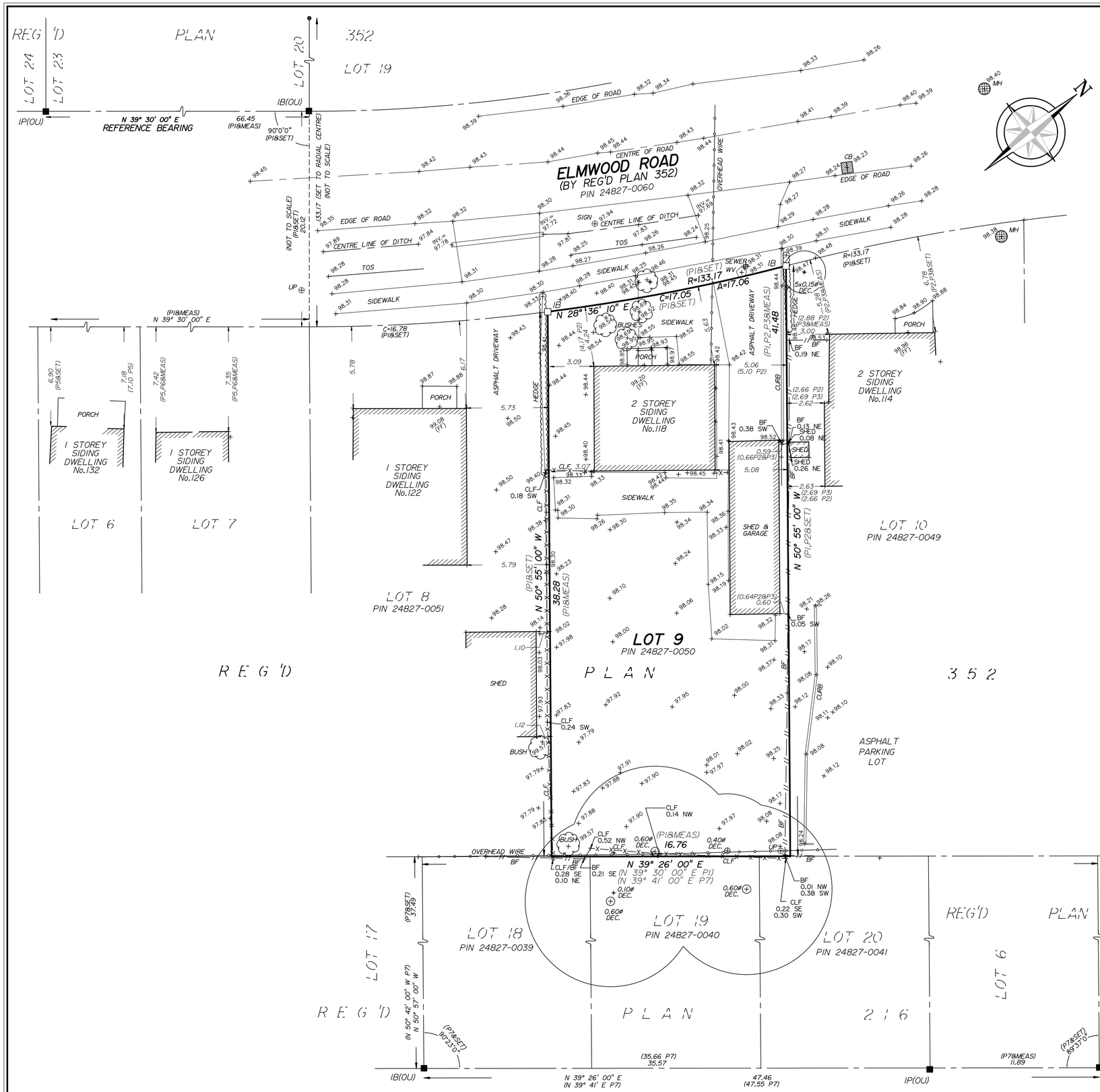


ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
V-29464

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR. In accordance with Regulation 1026, Section 29(3).

SURVEYOR'S REAL PROPERTY REPORT – PART 1

PLAN OF SURVEY AND TOPOGRAPHY OF

LOT 9
REGISTERED PLAN 352
TOWN OF OAKVILLE

REGIONAL MUNICIPALITY OF HALTON

0 5 10 15 20M

SCALE 1 : 200

J. H. Gelbloom Surveying Limited
Ontario Land Surveyor 2022

SURVEYOR'S REAL PROPERTY REPORT – PART 2

REGISTERED EASEMENTS AND/OR RIGHT-OF-WAY
None

NOTABLES
Note the Location of the Fences around the Subject Property.
Note the location of the Utility Pole and the Overhead Wires at the rear of the Subject Property. (There is no Registered Easement regarding these wires)

LEGEND

■	Survey Monument Found	N	Denotes North
□	Survey Monument Set	S	Denotes South
SIB	Standard Iron Bar	E	Denotes East
IB	Iron Bar	W	Denotes West
RIB	Round Iron Bar		
(OU)	Origin Unknown		
PI	Registered Plan 352		
P2	Plan of Survey by Tarasick McMillan Kubicki Ltd., O.L.S. dated November 28, 2008		
P3	Plan of Survey by Yates & Yates Ltd., O.L.S. dated November 28, 1983		
P4	Plan of Survey by H.D. Sewell, O.L.S. dated September 10, 1951		
P5	Plan of Survey by J.H. Gelbloom Surveying Ltd., O.L.S. dated September 4, 2007		
P6	Plan of Survey by H.D. Sewell, O.L.S. dated September 18, 1950		
P7	Registered Plan 216		
FF	Finished Floor		
EG	Established Grade		
BF	Board Fence		
CLF	Chain Link Fence		
UP	Utility Pole		
DEC.	Deciduous		
MH	Maintenance Hole		
WV	Water Valve		
TOS	Top of Slope		
BOS	Bottom of Slope		

BENCHMARK
Elevations are Referred to the Town of Oakville Benchmark No. 97, having an Elevation of 95.019 m CGVD 1928.(1978 ADJUSTMENT).

NOTE
This REPORT can be updated by this office, however NO ADDITIONAL PRINTS of this ORIGINAL REPORT will be issued, subsequent to the DATE OF CERTIFICATION.
All building ties are from the foundation and are perpendicular to property lines, unless otherwise noted.

This REPORT was prepared for J Lee Properties Corp. and the undersigned accepts no responsibility for use by other parties.

NOTE
Distances shown on this plan are in metres and can be converted to feet by dividing by 0.3048.

BEARING NOTE
Bearings are astronomic, and are referred to the Northwesterly limit of Elmwood Road as shown on Reg'd Plan 352, having a Bearing of N 39° 30' 00" E.

SURVEYOR'S CERTIFICATE
I certify that:
1: This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act, and the Regulations made under them.
2: The survey was completed on the 31st day of August, 2022.

September 29, 2022
Date

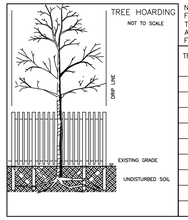
A. Musil
Andrew Musil, O.L.S.

Party Chief:	Drawn By:	Checked By:	Project:
F.M.	R.H.	A.M.	22-154

J. H. Gelbloom Surveying Limited
Ontario Land Surveyor
476 Morden Road, Unit 102, Oakville, Ont., L6K 3W4
office@jhgsurveying.ca
Phone:(905) 338-8210 Fax:(905) 338-9446

TREE PROTECTION NOTE

1. ALL EXISTING TREES WHICH ARE TO REMAIN SHALL BE FULLY PROTECTED WITH HOARDING, ERECTED BEYOND THEIR DRIP LINE PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT. GROUPS OF TREES AND OTHER EXISTING PLANTINGS TO BE PROTECTED, SHALL BE TREATED IN A LIKE MANNER, WITH THE HOARDING AROUND THE ENTIRE CLUMP(S). AREAS WITHIN THE PROTECTIVE FENCING SHALL REMAIN UNDISTURBED AND SHALL NOT BE USED FOR THE STORAGE OF THE BUILDING MATERIAL AND EQUIPMENT.
2. NO RIGGING CABLES SHALL BE WRAPPED AROUND OR INSTALLED IN TREES AND SURPLUS SOIL, EQUIPMENT, DEBRIS OR MATERIALS SHALL NOT BE PLACED OVER ROOT SYSTEMS OF THE TREES WITHIN THE PROTECTIVE FENCING. NO CONTAMINANTS WILL BE DUMPED OR FLUSHED WHERE FEEDER ROOTS OF TREES EXIST.
3. THE DEVELOPER OR HIS/HER/ITS AGENTS SHALL TAKE EVERY PRECAUTION NECESSARY TO PREVENT DAMAGE TO TREES OR SHRUBS TO BE RETAINED.
4. WHERE LIMBS OR PORTIONS OF TREES ARE REMOVED TO ACCOMMODATE CONSTRUCTION WORK, THEY WILL BE REMOVED CAREFULLY IN ACCORDANCE WITH ACCEPTED ARBORICULTURAL PRACTICE.
5. WHERE ROOT SYSTEMS OF PROTECTED TREES ARE EXPOSED DIRECTLY TO, OR DAMAGED BY CONSTRUCTION WORK, THEY SHALL BE TRIMMED NEATLY AND THE AREA BACKFILLED WITH APPROPRIATE MATERIAL TO PREVENT DESICCATION.
6. WHERE NECESSARY, THE TREES WILL BE GIVEN AN OVERALL PRUNING TO RESTORE THE BALANCE BETWEEN ROOTS AND TOP GROWTH OR TO RESTORE THE APPEARANCE OF THE TREES.
7. IF GRADES AROUND TREES TO BE PROTECTED ARE LIKELY TO CHANGE, THE OWNER SHALL BE REQUIRED TO TAKE SUCH PRECAUTIONS AS DRY WELLING, RETAINING WALLS AND ROOT FEEDING TO THE SATISFACTION OF THE PLANNING AND BUILDING DEPARTMENT OF THE TOWN OF OAKVILLE.
8. GRADE CHANGES WILL NOT OCCUR WITHIN THE TREE PROTECTION ZONE (TPZ) UNLESS CORRIDOR MUST BE OUTSIDE THE TPZ AND/OR NO OPEN TRENCH METHOD OF CONSTRUCTION BELOW-GROUND AS WELL AS NO ABOVE-GROUND LINES WITHIN THE TPZ.



