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LANDSCAPE ARCHITECTURE

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ARBORIST REPORT

PROPOSED MIXED USE DEVELOPMENT
420 LAKESHORE ROAD EAST
MISSISSAUGA, ONTARIO

PREPARED FOR:
PLAZACORP
10 WANLESS AVENUE, SUITE 201
TORONTO, ONTARIO
M4N 1V6

PREPARED BY:
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OUR PROJECT NO:
20-5470

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Enclosed: Full Size *V100 – Tree Inventory & Preservation Plan*

Introduction

Strybos Barron King Ltd. was retained by Plazacorp to prepare an Arborist Report for the subject property in accordance with City of Mississauga tree bylaw requirements. The owner is proposing to demolish the existing retail building and construct a mixed use, high-rise development including underground parking within the site. This report is to be read in conjunction with a completed *V100 – Tree Inventory, Preservation Plan* also prepared by Strybos Barron King Ltd.

Site Context (See Appendix A – Key Map)

The subject site (420 Lakeshore Road East) is located on the south west corner of Lakeshore Road East and Blvd. E and, Enola Ave., abutting a commercial plaza to the west and single-family residential lots to the south. The existing building and parking lot composes much of the property area. A small number of immature to mature landscape accent trees flank the north and west property limits. A small number of immature and mature trees occur within close proximity to the southern property limit within the adjacent residential lot.

Plans Utilized

A Topographic survey prepared by R. Avis Surveying along with a Site Plan provided by Turner Fleischer, showing existing site conditions and proposed construction constraints, were used as reference to determine the location of existing trees in relation to the proposed development works.

Methodology

The trees discussed in this report were inventoried during a field study at the subject site by ISA Certified Arborist Matthew Gehres. For the purposes of determining a Diameter Breast Height (D.B.H.) for each of the trees, trunk diameters were measured by the arborist using a caliper tape at 1.4 metres from existing grade and recorded in centimetres. The trees were assessed using a health and condition rating of poor, fair or good, depending on overall vigour, presence of disease and structural integrity as recommended in the Guide for Plant Appraisal, 9th Edition, published by the International Society of Arboriculture.

Tree Inventory (See Appendix C – Tree Inventory Plan for *context* and refer to enclosed V100 – Tree Inventory, Preservation & Removals Plan for *details* pertaining to individual trees)

Trees were identified both within and immediately adjacent to the subject property. The trees are described in terms of species and a diameter at breast height (DBH – measured at 1.4m from grade). They have been assessed in terms of their general health from poor to good; **GOOD** – trees in good overall health and condition with desirable structure, **FAIR** – trees in moderate health and condition with less desirable structure, and **POOR** – trees displaying prominent health issues such as decay and disease and/or poor form and structure.

Table 1 - Tree Inventory Descriptions

Key#	This number refers to the inventory number for the tree/grouping.
Species	The common names are provided for each tree.
DBH	This refers to Diameter (in centimetres) at Breast Height and is measured at 1.4m above the ground for each tree.
Crown	Estimated diameter of tree canopy (in metres), measured from dripline to dripline (varies in most cases considering the nature of tree groupings)
Health	An assessment of the general health and vigour of the tree, derived partly through a comparison of deadwood and live growth relative to a 100% healthy tree. The size and colour of foliage are also considered in this category. During the leaf-off season, the amount and distribution of buds is an important determinant of canopy vitality. This indicator is also measured on an ascending scale of poor-fair good.
Structure	A term describing key distinguishing structural character or defect.

