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ARBORIST REPORT

PROPOSED MIXED-USE DEVELOPMENT 142-148 QUEEN STREET SOUTH CITY OF MISSISSAUGA

PREPARED FOR:
DEZEN REALTY COMPANY LIMITED
4890 TOMKEN ROAD, UNIT 1-4
MISSISSAUGA, ONTARIO
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PREPARED BY:
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ISA CERTIFIED ARBORIST MATTHEW GEHRES ISA# ON-1114A OUR PROJECT NO: 5903

> JULY 13, 2023 MARCH 13, 2024

REVISED May 15, 2024 – AS PER CITY COMMENTS

TABLE OF CONTENTS

Introduction	1
Site Context	1
Plans Utilized	1
Tree Inventory	1
Table 1 – Tree Inventory Descriptions	1
Tree Inventory List	2
Observations	3
Tree Preservation	3
Table 2- Tree Protection Zones	3
Private Tree Bylaw	3
Table 3 – Tree Categories	3
Tree Removals	4
Table 4 – Tree Removals Subject to Private Tree Bylaw	4
Tree Protection	6
Tree Compensation Requirements	6
Tree Preservation Recommendations	6
Pre-Construction	6
During Construction	6
Post Construction	7
Conclusion	7
Appendix A – Site Photographs	8
Appendix B – Contextual Tree Preservation & Removal Plan	11
Appendix C – Tree Protection Hoarding Detail	12

Introduction

Strybos Barron King Ltd. was retained by Dezen Realty Company Limited to prepare an Arborist Report for the subject property in accordance with the City of Mississauga Tree Bylaw requirements. The proposal for this property is to construct a new mixed-use, residential development.

Site Context

The subject property (142-148 Queen Street South) is located in Streetsville, on the west side of the road. The site currently contains an existing strip plaza and commercial buildings. The site abuts existing residential and commercial properties to the south, and a railway corridor to the west. An existing library and residential properties flank the north side of the property.

Plans Utilized

A topographic plan provided by Dezen Realty Company Limited, an architectural site plan prepared by SRM Architects and Urban Designers GSAI and an Engineering Plan prepared by Crozier were used to determine the location of the existing trees in relation to the proposed new residential development.

Tree Inventory

Trees were identified by an ISA Certified Arborist both within and immediately adjacent to the subject property on April 13, 2023. The trees are described in terms of species and 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. All neighbouring/boundary trees that require removal, are currently noted as "preserve" until written authorization from the adjacent property owner(s) are provided. (Refer to *Tree Preservation & Removal Plan* for locations of specific trees.)

Table 1 - Tree Inventory Descriptions

	rable i free inventory becompations
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.