NOTE: TREE PROTECTION ZONES FOR THE PURPOSES OF THIS BY-LAW, THE TREE PROTECTION ZONE (TPZ) FOR ANY TREE SHALL BE DETERMINED AS FOLLOWS:

TRUNK DIAMETER (DBH)[1]	MINIMUM PROTECTION DISTANCES REQUIRED[2]
<10 CM	1.8 M
11-30 CM	2.4 M
31-50 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

1 DIAMETER AT BREAST HEIGHT (DBH) MEASUREMENT OF TREE TRUNK TAKEN 1.4 METERS ABOVE GROUND

2 TREE PROTECTION ZONE DISTANCES ARE TO BE MEASURED FROM THE OUTSIDE EDGE OF THE TREE BASE TOWARDS THE DRIP LINE AND MAY BE LIMITED BY AN EXISTING PAVED SURFACE, PROVIDED THAT SURFACE REMAINS INTACT THROUGHOUT SITE ALTERATION

OPEN TRENCHING WILL NOT BE PERMITTED WITHIN TREE PRESERVATION AREA

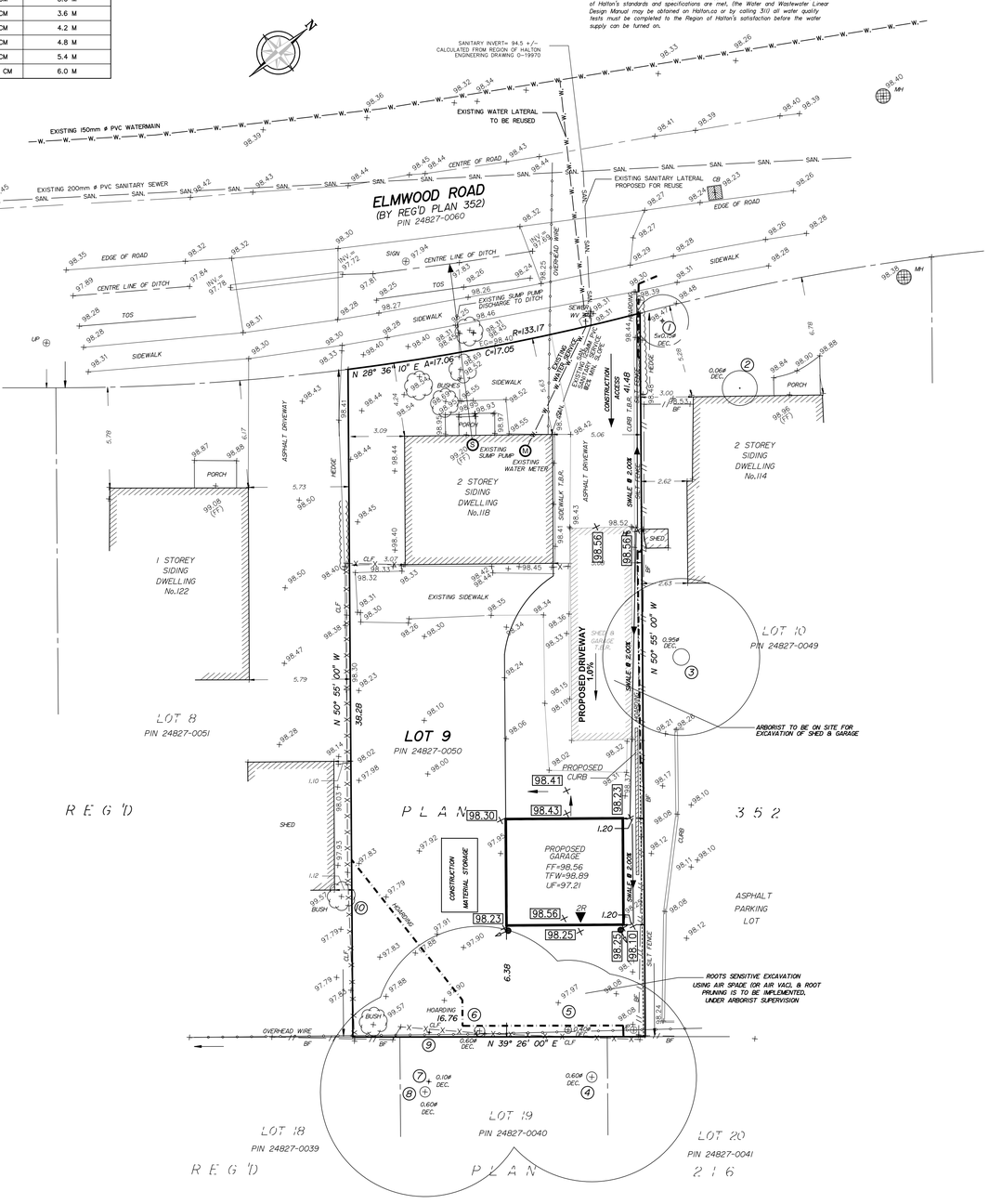
PROPOSED CONNECTIONS TO BE HORIZONTALLY BORED ONLY NO OPEN TRENCHING

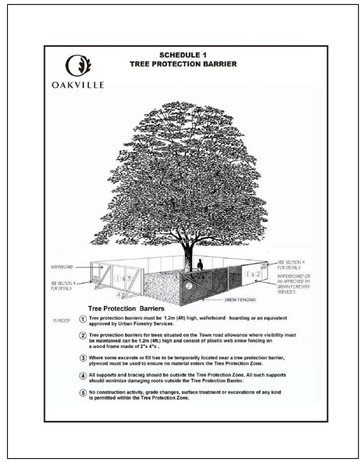
REGIONAL APPROVAL

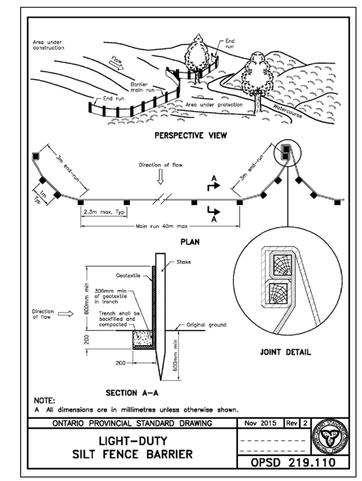
REGION DESIGN OF WATER AND/OR WASTEWATER SERVICES APPROVAL SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCAL APPROVAL FROM AREA MUNICIPALITY.

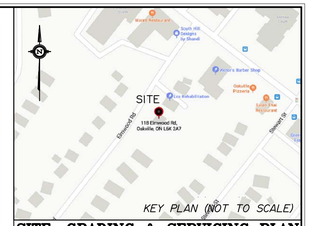
SIGNED: _____ DATED: _____
Development Services

The approval of the water system on private property property is the responsibility of the Local Municipality. Regardless, the Applicant must ensure that the Region of Halton's standards and specifications are met. (the Water and Wastewater Linear Design Manual may be obtained on Halton.ca or by calling 311) all water quality tests must be completed to the Region of Halton's satisfaction before the water supply can be turned on.









SITE, GRADING & SERVICING PLAN

LOT 9
REGISTERED PLAN 352
TOWN OF OAKVILLE
REGIONAL MUNICIPALITY OF HALTON

0 5 10 15 m

SCALE 1 : 150

J.H. Gelbloom Surveying Limited
Ontario Land Surveyor
2024

METRIC
Distances shown on this plan are in metres and can be converted to feet dividing by 0.3048.

ITEM DESCRIPTION	PERMITTED (METERS)	ACTUAL OR PROPOSED (METERS)
OAKVILLE BY-LAW	2014-014	
ZONING DESIGNATION	HI-MUI	
LOT AREA (MINIMUM)		665.47 SQ.M.
BUILDING COVERAGE (MAXIMUM)		119.31 SQ. M.
GARAGE COVERAGE (MAXIMUM)		40.93 SQ.M.
LOT COVERAGE (MAXIMUM)	232.91 SQ.M.	160.24 SQ.M.
LOT COVERAGE % (MAXIMUM)	35%	24.08%
SIDE YARD SETBACK (MINIMUM)	0.60	1.20
REAR YARD SETBACK (MINIMUM)	0.60	6.38
OVERALL HEIGHT	4.00	3.93
SUBJECT TO COMMITTEE OF ADJUSTMENTS FILE NO.		

LEGEND

CLF	Chain Link Fence	INV.	Invert Elevation
BF	Board Fence	EG	Established Grade
TFW	Top of Foundation Wall	92.56	Proposed Elevation
MH	Maintenance Hole	T.B.R.	To Be Removed
FF	Finished Floor	TOS	Top of Slope
UP	Utility Pole	BOS	Bottom of Slope
DEC.	Deciduous Tree	CSP	Corrugated Steel Pipe
CON.	Coniferous Tree	WV	Water Valve
ø	Diameter		Hoarding
TOC	Top of Curb	HP	Existing Elevation
BOC	Bottom of Curb		Rain Water Leader
	Entrance		Embankment
TRW	Top of Retaining Wall		Tree to be Removed
BRW	Bottom of Retaining Wall		
(3)	Arborist's Tree Number		

SITE ADDRESS
118 ELMWOOD ROAD
OAKVILLE, ONTARIO

J LEE PROPERTIES CORP.
118 ELMWOOD ROAD
OAKVILLE, ONTARIO

No.	Date	Description	By
1	NOV 30, 2023	SITING & GRADING	R.H.
2	APRIL 30, 2023	REVISED GARAGE	R.H.
3			

REVISIONS

INFORMATION TAKEN FROM A SURVEY PREPARED BY J. H. GELBLOOM SURVEYING LTD. DATED : SEPTEMBER 29, 2022

BENCHMARK

Elevations are Referred to the Town of Oakville Benchmark No. 97, having an Elevation of 95.019 m CGVD 1928:1978 ADJUSTMENT).

SURVEYOR'S CERTIFICATE

I HAVE REVIEWED THE PLANS FOR THE CONSTRUCTION OF A TWO STOREY DWELLING LOCATED AT 118 ELMWOOD ROAD AND HAVE PREPARED THIS PLAN TO INDICATE THE COMPATIBILITY OF THE PROPOSAL WITH ALL ADJACENT PROPERTIES AND EXISTING MUNICIPAL SERVICES. IT IS MY BELIEF THAT ADHERENCE TO THE PROPOSED ELEVATIONS AND GRADIENTS SHOWN WILL PRODUCE ADEQUATE SURFACE DRAINAGE AND PROPER FACILITY OF THE MUNICIPAL SERVICES WITHOUT DETRIMENTAL EFFECT TO THE EXISTING DRAINAGE PATTERNS OR ADJACENT PROPERTIES.

I HEREBY CERTIFY THAT THE DIMENSIONS AND SET-BACKS ARE CORRECTLY SHOWN.

AS PER OBC 9.14.6.1.(1) I CERTIFY THAT THE BUILDING WILL BE LOCATED AND THE SITE GRADING HAS BEEN DESIGNED SO THAT IT WILL NOT ADVERSELY AFFECT ADJACENT PROPERTIES.

May 3, 2024
DATE

PROVINCE OF ONTARIO LAND SURVEYOR ANDREW MUSIL 2030

Andrew Musil, O.L.S.

NOTE
EAVES DO NOT PROJECT MORE THAN 0.60M INTO PROPOSED SETBACKS.

NOTE
DOWN SPOUT DISCHARGE LOCATIONS ARE TO BE DISCHARGED ONTO SPLASH PADS.

NOTE
Service sizes, inverts and types are derived from the Region of Halton Engineering Department Dwg. No. 0-19970 The contractor must verify inverts.

STANDARD DEVELOPMENT NOTES:

(A) TRANSPORTATION AND WORKS DEPARTMENT

1. MUNICIPAL BOULEVARD TO BE RESTORED TO THE SATISFACTION OF ENGINEERING CONSTRUCTION STAFF.
2. RESTORE THE PUBLIC ROADWAY TO TOWN STANDARDS AND CLEARLY INDICATE ON THE ENGINEERING DRAWINGS ALL RESTORATION, TO THE SATISFACTION OF THE ENGINEERING & CONSTRUCTION DEPARTMENT.
3. DRIVEWAYS ON THE MUNICIPAL RIGHT-OF-WAY SHALL BE PAVED BY THE APPLICANT.
4. AT THE ENTRANCES TO THE SITE, THE MUNICIPAL CURB AND SIDEWALK WILL BE CONTINUOUS THROUGH THE DRIVEWAY AND A CURB DEPRESSION WILL BE PROVIDED FOR THE ENTRANCE.
5. THE TOPS OF ANY CURBS BORDERING THE DRIVEWAYS WITHIN THE MUNICIPAL BOULEVARD WILL BE FLUSH WITH THE MUNICIPAL SIDEWALK AND ROAD CURB.

