the Mammals of the Western Hemisphere, version 3.0, NHIC = MNRF Natural Heritage Information Centre, OBA = Ontario Butterfly Atlas, OBBA = Ontario Breeding Bird Atlas, OOA = Ontario Odonata Atlas, ORAA = Ontario Reptile and Amphibian Atlas; --- denotes no information or not applicable.

A review of background data suggests that several SWH types, as described in the Eco-Region 7E Criterion Schedules (OMNRF, 2015) may occur within the Study Area, including, but not limited to, the following:

- Reptile Hibernaculum;
- Tallgrass Prairie (City-owned, adjacent lands to the west may have planted prairie indicator species);
- Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat (with the knowledge of a previously-active Bald Eagle nest in the greater area);
- Turtle Nesting Areas (City-owned, adjacent lands to the west may have suitable habitat);
- Amphibian Breeding Habitat (Wetlands; City-owned, adjacent lands to the west may have suitable habitat);
- Marsh Breeding Bird Habitat (City-owned, adjacent lands to the west may have suitable habitat);
- Terrestrial Crayfish; and
- Special Concern and Rare Wildlife Species.

The potential for SWH to be present within the Study Area is discussed further in **Section 5.2.8**.

3.2.7 Species at Risk

Species at Risk are defined as those species that are listed as Threatened or Endangered under the ESA. Through the Information Request, SAR listed in Table 3 have been identified with the potential to occur within the vicinity of the Study Area.

Table 3: Species at Risk with the potential to occur within the vicinity of the Study Area

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Info Source[4]
Reptiles					
Pantherophis gloydi	Eastern Foxsnake (Carolinian population)	END	END	S2	ORAA, MECP Reg. Habitat, MNRF
Thamnophis butleri	Butler's Gartersnake	END	END	S2	ORAA, MNRF

[1]Status identified under the federal Species at Risk Act: END = Endangered; [2]Status identified under the provincial Endangered Species Act: END = Endangered; [3]SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S4 = common and apparently secure, S3 = rare to uncommon and vulnerable, S2 = very rare and imperiled, S1 = extremely rare and critically imperiled, SH = possibly extirpated (historical), SNR = unranked, SNA = not applicable, SX = extirpated, SU or ? = uncertain due to insufficient information, B = breeding, N = non-breeding, M = migrant; [4]Information sources include: CBC = Christmas Bird Count, IBA = Important Bird Area, MECP Reg. Habitat = MECP Regulated Habitat (O. Reg. 242/08), MNRF = Information Request, MWH = Digital Distribution Maps of the Mammals of the

Western Hemisphere, version 3.0, NHIC = MNRF Natural Heritage Information Centre, OBA = Ontario Butterfly Atlas, OBBA = Ontario Breeding Bird Atlas, OOA = Ontario Odonata Atlas, ORAA = Ontario Reptile and Amphibian Atlas; --- denotes no information or not applicable.

The potential for SAR to be present within the Study Area is discussed further in **Section 5.2.9**.

4.0 Methodology of Biophysical Inventory

Field work conducted for the EER occurred in 2017, 2018, and 2022 when weather conditions and timing were deemed suitable based on the survey protocols being implemented (Table 4). Fieldwork consisted of Ecological Land Classification (ELC), ecological field reconnaissance and SAR surveys, tree inventory, and vegetation survey. Incidental wildlife observations made during the surveys were also documented. The following sub-sections outline the survey methodologies used in the field.

Table 4: Survey Dates and Weather Conditions

Survey Date	Weather Conditions
Ecological Land Classification	
March 10, 2022	0°C, no precipitation, 5% cloud cover
Ecological Field Reconnaissance and SAR Surveys	
March 23, 2017	1°C, no precipitation*
March 10, 2022	0°C, no precipitation, 5% cloud cover
Tree Inventory	
May 16, 2018	19°C, no precipitation*
Vegetation Survey	
March 10, 2022	0°C, no precipitation, 5% cloud cover

*Historical weather variables reconstructed from a nearby weather station (weather variables not provided in previous reports).

4.1 Terrestrial Environment

4.1.1 Ecological Land Classification

During the late winter vegetation survey, vegetation was characterized using the ELC System for Southern Ontario protocol (Lee et al., 1998) with 2008 updates (Lee, 2008) in order to classify and map ecological communities to the vegetation type level, where appropriate. The ecological community boundaries were determined through the review of aerial photography and then further refined through on-site vegetation surveys. Vegetation studies involved identifying the dominant species in each vegetation community type, based on visual estimates of species abundance and biomass. Recent, historical land uses were also considered. Species nomenclature is based on the species lists for Ontario maintained by the NHIC which uses international standards for taxonomy and nomenclature.

The ELC protocol recommends that a vegetation community be a minimum of 0.5 ha in size before it is defined. Based on the composition of vegetation communities within the Study Area, patches of vegetation less than 0.5 ha or disturbed/planted vegetation were described, provided they clearly fit within an ELC vegetation type.

Results of the ELC survey is discussed in **Section 5.2.1**.

4.1.2 Ecological Field Reconnaissance and SAR Surveys

Being familiar with likely SAR within the Study Area, two ecological field reconnaissance and SAR surveys were conducted (one by Goodban and one by Dillon). Surveys consisted of walking the entirety of the Project Location looking for SAR and assessing for potential SAR habitat.

Results of the ecological field reconnaissance and SAR surveys are discussed in **Section 5.2.2**.

4.1.3 Tree Inventory

A field inventory and assessment of trees was conducted by Jackson Arboriculture Inc. on May 16, 2018 to document trees 15 cm in diameter or larger. Trees within the Project Location, 6 m beyond the Project Location, and within the land to be conveyed for the Florence Avenue ROW were included in the tree inventory.

The methods used for the tree inventory and condition assessment included documentation of the following information:

- Tree number: A number assigned to each tree correlating to the tree inventory;
- Species: Common and scientific names;
- Diameter-at-breast-height: Diameter of the tree stem, measured at 1.4 m from the ground;
- Condition: The health of the tree considering trunk integrity, crown structure, crown vigour; each rated as good, fair, or poor;
- Crown Dieback: The percentage of the crown that no longer supports foliage;
- Dripline: The distance (m) from the trunk to the tips of the live crown;
- Comments: Any additional notes relevant to the tree or site conditions; and
- Action: Recommended preservation or removal.

Results of the tree inventory is discussed in **Section 5.2.3**.

4.1.4 Vegetation Survey

A one-season vegetation survey was conducted; one during late winter. Vegetation surveys were conducted using wandering transects to determine species presence, richness, and abundance of floral species within the Project Location. Search effort was concentrated throughout the entirety of the Project Location. Species nomenclature is based on the species lists for Ontario maintained by the NHIC which uses international standards for taxonomy and nomenclature.

Results of the vegetation survey is discussed in **Section 5.2.4**.

5.0 Results of Biophysical Inventory

A biophysical inventory of natural features within the Study Area was completed in accordance with the methods detailed in **Section 4.0**. The analysis of data collected from secondary source information and during the field studies was used to evaluate the significance of natural heritage features within the Study Area.

5.1 Aquatic Environment

Drains and/or watercourses were not observed within the Study Area. The closest watercourse (Old Little River) is located over 400 m west of the Project Location.

5.2 Terrestrial Environment

5.2.1 Ecological Land Classification

One ELC community was identified within the Project Location (Table 5). The location, type, and boundaries of these communities are delineated on Figure 2. Reference photos for the plant communities observed can be found in Appendix C.

The Project Location consists of Annual Row Crops (OAGM1) that was last farmed in 2020. A remnant farmstead with yard area and other various structures existed in the northern part of the Project Location, but those structures have been removed and the area has been cleaned up in recent years (Goodban, 2018). The community within the Project Location is further described in Table 5 and a full plant list is presented in Appendix D. Other communities (largely cultural) exist outside of the Project Location (Figure 2). None of the documented vegetation communities are considered rare in Ontario.

Potential impacts related to vegetation communities within the Project Location are included in **Section** 8.1 and 8.2.

Table 5: Ecological Land Classification Communities within the Project Location

ELC Community	Location	Dominant Species (listed in approximate order of abundance)	Photos (Appendix C, 2 and 4 and Appendix E)
Cultural Communities			
OAGM1 – Annual Row Crops (3.3 ha within the Project Location)	This community is located throughout the Project Location.	White Heath Aster (Symphyotrichum ericoides var. ericoides), Wild Carrot (Daucus carota), and Ground Ivy (Glechoma hederacea). This community was last farmed in 2020. Since that time, the above species are found to be dominant within the Project Location. Since this community is historically agricultural for a long time period, we have currently mapped it as agricultural.	1 and 4 and Appendix E

5.2.2 Ecological Field Reconnaissance and SAR Surveys

No SAR were observed during the field reconnaissance and SAR surveys. With the Information Gathering Form results in mind, no negative impacts to SAR and/or SAR habitat are anticipated.

5.2.3 Tree Inventory

The tree inventory documented a total of 114 trees. The trees were dominated by naturally-occurring trees with some landscape tree plantings as well. Sixteen species of trees were documented. Eastern Cottonwood (Populus deltoides ssp. deltoides) was the dominant species, representing 27% of the trees inventoried. Manitoba Maple (Acer negundo) was the second most common (25%). The remaining 48%, in order of dominance, comprised American Elm (Ulmus americana), Willow species (Salix sp.), Siberian Elm (Ulmus pumila), Red Maple (Acer rubrum), Thornless Honey-locust (Gleditsia triacanthos inermis), Pin Oak (Quercus palustris), Northern Red Oak (Quercus rubra), Apple species (Malus sp.), Pear species (Pyrus sp.), Silver Maple (Acer saccharinum), Green Ash (Fraxinus pennsylvanica), Little-leaf Linden (Tilia cordata), White Mulberry (Morus alba), and Common Hackberry (*Celtis occidentalis*). A summary of inventoried trees is provided in Table 6 below. Each of the inventoried trees is considered common and apparently secure (S4) or widespread and secure (S5) in the province of Ontario based on the provincial conservation rankings assigned by the NHIC. Of the 16 species observed, none are listed as Endangered or Threatened under the ESA.

Table 6: Summary of Inventoried Trees by Species

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Count
Gleditsia triacanthos inermis	Thornless Honey-locust	---	---	SNA	4
Quercus palustris	Pin Oak	---	---	S4	4
Quercus rubra	Northern Red Oak	---	---	S5	2
Tilia cordata	Little-leaf Linden	---	---	SNA	1
Malus sp.	Apple species	---	---	---	2
Pyrus sp.	Pear species	---	---	---	2
Populus deltoides ssp. deltoides	Eastern Cottonwood	---	---	S5	31
Salix sp.	Willow species	---	---	---	10
Acer negundo	Manitoba Maple	---	---	S5	28
Acer rubrum	Red Maple	---	---	S5	6
Acer saccharinum	Silver Maple	---	---	S5	2
Fraxinus pennsylvanica	Green Ash	---	---	S4	2
Morus alba	White Mulberry	---	---	SNA	1

Scientific Name	Common Name	SARA[1]	ESA[2]	SRank[3]	Count
Celtis occidentalis	Common Hackberry	---	---	S4	1
Ulmus americana	American Elm	---	---	S5	11
Ulmus pumila	Siberian Elm	---	---	SNA	7
Total					114

[1]Status identified under the federal Species at Risk Act; [2]Status identified under the provincial Endangered Species Act; [3]SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S4 = common and apparently secure, S3 = rare to uncommon and vulnerable, S2 = very rare and imperiled, S1 = extremely rare and critically imperiled, SH = possibly extirpated (historical), SNR = unranked, SNA = not applicable, SX = extirpated, SU or ? = uncertain due to insufficient information; --- denotes no information or not applicable.

Overall, 13 trees (11%) are non-native trees, 87 trees (76%) are native trees, and the remaining 14 trees (12%) could not be classified as non-native or native due to identification not down to species level. Tree inventory results, including species, DBH, condition, and other relevant information recorded during the tree assessment are provided in Appendix E.

5.2.4 Vegetation Survey

A total of 33 flora species were documented during the field studies. Of these 33 species, approximately 58% are listed as native species and 42% are listed as non-native species, therefore a status ranking is not applicable as the species is not a suitable target for conservation activities (SE or SNA rank).

No species observed are considered to be a SCC. No species observed are listed as Endangered or Threatened under the ESA.

A list of flora species observed is provided in Appendix D. Floristics data including native vs. non-native species, mean coefficient of conservatism, floristic quality index, and mean coefficient of wetness, as provided in Oldham et al. (1995), are provided in Appendix F. Photographs taken during the site visits are provided in Appendix C. Potential impacts related to vegetation within the Project Location is included in **Section 8.1.1** and 8.1.2.

5.2.5 Significant Woodlands

The biophysical inventory results are consistent with the background review. While a narrow treed area is present around the western and southern boundary of the Project Location, this community does not meet the criteria for Significant Woodland on size, ecological function, uncommon characteristics, and economic and social functional values (OMNR, 2010).

Potential impacts related to vegetation communities within the Project Location Area are included in **Section 8.1.1** and 8.1.2.

5.2.6 Significant Wetlands

The biophysical inventory results are consistent with the background review. Field studies confirmed that there are no wetlands present within the Project Location.

5.2.7 Significant Valleylands

The biophysical inventory results are consistent with the background review. Field studies confirmed that there are no valleyland features present within the Project Location.

5.2.8 Significant Wildlife Habitat

Based on the observations made during the site investigations, as well as the results of the ELC (Figure 2), the following candidate and confirmed SWH were observed within the Study Area (Figure 3).

Candidate Significant Wildlife Habitat

- Tallgrass Prairie (City-owned, adjacent lands to the west may have planted prairie indicator species);
- Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat (with the knowledge of a previously-active Bald Eagle nest in the greater area);
- Turtle Nesting Areas (City-owned, adjacent lands to the west may have suitable habitat);
- Amphibian Breeding Habitat (Wetlands; City-owned, adjacent lands to the west may have suitable habitat);
- Marsh Breeding Bird Habitat (City-owned, adjacent lands to the west may have suitable habitat);
- Terrestrial Crayfish (City-owned, adjacent lands to the west may have suitable habitat); and
- Special Concern and Rare Wildlife Species (City-owned, adjacent lands to the west may have suitable habitat).

During the site investigations, the following one SCC was observed:

- Bald Eagle (Special Concern; three individuals flying north of the Project Location over the Detroit River on March 10, 2022). Based on the date, these individuals are probably wintering, foraging individuals.

As a result, there is candidate SWH for lands adjacent to the Project Location (Figure 3).

Potential impacts to SWH are addressed in **Section 8.1.1**.

5.2.9 Species at Risk

No SAR and/or SAR habitat were observed within the Project Location during the site investigations. An Information Request was submitted to the MNRF on April 12, 2017. The MNRF indicates the potential for Eastern Foxsnake (Pantherophis gloydi) and Butler's Gartersnake (Thamnophis butleri) in the general area. It was stated that if the hedgerows along the western and southern Project Location boundaries, as well as the treed area south of the Project Location were retained the proposed project will likely not contravene the ESA. On June 14, 2017, confirmation was received from the MNRF that the proposed development will likely not contravene the ESA (Appendix E).

5.2.10 Incidental Wildlife

Incidental wildlife species observed within the Project Location are listed in Table 7. Each of the observed species is considered common and apparently secure (S4) or widespread and secure (S5) in the province of Ontario based on the provincial conservation rankings assigned by the NHIC. Of the three incidental species observed, none are listed as Endangered or Threatened under the ESA.

Table 7: Incidental Wildlife Observations

Scientific Name	Common Name	SARA[1]	ESA [2]	SRank[3]	Evidence
Birds					
Anas platyrhynchos	Mallard	---	---	S5	Fly-over
Branta canadensis	Canada Goose	---	---	S5	Fly-over
Haliaeetus leucocephalus	Bald Eagle	---	SC	S2N,S4B	Fly-over
Larus delawarensis	Ring-billed Gull	---	---	S5B,S4N	Fly-over
Picoides pubescens	Downy Woodpecker	---	---	S5	Observed
Cyanocitta cristata	Blue Jay	---	---	S5	Observed
Turdus migratorius	American Robin	---	---	S5B	Observed
Sturnus vulgaris	European Starling	---	---	SNA	Observed
Junco hyemalis	Dark-eyed Junco	---	---	S5B	Observed
Melospiza melodia	Song Sparrow	---	---	S5B	Observed
Spizelloides arborea	American Tree Sparrow	---	---	S4B	Observed
Cardinalis cardinalis	Northern Cardinal	---	---	S5	Observed
Agelaius phoeniceus	Red-winged Blackbird	---	---	S4	Observed
Mammals					
Sylvilagus floridanus	Eastern Cottontail	---	---	S5	Observed

[1]Status identified under the federal Species at Risk Act; [2]Status identified under the provincial Endangered Species Act: SC = Special Concern; [3]SRank is an indicator of commonness in the Province of Ontario. A scale between 1 and 5: S5 = widespread and secure, S4 = common and apparently secure, S3 = rare to uncommon and vulnerable, S2 = very rare and imperiled, S1 = extremely rare and critically imperiled, SH = possibly extirpated (historical), SNR = unranked, SNA = not applicable, SX = extirpated, SU or ? = uncertain due to insufficient information, B = breeding, N = non-breeding, M = migrant; --- denotes no information or not applicable.

