

ARBORIST REPORT

Zoning By-law Amendment and Official Plan Amendment

284/292 Plains Road East, City of Burlington

13 April 2021

TERRASTORY
environmental consulting inc.

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284/292 Plains Road East, City of Burlington

Prepared for:

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13 April 2021

This report has been prepared by Terrastory Environmental Consulting Inc. (hereinafter "Terrastory") for the client. All information, conclusions, and recommendations contained in this report are subject to the scope and limitations set out in the agreement between Terrastory and the client and qualifications contained in this report. This report shall not be relied upon by any third parties without the prior written consent of Terrastory. Terrastory is not responsible for any injury, loss, or damages arising from improper use of this report by third parties. Excerpts of this report or alterations to this report taken without the authorization of Terrastory invalidates the report and any conclusions therein.

Notwithstanding the determinations of tree health and structural integrity made herein (e.g., good, fair, poor), it must be recognized that all trees (in good health or otherwise) have the potential for failure given adverse weather, damage due to mechanical injury, or other factors that cause stress.

Notwithstanding any recommendations concerning tree preservation or removal made herein, this report does not supersede or expunge any civil or common law property rights as they pertain to shared/boundary trees or trees occurring on adjacent properties. This report does not confirm tree ownership nor authorize the client to encroach or enter onto adjacent properties to destroy or injure trees situated on adjacent properties without the owner's consent.

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1 INTRODUCTION

Terrastory Environmental Consulting Inc. (hereinafter "Terrastory") was retained by OMC Landscape Architecture to prepare this Arborist Report in support of an Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBA) application at 284/292 Plains Road East (hereinafter "Study Area") in Burlington. The Study Area consists of two (2) abutting parcels on the south side of Plains Road East just west of Filmandale Road in the community of Aldershot. The northeast parcel (292 Plains Road East) contains a building formerly operated by the Ontario Professional Fire Fighters Association while the southwest parcel (284 Plains Road East) contains a vacant residence.

The applications considered herein will facilitate the construction of a 9-storey, 156 unit residential apartment building supported by a 3-storey underground parking structure. The proposed development plan also consists of above-ground parking, an underground parking ramp, snow storage, and outdoor amenity space.

Several private trees occur within or adjacent to the proposed development area. The purpose of this study is to inventory and characterize trees with the potential to be adversely affected by the proposed development plan (over the short- or long-term), and to provide mitigation measures and other recommendations to address relevant tree protection requirements. The need for this Arborist Report and Tree Preservation Plan (TPP) was specified via City Urban Forestry & Landscape comments stemming from a 3 June 2020 pre-consultation meeting. The scope and approach of this study are considerate of the City's pre-consultation comments (e.g., need to inventory all trees ≥10 cm DBH, etc.) along with the City's private tree protection by-law (02-2020) and related policies.

2 APPROACH AND METHODS

This Arborist Report is composed of three discrete components which are outlined briefly below and further described in the following sections.

- **Conduct a tree inventory and health assessment** for trees that may be impacted by the proposed development plan (see **Section 2.1**).
- **Predict the effects** of the application on the assessed trees and ascertain the net effects once mitigation measures and other technical recommendations are implemented (see **Section 2.2**).
- **Determine whether the application considered herein addresses applicable tree protection and related policies** (see **Section 2.3**).

2.1 Tree Inventory and Health Assessment

A tree inventory and health assessment was carried out by Terrastory's ISA-certified Arborist and ISA-qualified Tree Risk Assessor (T. Knight) on 21 August 2020. All private trees 10 cm diameter at breast height (DBH) or greater and all municipal trees regardless of size (if present), located within or immediately adjacent to the anticipated areas of disturbance (e.g., building envelopes, grading, servicing etc.), were inventoried and assessed from the ground. Trees situated on adjacent private properties near the proposed areas of disturbance were reviewed as necessary and to the extent possible from areas in which access was granted. All assessed trees were: (1) labeled using metal number-stamped tags, (2) identified to species, (3) measured at breast-height (approximately 1.37 metres above ground) with calipers and/or DBH tape, (4) assessed for crown diameter, and (5) assessed for risk features, indicators of decline, and growth constraints (e.g., open wounds, live

crown ratio, disease, etc.). None of the assessed trees were cored, probed, or climbed, nor were their roots exposed for detailed assessment.

Based on the information collected an overall visual assessment of tree health and structural integrity as viewed from the ground is provided, supported by preservation/removal direction based on each tree's characteristics (e.g., health, location, ecological value, cultural value, etc.) and the nature of the proposed development plan. Locations of the assessed trees were recorded on-site with a high-accuracy GPS (Mesa II) supported by representative photographs.

Notwithstanding the determinations of tree health and structural integrity made herein (e.g., good, fair, poor), it must be recognized that all trees (in good health or otherwise) have the potential for failure given adverse weather, damage due to mechanical injury, or other factors that cause stress.