EXI	STING TRE	E INVE	NTOR	Υ						
KEY SPECIES		DBH			STRUCTURE	COMMENTS	PRESERVATION	OWNERSHIP		KEY
271	Hanay Laguet	(cm) 21	(m) 6	G/F/P	One sided	Leaving arounded by adjacent tree adjacent to building restrong	DIRECTION	Drivete	(m)	271
371	Honey Locust	21	О	Fair	One-sided	Leaning, crowded by adjacent tree, adjacent to building, rootzone covered with concrete	Remove	Private	1.8	371
372	Honey Locust	30	8	Fair	Irregular	Leaning, crowded by adjacent tree, adjacent to building, rootzone covered with concrete, double leader	Remove	Private	2.4	372
	Siberian Elm	26	6	Fair	One-sided	Crowded by adjacent tree, adjacent to fence, vine entagled	Remove	Private	1.8	373
374	Black Walnut	31	8	Good	Irregular	Crowded by over head wire, broken branches, crowded by adjacent tree	Preserve*	Boundary	2.4	374
375	Black Walnut	19	4	Fair	Irregular	Crowded by over head wire, crowded by adjacent tree	Preserve*	Boundary	1.8	375
	Crabapple	11-21	8	Fair	Multi-stem	4 stems, crowded by adjacent tree	Preserve*	Boundary	1.8	376
_	Manitoba Maple	24	6	Poor	Leaning	Crowded by over head wire, crowded by adjacent tree, double	Preserve*	Boundary	1.8	377
378	Manitoba Maple	24	6	Poor	Leaning	leader Crowded by adjacent tree, adjacent to building, crowded by	Preserve*	Boundary	1.8	378
379	Manitoba Maple	16-20	8	Poor	Multi-stem	overhead wire 4 stems, crowded by adjacent tree, adjacent to building, crowded	Preserve*	Boundary	1.8	379
380	Manitoba Maple	13-17	6	Poor	Multi-stem	by overhead wire, crowded braching, decay at base 3 stems, major prune at 0.3m, decay at base, epicormic	Preserve*	Boundary	1.8	380
381	Manitoba Maple	51-24	8	Poor	Multi atam	growth,crowded by overhead wire 2 stems, epicormic growth, crowded by overhead wire	Preserve*	Doundon:	1.8	381
	Manitoba Maple	19-26	8	Poor	Multi-stem Multi-stem	4 stems, epicormic growth, crowded by overhead wire	Preserve*	Boundary Boundary	1.8	382
	·			1 001	Wuiti-Stoffi	crowded by overhead wire	1 leselve	Doundary		
	Manitoba Maple	12-22	8	Fair	Group	7 stems, crowded by adjacent tree, epicormic growth, broken branches, crowded by overhead wire	Remove	Private	1.8	383
384	Siberian Elm	18-27	8	Fair	Multi-stem	3 stems, basal decay, major deadwood, poor pruning, crowded by overhead wire	Preserve	Parkland	1.8	384
385	Linden	18	5	Fair	Irregular	Minor broken branches, girdling roots	Remove	Private	1.8	385
386	Linden	18	5	Fair	Irregular	Minor broken branches, exposed roots	Remove	Private	1.8	386
387	Linden	21	5	Fair	Irregular	Minor broken branches, girdling roots, cross branching	Remove	Private	1.8	387
388	Linden	26	6	Fair	Irregular	Adjacent to building, crowded branching, cross branching, broken branches	Remove	Private	1.8	388
389	Honey Locust	17	6	Good	One-sided	Crowded by adjacent tree, crowded branching	Remove	Private	1.8	389
390	Honey Locust	24	8	Good	One-sided	Crowded by adjacent tree, crowded branching	Remove	Private	1.8	390
391	Colorado Spruce	22	6	Poor	Pyramidal	Decilining, major deadwood, dead leader	Remove	Private	1.8	391
	Red Maple	14	6	Fair	Irregular	Crowded by over head wire, girdling roots	Remove	Exempt	1.8	392
	Red Maple	16	4	Poor	One-sided	Major dieback, leaning, declining	Remove	Private	1.8	393
	Red Maple	18	6	Fair	Irregular	Crowded branching, cross branching	Remove	Private	1.8	394
	Red Maple	16 22	4	Poor	Irregular	Mechanical damage at base, open wound, minor bark peeling	Remove	Private	1.8	395