EXISTING TREE INVENTORY

KEY	SPECIES	CALIPER	CROWN	HEALTH	STRUCTURE	COMMENTS	PRESERVATION	MIN. TPZ	KEY
		IN (cm)	IN (m)	G/F/P			DIRECTION		
1	ORNAMENTAL PEAR	4.0	1.0	FAIR	GOOD FORM	MINOR DIEBACK THROUGHOUT	REMOVE	1.2	1
2	ORNAMENTAL PEAR	12.0	3.0	FAIR	OPEN FORM	SOME TWIG TIP DIEBACK THEOUGHOUT	REMOVE	1.8	2
3	ORNAMENTAL PEAR	8.0	3.0	POOR-FAIR	MULTI-STEMMED	SUCKER GROWTH THROUGHOUT	REMOVE	1.2	3
4	ORNAMENTAL PEAR	5.0	1.0	GOOD	GOOD FORM	MINOR CROWN DIEBACK	REMOVE	1.2	4
5	HONEYLOCUST	23.0	8.0	FAIR	ASYMMETRICAL FORM	CO-DOMINANT LEADERS, CROWDED BY ADJACENT TREE, TWIG TIP DIEBACK THROUGHOUT	PRESERVE	1.8	5
6	AUSTRIAN PINE	14-26	7.0	POOR	MULTI-STEMMED	ONE SIDED FORM, LEANING, HIGH CROWN, DIEBACK THEOUGHOUT	PRESERVE	1.8	6
7	AUSTRIAN PINE	35.0	6.0	DEAD			N/A		7
8	AUSTRIAN PINE	30.0	8.0	DEAD			N/A		8
9	AUSTRIAN PINE	30.0	7.0	POOR	GOOD FORM	DEAD LEADER, DECLINING	PRESERVE	2.4	9
10	NORWAY MAPLE	20.0	6.0	GOOD	GOOD FORM	DENSE GLOBE STRUCTURE	REMOVE	1.8	10
11	NORWAY MAPLE	30.0	6.0	DEAD			REMOVE	2.4	11
12	NORWAY MAPLE	32.0	10.0	GOOD	ONE SIDED FORM	CROWDED BY ADJACENT BUILDING	REMOVE	2.4	12
13	MANITOBA MAPLE	14.5	6.0	GOOD	ONE SIDED FORM	LEANING, CROWDED BY ADJACENT TREE	REMOVE	1.8	13
14	SIBERIAN ELM	46-52	20.0	POOR-FAIR	MULTI-STEMMED	MATURE, STEMS SPLIT AT GRADE, ASYMMETRICAL FORM, CROWDED BY ADJACENT TREE, DIEBACK AND DEAD LIMBS IN CROWN	PRESERVE	3.6	14
15	SIBERIAN ELM	101.0	20.0	FAIR	MULTI-STEMMED	HIGH CROWN, CROWDED BY ADJACENT TREE, DEADWOOD AND DIEBACK IN UPPER CROWN	PRESERVE	6.0	15
16	JUNIPER	15.0	4.0	GOOD	GOOD FORM	CROWDED BY ADJACENT TREE	PRESERVE	1.8	16
17	WHITE CEDAR	8.0	3.0	GOOD	GOOD FORM	CROWDED BY ADJACENT TREE	PRESERVE	1.2	17
18	CHOKECHERRY	26.0	10.0	GOOD	GOOD FORM	SLIGHTLY CROWDED BY ADJACENT TREE	PRESERVE	1.8	18
19	CEDAR/JUNIPER HEDGE	SAP.-14	5.0	GOOD	GOOD FORM	CONTINUOUS CONIFEROUS HEDGE LOCATED ON THE HIGH SIDE OF A CONCRETE CURB, ADJACENT TO ASPHALT SURFACE, BEHIND EXISTING WOOD PRIVACY FENCE	PRESERVE	1.8	19
*20	SIBERIAN ELM	+/- 45	10.0	GOOD	GOOD FORM	LOCATED ADJACENT TO EXISTING BUILDING FOUNDATION ON SUBJECT SITE. STRUCTURAL ROOT MASS IS NOT ANTICIPATED TO HAVE GROWN BEYOND THE LIMIT OF THE EXISTING BUILDING FOUNDATION WALL.	PRESERVE	2.4*	20

***** NO ACCESS TO TREE WITHIN REAR LOT OF NEIGHBOURING PROPERTY TO THE SOUTH

Observations

The trees identified within and immediately adjacent to the property can be described as immature Lakeshore Rd. boulevard trees, semi-mature, planted, landscape accent trees around the existing parking lot and mature naturalized trees immediately adjacent to the south side of the site. The trees summarized in this report are mainly composed of Ornamental Pear, Honeylocust, Austrian Pine, Norway Maple and Siberian Elm, and Cedar hedgerow.