2.2 Effects Assessment and Mitigation

Trees may be negatively impacted during construction, grading, and/or other activities associated with implementation of the proposed development plan via the following pathways:

- Direct tree removal in areas where trees conflict with the development envelopes or areas of site alteration (e.g., grading, etc.).
- Mechanical injury to the trunk, roots, branches, and/or foliage during construction or grading.
- Soil compaction within the rooting zone.
- Smothering or exposure of roots due to changes in grade.
- Alterations to any biophysical condition or parameter (e.g., light regime, soil moisture regime, etc.) in which a tree was previously accustomed.

An assessment of the potential for tree impacts associated with implementation of the proposed development plan is provided in **Section 4.2**.

2.3 Tree Protection Policy Context

This Arborist Report and TPP has been prepared to demonstrate conformity of the proposed works with the City of Burlington's tree protection requirements, which include:

- **By-law 02-2020** – subject to certain exemptions, this By-law prohibits the injury, destruction, or removal of a tree ≥20 cm diameter at breast height (DBH) without authorization via a Tree Permit secured from the Manager of Urban Forestry. This By-law also prohibits the injury, destruction, or removal of more than five (5) trees between 10-20 cm DBH in any one calendar year without a Tree Permit.
- **By-law 68-2013** – this By-law prohibits the injury, destruction, or removal of public trees without authorization via a Tree Permit secured from the City Arborist. The deposition or placement of materials which may impede the free passage of water, air, or nutrients to the roots of a public tree are also prohibited without authorization.
- **Specification No.: SS12A** – this policy supports the implementation of By-law 68-2013 by directing activities adjacent to trees within the City's right-of-way.

Provincial/federal legislative requirements related to the protection of breeding birds and bird nests apply to on-site trees (and vegetation of any size) pursuant to the *Migratory Birds Convention Act* (for designated migratory birds) and *Fish and Wildlife Conservation Act* (for certain Corvids and other designated non-migratory birds). Several bat species may roost in cracks/crevices and/or foliage of the larger-diameter on-site trees, some of which (particularly Myotis species and Tri-colored Bat) are afforded protection under the provincial *Endangered Species Act*.

Subsection 10(3) of the provincial *Forestry Act* prohibits the injury or destruction of a tree growing on the boundary of an adjoining property without the neighbouring landowners' consent. Per case law in Ontario a tree is considered shared if any portion of its trunk (i.e., area between the root collar and lowest canopy branch) extends across a property line.

The mitigation measures and technical recommendations offered herein are aimed at demonstrating consistency of the application with the aforementioned municipal, provincial, and federal requirements.

3 TREE INVENTORY AND HEALTH ASSESSMENT

A total of 33 trees situated within or adjacent to the anticipated areas of disturbance were inventoried and assessed. The full results of the tree inventory and health assessment are provided in **Appendix 1**. The locations of all trees assessed are shown in **Figure 1**. Select photographs of the assessed trees and Study Area are provided in **Appendix 2**. A brief description of the overall tree composition and conditions observed is provided below and in **Table 1**.

Table 1. Composition and Abundance of Trees within and/or adjacent to the proposed Areas of Development and Disturbance.

Species	Total Assessed	Percentage of Total (%)
Colorado Blue Spruce (*Picea pungens*)	2	6.1
Eastern White Cedar (*Thuja occidentalis*)	3	9.1
Honey Locust (*Gleditsia triacanthos*)	1	3.0
Magnolia (*Magnolia* sp.)	1	3.0
Norway Maple (*Acer platanoides*)	2	6.1
Norway Spruce (*Picea abies*)	16	48.5
Siberian Elm (*Ulmus pumila*)	2	6.1
White Birch (*Betula papyrifera*)	1	3.0
White Fir (*Abies concolor*)	1	3.0
White Mulberry (*Morus alba*)	4	12.1
TOTAL	**33**	**100**

Norway Spruce (*Picea abies*) comprises nearly half of all the inventoried trees and forms a continuous canopy along the rear property boundary. All Norway Spruce plantings are shared assets or entirely situated on neighbouring properties (287/291 Merle Avenue). A few White Mulberry (*Morus alba*) are intermixed along the stand of Norway Spruce, which appeared to be situated wholly within the

Study Area. A small grouping of trees occurs near the northeast corner of the Study Area (i.e., Trees #302-305) which is also situated on an abutting parcel (300 Plains Road East).

