SURVEYOR'S REAL PROPERTY REPORT – PART 1
PLAN OF

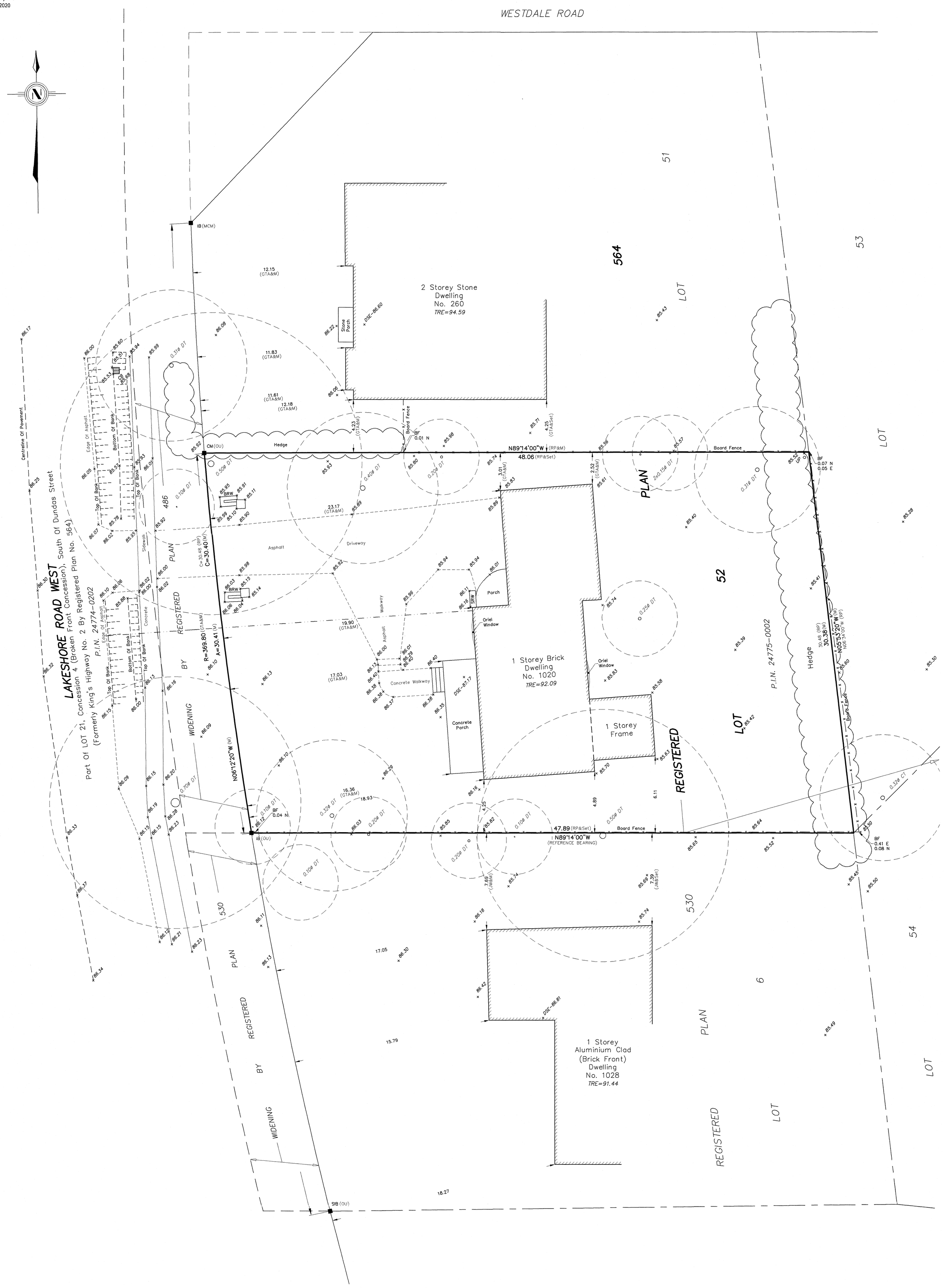
LOT 52
REGISTERED PLAN 564
TOWN of OAKVILLE

Regional Municipality of Halton

SCALE 1 : 150

3m 2m 1m 0m 5m

YOUNG & YOUNG SURVEYING
(ETOBICOKE 2006) INC.



METRIC

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

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 18TH DAY OF NOVEMBER, 2020.

NOVEMBER 20, 2020
DATE

CHRIS BERESNIEWICZ
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2142547

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

LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
RP	DENOTES	REGISTERED PLAN 564
N,S,E,W	DENOTES	NORTH,SOUTH,EAST,WEST
M	DENOTES	MEASURED
SIB	DENOTES	STANDARD IRON BAR
IB	DENOTES	IRON BAR
CM	DENOTES	CONCRETE MONUMENT
OU	DENOTES	ORIGIN UNKNOWN
P.I.N.	DENOTES	PROPERTY IDENTIFIER NUMBER
–O–	DENOTES	OVERHEAD WIRES & UTILITY POLE
BF	DENOTES	BOARD FENCE
BRW	DENOTES	BRICK RETAINING WALL
SRW	DENOTES	STONE RETAINING WALL
MH	DENOTES	MANHOLE

LEGEND (...cont.)

DSE	DENOTES	DOORSILL ELEVATION
TRE	DENOTES	TOP OF ROOF ELEVATION
DT	DENOTES	DECIDUOUS TREE
CT	DENOTES	CONIFEROUS TREE
Ø	DENOTES	DIAMETER
GTA	DENOTES	PLAN BY GREATER TORONTO ACRES SURVEYING INC., O.L.S. DATED JANUARY 3, 2011
JW	DENOTES	PLAN BY JAMES & WANDABENSE, O.L.S. DATED JULY 27, 1954
MCM	DENOTES	McCONNELL, MAUGHAN, O.L.S.

ELEVATION NOTE

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE TOWN OF OAKVILLE BENCHMARK NO. 11 HAVING A PUBLISHED ELEVATION OF 86.06 METRES.

BEARING NOTE

BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE SOUTH LIMIT OF LOT 52, HAVING A BEARING OF N89°14'00"W ACCORDING TO REGISTERED PLAN 564.

THIS PLAN WAS PREPARED FOR DAVID SMALL DESIGNS

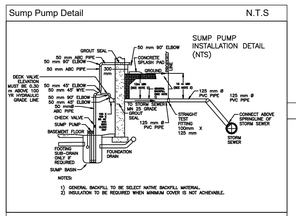
PART 2 – SURVEY REPORT

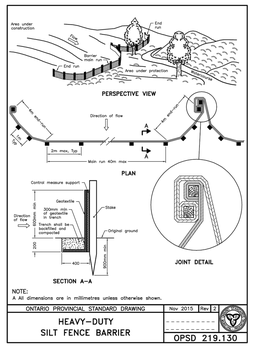
1) PLEASE NOTE LOCATION OF FENCES AND OVERHEAD WIRES
2) REGISTERED EASEMENTS AND/OR RIGHTS-OF-WAY : NONE
3) THIS PLAN DOES NOT CERTIFY COMPLIANCE WITH ZONING BY-LAWS

YOUNG & YOUNG
SURVEYING (ETOBICOKE 2006) INC.
310 North Queen St., Unit 102, Toronto ON M9C-5K4
Tel: (416) 621-2676 - Fax: (416) 621-3360
E-MAIL : info@youngandyoung.ca

DRAWN: A.M. | CHECKED: JL/C.B. | PROJECT 20–T10562

Sump Pump Detail N.T.S





Underground Utilities:

The Location Of Underground Services Shown On This Plan Is Only Approximate And Is For Planning And Design Purposes Only. This Information Must Not Be Assumed To Be Complete Or Up-To-Date And An On-Site Locate Must Be Ordered Prior To Any Excavation. David W. Small Designs Inc. Accepts No Responsibility For Any Claims Or Losses Due To Improper Use Of This Information.

Notes:

There Are To Be No Grad Changes Within 0.3m Of Common Property Lines

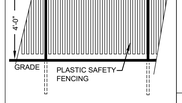
The Existing Sanitary Lateral Must Be Inspected at The property Line By Regional Inspector, And Televised By Regional Forces Prior To Connection. A Lateral That Does Not Meet Current Regional Standards Must Be Disconnected At The Main. A Revision To The Service Permit Drawings And Payment Of Applicable Fees Is Required.

