Tree Conservation Report for 885 Decoeur Drive, Ottawa

Final Report

November 4, 2021

KILGOUR & ASSOCIATES LTD.
www.kilgourassociates.com

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List of Acronyms and Abbreviations

CRZ – Critical root zone
DBH – Diameter at breast height
ESA – *Endangered Species Act*
KAL – Kilgour & Associates Ltd.
SAR – Species at risk
SARA – *Species at Risk Act*
TCR – Tree Conservation Report

1.0 INTRODUCTION

Kilgour & Associates Ltd. (KAL) was retained by Mattamy Homes Canada ("Mattamy") to provide a Tree Conservation Report (TCR) in support of their application for a proposed residential development at 885 Decoeur Drive, south of Brian Coburn Drive and west of Tenth Line Road in the east end of Ottawa, Ontario ("the Site"; Figure 1). The purpose of a TCR is to demonstrate how tree cover will be retained on sites subject to development using a "design with nature approach" to planning and engineering. A design with nature approach incorporates natural features of a site into the design and engineering of a proposed development. This TCR has been prepared following guidelines set forth by the City of Ottawa (2020). This report identifies and describes trees on the Site prior to its proposed development, providing an overview of trees that would likely be removed under current concept plans. Tree cut permit applications for the Site will be prepared once detailed design plans for the Site Plan Control application confirm required tree removals. A TCR is required for all Plans of Subdivision, Site Plan Control Applications, Common Elements Condominium Applications, and Vacant Land Condominium Applications where there is a tree of 10 cm in diameter at breast height (DBH) or greater on a site and/or if there is a tree on an adjacent site that has a critical root zone (CRZ) extending onto a development site. A "tree" is defined as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 450 cm at physiological maturity. The CRZ is calculated as DBH x 10 cm.

The removal of trees on the Site cannot occur until the City of Ottawa (the City) has approved the TCR and has issued a tree permit per the Tree Protection By-law. The tree permit from the General Manager[1] will include conditions specific to the Site, tree retention, and associated tree protection and tree removal. The approved TCR is a requirement for the approval of the development applications listed above. A copy of the report must be available on the Site during tree removal, grading, construction, or any other site alteration activities, and for the duration of construction on the Site.

2.0 PROPERTY INFORMATION

The Site is owned by Mattamy (contact person: Olivia Hughes) and is planned for redevelopment as a residential community (Figure 1). The Site is located on undeveloped lands west of Tenth Line Road, between Brian Coburn Boulevard and Decoeur Drive. The Site is approximately 3.65 hectares (ha) and is zoned as General Mixed Use (GM).

[1] General Manager of the Public Works & Environmental Services Department or the General Manager of the Planning, Infrastructure and Economic Development Department of the City of Ottawa, or their designate.

Figure 1 Map showing location context and existing conditions of the Site

The Site is bordered by:

- Brian Coburn Boulevard and residential neighbourhoods to the north
- Tenth Line Road and residential neighbourhoods to the east
- Decoeur Drive, residential neighbourhoods, and greenspace to the south
- Residential neighbourhoods and a school to the west

2.1 Property Owner and Applicant Contact Information

Table 1 Organization, role, contact person, phone number, and email address for property owner and applicant

Organization	Role	Contact Person	Phone Number	Email Address
Mattamy Homes Canada	Property Owner	Olivia Hughes	**(437) 990 6496**	Olivia.Hughes@mattamycorp.com

2.2 Arborist Contact Information and Qualifications

Table 2 Organization, role, contact person, phone number, and email address for arborists

Organization	Role	Contact Person	Phone Number	Email Address
KAL	Biologist	Kesia Miyashita, MSc	**(613) 260-5555**	kmiyashita@kilgourassociates.com
KAL	Biologist	Anthony Francis, PhD	**(613) 260-5555**	afrancis@kilgourassociates.com

Kesia Miyashita (MSc) has over six years of experience in environmental consulting and more than ten seasons of field experience in ecosystems in Alberta and British Columbia. During her career in environmental consulting, Ms. Miyashita has completed environmental assessments for a variety of major infrastructure projects and urban developments. Her expertise is in vascular and non-vascular plant ecology; she has performed vegetation community inventories, rare plant surveys and weed surveys in a variety of natural environments, including native forest, urban nature preserves, grasslands, and wetlands.