Potential impacts related to wildlife within the Study Area are included in **Section 8.1.1**.

Refer to Section 9.0 for recommended mitigation measures to prevent impacts to SCC, SAR, and/or their habitats.

6.0 Ecological Function

The Project Location was assessed based on existing characteristics (if any) to determine the presence of potential natural heritage features, SWH, SAR habitat, etc. As most of the Project Location is comprised of previous agriculture (last farmed in 2020) and a remnant farmstead with yard area, ecological function is minimal. A narrow, treed area is found along the western and southern Project Location boundary. Ecological function is mainly restricted to the western and southern boundary and may act to prevent erosion and runoff, facilitate hydrological and nutrient cycling, water retention, improve localized soil, and water and air quality.

Along the southern and western boundaries of the Project Location, narrow, treed areas exists. As detailed in previous reports (Appendix E), tree removals are proposed, but not along the southern and western boundaries. Retaining these trees is consistent with advice from the former MNRF.

In conclusion, no SAR or SCC individuals were observed within the Project Location and correspondence with the former MNRF has been positive. Potential impacts and recommended mitigation measures to prevent impacts to potential SCC/SAR and their habitats, as well as significant natural features are discussed in **Section 8.0** and 9.0.

7.0 Description of the Proposed Development

The overall proposed development will generally include:

- Residential development including townhomes and multi-story residential with associated parking and landscape; and
- Parkland area between the proposed development footprint and the southern and western Project Location boundary (a 20 m setback from the southern boundary and a 5.1 m setback from the western boundary) is recommended to ensure the retention of these narrow, treed areas (Figure 4).

The proposed main access points to this development will be heading west from the proposed Florence Avenue extension, which itself is heading south from Wyandotte Street East (Figure 4). Construction of the proposed development would include the removal of 41 trees (Appendix E). Landscaping may include, but is not limited to, fencing, sod, and tree plantings. The associated impacts of the development and recommended mitigation measures will be discussed in **Section 8.0** and **Section 9.0**.

8.0 Potential Impact Identification and Analysis

8.1 Potential Direct Impacts

Potential direct impacts are those that are immediately evident as a result of the development. Typically, the adverse effects of direct impacts are most evident during the site preparation and construction phase of a development. The potential direct impacts of the proposed development include the following:

- Loss of/disturbance to wildlife and wildlife habitat;
- Tree and vegetation removal; and
- Erosion and sedimentation into natural features.

Each of these potential impacts are discussed in subsequent sections.

8.1.1 Loss of/Disturbance to Wildlife and Wildlife Habitat

In general, wildlife may be impacted due to minimal vegetation clearing within the proposed development area. Wildlife habitat for fauna may be impacted by construction in the following ways:

- Displacement, injury, or death resulting from ignition, operation, and/or contact with heavy equipment during clearing and grading activities; and
- Disturbance to wildlife as a result of noise associated with construction activities, particularly during breeding periods.

More specifically, 41 trees are located within the proposed development footprint or are exhibiting major defects and are proposed to be removed (Appendix E).

Mitigation measures to avoid impacts to wildlife are discussed in **Section 9.2**.

8.1.2 Tree and Vegetation Removal

The proposed development plan indicates tree and ground vegetation removal limited to 41 trees and the majority of the previous agricultural area (fallow starting with the 2021 season; Appendix E), to facilitate grading and construction of the development. Tree removal will result in a reduction of tree and vegetation cover, marginal wildlife habitat loss, and alteration of soil conditions. On a site level, the impacts of tree and vegetation removal may include:

- Direct loss of trees;
- Decreased floral species richness and abundance;
- Altered soil conditions and water availability; and
- Loss of native seed banks.

Refer to **Section 9.2** and 9.3 for mitigation and enhancement opportunities.

8.1.3 Erosion and Sedimentation into Natural Features

Construction activity, especially operations involving the handling of earthen material, increases the availability of sediment for erosion and transport via surface drainage. Due to the anticipated reduction in infiltration rates post-development, there is the potential for natural features within the area to be impacted as a result of the development if construction best management practices are not implemented.

Potential impacts to these features may include, but are not limited to:

- Reduced water quality and degradation of nearby drains/wetlands and
- Disturbance to or loss of additional vegetation due to the deposition of dust and/or overland mobilization of soil.

Due to the potential impacts, control measures must be selected that are appropriate for the erosion potential of the site and it is important that they be implemented and modified on a staged basis to reflect the site activities. Furthermore, their effectiveness decreases with sediment loading and therefore inspection and maintenance is required.

Refer to **Section 9.1** for mitigation measures related to erosion and sedimentation.

8.2 Potential Indirect Impacts

Potential indirect impacts are those that do not always manifest in the core development area, but in the lands adjacent to the development. Indirect impacts can begin in the construction phase; however, they can continue post-construction. Typical indirect impacts from the proposed development include increased anthropogenic disturbance and colonization of non-native and/or invasive species.

8.2.1 Anthropogenic Disturbance

Disturbance to local wildlife communities due to indirect impacts on the surrounding/adjacent lands to the proposed development could result if left unmitigated. Noise, light, vibration, and human presence are potential indirect impacts that can adversely influence the population size and breeding success of local wildlife. These effects are more pronounced when new development is introduced in non-urban areas. Although lands within the Study Area are already disturbed by anthropogenic land uses, mitigation measures that further address anthropogenic disturbance have been included in **Section 9.1** and 9.2.

8.2.2 Colonization of Non-native and/or Invasive Species

Physical site disturbance may increase the likelihood that non-native and/or invasive flora species will be introduced to the surrounding vegetation communities. Non-native and invasive flora can establish in disturbed sites more efficiently than native flora and can then encroach into adjacent undisturbed areas. This type of colonization is currently occurring within the Project Location. Species including European Common Reed (Phragmites australis ssp. australis), White Sweet-clover (Melilotus albus), White Mulberry (Morus alba), and Wild Carrot (Daucus carota) were identified within the Project Location. In order to maximize ecological function on adjacent lands, removal of invasive species paired with planting of native tree and shrub species is recommended.

9.0 Mitigation Measures and Opportunities for Enhancement

Mitigation involves the avoidance or minimization of development impacts through good design, construction practices, or restoration and enhancement activities. The feasibility of mitigation options have been evaluated based on the natural features within and adjacent to the Project Location. The impact assessment highlighted three potential direct impacts, which include; loss of/disturbance to wildlife and wildlife habitat, tree and vegetation removal, and erosion and sedimentation into natural features.

A variety of mitigation techniques can be used to minimize or eliminate the potential impacts noted above. These measures include Erosion and Sediment Control (ESC) Plan, Wildlife Impact Mitigation Plan, Parkland Area, and Environmental Monitoring Plan. Each mitigation measure recommended for the proposed development is introduced below.

9.1 Erosion and Sediment Control Plan

In order to mitigate the adverse environmental impacts caused by the release of sediment-laden runoff, measures for ESC are recommended for the construction site. Mitigation measures include the installation of geotextile silt fences, rock check dams, ditch checks, temporary sediment ponds, designated topsoil stockpile areas, and cut-off swales and ditches to divert surface flows to the appropriate sediment control area. Additional mitigation measures include:

- Standard duty silt fencing (OPSD 219.110) and/or other equivalent erosion and sediment controls should be installed around the perimeter of the work area to clearly demarcate the development area and prevent erosion and sedimentation into adjacent habitats. Erosion and sediment control measures should be monitored regularly to ensure they are functioning properly and if issues are identified, should be dealt with promptly;
- Stockpiling of excavated material should not occur outside the delineated work area. If stockpiling is to occur outside of this area, silt fencing should be used to contain any spoil piles to prevent sedimentation into adjacent areas. Further, stockpiling of excavated materials should not occur within 30 m of watercourses;
- A spill response plan should be developed and implemented as required;
- The use of silt socks, dewatering ponds, etc. should be implemented to avoid sedimentation and erosion into adjacent areas as required. If dewatering requires more than 50,000 Liters (L) of water to be pumped per day, appropriate permits must be obtained from the MECP prior to the dewatering; and

- Use of mud mats at the construction entrance prior to commencing earthworks to minimize the tracking of mud onto municipal roads.

9.2 Wildlife Impact Mitigation Plan

Strategies to mitigate impacts to general wildlife prior to and during construction are recommended:

- Clearing trees and vegetation outside the breeding bird season (April 1 to August 31). Should any clearing be required during the breeding bird season, nest searches conducted by a qualified biologist are recommended to be completed 48 hours prior to clearing activities. If active nests are found, work within a species-specific setback from the nest should be established by a qualified biologist, until the nest fate is either successful (i.e. young have fledged and can leave the area on their own accord) or unsuccessful (i.e. the nest is no longer active). Confirmation of nest inactivity should be confirmed by a qualified biologist prior to encroachment into the buffer. If no active nests are present, clearing may occur. This is in accordance with the federal Migratory *Birds Convention Act* (1994);
- Clearing trees outside of the bat active window (April 1 to September 30) to avoid impacts to potential roosting SAR bats or potential maternity roost habitat;
- Visual monitoring for wildlife species and avoidance, where encountered, if possible;
- If necessary, have a qualified biologist monitor construction in the areas of potential wildlife habitat. If wildlife are found within the construction area, they should be relocated by a qualified biologist to an area outside of the development into an area of appropriate habitat, as necessary;
- If an injured or deceased SAR is found, the individual must be placed in a non-airtight container that is maintained at an appropriate temperature and an Authorized Wildlife Custodian (authorized under the Fish and Wildlife Conservation Act) in the area should be contacted and the MECP notified within 48 hours of the observation or the next working day, whichever comes first; and
- General awareness training for staff prior to commencement of construction regarding typical SAR species that could potentially enter the construction site.

9.2.1 Advice from the MNRF

Aside from general mitigation measures detailed above, the former MNRF has also indicated the following specific advice for the proposed development on June 14, 2017:

- If the hedgerows and thicket are proposed to be retained, the project will likely not contravene the ESA. If these features are proposed to be altered, field assessments by a qualified professional are recommended for the SAR species and habitat listed above [Eastern Foxsnake and Butler's Gartersnake].

9.3 Parkland Area

The role of a setback/buffer is to protect an important natural feature from the adverse effects of nearby development. Parkland dedication between the proposed development footprint and the southern and western Project Location boundaries (a 20 m setback from the southern boundary and a 5.1 m setback from the western boundary) is recommended to ensure the retention of these narrow, treed areas (Figure 4).

9.4 Environmental Monitoring Plan

The Environmental Monitoring Plan (EMP) should be carried out through the duration of construction activities on-site to ensure that the erosion and sediment control measures operate effectively and to monitor the potential impacts, if any, upon the natural environment. The duration of construction is defined as the period of time from the beginning of earthworks until the site is stabilized. Site stabilization is defined as the point in time when the roads have been paved, buildings have been built, lawns have been sodded, identified plants have been transplanted, and restoration plantings have been completed.

The EMP would consist of monitoring the erosion and sediment measures and the retained parkland area. Erosion and sediment control measures would be regularly monitored and they will require periodic cleaning (e.g. removal of accumulated silt), maintenance and/or re-construction. Inspections of all of the erosion and sediment controls on the construction site should be undertaken by a certified sediment and erosion control monitor. If damaged control measures are found, they should be repaired and/or replaced promptly.

The EMP will be implemented during active construction periods in the development area with the following frequency:

- On a bi-weekly basis; and/or
- After every 10 mm or greater rainfall event.

The parkland area will require periodic monitoring to ensure that they are not impacted by adjacent development. Should any negative impacts be observed, necessary steps will be taken to ensure that the impacted vegetation is either restored or replaced.

10.0 Summary

This EER was prepared for the proposed residential development located southwest of Wyandotte Street East and Florence Avenue, within the City of Windsor. This EER has been prepared as required by the City of Windsor (pre-submission letter dated July 29, 2021). The EER will form part of an application package for submission to the City of Windsor.

A review of background resources, including Land Information Ontario and the City of Windsor Official Plan, indicated that the land is designated as Community and Regional Parks and Open Space, with the closest natural heritage designation (Environmental Policy Area A) located approximately 230 m to the east of the Project Location.

The most recent detailed field studies were conducted in 2022 to confirm the presence/absence of significant wildlife habitat, SCC, SAR and/or SAR habitat within the Project Location. The field study results were used to determine the potential ecological function of any natural features within the Study Area and also to determine potential impacts on any natural features as a result of the proposed development. The results of the biophysical inventory showed that candidate SWH (Tallgrass Prairie, Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat, Turtle Nesting Areas, Amphibian Breeding Habitat [Wetlands], Marsh Breeding Bird Habitat, Terrestrial Crayfish, and Special Concern and Rare Wildlife Species) exists on adjacent City-owned lands to the west.

As the Project Location is classified as agriculture (last farmed in 2020) and a parkland buffer is proposed, the development is anticipated to have no negative impacts on natural features. The proposed development will require the removal of 41 trees.

Provided the mitigation measures and best management practices outlined in this EER are followed, as well as recommendations from the former MNRF, the proposed development should result in no negative impacts on the natural features or their ecological function.

References

Birds Canada. 2019. The 120th Christmas Bird Count.

Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lapage, and A.R. Couturier. 2008. Atlas of the Breeding Birds of Ontario. Bird Studies Canada.

Chapman and Putnam. 1984. Physiography of Southern Ontario; Ontario Geological Survey, Map P.2715. Scale 1: 600 000.

City of Windsor. 2008. Update to the CNHS Inventory.

City of Windsor. 2013. Official Plan and Schedules.

Conservation Authorities Act. (R.S.O. 1990, C-27). https://www.ontario.ca/laws/statute/90c27. Accessed 2022.

Dobbyn, J. 1994. Atlas of the Mammals of Ontario. Federation of Ontario Naturalists.

Endangered Species Act, 2007. (S.O. 2007, C-6). https://www.ontario.ca/laws/statute/07e06. Accessed 2022.

Essex Region Conservation Authority. 2013. Essex Region Natural Heritage System Strategy – (An Update to the Essex Region Biodiversity Conservation Strategy). Essex, Ontario. 319 pages.

Fisheries and Oceans Canada. 2022. Aquatic Species at Risk Map. http://www.dfo-mpo.gc.ca/species-especes/sara-lep/map-carte/index-eng.html. Accessed 2022.

Goodban Ecological Consulting Inc. 2018. Natural Site Features Inventory & Preservation Study.

Hayman, D., M. Child, and D. Hector. 2005. Fish Habitat Management Plan for the Essex Region. Prepared by the Essex Region Conservation Authority, Ontario Ministry of Natural Resources and the Department of Fisheries and Oceans.

Jackson Arboriculture Inc. 2018. Tree Inventory and Preservation Plan Report.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Lee, H. 2008. Southern Ontario Ecological Land Classification – Vegetation Type List. London, Ontario.

Migratory Birds Convention Act, 1994. (S.C. 1994, C-22). http://laws-lois.justice.gc.ca/eng/acts/m-7.01/. Accessed 2022.

Nelson, M. and D. Lebedyk. 2019. Environmental Impact Assessment Guideline. Essex Region Conservation Authority.

Oldham, M.J. 1983. Environmentally significant areas of the Essex region. Essex Region Conservation Authority.

Oldham, M.J, W.D. Bakowsky, and D.A. Sutherland. 1995. Floristic quality assessment system for southern Ontario. Natural Heritage Information Centre. Peterborough, Ontario, Canada.

Oldham, M.J. and S.R. Brinker. 2009. Rare Vascular Plants of Ontario, Fourth Edition. Natural Heritage Information Centre, Ontario Ministry of Natural Resources. Peterborough, Ontario.

Ontario Butterfly Atlas. 2022. https://www.ontarioinsects.org/atlas/. Accessed 2022.

