Tree Conservation Report

In support of Site Plan Control Application for:

Fastfrate Ottawa Warehouse Facility

301 Sommes Street, Ottawa, Ontario

Date of Report: August 13, 2021

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Fastfrate Ottawa Warehouse Facility - Tree Conservation Report

1.0 Introduction

The City of Ottawa requires the preparation of a Tree Conservation Plan when considering the Site Plan Control for the Fastrate Ottawa Warehouse Facility located at 301 Sommes Street in the Hawthorne Industrial Park, Ottawa, Ontario. The legal description is **Block 5 Registered Plan 4M-1388 City of Ottawa**. The site is found in land use zone - RH.

The purpose of the Application is to build a warehouse and distribution centre, including a warehouse and crossdock facility and offices to support the warehouse, the crossdock facility, and e-commerce operations.

2.0 Development Site

The Fastfrate Ottawa Warehouse site is bounded by Sommes Street to the west and south, Rideau Road to the north, and a development lot to the east. The total site area is 40,665.3 m2 (4.067 hectares). The total building area of the new facility is 8,641.4m2.

New site features include two private approaches, truck loading and circulation areas, temporary trailer parking, general vehicle parking and driveway, and main entrance pedestrian area. The rear of the building is defined by hard pavement and the front of the building is defined by a treed landscape composed of a grassed septic field, fire pond, stormwater swales and detention area.

The site is undeveloped and was subject to filling and levelling by the previous owner. There is a steep roadside ditch along Sommes Street. The northern section drains to the swale along the south side of Rideau Road and the balance of the ditch drains to the east towards an existing subdivision storm water pond.

The north side of the site is elevated approximately 4-5 metres above Rideau Road. This elevation change is defined by a vegetated slope. These are the only trees on site. At the base of the slope is a roadside swale that flows to the northeast. The swale functions as a watercourse. A 15-metre setback from the bottom of the swale (BOS) is required to protect the watercourse. For the environmental context and understanding, refer to the Owner/Consultant Planning Brief and the Scoped Environmental Impact Study (EIS) prepared by GHD included in this site plan control application package.

This Tree Conservation Report is being prepared as a requirement for Site Plan Control Application. The site is located outside the urban and suburban area subject to the City of Ottawa Tree Protection By-Law Schedule F and shows proximity only to the protected area in the specific development area described in Schedule M. As such, the site is not subject to tree protection under

the by-law. The approach to tree conservation and new planting gives regard to the Scope EIS recommendations and the objectives and principles of Ottawa's Urban Forest Management Plan and Ottawa's tree canopy cover goals and tree policies.

3.0 Current Vegetation

The property survey was prepared by Annis, O'Sullivan, Vollebekk ltd. Existing trees on the north slope were not surveyed. The Landscape Architects from Civitas Architecture Inc undertook a site visit in late Fall 2020 and in early Spring 2021 to locate, identify, and record the tree species, size (dbh), and condition of each existing tree.

The existing trees occur in two zones. The generally level "roadside", adjacent to the roadside swale, is comprised of grasses, scrub vegetation, and occasional trees. The slope that rises to where filling previously occurred is generally forested. The slope extends approximately 10 metres into the building setback for most of its length. At the northeast extent, the slope steps back from the roadway and extends approximately 30 metres into the building setback.

View looking northeast along Rideau Rd

View looking north across the development site

Sample of forest character ranging from closed to open

The detailed inventory describes a mixed deciduous forest comprised predominantly by Willow, Basswood, Ash, and Poplar. Of the 258 trees over 10 cm DBH that were inventoried, 157 trees (60% of the total) were identified as these fast-growing tree species. Less common were the White Birch, Elm, American hornbeam, and Manitoba maple, totalling 35 trees (14%), and Spruce and Eastern White Cedar, totalling 12 trees (5%). One or two representatives each were identified as Sugar maple, Red maple, Yellow birch, Honeylocust, Hawthorn, Beech, and Speckled alder. A total of 44 trees were difficult to identify and expected to represent the observed mixed forest composition. No butternut was identified.

The mixed forest is in various states of maturation and decline. A total of **164 trees** over 10 cm DBH (64% of the total) were identified as being in good condition. The rest of the forest trees were in fair, poor, or dead and dying condition.

Refer to **Map #1** - **Current Vegetation** for the layout and description of the trees described above.