Existing Services Must Be Disconnected At The Main By The Contractor

All Water And Sanitary Main Taps Are To Be Preformed By Region Of Halton Forces Only

Contractor To Determine Existing Inverts And Report Any Discrepancies To The Engineer

Contractor To Determine San. Inverts On Site And Determine If San. Ejector Pump Is Required



Tree Protection Barriet Detail nts

Legend

- 3R ▶ Main Level
- 3R ▷ Lower Level
- Property Line
- Existing To Be Removed
- 102.05 Existing Spot Elevation
- 102.05 Proposed Spot Elevation
- Rainwater Downspouts
- AC Air Conditioner
- Solid Hoarding
- Framed Hoarding
- AD Area Drain
- T/W Top Of Wall
- B/W Bottom Of Wall
- EX Existing
- 0.300Ø DT / 102.05 Denotes Coniferous Tree (with trunk diameter) To Remain
- 0.300Ø DT / 102.05 Denotes Deciduous Tree (with trunk diameter) To Remain
- 0.300Ø DT / 102.05 Denotes Tree (with trunk diameter) To Be Removed
- SM Denoted Replacement Tree Native Species Min 60mm Caliper For Deciduous And 1.8m Height For Coniferous (SM) Refers To Sugar Maple (RM) Refers To Red Maple

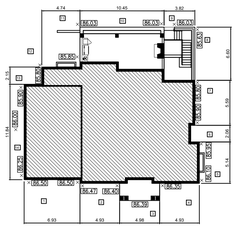
General Notes:

1. Do Not Scale Drawings

2. These Plans Are To Remain The Property Of The Designer And Must Be Returned Upon Request. These Plans Must Not Be Used In Any Other Location Without The Written Approval Of The Designer.

3. All Works To Be In Accordance With The Ontario Building Code And All Code References Refer To O.B.C. 2012 Division 'b'

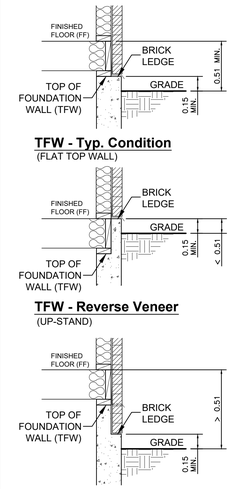
Established Grade Diagram - House 1:300



Wall No.	Wall Grade Start	Wall Grade End	Wall Avg Grade	Wall Length (m)	Product
1	86.50	86.50	86.50	6.93	599.45
2	86.47	86.40	86.44	4.93	426.12
3	86.39	86.39	86.39	4.98	430.22
4	86.35	86.10	86.23	4.93	425.09
5	86.10	85.95	86.03	5.14	442.17
6	85.95	85.90	85.93	2.06	177.01
7	85.90	85.80	85.85	5.59	479.90
8	85.80	85.63	85.72	6.60	565.72
9	86.03	86.03	86.03	3.82	328.63
10	86.03	86.03	86.03	10.45	899.01
11	85.85	85.80	85.83	4.74	406.81
12	86.03	85.80	85.92	4.95	425.28
13	85.80	85.90	85.85	2.15	184.58
14	85.90	86.25	86.08	11.84	1019.13
TOTAL			1204.79	79.11	6809.12

ESTABLISHED GRADE = TOTAL 86.07

Top of Foundation Wall Conditions N.T.S



Lot Coverage Diagram 1:300

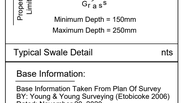
Lot Coverage		
House Footprint	293.94 sm	
Front Porch	12.02 sm	
Rear Porch	41.82 sm	
Cabana	14.42 sm	
Total Coverage	362.20 sm	24.91%

Established Grade Diagram - Cabana 1:150

Wall No.	Wall Grade Start	Wall Grade End	Wall Avg Grade	Wall Length (m)	Product
1	86.60	86.65	86.63	2.29	198.37
2	86.03	86.03	86.03	4.11	353.58
3	85.60	85.55	85.58	2.29	195.97
4	85.50	85.55	85.53	4.11	351.51
TOTAL			343.76	12.80	1099.43

ESTABLISHED GRADE = TOTAL 85.89

Swale Section A-A N/A



Typical Swale Detail nts

Base Information:

Base Information Taken From Plan Of Survey BY: Young & Young Surveying (Etobicoke 2006) Dated: November 20, 2020

Location

Lot 52
Registered Plan 564
Town Of Oakville
Regional Municipality of Halton

City Benchmark

Elevations Are Refereed To The Town Of Oakville No. 11, Having An Elevation of 86.06 Meters

*TFW (Top Of Foundation Wall)

Floor Sill Plate On Inside Face Of Foundation. - See Reduced Thickened Foundation Wall Detail & Reverse Veneer Detail For Foundation Wall Ledge Condition On Outside Face Of Foundation Walls. - Extent Of Each Type To Be Determined By Contractor On Site During Construction

**U/F (Under Side of Footing)

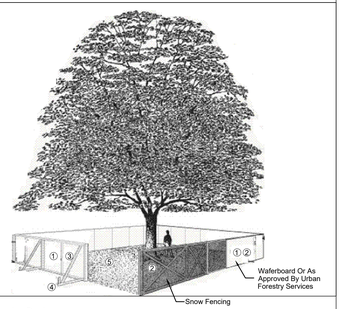
- U/F Denotes Minimum Depth Of Under Side of Footing.
- Under Side of Footing May Differ Depending On Basement Conditions. See Floor Plans And Elevations For Specific Under Side Of Footing Conditions
- Footings To Be Min 1.2m Below Grade

Regional Approval

Region Design Of Water &/or Wastewater Services Approval Subject To Detail Construction Conforming To Halton Region Standards & Specifications & Location Approval From Area Municipality.

Signed: _____ Dated: _____
Infrastructure Planning & Policy

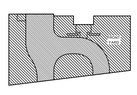
The Approval Of The Water System On Private Property Is The Responsibility Of, The Local Municipality, Regardless, The Applicant Must Ensure That The Region Of Halton's Standards Are Met. (The Water And Wastewater Linear Design Manual May Be Obtained On Halton.ca Or By Calling 311) All Water Quality Tests Must Be Completed To The Region Of Halton's Satisfaction Before The Water Supply Can Be Turned On.



Tree Protection Barriers

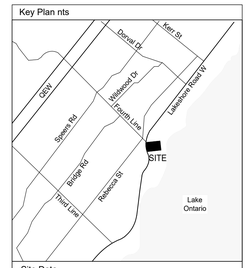
1. Tree Protection Barriers Must Be 1.2m (4ft.) High, Waterboard Hoarding Or An Equivalent Approved By Urban Forestry Services.
2. Tree Protection Barriers For Trees Situated On The Town Road Allowance Where Visibility Must Be Maintained Can Be 1.2m (4ft.) High And Consist Of Orange Plastic Web Snow Fencing On A Wood Frame Made Of 2x4's.
3. Where Some Excavate Or Fill Has To Be Temporarily Located Near A Tree Protection Barrier, Plywood Must Be Used To Ensure No Material Enters The Tree Protection Zone.
4. All Supports And Bracing Should Be Outside The Tree Protection Zone. All Such Supports Should Minimize Damaging Roots Outside The Tree Protection Barrier.
5. No Construction Activity, Grade Changes, Surface Treatment Or Excavation Of Any Kind Is Permitted Within The Tree Protection Zone.

Landscaping Diagram 1:600



Front Yard Landscape Area Diagram		n/a
Front Yard Area		458.84 sm
Front Yard Landscaping	62.58%	287.18 sm
Driveway Area	37.40%	171.65 sm

Key Plan nts



Site Data

Lot Area	1453.99 sm	(0.145 ha)
Zoning		RL1-0
Established Grade		86.07
Floor Area		
Ground Floor (Includes 75.0 sf of Stairs)	211.79 sm	2279.8 sf
Second Floor (Includes 75.0 sf of Stairs & 505.7 sf of Open-To-Below)	272.11 sm	2929.1 sf
Total Area	483.91 sm	5208.9 sf
Residential Floor Area Permitted	421.66 sm	29.00%
Residential Floor Area Proposed	483.91 sm	33.28%
Garage (Less Than 6m in Height) (Measured to Exterior Face of Garage Walls)	82.04 sm	883.1 sf
Garage (Measured to Inside Face of Garage Walls)	76.34 sm	821.7 sf
Finished Basement (Measured to Inside Face of Finished Basement Walls)	174.96 sm	1883.3 sf
Lot Coverage		
Proposed Footprint (Including Garage)	20.22 %	293.94 sm
Front Porch	0.83 %	12.02 sm
Rear Porch	2.88 %	41.82 sm
Cabana	1.00 %	14.42 sm
Total Proposed Coverage	24.91 %	362.20 sm
Max Allowed Coverage	25.00 %	363.5 sm

SURVEYOR'S CERTIFICATE

I Have Reviewed The Plans For The Construction Of This Property And Have Prepared This Plan To Indicate The Compatibility Of The Proposal To Existing Adjacent Properties And Municipal Services. It Is My Belief That Adherence To The Proposed Grades As Shown Will Produce Adequate Surface Drainage And Proper Facility Of The Municipal Services Without Any Detrimental Effect To The Existing Drainage Patterns Of Adjacent Properties.

June 26, 2023
DATE

CHRIS BERESNIEWICZ
ONTARIO LAND SURVEYOR

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 A Designer.
Qualification Information Required Unless The Design Is Exempt Under Division C-3.2.5.1. Of the 2012 ONTARIO Building Code.

Peter Giordano — 25061
Name — Signature — BCIN

Registration Information Required Unless The Design Is Exempt Under Division C-3.2.4.1. Of the 2012 ONTARIO Building Code.