Ontario Geological Survey. 1991. Bedrock geology of Ontario, southern sheet; Ontario Geological Survey, Map 2544, scale 1: 1 000 000.

Ontario Ministry of Agriculture, Food and Rural Affairs. 2022. Agricultural Information Atlas. http://www.gisapplication.lrc.gov.on.ca/AIA/Index.html?viewer=AIA.AIA&locale=en-US. Accessed 2022.

Ontario Ministry of Environment, Conservation and Parks. 2019. Client's Guide to Preliminary Screening for Species at Risk.

Ontario Ministry of Municipal Affairs and Housing. 2020. Provincial Policy Statement.

Ontario Ministry of Natural Resources and Forestry. 2000. Significant wildlife habitat technical guide. 151pp.

Ontario Ministry of Natural Resources and Forestry. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement 2005. Second Edition. Toronto: Queen's Printer for Ontario.

Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Habitat Criteria Schedules for Ecoregion 7E. 41pp.

Ontario Ministry of Natural Resources and Forestry. 2016. Survey Protocol for Ontario's Species at Risk Snakes. Ontario Ministry of Natural Resources and Forestry, Species Conservation Policy Branch. Peterborough, Ontario. ii + 17 pp.

Ontario Ministry of Natural Resources and Forestry. 2016. Technical Memo: Aylmer District MNRF Guidance on Identifying Activities/Areas Not Likely to Contravene the Endangered Species Act, 2007 in the County of Essex & City of Windsor.

Ontario Ministry of Natural Resources and Forestry. 2022. Make a Map: Natural Heritage Areas. http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US. Accessed 2022.

Ontario Reptile and Amphibian Atlas. 2022. https://www.ontarioinsects.org/herp/index.html. Accessed 2022.

Richards, N.R., A.G. Caldwell, and F.F. Morwick. 1949. Soil Survey of Essex County. Report No. 11 of The Ontario Soil Survey. Experimental Farms Service, Dominion Department of Agriculture and the Ontario Agricultural College.

Species at Risk Act, 2002. (S.C. 2002, C. 29). https://laws.justice.gc.ca/eng/acts/S-15.3/. Accessed 2022.

Williams, P.H., R.W. Thorp, L.L. Richardson, and S.R. Colla. 2014. Bumble Bees of North America. Princeton University Press.

Figures

GANATCHIO GARDENS **INC.**
ENVIRONMENTAL EVALUATION REPORT

0 WYANDOTTE STREET EAST, WINDSOR
ONTARIO

FIGURE 1
PROJECT LOCATION

- Project Location (3.3ha)
- Study Area (120m Buffer)
- Arterial Road
- Collector Road
- Local Road
- Watercourse
- Waterbody

1:6,750

0 100 200 400 m

N W E S

MAP DRAWING INFORMATION:

DATA PROVIDED BY CITY OF WINDSOR, ESRI, MNRF, & DILLON CONSULTING

MAP CREATED BY 10zjb
MAP CHECKED BY MA

MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 211691

STATUS: DRAFT

DATE: 2022-06-20

FILE LOCATION: K:\2021\211691 - Lankor Wyandotte at Florence\Product\Client\Environmental Equaluation Report\Figure 1 Project Location.mxd

GANATCHIO GARDENS **INC.**
ENVIRONMENTAL EVALUATION REPORT

0 WYANDOTTE STREET EAST, WINDSOR
ONTARIO

FIGURE 2
ECOLOGICAL LAND CLASSIFICATION

- Project Location (3.3 ha)
- Study Area (120m Buffer)
- Arterial Road
- Local Road

Ecological Land Classification

- CGL - Green Lands
- CGL_2/ME - Parkland/Meadow
- CVI - Transportation and Utilities
- CVR - Residential
- OAGM1 - Annual Row Crops (3.3 ha within Project Location)

1:2,000

0 25 50 100 m

N W E S

MAP DRAWING INFORMATION:

DATA PROVIDED BY CITY OF WINDSOR, ESRI, MNRF, & DILLON CONSULTING

MAP CREATED BY 10zjb
MAP CHECKED BY MA

MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 211691

STATUS: DRAFT

DATE: 2022-06-20

FILE LOCATION: K:\2021\211691 - Lankor Wyandotte at Florence\Product\Client\Environmental Equaluation Report\Figure 2 Ecological Land Classification.mxd

GANATCHIO GARDENS **INC.**
ENVIRONMENTAL EVALUATION REPORT

0 WYANDOTTE STREET EAST, WINDSOR
ONTARIO

FIGURE 3
SIGNIFICANT WILDLIFE HABITAT

- Project Location (3.3 ha)
- Study Area (120m Buffer)
- Arterial Road
- Local Road
- Candidate Significant Wildlife Habitat: Tallgrass Prairie, Bald Eagle and Osprey Nesting, Foraging, and Perching Habitat, Turtle Nesting Areas, Amphibian Breeding Habitat (Wetlands), Marsh Breeding Bird Habitat, Terrestrial Crayfish, and Special Concern and Rare Wildlife Species.

1:2,000

0 25 50 100 m

N W E S

MAP DRAWING INFORMATION:

DATA PROVIDED BY CITY OF WINDSOR, ESRI, MNRF, & DILLON CONSULTING

MAP CREATED BY 10zjb
MAP CHECKED BY MA

MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 211691

STATUS: DRAFT

DATE: 2022-06-20

FILE LOCATION: K:\2021\211691 - Lankor Wyandotte at Florence\Product\Client\Environmental Equaluation Report\Figure 3 Significant Wildlife Habitat.mxd

GANATCHIO GARDENS INC.

ENVIRONMENTAL EVALUATION REPORT

0 WYANDOTTE STREET EAST, WINDSOR
ONTARIO

FIGURE 4
PROPOSED DEVELOPMENT PLAN

- Project Location
- Local Road
- Proposed Development
- Proposed Townhome Units
- Proposed Multi-Unit Residential
- Proposed Landscaping
- Proposed Parkland
- Proposed Pavement
- Proposed Sidewalk
- Proposed Road

1:1,000

0 10 20 40 m

N W E S

MAP DRAWING INFORMATION:

DATA PROVIDED BY CITY OF WINDSOR, ESRI, MNRF, & DILLON CONSULTING

MAP CREATED BY 10zjb
MAP CHECKED BY MA

MAP PROJECTION: NAD 1983 UTM Zone 17N

DILLON CONSULTING

PROJECT: 211691

STATUS: DRAFT

DATE: 2023-03-14

FILE LOCATION: K:\2021\211691 - Lankor Wyandotte at Florence\Product\Client\Environmental Equaluation Report\Figure 4 Proposed Development Plan.mxd

Appendix A

Terms of Reference

MEMO

TO:	Planning & Building Services Department, Planning Division, City of Windsor
FROM:	Melissa Goodwin and Brad McLeod, Dillon Consulting Limited
CC:	Melanie Muir, Dillon Consulting Limited
DATE:	April 22, 2022
SUBJECT:	Environmental Evaluation Report Terms of Reference for the proposed residential development southwest of Florence Avenue and Wyandotte Street East, City of Windsor, Ontario
OUR FILE:	21-1691

Background

Dillon Consulting Limited (Dillon) has been retained by Ganatchio Gardens Inc. (the "client") to undertake natural environment services for a proposed residential development southwest of Wyandotte Street East and Florence Avenue (the "Project Location") in the City of Windsor, Ontario. The Project Location and Study Area boundary (120 meters beyond the property limits) are shown on Figure 1, attached. The field work component of this project was completed during the 2017, 2018, and 2022 field seasons. It is important to note that surveys have been determined to consist of Species at Risk (SAR) habitat assessments and tree inventory and assessment.

In accordance with the City of Windsor (the "City") Official Plan (OP; 2013), the Project Location falls within lands designated as Residential on Schedule D (Land Use Plan) and is almost 300 m to the east of lands designated as Environmental Policy Area A. The Project Location consists of an irregularly-shaped 3.4 hectare parcel of now vacant land that was farmed up until the 2021 growing season. The west and southern portions of the Project Location are bound by a treed hedgerow. Based on historical knowledge, the most up-to-date aerial photography, and the habitat assessment site visit, the current land use within the Project Location is agricultural, dating back to 2000. Residential dwellings, park and institutional land use are present to the north; residential dwellings and agriculture are present to the east; residential dwellings and park (Little River Corridor) are present to the south; and agriculture, park (Ganatchio Trail – Little River), and the Little River Pollution Control Plant (1.0 km from the Project Location) are present to the west.

An Environmental Evaluation Report (EER) has now been requested by the City of Windsor. The EER will be completed in accordance with Section 5 of the City's OP and the Essex Region Conservation Authority (ERCA) Environmental Impact Assessment Guidelines (Nelson and Lebedyk 2019); and based on field work completed to date. The purpose of the EER is to document the existing conditions of the natural environment, and specifically, the presence of significant natural features as outlined in Section 2 of the Provincial Policy Statement, which include:

- Significant wetlands;
- Significant woodlands;
- Significant valleylands;
- Significant wildlife habitat;
- Significant areas of natural and scientific interest (ANSI's);
- Fish habitat;
- Habitat of Endangered or Threatened species;
- Sensitive surface water features; and
- Sensitive ground water features.

The EER will identify the potential impacts that the proposed development may have on these features, and develop recommendations that will appropriately minimize or eliminate impacts to natural features.

In order to address the policies of both the City's OP as well as ERCA's EIA Guidelines, we have prepared the following Terms of Reference (ToR) for the City's approval. A ToR check-list is provided below, outlining the required field studies and other components. Due to historic agricultural land use of the Project Location, some field surveys have been deemed unnecessary. After conducting a preliminary screening for SAR and based on our knowledge of the area, there is the potential for several SAR to be present within the vicinity of the Study Area; including, but not limited to, Eastern Foxsnake (Pantherophis gloydi), Butler's Gartersnake (Thamnophis butleri), SAR Bats, and Butternut (Juglans cinerea). SAR concerns have already been addressed under separate cover with the Ministry of Environment, Conservation and Parks (MECP).

We thank you for your time in reviewing the ToR and we look forward to working together with you as we move forward.

Please let me know if you have any questions.

Yours Sincerely,

DILLON CONSULTING LIMITED

Brad McLeod, M.Sc.
Biologist

Terms of Reference Checklist

Introduction/Approach

☒ The EER must be undertaken by a qualified professional in environmental or related sciences to the satisfaction of the City.

☒ The EER should describe and illustrate the boundaries of the Project Location and Study Area along with existing land use and details regarding the type of development.

☒ The EER will include the zoning and all designations of OP's pertaining to the Project Location and Study Area. This includes land use designations from other municipal planning and/or policy documents, such as Secondary Plans.

☒ Land use designations from other applicable planning documents (i.e. City of Windsor) will be clearly described and the limits identified in the report mapping.

Biophysical Inventory

☒ The existing conditions, such as natural features and functions located within the Study Area must be clearly described and clearly mapped on the most up-to-date aerial imagery.

☒ All designated environmental features (i.e. natural hazard features or other natural heritage features identified in the OP's) must be identified in the mapping and described in the report. These features include provincial or regional Areas of Natural and Scientific Interest (ANSI's), Provincially and Locally Significant Wetlands (PSW's and LSW's), Environmentally Significant Areas (ESA's), Significant Wildlife Habitat, Significant Woodlands, Significant Valleylands, unevaluated wetlands, etc.

☒ The EER should identify the extent of natural heritage/hazard features (should they be located within the Study Area, pending access). Boundaries of natural heritage features should be confirmed in the field and mapped on a figure in the report.

Note: A Natural Site Features Inventory and Preservation Study was completed in August, 2018.

☒ A description of the soils, landforms, and surficial geology based on a review of readily-available mapping and literature must be described in the report. Available topographical information will be provided on constraints mapping and will include any staking done to date as well as the calculated hazard limits, if applicable.

☒ Hydrological and hydrogeological resources and issues, including wellhead protection areas, surface water features, recharge/discharge zones, meander belts, groundwater quality and quantity, groundwater elevations and flow directions, and connections between groundwater and surface water features will be identified in the report based on data from the consulting team, if it is available.

☒ The vegetation communities must be identified using the Ecological Land Classification (ELC) System for Southern Ontario protocol (Lee et al. 1998) with 2008 updates (Lee 2008) to vegetation type, where possible. The communities will be identified on report mapping using the appropriate ELC codes, as well as described in the text. As a component of the ELC, a plant list, organized by vegetation community must be included. The list will indicate provincially-, regionally-, and/or locally-rare, Threatened or Endangered species. This should include information from the Natural Heritage Information Centre (NHIC).

☒ A one-season vegetation survey is required. A list of vegetation species observed, will be compiled using the Southern Ontario Floral Inventory Analysis, must include plant communities based on ELC, and will indicate each species rarity and/or designations under the Endangered Species Act (ESA; 2007), where applicable. This should include information from the NHIC.

Note: Appropriate vegetation surveys have already been completed.

☐ The EER requires a breeding bird survey. The survey must be conducted during the breeding bird season at an appropriate time of day, in appropriate weather conditions, and by a qualified professional. A minimum of two surveys are required and they must follow generally-accepted scientific protocols, such as those outlined in the Ontario Breeding Bird Atlas Instructions for General Atlassing (Birds Canada 2021). A list of the breeding birds must be included. The list will indicate any provincially-, regionally-, and/or locally-rare, Threatened or Endangered species.

Note: No suitable bird habitat for SAR and/or Species of Conservation Concern (SCC) exists within the Study Area, therefore bird breeding surveys are not proposed.

☐ The EER requires a snake survey (both artificial cover object surveys [ACO] and visual encounter surveys [VES]). The survey will be completed based on our experience with requirements related to SAR in the area, where applicable, and conducted in accordance with generally-accepted protocols described within Survey Protocol for Ontario's Species at Risk Snakes (OMNRF 2016).

Note: No snake surveys are currently proposed for the Project Location.

☐ The EIA requires an amphibian breeding survey. The survey must be conducted during the amphibian breeding season and by a qualified professional. Surveys will be conducted in accordance with generally-accepted protocols, such as the Marsh Monitoring Program Participant's Handbook for Surveying Amphibians (Bird Studies Canada 2009). If present, the list will indicate any provincially-, regionally-, and/or locally-rare, Threatened or Endangered species.

Note: No amphibian habitat is present within the Study Area, therefore amphibian breeding surveys are not proposed.

☐ An aquatic assessment should be conducted due to the presence of suitable fish habitat as identified in background documents and confirmed on-site. The assessment should include a description of watercourses or other fish habitat on and/or adjacent to the Project Location (where site access is permitted).

Note: No suitable fish habitat is present within the Study Area, therefore an aquatic assessment is not proposed.

☒ All incidental wildlife observed should be reported on and included in the EER. The list must include an analysis for the presence of federally-, or provincially-rare, Threatened, or Endangered species.

☒ All records of federally-, or provincially-rare, Threatened, or Endangered species observed during formal surveys or incidentally, will be submitted to the NHIC using the most up to date version of the Ontario Species at Risk Observation Reporting Form.

Biophysical Analysis

☒ The biophysical analysis will address current policy, technical documents, and legislation including, but not limited to, the Endangered Species Act (ESA; 2007), the Provincial Policy

Statement (PPS; 2020), Natural Heritage Reference Manual (2010), Significant Wildlife Habitat Technical Guide (2000), Significant Wildlife Habitat Ecoregion 7E Criteria Schedules (2015), etc.

☐ The staking of significant natural features (e.g. woodlots, PSW's, etc.) may be required. Staking will generally occur between the end of May and the end of October. Any staking that occurs outside of this time may require a confirmatory visit between May and October.

Note: We do not anticipate the need to stake any natural features within the Study Area.

☒ The EER will include a biophysical analysis that identifies the significance of natural features and functions.

☒ A functional assessment of the Study Area describing the ecology of the natural heritage features and functions within the Study Area should be provided. The functional assessment may include ecological function, wetland function, natural heritage features and landscapes, benefits of importance to humans, and corridors and linkages, as required.

Development Proposal Description

☒ The EER will, at a minimum, include a preliminary site plan showing the type(s) and location(s) of the proposed development overlaid on a recent orthophoto. The site plan will clearly show setbacks and/or buffers, including distance from proposed development areas and proposed structures to lot lines and/or to environmental features and functions designated for protection, where applicable.

☒ The EER will describe other relevant issues (e.g. servicing, stormwater management, municipal drainage, open space dedication, hazards, etc.) from an ecological perspective, pending receipt of relevant reports from other disciplines, should they have the potential to impact the identified natural hazard/heritage features. These can be highlighted within the proposed development description, or, where applicable, under the potential impact assessment.