4 TREE EFFECTS ASSESSMENT AND MITIGATION

4.1 Proposed Development Plan

The following tree effects assessment provides an evaluation of the potential for the proposed development plan to result in negative effects to regulated trees and offers several technical recommendations to mitigate such effects. The effects assessment herein is based on the concept plan which is overlaid with the assessed tree locations as part of the Tree Preservation Plan (OMC Landscape Architects) in **Figure 2**. The proposed concept plan consists of the following elements:

- 9-storey, 156 unit residential apartment building.
- Vehicle access from Plains Road East near the northern property boundary along with nine (9) above-ground parking spaces and a 3-storey underground parking structure.
- Municipal water and wastewater servicing.
- Outdoor amenity space and landscaping.

The major project phases for which effects on trees are assessed include demolition of the existing buildings, site preparation (e.g., clearing/grubbing, grading, etc.), construction, and servicing.

4.2 Tree Effects Assessment and Technical Recommendations

Over the course of this study Terrastory provided feedback to and worked iteratively with the project team to minimize the potential for impacts to regulated trees that occur in proximity to the anticipated areas of disturbance. As the Applicant is only proceeding with OPA/ZBA applications, it is understood from the project team that neither grading nor servicing plans are available at this time. Per discussions with the project team, it is anticipated that disturbance (i.e., cut/fill) will extend to the property boundaries. The development plan shows a 6-7 m setback between the rear (eastern) property line and limit of the underground parking and hardscaped amenity space; however, even minor elevation changes within the intervening area could damage roots associated with the stand of shared/neighbouring Norway Spruce. Additional potential tree impacts may result during excavation of the underground parking structure (e.g., via shoring, etc.).

The extent of potential tree impacts along the rear (eastern) property boundary cannot be surmised in advance of detailed design. Without modifications to the development plan, it is expected that most of the shared/neighbouring trees could experience root loss/injury, possibly to such an extent that removal will be necessary to mitigate structural concerns and expected decline post-construction. Per **Appendix 1**, a total of 21 trees have shared ownership with (or are entirely owned by) 300 Plains Road East, 287 Merle Avenue, or 291 Merle Avenue. As further shown on **Figure 1**, the dripline of certain trees occurring about 3 m beyond property lines of 295 Merle Avenue and 276 Plains Road East also extend into the proposed areas of disturbance and could experience root injury. Per case law in Ontario, a tree is considered shared if any portion of its trunk (i.e., area between the root collar and lowest canopy branch) extends across a property line. Section 10(3) of the *Forestry Act* prohibits the injury or destruction of a tree growing on the boundary of adjoining properties (or neighbouring properties) without the adjacent landowners' consent. As such, the following measure is recommended to address any necessary removal of shared/neighbouring trees:

- **The Applicant must secure approval to remove/impact all shared/neighbouring trees from relevant property owners prior to construction.**

All necessary tree removals should be undertaken in a way that minimizes potential impacts to nesting birds or roosting bats during their activity periods, as recommended below:

- **All necessary tree removals will be completed outside the primary bird nesting and bat activity periods (i.e., to be completed between October 1 and March 31). If limited tree removal is required during this period, a survey will be conducted by a qualified Ecologist within two (2) days of the commencement of tree removal activities to determine habitat suitability and/or confirm the presence/absence of nesting birds and roosting bats. Should a nesting bird or roosting bat be identified, a mitigation plan must be developed (which may include discussions with relevant agencies) to address regulatory requirements.**

Replacement of all trees approved for removal is to be undertaken consistent with City policies. It is understood that a Landscape Plan will be prepared at Site Plan Approval (SPA) which should incorporate a variety of native tree species or non-native species that are known to be non-invasive. The City typically requires one (1) replacement tree for every 10 cm of DBH removed, or (where insufficient room for replacement trees is available) $400 per tree removed.

While it is recognized that the "Private Tree Inventory and Compensation Form" is typically submitted to assist City review of the Arborist Report, the extent of tree impacts cannot be accurately ascertained for this project without detailed grading/servicing plans. Opportunities to reduce potential impacts to shared/neighbouring trees through detailed design may be possible; however, this would likely require restricting development/disturbance (and installing tree protection fence) at the edge of pavement (i.e., approximately 4 m west of the rear property boundary). It may be difficult to avoid significant root impact to shared/neighbouring trees given the scale of the development proposed and extent of the underground parking structure.