Anthony Francis (PhD) is a Senior Ecologist with 20 years' consulting experience to both government agencies and private industry. He has worked on a diversity of projects relating to species at risk (SAR), invasive species, terrestrial and aquatic habitat, environmental effects monitoring and mitigation, and fate/effects of contaminants. Within each of these subject areas, Dr. Francis has completed projects addressing specific site concerns and broader policy initiatives. Dr. Francis' academic background is in spatial ecology with a focus on tree species diversity. As a Senior Ecologist at KAL, he regularly completes TCRs, Environmental Impact

Statements, and Integrated Environmental Reviews for land development projects throughout Ottawa and eastern Ontario. He is also a certified Butternut Health Assessor (BHA #104).

2.3 Additional Applications

Not applicable.

3.0 EXSITING CONDITIONS

3.1 Tree Inventory

A detailed inventory of trees on the Site was undertaken on October 20, 2021, following guidelines set forth by the City of Ottawa (2020). All trees with a diameter at breast height (DBH) ≥ 10 cm having potential to be removed under the proposed development were identified, enumerated, mapped, their DBH measured, and their general health and condition documented (Appendix A, Figure 2). Butternut (*Juglans cinerea*) trees (Endangered under ESA and SARA) were also specifically looked for. Overall, data from 27 trees with DBH ≥ 10 cm were recorded. All but two of the trees were Green Ash (*Fraxinus pennsylvanica*); the remaining two trees were snags and their species could not be conclusively determined (Table 3).

Table 3 Tree species count and percent composition for the Site

Species Common Name	Species Taxonomic Name	Count	Percent Composition (%)
Green Ash	*Fraxinus pensylvanica*	25	92.6
Snag (unknown species)	unknown	2	7.4
SUM		**27**	**100**

3.1.1 Ecological Significance of Trees on Site

No significant tree species (i.e., those listed under the *Species at Risk Act* (SARA), the *Endangered Species Act* (ESA), or those tracked on the Natural Heritage Information Centre (MNRF, 2021)) were documented on the Site. However, given their suburban context, all the trees on the Site likely play a role in the regulation of relative humidity, sequestration of carbon and removal of pollutants, wind-shielding, shading and reduction of urban heat island effects, and filtration of dust, noise, and light pollution. They also provide some habitat structure in the surrounding urban landscape for both common species as well as species of significance (i.e., species at are at risk, rare, or provincially or federally significant). Trees on the Site, however, displayed significant levels of decline due to Emerald Ash Borer (EAB) damage and are considered unlikely to survive for much longer regardless of site development.

3.2 Other Natural Environment Elements

3.2.1 Surface Water Features

The Site does not contain any surface water features or mapped wetlands. At the time of survey, following a significant rain event, standing water was noted in ruts and depressions. Patchy cover of Common Reed (*Phragmites australis*) and Reed Canary Grass (*Phalaris arundinacea*), suggested moist conditions throughout the Site.

Figure 2 Map showing existing trees on the Site

Legend

Site Boundary

T# Site Tree

N

0 50 m

Project: MATT1285
Map File: MATT 1285-2110a.map
MTM Zone 9
(NAD 83)
Printed on: 2021-11-03

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3.2.2 Steep Slopes

The Site does not contain any steep slopes.

3.2.3 Valued Woodlots

The Site does not contain any woodlots designated as Urban Natural Features or Natural Environment Areas, areas evaluated in the *City of Ottawa Urban Natural Areas Environmental Evaluation Study* (UNAEES; Muncaster Environmental Planning Inc. and Brunton Consulting Services, 2005), or other areas that meet the criteria used in the UNAEES.

3.2.4 Significant Woodlands

Section 2.4.2 of the City's Official Plan defines significant woodlands as:

i. Any treed area meeting the definition of woodlands in the *Forestry Act*, R.S.O. 1990, c. F.26 or forest in the Ecological Land Classification for Southern Ontario; and

ii. In the rural area, meeting any one of the criteria in the Natural Heritage Reference Manual, as assessed in a subwatershed planning context and applied in accordance with Council-approved guidelines, where such guidelines exist; or

iii. In the urban area, any area 0.8 hectares in size or larger, supporting woodland 60 years of age and older at the time of the evaluation.

Based on these definitions, the Site does not contain any Significant Woodlands.

3.2.5 Greenspace Linkages

The Site does not contain any greenspace linkages are identified in the Greenspace Master Plan (City of Ottawa, 2016) or as may occur in the larger landscape.

3.2.6 Distinctive Trees

Eight distinctive trees (DBH ≥ 30 cm) were identified on the Site (Appendix A). Those trees, however, had been negatively impacted by EAB.