Potential Impact Assessment

☒ Mapping (at a minimum) shall consist of the following:

a) All mapping must have a title, figure number, north arrow, legend, and scale or scale bar.
b) A site location map that provides the regional or watershed context of the Study Area.

c) The extent of the natural heritage system and its components must be clearly demarcated on an air photo base, if applicable.
d) The locations of all watercourses and waterbodies.
e) Vegetation communities must be delineated and identified using ELC.
f) The location of any rare, Threatened, or Endangered species and/or populations may be referenced in the EER, where appropriate.
g) The location of any important wildlife features (e.g. hibernacula, den, stick nest, etc.) may be identified pending sensitivity to public information.

☒ The potential impacts to the features and functions of natural areas should be identified and discussed.

☒ An assessment of the potential impact on significant wildlife habitat at a local, watershed, and provincial (if applicable) level should be provided using the Ecoregion 7E criteria schedules.

☒ In the case of significant natural heritage features and other significant natural features (as confirmed through field studies), the EER must demonstrate that there is no development or site alteration within the feature with the exception of uses as specified in the OP and/or prior approvals. The EER must determine appropriate buffers from significant natural features.

☒ The EER should include one or more figures which overlays the proposed development on the ecological constraints of the site. The analysis should determine the area(s) and type(s) of natural features and function that may be directly and/or indirectly impacted by the proposed development. Proposed buffers which will protect natural features and functions should be clearly shown on figures. Rationale for proposed buffers will also be provided.

Mitigation Strategies

☒ Avoidance of any natural heritage feature is the preferred approach to mitigation unless otherwise specified in the OP and/or prior approvals.

☒ Determine adequate buffers through the identification of the critical function and protection zones of any identified natural areas.

☒ Where avoidance of a feature is not feasible or possible, all feasible mitigation measures/approaches should be explored and described in the report. These may include edge management plans, buffer plantings, fencing, low impact designs (LID), etc.

☒ The EER should provide a detailed outline of mitigation measures intended to eliminate or reduce potential construction-related impacts to areas designated for protection. Recommendations for Best Management Practices during construction should be provided. This may include silt fencing, tree protection, fencing, identification of timing or seasonal constraints to construction or restoration, etc.

☒ Mitigation for negative impacts on the natural features or their ecological functions (or to achieve no net negative impact) may include, at the discretion of the planning authority, approaches to replace lost areas or functions. If acceptable, replacement shall, to the extent possible, occur within the same watershed as the proposed development or site alteration. The appropriate amount of replacement will be determined through discussions with the City and will be agreed to by all parties in writing.

☒ If monitoring is required, the details of a monitoring program must be agreed to in writing by the pertinent planning authorities, and other parties (if required).

Conclusions

☒ The EER will summarize the key finding of the report including the biophysical inventory and analysis, assessment of potential impacts, impact avoidance measures, mitigation measures, and opportunities for environmental enhancement. The conclusion will include a final recommendation to approve/not approve the development proposal based on the results of the study, and identify conditions of approval required to achieve no negative impact.

References

Bird Studies Canada. 2009. Marsh Monitoring Program Participant's Handbook for Surveying Amphibians. 2009 Edition. 13 pages. Published by Bird Studies Canada in cooperation with Environment Canada and the U.S. Environmental Protection Agency. February 2009.

Birds Canada. 2021. Ontario Breeding Bird Atlas Instructions for General Atlassing.

City of Windsor. 2013. City of Windsor Official Plan and Schedules.

Endangered Species Act, 2007. (S.O. 2007, C-6). https://www.ontario.ca/laws/statute/07e06. Accessed 2019.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray. 1998. Ecological Land Classification for Southern Ontario: First Approximation and Its Application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Development and Transfer Branch. SCSS Field Guide FG-02.

Lee, H.T. 2008. Southern Ontario Ecological Land Classification – Vegetation Type List. London, Ontario.

Nelson, M. and D. Lebedyk. 2019. Environmental Impact Assessment Guideline. Essex Region Conservation Authority.

Ontario Ministry of Environment, Conservation and Parks. 2019. Client's Guide to Preliminary Screening for Species at Risk.

Ontario Ministry of Municipal Affairs and Housing. 2020. Provincial Policy Statement.

Ontario Ministry of Natural Resources and Forestry. 2000. Significant wildlife habitat technical guide. 151pp.

Ontario Ministry of Natural Resources and Forestry. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement 2005. Second Edition. Toronto: Queen's Printer for Ontario.

Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 7E. 41pp.

Ontario Ministry of Natural Resources and Forestry. 2016. Survey Protocol for Ontario's Species at Risk Snakes. Species Conservation Policy Branch. Peterborough, Ontario. ii + 17pp.

Attachment

Figure 1 – Project Location

LANKOR HORIZONS INC.
WYANDOTTE STREET EAST AT FLORENCE AVENUE

ENVIRONMENTAL EVALUATION REPORT
TERMS OF REFERENCE

PROJECT LOCATION
FIGURE 1.0

PROJECT LOCATION
(± 3.30 ha)

STUDY AREA (120m BUFFER)

MAP/DRAWING INFORMATION
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS AND BOUNDARY INFORMATION SHOULD BE VERIFIED BY AN O.L.S PRIOR TO CONSTRUCTION.

SCALE : 1:2500

N
W E
S

SOURCE: COUNTY OF ESSEX
AERIAL PHOTOGRAPHY (2019)

CREATED BY: ESB
CHECKED BY: BTM
DESIGNED BY: ESB

File Location:
c:\pw working directory\projects 2021\32esb\dms32529\21-1691 tor - figures.dwg
March, 29, 2022 12:36 PM

DILLON CONSULTING

PROJECT: 21-1691
STATUS: FINAL
DATE: 03/29/2022

Appendix B
Background Mapping

SCHEDULE B:
GREENWAY SYSTEM

Project Location

CITY OF DETROIT

DETROIT RIVER

TOWN OF LASALLE

TOWN OF TECUMSEH

Refer to SPRING GARDEN SECONDARY PLAN in Vol. II of this Plan

Refer to EAST RIVERSIDE SECONDARY PLAN in Vol. II of this Plan

LEGEND

- NATURAL HERITAGE
- COMMUNITY AND REGIONAL PARKS
- WATERFRONT RECREATION
- LINKAGES
- WEATERWAY CORRIDORS
- RECREATIONWAYS
- PROPOSED RECREATIONWAYS

0 700 1,400 2,800 Meters

City of Windsor Official Plan Volume I
Office Consolidation: September 7, 2012

Notes :
1. Other linkages are achieved by the bikeway as designated on Schedule F : Roads and Bikeways.

2. The extension of Linkages into the Town of LaSalle and the Town of Tecumseh are conceptual and subject to agreement with the respective municipalities.

SCHEDULE C:
DEVELOPMENT CONSTRAINT AREAS

Project Location

CITY OF DETROIT

DETROIT RIVER

TOWN OF LASALLE

TOWN OF TECUMSEH

Refer to SPRING GARDEN SECONDARY PLAN in Vol. II of this Plan

Refer to FOREST GLADE NORTH SECONDARY PLAN in Vol. II of this Plan

LEGEND

- ENVIRONMENTAL POLICY AREA (A) (B)
- NATURAL HERITAGE
- CANDIDATE NATURAL HERITAGE SITES
- RAIL YARD
- 1,2 KNOWN OR SUSPECTED FORMER WASTE DISPOSAL SITES
- MINERAL MINING SITES
- POLLUTION CONTROL PLANTS
- 4 AIRPORT OPERATING AREA
- 3 SHORELINE AND FLOODPRONE AREAS
- 3 FLOODPLAIN AREAS
- AGGREGATE RESOURCE SITES
- 30 25 NOISE EXPOSURE FORECAST

0 750 1,500 3,000 Meters

City of Windsor Official Plan Volume I
Office Consolidation: September 7, 2012

NOTES:

1. These sites were identified from information forwarded to the Province of Ontario or the City of Windsor. This schedule only designates former waste disposal sites known to the Province of Ontario and the City of Windsor and does not document any remediation of these sites. Refer to section 5.4.9.

2. The former landfill sites identified in the Town of Tecumseh and Town of LaSalle are subject to confirmation by these individual municipalities. These sites are shown for information purposes only and are not designated as known or suspected waste disposal sites by this plan.

3. The exact delineation of these areas must be confirmed by the Essex Region Conservation Authority

4. The Airport Operating Area as delineated on this schedule was identified using the 1996 Noise Exposure Forecast (NEF) and Noise Exposure Projection (NEP) contours approved by Transport Canada and extended to the nearest right-of-way, reference should be made to the most recent Transport Canada NEF/NEP maps for accurate location of the contours.

Project Location

CITY OF DETROIT

DETROIT RIVER

BRIDGE

RAIL TUNNEL

TUNNEL

Refer to Schedule E: City Centre

TOWN OF LASALLE

TOWN OF TECUMSEH

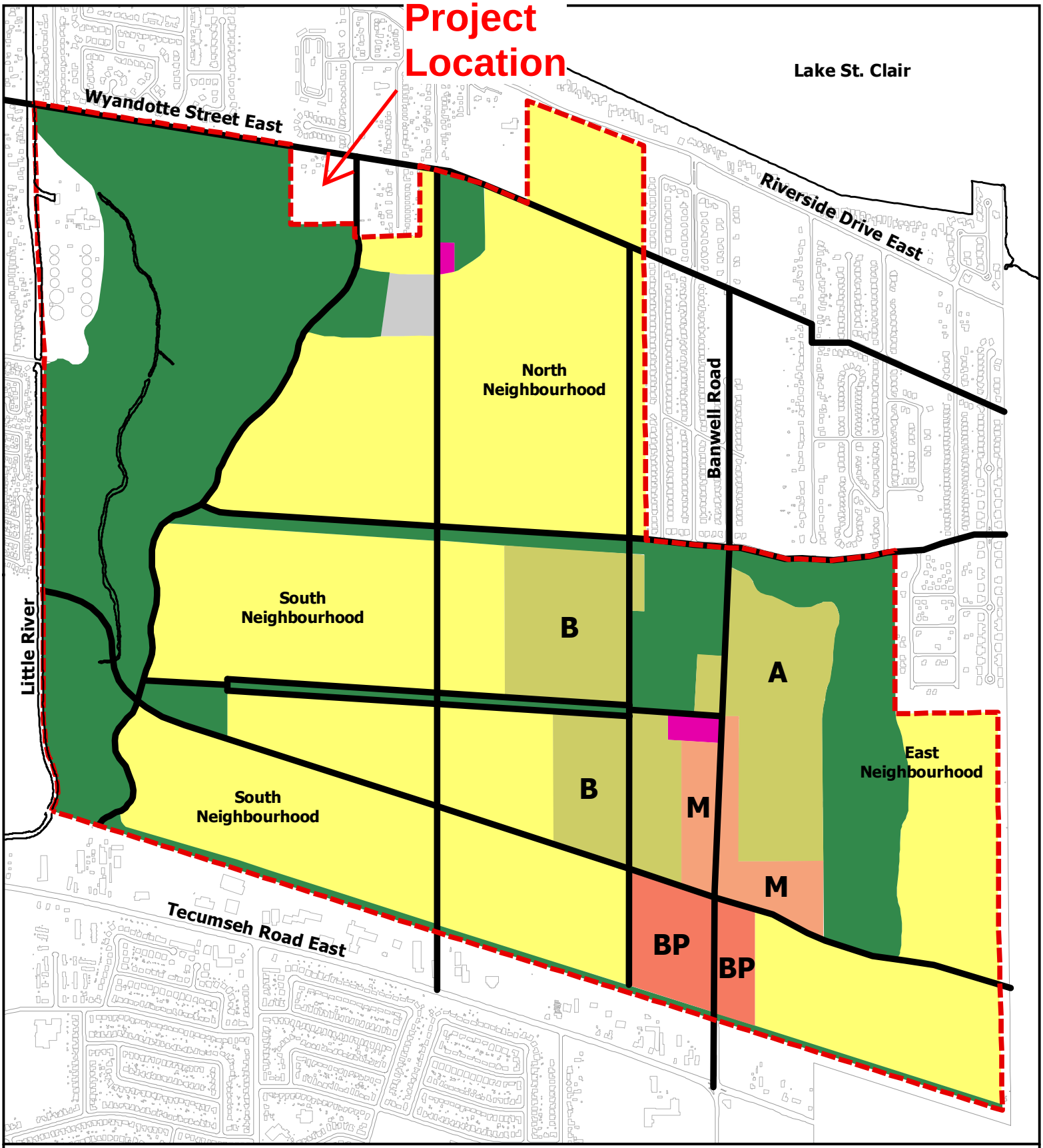
SCHEDULE D:
LAND USE

- RESIDENTIAL
- OPEN SPACE
- BUSINESS PARK
- MAJOR INSTITUTIONAL
- FUTURE URBAN AREA
- MINOR INSTITUTIONAL
- WATERFRONT RESIDENTIAL
- WATERFRONT RECREATION
- WATERFRONT PORT
- COMMERCIAL CENTRE
- FUTURE EMPLOYMENT AREA
- PRIVATE RECREATION
- MIXED USE
- NATURAL HERITAGE
- INDUSTRIAL
- COMMERCIAL CORRIDOR
- AIRPORT

0 750 1,500 3,000 Meters

City of Windsor Official Plan Volume I
Office Consolidation : December 9, 2020

AS AMENDED BY:
OPA# 2 - Approved: Dec. 11, 2000
OPA#13 - Approved: Nov. 22, 2001
OPA#17 - Approved: Jan. 3, 2002
OPA#18 - Approved: Mar. 15, 2002
OPA#21 - Approved: July 16, 2002
OPA#12 - Approved: Aug. 21, 2002
OPA#24 - Approved: Oct. 7, 2002
OPA#23 - Approved: Oct. 9, 2002
OPA# 5 - Approved: Oct. 29, 2002
OPA#27 - Approved: Dec. 16, 2002 (Superseded by OPA #40)
OPA#28 - Approved: Dec. 16, 2002
OPA#30 - Approved: Apr. 7, 2003
OPA#31 - Approved: Apr. 14, 2003
OPA#32 - Approved: May 5, 2003
OPA#34 - Approved: May 20, 2003
OPA#33 - Approved: June 2, 2003
OPA#35 - Approved: Aug. 11,2003
OPA#37 - Approved: Feb 19, 2004 (Superseded by OPA #40)
OPA#36 - Approved : March 3, 2004
OPA#39 - Approved : March 26, 2004
OPA#38 - Approved : July 21, 2004
OPA#40 - Approved : July 21, 2004
OPA #44 - Approved : January 6, 2005 (Superseded by OPA #131)
OPA #47 - Approved : May 10, 2005
OPA #48 - Approved : August 18, 2005
OPA #59 - Approved : March 27, 2007
OPA #62 - Approved : June 15, 2007
OPA #64 - Approved : September 20, 2007
OPA #60 - Approved : May 7, 2007 - (Former Township of Sandwich South)
OMB Decision/Order No. 2667 - October 5, 2007
OPA #67 - Approved : December 4, 2015
OMB Case No. PL080049 - April 26, 2016
OPA #70 - Approved : April 20, 2009
OPA #73 - Approved : September 7, 2006
OMB Decision/Order No. 2513 - February 12, 2009
OPA #74 - Approved : December 4, 2009
OPA #80 - Approved : November 22, 2010
OPA #92 - Approved : September 19, 2016
OPA #94 - Approved : December 21, 2016
OPA #97 - Approved : October 6, 2014
OPA #103 - Approved : June 1, 2015
OPA #104 - Approved : June 24, 2015
OPA #107 - Approved : August 15, 2016
OPA #109 - Approved : February 6, 2017
OPA #110 - Approved : August 22, 2016
OPA #119 - Approved : October 15, 2018
OPA #123 - Approved : January 21, 2020
OPA #131 - Approved : August 4, 2020
OPA #133 - Approved : November 9, 2020