	Red Maple Red Maple	22	6	Fair Fair	One-sided One-sided	Major deadwood, epicormic growth, declining Crowded by over head wire, cross branching, girdling roots, double	Remove Remove	Private Private	1.8 1.8	396 397
391	Neu Maple	20	0	Fall	One-sided	leader	Remove	Filvate	1.0	391
	Red Maple	16	5	Poor	Irregular	Excessive dieback throughout	Remove	Private	1.8	398
	Red Maple	7	2	Dead			Remove	Exempt	1.2	399
400	Red Maple	23	6	Fair	Irregular	Poor Pruning, broken branches, mionr deadwood, girdling roots, exposed roots	Remove	Private	1.8	400
401	Red Maple	22	5	Fair	Irregular	Poor Pruning, broken branches, mionr deadwood, girdling roots, exposed roots	Remove	Private	1.8	401
403	Siberian Elm	22	6	Dead		oxposed recte	Preserve*	Neighbour	1.8	403
	Siberian Elm	24	6	Dead			Preserve*	Neighbour	1.8	404
405	Red Maple	12	4	Good	Symetrical	Boulevard tree, frost damage, double leader	Preserve	Municipal	1.5	405
406	Red Maple	9	4	Good	Symetrical	Boulevard tree, frost damage, broken branches	Preserve	Municipal	1.2	406
	Red Maple	9	4	Good	Symetrical	Boulevard tree, open wound on trunk, broken branches	Preserve	Municipal	1.2	407
	Red Maple	9	4	Fair	Symetrical	Boulevard tree, mechanical damage on trunk	Preserve	Municipal	1.2	408
	Norway Maple	26	8	Poor	One-sided	Double leader, crowded by adjacent tree, adjacent to fence	Preserve	Neighbour	1.8	409
	Manitoba Maple Norway Maple	18-23 24	6	Fair Fair	Double Stem Irregular	2 stems, crowded by adjacent tree, adjacent to fence Crowded by adjacent tree, adjacent to fence, double leader, minor	Preserve Preserve	Neighbour Neighbour	1.8 1.8	410 411
412	Norway Maple	26	8	good	Irregular	deadwood, broken branches Crowded by adjacent tree, adjacent to fence, double leader, minor	Preserve	Neighbour	1.8	412
413	White Spruce	24	8	Fair	Pyramidal	deadwood, broken branches Crowded by adjacent tree, adjacent to fence, branching to grade	Preserve	Neighbour	1.8	413
	Honey Locust	20	8	Fair	One-sided	Crowded by adjacent tree, adjacent to fence, adjacent to building,	Preserve	Neighbour	1.5	414
415	Norway Spruce	18-20	4	Fair	Group	double leader 3 stems, one sided form, adjacent to building, branching to grade	Preserve	Neighbour	1.5	415
		3 stems > 15cm								
	Honey Locust	23	6	Fair	One-sided	Adjacent to building, crowded by adjacent tree, leaning	Preserve	Neighbour	1.8	416
	Honey Locust	24	6	Good	Irregular	Adjacent to fence, crowded by adjacent tree	Preserve	Neighbour	1.8	417
	Honey Locust	19	6	Good	Irregular	Adjacent to fence, crowded by adjacent tree	Preserve	Neighbour	1.5	418
	Colorado Spruce	16	4	Fair	Pyramidal	Branching to grade, adjacent to fence, crowded by overhead wire, minor deadwood, exposed roots, dieback in lower branches	Preserve	Neighbour	1.5	419
420	Magnolia	8-9	3	Good	Group	5 stems, leaning, adjacent to fence	Preserve	Boundary	1.2	420
421	Scots Pine	16-18 4 stems	5	Good	Group	4 stems, crowded by adjacent tree, dieback in lower branches	Preserve	Boundary	1.5	421
	Croho!-	> 15cm	4	Fair	C==	A stome enjagrania grouth foot social as touth	D	Davin de la	4.5	400
422		12-14	4	Fair	Group	4 stems, epicormic growth, frost crack on trunk, exposed roots	Preserve	Boundary	1.5	422
	Crabapple Colorado Spruce	21	5	Poor	Pyramidal	Major deadwood, declining, adjacent to fence, crowded by	Remove	Private	1.8	423