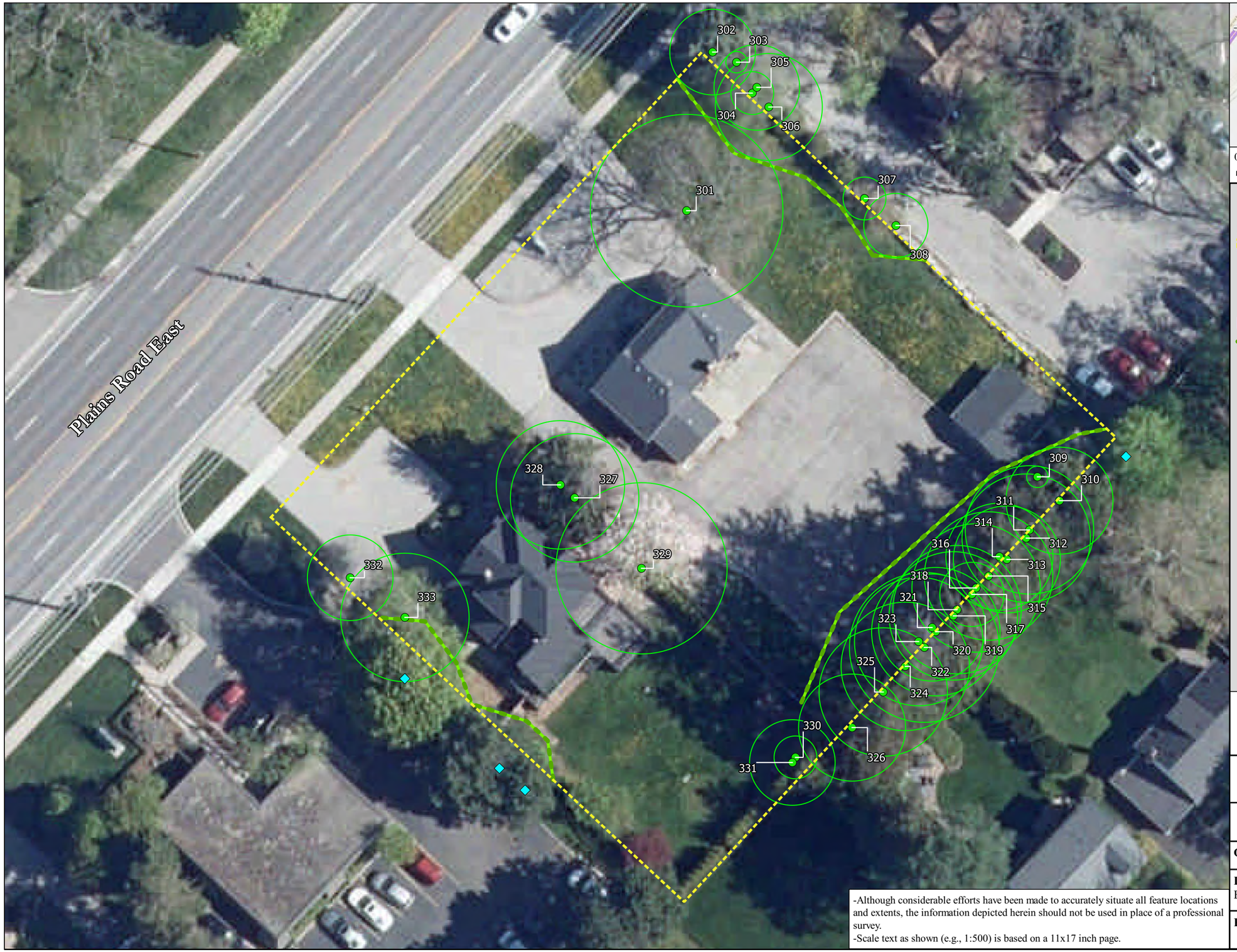
Any approved tree removals must be addressed through replacements (typically one replacement tree for every 10 cm diameter removed) and/or cash-in-lieu ($400) consistent with City requirements.

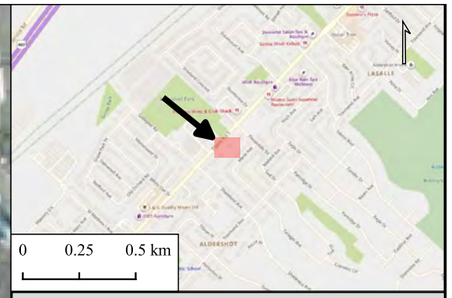
5 CONCLUSIONS

A total of 33 trees were inventoried and assessed at 284/292 Plains Road East in Burlington. The extent of anticipated tree impacts associated with the construction of a 9-storey residential apartment building, particularly for shared/neighbouring trees along the rear (eastern) property boundary, cannot be ascertained without detailed site/grading/servicing plans. Based on the scale of the development proposed and extent of the underground parking structure, it is possible that many (or all) of the 21 shared/neighbouring trees could experience root loss/injury to such an extent that removal will be necessary to mitigate structural concerns and expected decline post-construction. This will be confirmed at detailed design and based on further consultation with relevant owners. Any approved tree removals must be addressed through replacements (typically one replacement

tree for every 10 cm diameter removed) and/or cash-in-lieu ($400) consistent with City requirements.

A permit under the City of Burlington's private tree protection by-law (02-2020) will be required to facilitate the necessary removal of trees within the Study Area. The exact number of trees to be removed/injured must be confirmed at detailed design. As part of the application review process, all technical recommendations offered herein should be incorporated into any necessary planning approvals that facilitate implementation of the Zoning By-law Amendment.