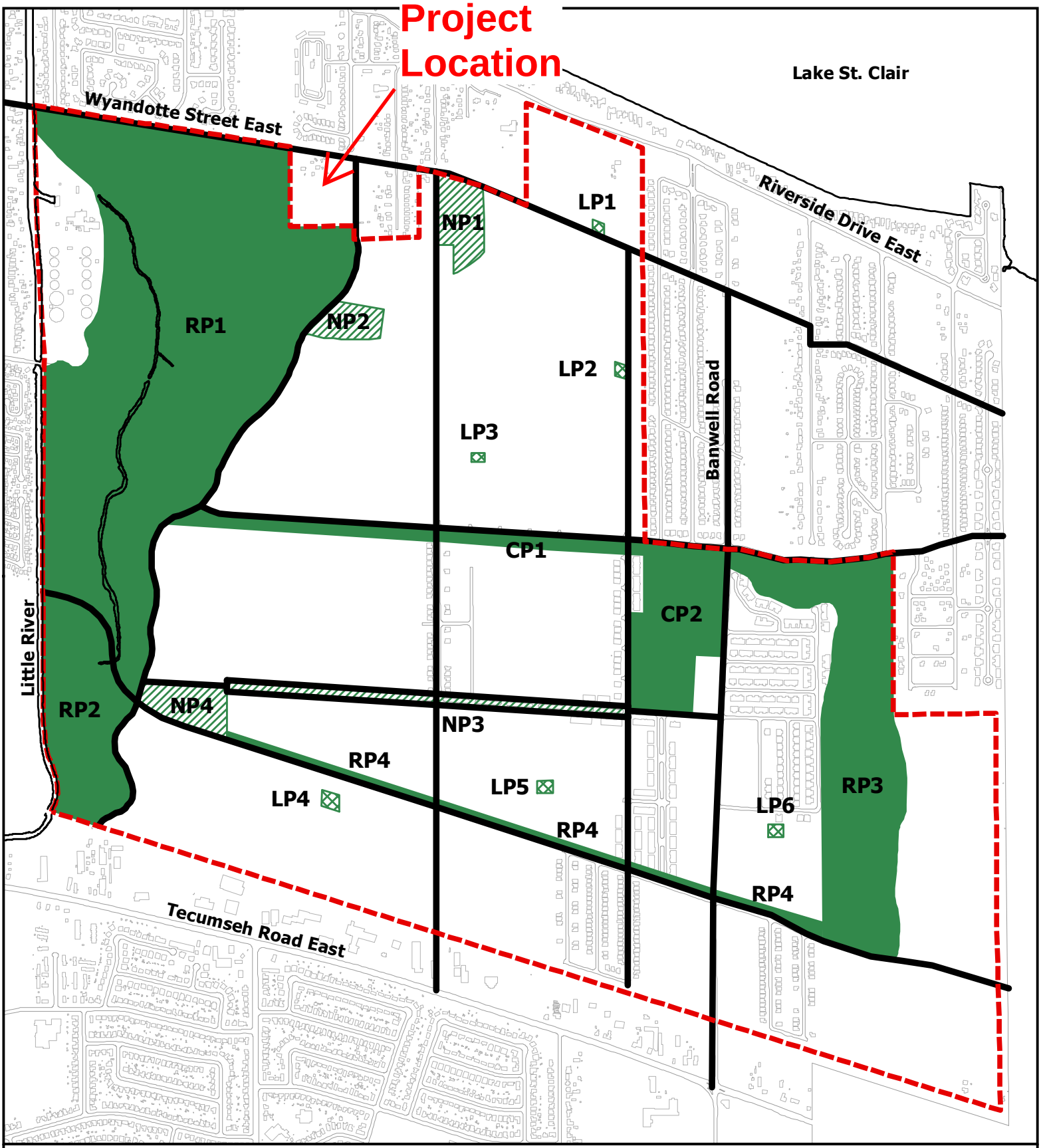
EAST RIVERSIDE PLANNING AREA

SCHEDULE ER1-2 : LAND USE PLAN

Meters 0 150 300 600

- Residential Neighbourhood
- A Core Residential Area A
- B Core Residential Area B
- M Banwell Road Mixed Use Corridor
- BP Business Park
- Institutional
- School Site
- Open Space
- Boundary of Planning Area

City of Windsor Official Plan Volume II
Date of OMB Approval : September 25, 2000
Office Consolidation : YYYY/MM/DD



EAST RIVERSIDE PLANNING AREA

SCHEDULE ER1-3 : GREENWAY SYSTEM PLAN

Meters 0 150 300 600

RP Regional Park

CP Community Park

NP Neighbourhood Park

LP Local Park

Boundary of Planning Area

City of Windsor Official Plan Volume II
Date of OMB Approval : September 25, 2000
Office Consolidation : YYYY/MM/DD

Appendix C
Site Photographs

Photograph 1 February 16, 2022 Looking south from the northeastern part of the Project Location. Note: Narrow, treed areas (left and background) and previous agriculture (right).	
Photograph 2 February 16, 2022 Looking west from the northeastern part of the Project Location. Note: Previous agriculture (foreground) and narrow, treed area (background).	

Photograph 3 March 10, 2022 Looking north from the southwestern part of the Project Location. Note: Narrow, treed area (left) and previous agriculture (right).	
Photograph 4 March 10, 2022 Looking northeast from the southwestern part of the Project Location. Note: Previous agriculture (foreground) and narrow, treed area (background).	

Photograph 5 March 10, 2022 Looking east from the southwestern part of the Project Location. Note: Previous agriculture (foreground) and narrow, treed areas (right and background).	
Photograph 6 March 10, 2022 Looking south from the southwestern part of the Project Location. Note: Community and Regional Parks and Open Space designations (Ganatchio Trail area).	

Photograph 7 March 10, 2022 Looking west from the southwestern part of the Project Location. Note: Community and Regional Parks and Open Space designations (Ganatchio Trail area).	

Appendix D
Vegetation List

Table 1: Vegetation Species identified within the Project Location

Family	Scientific Name	Common Name	SARA Status[1]	ESA Status[2]	SRank[3]	CC[4]	CW[5]	Invasive Priority for Control[6]	Noxious	Project Location	Tree Inventory
Cupressaceae	Juniperus virginiana	Eastern Red Cedar	---	---	S5	4	3	---	---	•	
Poaceae	Dactylis glomerata	Orchard Grass	---	---	SNA	---	3	C3	---	•	
Poaceae	Phragmites australis ssp. australis	European Common Reed	---	---	SNA	---	-4	C1	---	•	
Apiaceae	Daucus carota	Wild Carrot	---	---	SNA	---	5	C4	---	•	
Asteraceae	Euthamia graminifolia	Grass-leaved Goldenrod	---	---	S5	2	-2	---	---	•	
Asteraceae	Solidago altissima ssp. altissima	Eastern Late Goldenrod	---	---	S5	1	3	---	---	•	
Asteraceae	Symphyotrichum ericoides var. ericoides	White Heath Aster	---	---	S5	4	4	---	---	•	
Asteraceae	Symphyotrichum novae-angliae	New England Aster	---	---	S5	2	-3	---	---	•	
Cornaceae	Cornus sericea ssp sericea	Red-osier Dogwood	---	---	S5	2	-3	---	---	•	
Dipsacaceae	Dipsacus fullonum	Fuller's Teasel	---	---	SE5	---	5	C3	---	•	
Fabaceae	Gleditsia triacanthos inermis	Thornless Honey-locust	---	---	SNA	3	0	---	---		•
Fabaceae	Melilotus albus	White Sweet-clover	---	---	SNA	---	3	C1	---	•	
Fagaceae	Quercus palustris	Pin Oak	---	---	S4	9	-3	---	---		•
Fagaceae	Quercus rubra	Northern Red Oak	---	---	S5	6	3	---	---		•
Asclepiadaceae	Asclepias syriaca	Common Milkweed	---	---	S5	0	5	---	---	•	
Lamiaceae	Glechoma hederacea	Ground Ivy	---	---	SNA	---	3	---	---	•	
Malvaceae	Abutilon theophrasti	Velvetleaf	---	---	SNA	---	4	---	---	•	
Tiliaceae	Tilia cordata	Little-leaf Linden	---	---	SNA	---	---	C3	---		•
Onagraceae	Oenothera biennis	Common Evening Primrose	---	---	S5	0	3	---	---	•	
Plantaginaceae	Plantago lanceolata	English Plantain	---	---	SNA	---	0	---	---	•	
Rosaceae	Malus sp.	Apple species	---	---	---	---	---	---	---		•
Rosaceae	Pyrus sp.	Pear species	---	---	---	---	---	---	---		•
Salicaceae	Populus deltoides ssp. deltoides	Eastern Cottonwood	---	---	S5	4	-1	---	---	•	•
Salicaceae	Salix sp.	Willow species	---	---	---	---	---	---	---	•	•
Aceraceae	Acer negundo	Manitoba Maple	---	---	S5	0	-2	C2	---		•
Aceraceae	Acer rubrum	Red Maple	---	---	S5	4	0	---	---		•
Aceraceae	Acer saccharinum	Silver Maple	---	---	S5	5	-3	---	---		•
Anacardiaceae	Rhus hirta	Staghorn Sumac	---	---	S5	1	5	---	---	•	
Oleaceae	Fraxinus pennsylvanica	Green Ash	---	---	S4	3	-3	---	---		•
Moraceae	Morus alba	White Mulberry	---	---	SNA	---	0	C1	---		•
Ulmaceae	Celtis occidentalis	Common Hackberry	---	---	S4	8	1	---	---		•
Ulmaceae	Ulmus americana	American Elm	---	---	S5	3	-2	---	---		•

Family	Scientific Name	Common Name	SARA Status[1]	ESA Status[2]	SRank[3]	CC[4]	CW[5]	Invasive Priority for Control[6]	Noxious	Project Location	Tree Inventory
Ulmaceae	Ulmus pumila	Siberian Elm	---	---	SNA	---	5	C3	---		•

1 – Status identified by the Committee on the Status of Endangered Wildlife in Canada under the federal Species at Risk Act, 2002;
2 – Species at Risk in Ontario List under the provincial Endangered Species Act, 2007;
3 – Ontario Conservation SRank; S5 = secure; S4= apparently secure; S3 = vulnerable; S2 = imperilled; SX = Extirpated; SH = Possibly Extirpated; SNA = non-native or exotic species to Ontario;
4 – Coefficient of Conservatism (CC) (Floristic Quality Assessment System for Southern Ontario 1995). Each native taxon is assigned a rank of 0 to 10 ("coefficient of conservatism") based on its degree of fidelity to a range of synecological parameters. Species found in a wide variety of plant communities, including disturbed sites, are assigned ranks of 0 to 3. Species that are typically associated with a specific plant community, but tolerate moderate disturbance, are assigned ranks of 4 to 6. Rankings of 7 to 8 were applied to those species associated with a plant community in an advanced successional stage that has undergone minor disturbance. Those species with high degrees of fidelity to a narrow range of synecological parameters are assigned a value of 9 to 10;
5 – Coefficient of Wetness (CW) (Floristic Quality Assessment System for Southern Ontario 1995). The wetness index gives an indication of where plant species are typically found. A wetness value (coefficient of wetness) between -5 and 5. A value of -5 was assigned to Obligate Wetland (OBL) species and a value of 5 to Obligate Upland species (UPL), with intermediate values assigned to the remaining categories. The wetland categories and their corresponding values are as follows:

OBL (-5) Obligate Wetland - Occurs almost always in wetlands under natural conditions (estimated > 99% probability).
FACW+ (-4) Facultative Wetland - Usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67-99% probability).
FACW (-3)
FACW- (-2)
FAC + (-1) Facultative - Equally likely to occur in wetlands or non-wetlands (estimated 34-66% probability).
FAC 0
FAC- (1)
FACU+ (2) Facultative Upland - Occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1-33 % probability).
FACU (3)
FACU- (4)
UPL (5) Obligate Upland - Occurs almost never in wetlands under natural conditions (estimated <1 % probability).

6 – Invasive Exotic Plant Species Rankings for Southern Ontario (Draft - Urban Forest Associates/MNRF 2014). Category 1 (C1) - Top Priority: Widespread invasive species that exclude most other species and dominate sites indefinitely. Some are an imminent threat to human health. They are the top priority for control but control may be difficult and some are beyond control at present. Biocontrols may be the only affective long-term control option. Plants in this category are a threat to a natural area wherever they occur because they disperse widely and benefit from human disturbances. Control where possible and do not plant.

Appendix E
Previous Reports

Tree Inventory and Preservation Plan Report
Florence and Wyandotte Subdivision
Wyandotte Street East, Windsor, ON

Prepared For:

Goodban Ecological Consulting Inc.
879 Cabot Trail
Milton, ON L9T 3W4

Prepared By:

JACKSON ARBORICULTURE INC.
5290 Windermere Drive, Burlington ON L7L 3M1
jeremy.trees@cogeco.ca | 905-512-6303

25 May 2018

Project P129

Introduction

Jackson Arboriculture Inc. was retained by Goodban Ecological Consulting Inc. to complete a Tree Inventory and Preservation Plan report in support of a development application for the Florence and Wyandotte Subdivision situated in Windsor, Ontario. The subject property is situated west of Florence Drive on the south side of Wyandotte Street East.

Methodology

The following work plan was utilized during the completion of this study:

- Prepare field mapping (overlay topo survey/aerial photography);
- Complete a site visit to collect tree inventory information for all trees 15 cm in diameter and larger situated on subject property, on neighbouring property within 6 m of the subject site and in the road allowance;
- Data entry, mapping and completion of preservation planning analysis for trees included in the tree inventory; and,
- Document the findings in a Tree Inventory and Preservation Plan report.

Tree Inventory

The tree inventory was completed on the 16th of May 2018. All trees included in the inventory were visually assessed for condition utilizing the following parameters:

Tree #: A number assigned to each tree correlating to the tree inventory and Figure 1.
Species: Common and scientific species names.
DBH: Diameter of the tree stem, measured at 1.4 m from the ground.
Condition: The health of the tree considering trunk integrity, crown structure and crown vigour; each rated as good, fair or poor.
Crown Dieback: The percentage of the crown that no longer supports foliage.
Dripline: The distance, in meters, from the trunk to the tips of the live crown.
Comments: Any additional notes relevant to the tree or site conditions.
Action: Recommended preservation or removal.

The trees included in the inventory are identified with numbers 1-114. Trees were located by topographic survey provided and hand held GPS unit.

Existing Conditions

The subject site is comprised of agricultural fields and portion of a remnant farmstead. The property is bound by Wyandotte Street East to the north, residential development to the east and storm water management ponds to the south and west.

The tree inventory documented a total of 114 trees situated on subject property, within the road allowance and on neighbouring property within 6 m of the property boundaries. The trees included in the inventory appear to be dominated by naturally occurring trees with some landscape tree plantings. None of the trees included in the inventory are identified as rare, threatened or endangered species.

Trees included in the inventory are comprised of Manitoba Maple (*Acer negundo*), Eastern Cottonwood (*Populus deltoides*), White Elm (*Ulmus americana*), Apple species (*Malus sp.*), Willow species (*Salix sp.*), Siberian Elm (*Ulmus pumila*), Red Oak (*Quercus rubra*), Hackberry (*Celtis occidentalis*), Pear species (*Pyrus sp.*), Silver Maple (*Acer saccharinum*), Green Ash (*Fraxinus pennsylvanica*), White Mulberry (*Morus alba*), Red Maple (*Acer rubrum*), Pin Oak (*Quercus palustris*), Honey Locust cultivar (*Gleditsia triacanthos 'inermis'*) and Little-leaf Linden (*Tilia cordata*). Refer to Table 1 for the complete tree inventory and Figure 1 for tree locations.

Proposed Development

The proposed development is comprised of a residential subdivision including detached and semi-detached homes, and a park in the southwest corner. Access to the subdivision is proposed from Wyandotte Street by extending Florence Avenue.

Discussion and Analysis

A preservation planning analysis was completed on each tree individually considering the impacts from the proposed development and many other factors including, but not limited to, tree condition, species, DBH and the existing site conditions. The impacts from the proposed development will occur where tree roots conflict with construction machinery during earthworks, foundation excavation and grading and servicing.

During the preservation planning analysis the dripline distance was utilized to determine the potential impacts to each tree. Where appreciable encroachment is required within the dripline, tree removal will likely be required.

Tree Removal

The removal of Trees 5-7, 9, 13-21, 27, 29, 30, 44-49 and 81-99 will be required to accommodate the proposed development. These trees will conflict directly with home construction and local road construction.

Trees 67 and 76 do not conflict with the proposed development, however, are exhibiting major defects and must be removed to mitigate the risk they pose to any occupants of the proposed development.

Trees 5, 7, 9, 16, 17, 20, 21, 29 and 30 appear to be situated fully or partially on neighbouring property. Permission from the respective property owner is required prior to the removal of any trees situated fully or partially on neighbouring property.

Tree Preservation

The preservation of Trees 1-4, 8, 10-12, 22-26, 28, 31-43, 50-66, 68-75, 77-80 and 100-114 will be possible with appropriate tree protection measures, pending a review of detailed grading plans. Tree protection measures will have to be implemented prior to the commencement of earthworks/grading to ensure that no trees identified for preservation are impacted by the proposed development.