3.2.7 Unique Ecological Features

The Site does not contain any riparian woodlots, rare communities, or other unique ecological features.

3.2.8 Species at Risk

The potential for SAR to interact with the proposed development of the Site was assessed based on KAL's review of existing information and in-field habitat assessment. All SAR with potential to generally occur in the Ottawa area were assessed as having low potential to interact with the proposed development.

4.0 PROPOSED DEVELOPMENT

The Site is zoned as General Mixed Use (GM), and can accommodate a mix of residential, commercial, and institutional uses. The proposed new residential development will comprise primarily residential properties (stacked townhouses), residential/commercial blocks, surface parking, landscaped areas, and a network of streets, walkways and supporting infrastructure. A total of 236 residential units is proposed.

The proposed development would require clearing of all documented trees on the Site; however, new tree plantings will be incorporated into site landscaping (see Section 5).

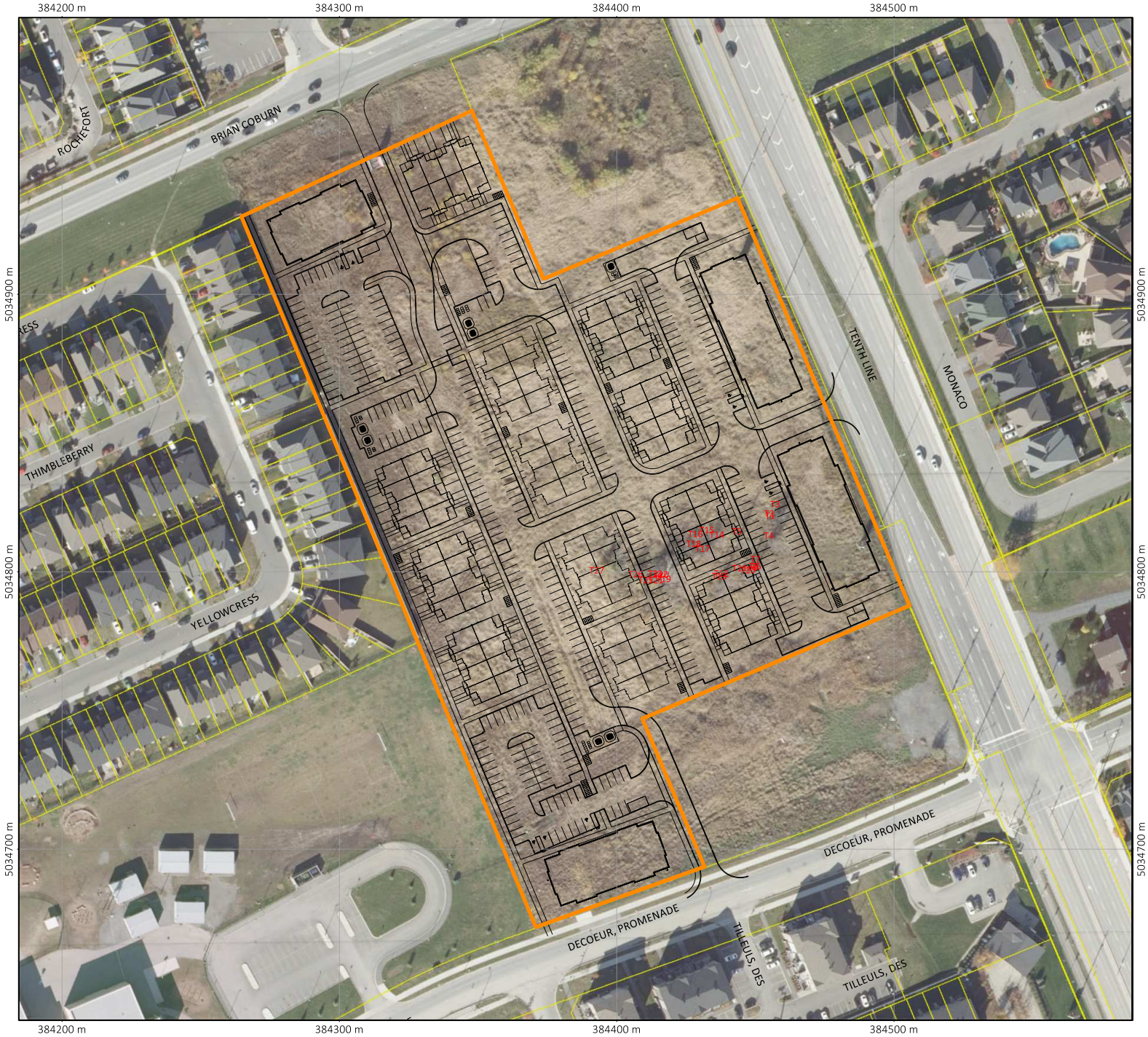

Figure 3 Map showing the proposed residential development at 885 Decoeur Drive, Ottawa