(B) GENERAL NOTES

1. THE EXISTING GRADES SHOWN ON THIS DRAWING ARE TO REMAIN UNCHANGED.
2. THERE ARE NO EASEMENTS REGISTERED ON TITLE AND AFFECTING THE SUBJECT LANDS.
3. THE STOCKPILING OF CONSTRUCTION MATERIAL TO BE DONE AT THE FRONT OF THE PROPOSED DWELLING ON THE EXISTING DRIVEWAY.
4. ALL ROOF DOWNSPOUTS FROM EAVESTROUGH TO DISCHARGE ONTO SURFACE AND THE RUNOFF DIRECTED TOWARDS THE REAR WHERE POSSIBLE AND TO THE ROAD.
5. ROOF DOWNSPOUT IS LOCATED IN SUCH MANNER AS TO DIRECT DRAINAGE AWAY FROM WALKWAYS, DRIVEWAYS OR PATIO AREAS.
6. MAINTAIN EXISTING GRADES IN AREA AROUND TREES TO BE PRESERVED.
7. PRIOR TO CONSTRUCTION, CONTRACTOR TO VERIFY IN FIELD THE EXACT SIZE AND INVERTS OF THE EXISTING WATER SERVICE CONNECTION AND SEWER CONNECTIONS AND REPORT IT TO THE ENGINEER.
8. ALL SURPLUS/EXCAVATED MATERIAL TO BE REMOVED FROM THE SITE.
9. CONTRACTOR TO MATCH EXISTING GRADES ALONG PROPERTY LINES.
10. ALL DISTURBED AREAS WITHIN EXISTING ROAD ALLOWANCE TO BE REINSTATED WITH TOPSOIL AND SOD TO THE SATISFACTION OF THE TOWN OF OAKVILLE.
11. THE CONTRACTOR IS TO CHECK AND VERIFY ALL DIMENSIONS, IF ANY DISCREPANCIES, THEY MUST BE REPORTED TO THE ENGINEER IMMEDIATELY PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. GAS, HYDRO, TELEPHONE OR ANY OTHER UTILITIES THAT MAY EXIST ON THE SITE OR WITHIN THE STREETLINE MUST BE LOCATED BY ITS OWN UTILITIES AND VERIFIED PRIOR TO CONSTRUCTION.
13. ALL CONNECTIONS SHALL BE INSTALLED AS PER REGION OF HALTON STANDARDS AND SPECIFICATIONS.
14. BUILDER IS TO VERIFY TO THE ENGINEER THAT THE FINAL FOOTING ELEVATION AND TOP OF FOUNDATION WALL ELEVATION ARE IN CONFORMITY WITH THE BUILDING CODE AND THE CERTIFIED GRADING PLAN PRIOR TO PROCEEDING.
15. OUTSIDE FINISHED GRADE TO BE A MINIMUM OF 150 mm BELOW BRICK/STONE VENEER ELEVATION.
16. PRIOR TO ANY SODDING, THE BUILDER IS TO ENSURE TO THE SOIL CONSULTANT AND/OR THE ENGINEER THAT THE LOT HAS BEEN GRADED AND TOPSOILED AND SODDED COMPLETELY WITH A MINIMUM DEPTH OF 200 mm OF TOPSOIL AND N° 1 NURSERY SOD AND A MINIMUM DEPTH OF 150 mm CRUSHED STONE TO BE PROVIDED ON THE ENTIRE LENGTH OF EACH DRIVEWAY ON A FIRM SUBGRADE AND THE DRIVEWAY TO BE PAVED WITH A MINIMUM COMPACTED DEPTH OF 75 mm OF ASPHALT BETWEEN THE CURB AND THE GARAGE.
17. NO SODDING ON ANY LOT IS PERMITTED UNTIL PRELIMINARY INSPECTION IS DONE BY THE ENGINEER AND THE BUILDER.
18. DRIVEWAY GRADES SHOULD BE NOT LESS THAN 1.0% AND NOT GREATER THAN 7.0%.
19. LAWN AND SWALES SHALL HAVE MINIMUM SLOPE OF 2.0% AND A MAXIMUM SLOPE OF 5.0% AND HAVE A MINIMUM DEPTH OF 150mm.
20. WHERE GRADES IN EXCESS OF 5.0% ARE REQUIRED, THE MAXIMUM SLOPE SHALL BE 3:1. GRADE CHANGES IN EXCESS OF 1.0 m ARE TO BE ACCOMPLISHED BY USE OF A RETAINING WALL. RETAINING WALLS HIGHER THAN 0.6 m SHALL HAVE A FENCE INSTALLED ON THE HIGH SIDE.
21. THE SERVICE CONNECTION TRENCH THROUGH THE TRAVELLED PORTION OF THE ROAD ALLOWANCE SHALL BE BACKFILLED WITH UNSHRINKABLE BACKFILL MATERIAL AS PER TOWN OF OAKVILLE STANDARDS UNLESS OTHERWISE SPECIFIED PRIOR APPROVAL FOR OTHER BACKFILL MATERIAL HAS BEEN OBTAIN.
22. ALL WATERMAINS AND WATER SERVICE MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO CURRENT REGION OF HALTON STANDARDS AND SPECIFICATIONS.
23. WATERMAINS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM DEPTH OF 1.7 m WITH A MINIMUM HORIZONTAL SPACING OF 2.5 m FROM THEMSELVES AND OTHER SERVICES.
24. SEDIMENT CONTROL FENCE TO BE INSTALLED AS PER THE TOWN OF OAKVILLE STANDARDS.
25. ALL DAMAGED AND DISTURBED AREAS TO BE REINSTATED WITH TOPSOIL AND SOD.

EROSION AND SILTATION NOTES

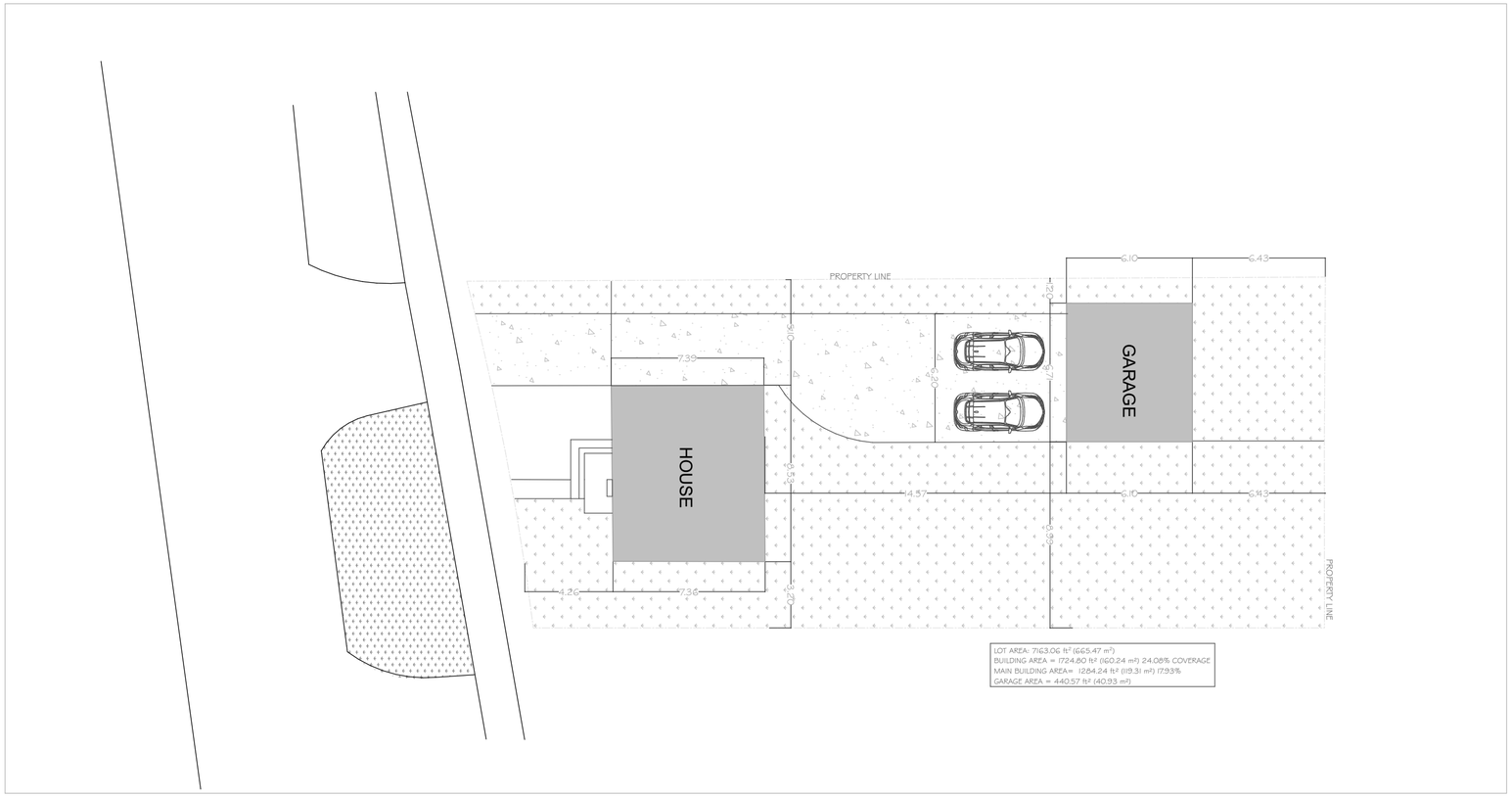
1. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED ACCORDING TO APPROVED PLANS TO COMMENCEMENT OF ANY EARTH MOVING WORK ON THE SITE AND SHALL REMAIN IN PLACE UNTIL A DISTURBED AREAS ARE STABILIZED WITH THE INTENDED FINAL GROUND COVER.
2. EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED BY THE BUILDER/DEVELOPER.
   A. WEEKLY
   B. BEFORE AND AFTER ANY PREDICTED RAINFALL EVENT
   C. FOLLOWING AN UNPREDICTED RAINFALL EVENT
   D. DAILY, DURING EXTENDED DURATION RAINFALL EVENTS
   E. AFTER SIGNIFICANT SNOW MELT EVENTS
3. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES. DAMAGED OR CLOGGED DEVICES SHALL BR REPAIRED WITH 48 HOURS.
4. WHERE A SITE REQUIRES DEWATERING AND WHERE THE EXPELLED WATER CAN BE FREELY RELEASED TO A SUITABLE RECEIVER, THE EXPELLED WATER SHALL BE TREATED TO CAPTURE SUSPENDED PARTICLES GREATER THAN 40 MICRON IN SIZE. THE CAPTURED SEDIMENT SHALL BE DISPOSED OF PROPERLY PER MOECC GUIDELINES. THE CLEAN EXPELLED WATER SHALL BE FREELY RELEASE TO A SUITABLE RECEIVER IN MANNER THAT DOES NOT CREATE DOWNSTREAM ISSUES INCLUDING BUT NOT LIMITED TO EROSION, FLOODING- NUISANCE OR OTHERWISE, INTERFERENCE ISSUES, ETC.
5. EXISTING STORM SEWERS AND DRAINAGE DITCHES ADJACENT TO THE WORKS SHALL BE PROTECTED AT ALL TIMES FROM THE ENTRY OF SEDIMENT/SILL THAT MAY MIGRATE FROM THE SITE. FOR STORM SEWERS: ALL INLETS(REAR LOT CATCHBASINS, ROAD CATCHBASINS, PIPE INLETS, ETC.) MUST BE SECURED/FITTED WITH SILTATION CONTROL MEASURES. FOR DRAINAGE DITCHES: THE INSTALLATION OF ROCK CHECK DAMS, SILTATION FENCING. SEDIMENT CONTAINMENT DEVISES MUST BE INSTALLED TO TRAP AND CONTAIN SEDIMENT. THESE SILTATION CONTROL DEVICES SHALL BE INSPECTED AND MAINTAINED PER ITEMS 2 AND 3 ABOVE.
6. IN THE EVENT OF A SPILL(RELEASE OF DELETERIOUS MATERIAL) ON OR EMANATING FROM THE SITE, THE OWNER AGENT SHALL IMMEDIATELY NOTIFY THE MOECC AND FOLLOW ANY PRESCRIBED CLEAN UP PROCEDURE. THE OWNER OR OWNERS AGENT WILL ADDITIONALLY IMMEDIATELY NOTIFY THE TOWN.