Legend

Study Area
- Study Area

Tree Inventory
- Tree
- Tree on Adjacent Parcels (not tagged)
- Dripline
- Greatest Dripline Extent of Neighbouring/ Shared Trees

-Although considerable efforts have been made to accurately situate all feature locations and extents, the information depicted herein should not be used in place of a professional survey.
-Scale text as shown (e.g., 1:500) is based on a 11x17 inch page.

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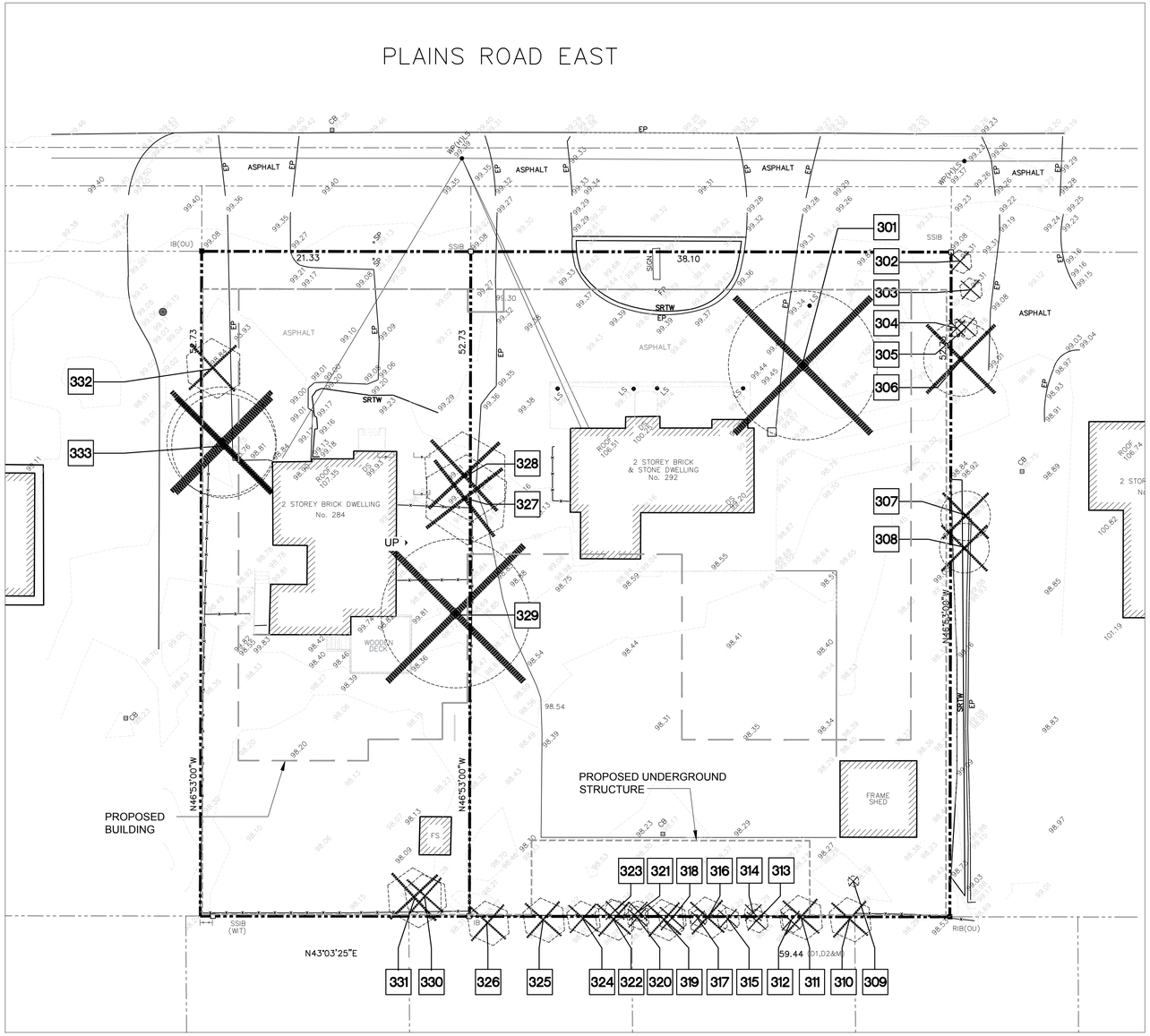
1:350	0 5 10 15 m

Project No.: 2066	By: TK	Date: 2021-02-04

Orthophotograph Date: May 2015 (SCOOP).

Location: 284-292 Plains Road East, City of Burlington.

Figure 1. Tree Inventory.



