Preliminary Canopy Cover Plan Sixth Line & Burnhamthorpe Road West Oakville, Ontario

prepared for

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prepared by



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KUNTZ FORESTRY CONSULTING INC Project P2633

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1.0 Introduction

Kuntz Forestry Consulting Inc. was retained by Star Oak Developments Limited to complete a Preliminary Canopy Cover Plan in support of a development application for the property located southwest of the Sixth Line and Burnhamthorpe Road West intersection in Oakville, ON. The subject property is located within an agricultural and residential area and contains two components of the Natural Heritage System.

The work plan for the canopy cover plan included the following:

- Assess the size / extent of the existing tree canopy to be retained (based on dripline) on the subject property;
- Assess the proposed canopy cover on the subject property;*
- Calculate the soil volume of each landscape area where proposed trees are located;*
- Calculate the existing and proposed canopy on the subject property based on the guidelines outlined by the Town of Oakville's Development Application Guidelines: Canopy Cover Plan and Canopy Calculation Chart (2016);*
- Document the findings in a Canopy Cover Plan Report.

2.0 Methodology

Existing Canopy Cover

The Tree Inventory and Preservation Plan prepared by Kuntz Forestry Consulting Inc. (22 December 2020, revised 08 January 2021) was utilized to assess the existing canopy to be retained on the subject property. Field assessments for the tree inventory were conducted on 17 December 2020 and 21 December 2020. Trees measuring over 15cm DBH on and within six metres of the proposed development (excluding trees within the Natural Heritage Systems) and trees of all sizes on the road right-of-way were identified in the tree inventory. The driplines of individual tree resources included in the inventory were assessed during the field work. This information was used to calculate the extent of the existing canopy cover to be retained.

Trees within the Natural Heritage System (Block 93) were not assessed in the Tree Inventory and Preservation Plan (Kuntz Forestry Consulting Inc., 22 December 2020, revised 08 January 2021), as this feature was greater than six metres from the proposed development and would therefore be sufficiently protected from the proposed development's impacts. As such, the dripline of the existing Natural Heritage System was based on the surveyed dripline prepared by Rady-Pentek & Edward Surveying Ltd. (01 May 2007).

The existing canopy cover was calculated based on the guidelines depicted in the Development Application Guidelines: Canopy Cover Plan and Canopy Calculation Chart prepared by the Town of Oakville (2016). These guidelines state that the canopy cover of existing retained trees on the subject site is calculated at 1.5 times the current canopy cover, while overhanging canopy cover is calculated at 1 time the canopy cover (Town of Oakville, 2016).

^{*} Landscape Plans for the Town of Oakville rights-of-way, the stormwater management pond, and the channel have not been finalized for the subject property. As such, the proposed trees illustrated on the Preliminary Canopy Cover Plan are based on similarly developed residential streetscapes and development blocks throughout North Oakville.

Proposed Canopy Cover

As previously stated, Landscape Plans for the Town of Oakville rights-of-way, the stormwater management pond, and the channel have not been finalized for the subject property. As such, the proposed trees illustrated on the Preliminary Canopy Cover Plan are based on similarly developed residential streetscapes and development blocks throughout North Oakville. Large stature trees were placed along the subdivision's main streets, while medium stature trees were placed along the subdivision's side streets. Small and medium stature trees were placed along the frontages of townhome blocks. For detached dwellings, trees were spaced to approximately one tree per lot. Along townhome frontages, small stature trees interspersed with medium stature trees were spaced approximately 8 – 10 metres from one another. The Preliminary Canopy Cover Plan assumes that all proposed trees will have a soil volume of at least 30.0m³ of quality topsoil, as per the requirement set out by the Town of Oakville's Development Application Plan: Canopy Cover Plan and Canopy Calculation Chart (2016). The calculations and illustrations for the Preliminary Canopy Cover Plan will be adjusted once the Landscape Plans have been confirmed and approved by the Town of Oakville.