Legend

- Site Boundary
- Site Trees
  - T# Retained
  - T# Removed
- Proposed Site Plan

N

0 50 m

Project: MATT1285
Map File: MATT 1285-2110a.map
MTM Zone 9
(NAD 83)
Printed on: 2021-11-03

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5.0 REQUIRED MITIGATIONS

The City has established standard mitigation practices to be employed during site development to protect trees that are present adjacent to a development site and/or that are to be retained on a development site (City of Ottawa, 2015). No trees, however, will be retained on the Site and no trees are located adjacent to it. As such, no specific tree protection measures are required to be employed during site development.

A tree removal permit issued following this TCR, however, will include prohibitions on tree removal while a site tree is supporting an actively nesting migratory bird species per the federal *Migratory Bird Convention Act* (the MBCA). The MBCA also prohibits disturbances to the active nests of ground-nesting migratory birds (i.e., where such nests are not located within directly with a tree) through any other site development activities.

To offset vegetation loss, native tree and shrub species must be planted. The landscape plan for the project must aim for 40% canopy cover (at maturity) over the entire Site. The project's landscape architect shall determine whether the proposed landscape plan meets this canopy cover goal. Plantings may occur at ground level, on top of structures, in adjacent rights-of-way, in parks, or any other existing or future public space. Tree planting shall also implement the design standard of planting one tree for every five parking spaces in ground-level parking lots in support of Official Plan Section 4.9 – Energy Conservation Through Design. Landscaping plans must be prepared to the satisfaction of the City. Tree planting should follow guidelines provided in *Tree Planting in Sensitive Marine Clay Soils* (City of Ottawa, 2017) by using trees with low water demand and planting trees at a distance equivalent to the full mature height of a tree from a building or foundation structure.

The following tree and shrub species are recommended for planting and should be used to direct the development of the landscape plan for the Site. The following species are appropriate given site conditions and are native and non-invasive: Alternate-leaf Dogwood (*Cornus alternifolia*), Basswood (*Tilia americana*), Bitternut Hickory, Black Cherry (*Prunus serotina*), Black Walnut (*Juglans nigra*), Bur Oak (*Quercus macrocarpa*), Chokecherry (*Prunus virginiana*), Hawthorns (*Crataegus* spp.), Ironwood (*Ostrya virginiana*), Largetooth Aspen (*Populus grandidentata*), Maple-leaf Viburnum (*Viburnum acerifolium*), Nannyberry (*Viburnum lentago*), Northern Bush-honeysuckle (*Diervilla lonicera*), Peachleaf Willow (*Salix amygdaloides*), Pin Cherry (*Prunus pensylvanica*), Red Maple (*Acer rubrum*), Red Oak, Serviceberries (*Amelanchier* spp.), Sugar Maple, Trembling Aspen, White Birch (*Betula papyrifera*), Yellow Birch (*Betula alleghaniensis*), White Oak (*Quercus alba*), and White Pine (*Pinus strobus*).

6.0 CLOSURE

This report was prepared for exclusive use by Mattamy Homes Canada and may be distributed only by Mattamy Homes Canada. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

KILGOUR & ASSOCIATES LTD.

Kesia Miyashita, MSc
Project Manager

Anthony Francis, PhD
Project Director

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Appendix A Tree inventory table for the Site