Tree protection fence must be installed at the dripline for trees identified for preservation. Refer to Figure 1 for the location of required tree protection fence, the tree protection fence detail and for further tree protection plan notes.

Summary and Recommendations

Jackson Arboriculture Inc. was retained by Goodban Ecological Consulting Inc. to complete a Tree Inventory and Preservation Plan report in support of a development application for the Florence and Wyandotte Subdivision situated in Windsor, Ontario. A tree inventory was conducted and reviewed in the context of the proposed development plan.

The findings of the study indicate a total of 114 trees situated on subject property, on neighbouring property within 6 m and within the road allowance. The removal of 41 trees will be required to accommodate the proposed development. The removal of 2 hazard trees is also recommended to mitigate hazard potential.

The following recommendations are made to ensure trees identified for preservation are not impacted by the proposed development:

- Refer to Figure 1 for the location of prescribed tree protection fencing, the tree protection fence detail and further tree protection plan notes.
- Tree protection fence must be installed prior to the earthworks/grading phase.
- Once tree protection fence has been installed it must not be moved, relocated or altered in any way (unless repairing fallen fence etc.) for the duration of the construction period.
- No intrusion into an area identified on Figure 1 as a tree preservation zone (TPZ) is allowed at anytime during construction.
- No storage of machinery, construction debris, materials, waste or any other items is allowed within a TPZ.
- Any tree branches (and roots) that conflict with proposed development must be pruned by a Certified Arborist in accordance with acceptable arboricultural practice.
- Tree protection fencing should be inspected prior to, during, and after construction is complete to ensure that tree protection fence remains intact and in good repair throughout the stages of development.
- Trees 67 and 76 must be removed to mitigate their hazard potential.

Respectfully submitted,

Jackson Arboriculture Inc.

Jeremy Jackson, H.B.Sc.,
ISA Certified Arborist #ON-1089A
GIS Analyst

Limitations of Assessment

It is our policy to attach the following limitations of assessment to ensure that the client, municipalities and agencies are fully aware of what is technically and professionally realistic when visually assessing and retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These include a visual examination of the above ground parts of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree and direction of any lean, the general condition of the trees and the surrounding site, and the proximity of property and people.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms and their health and vigour constantly change. They are not immune to changes in site conditions, or seasonal variations in the weather conditions, including severe storms with high-speed winds.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy no guarantees are offered, or implied, that these trees, or any parts of them, will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree of group of trees or their component parts in al circumstances. Inevitably a standing tree will always pose some risk. Most trees have the potential for failure under adverse weather conditions, and the risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, trees should be re-assessed periodically. The assessment presented in this report is valid as the time of the inspection.

Table 1. Tree Inventory

Location: Wyandotte St., Windsor Date: 16 May 2018 Surveyors: JJJ

Tree #	Common Name	Scientific Name	DBH	TI	CS	CV	DL	CDB	Comments	Action
1	Manitoba Maple	*Acer negundo*	~19	FG	G	G	4		Light lean	Preserve
2	Eastern Cottonwood	*Populus deltoides*	111	F	FG	G	10		Seam, pruning wound, light lean, heavy stem wound ~5 m long	Preserve
3	Manitoba Maple	*Acer negundo*	~20, 18	FG	FG	G	4		Light stem wounds, union at 0.3 m, bowed over subject property	Preserve
4	White Elm	*Ulmus americana*	20	G	G	G	3			Preserve
5	White Elm	*Ulmus americana*	40	G	FG	G	4		Union at 1.8 m	Remove
6	Eastern Cottonwood	*Populus deltoides*	23	G	G	G	3			Remove
7	White Elm	*Ulmus americana*	26	FG	G	G	2		Light stem wound	Remove
8	White Elm	*Ulmus americana*	~45, 38	F	F	FG	4		Wound from failed stem	Preserve
9	Apple species	*Malus sp.*	~15	FG	FG	G	3		Bowed over subject property	Remove
10	Manitoba Maple	*Acer negundo*	~23	FG	PF	PF	2	30	Grapevine competition, lean	Preserve
11	White Elm	*Ulmus americana*	~15	G	G	G	3		Bowed west	Preserve
12	White Elm	*Ulmus americana*	~19	G	G	G	3			Preserve
13	White Elm	*Ulmus americana*	21	G	G	G	3			Remove
14	White Elm	*Ulmus americana*	15	G	FG	G	3		Understory	Remove
15	White Elm	*Ulmus americana*	25	G	G	G	4			Remove
16	Eastern Cottonwood	*Populus deltoides*	34	G	G	G	4		Light lean	Remove
17	White Elm	*Ulmus americana*	~20	G	FG	G	4		Understory	Remove
18	White Elm	*Ulmus americana*	17	G	G	G	3			Remove
19	Willow species	*Salix sp.*	~31, 26, 22, 21, 19	FG	G	G	5		Union at ground	Remove
20	Willow species	*Salix sp.*	23, 21, 18, 15	FG	G	G	4		Union at ground	Remove
21	Siberian Elm	*Ulmus pumila*	~19, 15	G	FG	G	3		Union at ground	Remove
22	Siberian Elm	*Ulmus pumila*	~21, 20	G	FG	FG	4		Union at 1.2 m, bowed northwest	Preserve
23	Siberian Elm	*Ulmus pumila*	~17, 19	G	FG	F	3	15		Preserve
24	Siberian Elm	*Ulmus pumila*	~25	G	G	G	3		Bowed east	Preserve
25	Siberian Elm	*Ulmus pumila*	~17	FG	F	F	2	20		Preserve
26	Siberian Elm	*Ulmus pumila*	~28	FG	FG	FG	3		Bowed east	Preserve
27	Red Oak	*Quercus rubra*	54	F	G	G	5		Stem wound	Remove
28	Siberian Elm	*Ulmus pumila*	~33	FG	F	F	3	20	Lean southeast	Preserve
29	Eastern Cottonwood	*Populus deltoides*	48	G	G	G	5			Remove
30	Willow species	*Salix sp.*	~45, 50, 48, 48	FG	G	G	7		Union at ground	Remove
31	Eastern Cottonwood	*Populus deltoides*	30	G	G	G	4			Preserve
32	Manitoba Maple	*Acer negundo*	~21	FG	G	G	3		Light stem wound	Preserve
33	Manitoba Maple	*Acer negundo*	~15	G	G	G	2			Preserve
34	Manitoba Maple	*Acer negundo*	36, 25, 18	FG	FG	FG	4		Grapevine competition, union at ground	Preserve
35	Manitoba Maple	*Acer negundo*	~20, 14	F	G	G			Separating union at ground	Preserve
36	Manitoba Maple	*Acer negundo*	~30	F	FG	FG	3		Bowed north, sweep	Preserve
37	Hackberry	*Celtis occidentalis*	~25	G	G	G	4			Preserve
38	Manitoba Maple	*Acer negundo*	~15	F	FG	FG	3		Bowed north	Preserve
39	Manitoba Maple	*Acer negundo*	~19	FG	FG	F	3		Bowed north	Preserve
40	Manitoba Maple	*Acer negundo*	~17	FG	PF	PF	2	30	Bowed northeast, grapevine competition	Preserve

41	Manitoba Maple	*Acer negundo*	20	G	FG	FG	3		Grapevine competition	Preserve
42	Manitoba Maple	*Acer negundo*	~22, 16	FG	F	F	3		Union at ground, sweep, grapevine competition	Preserve
43	Manitoba Maple	*Acer negundo*	~18	FG	F	F	3		Grapevine competition	Preserve
44	Pear species	*Pyrus sp.*	28	F	FG	FG	3		Understory, stem wounds	Remove
45	Silver Maple	*Acer saccharinum*	51	FG	FG	G	5		Bowed west	Remove
46	Pear species	*Pyrus sp.*	~21, 20	F	F	F	2		Union at 0.4 m, stem wounds with dry rot	Remove
47	Green Ash	*Fraxinus pennsylvanica*	~15	P	P	P	2	50	EAB infestation	Remove
48	Green Ash	*Fraxinus pennsylvanica*	~36, 25	P	P	P	3	60	EAB infestation	Remove
49	Eastern Cottonwood	*Populus deltoides*	24	G	G	G	3			Remove
50	Manitoba Maple	*Acer negundo*	~35, 13	FG	FG	G	6		Union at ground, lean	Preserve
51	Willow species	*Salix sp.*	~110	G	FG	FG	10	10	Broken branches	Preserve
52	Eastern Cottonwood	*Populus deltoides*	~45	G	G	G	4			Preserve
53	Eastern Cottonwood	*Populus deltoides*	~38	G	G	G	4			Preserve
54	Red Oak	*Quercus rubra*	~65	G	G	G	8			Preserve
55	Eastern Cottonwood	*Populus deltoides*	~42	G	G	G	4			Preserve
56	Eastern Cottonwood	*Populus deltoides*	~15	F	F	F	2	20	Understory	Preserve
57	Eastern Cottonwood	*Populus deltoides*	~25	G	G	G	3			Preserve
58	Eastern Cottonwood	*Populus deltoides*	67	G	G	G	5			Preserve
59	Eastern Cottonwood	*Populus deltoides*	71	G	G	FG	5	10		Preserve
60	Eastern Cottonwood	*Populus deltoides*	78	G	FG	FG	5	15	Light lean north east	Preserve
61	Eastern Cottonwood	*Populus deltoides*	62	G	G	FG	7			Preserve
62	Silver Maple	*Acer saccharinum*	~30, 15, 17	FG	FG	FG	4		Union at 0.3 m, understory	Preserve
63	Eastern Cottonwood	*Populus deltoides*	~75	G	G	G	6			Preserve
64	Manitoba Maple	*Acer negundo*	~28, 16	FG	FG	FG	3		Lean, understory	Preserve
65	Eastern Cottonwood	*Populus deltoides*	58	G	G	G	4			Preserve
66	Eastern Cottonwood	*Populus deltoides*	80	G	FG	FG	5	10		Preserve
67	Eastern Cottonwood	*Populus deltoides*	60	PF	PF	PF	4		Heavy stem wound with heart rot -> HAZARD - remove	Remove
68	Eastern Cottonwood	*Populus deltoides*	68	G	FG	F	8	15		Preserve
69	Red Maple	*Acer rubrum*	~19, 21, 15, 14	F	F	F	4		Coppice growth orignating from rotten stump	Preserve
70	Manitoba Maple	*Acer negundo*	22	F	FG	G	4		Lean west	Preserve
71	Eastern Cottonwood	*Populus deltoides*	72	PF	F	F	6		Stem wound (H) with hear rot	Preserve
72	Willow species	*Salix sp.*	32, 32	FG	G	G	4	10	Union at ground, sweep	Preserve
73	Manitoba Maple	*Acer negundo*	~20	FG	FG	FG	3		Bowed east	Preserve
74	Eastern Cottonwood	*Populus deltoides*	75	G	G	G	7			Preserve
75	Manitoba Maple	*Acer negundo*	~15	FG	F	PF	3	40	Bowed west	Preserve
76	Manitoba Maple	*Acer negundo*	~65	P	PF	PF	2	80	Heavy cavity with hollow stem and heart rot HAZARD - remove	Remove
77	Willow species	*Salix sp.*	~25	F	FG	G	3		Crook/bowed west, light epicormic branching	Preserve
78	Willow species	*Salix sp.*	~25, 22, 21, 20	FG	FG	FG	6		Union at ground	Preserve

79	Eastern Cottonwood	*Populus deltoides*	39, 30	FG	G	G	4		Union at ground	Preserve
80	Willow species	*Salix sp.*	~48, 18	FG	FG	G	7		Union at ground	Preserve
81	Manitoba Maple	*Acer negundo*	~65	FG	G	G	5		Moderate stem wound	Remove
82	Eastern Cottonwood	*Populus deltoides*	70	G	G	G	5			Remove
83	Eastern Cottonwood	*Populus deltoides*	84	G	G	G	6			Remove
84	Eastern Cottonwood	*Populus deltoides*	57	G	G	G	6			Remove
85	Eastern Cottonwood	*Populus deltoides*	105	G	G	G	10			Remove
86	Manitoba Maple	*Acer negundo*	33	FG	G	G	5		Sweep	Remove
87	Manitoba Maple	*Acer negundo*	64	FG	FG	G	5		Lean, epicormic branching, stem wound	Remove
88	Manitoba Maple	*Acer negundo*	48	G	G	G	4			Remove
89	Manitoba Maple	*Acer negundo*	~45	G	FG	G	4			Remove
90	Eastern Cottonwood	*Populus deltoides*	77	G	G	G	5			Remove
91	Eastern Cottonwood	*Populus deltoides*	62	FG	PF	F	5		Stem failed in crown	Remove
92	Eastern Cottonwood	*Populus deltoides*	67	G	G	G	6			Remove
93	Eastern Cottonwood	*Populus deltoides*	~70	G	G	G	5			Remove
94	Manitoba Maple	*Acer negundo*	47	F	FG	FG	4		Stem wounds, broken branches	Remove
95	Manitoba Maple	*Acer negundo*	41	G	G	G	4			Remove
96	Manitoba Maple	*Acer negundo*	52	G	FG	FG	4	15	Union at 1.8 m	Remove
97	White Mulberry	*Morus alba*	37	FG	FG	FG	3		Union at 1.5 m, understory	Remove
98	Willow species	*Salix sp.*	~85	G	FG	FG	7		Bowed north	Remove
99	Willow species	*Salix sp.*	~100	FG	FG	FG	6	10	Stem wound	Remove
100	Apple species	*Malus sp.*	38	FG	FG	G	5		Pruning wounds	Preserve
101	Red Maple	*Acer rubrum*	9	G	G	G	1			Preserve
102	Red Maple	*Acer rubrum*	8	G	G	G	1			Preserve
103	Red Maple	*Acer rubrum*	6	G	P	P	0	50		Preserve
104	Red Maple	*Acer rubrum*	8	G	G	G	1			Preserve
105	Red Maple	*Acer rubrum*	5	G	F	PF	1	40		Preserve
106	Pin Oak	*Quercus palustris*	13	G	G	G	2			Preserve
107	Pin Oak	*Quercus palustris*	13	G	G	G	3			Preserve
108	Pin Oak	*Quercus palustris*	14	G	G	G	3			Preserve
109	Pin Oak	*Quercus palustris*	9	G	G	FG	2	10		Preserve
110	Honey Locust cultivar	*Gleditsia tracanthos 'inermis' Shademaster*	11	G	G	G	3			Preserve
111	Honey Locust cultivar	*Gleditsia tracanthos 'inermis' Shademaster*	12	G	G	G	3			Preserve
112	Honey Locust cultivar	*Gleditsia tracanthos 'inermis' Shademaster*	10	G	G	G	3			Preserve
113	Honey Locust cultivar	*Gleditsia tracanthos 'inermis' Shademaster*	9	G	G	G	3			Preserve
114	Little-leaf Linden	*Tilia cordata*	12	G	G	G	2			Preserve

Codes		
DBH	Diameter at Breast Height	(cm)
TI	Trunk Integrity	(G, F, P)
CS	Crown Structure	(G, F, P)
CV	Crown Vigor	(G, F, P)
CDB	Crown Die Back	(%)
DL	Dripline	(m)
EAB	Emerald Ash Borer	
~ = estimate		

Natural Site Features Inventory & Preservation Study

Proposed Florence & Wyandotte Development
City of Windsor

August 2018

Submitted to:

Haddad Morgan & Associates Ltd.
Consulting Engineers
24 Shepherd Street East
Windsor, Ontario
N8X 2J8

Prepared by:

Goodban Ecological Consulting Inc.
879 Cabot Trail
Milton, Ontario L9T 3W4

[This page left blank intentionally.]

Natural Site Features Inventory & Preservation Study

Florence & Wyandotte Subdivision, City of Windsor

Table of Contents

List of Figures

List of Attachments

NOTE:

Reference should also be made to the *Tree Inventory & Preservation Plan (TIPP) Report* prepared for the subject property by Jackson Arboriculture Inc. The TIPP report is a companion document to this *Natural Site Features Inventory & Preservation Study*.

[This page left blank intentionally.]

Natural Site Features Inventory & Preservation Study
Proposed Florence & Wyandotte Development, City of Windsor

Introduction

Goodban Ecological Consulting Inc. (GEC) was retained by Haddad Morgan & Associates Ltd. to prepare a Natural Site Features Inventory & Preservation Study for the proposed Wyandotte and Florence Development in the City of Windsor. GEC retained Jackson Arboriculture Inc. to prepare a tree-saving plan for the project.