3.0 Background

Canopy Cover Targets

The Town of Oakville has long-term goal of achieving a 40% urban forest canopy cover through preserving, planting, and high-level planning. Targets for canopy cover in Oakville have been prescribed in the North Oakville Urban Forest Strategic Management Plan and vary by land use type (Town of Oakville, Natural Resource Solutions Inc. & Dillion Consulting Ltd., 14 September 2012). Standards applicable to the land uses on the subject property can be seen below:

Land Use	Standard Canopy Cover
Residential	20%
Natural Heritage System (Including the Channel)	90%
Stormwater Management	15%

Existing Site Conditions

The subject area is currently occupied by agricultural land and a woodlot located in the northeast section of the property. The properties located at 14, 30, 38, and 62 Burnhamthorpe Road West are not part of the subject area. Tree resources exist in the form of landscape trees, woodland trees, and natural regeneration. Refer to Figure 1 for the existing site conditions.

4.0 Results

The canopy cover calculations indicate that the existing trees within the Natural Heritage System (including the proposed channel) have a canopy cover of 100%, which is greater than the 90% canopy cover target designated for this land use. Within the residential area, the canopy cover represents 20% of the total area, which meets the canopy cover target set for this land use. Refer to Table 1 for details of the canopy cover plan calculations.

It is anticipated that the canopy cover requirement of 15% for the Stormwater Management area will be minimally met once the Landscaping Plans for this area have been finalized.

5.0 Summary

Kuntz Forestry Consulting was retained by Star Oak Developments Limited to complete a Preliminary Canopy Cover Plan in support of a development application for the property located southwest of the Sixth Line and Burnhamthorpe Road West intersection in Oakville, ON. The preliminary canopy cover calculations indicate that the canopy cover targets for each land use on the subject property (Natural Heritage System, Residential, and Stormwater Management) will be met through the retention of existing trees and the proposed planting of new trees. The canopy cover plan is subject to change as the Landscape Plans for the Town of Oakville rights-of-way, the stormwater management pond, and the channel are finalized for the subject property.

Respectfully Submitted,

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6.0 References

Kuntz Forestry Consulting Inc., 22 December 2020, revised 08 January 2021. Tree Inventory and Preservation Plan: Sixth Line and Burnhamthorpe Road West, Oakville, ON.

Rady-Pentek & Edward Surveying Ltd., 01 May 2007. Topographic Plan of Part of Lot 16, Concession 1 North of Dundas Street, Town of Oakville.

Town of Oakville, 2016. Development Application Guidelines: Canopy Cover Plan and Canopy Calculation Chart.

Town of Oakville, Natural Resource Solutions Inc. & Dillon Consulting Ltd., 14 September 2012. North Oakville Urban Forest Strategic Management Plan.

Table 1. Canopy Cover Chart

Canopy Calculation Chart

Subject Property: Sixth Line & Burnhamthorpe Road West

Proposed Canopy On Site

Quantity	Stature (S, M, L)	Soil Volume per Tree (m³)	Canopy Area (m²)
64	Small	30	448
127	Medium	30	9,970
48	Large	30	7,168
Subtotal of Proposed Canopy			17,586

Existing Canopy On Site

Tree #	Stature (S, M, L)	Canopy Area (m²)
NHS (Including Channel) (Including Trees 160, 161, 163 - 165, 168 - 170, 176 - 178)	Small, Medium, and Large	109,671
Tree 139	Medium	113
Subtotal of Existing Canopy		109,784
Multiplied by a Bonus Factor of 1.5		164,676

Overhanging Canopy On Site

Tree #	Stature (S, M, L)	Canopy Area (m ²)
Tree N21	Small	13
Tree N22	Small	8
Tree N23	Medium	18
Tree N24	Small	0
Tree N25	Small	2
Tree N26	Medium	10
Tree N27	Small	0
Subtotal of Existing Overhangin	g Canopy	51

Canopy Summary

Total NHS Area (Including Channel) (m ²)	~127,400
NHS Canopy Cover (m ²)	164,727
NHS Canopy Cover (%)	100
Canopy Cover Target by Land Use (%)	90

Total Residential Area (m²)	~90,000
Residential Canopy Cover (m ²)	17,586
Residential Canopy Cover (%)	20
Canopy Cover Target by Land Use (%)	20

Total Stormwater Management Area (m²)	~16,000
Stormwater Management Canopy Cover (m ²)	TBD
Stormwater Management Canopy Cover (%)	TBD
Canopy Cover Target by Land Use (%)	15