(C) UTILITIES CONNECTION

1. SANITARY: (A) MUNICIPAL SANITARY SEWER AVAILABLE ON THE SITE.
2. WATER: (A) SERVICE CONNECTIONS TO BE 25mm DIA. TYPE 'K' SOFT COPPER TUBING UNLESS OTHERWISE NOTED AS PER REGION OF HALTON STANDARDS.
3. STORM: (A) A SUMP PUMP WILL BE REQUIRED TO DRAIN THE BASEMENT FACILITIES.

J. H. Gelbloom Surveying Limited
Ontario Land Surveyor
476 Morden Road, Unit 102, Oakville, Ont., L6K 3W4
office@jhgsurveying.ca
Phone:(905) 338-8210

Project:	Checked By:
22-154	A.M.
Drawn By:	Party Chief:
R.H.	F.M.



-2. Site Plan 1:200

GENERAL NOTES:

1. DO NOT SCALE DRAWING

2. THIS DRAWING IS NOT TO BE REPRODUCED UNLESS PROPER WRITTEN CONSENT IS OBTAINED FROM KENNYLABS DESIGNS

3. ALL DIMENSIONS TO BE VERIFIED PRIOR TO CONSTRUCTION

4. ALL WORK SHOULD BE IN STRICT ACCORDANCE WITH THE 2012 ONTARIO BUILDING CODE & LOCAL MUNICIPAL BY-LAWS

5. THESE DRAWINGS MAY BE ALTERED DUE TO ON SITE CONDITIONS NOT FORESEEN PRIOR TO CONSTRUCTION

6. AFTER PERMIT IS OBTAINED ANY CHANGES MADE BY OWNER OR CONTRACTOR WILL BE THEIR RESPONSIBILITY AND KENNYLABS DESIGNS WILL NOT BE RESPONSIBLE

7. BEFORE BEGINNING ANY WORK IF CONTRACTOR FINDS ANY DISCREPANCIES NOTIFY KENNYLABS DESIGNS TO RECTIFY A SOLUTION

8. THESES PLANS FORM THE BASES FOR PERMIT ISSUANCE AND ANY DEVIATIONS FROM THESE PLANS AND DETAILS, INCLUDING THE VENTILATION SYSTEM, HEATING SYSTEM, WOODSTOVE, FIREPLACE, DECKS, BALCONIES, AND FINISHED BASEMENTS, WILL REQUIRE REVISED DRAWINGS AND CLEARANCE BY THE BUILDING DEPARTMENT

ASSEMBLY SCHEDULE

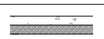
WALLS/PARTITIONS

TYPE W3 - INSULATED EXTERIOR WALL:
STANDING SEAM CLADDING (9 1/2" - UL U305 - 1 HR - R22+6CI MIN.)

W1

CLADDING/SIDING FINISH - TO BE DETERMINED BY CLIENT
1" x 3" STRAPPING @ 16" O/C
5/8" DENSGLAS GOLD EXTERIOR SHEATHING,
ALL JOINTS TAPED AND SEALED W/ PROCLIMA TESCON VANA SHEATHING TAPE
2" x 6" WOOD STUDS @ 16" O/C
5/8" TYPE "X" GYPSUM WALL BOARD FINISH (OPTIONAL)

FLOORS AND ROOF



TYPE F1- CONCRETE SLAB ON-GRADE (8 1/4")

F1

4" CONCRETE SLAB - 32 MPa @ 28 DAYS, 5% - 8% AIR ENTRAINMENT,
WWM REINFORCING IN CENTER OF SLAB
SLAB GROUND AND POLISHED TO 600 GRIT, SEALED W/ BELLATRIX OR SIMILAR
4" MIN. COMPACTED FREE DRAINING GRANULAR ON UNDISTURBED SOIL

TYPE F2- TYPICAL ASSEMBLY FLOOR (11" 1/8")

F2

LUXURY VINYL PLANK FLOOR- FINISH/MANUFACTURER TBD BY CLIENT
ON UNDERLAYMENT AS PER MANUFACTURER'S SPECIFICATIONS
3/4" T&G PLYWOOD SUBFLOORING, GLUED & SCREWED
2" X 14" FLOOR JOISTS or 14" TJI210/TJI230
1/2" GWB FINISH (OPTIONAL)

TYPE R1- EXPOSED ROOF ASSEMBLY (9")- R31 MIN. EXPOSED

R1

2 PLY TORCH -LAY ROOFING MEMBRANE
3/16" ROOF PROTECTION BOARD BY IKO OR SIMILAR
5/8" T&G PLYWOOD SHEATHING
2" X 6" ROOF JOISTS
1/2" GWB FINISH (OPTIONAL)

NOTE: ALL MEASUREMENTS MUST BE RE-CONFIRMED AT SITE BY TRADES BEFORE MANUFACTURING OR ORDERING FURNITURE, APPLIANCES OR EQUIPMENTS

The undersigned has reviewed and takes responsibility for this design and has the qualifications and meets the requirements set out in the Ontario Building Code to be designer.

QUALIFICATION INFORMATION- Required unless design is exempt under 3.2.5.1 of Division "C" of the Ontario Building Code

Christian Kehinde 118137

Name SIGNATURE BCIN

Kenny Labs Designs Firm BCIN: 119038

QUALIFICATION INFORMATION- Required unless design is exempt under 3.2.5.1 of Division "C" of the Ontario Building Code

Kenny Labs Designs
903- 90 Queens Wharf Road
Toronto, ON, M5V 0J4
T: 416 833-6898, 647 588-7209
E: kennylabsdesigns@gmail.com

Project:

Client:

Drawing: Site Plan A.02

REVISION # :	REVISION DATE:	DRAWN BY:	
00	00	CK & BL	N

SCALE:	DATE:
AS NOTED	SEPT. 15, 2023

DRAWING STATUS:
ISSUED FOR CONSTRUCTION

SHORE + CO. INC
2-507 Speers Road
Oakville, ONT
416.902.1985

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www.shoreandco.ca
@shoreandco

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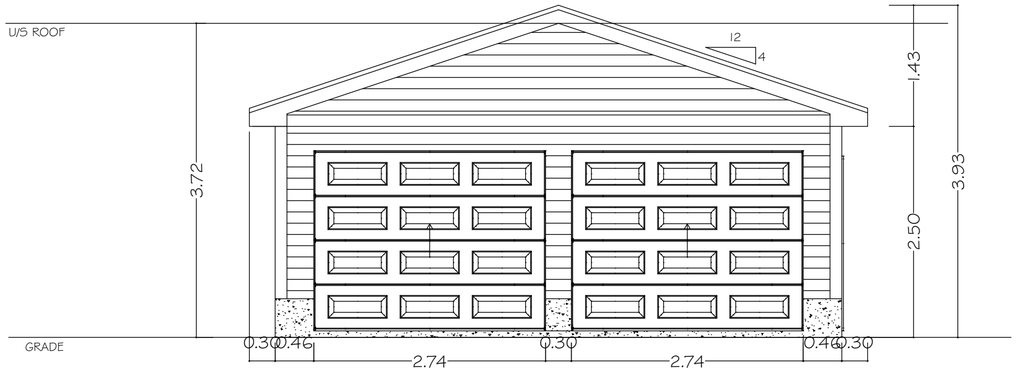

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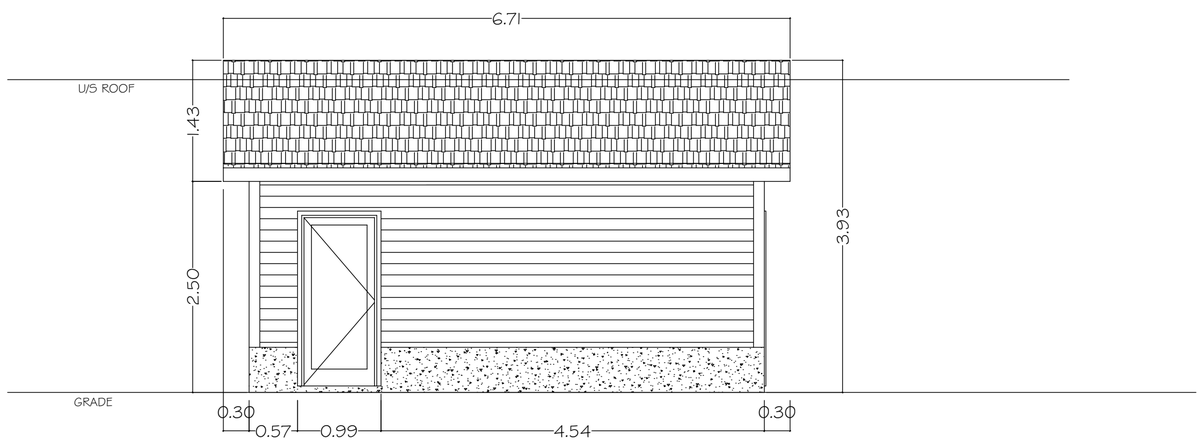

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The undersigned has reviewed and takes responsibility for this design and has the qualifications and meets the requirements set out in the Ontario Building Code to be designer.