With the exception of one, most of the boulevard trees along Lakeshore Rd. are in generally poor condition. The Austrian Pine trees that flank the west property limit are either dead or in a general state of decline. Of the two Norway Maple trees close to the existing building frontage, one is dead and the other is in good condition. The mature Siberian Elm trees occur south of the property limit along a naturalized area between the residential lots and the existing plaza. These trees are in generally fair condition and exhibit crown dieback and weak branch unions typical of this species and their size.

An existing hedgerow composed of White Cedar and Juniper flanks the southeast property line within the residential property to the south. This hedge is situated behind an existing concrete curb/toe wall as well as solid board privacy fence.

There are multiple immature to semi-mature ornamental trees within the front yard of the lot to the south.

Tree Preservation

In determining the tree preservation recommendations for the site, the criteria noted below were considered:

- Overall tree health, form, size, species and predicated longevity.
- Anticipated impact from construction of buildings and proposed landscape features, road works, site servicing and grading.

Each tree was assigned a minimum Tree Preservation Zone (TPZ) as per standard requirements used by municipal by-laws *(Refer to Table 2-Tree Protection Zones).*

Table 2 - Tree Protection Zones

Trunk Diameter (DBH)	***Minimum Protection Zone***
<10 cm	1.2m
10-29 cm	1.8 m
30-40 cm	2.4 m
41-50 cm	3.0 m
51-60 cm	3.6 m
61-70 cm	4.2 m
71-80 cm	4.8 m
81-90 cm	5.4 m
91-100 cm	6.0 m
< 100 cm	6cm per 1cm DBH

Private Tree By-Law

Table 3 – Tree Categories

CITY OF MISSISSAUGA TREE CATEGORIES	
1	Trees with diameters of 15cm or more, situated on private property, on the subject site.
2	Trees with diameters of 15cm or more, situated on private property, within 6m of the subject site.
3	Trees of all diameters situated within the City road allowance adjacent to the subject site.
4 *(exempt)*	Trees that are less than 15cm diameter and located on private property.

The City of Mississauga Private Tree Bylaw protects trees found on private property that are greater than 15cm DBH (Diameter at Breast Height) as well as trees of all diameters situated within the City road allowance.

The By-law states that:

- A permit is required to remove **three (3) or more healthy trees** with a diameter greater than 15cm (6 in) within one calendar year.
- A permit is required to remove **three (3) or more dead, dying or hazardous trees** with a diameter greater than 15cm (6 in) within one calendar year.

- A permit is not required to remove **up to two (2) trees** with a diameter greater than 15cm (6 in) within one calendar year.
- A permit is not required to remove trees with a diameter of 15cm (6 in) or less.
- A permit is required to remove **any city owned tree**.

Tree Removals

The following is a summary of proposed tree removals for this site that will require a permit for removal in accordance with City of Mississauga Private Tree Bylaw.