TREE INVENTORY SCHEDULE

NO.	BOTANICAL NAME	COMMON NAME	DBH (cm) @ 1.4m	CROWN RADIUS (m)	BIOLOGICAL HEALTH	STRUCTURAL HEALTH	REMOVAL	RECOMMENDATION	OBSERVATIONS / COMMENTS	TREE OWNERSHIP
301	*Gleditsia triacanthos*	Honey Locust	66	9	good	good	YES	REMOVE - WITHIN DEVELOPMENT ENVELOPE	minor epicormic shoots in lower canopy	CLIENT
302	*Picea pungens*	Colorado Blue Spruce	43	4	good	good		REMOVE		NEIGHBOURING
303	*Picea pungens*	Colorado Blue Spruce	24	1	poor	poor		REMOVE	significant dieback, mostly dead	NEIGHBOURING
304	*Ulmus pumila*	Siberian Elm	10	2	fair	fair		REMOVE	insect defoliation, abrasion against Tree #305, stem asymmetric	NEIGHBOURING
305	*Morus alba*	White Mulberry	12, 11	4	good	poor		REMOVE	splitting at base from included bark	NEIGHBOURING
306	*Ulmus pumila*	Siberian Elm	18, 11	5	poor	poor		REMOVE	included bark, bacterial wetwood, insect exit holes	NEIGHBOURING
307	*Acer platanoides*	Norway Maple	10	2	poor	poor		REMOVE	leaf scorch, growing between armourstone	NEIGHBOURING
308	*Acer platanoides*	Norway Maple	14	3	poor	poor		REMOVE	leaf scorch, growing between armourstone	NEIGHBOURING
309	*Thuja occidentalis*	Eastern White Cedar	14	1	good	good		REMOVE - WITHIN DEVELOPMENT ENVELOPE		CLIENT
310	*Picea abies*	Norway Spruce	44	5	fair	fair		REMOVE	stem growth soon restricted by adjacent fence, appears topped	NEIGHBOURING
311	*Picea abies*	Norway Spruce	54	6	fair	fair		REMOVE	stem pushing against chain-link fence, appears topped	NEIGHBOURING
312	*Picea abies*	Norway Spruce	31	6	good	good		REMOVE		NEIGHBOURING
313	*Picea abies*	Norway Spruce	27	5	good	good		REMOVE		NEIGHBOURING
314	*Morus alba*	White Mulberry	19	5	fair	poor		REMOVE	phototropic lean, base bulbous, growing against fence	NEIGHBOURING
315	*Picea abies*	Norway Spruce	21	6	good	good		REMOVE		NEIGHBOURING
316	*Picea abies*	Norway Spruce	50	6	good	good		REMOVE		NEIGHBOURING
317	*Picea abies*	Norway Spruce	11	3	poor	poor		REMOVE	overtopped, small crown	NEIGHBOURING
318	*Picea abies*	Norway Spruce	37	6	good	good		REMOVE		NEIGHBOURING
319	*Picea abies*	Norway Spruce	44	6	good	good		REMOVE		NEIGHBOURING
320	*Picea abies*	Norway Spruce	22	6	poor	poor		REMOVE	exit holes in bark, mostly dead	SHARED
321	*Morus alba*	White Mulberry	14	5	fair	fair		REMOVE	phototropic lean	NEIGHBOURING
322	*Picea abies*	Norway Spruce	53	7	good	good		REMOVE		NEIGHBOURING
323	*Morus alba*	White Mulberry	24	6	fair	fair		REMOVE	lean	NEIGHBOURING
324	*Picea abies*	Norway Spruce	35	6	good	good		REMOVE		NEIGHBOURING
325	*Picea abies*	Norway Spruce	50	6	good	good		REMOVE		NEIGHBOURING
326	*Picea abies*	Norway Spruce	49	5	fair	fair		REMOVE	significant dieback, pruned	NEIGHBOURING
327	*Picea abies*	Norway Spruce	40	6	fair/poor	fair/poor	YES	REMOVE - WITHIN DEVELOPMENT ENVELOPE	sloughing bark, pruned	CLIENT
328	*Picea abies*	Norway Spruce	39	6	fair	fair	YES	REMOVE - WITHIN DEVELOPMENT ENVELOPE	callused wound at base, some exposed heartwood at branch stubs with rot	CLIENT
329	*Magnolia sp.*	Magnolia	38	8	good	fair/good	YES	REMOVE - WITHIN DEVELOPMENT ENVELOPE		CLIENT
330	*Thuja occidentalis*	Eastern White Cedar	13	2	good	good	YES	REMOVE - WITHIN DEVELOPMENT ENVELOPE		CLIENT
331	*Thuja occidentalis*	Eastern White Cedar	22	4	good	good	YES	REMOVE - WITHIN DEVELOPMENT ENVELOPE		CLIENT
332	*Abies concolor*	White Fir	45	4	poor	poor		REMOVE - WITHIN DEVELOPMENT ENVELOPE	significant dieback	CLIENT
333	*Betula papyrifera*	White Birch	23, 14, 18, 26	6	fair/good	poor		REMOVE - WITHIN DEVELOPMENT ENVELOPE	poor stem attachment for all stems at base, some open wounds	CLIENT
			*DBH (cm): Diameter at breast height, 1.4m above ground, measured in centimeters (cm).							