Tree ID	Species Name (Taxonomic name)	Number of stems	DBH (cm)	Trunk Health[1]	Decay Class[2]	Comments	Location	Fate
T1	Green Ash (Fraxinus pennslvanica)	1	12	G	2	main stem appears dead - suckering at the base, with live shoots	45.448771°, -75.481663°	Planned for removal
T2	Green Ash (Fraxinus pennslvanica)	1	22	G	2	main stem appears dead. Suckering at the base, with some live shoots. In a cluster with other stems ~8 cm DBH.	45.448778°, -75.481668°	Planned for removal
T3	Green Ash (Fraxinus pennslvanica)	1	14	G	2	Main stem appears dead. Suckering at the base with some live shoots. In a cluster with other stems ~8 cm DBH	45.448808°, -75.481640°	Planned for removal
T4	Green Ash (Fraxinus pennslvanica)	1	53	G	1		45.448706°, -75.481671°	Planned for removal
T5	Green Ash (Fraxinus pennslvanica)	1	40	P	4	standing dead tree. Ash sp. (likely green ash)	45.448722°, -75.481817°	Planned for removal
T6	Green Ash (Fraxinus pennslvanica)	1	18	F	2		45.448608°, -75.481731°	Planned for removal
T7	Green Ash (Fraxinus pennslvanica)	1	15	F	2		45.448631°, -75.481734°	Planned for removal
T8	Green Ash (Fraxinus pennslvanica)	1	18	F	2		45.448608°, -75.481742°	Planned for removal
T9	Green Ash (Fraxinus pennslvanica)	1	26	G	2		45.448597°, -75.481752°	Planned for removal
T10	Green Ash (Fraxinus pennslvanica)	2	32	F	2	stem forks near base. DBH taken of main stem. Significant bark peeling near base, sign of insect galleries	45.448595°, -75.481771°	Planned for removal
T11	Green Ash (Fraxinus pennslvanica)	1	21	P	4	standing dead tree. significant bark peeling all along stem.	45.448602°, -75.481807°	Planned for removal
T12	Green Ash (Fraxinus pennslvanica)	1	29	F	2	healthy lower branches, canopy is in poor condition.	45.448585°, -75.481892°	Planned for removal
T13	Green Ash (Fraxinus pennslvanica)	3	24	F	2	DBH taken from main stem. Peeling bark, insect galleries	45.448577°, -75.481902°	Planned for removal
T14	Green Ash (Fraxinus pennslvanica)	7	11	F	2	stem is forked to the base, DBH taken of biggest stem.	45.448712°, -75.481910°	Planned for removal

Tree ID	Species Name (Taxonomic name)	Number of stems	DBH (cm)	Trunk Health[1]	Decay Class[2]	Comments	Location	Fate
T15	Green Ash (Fraxinus pennslvanica)	2	11	P	4	2 stems, forked to the base. DBH of larger stem. Significant bark peeling	45.448727°, -75.481956°	Planned for removal
T16	Green Ash (Fraxinus pennslvanica)	11	12	F	1	multi-stemmed to base. largest stem broken off and dead. dbh of next largest.	45.448715°, -75.482010°	Planned for removal
T17	Green Ash (Fraxinus pennslvanica)	5	13	F	2	5 main stems, lots of little suckers. DBH of largest stem	45.448667°, -75.481977°	Planned for removal
T18	Green Ash (Fraxinus pennslvanica)	1	10	P	3		45.448683°, -75.482018°	Planned for removal
T19	Green Ash (Fraxinus pennslvanica)	1	60	P	4	significant areas where bark peeled away.	45.448570°, -75.482158°	Planned for removal
T20	Green Ash (Fraxinus pennslvanica)	1	40	P	4	bark gone from upper stem and branches (~50%)	45.448585°, -75.482168°	Planned for removal
T21	Snag (unknown sp.)	1	20	P	6	standing dead tree, no bark left.	45.448567°, -75.482194°	Planned for removal
T22	Green Ash (Fraxinus pennslvanica)	1	31	P	5	bark most gone, esp upper 2/3.	45.448586°, -75.482173°	Planned for removal
T23	Green Ash (Fraxinus pennslvanica)	1	34	P	4	significant bark peeled away	45.448587°, -75.482196°	Planned for removal
T24	Green Ash (Fraxinus pennslvanica)	1	35	P	4		45.448587°, -75.482197°	Planned for removal
T25	Snag (unknown sp.)	1	29	P	5	no bark left; tree is leaning	45.448568°, -75.482241°	Planned for removal
T26	Green Ash (Fraxinus pennslvanica)	2	22	F	2		45.448587°, -75.482288°	Planned for removal
T27	Green Ash (Fraxinus pennslvanica)	1	26	G	2		45.448601°, -75.482466°	Planned for removal

Table Notes: [1]G = Good: tree displays less than 15% deficiency/defect; F = Fair: tree displays 15-40% deficiency/defect; P = Poor: tree displays greater than 40% deficiency/defect

[2]1 = Healthy live tree; 2 = Declining live tree, part of canopy lost; 3 = Very recently dead, no live canopy, bark and branches intact; 4 = Recently dead, bark peeling, only large branches intact; 5 = Older dead tree, 90% bark lost, few branch stubs, broken top; 6 = Very old dead tree, advanced decay, no branches, part of the stem has rotted away.