QUALIFICATION INFORMATION- Required unless design is exempt under 3.2.5.1 of Division "C" of the Ontario Building Code

Christian Kehinde 118137

Name SIGNATURE BCIN

Kenny Labs Designs Firm BCIN: 119038

QUALIFICATION INFORMATION- Required unless design is exempt under 3.2.5.1 of Division "C" of the Ontario Building Code

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Project:

Client:

Drawing: Elevations A.04

REVISION # :	REVISION DATE:	DRAWN BY:	
00	00	CK & BL	N

SCALE:	DATE:
AS NOTED	SEPT. 15, 2023

DRAWING STATUS:
ISSUED FOR CONSTRUCTION

SHORE + CO. INC
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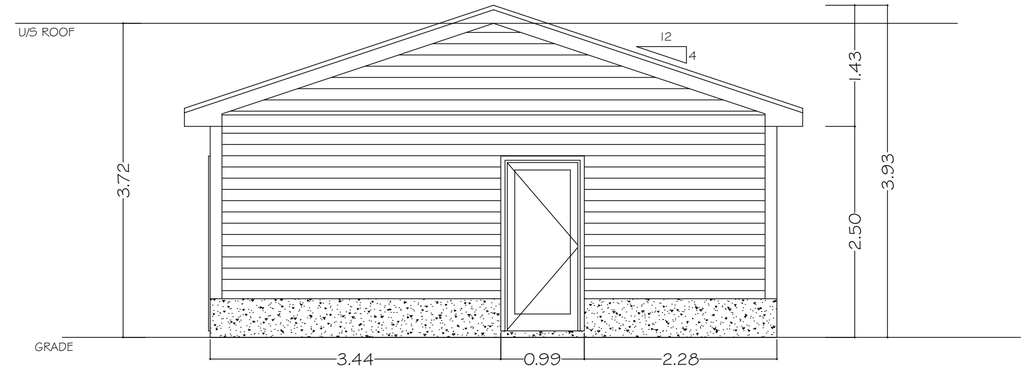

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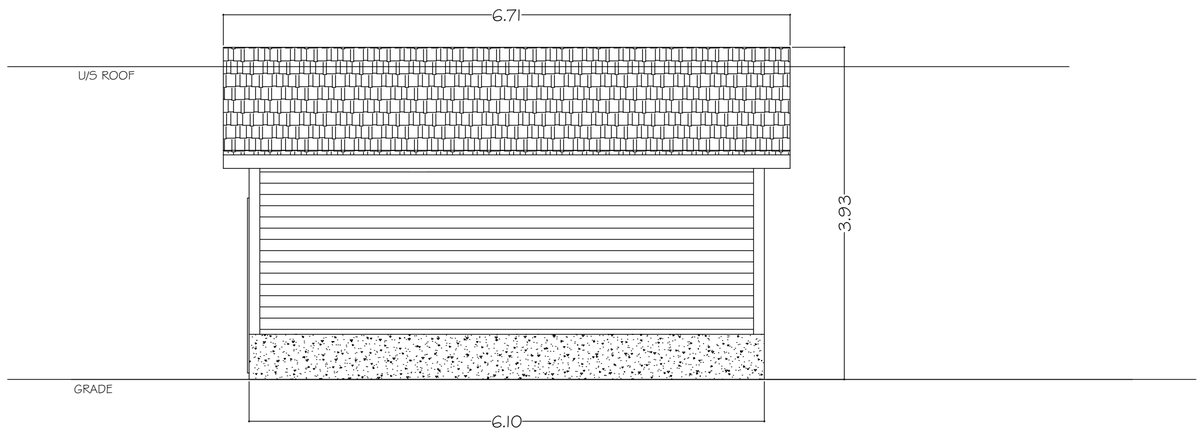

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Name SIGNATURE BCIN

Kenny Labs Designs Firm BCIN: 119038

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Project:

Client:

Drawing: Elevations A.05

REVISION # :	REVISION DATE:	DRAWN BY:	
00	00	CK & BL	N

SCALE:	DATE:
AS NOTED	SEPT. 15, 2023

DRAWING STATUS:
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Arborist Report

Pre-Construction Assessment

Prepared For:

Shore and Co Interior Design Build
c/o Elise Brownlee

Site Address:

118 Elmwood Rd, Oakville, ON
L6K 2A7

October 19th, 2022
Revised on July 31st, 2023
Revised on September 06th, 2023

Prepared By:

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Content

Summary

This report is regarding the removal of a garage and shed in the side yard, and a proposed new detached garage in the backyard of 118 Elmwood Rd in Oakville. This report serves to document the condition and provide recommendations to preserve trees within and surrounding this property in advance of future construction work.

10 trees were assessed on site:

- Neighbour-owned trees: **10**

4 regulated trees (#3-6) have works proposed within their Tree Protection Zones (TPZs) and will be injured by construction.

- Tree #3 is a large neighboring Silver Maple tree belonging to 114 Elmwood Road that has a section of its TPZ located under the existing shed and garage. Removal of the existing shed and garage should be removed with hand-tools (e.g. jackhammer and wheelbarrow) under the supervision of a Certified Arborist. Large roots are to be preserved if possible. Asphalt driveway will then be built at the same site and it should be maintained and matched with the original grade. **A permit is required and consent from 114 Elmwood Road has already been obtained.**
- Trees #4-5 are neighbor trees belonging to 119 Stewart Street which both will be slightly injured by future stone paving of the garage. All works should be completed using hand-tools by Certified Arborist within their TPZs. **Permits are required and consent from 119 Stewart Street should be obtained for the injuries.**
- Tree #6 is a neighbor Black Walnut tree belonging to 119 Stewart Street. The proposed detached garage built in the backyard will encroach part of its TPZ at depth of 0.25-0.3m (10-12"). All excavation must be conducted with air-spading, Hydro-Vac at low pressure (<500psi) or hand-digging under supervision of Certified Arborist. **A permit is required and consent from 119 Stewart Street should be obtained for the injury.**

6 trees can be fully protected within and surrounding this property.

- We recommend establishing hoarding beside Tree #1 at the front of the property and across the back of the property to protect neighboring trees.

Introduction

Davey Resource Group (DRG) was retained by the client, Shore and Co interior Design Build, to develop an Arborist Report and Tree Protection Plan (TPP) for the removal of an existing garage and shed in the side yard, and a proposed new detached garage in the backyard at 118 Elmwood Rd in Oakville ON.

An inventory and assessment of all trees 5 cm or greater within the property, up to 6 meters from construction, as well as those with TPZs overlapping the property was conducted. The Arborist was to document the current condition, size, and location of the trees as they relate to the proposed work. All trees within the scope of the survey were included in an inventory and assessed for protection or removal needs. Small, ornamental trees and shrubs were not surveyed for this report.

Recommendations for tree preservation or removal are to be provided and follow Town of Oakville Tree Protection and Preservation specifications.

This report must be accompanied by the following additional documents:

1. A full printing of the tree inventory performed by Davey Resource Group (DRG), otherwise known as the Tree Protection Action Key (TPAK). (Appendix 1)
2. The construction maps with the Arborist Comments, otherwise known as the Tree Protection Plan (TPP). (Appendix 3)

Limitations of the Assignment

It must be understood that DRG is the assessor of the trees in relation to tree preservation practices. The construction supervisors should incorporate the information and recommendations provided within this report into their construction methodology to complete their project in a reasonable manner.

This Arborist Report was compiled from field data collected from the ground. A basic visual assessment of the tree was performed. No level of ISA Tree Risk Assessment was performed. The inspection of this site pertained strictly to trees with a Diameter at Breast Height (DBH) 5 cm or greater located on the property or within 6 m of the property boundary. The client should incorporate the information and recommendations provided in this report into their construction and installation procedures on an ongoing basis.

Methods

- Tools used to assess the trees included a metric DBH measuring tape, metric measuring tape, and camera.
- All trees protected by Oakville's Private, and Town Tree Protection By-laws were included in the inventory.
- Trees were studied for their proximity to existing and planned structures to determine recommendations or precautions for trees requiring removal or injury.

Observations

- Site visit occurred the morning of October 19th, 2022, by ISA Certified Arborist Christopher Preece (ON-2547A).
- Weather conditions were 8ºC and cloudy.
- No construction was present on site at the time of assessment.
- No recent construction has occurred outside of the house on the property.
- **Tree #1** is a neighboring River Birch tree located along the property line. This tree has multiple stems and can be fully protected with a section of hoarding.
- **Tree #2** is a small tree at the front of 114 Elmwood that will not suffer during construction.
- **Tree #3** is a large neighboring Silver Maple tree. This tree is bylaw-protected and has a section of its TPZ that lies under the existing garage and shed. We have recommended removing the shed and garage with hand tools under the supervision of a qualified arborist who can help retain large roots. The new asphalt driveway to be built after the removal works should be maintained and matched with the original grade. This tree has had past pruning and still has some small deadwood in the crown.
- **Trees #4-5** will be slightly injured by the stone paving of the garage. Hand-tools are to be used for all works within their Tree Protection Zones under supervision of a Certified Arborist.
- **Tree #6** will be slightly injured by the detached garage at digging depth of 0.25-0.3m (10-12"). Excavation must be completed using air-spading, Hydro-Vac at low pressure (<500psi) or hand-digging by Certified Arborist.
- **Trees #7-10** are located at the back of the property and on neighboring properties. These trees are not expected to suffer during construction as they can be fully protected with a single piece of hoarding crossing the back yard.

For further details and observations, refer to the Tree Protection Action Key (Appendix 1).

Discussion

To preserve and protect trees, proper recommendations must be followed and abided by the client for the duration of the project.

Regulatory context

The Oakville Private Tree Protection By-law 2017-03 states that a permit is required to injure or remove any privately owned tree that measures 15 cm or more in diameter at breast height (DBH). Fees are exempt for trees that are dead, high risk, ash trees, or buckthorn trees.
The Oakville Town Tree Protection By-law 2009-025 states that a permit is required to injure or remove any Town tree.

Tree Protection Zone (TPZ)

Tree Protection Zone as defined by Town of Oakville bylaw means a restricted area, enclosed by fencing, that is measured at diameter at breast height (DBH) 1.37m above grade. No construction activity or equipment is to be inside the TPZ at any time during the construction.

Minimum Tree Protection Zone (MTPZ)

Work within the MTPZ of any tree would be considered serious root injury and would leave the tree with a high potential of structural failure or serious decline. Boxes surrounding existing trees on the TPP are based on the TPF set-back distances provided by the Town of Oakville. These measurements have been recorded in the field and represent a 'best case scenario' for tree protection needs. The on-site project arborist will have final approval of tree protection requirements. The use of supersonic air tool (SSAT) or daylighting may be required for trees with construction within the MTPZ while the construction project is underway to ensure these trees are reasonably preserved. Tree Preservation Specifications are there to protect trees while giving them their necessary information and actual footprints to ensure all work around trees can continue efficiently. Increasing TPZ distances should be done at the design stage. Field marking exact locations of new proposed structures and underground utilities by the planning personnel has been well proven to be the most effective way to ensure accurate distances from trees. It is better to add some fill than to excavate roots. Fill can be modified (such as using High Performance Base (HPB)) to allow gas exchange and water permeability, while the tree adapts to the change slowly over time.

Further discussions may be needed to ensure methods are useful, cost effective and will provide for the trees that are being protected.

Trunk Diameter (DBH)	**<10cm**	**10-30cm**	**31-50cm**	**51-60cm**	**61-70cm**	**71-80cm**	**81-90cm**	**91-100+cm***
Minimum Protection Distance Required	**1.8m**	**2.4m**	**3.0m**	**3.6m**	**4.2m**	**4.8m**	**5.4m**	**6.0m+***

*For trees over 100 cm. DBH, add 10 cm. to the TPZ for every one centimetre of DBH.

Root Pruning Protocol

The roots provide nutrients and water to the leaves and branches while supporting the tree in windstorms and preventing failure. Trees are remarkable, in that the upper canopy can be completely green and full while most of the roots below have been removed; leaving the tree highly prone to failure and imminent death within a few years. Once a tree is injured, that injury is never "healed" but instead the tree allocates a great deal of energy to try and repair itself, often at the expense of its vitality and sometimes leading it into a mortality spiral that may not be noticed until years later.