The site covers 2.98 ha on the south side of Wyandotte Street East, just south of the present terminus of Florence Avenue, in the Tecumseh area of the City of Windsor (see **Figures 1** and **2**). The site is located within an urbanizing neighbourhood, with new residential subdivisions in the local area and new stormwater management ponds situated south and west of the subject property. To the east of the property there are existing lots that are used for gardening purposes, and houses fronting onto Elinor Street.

Study Approach

This report is based on a review of available background information and field surveys completed in March 2017 and May 2018.

GEC reviewed available background information including the following:

- City of Windsor Official Plan
- Essex County interactive online mapping
- Essex Region Conservation Authority (ERCA) interactive online mapping
- Land Information Ontario (LIO) online mapping
- Natural Heritage Information Centre (NHIC) online data

Field surveys were completed as follows:

- March 23, 2017 - Anthony Goodban - ecological field reconnaissance and general SAR survey
- May 16, 2018 - Jeremy Jackson - tree inventory and assessment

Proposed Development

The proposed development comprises a 48 unit residential subdivision on full municipal services 18 single units and 30 semi-detached units. Access to the subdivision will be via the intersection of Wyandotte Street East and Florence Avenue.

The proposed development plan is provided in **Attachment A**.

Site Description

The site covers 2.98 ha on the south side of Wyandotte Street East, just south of the present terminus of Florence Avenue, in the Tecumseh area of the City of Windsor (see **Figures 1** and **2**). The site is located within an urbanizing neighbourhood, with new residential subdivisions in the local area and new stormwater management ponds situated south and west of the subject property. To the east of the property there are existing lots that are used for gardening purposes, and houses fronting onto Elinor Street.

The site itself mainly comprises active agricultural fields, which were planted in soybeans in 2016 (see **Attachment B** for site photographs). A yard area with various structures existed until recently at the north end of the property, closer to Wyandotte St E. All structures have been removed and the area has been cleaned up (Photo 1). The grassed areas are mown periodically (Photos 1, 7 and 8). Hedgerows occur along the west and south property boundaries (Photos 2 and 4), with associated shallow ditches (Photo 3). The main trees are Eastern Cottonwood (*Populus deltoides*), Manitoba Maple (*Acer negundo*) and Green Ash (*Fraxinus pennsylvanica*). The main shrubs are Gray Dogwood (*Cornus foemina* ssp. *racemosa*) and Common Buckthorn (*Rhamnus cathartica* +).

In summary, the site is currently in agricultural use (soybeans in 2016) and it is largely free of natural features, except for hedgerows dominated by scattered Eastern Cottonwood and thickets of Gray Dogwood and Common Buckthorn (+).

No plant or wildlife species at risk were observed during the March 23, 2017 and May 16, 2018, field investigations.

MNRF Species at Risk Screening

A Stage 1 (Information Request) Species at Risk Screening request was submitted to the Aylmer District office of the Ministry of Natural Resources and Forestry (MNRF) on April 12, 2017. MNRF responded on June 14, 2017 and indicated that if the subdivision was designed to protect the perimeter hedgerows and the shrub thicket offsite to the south, then the proposed development would likely not contravene the *Endangered Species Act* (ESA 2007). Haddad Morgan & Associates Ltd. prepared a revised development plan that included rear lot tree-saving zones that will ensure the protection of the perimeter hedgerows. The revised development plan was submitted to Aylmer District MNRF on February 22, 2018 for their review and comment. MNRF responded on March 26, 2018 and stated that *"Based on Attachment A* [the revised development plan] *the hedgerows and thicket will be retained, and so, the project*

will likely not contravene the ESA 2007." The correspondence between GEC and MNRF is provided in **Attachment C**.

Tree Inventory and Preservation Plan (TIPP) Report

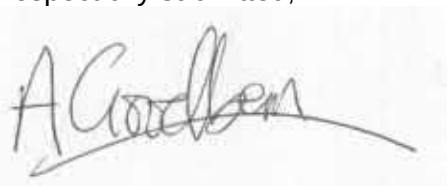
Jackson Arboriculture prepared a *Tree Inventory and Preservation Plan (TIPP)* which should be read in conjunction with this *Natural Site Features Inventory and Preservation Study*.

The findings of the study indicate a total of 114 trees situated on subject property, on neighbouring property within 6 m and within the road allowance. The removal of 41 trees will be required to accommodate the proposed development. The removal of 2 hazard trees is also recommended to mitigate hazard potential. As shown on Figure 1 of the TIPP Report, all of the trees in the western and southern perimeter hedgerows will be retained with the exception of a few hazard trees, and this is consistent with MNRF's recommendation that the hedgerows be retained.

Summary and Conclusions

The proposed Florence & Wyandotte Development site contains no natural heritage features. The property contains active agricultural fields, a former yard area with scattered trees, and perimeter hedgerows along the west and south property limits. It is important that the west and south perimeter hedgerows are protected as per the TIPP Report and integrated into the future development of the site. It is also important that the shrub thicket area located immediately south of the site is not disturbed by construction-related activity for this subdivision. Protection of the west and south hedgerows, and the shrub thicket immediately south of the property, will ensure that there are no contraventions of the *Endangered Species Act (ESA 2007)*.

Respectfully submitted,



Anthony G. Goodban, B.Sc., M.E.S.(Pl.), MCIP, RPP
Consulting Ecologist and Natural Heritage Planner

GOODBAN ECOLOGICAL CONSULTING INC. (GEC)
879 Cabot Trail, Milton, Ontario L9T 3W4
Office: (905) 693-9064
Mobile: (905) 691-0774
E-mail: anthony.goodban@sympatico.ca

[This page left blank intentionally.]

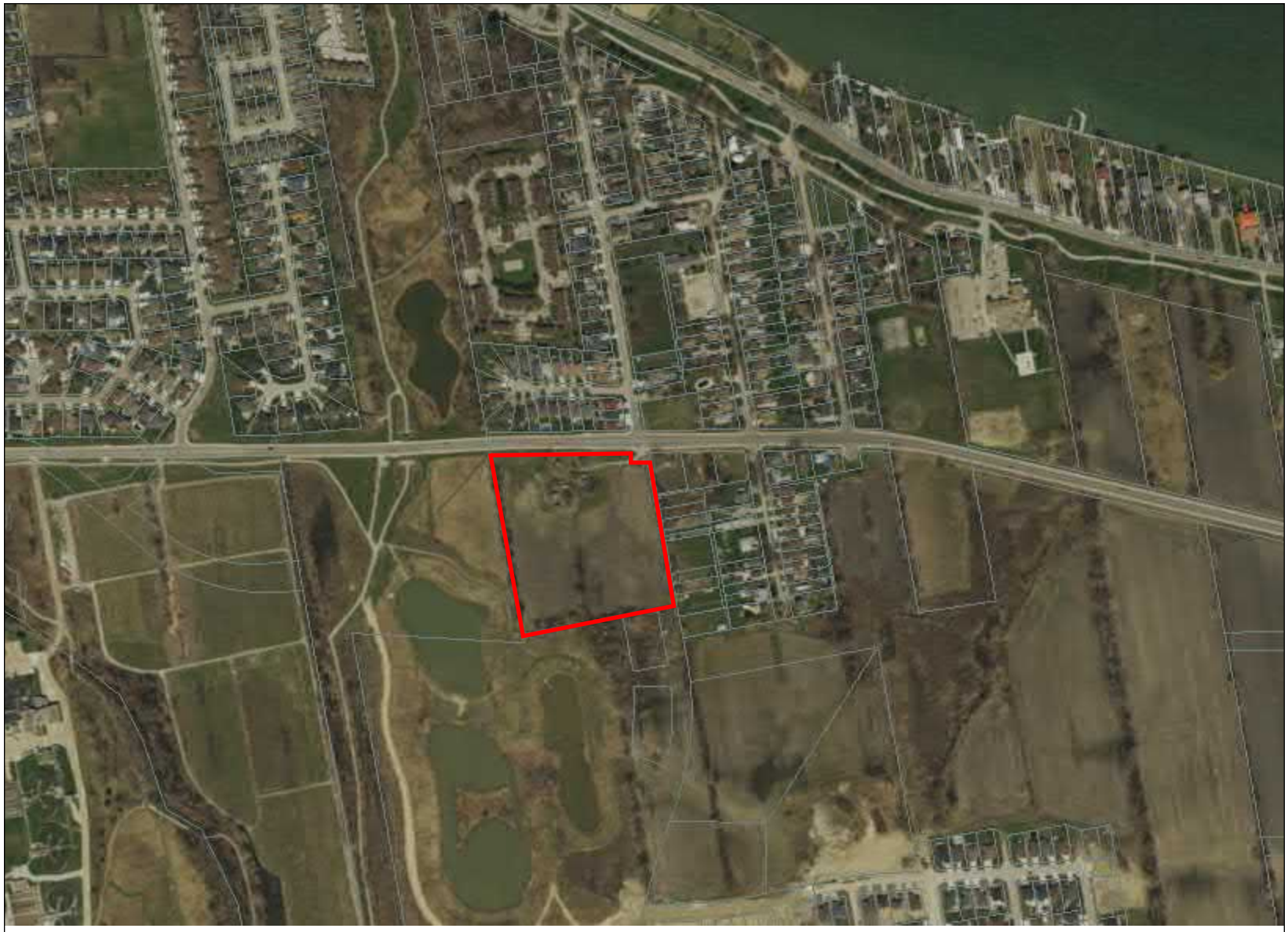
Ontario

Ministry of Natural Resources and Forestry

Make-a-Map: Natural Heritage Areas

Figure 1 - Florence & Wyandotte Subdivision, Windsor.

Notes: Scale 1:9028



Legend

Assessment Parcel
Woodland
Conservation Reserve
Provincial Park
Natural Heritage System
Georgian

Wetland
Provincially Significant Wetland Evaluated
Non - Provincially Significant Wetland Evaluated
Unevaluated Wetland

Area of Natural Heritage & Scientific Interest (ANSI)
Provincially Significant Life Science ANSI
Provincially Significant Earth Science ANSI

Greenbelt Plan
Boundary
River Valley Connections

Land Use Designations
Protected Countryside
Towns and Villages
Hamlets
Urban River Valley
Specialty Crop Area

Niagara Escarpment Plan (NEP)
Boundary
Parks and Open Space System

Land Use Designations
Escarpment Natural Area
Escarpment Protection Area
Escarpment Rural Area
Mineral Resource Extraction Area
Escarpment Recreation Area
Urban Area
Minor Urban Centre

Oak Ridges Moraine Conservation Plan (ORM)
Boundary

Land Use Designations
Natural Core Area
Natural Linkage Area
Countryside Area
Rural Settlement
Hamlet
Palgrave Estates Residential Community
Settlement Area

0.5 0 0.23 0.5 Kilometers

Scale: 1 : 9,027

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry(OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

County of Essex Mapping

FIGURE 2 - Florence & Wyandotte Subdivision

Legend

- Windsor Airport
- Street
- Assessment Parcels
- Municipal Boundary
  - <all other values>
  - Pelee Island
- Property boundary (approximate)

Goodban Ecological Consulting Inc.

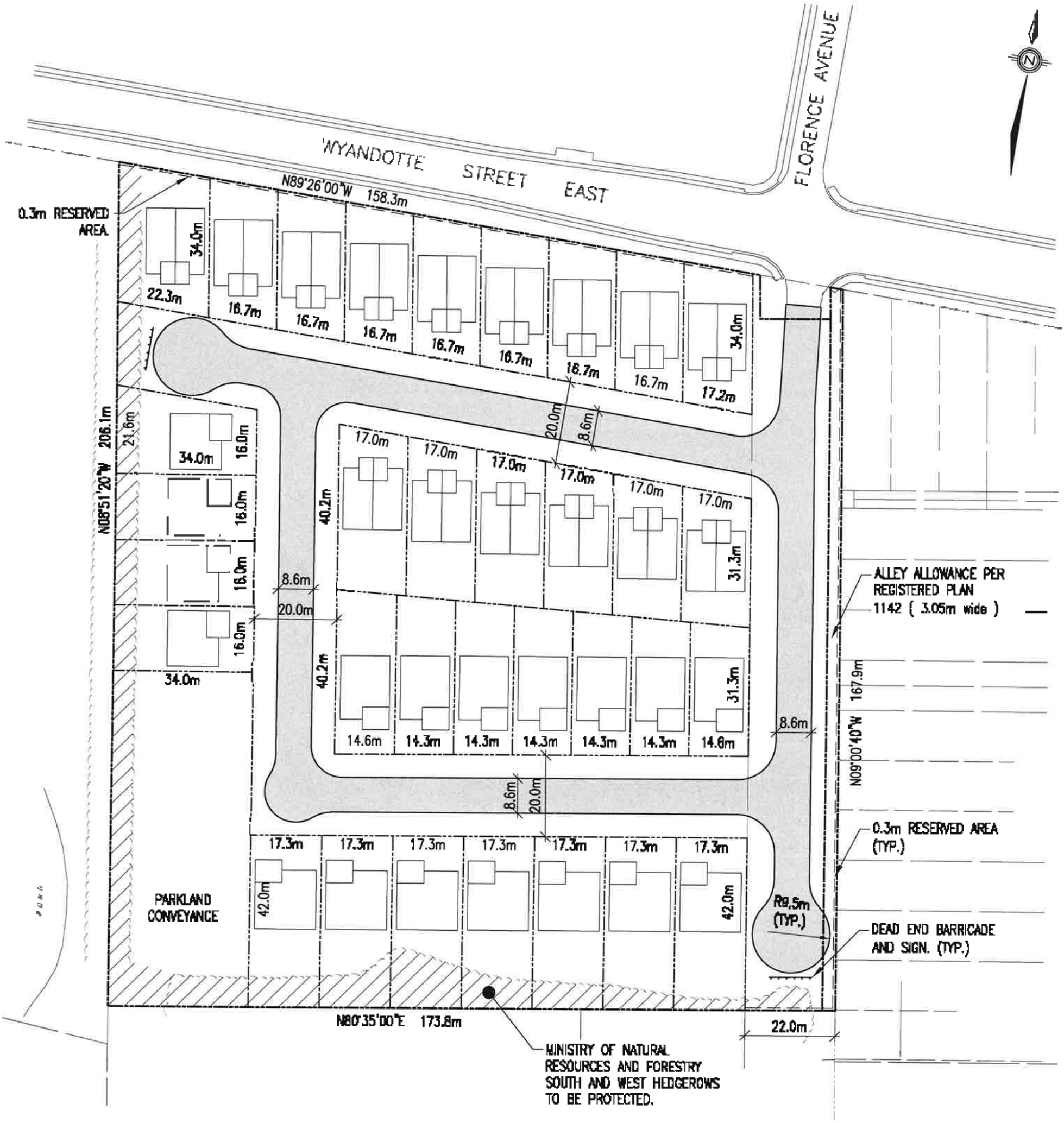
March 23, 2017

0 25.00 50.0 Meters

1: 1,500 1/29/2014

Notes

Enter Map Description



RESIDENTIAL DISTRICT 2.1	SEMI-DETACHED DWELLING	SINGLE UNIT DWELLING
LOT WIDTH (MINIMUM)	15.0 m (49.21 ft)	9.0 m (29.53 ft)
LOT AREA (MINIMUM)	450.0 m^2 (4843.76 ft^2)	270 m^2 (2906.26 ft^2)
LOT COVERAGE (MAXIMUM)	45.0%	45.0%
MAIN BUILDING HEIGHT (MAXIMUM)	10.0 m (32.81 ft)	10.0 m (32.81 ft)
FRONT YARD DEPTH (MINIMUM)	6.0 m (19.69 ft)	6.0 m (19.69 ft)
REAR YARD DEPTH (MINIMUM)	7.50 m (24.61 ft)	7.50 m (24.61 ft)
SIDE YARD WIDTH (MINIMUM)	1.20 m (3.94 ft)	1.20 m (3.94 ft)

LAND USE SCHEDULE			
USE	LOTS/BLOCKS	NUMBER OF UNITS	APPROXIMATE AREA
SINGLE UNIT	18	18	1.09 Ha (2.71 ACRES)
SEMI-DETACHED	15	30	0.88 Ha (2.18 ACRES)
PARKLAND	N/A	N/A	0.28 Ha (0.69 ACRES)
RIGHT-OF-WAY	N/A	N/A	1.09 Ha (2.69 ACRES)
TOTAL	33	48	3.35 Ha (8.27 ACRES)

PROJECT :
WYANDOTTE AND FLORENCE DEVELOPMENT

DWG. TITLE :
PROPOSED SITE LAYOUT

DATE : FEB. 02, 2018
DR.BY : AWD
SCALE : 1:1000

HADDAD, MORGAN AND ASSOCIATES LTD.
CONSULTING ENGINEERS
WINDSOR ONTARIO

17-A176
SK-01A

[This page left blank intentionally.]