Observations

The trees identified within and immediately adjacent to the property can be described as planted, landscape accent trees as well as a small number of naturalized, invasive groupings of trees. Most of the trees occur around the existing commercial buildings which flank the site frontage along Queen Street as well as along landscape buffers which flank the subject property and adjacent developments. Immature, naturalized clusters of invasive pioneer species occur along the limit of the railway corridor flanking the west side of the property. The trees are mostly immature to semi-mature species in varying levels of heath and condition. The species inventoried are mainly composed of Honeylocust, Linden, Red Maple, Norway Maple, Manitoba Maple, Black Walnut, Crabapple, Siberian Elm, White Spruce, and Colorado Spruce.

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	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	Trees that are less than 15cm diameter and located on						
(exempt)	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:

- No Person shall Injure or Destroy a Tree with a Diameter of 15 centimeters or greater located on private property without a valid permit.
- No Person shall interfere with Hoarding that is erected in accordance with this By-law.
- No Person shall injure or destroy a Replacement Tree without a valid Permit.
- Permission is required for Ash or dead tree removals, but no permit fee is required.

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. A total of thirty-one (31) trees, subject to the Private Tree Bylaw, are to be removed to accommodate the proposed site plan, grading and servicing requirements.

As per City requirements, express written authorization must be provided by the adjacent property owner(s) prior to the removal of any trees on neighbouring properties adjacent to the subject site.

Table 4 – Tree Removals subject to Private Tree Bylaw

** Neighbouring/Boundary Trees to be Removed Pending Authorization from
Adiacent Property Owners

(Refer to Existing Tree Inventory List for details pertaining to specific trees)

KEY	SPECIES	CALIPER	HEALTH	REASON	STATUS	OWNERSHIP	COMPENSATION
		(cm)	G/F/P				
371	Honey	21	Fair	Construction,	Remove	Private	1
	Locust			Servicing &			
				Grading			
372	Honey	30	Fair	Construction,	Remove	Private	2
	Locust			Servicing &			
				Grading			
373	Siberian	26	Fair	Construction,	Remove	Boundary	2
	Elm			Servicing &			
				Grading			
374	Black	31	Good	Construction,	**Remove	Boundary	2
	Walnut			Servicing &			
				Grading			
375	Black	19	Fair	Construction,	**Remove	Boundary	1
	Walnut			Servicing &			
				Grading			
376	Crabapple	11-21	Fair	Construction,	**Remove	Boundary	1
				Servicing &			
				Grading			
377	Manitoba	24	Poor	Construction,	**Remove	Boundary	0
	Maple			Servicing &			
				Grading			
378	Manitoba	24	Poor	Construction,	**Remove	Boundary	0
	Maple			Servicing &			
				Grading			
379	Manitoba	16-20	Poor	Construction,	**Remove	Boundary	0
	Maple			Servicing &			
				Grading			
380	Manitoba	13-17	Poor	Construction,	**Remove	Boundary	0
	Maple			Servicing &			
				Grading			
381	Manitoba	51-24	Poor	Construction,	**Remove	Boundary	0
	Maple			Servicing &			
				Grading			
382	Manitoba	19-26	Poor	Construction,	**Remove	Boundary	0
	Maple			Servicing &			
				Grading			

KEY	SPECIES	CALIPER		REASON	STATUS	OWNERSHIP	COMPENSATION
		(cm)	G/F/P				
383	Manitoba Maple	12-22	Fair	Construction, Servicing & Grading	Remove	Private	2
385	Linden	18	Fair	Construction, Servicing & Grading	Remove	Private	1
386	Linden	18	Fair	Construction, Servicing & Grading	Remove	Private	1
387	Linden	21	Fair	Construction, Servicing & Grading	Remove	Private	1
388	Linden	26	Fair	Construction, Servicing & Grading	Remove	Private	2
389	Honey Locust	17	Good	Construction, Servicing & Grading	Remove	Private	1
390	Honey Locust	24	Good	Construction, Servicing & Grading	Remove	Private	2
391	Colorado Spruce	22	Poor	Construction, Servicing & Grading	Remove	Private	0
393	Red Maple	16	Poor	Construction, Servicing & Grading	Remove	Private	0
394	Red Maple	18	Fair	Construction, Servicing & Grading	Remove	Private	1
395	Red Maple	16	Poor	Construction, Servicing & Grading	Remove	Private	0
396	Red Maple	22	Fair	Construction, Servicing & Grading	Remove	Private	1
397	Red Maple	20	Fair	Construction, Servicing & Grading	Remove	Private	1
398	Red Maple	16	Poor	Construction, Servicing & Grading	Remove	Private	0
400	Red Maple	23	Fair	Construction, Servicing & Grading	Remove	Private	2
401	Red Maple	22	Fair	Construction, Servicing & Grading	Remove	Private	1
403	Siberian Elm	22	Dead	Dead	**Remove	Neighbour	0
404	Siberian Elm	24	Dead	Dead	**Remove	Neighbour	0
423	Colorado Spruce	21	Poor	Construction, Servicing & Grading	Remove	Private	0