Root pruning is a practice to minimize injuries to trees. Roots in comparison to upper canopy limbs store a great deal of energy and reserves for trees to survive and must be removed with the utmost care and consideration. Like pruning the upper canopy of the tree, roots are best removed (if needed) via target pruning practices and not by being torn off. Roots must be assessed by a qualified and experienced arborist and then pruned properly with a sharp tool.

Root pruning is not a common skill set and should be performed by a qualified arborist familiar with root excavation and root pruning. Tree's roots are underground and are otherwise not detectible without physical exploration – i.e., using a Supersonic Air Tool (SSAT) such as an AirSpade® or Daylighting vehicle (Hydro-Vac with pressure not to exceed 500psi inside any TPZ). Root pruning trenches must be at least the depth of the deepest root (usually 30-60 cm) and about 15 cm wide. Roots are assessed by the arborist about the effect's construction may have on the tree, and then either pruned with a sharp tool, possibly recommended for removal, or a design change may be needed on-site to accommodate. The use of a rotary saw is not acceptable to prune the roots of trees.

The Town of Oakville specifies the non-invasive methods of excavation including but not limited to air spade, hydro vac, hand digging to minimize the damage to the health and structure of the trees. Root pruning in open trench methods of construction is required under the direction of - and along with - written approval of an arborist. An arborist must be always present on site when work is within the TPZ.

Tree Protection Hoarding (Appendix 3)

Hoarding (Tree Protection Fencing (TPF)) is used on construction sites to ensure that damage to the tree and its root zone is prevented. This distance is typically located by the MTPZ. However, it must be understood that sometimes this distance is not achievable due to infrastructure being too close. It must be further understood the hoarding distance sometimes must accommodate a larger TPZ (than the typical MTPZ distance) due to a limited root growing area/volume (this area is typically defined by the project arborist.) This hoarding must be anchored to the ground and must be installed to the lines defined by the project arborist.

Problems will arise for tree preservation efforts when anyone removes the hoarding, even temporarily. It takes one instance of soil compaction from a heavy machine for roots to suffer from air and water deprivation and for the tree to become stressed. It is imperative to install and maintain in good condition the hoarding to prevent this from happening before and throughout the entire construction.

Tree Protection Signage

The signs are provided and posted by the Town of Oakville Forestry Department once the hoarding set-up is approved. Signage informs the public and reminds the contractors the significance of the TPZs and the efforts put forward by the client in tree preservation.

Staging Areas

All staging areas are understood to be outside the TPZ. At no time are materials, vehicles, traffic or debris to be stacked, staged, or piled inside the hoarding (Tree Protection Fencing).

Vertical Mulching

An aeration or fertilization technique. Drilling (auguring) vertical holes in the soil and filling them with materials (compost/ fertilizer) to improve aeration.

Permeable Surface Construction

When performing new hardscape construction in the root zone of a tree, it is imperative to pursue a minimum amount of disturbance to any open soil surface where such roots are or may be growing. The addition of an impermeable surface above existing tree roots serves to stress the roots in two ways. First, heavy material such as asphalt and cement serve to compact the soil, cutting off access to air pockets within the soil which serve as a medium for roots to perform their duties in fueling the tree's energy processes. Secondly, impermeable surfaces cut off access to water by redirecting groundwater and rainfall away from the soil beneath, chocking off a tree's water supply, which is a tree's most important below-ground resource. These stressors can be avoided by pursing, gravel surfaces, geotextile subsurface that distribute the load places upon the soil and tree root zone by the hard surfaces above.

Replacement Trees

As a condition of a tree permit, one tree must be planted for every 10 cm DBH of healthy tree removed. A $300 security deposit is required for each tree to be planted. The security deposit will be refunded once a final inspection of the replacement plantings is complete. Replacement trees must be planted on the same property as those removed. Where it is not possible to properly grow replacement trees on the site, the security deposit may be donated to the town to plant on nearby town property. The minimum tree replacement size is a 30-mm caliper (3 cm width) deciduous tree, or a 150-cm high coniferous tree in a five-gallon container, balled in burlap, or in a wire basket.

Conclusion

To account for the removal of the shed and garage in the side yard, and a new proposed garage in the backyard at 118 Elmwood Rd in Oakville, 10 trees were assessed for retention, protection, injury, or removal.

4 regulated trees (#3-6) have works proposed within their Tree Protection Zones (TPZs) and will be injured by construction.

- Tree #3 is a large neighboring Silver Maple tree belonging to 114 Elmwood Road that has a section of its TPZ located under the existing shed and garage. Removal of the existing shed and garage should be removed with hand-tools (e.g. jackhammer and wheelbarrow) under the supervision of a Certified Arborist. Large roots are to be preserved if possible. Asphalt driveway will then be built at the same site and it should be maintained and matched with the original grade. **A permit is required and consent from 114 Elmwood Road has already been obtained.**
- Trees #4-5 are neighbor trees belonging to 119 Stewart Street which both will be slightly injured by future stone paving of the garage. All works should be completed using hand-tools by Certified Arborist within their TPZs. **Permits are required and consent from 119 Stewart Street should be obtained for the injuries.**
- Tree #6 is a neighbor Black Walnut tree belonging to 119 Stewart Street. The proposed detached garage built in the backyard will encroach part of its TPZ at depth of 0.25-0.3m (10-12"). All excavation must be conducted with air-spading, Hydro-Vac at low pressure (<500psi) or hand-digging under supervision of Certified Arborist. **A permit is required and consent from 119 Stewart Street should be obtained for the injury.**

6 trees can be fully protected within and surrounding this property.

- We recommend establishing hoarding beside Tree #1 at the front of the property and across the back of the property to protect neighboring trees.

Recommendations

In accordance with the numbering of trees in the inventory listed on the Tree Protection Action Key (TPAK, Appendix 1), we have provided the following recommendations.

- Trees to be fully protected are specified with "Protect" in the "Action" column in the TPAK.
    - We recommend the client install and properly maintain Tree Protection Fencing (TPF) built to the Town of Oakville standards (Appendix 4,5) following the Tree Protection Plan (Appendix 3) prior to and during construction work.
    - We recommend the fencing in the back yard be built of 1.2 meter (4 ft) high orange plastic web snow fencing on 2" x 4" wood frame
    - We recommend that solid ¾ inch plywood hording attached to a 2" x 4" frame be used along the driveway
    - Tree Protection Signage (Appendix 5) provided should be affixed to all Tree Protection Fences.
    - Hoarding is recommended around Trees #1 and #4-10.
- Trees likely to be injured are specified with "**Injure**" in the "Action" column in the TPAK.
    - A permit to injure Trees #3-6 should be acquired prior to starting the removal of the garage and shed, and construction of the new garage.
    - An arborist should be present during the removal of the shed and garage, and during the injuries of other trees near the new garage.
    - A jackhammer and wheelbarrow should be used to remove debris from site inside the TPZ of tree #3. After the foundation is removed, asphalt driveway should be built at the original grade. Large roots over 5cm diameter should be preserved within the TPZ.
    - All injuries within TPZs of Trees #4-6 must be conducted with hand-tools or other low-impact methods such as air-spading, Hydro-Vac at low pressure (<500psi) or hand-digging under supervision of Certified Arborist.

Appendix 1 – Tree Protection Action Key (TPAK)

Tree Map Number	Species	Botanical	DBH (cm) @ 1.4 m	Tree Ownership	Minimum Tree Protection Distance (m)	Health	Structure	Overall Condition	Tree Height (m)	Crown Width (m)	Live Crown Ratio (%)	Deadwood (%)	Construction inside Min TPZ? (Y/N)	Construction Impact (None, Low, Medium, High)	Action	Permit Required? (Y/N)	Observations and Recommendations
1	River Birch	*Betula nigra*	29	Neighbour	2.4	Good	Good	Good	9	10	60	5	N	None	Preserve	N	In the front yard of 114 Elmwood Road; Multi-stems.
2	Japanese Maple	*Acer palmatum*	6	Neighbour	1.8	Good	Good	Good	2	3	100	0	N	None	Preserve	N	In the front yard of 114 Elmwood Road.
3	Silver Maple	*Acer saccharinum*	95	Neighbour	6.0	Good	Fair	Good	16	14	70	5	Y	Low	Injure	Y	In the backyard of 114 Elmwood Road; Estimated DBH; Pruned with small branch stubs; Small deadwood; Existing shed and garage to be removed with hand-tools under supervision of Certified Arborist within Tree Protection Zone (TPZ); Asphalt driveway to be built following the removal works at the original grade; Consent from 114 Elmwood Road required for the injury.
4	Siberian Elm	*Ulmus pumila*	90	Neighbour	5.4	Good	Good	Good	16	13	50	5	Y	Low	Injure	Y	In the backyard of 119 Stewart Street; Estimated DBH; Stone paving to be built within TPZ using hand-tools by Certified Arborist; Consent from 119 Stewart Street required for the injury.
5	Black Walnut	*Juglans nigra*	40	Neighbour	3.0	Good	Fair	Good	11	9	50	5	Y	Low	Injure	Y	In the backyard of 119 Stewart Street; Estimated DBH; Leaning towards client's property; Stone paving to be built within TPZ using hand-tools by Certified Arborist; Consent from 119 Stewart Street required for the injury.
6	Black Walnut	*Juglans nigra*	80	Neighbour	4.8	Good	Good	Good	17	15	60	5	Y	Low	Injure	Y	In the backyard of 119 Stewart Street; Estimated DBH; Small deadwood; Part of the TPZ to be encroached by proposed garage at depth of 0.25-0.3m (10-12"); Excavation to be conducted with air-spading, Hydro-Vac at low pressure (<500psi) or hand-digging under supervision of Certified Arborist; Consent from 119 Stewart Street required for the injury.

Tree Map Number	Species	Botanical	DBH (cm) @ 1.4 m	Tree Ownership	Minimum Tree Protection Distance (m)	Health	Structure	Overall Condition	Tree Height (m)	Crown Width (m)	Live Crown Ratio (%)	Deadwood (%)	Construction inside Min TPZ? (Y/N)	Construction Impact (None, Low, Medium, High)	Action	Permit Required? (Y/N)	Observations and Recommendations
7	Black Walnut	*Juglans nigra*	50	Neighbour	3.0	Good	Good	Good	16	12	40	5	N	None	Preserve	N	In the backyard of 119 Stewart Street; Estimated DBH; Small deadwood.
8	Red Oak	*Quercus rubra*	50	Neighbour	3.0	Good	Good	Good	12	14	60	0	N	None	Preserve	N	In the backyard between 119 and 121 Stewart Street; Estimated DBH.
9	Littleleaf Linden	*Tilia cordata*	13	Neighbour	2.4	Good	Fair	Good	4	6	80	0	N	None	Preserve	N	In the backyard of 119 Stewart Street; Grow under powerlines.
10	Yew	*Taxus species*	15	Neighbour	2.4	Good	Good	Good	3	2	90	5	N	None	Preserve	N	In the backyard of 122 Elmwood Road; Beside existing shed.

Appendix 2 – Tree Appraisal Values

This appraisal is being completed to meet the Town of Oakville's requirements for assessing trees being impacted by a construction proposal. All that require permits to injure or remove must be evaluated based on the most recent International Society of Arboriculture's Guide for Plant Appraisal.

Tree valuation was determined on a tree per basis using the Trunk Formula Method developed in the current standard practice "Guide for Plant Appraisal, 10th Ed." Developed by the Council of Tree & Landscape Appraisers and published by the International Society of Arboriculture.