Attachment B:

Representative Site Photographs taken on March 23, 2017.
Florence & Wyandotte Subdivision, City of Windsor.

Goodban Ecological Consulting Inc.
(GEC)

Photo 1 - View looking west along Wyandotte St E, from former yard area.

Photo 2 - View looking towards southwest corner of property, from former yard area.

Photo 3 - View of ditch on west property line.

Photo 4 - View looking east along south property boundary.

Photo 5 - View looking north, along east property limit.

Photo 6 - View looking northwest, towards former yard area.

Photo 7 - View looking southwest across property, from the northeast corner.

Photo 8 - View looking west, towards former yard area.

[This page left blank intentionally.]

Attachment C: 2017-2018 Correspondence between GEC and Aylmer MNRF

From: ESA-Aylmer (MNRF)
To: Anthony Goodban
Subject: RE: MNRF SAR Stage 1 Screening Request - Florence & Wyandotte Subdivision, City of Windsor
Date: March 26, 2018 9:57:53 AM
Attachments: Attachment A - Proposed Site Layout - Wyandotte and Florence Development....pdf

---

Hello Anthony,

Based on Attachment A, the hedgerows and thicket will be retained, and so, the project will likely not contravene the ESA 2007.

Regards,

Catherine Jong
Management Biologist
MNRF Aylmer District
615 John Street North
Aylmer, ON N5H 2S8

From: Anthony Goodban [mailto:anthony.goodban@sympatico.ca]
Sent: February-22-18 10:27 AM
To: ESA-Aylmer (MNRF)
Subject: RE: MNRF SAR Stage 1 Screening Request - Florence & Wyandotte Subdivision, City of Windsor

Hi Catherine,

Goodban Ecological Consulting Inc. (GEC) submitted a Stage 1 (Information Request) Species at Risk Screening request to Aylmer District MNRF on April 12, 2017 for the proposed Florence & Wyandotte Subdivision in the City of Windsor. Your office provided a response on June 14, 2017.

With regard to the proposed development of the site you indicated the following:

"If the hedgerows and thicket are proposed to be retained, the project will likely not contravene the ESA 2007. If these features are proposed to be altered, field assessments by a qualified professional are recommended for the SAR species and habitat listed above."

I recommended to the proponent (VGA Investments Inc.) and their consultants (Haddad Morgan & Associates Ltd) that they design the subdivision such that the perimeter hedgerows can be retained. Please see Attachment A which shows the proposed site development layout prepared by Haddad Morgan. The perimeter hedgerows will be retained and the shrub thicket to the south of the site will not be touched.

Can you please review the proposed development layout and confirm that it is satisfactory with regard to Species at Risk?

Please let me know if you have any questions or need more information.

Best regards,

Anthony G. Goodban, B.Sc., M.E.S.(Pl.), MCIP, RPP
Consulting Ecologist and Natural Heritage Planner

GOODBAN ECOLOGICAL CONSULTING INC. (GEC)
879 Cabot Trail, Milton, ON L9T 3W4
Office: (905) 693-9064
Mobile: (905) 691-0774

From: ESA-Aylmer (MNRF) [mailto:ESA.Aylmer@ontario.ca]
Sent: June 14, 2017 12:05 PM
To: Anthony Goodban
Cc: MNRF Ayl Planners (MNRF)
Subject: RE: MNRF SAR Stage 1 Screening Request - Florence & Wyandotte Subdivision, City of Windsor

Hello Anthony,

MNRF Aylmer District has completed a species at risk (SAR) information request screening for the proposed residential subdivision at Wyandotte St E & Florence Ave in the City of Windsor, Essex County.

The Species at Risk in Ontario (SARO) List is Ontario Regulation 230/08 issued under the *Endangered Species Act*, *2007* (ESA 2007). The ESA 2007 came into force on June 30, 2008, and provides both species protection (section 9) and habitat protection (section 10) to species listed as endangered or threatened on the SARO List. The current SARO List can be found on e-laws (http://www.e-laws.gov.on.ca/navigation?file=home&lang=en).

There are no known occurrences of SAR on the property, though there are known occurrences of SAR in the general project area with potential to also occur in the hedgerows and thicket on the property, including:

- Eastern Foxsnake – Carolinian population (END, with species and regulated habitat protection)
- Butler's Gartersnake (END, with species and general habitat protection)
- Bald Eagle (Special Concern)
- Climbing Prairie Rose (Special Concern)

Please note that this is an initial screening for SAR and the absence of an element occurrence does not indicate the absence of species. The province has not been surveyed comprehensively for the presence or absence of SAR, and MNRF data relies on observers to report sightings of SAR.

If the hedgerows and thicket are proposed to be retained, the project will likely not contravene the ESA 2007. If these features are proposed to be altered, field assessments by a qualified professional are recommended for the SAR species and habitat listed above.

It is important to note that changes may occur in both species and habitat protection which could affect whether proposed projects may have adverse effects on SAR. The Committee on the Status of Species at Risk in Ontario (COSSARO) meets regularly to evaluate new species for listing and/or re-evaluate species already on the SARO List. As a result, species designations may change, which could in turn change the level of protection they receive under the ESA 2007. Also, habitat protection provisions for a species may change if a species-specific habitat regulation comes into effect.

Thank you,

Catherine Jong
Management Biologist
MNRF Aylmer District
615 John Street North
Aylmer, ON N5H 2S8
(T) 519-773-4736
(F) 519-773-9014

From: Anthony Goodban [mailto:anthony.goodban@sympatico.ca]
Sent: April-12-17 2:37 PM
To: ESA Screening Request Aylmer District (MNRF)
Subject: MNRF SAR Stage 1 Screening Request - Florence & Wyandotte Subdivision, City of Windsor

Introduction

Goodban Ecological Consulting Inc. (GEC) was retained by Mr. Gang Chen and Mr. Shan Xue to prepare a Stage 1 (Information Request) Species at Risk Screening for a proposed Florence & Wyandotte Subdivision in the City of Windsor.

To assist in your review, the following materials are attached:

- Figure 1 - Local Landscape - MNRF Air Photo (Scale 1:9028).
- Figure 2 - Neighbourhood Air Photo - ERCA imagery (Scale 1:1500) with property boundaries shown.
- Figure 3 - Neighbourhood Air Photo - ERCA imagery (Scale 1:1500) with photo locations shown.
- Figure 4 - Preliminary Draft Plan (RC Spencer & Associates).
- Appendix A - Photo Album (Note: photo locations are shown on Figure 3)

A site visit was completed by GEC on March 23, 2017, in order to generally characterize the subject lands and search for Species at Risk that may be detected at that time of year.

Proponent Information

- Mr. Gang Chen, 434 Hamner Circle, Windsor, ON N9E 4P8

Project Understanding

Our understanding of the proposed development is that the site will be developed as a residential subdivision (see Figure 4, Preliminary Draft Plan). Drainage from the proposed subdivision will be tied into the local stormwater management infrastructure already in place for the surrounding developments.

Site Description

Non-native introduced species listed below are denoted with a "+" sign.

The site covers 2.98 ha on the south side of Wyandotte Street East, just south of the present terminus of Florence Avenue, in the Tecumseh area of the City of Windsor. The site is located within an urbanizing neighbourhood, with new residential subdivisions in the local area and new stormwater management ponds situated south and west of the subject property. To the east of the property there are existing lots that are used for gardening purposes, and houses fronting onto Elinor Street.

The site itself mainly comprises active agricultural fields, which were planted in soybeans in 2016 (see Appendix A for site photographs). A yard area with various structures existed until recently at the north end of the property, closer to Wyandotte St E. All structures have been removed and the area has been cleaned up (see Appendix A: Photo 1). The grassed areas are mown periodically (see Appendix A: Photos 1, 7 and 8). Hedgerows occur along the west and south property boundaries (see Appendix A: Photos 2 and 4), with associated shallow ditches (see Appendix A: Photo 3). The main trees are Eastern Cottonwood (*Populus deltoides*), Manitoba Maple (*Acer negundo*) and Green Ash (*Fraxinus pennsylvanica*). The main shrubs are Gray Dogwood (*Cornus foemina* ssp. *racemosa*) and Common Buckthorn (*Rhamnus cathartica* +).

In summary, the site is currently in agricultural use (soybeans in 2016) and it is largely free of natural features, except for hedgerows dominated by scattered Eastern Cottonwood and thickets of Gray Dogwood and Common Buckthorn (+).

No plant or wildlife species at risk were observed during the March 23, 2017 field visit. The site was searched assiduously for plant species at risk such as Butternut and Eastern Flowering Dogwood, and none were observed.

We look forward to MNRF's response to our Stage 1 (Information Request) Species at Risk Screening. Please let me know if you have any questions or require further information.

Anthony

Anthony G. Goodban, B.Sc., M.E.S.(Pl.), MCIP, RPP
Consulting Ecologist and Natural Heritage Planner

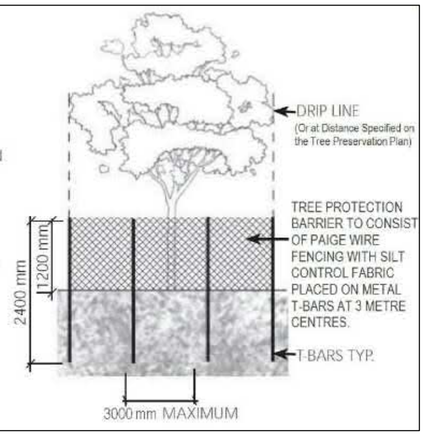
GOODBAN ECOLOGICAL CONSULTING INC. (GEC)
879 Cabot Trail, Milton, ON L9T 3W4
Office: (905) 693-9064
Mobile: (905) 691-0774

[This page left blank intentionally.]

NOTES:

1. THIS DETAIL DOES NOT REPRESENT ANY PARTICULAR TREE SPECIES

2. NO CONSTRUCTION ACTIVITY, GRADE CHANGE, SURFACE TREATMENT, COMPACTION, EXCAVATION OR STOCKPILING OF ANY KIND IS PERMITTED WITHIN THE PROTECTED AREA.



Tree Protection Plan Notes

TREE PROTECTION PLAN NOTES

Prior to site disturbance, the owner must confirm that no migratory birds are making use of the site for nesting. The owner must ensure that the works are in conformance with the Migratory Bird Convention Act and that no migratory bird nests will be impacted by the proposed work. It is the applicants' responsibility to discuss potential tree injury of trees on shared property lines with their neighbours. Should such trees be injured to the point of instability or death the applicant may be held responsible for removal and such issues would be dealt with in civil court or through negotiation.

TREE PROTECTION ZONE: No construction activity including grade changes, surface treatments or excavations of any kind is permitted within the area identified on the Tree Protection Plan or Site Plan as a Tree Protection Zone (TPZ). No root cutting is permitted. No storage of materials or fill is permitted within the TPZ. No movement or storage of vehicles or equipment is permitted within the TPZ. Grade changes are not permitted within established TPZ. The area(s) identified as a TPZ must remain undisturbed at all times. Prior to on-site disturbance a Verification of Tree Protection Letter must be prepared by a Certified Arborist and circulated to the City.

TREE PROTECTION BARRIERS:

Tree protection barriers must be installed around trees to be protected using plywood hoarding or paige wire fence. All supports and bracing to safely secure the barrier should be outside the TPZ. All such supports and bracing should minimize damage to roots outside the TPZ.

General Note:

Prior to the commencement of any site activity the tree protection barriers specified on this plan must be installed. Established tree protection zones must not be used as construction access, storage or staging areas. The tree protection barriers must remain in effective condition until all site activities including landscaping are complete. Permission from the City/Town must be provided prior to the removal of tree protection fence.

ARBORICULTURAL WORK:

Any roots or branches which extend beyond the TPZ indicated on this plan which require pruning, must be pruned by a Certified Arborist. All pruning of tree roots and branches must be in accordance with good arboricultural standards. Roots located outside the TPZ that have received approval from the City/Town to be pruned must first be exposed by hand digging or by using an air spade. This will allow a proper pruning cut and minimize tearing of the roots.

LEGEND

- 66 — Tree Number Identified for Preservation (GREEN)
- 81 — Tree Number Identified for Removal (RED)
- TPZ — Tree Preservation Zone Symbol
- Dripline
- Tree Protection Fence Location

Tree Inventory

Refer to Table 1 of Report dated 25 May 2018 for the complete tree inventory. All trees 15 cm in diameter and larger situated on subject property and on neighbouring property within 6 m were included in the tree inventory.

Tree Removal

The removal of Trees 5-7, 9, 13-21, 27, 29, 30, 44-49 and 81-99 will be required to accommodate the proposed development. These trees will conflict directly with home construction and local road construction.

Trees 67 and 76 do not conflict with the proposed development, however, are exhibiting major defects and must be removed to mitigate the risk they pose to any occupants of the proposed development.

Trees 5, 7, 9, 16, 17, 20, 21, 29 and 30 appear to be situated fully or partially on neighbouring property. Permission from the respective property owner is required prior to the removal of any trees situated fully or partially on neighbouring property.

Tree Preservation

The preservation of Trees 1-4, 8, 10-12, 22-26, 28, 31-43, 50-66, 68-75, 77-80 and 100-114 will be possible with appropriate tree protection measures, pending a review of detailed grading plans. Tree protection measures will have to be implemented prior to the commencement of earthworks/grading to ensure that no trees identified for preservation are impacted by the proposed development.

Tree protection fence must be installed at the dripline for trees identified for preservation. Refer to Figure 1 for the location of required tree protection fence, the tree protection fence detail and for further tree protection plan notes.

No.	Description	Date	By
1	Report Submission	25 May 2018	JJ

Data Source:

Florence and Wyandotte Subdivision
Wyandotte Street East,
Windsor, ON

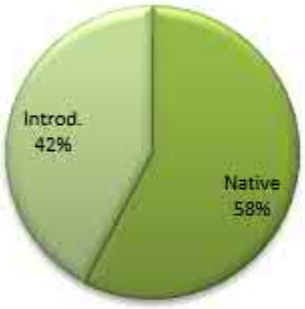
Goodban Ecological Consulting Inc.
879 Cabot Trail
Milton, ON L9T 3W4

Tree Inventory and Preservation Plan

JACKSON ARBORICULTURE INC.
5290 Windermere Drive
Burlington ON L7L 3M1
905-512-6303
jeremy.trees@cogeco.ca

Project #	P129
Date	25 May 2018
Scale	1:750
Figure #	1

Appendix F
Floristics Data



Mean Coefficient of Conservatism

Native Spp.	All Spp.	Scale	
		10.00	
		9.50	
		9.00	
		8.50	
		8.00	
		7.50	
		7.00	
		6.50	
		6.00	
		5.50	>4.5 remnant has natural area potential
		5.00	(relatively intact natural area with high
		4.50	floristic quality)
		4.00	>3.5 Sufficient floristic quality to be of
		3.50	remnant natural quality
3.47		3.00	
		2.50	
	2.00	2.00	
		1.50	
		1.00	
		0.50	
		0.00	

Floristic Quality Index (FQI)

Native Spp.	All Spp.	Scale	
		100.00	
		95.00	
		90.00	
		85.00	
		80.00	
		75.00	
		70.00	
		65.00	
		60.00	>50 Extremely rare and represent a
		55.00	significant component of Ontario's native
		50.00	biodiversity and natural landscapes
		45.00	>35 Possess sufficient conservatism and
		40.00	richness to be floristically important from
		35.00	a Provincial perspective
		30.00	
		25.00	
		20.00	<20 Minimal significance from a natural
15.14		15.00	quality perspective
	11.49	10.00	
		5.00	
		0.00	

Mean Coefficient of Wetness

Native Species	All Species	Scale	
		5.0	***Strong***
		4.5	
		4.0	
		3.5	
		3.0	Pedominance of upland species
		2.5	
		2.0	
		1.5	
	1.21	1.0	
		0.5	*Slight*
0.26		0.0	
		-0.5	*Slight*
		-1.0	
		-1.5	
		-2.0	
		-2.5	Predominance of wetland species
		-3.0	
		-3.5	
		-4.0	
		-4.5	
		-5.0	***Strong***