DAVID W. SMALL DESIGNS INC. — 29999
Firm Name — BCIN

no.	date	revision / comment
5	Apr 12 / 24	Revised As Per Zoning Comments & Chart
4	Jan 17 / 24	Revised As Per Building Permit Comments
3	Dec 08 / 23	Arborist Coordination
2	Dec 04 / 23	Arborist Comments
1	July 12 / 23	Issued To Owner For Zoning Review

Project:

The Al Masoudi Home
1020 Lakeshore Road West
Lot 52
Registered Plan 564
Town of Oakville,
Regional Municipality of Halton

Drawing:

Site & Grading Plan

DESP No. xx-xxxxx

Scale: 1:100
Date: Jun 2023
Dwn by: AM
Proj. no.: 20 - 1870

SP

David Small Designs
Architecture + Interior Design

Front Elevation - 3D Render

The Al Masoudi Home

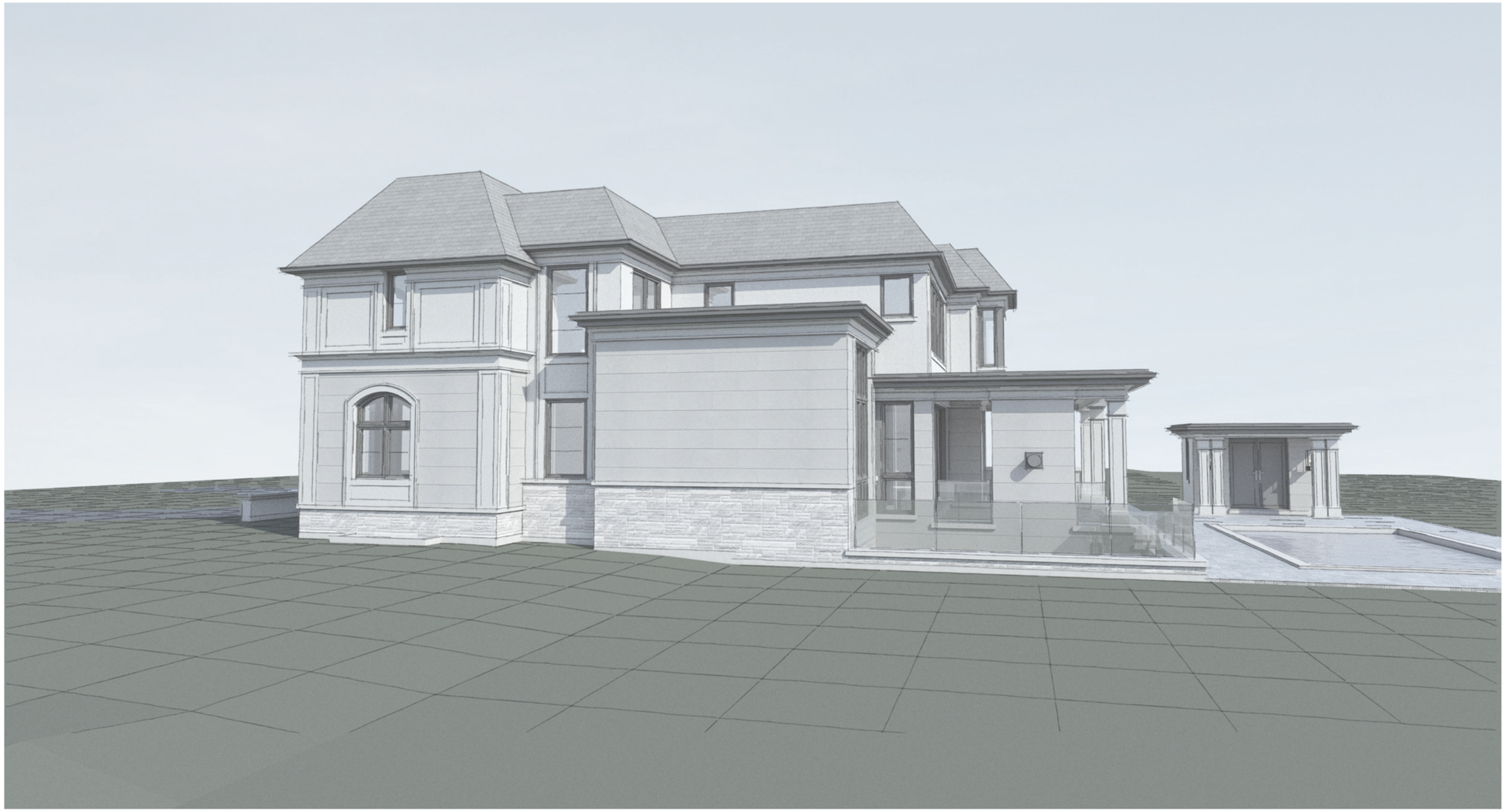
1020 Lakeshore Road West, Oakville ON

Proj #: 1870 REV: DDR2

SCALE: NTS
JUNE 7, 2023

David Small Designs

www.davidsmalldesigns.com PH 905.271.9100



Right Elevation - 3D Render

The Al Masoudi Home

1020 Lakeshore Road West, Oakville ON

Proj #: 1870 REV: DDR2

SCALE: NTS
JUNE 7, 2023

David Small Designs

www.davidsmalldesigns.com PH 905.271.9100

Rear Elevation - 3D Render

The Al Masoudi Home

1020 Lakeshore Road West, Oakville ON

Proj #:1870 REV: DDR2

SCALE: NTS
JUNE 7, 2023

David Small Designs

www.davidsmalldesigns.com PH 905.271.9100

Left Elevation - 3D Render

The Al Masoudi Home

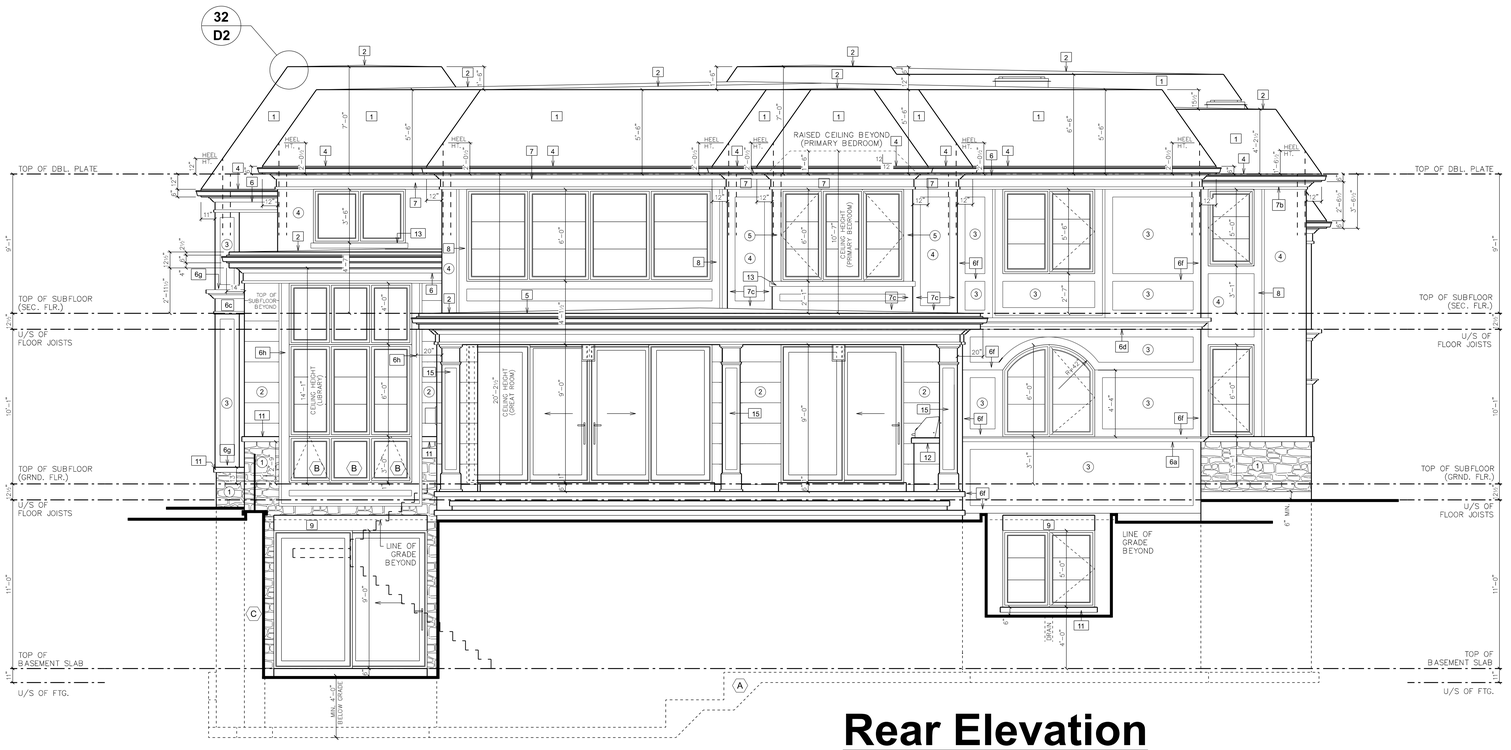
1020 Lakeshore Road West, Oakville ON

Proj #: 1870 REV: DDR2

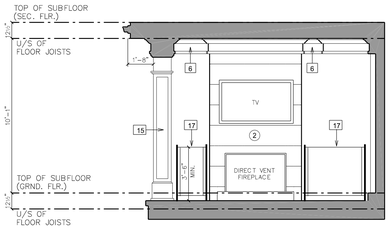
SCALE: NTS
JUNE 7, 2023

www.davidsmalldesigns.com PH 905.271.9100

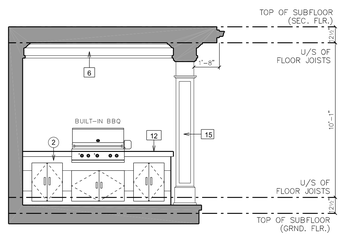
David Small Designs



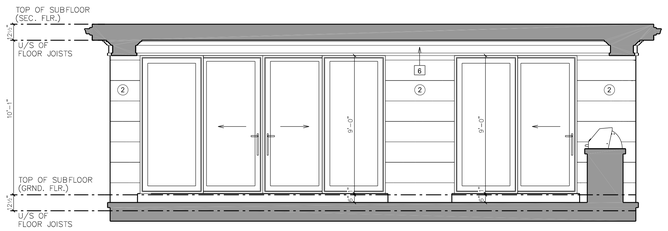
Rear Elevation



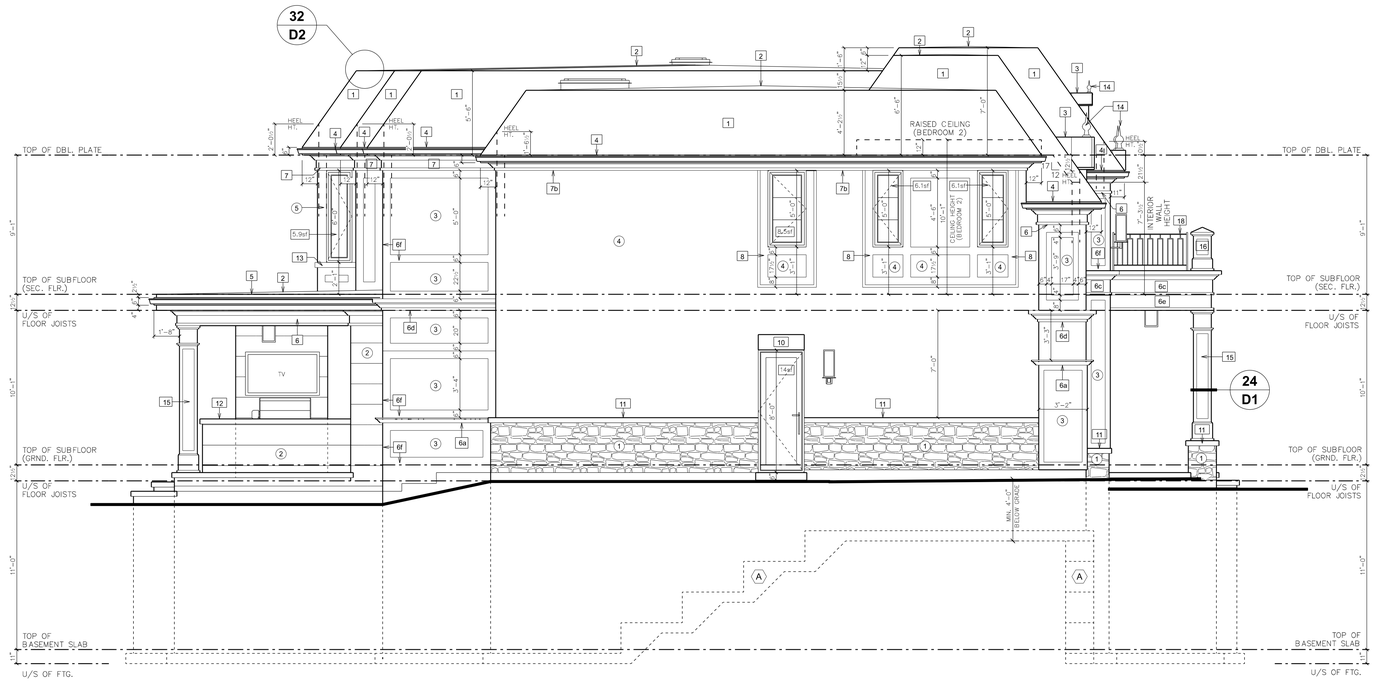
Hidden Elevation 'B'



Hidden Elevation 'C'



Hidden Elevation 'D'



Left-Side Elevation

Unprotected Openings Calculations - Left Side	
Limiting Distance	4.20m
Wall Area	1032.5 sf (95.9 sm)
Opening Area Allowed	202.4 sf (19.6 %)
Opening Area Proposed	40.6 sf (3.9 %)

Please Note The Figure For % Openings Allowed Has Been Interpolated Based On O.B.C. Table 9.10.15.4 And Glazed Areas Were Used To Calculate Proposed Openings As Allowed By 9.10.15.4.

Drawing Legend

1.0 Materials

1 Natural Stone

2 Smooth Face Cut Stone

3 Smooth Stone Paneling

4 Pigmented Epoxy Stucco