Table 4 – Tree Removals subject to Private Tree Bylaw *(Refer to Existing Tree Inventory List for details pertaining to specific trees)*

SUMMARY OF TREE REMOVALS						
KEY	SPECIES	CALIPER	HEALTH	COMMENTS	PRESERVATION	TREE CATEGORY
		IN (cm)	G/F/P		DIRECTION	
1	ORNAMENTAL PEAR	4.0	FAIR	MINOR DIEBACK THROUGHOUT	REMOVE	3
2	ORNAMENTAL PEAR	12.0	FAIR	SOME TWIG TIP DIEBACK THEOUGHOUT	REMOVE	3
3	ORNAMENTAL PEAR	8.0	POOR-FAIR	SUCKER GROWTH THROUGHOUT	REMOVE	3
4	ORNAMENTAL PEAR	5.0	GOOD	MINOR CROWN DIEBACK	REMOVE	3
10	NORWAY MAPLE	20.0	GOOD	DENSE GLOBE STRUCTURE	REMOVE	1
11	NORWAY MAPLE	30.0	DEAD		REMOVE	1
12	NORWAY MAPLE	32.0	GOOD	CROWDED BY ADJACENT BUILDING	REMOVE	1

Total of 7 trees

Based on the proposed development constraints including grading, servicing and construction requirements, all of the trees internal to the site are recommended for removal. Based on the location of the existing building, the adjacent trees' roots on the property to the south should not be adversely affected. All trees on the adjacent properties will be preserved and protected.

Tree Protection (Refer to Appendix D – *Tree Protection Hoarding Detail*).

City approved tree protection hoarding shall be erected as shown on the approved Tree Inventory & Preservation Plans. The existing hedgerow flanking the southeast corner of the site is currently protected by a high, solid board privacy fence. This fence should provide adequate protection for this hedge. Tree protection fencing is to remain in place throughout the duration of construction and should be periodically reviewed by the Consulting Arborist to ensure that it remains in good working condition.

Conclusion

Strybos Barron King Ltd. was retained by Plazacorp to prepare an Arborist Report for the subject property in accordance with City of Mississauga tree bylaw requirements. The owner is proposing to construct a mixed-use high-rise development with underground parking within the site. Due to the proposed construction, grading and servicing constraints, seven (7) trees subject to the private tree bylaw will require removal. All trees on adjacent properties are to be preserved and protected in accordance with City of Mississauga tree protection standards throughout the development works. In compliance with City of Mississauga Private Tree Bylaw, a permit will be required prior to the tree removal works.

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Appendix A – KEY MAP

Appendix B – SITE PHOTOGRAPHS

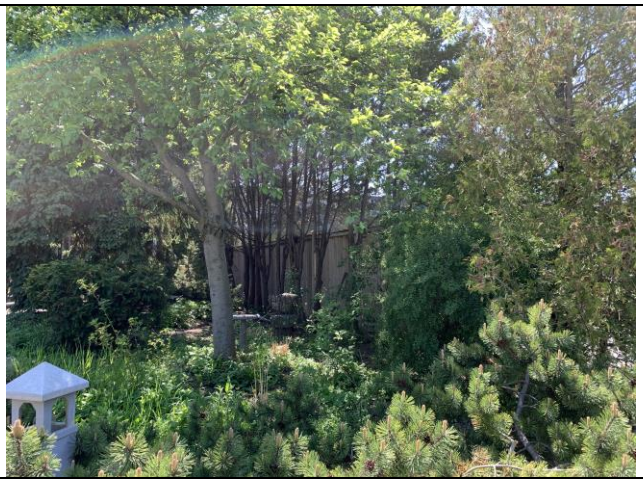
Lakeshore Rd. E., - View East (tree# 1-4)

Northwest property limit (tree# 5-8)

Southwest corner of the property (tree# 9-12)

Southwest property limit (tree# 13-15)