Tree Appraisal Background

The tree valuation calculation, theory and assumptions have been extracted from the following multiple sources:

- Guide for Plant Appraisal, 10th Ed." Developed by the Council of Tree & Landscape Appraisers. This provides the theory and foundation to the Trunk Formula Method (TFM) used in the individual tree appraisal determination.
- Values were referenced from Humber Nurseries (Deciduous trees were sourced as the largest commonly available stock, approximately 5 cm dbh, (60mm caliper). Conifers were sourced as the largest commonly available stock, approximately 200 cm tall (closest to approximately 5 cm dbh).

The Trunk Formula Method (TFM) calculation extracted from the two sources of theory and application literature is explained below:

Value = Basic Tree Cost * Depreciation (Functional Limitations *External Limitations* Condition Rating)

Where,

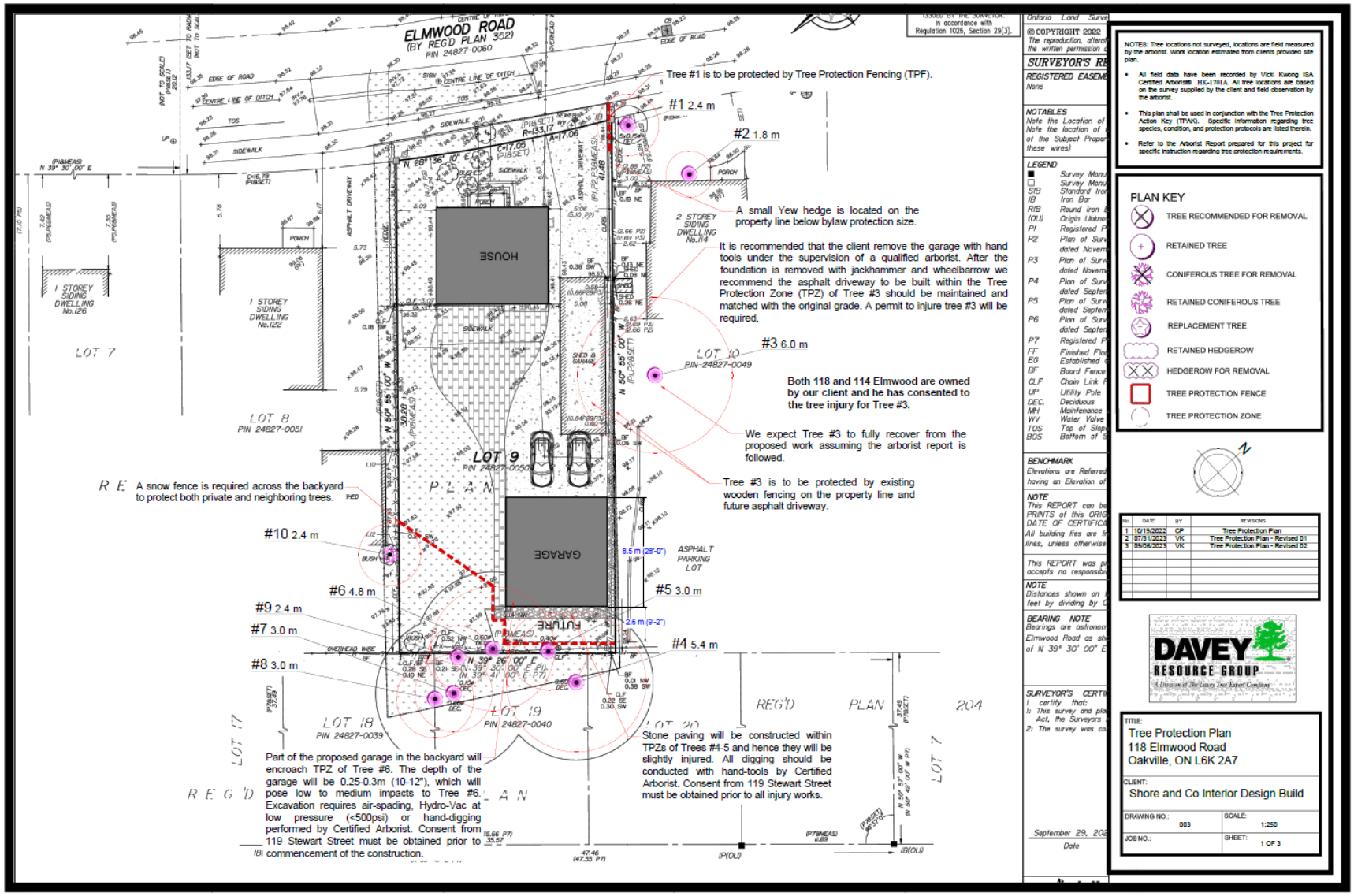
Basic Tree Cost = Replacement Cost + (Base Price per Area * (Difference in Adjusted Trunk Area and Adjusted Trunk Replacement Area

Tree Appraisal Chart

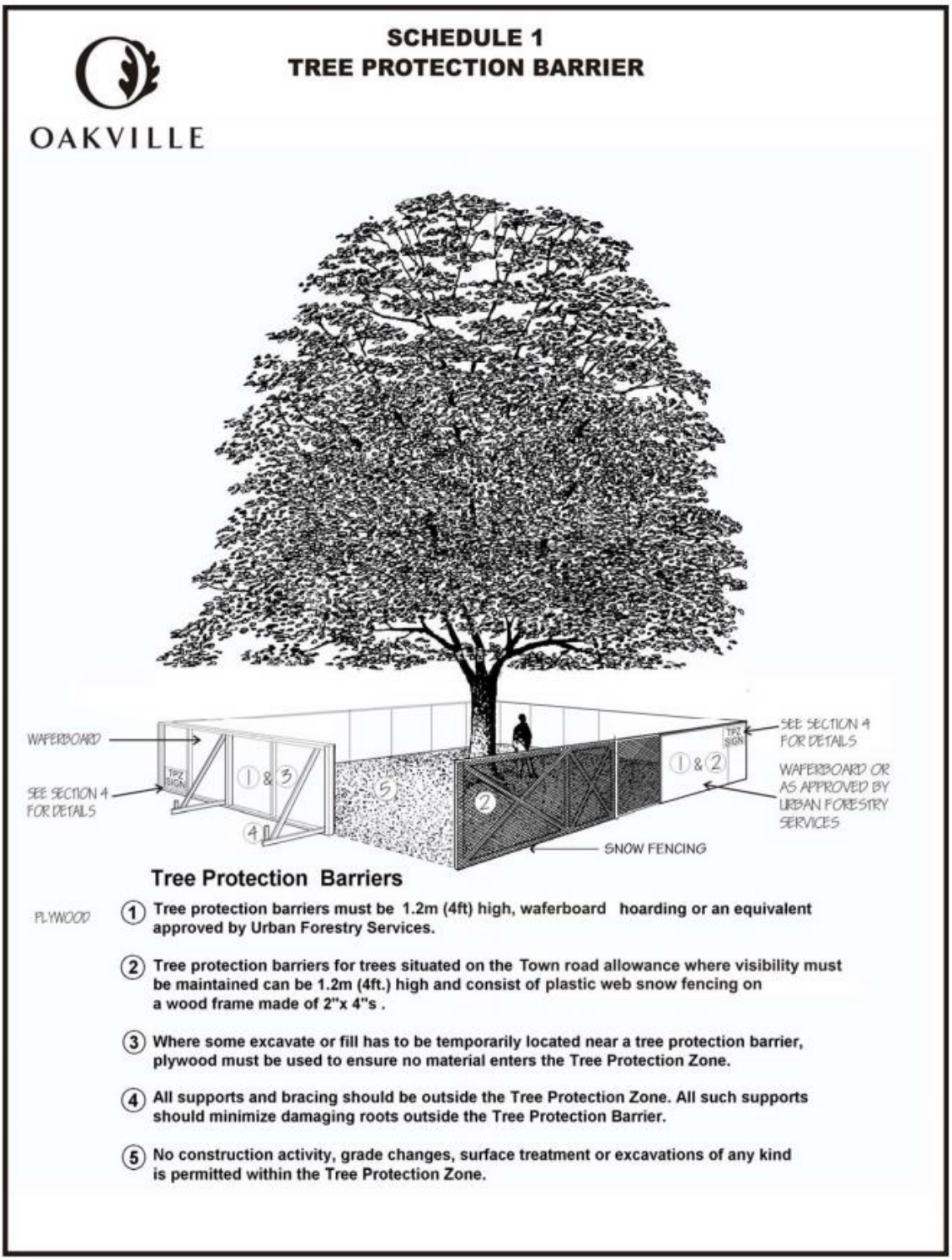
The following chart outlines the appraisal value determined for all living, town-owned trees or trees along the town boundary. Tree replacement costs were sourced from a local nursery and matched to the closest species available.

No city trees are located at this site.

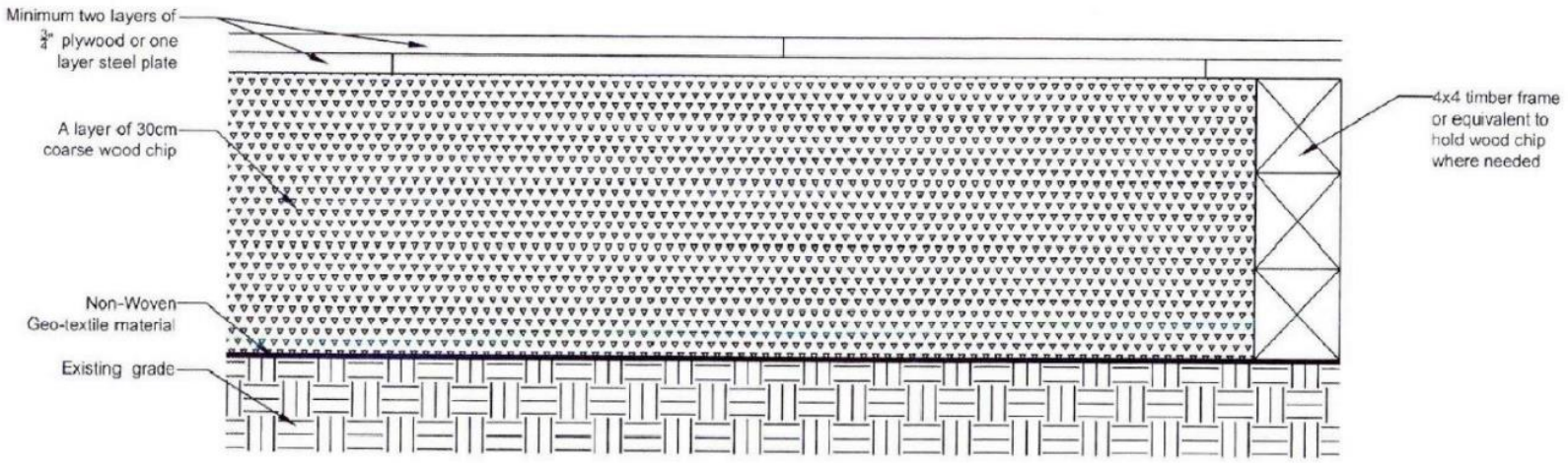
Appendix 3 – Tree Protection Plan (TPP) (Preview – to be printed to scale)



Appendix 4 – Tree Protection Fencing (TPF) Detail



Appendix 4 – Tree Protection Fencing (TPF) Detail Continued



Horizontal Tree Protection (Wood Chip)

Appendix 5 – Tree Protection Zone (TPZ) Sign Detail

Tree Protection Zone

No grade change, storage of materials or equipment is permitted within this area.
This tree protection barrier must not be removed without the written authorization of the Town of Oakville.
Report any contraventions to

Contact Name _____ **Tel No.** _____
Unauthorized removal of the tree protection barrier or other contraventions may result in prosecution.