5 Prefinished Aluminum Panel

2.0 Roofing

1 Faux Slate Shingles

2 2-Ply Torched On Rubber Membrane Roof Sloped To 2% To Outside Edge On 1/2" Plywood Roof Sheathing On Roof Trusses/Joists

3 Prefinished Metal Radial Roofing

3.0 Trim, Cornice, Moulding, & Gutter Notes

4 Prefinished Aluminum Gutter on 6" Prefinished Aluminum Fascia

5 12" Wide Prefinished Aluminum Fascia c/w Starter Strip & Drip Edge 1"x12" Base Fascia Board 1"x6" Flat Stock 5" Square Bent Prefinished Aluminum Eaves Trough

5a 8" Prefinished Aluminum Fascia with 2" Top Reveal

6 4" Crown Mould Stone Trim on Flat w/ 2" High x +\- 1-1/4" Deep Bottom Trim (Total 12" High)

6a 4" Crown Mould Stone Trim

6b 6" Crown Mould Stone Trim

6c 7" Crown Mould Stone Trim on Flat w/ 2" High x +\- 1-1/4" Deep Bottom Trim (Total 19" High)

6d 7" Crown Mould Stone Trim on Flat (Total 9" High)

6e 12" Cut Stone Trim w/ 2" High x +\- 1-1/4" Deep Stepped Bottom Trim

6f 6" Cut Stone Trim

6g 4" Cut Stone Trim

6h 8" Cut Stone Surround w/ 2" Edge Reveal

6i 10" Cut Stone Surround w/ 2" Inside Edge Reveal

7 4" Crown Mould Stucco Trim on Flat w/ 2" High x +\- 1-1/4" Deep Bottom Trim (Total 12" High)

7a 4" Crown Mould Stucco Trim

7b 6" Crown Mould Stucco Trim

7c 6" Stucco Trim

8 8" Stucco Surround w/ 2" Edge Reveal

8a 6" Stucco Surround w/ 2" Edge Reveal

9 12" Cut Stone Lintel

10 12" Stucco Lintel

11 4" Cut Stone Sill c/w 2" Projection

12 4" Cut Stone Coping Cap w/ 2" Projection

13 4" Stucco Sill Projected 2"

14 Decorative Metal Finial

4.0 Railing, Post

15 14"x14" Cut Stone Clad Column

15a 12"x12" Cut Stone Clad Column

16 14"x14" Decorative Cut Stone Pier (See Detail)

17 Frameless Tempered Glass Panels Min. 42" Above Fin. Decking - Contractor To Provide Shop Drawing To Inspector Prior To Installation To Ensure They Meet All Aspect Of OBC. 9.8. & SB-13 Of The Supplement

18 Decorative Wrought Iron Railing - As Per Supplier Specs

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 a designer.
Qualification information required unless the design is exempt under Division C - 3.2.5.1. of the 2012 ontario building code.

Peter Giordano — Name — Signature — 25061 BCIN

Registration information required unless the design is exempt under Division C - 3.2.4.1. of the 2012 Ontario Building Code.