Total of 31 Trees to be Removed
**Pending Authorization from Adjacent Property Owners

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

All trees eligible for preservation shall be protected in accordance with City of Mississauga tree protection standards. Tree protection is to be installed along the limit of the minimum TPZ or as outlined on the V100 - Tree Inventory, Preservation & Removals Plan. Hoarding 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.

Tree Compensation Requirements

The City of Mississauga requires replacement trees be provided for one or more trees 15cm or greater on your property. One replacement tree is required for every 15cm diameter being removed.

A Tree Replacement security deposit determined by the City is required to ensure that the replacement trees are planted on private property. If there is no sufficient space to accommodate the trees, you must pay to plant replacement trees on City property.

The City requests that replacement trees be at a minimum 1.8m tall if coniferous and 6cm in diameter if deciduous.

A total of **twenty-seven (27)** compensation trees are required.

Tree Preservation Recommendations

The following tree protection measures are recommended to be undertaken by the builder in order to successfully preserve the trees noted on the Tree Preservation Plans.

Pre-Construction

- Prior to the commencement of any site works, all trees to be preserved will be
 protected with City approved framed tree protection hoarding. This hoarding
 shall be maintained for the duration of site construction. It shall not be removed
 until authorized by the Consulting Arborist or the City.
- Once installed, the limits of protection hoarding shall be approved in the field by the Consulting Arborist and the City of Mississauga, Urban Forestry Department.

During Construction

- Areas within the protection hoarding shall remain undisturbed for the duration of site construction and shall not be used for the storage of excavated fill, building materials, structures or equipment.
- Minor grading works will be permitted at the edge of the preservation zone as required to correct localized depressions or blend grade to limit of site works.
 This work to be undertaken under the review of the Consulting Arborist.
- Where root systems of trees to be preserved are exposed or damaged by construction work, they shall be trimmed neatly by a qualified Arborist in accordance with acceptable arboricultural practice. The exposed area shall be backfilled with appropriate material to prevent desiccation.
- No cables of any type shall be wrapped around or installed in trees to be preserved. No contaminants will be dumped or flushed where feeder roots of trees exist.

Post-Construction

- Following construction, the limits of the "Tree Protection Zone" shall be inspected by the Consulting Arborist. Any pruning, watering, fertilization or replacement requirements will be determined at that time.
- Tree protection hoarding may be removed to facilitate final landscape fine grading and tree planting. This must be completed under the review of the Consulting Arborist.

To ensure that the above measures are properly implemented, the Consulting Arborist shall be involved at the following stages of construction in the vicinity of the tree preservation zones:

- 1. Upon layout and installation of protective hoarding.
- 2. Periodically during construction to ensure that hoarding remains in place and no damage occurs to trees to be preserved.
- 3. Upon fine grading of site or other landscape works
- 4. Upon completion of construction activities

Conclusion

Strybos Barron King Ltd. was retained by Dezen Realty Company Limited to prepare an Arborist Report for the subject property in accordance with the City of Mississauga Tree Bylaw requirements. The report summarizes the trees inventoried and provides recommendations for retention or removal in context with the proposed new mixed-use residential development. Thirty-one (31) trees are recommended for removal and a tree removal permit will be required. Compensation planting of twenty-seven (27) new trees will be required. The attached Tree Preservation Plan is to be used as reference with this report. No trees can be removed along the property boundary or within the adjacent properties until writing authorization from the adjacent property owner(s) is received.