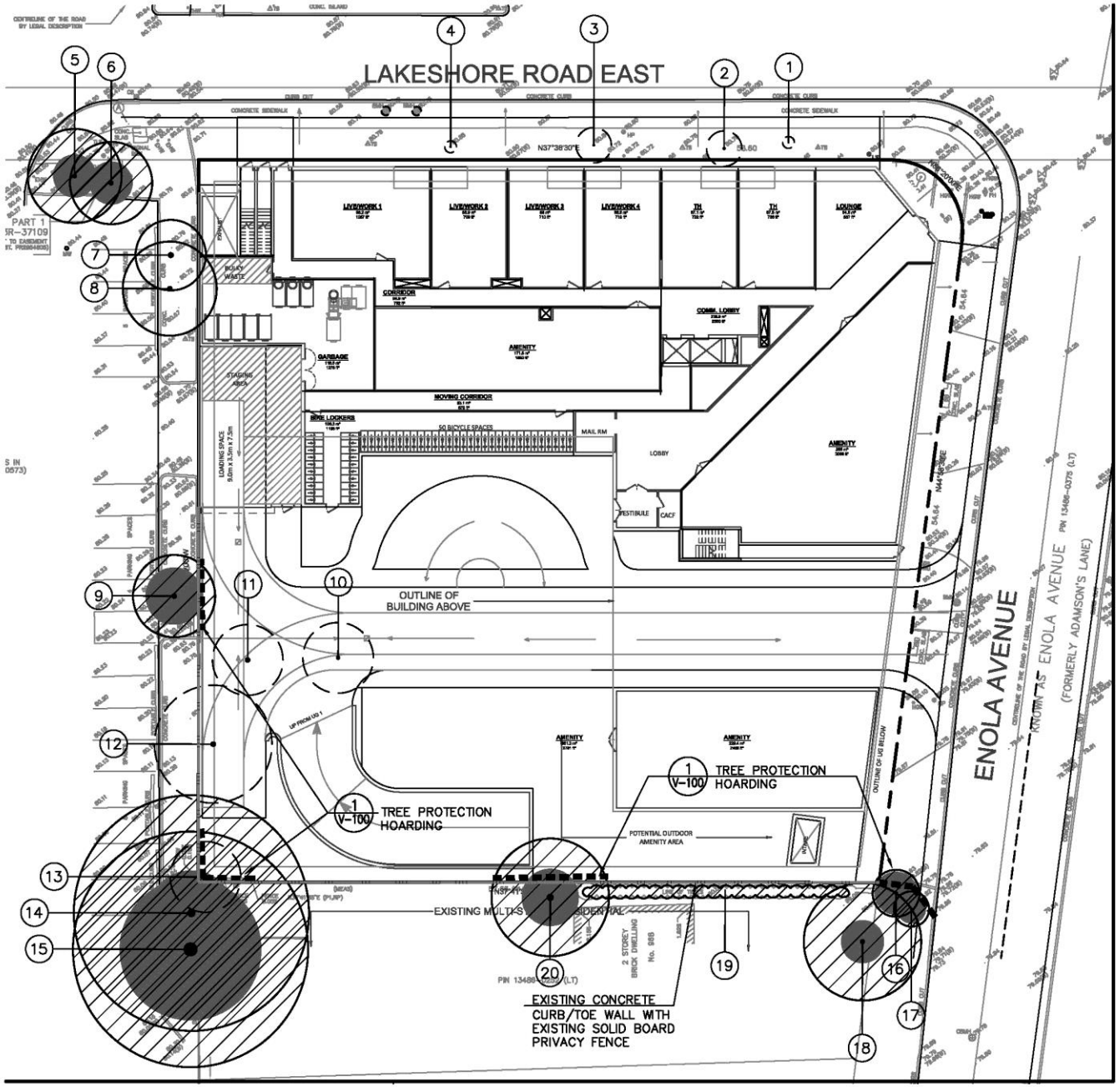
Southeast property limit (tree# 19 foreground & 20 Background