David W. Small Designs Inc. — Firm Name — 29999 BCIN

no.	date	revision / comment
1	July 12/23	Issued To Owner For Zoning Approvals

Project:

The Al Masoudi Home
1020 Lakeshore Road W
Lot 52
Registered Plan 564
Town of Oakville,
Regional Municipality of Halton

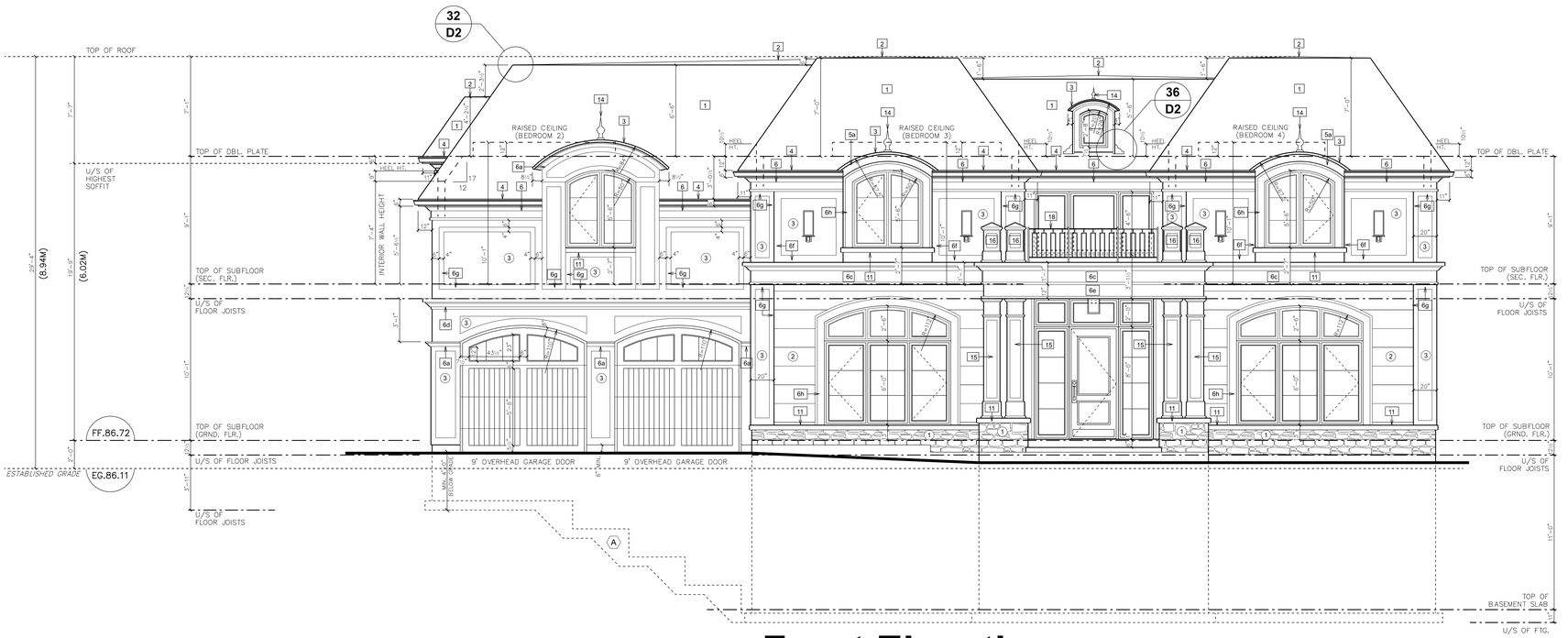
Drawing:

Rear & Left-Side Elevations

Scale: 1/4"=1'-0"
Date: Jun 2023
Dwn by: RMS/BS
Proj. no.: 20-1870

A6

David Small Designs
Architecture + Interior Design



Front Elevation

Hidden Elevation 'A'

Unprotected Openings Calculations - Right Side		
Limiting Distance	4.21m	
Wall Area	1086.8 sf	(101.0 sm)
Opening Area Allowed	138.4 sf	(12.7 %)
Opening Area Proposed	90.9 sf	(8.4 %)

Please Note The Figure For % Openings Allowed Has Been Interpolated Based On O.B.C. Table 9.10.15.4 And Glazed Areas Were Used To Calculate Proposed Openings As Allowed By 9.10.15.4.

Right-Side Elevation

Drawing Legend

1.0 Materials

1. Natural Stone
2. Smooth Face Cut Stone
3. Smooth Stone Paneling
4. Pigmented Epoxy Stucco
5. Prefinished Aluminum Panel

2.0 Roofing

1. Faux Slate Shingles
2. 2-Ply Torched On Rubber Membrane Roof Sloped To 2% To Outside Edge On 1/2" Plywood Roof Sheathing On Roof Trusses/Joists
3. Prefinished Metal Radial Roofing

3.0 Trim, Cornice, Moulding, & Gutter Notes

4. Prefinished Aluminum Gutter on 6" Prefinished Aluminum Fascia
5. 12" Wide Prefinished Aluminum Fascia c/w Starter Strip & Drip Edge 1"x12" Base Fascia Board 1"x6" Flat Stock 5" Square Bent Prefinished Aluminum Eaves Trough
5a. 8" Prefinished Aluminum Fascia with 2" Top Reveal
6. 4" Crown Mould Stone Trim on Flat w/ 2" High x +\- 1-1/4" Deep Bottom Trim (Total 12" High)
6a. 4" Crown Mould Stone Trim
6b. 6" Crown Mould Stone Trim
6c. 7" Crown Mould Stone Trim on Flat w/ 2" High x +\- 1-1/4" Deep Bottom Trim (Total 19" High)
6d. 7" Crown Mould Stone Trim on Flat (Total 9" High)
6e. 12" Cut Stone Trim w/ 2" High x +\- 1-1/4" Deep Stepped Bottom Trim
6f. 6" Cut Stone Trim
6g. 4" Cut Stone Trim
6h. 8" Cut Stone Surround w/ 2" Edge Reveal
6i. 10" Cut Stone Surround w/ 2" Inside Edge Reveal
7. 4" Crown Mould Stucco Trim on Flat w/ 2" High x +\- 1-1/4" Deep Bottom Trim (Total 12" High)
7a. 4" Crown Mould Stucco Trim
7b. 6" Crown Mould Stucco Trim
7c. 6" Stucco Trim
8. 8" Stucco Surround w/ 2" Edge Reveal
8a. 6" Stucco Surround w/ 2" Edge Reveal
9. 12" Cut Stone Lintel
10. 12" Stucco Lintel
11. 4" Cut Stone Sill c/w 2" Projection
12. 4" Cut Stone Coping Cap w/ 2" Projection
13. 4" Stucco Sill Projected 2"
14. Decorative Metal Finial

4.0 Railing, Post

15. 14"x14" Cut Stone Clad Column
15a. 12"x12" Cut Stone Clad Column
16. 14"x14" Decorative Cut Stone Pier (See Detail)
17. Frameless Tempered Glass Panels Min. 42" Above Fin. Decking - Contractor To Provide Shop Drawing To Inspector Prior To Installation To Ensure They Meet All Aspect Of OBC. 9.8. & SB-13 Of The Supplement
18. Decorative Wrought Iron Railing - As Per Supplier Specs

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 a designer.
Qualification information required unless the design is exempt under Division C - 3.2.5.1. of the 2012 ontario building code.

Peter Giordano (Name) (Signature) 25061 BCIN

Registration information required unless the design is exempt under Division C - 3.2.4.1. of the 2012 Ontario Building Code.

David W. Small Designs Inc. (Firm Name) 29999 BCIN

no.	date	revision / comment
2	Mar 12/24	Revised As Per Zoning Comments
1	July 12/23	Issued To Owner For Zoning Approvals

Project:

The Al Masoudi Home
1020 Lakeshore Road W
Lot 52
Registered Plan 564
Town of Oakville,
Regional Municipality of Halton

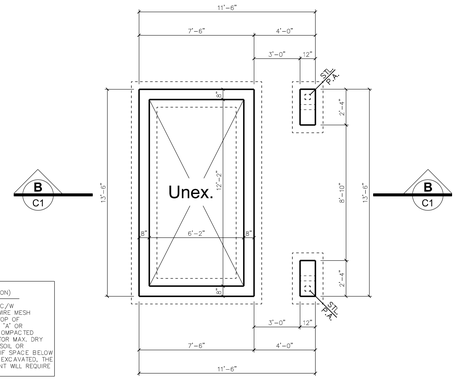
Drawing:

Front & Right-Side Elevations

Scale: 1/4"=1'-0"
Date: Jun 2023
Dwn by: RMS/BS
Proj. no.: 20-1870

A5

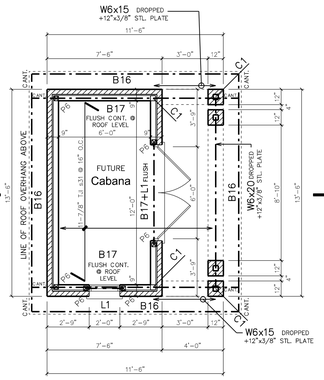
David Small Designs
Architecture + Interior Design



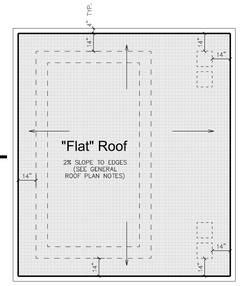
TYPICAL CABANA SLAB
(SLAB ON GRADE CONDITION)

6" R.C. SLAB ON GRADE C/W 1-LAYER 6x6x6 WELDED WIRE MESH PLACED 2" DOWN FROM TOP OF SLAB OVER 6" GRANULAR 'A' OR EQUAL GRAVEL ON SOIL COMPACTED TO 98% STANDARD PROCTOR MAX. DRY DENSITY IN UNDISTURBED SOIL. ENGINEERED FILL NOTED. IF SPACE BELOW IS CHANGED TO BECOME EXCAVATED, THE SLAB & WALL REQUIREMENT WILL REQUIRE ADDITIONAL REINFORCING.