Appendix 6 – References

1. ISA, 2001-2011. Best Management Practices, Books 1-9, Companion publications to ANSI A300 Standards for Tree Care
2. Dujesiefken, Dr. Dirk, 2012. Director of the Institute for Tree Care in Germany, The CODIT Principle, research presented on cambial regrowth on trees after injury at the Annual ISA Conference in Kingston Ontario
3. Sinclair and Lyon, 2005. Diseases of Trees and Shrubs, Second Edition
4. ISA, 2010. Glossary of Arboricultural Terms
5. Neely and Watson, ISA, 1994 and 1998. The Landscape Below Ground 1 and 2
6. Matheny and Clark, ISA, 1994. A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas, 2nd Edition
7. Matheny and Clark, ISA 1998. Trees and Development, A Technical Guide to Preservation of Tree During Land Development
8. PNW-ISA, 2011. Tree Risk Assessment in Rural Areas and Urban/Rural Interface, Version 1-5
9. Todd Hurt & Bob Westerfield, 2005.Tree Protection During Construction and Landscaping Activities

Appendix 7 – Glossary of Common Arboricultural Terms

Arborist	A professional who possesses the technical competence gained through experience and related training to provide for or supervise the management of trees and other woody plants in residential, commercial, and public landscapes.
ANSI A300	Acronym for American National Standards Institute. In the United States, industry-developed, national consensus standards of practice for tree care.
Bark Tracing	Cutting away torn or injured bark to leave a smooth edge.
Branch Bark Ridge	Raised strip of bark at the top of a branch union, where the growth and expansion of the trunk or parent stem and adjoining branch push the bark into a ridge.
Callus wood	Undifferentiated tissue formed by the cambium, usually as the result of wounding.
Clinometer	A device used to calculate the height of trees.
Consulting Arborist	An Arboricultural consultant is one of the following: • American Society of Consulting Arborists, Registered Consulting Arborist (ASCA RCA#___) • International Society of Arboriculture, Board Certified Master Arborist (ISA BCMA #_____B) • ISA Certified Arborist/Municipal Specialist in good standing for a minimum of 6 years with 6 years of proven experience in a management role related to arboriculture, and has attested and signed to a code of ethics related to arboriculture (ISA#_____)
Compartmentalization	Natural defense process in trees by which chemical and physical boundaries are created that act to limit the spread of disease and decay organisms
Critical Root Zone – (CRZ)	Area of soil around a tree where the minimum amounts of roots considered critical to the structural stability or health of the tree are located. CRZ determination is sometimes based on the drip line or a multiple of dbh (12:1, 12cm of ground distance from the trunk for every cm of dbh) but because root growth is often asymmetric due to site conditions, on-site investigation is preferred.
Daylighting	Also known as Hydro-vac, this is the process by which soil is vacuumed up. In the context of tree care this allows workers to access the soil below the roots without mortal damage to significant roots.
DBH	Acronym for tree diameter at breast height. Measured at 1.4m above ground.
Decurrent	Rounded or spreading growth habit of the tree crown.
Directional Pruning	Providing clearance by pruning branches that could significantly affect the integrity of utility facilities or other structures and leaving in place branches that could have little or no effect.
Dripline	Imaginary line defined by the branch spread of a single parent or group of plants

Excurrent	Tree growth habit characterized by a central leader and a pyramidal crown.
Included bark	Bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Causes a weak structure.
Lion's Tailing	Poor pruning practice in which an excessive number of branches are thinned from the inside and lower part of specific limbs or a tree crown, leaving mostly terminal foliage. Results in poor branch taper, poor wind load distribution, and higher risk of branch failure.
MTPZ	Acronym for Minimum Tree Protection Zone, also known as the Structural Root Zone (SRZ), which is the distance from the tree equal to 6 times the dbh, within which the likelihood of encountering roots that are structural supports for the tree.
Moment	Rotational force that is created by any line force on a body. The magnitude of a moment is defined as the product of the force magnitude and perpendicular distance from the line of action of the force to the axis of which the moment is being calculated.
Mortality Spiral	A sequence of stressful events or conditions causing the decline and eventual death of a tree.
Mulch	Material that is spread of sometimes sprayed on the soil surface to reduce weed growth, to retain soil moisture and moderate temperature extremes, to reduce compaction from pedestrian traffic or to prevent damage from lawn-maintenance equipment, to reduce erosion or soil spattering onto adjacent surfaces, to improve soil quality through its eventual decomposition, and/or to improve aesthetic appearance of the landscape. Mulch can be composed of chipped, ground, or shredded organic material such as bark, wood, or recycled paper; unmodified organic material such as seed hulls; organic fiber blankets or mats; or inorganic material such as plastic sheeting.
Organic Matter	Material derived from the growth (and death) of living organisms. The organic components of the soil.
CRZ	Acronym for Critical Root Zone, also known as the Critical Root Zone (see definition above), within which there is a high likelihood of encountering roots that are necessary for the survival for the tree.
Project Arborist	The consulting arborist retained to provide all tree preservation recommendations to the project manager or contractors on a given construction project.
Qualified Arborist	An arborist who has documented related training (i.e. ISA, MTCU, or equivalent) and on-the-job experience (minimum of 5 years)
Radial trenching	Technique for aerating the soil or alleviating compaction around a tree by removing and replacing soil (which may be amended) in trenches (typically 300mm deep and 150mm wide) made in a spoke like pattern (radially from the trunk) in the root zone to improve conditions for root growth.
Reaction Wood	Wood formed in leaning or crooked stems or on lower or upper sides of branches as a

	means of counteracting the effects of gravity.
Removal Cut	A cut that removes a branch at its point of origin. Collar cut.
Reduction Cut	A pruning cut that reduces the length of a branch or stem back to a lateral branch large enough to assume apical dominance.
Resistograph®	A brand name of a device consisting of a specialized micro-drill bit that drills into trees and graphs density differences that are used to detect decay.
Soft-Scaped	Landscaping practices that do not involved solid or deeply dug foundations. Patios consisting of slab rocks laid on-top of the soil with minimal excavation and base (less than 10cm) and causing minimal damage to existing tree roots.
Static Support System	Cabling system that utilizes rigid materials such as rods and steel cables to limit movement and provide constant support of limbs.
Structural cells	Modular system consisting of units of soil and integrated support structures that serve both as a foundation for paved surfaces and a hospitable environment for tree root growth,
Structural pruning	Pruning to establish a strong arrangement or system of scaffold branches.
Structural Soil™	Pavement substrate that can be compacted to meet engineering specifications yet remains penetrable be tree roots in the urban environment. Composed of angular crushed stone, clay loam, and hydrogel mixed in a weight ratio of 100:20:0.03. Developed at the Urban Horticulture Institute, Cornell University, Ithaca, NY.
Supersonic Air Excavation Techniques (SSAT)	A methodology using a device that directs a jet of highly compressed air to excavate soil. Used within the root zone of trees to avoid or minimizing damage to the roots, or near underground structures such as pipes and wires to avoid or minimize damage to them.
Tree Protection Zone (TPZ)	Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction. TPZ is sometimes based on a minimum multiple of dbh (e.g. 6:1, 6cm of ground distance from the trunk for 1cm of dbh)
Walls	Trees have 4 walls in a process known as compartmentalization. ● Wall 1 prevents decay moving up and down in a tree ● Wall 2 prevents decay moving inward in a tree ● Wall 3 prevents decay moving laterally in a tree ● Wall 4 is the new growth formed on the outside of the tree, callus growth.
Woundwood	Lignified, differentiated tissues produced on woody plants after wounding.

Appendix 8 – Arborist Qualifications

Christopher Preece is a consulting R.P.F. and Arborist with Davey Resources Group. His formal education includes a Bachelor of Environmental Management at York University with a certificate in sustainable energy as well as a Masters of forest Conservation from the University of Toronto, with a focus in long term forest productivity Mr. Preece has a varied work experience in forestry, field research and arboriculture fields. Mr. Preece has worked with well-Known forest researchers around the world and has spent the last three years working in private forestry and Urban forestry in Southern Ontario.

Certifications
International Society of Arboriculture Certified Arborist (ON-2547A)
Forestry Grade Exterminator License # 32964
Registered Professional Forester R.P.F. #2613

Appendix 9 – Photographs

Figure 1: View of Trees #1-2

Figure 2: View of Tree #3

Figure 3: View of Trees #4-5, left to right

Figure 4: View of Trees #6-9, left to right

Figure 5: View of Tree #10

Conditions of Assessment Agreement

This Conditions of Assessment Agreement is made pursuant to and as a provision of Davey Resource Group, a division of The Davey Tree Expert Co. of Canada, Limited ("Davey"), providing tree assessment services as agreed to between the parties, the terms and substance of which are incorporated in and made a part of this Agreement (collectively the "Services").

Trees are living organisms that are subject to stress and conditions and which inherently impose some degree or level of risk. Unless a tree is removed, the risk cannot be eliminated entirely. Tree conditions may also change over time even if there is no external evidence or manifestation. In that Davey provides the Services at a point in time utilizing applicable standard industry practices, any conclusions and recommendations provided are relevant only to the facts and conditions at the time the Services are performed. Given that Davey cannot predict or otherwise determine subsequent developments, Davey will not be liable for any such developments, acts, or conditions that occur including, but not limited to, decay, deterioration, or damage from any cause, insect infestation, acts of god or nature or otherwise.

Unless otherwise stated in writing, assessments are performed visually from the ground on the above-ground portions of the tree(s). However, the outward appearance of trees may conceal defects. **Therefore, to the extent permitted by law, Davey does not make and expressly disclaims any warranties or representations of any kind, express or implied, with respect to completeness or accuracy of the information contained in the reports or findings resulting from the Services beyond that expressly contracted for by Davey in writing, including, but not limited to, performing diagnosis or identifying hazards or conditions not within the scope of the Services or not readily discoverable using the methods applied pursuant to applicable standard industry practices.** Further, Davey's liability for any claim, damage or loss caused by or related to the Services shall be limited to the work expressly contracted for.

In performing the Services, Davey may have reviewed publicly available or other third- party records or conducted interviews and has assumed the genuineness of such documents and statements. Davey disclaims any liability for errors, omissions, or inaccuracies resulting from or contained in any information obtained from any third- party or publicly available source.

Except as agreed to between the parties prior to the Services being performed, the reports and recommendations resulting from the Services may not be used by any other party or for any other purpose. The undersigned also agrees, to the extent permitted by law, to protect, indemnify, defend and hold Davey harmless from and against any and all claims, demands, actions, rights and causes of action of every kind and nature, including actions for contribution or indemnity, that may hereafter at any time be asserted against Davey or another party, including, but not limited to, bodily injury or death or property damage arising in any manner from or in any way related to any disclaimers or limitations in this Agreement.

By accepting or using the Services, the customer will be deemed to have agreed to the terms of this Agreement, even if it is not signed.

Acknowledged by:

Name of Customer: _____

Authorized Signature: _____

Date: _____