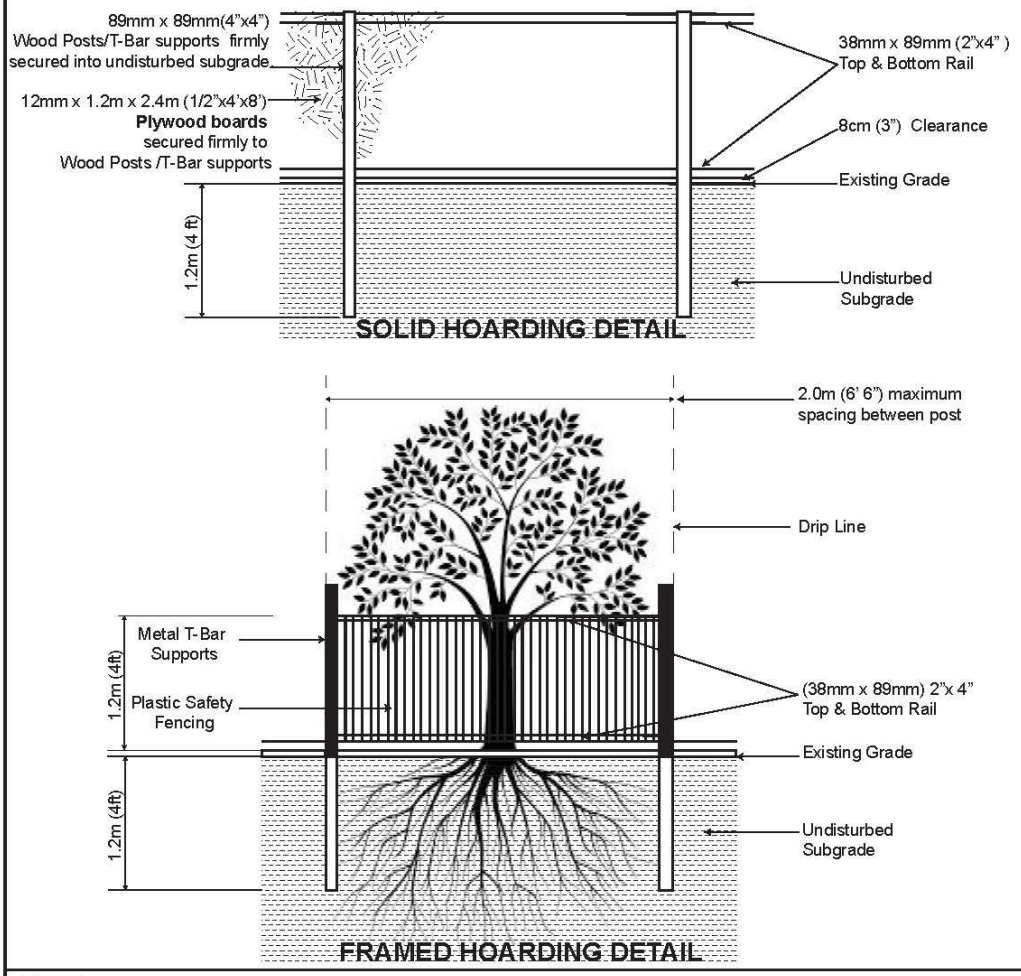
Adjacent Residential lot frontage (tree# 16-18)

Appendix C – TREE INVENTORY PLAN

(for context only – refer to full size V100 Tree Inventory, Preservation and Removals Plan for details)



Appendix D **– TREE PROTECTION HOARDING DETAIL**



NOTES:

1. Hoarding details to be determined following initial site inspection.
2. Private tree hoarding to be approved by Development & Design ;
   City tree hoarding to be approved by Community Services Dept.
3. Hoarding must be supplied, installed and maintained by the applicant throughout all phases of construction.
   Inspection must be conducted by the Development and Design Division prior to removing any/all private hoarding.
4. Do not allow water to collect and pond behind or within hoarding.
5. **T-bar supports are acceptable alternative to 4x4 posts. U-shaped metal supports will not be accepted.**
6. **Plywood** must be utilized for 'solid' hoarding. OSB/Chipboard will not be accepted for solid hoarding. Plywood sheets must be installed on "construction" side of frame.
7. Applicant is responsible to ensure utility locates are completed within city boulevard prior to installing framed hoarding.

TREE PRESERVATION HOARDING

MISSISSAUGA

SCALE : N.T.S DATE : June 2017