- The Applicant must secure approval to remove/impact all shared/neighbouring trees from relevant property owners prior to construction.
- All necessary tree removals will be completed outside the primary bird nesting and bat activity periods (i.e., to be completed between October 1 and March 31). If limited tree removal is required during this period, a survey will be conducted by a qualified Ecologist within two (2) days of the commencement of tree removal activities to determine habitat suitability and/or confirm the presence/absence of nesting birds and roosting bats. Should a nesting bird or roosting bat be identified, a mitigation plan must be developed (which may include discussions with relevant agencies) to address regulatory requirements.



KEY-PLAN

LEGEND

- EXISTING PROPERTY LINE
- EXISTING DECIDUOUS TREE TO BE RETAINED
- EXISTING CONIFEROUS TREE TO BE RETAINED
- EXISTING SHRUBS TO BE RETAINED
- EXISTING DECIDUOUS TREE TO BE REMOVED
- EXISTING CONIFEROUS TREE TO BE REMOVED
- EXISTING SHRUBS TO BE REMOVED
- 0 EXISTING VEGETATION INVENTORY
- PROPOSED TREE HOARDING FENCE

SOURCE OF BASE INFORMATION:
Provided by: SRM Architects Inc. - June 2020.

Field work completed by:
Tristan Knight of Terrastory Environmental Consulting Inc. - February 2021

PLOT DATE: April 12, 2021

No.	DATE	DESCRIPTION	BY
1	04/12/21	ISSUED FOR OPA / ZBA	SP

REVISIONS

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LANDSCAPE ARCHITECTURE ENVIRONMENTAL PLANNING RESOURCE ANALYSIS

284-292 PLAINS RD. E.

BURLINGTON, ON

TREE PRESERVATION PLAN

ISSUED FOR OPA / ZBA

SCALE : 1:200	CHECKED : MM
DATE : Jan. 28, 21	DRAWING : L1
DRAWN : SP	PROJECT : 1454

Issued for Review - April 12, 2021

Date: Apr 12, 2021 - 8:50 pm Plotted by: kwong Last Saved By: kwong Filename: 1454 - 284-292 Plains Rd East - Working Dwg/1-1454 - L1 - TREE PRESERVATION PLAN.dwg

Appendix 1. Tree Inventory and Health Assessment

Tag No.	Common Name	Scientific Name	Ownership[1]	DBH (cm)	Crown Radius (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition[2]	Structural Condition[2]	Tree Preservation Direction
301	Honey Locust	*Gleditsia triacanthos*	Applicant	66	9	minor epicormic shoots in lower canopy	good	good	**Remove** - within development envelope
302	Colorado Blue Spruce	*Picea pungens*	300 Plains Road East	43	4		good	good	to be confirmed at detailed design
303	Colorado Blue Spruce	*Picea pungens*	300 Plains Road East	24	1	significant dieback, mostly dead	poor	poor	to be confirmed at detailed design
304	Siberian Elm	*Ulmus pumila*	300 Plains Road East	10	2	insect defoliation, abrasion against Tree #305, stem asymmetric	fair	fair	to be confirmed at detailed design
305	White Mulberry	*Morus alba*	300 Plains Road East	12, 11	4	splitting at base from included bark	good	poor	to be confirmed at detailed design
306	Siberian Elm	*Ulmus pumila*	300 Plains Road East	18, 11	5	included bark, bacterial wetwood, insect exit holes	poor	poor	to be confirmed at detailed design
307	Norway Maple	*Acer platanoides*	300 Plains Road East	10	2	leaf scorch, growing between armourstone	poor	poor	to be confirmed at detailed design
308	Norway Maple	*Acer platanoides*	300 Plains Road East	14	3	leaf scorch, growing between armourstone	poor	poor	to be confirmed at detailed design
309	Eastern White Cedar	*Thuja occidentalis*	Applicant	14	1		good	good	to be confirmed at detailed design
310	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	44	5	stem growth soon restricted by adjacent fence, appears topped	fair	fair	to be confirmed at detailed design
311	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	54	6	stem pushing against chain-link fence, appears topped	fair	fair	to be confirmed at detailed design
312	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	31	6		good	good	to be confirmed at detailed design
313	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	27	5		good	good	to be confirmed at detailed design
314	White Mulberry	*Morus alba*	Applicant	19	5	phototropic lean, base bulbous, growing against fence	fair	poor	to be confirmed at detailed design
315	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	21	6		good	good	to be confirmed at detailed design
316	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	50	6		good	good	to be confirmed at detailed design
317	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	11	3	overtopped, small crown	poor	poor	to be confirmed at detailed design
318	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	37	6		good	good	to be confirmed at detailed design
319	Norway Spruce	*Picea abies*	291 Merle Avenue	44	6		good	good	to be confirmed at detailed design

