

SCHEDULE 13 – Tree Removal in Municipal Road Allowances

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To: Peter Bright  
Waterloo, ON

From: Tim McCormick  
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File: 133560104

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**Reference: Amherst Island Wind Project 75MW Wind Farm, ROW Tree Removal Assessment, Amherst Island, Ontario**

## 1.0 Introduction

Stantec Consulting Ltd. has been retained by Pennecon Heavy Civil Limited to complete a Right of Way (ROW) Tree Removal Assessment for the Amherst Island Wind Project, 75MW Wind Farm. This Tree Removal Assessment includes a review of trees located adjacent to the collector circuit that will be installed within the gravel shoulder adjacent to the road. The collector circuits will be distributed throughout the island on sections of the following public roads: 2<sup>nd</sup> Concession Road, Stella 40 Foot Road, South Shore Road, Front Road, Dump Road and Lower 40 Foot Road. Trees were reviewed along the section of these public roads where the collector circuit will be located.

## 2.0 Methodology

The Project Arborist from Stantec, Ms. Jennifer Koskinen, HBESfcon, ISA, completed a site visit on September 28<sup>th</sup>, 2016, with the Project Electrical Technologist, Mr. Andrew Rees. The purpose of the visit was to review the circuit alignment along the road and to assess proposed impact to the trees located adjacent to the roads. The tree review included collecting general tree data through observation from the road. Tree data includes species identification, diameter class, condition, tree location in relation to the road, and impact on the tree if the alignment was located on the adjacent gravel shoulder. Additional trees have been identified by Algonquin Power as requiring removal. These trees have not been reviewed by Stantec or impacts verified in the field. Tree impacts have been reviewed based on the current collector circuit location and access roads construction limits.

## 3.0 Observations

Species distribution along all of the roads included in the study were similar. The tree species predominantly included Red Maple (*Acer rubrum*), Green Ash (*Fraxinus pennsylvanica*), Basswood (*Tilia americana*), and Elm sp. (*Ulmus sp.*). There were no rare or endangered species observed. Trees were located anywhere from 2 meters to 5 meters off of the edge of the road with the average distance being 3 meters. The majority of trees were in good condition, with sporadic dead standing trees. Tree species and tree data collected have been included in the attached Table 1 - General Tree Removal Inventory. Additional trees have been identified by Algonquin Power as requiring removal. These trees have not been reviewed by Stantec or impacts verified in the field. Tree impacts have been reviewed based on the current collector circuit location and access roads construction limits.

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#### **4.0 Assessment**

The collector circuit will be located adjacent to the existing road edge within the gravel shoulder for all the roads except for South Shore Road. South Shore Road will predominantly have the collector circuit located within the road, with some areas located adjacent to the road edge. The excavation required to install the collector circuit will be no more than 1 meter wide. This width was used to determine the impact construction and the required removal of trees

The trees identified for removal have been assessed based on the impacts reviewed in the field. Table 1 includes a detailed list of the trees recommended for removal.

#### **STANTEC CONSULTING LTD.**



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Attachment: Table 1. General Tree Removal Inventory

c. Jennifer Koskinen, Stantec

**TABLE 1. General Tree Inventory, Amherst Island Wind Farm, Ontario**  
Data collected : September 28th, 2016.

Approximate # of trees	Botanical Name	Common Name	DBH (cm)/Diameter Class	Condition	Comments	Tree Location	Impact Assessment	GPS Coordinates for Removals
<b>Stella 40 Foot Road</b>								
1	<i>Fraxinus pennsylvanica</i>	Green Ash	40 to 50	Good		Public	Remove - 1	X: 365437.3456 Y: 4889763.7111
<b>South Shore Road</b>								
1	<i>Quercus sp.</i>	Oak sp.	90	-		South Shore	Remove - 3	X: 367049.1 Y: 4889984.6
1	<i>Quercus sp.</i>	Oak sp.	60	-		South Shore	Remove - 3	X: 367052.3 Y: 4889999.8
3	<i>Alnus sp.</i>	Alder sp.	10	-		South Shore	Remove - 3	X: 368721.3 Y: 4891591.0
1	<i>Tilia americana</i>	Basswood	40	-		South Shore	Remove - 3	X: 369580.5 Y: 4892111.5
1	<i>Acer sp.</i>	Maple sp.	20	-		South Shore	Remove - 3	X: 369672.5 Y: 4892175.9
<b>2nd Concession Road</b>								
1	<i>To be determined</i>	<i>To be determined</i>	90	-		Concession 2	Remove - 3	X: 362360.0 Y: 4890196.2
Multiple	<i>To be determined</i>	<i>To be determined</i>	-	-		Concession 2	Remove - 3	Area of X: 361408 Area of Y: 4889716
<b>Dump Road</b>								
1	<i>To be determined</i>	<i>To be determined</i>	35	-		Dump Road	Remove - 3	X: 362813.5 Y: 4890507.0
1	<i>To be determined</i>	<i>To be determined</i>	50	-		Dump Road	Remove - 3	X: 362807.1 Y: 4890519.5
1	<i>To be determined</i>	<i>To be determined</i>	65	-		Dump Road	Remove - 3	X: 362793.6 Y: 4890542.0
1	<i>To be determined</i>	<i>To be determined</i>	75	-		Dump Road	Remove - 3	X: 362789.5 Y: 4890546.6
1	<i>To be determined</i>	<i>To be determined</i>	120	-		Dump Road	Remove - 3	X: 362776.8 Y: 4890567.4
1	<i>To be determined</i>	<i>To be determined</i>	70	-		Dump Road	Remove - 3	X: 362756.6 Y: 4890598.9
1	<i>To be determined</i>	<i>To be determined</i>	30	-		Dump Road	Remove - 3	X: 362755.7 Y: 4890611.6
1	<i>To be determined</i>	<i>To be determined</i>	65	-		Dump Road	Remove - 3	X: 362743.4 Y: 4890621.7
1	<i>To be determined</i>	<i>To be determined</i>	50	-		Dump Road	Remove - 3	X: 362742.4 Y: 4890625.3
1	<i>To be determined</i>	<i>To be determined</i>	60	-		Dump Road	Remove - 3	X: 362737.5 Y: 4890634.6
1	<i>To be determined</i>	<i>To be determined</i>	30	-		Dump Road	Remove - 3	X: 362719.8 Y: 4890672.6
1	<i>To be determined</i>	<i>To be determined</i>	35	-		Dump Road	Remove - 3	X: 362697.3 Y: 4890703.0
1	<i>To be determined</i>	<i>To be determined</i>	50	-		Dump Road	Remove - 3	X: 362696.3 Y: 4890711.4
1	<i>To be determined</i>	<i>To be determined</i>	45	-		Dump Road	Remove - 3	X: 362532.2 Y: 4890963.2

Trees to Be Removed Which Are Over 15cm DBH

1 Trees to be Removed for Electrical Line

2 Trees to be Removed for Turbine Delivery

3 Trees to be Removed for Access Road Construction