4.0 Proposed Development and New Tree Planting

4.1 Tree Removal and Reforestation Planting

The north slope within the building setback is planned for re-grading to accommodate building construction and vehicular circulation. A new soil reinforced retaining wall has been designed along the edge of the building setback to allow for the new transition between the upper development area and the roadside landscape below. Refer to the Civil engineering plans for details on the proposed retaining wall and soil and erosion control measures for constructing adjacent to the roadside swale.

Tree removal is proposed in the following zones:

- Within the building setback to accommodate the level parking area.
- Between the watercourse setback (15 m from BOS) and the building setback to construct and accommodate the proposed soil reinforced retaining wall.

An estimated 70% of the existing vegetation will be removed. The limit of construction will regard the 15 m watercourse setback. Tree protection fencing will be installed prior to construction mobilization to protect trees to be conserved.

The soil reinforced retaining wall system will be constructed at a general incline of 60 degrees from horizontal. The new escarpment and base of the escarpment will be replanted and allowed to naturalize to achieve a landscape that will integrate with the forested landscape along Rideau Road.

The area for replanting is approximately 220 metres long running the length of the northern boundary and approximately 8.5 metres wide between the watercourse setback and the building setback. The total area for replanting is 1,870 m2.

Planting strategy: a mix of 40mm caliper trees and potted seedlings. Smaller root balls will have greater success on the sloped conditions.

Plant sizes and quantities:

- 22 – 40mm caliper trees, which will be staked at time of planting to achieve random/natural arrangement; approximate spacing to be 1 tree for every 10 metre of frontage. Caliper trees to be a mix of trees species.
- 205 seedlings, places approximately 3.0 c.c., giving regard to adequate growing space around each of the caliper trees.

Plant species composition: the new tree composition will be consistent with the species mix in the current vegetation inventory.

- 5% coniferous: Spruce species and Eastern White Cedar.
- 20% fast growing deciduous species: Basswood, Poplar and Willow (closer to the watercourse).
- 75% other deciduous species, primarily native: White birch, Yellow birch, American hornbeam, Sugar maple, Red Maple, Hawthorn, Beech and Speckled alder (closer to the watercourse).

Map #2 – **Proposed Development and Conserved Vegetation** includes the reforestation plant list. The final planting layout and mix of tree species for the caliper trees and the tree seedlings will be provided at time of tender when species availability can be verified. The detail sheet accompanying Map #2 provides planting details for caliper trees and seedling planted on slopes.

Specific **environmental concerns** to be included in the Contractor's specifications include:

- Area to be revegetated to be under 1-year warranty; at the end of warranty, the area to be left unmaintained by the Owner.
- Vegetation clearing shall occur outside of the breeding bird timing window of April 15th – August 15th.
- Tree clearing to occur outside of the active bat roosting timing window of May – August 31st.

4.2 Development Site Planting

Map #2 provides the planting plan – layout and species proposed for the building site. The total of 50 new caliper trees are proposed for the building site, 33 deciduous trees and 17 coniferous trees. The planting design also includes shrub planting along the front of the building.

The planting strategy is as follows:

- Tree species to be primarily native tree species.
- Mix of large-growing deciduous, small-growing deciduous and coniferous trees along the western edge of the property within the building setback; outside the setback is a step slope and ditch which is unsuited to planting.
- Mix of coniferous trees in the front open space to provide a year-round three-dimensional landscape to the ground plane which dominated by the septic field and detention/fire pond.
- Row of poplars along the eastern property to frame the main truck entrance and wind screen.

- Mix of small trees and shrubs beds along the front of the building, by the front entrance, and along the sidewalks for visual interest

4.3 Offsetting Vegetation Loss and New Planting

Along the northern boundary of the site are 258 trees, of which **164 trees are in good condition**. The remaining trees are in poor condition or dead and dying. An estimated 70% of trees will be removed for new development, or approximately 115 of the trees in good condition.

New tree planting is proposed as follows:
- 50 trees on the development site.
- 22 caliper trees on the new escarpment
- 205 tree seedlings on the escarpment
- Total: 277 trees.

Survival rate of the trees planted on the slope, given no maintenance will provides is estimated to range from 50% to 75%.
- Total based on 75% survival rate of trees on the escarpment: 219 trees.
- Total based on 50% survival rate of trees on the escarpment: 164 trees.

The new plantings on the escarpment and on the site will offset the tree removals and any decline of the trees to be conserved in the watercourse setback that occurs naturally and/or related to new construction activities.

Attachments:

Map #1: Current Vegetation

Map #2: Proposed Development and Conserved Vegetation

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