Tag No.	Common Name	Scientific Name	Ownership[1]	DBH (cm)	Crown Radius (m)	Risk Features, Decline Indicators, and Growth Constraints	Health Condition[2]	Structural Condition[2]	Tree Preservation Direction
320	Norway Spruce	*Picea abies*	291 Merle Avenue or shared	22	6	exit holes in bark, mostly dead	poor	poor	to be confirmed at detailed design
321	White Mulberry	*Morus alba*	Applicant	14	5	phototropic lean	fair	fair	to be confirmed at detailed design
322	Norway Spruce	*Picea abies*	287 Merle Avenue	53	7		good	good	to be confirmed at detailed design
323	White Mulberry	*Morus alba*	Applicant	24	6	lean	fair	fair	to be confirmed at detailed design
324	Norway Spruce	*Picea abies*	287 Merle Avenue	35	6		good	good	to be confirmed at detailed design
325	Norway Spruce	*Picea abies*	287 Merle Avenue	50	6		good	good	to be confirmed at detailed design
326	Norway Spruce	*Picea abies*	287 Merle Avenue	49	5	significant dieback	fair	fair	to be confirmed at detailed design
327	Norway Spruce	*Picea abies*	Applicant	40	6	significant dieback, pruned	fair/poor	fair/poor	**Remove** - within development envelope
328	Norway Spruce	*Picea abies*	Applicant	39	6	sloughing bark, pruned	fair	fair	**Remove** - within development envelope
329	Magnolia	*Magnolia* sp.	Applicant	38	8	callused wound at base, some exposed heartwood at branch stubs with rot	good	fair/good	**Remove** - within development envelope
330	Eastern White Cedar	*Thuja occidentalis*	Applicant	13	2		good	good	**Remove** - within development envelope
331	Eastern White Cedar	*Thuja occidentalis*	Applicant	22	4		good	good	**Remove** - within development envelope
332	White Fir	*Abies concolor*	Applicant	45	4	significant dieback	poor	poor	to be confirmed at detailed design
333	White Birch	*Betula papyrifera*	Applicant	23, 14, 18, 26	6	poor stem attachment for all stems at base, some open wounds	fair/good	poor	to be confirmed at detailed design

[1] - All determinations of tree ownership are approximate and have been made in the absence of on-site property boundary markers or other direction from a licensed surveyor.

[2] - Notwithstanding the determinations of tree health and structural integrity made herein (e.g., good, fair, poor), it must be recognized that all trees (in good health or otherwise) have the potential for failure given adverse weather, damage due to mechanical injury, or other factors that cause stress.

Appendix 2. Representative Photographs

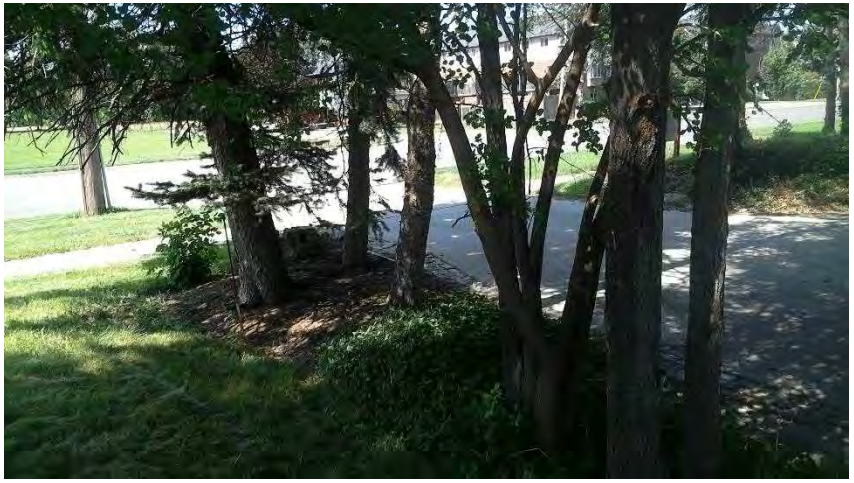


Photo 1. Trees #302-305 looking north towards Plains Road East (21 August 2020).



Photo 2. Tree #307 growing through armourstone on 300 Plains Road East (21 August 2020).



Photo 3. Shared/neighbouring trees along the rear property boundary (21 August 2020).



Photo 4. Shared/neighbouring trees along the rear property boundary (21 August 2020).



Photo 5. Existing buildings within the Study Area (21 August 2020).



Photo 6. Tree #333 looking northwest towards Plains Road East (21 August 2020).