Foundation Plan



Ground Floor Plan



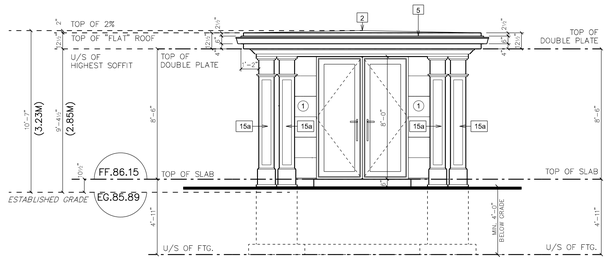
Roof Plan

For Structural Design Only

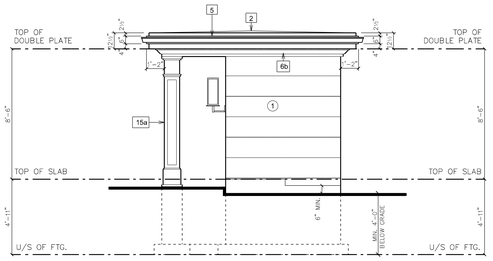
REGISTERED PROFESSIONAL ENGINEER
L. W-K TSE
JULY 12/23
PROVINCE OF ONTARIO

TSE TAG No. DS 1461

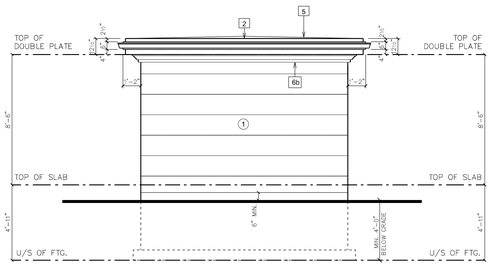
Structural Engineering Design By:
Tse Consultants Inc. 416 543-3088



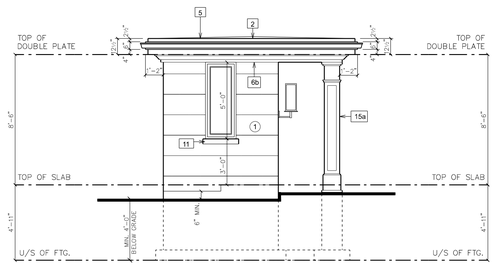
Front Elevation



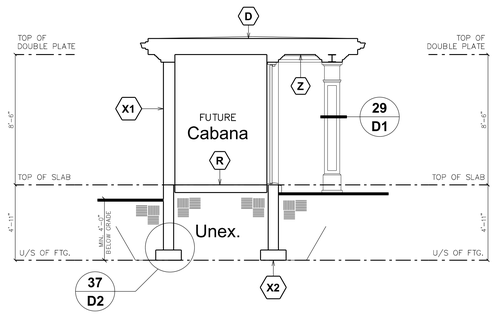
Right-Side Elevation



Rear Elevation



Left-Side Elevation



Section B-B

Section Notes

Typical Brick/Stone Veneer Wall:

X1 Brick or Stone Veneer
1" Air space
'Tyvek' air barrier continuous over
1/2" plywood sheathing
2x4 wall studs @ 16" o/c

X2 20" wide x 8" deep concrete footing c/w 2 - runs 15m rebar

Typical Flat Roof

D 2-ply torched on rubber membrane roof sloped to 2% to outside edge on 1/2" plywood roof sheathing on roof trusses/joists

Typical Cabana Slab (Slab on Grade)

R 6" Reinforced Concrete Slab - 32mpa @ 28 Days Min. 5-8% Air Entr.Class C2

Z Prefinished aluminum soffit w/ continuous vent

Drawing Legend

1.0 Materials

(1) Natural Stone

2.0 Roofing

[2] 2-Ply Torched On Rubber Membrane Roof Sloped To 2% To Outside Edge On 1/2" Plywood Roof Sheathing On Roof Trusses/Joists

3.0 Trim, Cornice, Moulding, & Gutter Notes

[5] 12" Wide Prefinished Aluminum Fascia c/w Starter Strip & Drip Edge 1"x12" Base Fascia Board 1"x6" Flat Stock 5" Square Bent Prefinished Aluminum Eaves Trough

[6b] 6" Crown Mould Cut Stone Trim

[11] 4" Cut Stone Sill c/w 2" Projection

4.0 Railing, Post

[15a] 12"x12" Cut Stone Clad Column

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 a designer.
Qualification information required unless the design is exempt under Division C - 3.2.5.1. of the 2012 ontario building code.

Peter Giordano — Name — Signature — 25061 BCIN

Registration information required unless the design is exempt under Division C - 3.2.4.1. of the 2012 Ontario Building Code.

David W. Small Designs Inc. — Firm Name — 29999 BCIN

no.	date	revision / comment
1	July 12/23	Issued To Owner For Zoning Approvals

Project:

The Al Masoudi Home
1020 Lakeshore Road W
Lot 52
Registered Plan 564
Town of Oakville,
Regional Municipality of Halton

Drawing:

Cabana Plans, Elevations, & Section B-B

Scale: 1/4"=1'-0"
Date: Jun 2023
Dwn by: BS/RMS/AZ
Proj no.: 20-1870

C1

David Small Designs
Architecture + Interior Design

Why It Is Not Possible To Comply – 1020 Lakeshore Rd W

There are four variances being requested for the proposed home design for 1020 Lakeshore Rd W.

A residential floor area of 483.91sm (33.3%) is being requested, where 421.65 sm (29%) is required. There is 47sm of open to below space included in the floor area calculation. The proposed floor area is aligned with the development and streetscape along Lakeshore Rd W.

There is a garage area variance of 76.34sm, where 56sm is required. The garage was thoughtfully designed with two-car bays on the façade, and two tandems. This design approach ensures the façade is not overpowered by garage as the bylaw intends.

The dwelling depth is measured from the front porch to the end of the rear porch. These one-storey open features create a dwelling depth of 21.53m, where 20m is required.

A front yard setback variance of 12.68m is being proposed, where the existing front yard setback, minus 1m, is required (17.93m). The 12.68m front yard setback is aligned with the streetscape, further setback then the neighbouring home (left side) at 11.58m.

These variances are appropriate and minor in nature.

Welwyn Consulting

December 6, 2023

David Small Designs Inc.
c/o Siobhan Hope
4-1405 Cornwall Road
Oakville, Ontario L6J 7T5 siobhan@dsd.ca

SUBJECT: Arborist Report and Tree Preservation Plan
1020 Lakeshore Road West, Oakville

Dear Siobhan:

Attached please find the Arborist Report & Tree Preservation Plan that has been prepared for the above listed property. It is the client's responsibility to review the entire report to ensure all required tree permit application forms are filed with the Town of Oakville.

This report includes an evaluation of all subject site trees of 15cm and greater in DBH (diameter at breast height) and all neighbouring and Town-owned trees regardless of DBH within 6 metres of the subject site's property lines. This evaluation includes the DBH, height, canopy spread, health, and structural condition of all trees that may be affected by the currently proposed site plan. This report also provides a Tree Preservation Plan for the property, including the appropriate Tree Protection Zones (TPZ).

This information complies with the following Town of Oakville By-Laws required to obtain a Site Alteration Permit:

- *Site Alteration By-Law No. 2003-021 and Amendment No.2008-124*
- *Private Tree Protection By-law No. 2017-038*
- *Trees on Town Property By-Law No.2009-025*
- *Tree Protection Policy and Specifications for Construction near Trees*

Included in the report (if applicable) are Valuation Appraisals of any Town-owned trees as required by the Town of Oakville to obtain any necessary tree permits. This letter is part of the Arborist Report and Tree Preservation Plan and may not be used separately. Please feel free to contact me to discuss this report further.

Best regards,

Tom Bradley B.Sc. (Agr.)
A.S.C.A. Registered Consulting Arborist #492
I.S.A. Certified Arborist #ON-1182A
I.S.A. Certified Tree Risk Assessor
Butternut Health Assessor (O.M.N.R)
Welwyn Consulting (Business Licence #18-108827)
(905) 301-2925 welwyntrees@gmail.com

Welwyn Consulting

Arborist Report and Tree Preservation Plan

1020 Lakeshore Rd. West, Oakville

Prepared For

David Small Designs Inc.
c/o Siobhan Hope
4-1405 Cornwall Road
Oakville, Ontario L6J 7T5 siobhan@dsd.ca

Prepared By

Tom Bradley B.Sc. (Agr.)
A.S.C.A. Registered Consulting Arborist #492
I.S.A. Certified Arborist #ON-1182A
I.S.A. Certified Tree Risk Assessor
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Welwyn Consulting (Business Licence #18-108827)
(905) 301-2925 welwyntrees@gmail.com

Prepared On

December 6, 2023

Table of Contents

Summary

This Arborist Report and Tree Preservation Plan addresses all subject site trees with a diameter at breast height (DBH) of 15cm or greater and all neighbouring and Town-owned trees regardless of DBH within 6 metres of the subject site that may be affected by the proposed property development, and provides recommendations for their preservation and/or removal. This report also includes hoarding distances for the Tree Protection Zones (TPZ), and provides recommendations for current and future tree health care.