Prepared By:

STRYBOS BARRON KING LTD.

Matthew Gehres

I.S.A. Certified Arborist #ON-1114A Senior Landscape Technologist

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Appendix A -SITE PHOTOGRAPHS











Tree# 383





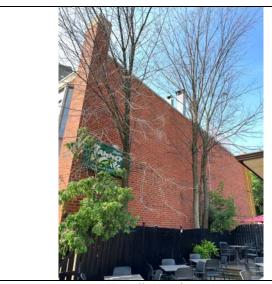














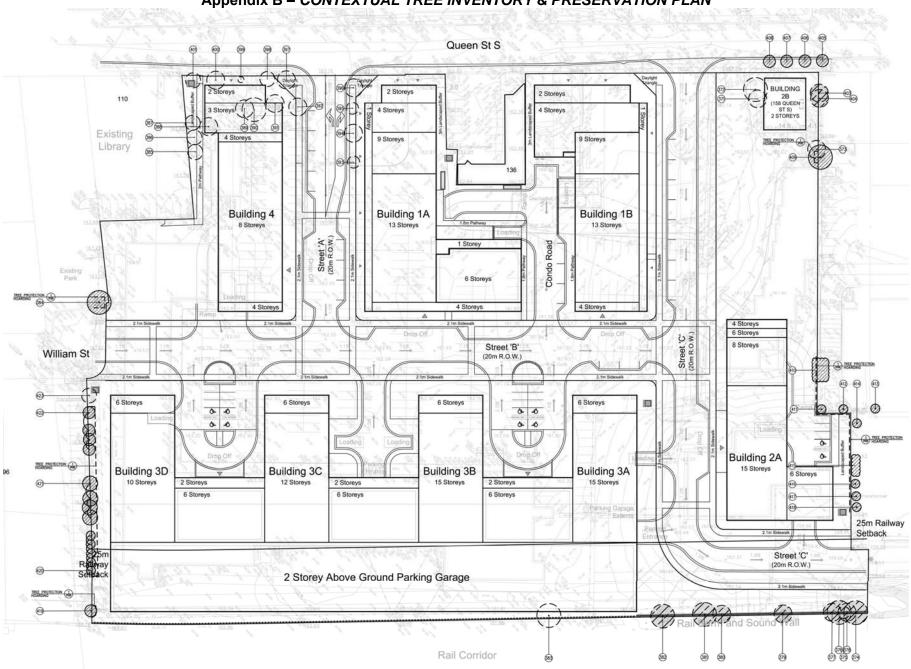
Tree# 403 & 404 Tree# 405-408



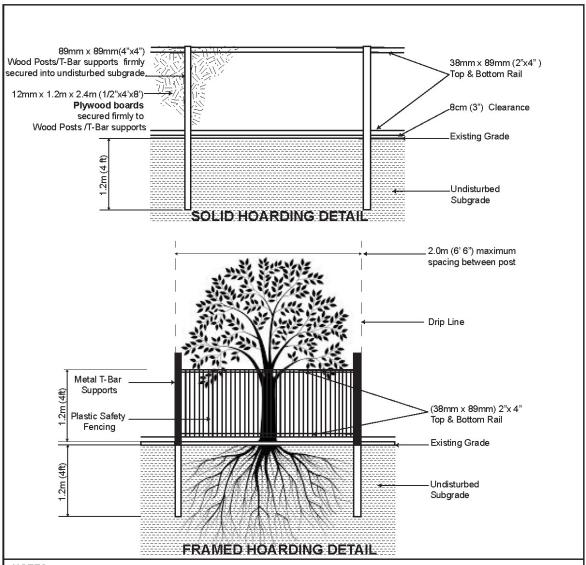


Tree# 410-418 Tree# 419-423

Appendix B - CONTEXTUAL TREE INVENTORY & PRESERVATION PLAN



Appendix C - TREE PROTECTION HOARDING DETAILS



NOTES:

- 1. Hoarding details to be determined following initial site inspection.
- 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