Based upon the Tree Inventory for this property, there are **twenty (20) trees** that may be affected by the proposed site development plan:

- Nine (9) trees on the subject site
- Six (6) neighbouring trees within 6 metres of the subject site's property lines
- Two (2) shared ownership trees along the subject site's property lines
- Three (3) Town-owned trees within 6m of the subject site's property lines

Table 1: Tree Preservation and Removal

TREES TO PRESERVE	**TREE NUMBER**	**TOTAL**
i) Subject Site Trees	3, 4, 6, 7, 8, 9, 19	7
ii) Neighbouring Trees	11, 12, 14, 15, 18	5
iii) Shared Ownership Trees	13, 16	2
iv) Town-owned Trees	1, 2, 20	3
	# of Trees to be Preserved:	**17**
TREES TO REMOVE	**TREE NUMBER**	**TOTAL**
i) Subject Site Trees	5, 10 (site plan conflict) 17 (in decline)	3
ii) Neighbouring Trees	0	0
iii) Shared Ownership Trees	0	0
iv) Town-owned Trees	0	0
	# of Trees to be Removed:	**3**
	Total Trees on or adjacent to Subject Site:	**20**

Specific tree-related issues on this site:

Please refer to Pages 7, 8 and 13 of this report for on-site supervision requirements by a Certified Consulting Arborist during the proposed construction activities at 1020 Lakeshore Road West, Oakville.

Introduction

This Arborist Report and Tree Preservation Plan provides the current condition of all subject site trees with a DBH of 15cm or greater and all neighbouring and Town-owned trees regardless of DBH within 6m of the subject site that may be affected by the proposed site development plan as indicated by the attached site plan in Appendix A. The intent of the Tree Preservation Plan is to retain as many trees on the site as is reasonable and minimize the potential impact of construction injury to the trees through the use of Tree Protection Zones (TPZ) and other generally recognized arboricultural practices.

Assignment

Welwyn Consulting was contacted by **David Small Designs Inc.** to provide an Arborist Report and Tree Preservation Plan, as required by the Town of Oakville's Tree Protection By-Laws, to minimize the impact that the proposed construction may have on the trees on or adjacent to this property. This report shall list specific trees to be preserved or removed, recommend any immediate maintenance required to create a safer environment for contractors and the property owner, and provide a long-term tree preservation and management plan for the site.

Limits of Assignment

This report is limited to assessing/documenting the health and structural condition of all subject site trees with a DBH of 15cm or greater and all neighbouring and Town-owned trees regardless of DBH within 6m of the subject site during Welwyn Consulting's site survey on **October 30, 2023.** All evaluations are based upon a visual inspection of the trees from the ground, and the analysis of photos and any samples taken during that inspection.

Unless specifically stated in the report;

1.) Neither aerial inspections nor root excavations were performed on any trees on or within 6 metres of the subject site.
2.) A Level II Basic Assessment using the 2011 International Society of Arboriculture (I.S.A.) *Best Management Practices* was used for tree evaluations on the subject site.
3.) A Level I Limited Visual Assessment was used for any off-site trees as required.

Purpose and Use

The purpose of this report is to document the current health and structural condition of all subject site trees with a DBH of 15cm or greater and all neighbouring and Town-owned trees regardless of DBH within 6m of the subject site, and to provide an Arborist Report and Tree Preservation Plan that complies with the Town of Oakville's Tree Protection and Site Alteration Bylaws.

This report is intended for the exclusive use of **David Small Designs Inc.** Upon submission by and payment to Welwyn Consulting, this report will be licensed for use by **David Small Designs Inc.** at their discretion.

Observations

The proposed development is located in an established residential area near the intersection of Lakeshore Road West and Fourth Line within the Town of Oakville. This site presently contains a single family dwelling that will be demolished and replaced with a new home. Welwyn Consulting visited the site on **October 30, 2023** to conduct the tree inventory and take photographs of the trees on site as well as any neighbouring or Town-owned trees that may be affected by the proposed site plan.

Photo #1

Photo #2

Figure #1: These 2 photos show the front and rear yard of the subject site at 1020 Lakeshore Road West as they appeared during the tree inventory conducted on October 30, 2023.

Appendices

Appendix A contains the most current site plan supplied by **David Small Designs Inc.** which provides the following information:

- The location of the trees on or adjacent to the subject site
- Property lines for the subject site and neighbouring properties
- Property lines for Town-owned lands adjacent to the subject site
- All existing buildings and hard surfaces
- An outline of the proposed building

Appendix B contains the Tree Inventory for this site. All trees were assigned numbers, and measured for diameter at breast height (DBH=1.4m), height, and canopy spread. The trees' health, structural condition and their physical location/ownership provide the basis for their recommended preservation or removal.

Appendix C contains the Tree Appraisal values for any Town-owned trees on municipal property adjacent to the subject site that may be impacted by the proposed site plan.

Appendix D contains selected photos of trees on this site.

Trees to Preserve (17)

NOTES:

1.) It is the responsibility of the client to ensure that all architects, engineers, and contractors involved with the project be provided with a copy of the entire Arborist Report and Tree Preservation Plan for review prior to the commencement of construction activities on this site.

2.) All subject site trees 15cm DBH or greater and any hedge with stems that measure 15 cm DBH or greater are protected by the Private Tree Protection By-Law (2017-038). All Town-owned trees regardless of DBH are protected by the Trees on Town Property By-Law (2009-025).

3.) A tree's root system extends 2-3 times beyond the edge of the canopy/dripline. As Tree Protection Zone (TPZ) hoarding protects only that portion of the root system governed by municipal regulations, most trees on urban residential properties may sustain a degree of injury (including but not limited to root severance, soil compaction and disturbance) during proposed construction activities.

- **Trees #1, 2 and 20 Town trees**

  These three (3) trees are located in the boulevard area of the front yard of the property to the north (#2) and on the subject site (#1 and #3) at 1020 Lakeshore Road West on lands owned by the Town of Oakville. These 3 trees must be protected for the duration of the proposed construction activities on this site.

  These three (3) Town-owned trees must be preserved. Full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines starting on Page 13 of this report should result in the trees' continued survival.

  NOTES:

  1.) *As required by the Town of Oakville, all site servicing (water, sanitary, gas and hydro) must be outside the minimum TPZ of Town trees. Where this is not possible, trenchless method such as directional boring must be used under supervision of the project arborist.*

  2.) The existing subject site driveway on the north side of the property at 1020 Lakeshore Rd. W. will be relocated outside the south portion of the minimum 2.4m TPZ for Tree #1. The driveway surface within the TPZ shall be removed by hand (no heavy equipment) and replaced with sod and soil. No driveway base excavation will occur within Tree #1's minimum 2.4m TPZ.

  3.) Excavation for the south portion of the proposed semi-circular driveway will encroach 4m into the north side of the minimum 6.0m TPZ for Tree #20.

  4.) *Using either Air Spade or Dry-Vac technology, a root zone investigation of the area 4m north of Tree #20's base shall be performed, under the supervision of a Certified Consulting Arborist, to determine the size and quantity of tree roots that could be affected by the excavation process for the proposed driveway. No roots will be pruned during this investigation.*

(Next page)

5.) A Tree Protection Audit report documenting the results of the root zone investigation for Tree #20 shall be prepared by the project Consulting Arborist for submission to the Town of Oakville's Urban Forestry Department for approval or denial of the proposed 'level of root injury' required to accommodate the driveway.

- **Trees #3 and 4 Red Oak and Crabapple (subject site)**

These two (2) trees are located in the front yard at 1020 Lakeshore Road West. These 2 trees shall be protected for the duration of the proposed construction activities on this site.

These two (2) subject site trees shall be preserved. Full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines starting on Page 13 of this report should result in the trees' continued survival.

NOTES:

1.) The existing subject site driveway is proposed for relocation 1m closer to the south base of Tree #4 and within the tree's minimum 3.0m TPZ.
2.) *A Certified Consulting Arborist shall be on-site during excavation for the proposed driveway reconfiguration/encroachment to determine the size and quantity of Tree #4's roots that could be affected. Any roots in the immediate area of the excavation shall be assessed and, if feasible and reasonable, be properly pruned by the attending Arborist. This action is anticipated to minimize the extent of root injury and provide any pruned roots with the best opportunity to regenerate.*
3.) The proposed construction materials storage area should be relocated outside the minimum 3.0m TPZ for Tree #4.

- **Trees #6, 7, 8 and 9 Rear yard trees (subject site)**

These four (4) trees are located in the rear yard at 1020 Lakeshore Road West. These 4 trees shall be protected for the duration of the proposed construction activities on this site.

These four (4) subject site trees shall be preserved. Full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines starting on Page 13 of this report should result in the trees' continued survival.

NOTES:

1.) The proposed paverstone walkway will be installed outside the minimum 2.4m TPZ for Trees #6 and 7.
2.) The proposed retaining wall, paverstone walkway and in-ground swimming pool will be installed outside the minimum TPZ values for Trees #8 and 9.

- **Trees #11 and 12** **Neighbouring trees**

  These two (2) trees are located on the neighbouring properties east (#11) and south (#12) of the rear yard at 1020 Lakeshore Rd. West. These 2 trees must be protected for the duration of the proposed construction activities on this site.

  These two (2) neighbouring trees must be preserved. Full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines starting on Page 13 of this report should result in the trees' continued survival.

- **Trees #13 and 16** **Shared ownership trees**

  These two (2) trees are located along the south property line at 1020 Lakeshore Rd. West and have shared ownership with the neighbour to the south. These 3 trees must be protected for the duration of the proposed construction activities on this site.

  As required by the Provincial Forestry Act of Ontario, all shared trees must be preserved unless their removal is agreed upon in a "Letter of Agreement" signed by all owners. Full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines starting on Page 13 of this report should result in the trees' continued survival.

  NOTES:

  1.) Excavation for the proposed building foundation (with an anticipated 90cm over-dig) will take place outside the minimum TPZ values for Trees #13 and 16.
  2.) *Clearance pruning of Tree #13's north branch canopy will be required to accommodate the proposed dwelling at 1020 Lakeshore Road West and shall be approved by the co-owners of the tree prior to pruning.*

- **Trees #14, 15 and 18** **Neighbouring trees**

  These three (3) trees are located on the neighbouring property south at 1020 Lakeshore Rd. West. These 3 trees must be protected for the duration of the proposed construction activities on this site.

  These three (3) neighbouring trees must be preserved. Full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines starting on Page 13 of this report should result in the trees' continued survival.

  NOTE: Excavation for the proposed building foundation (with an anticipated 90cm over-dig) will take place outside the minimum TPZ values for Trees #14, 15 and 18.

- **Tree #19 Sugar Maple (subject site)**

  This tree is located in the front yard at 1020 Lakeshore Road West. This tree shall be protected for the duration of the proposed construction activities on this site.

  This subject site tree shall be preserved. Full implementation of the Tree Care Recommendations, Tree Preservation Plan and Tree Preservation Guidelines starting on Page 13 of this report should result in the tree's continued survival.

Trees to Remove (3)

NOTES:

1.) Prior to construction, all trees scheduled for removal should be removed to grade level to increase the safety for both the property owner and any contractors.

2.) *The Private Tree Protection By-Law 2017-038 regulates all trees up until final Site Plan approval. During the Site Plan Process, trees shall not be removed as they are part of the formal submission. Once final Site Plan approval has been granted, the by-law is superseded by conditions that are set out in the approved Site Plan. Once Site Plan approval is granted, the private trees to be removed are not subject to the Private Tree By-Law procedure.*

- **Trees #5, 10 and 17 Subject site trees**

  These three (3) trees are proposed to be safely removed to grade level prior to the commencement of any on-site construction activities for the following reasons:

  a.) Tree #5 (one tree) is a large shrub form Lilac and is in conflict with the proposed site plan.
  b.) Tree #10 (one tree) is 100% dead and is within the proposed building footprint.
  c.) Tree #17 (one tree) is in significant decline and is recommended for removal.

Tree Replacement Policy (Town of Oakville)

The following information reflects the Town of Oakville's updated Tree Replacement Policy as of May 2, 2017:

- As a condition of issuing a tree removal permit, one (1) replacement tree must be planted for every 10cm DBH of healthy tree removed (e.g. one 50cm DBH tree removed = 5 replacement trees)
- Any hedge with stems that measure 15cm or more in diameter will require a permit to remove.
- A $300.00 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 30mm caliper (3cm diameter) deciduous tree, or a 150cm high coniferous tree in a five-gallon container, balled in burlap, or in a wire basket.

Partial Permit Fee Schedule - 2023

- $50.00 for the first tree removed (15 to 24cm DBH) in a 12-month period.
- $350.00 for each additional tree, and all trees larger than 24 cm DBH.
- No fee for dead and high risk trees, Ash trees, and Buckthorn, but a permit is still required.
- Tree replacement and security deposit may be a condition of removal.

Town of Oakville DESP Policy Updates:

- Tree Replacements:
  1.) All trees within the proposed building footprint and within 1m (accounting for minimum over-dig only) regardless of DBH are exempt from the requirement for replacement tree planting.
  2.) All trees of 15cm DBH and greater that are further than 1m from the proposed building foundation will require replacement tree plantings. This includes but is not limited to removals due to proposed driveway construction, trees in poor structural condition and unacceptable levels of root loss due to building foundation over-dig, etc. Dead/imminent hazard trees, and dead Ash trees due to Emerald Ash Borer (EAB) do not require compensation tree planting.
  3.) DESP may require/request replacement planting as compensation if there are numerous large-diameter, healthy, or desirable tree species within the building footprint or within 1m (over-dig limit).
  4.) DESP requests that best efforts are made to plant as many trees as the lot can reasonably accommodate. DESP is not able to accept 'cash in lieu of planting' for the DESP tree planting – only for the private tree by-law tree permits.

Tree replacement planting options include:

- Large/medium stature trees such as Oak, Tulip Tree, Kentucky Coffee Tree, Zelkova, Linden, etc.
- Small ornamental/flowering trees, such as Dogwood, Japanese Lilac, etc.
- Columnar/narrow form trees such as columnar Tulip Tree, columnar European Hornbeam, columnar English Oak, etc. These can be planted with closer spacing to form a privacy screen or hedge row.
- The least-preferred option is to plant a hedge row of White Cedars, where possible, or other large conifers such as Eastern White Pine, Eastern Hemlock, etc. Juniper/Yew/Emerald Cedars are not accepted as primary replanting.

Tree Replacement Planting Plan: 1020 Lakeshore Rd. West, Oakville

I.D.#	Tree Species	Exposure	Mature Height	Mature Canopy	Soil Type and Zone
R1 – R2 **(2 trees)**	Pyramidal European Hornbeam *Carpinus betulus 'Fastigiata'*	Part sun to full shade	15m	8m	Prefers well-drained soil and wind protection – Zone 5

NOTE:

Two (2) replacement trees and their approximate proposed locations are marked with the symbol Rx on the site plan in Appendix A on Page 22 of this report.

Tree Care Recommendations

Cabling

Cabling is a practice which provides physical support for trees with structurally weak limbs, co-dominant stems, any branch or trunk unions with included bark, and tree species generally known to be weak-wooded. An aerial inspection of the tree's structural condition should be performed prior to cable installation, and any dead, diseased, or hazardous wood should be removed. Cabled trees should be inspected annually to assess both the cabling hardware and the tree's structural condition. Cabling recommendations by Welwyn Consulting are made as a part of "due diligence" to alert tree owners to the 'potential' for tree failure and to provide hazard mitigation options based upon observed conditions. Cabling reduces but does not eliminate a tree's hazard or failure potential.

- **There are no trees recommended for cabling on this site at this time.**

Fertilization

Current research conducted through the International Society of Arboriculture (I.S.A.) indicates that preserved trees within close proximity of proposed construction activities should not be fertilized during the 1st year following construction injury. Uptake of nutrients and water in compacted soils can be reduced, and fertilizer salts may actually remove water from a tree's root zone. If and when supplemental fertilization is deemed necessary, products which stimulate root growth should be employed over those that stimulate shoot and foliage growth and be applied at low application rates.

Supplemental fertilization needs should be assessed by a Certified Consulting Arborist upon completion of all on-site construction activities, and any recommendations should be based on site-specific soil nutrient deficiencies determined primarily through soil testing and secondarily by visual analysis of nutrient deficiencies in foliage, twigs, buds, and roots.

Pruning

Pruning is a practice which removes dead, diseased, broken, rubbing, crossing, and hazardous limbs 2.5 cm and larger from trees to create a safer working environment and improve tree health and vigor. Pruning also provides an excellent opportunity for an aerial inspection of the structural integrity of the tree(s). All pruning should be completed prior to any site demolition or construction.

- **There are no trees recommended for pruning on this site at this time.**

Root Pruning

Root pruning is performed to minimize a tree's potential loss of structural stability through root removal and/or injury due to excavation within close proximity of its root zone. While not always feasible for all projects, root pruning should occur in late autumn during tree dormancy and ideally one full growing season prior to any on-site construction or demolition to allow for root regeneration. Root pruning must be performed by a Certified Arborist in accordance with generally recognized standards and principles within the field of Arboriculture. *Dry-Vac or Air-Spade technologies provide two of the least invasive methods for root zone excavation, and should be performed under the supervision of a Certified Arborist.*

- **Tree #20: Black Walnut (Town tree)**
  Using either Air Spade or Dry-Vac technology, a root zone investigation of the area 4m north of Tree #20's base shall be performed, under the supervision of a Certified Consulting Arborist, to determine the size and quantity of tree roots that could be affected by the excavation process for the proposed driveway. *No roots will be pruned during this investigation.* Please refer to Page 7 for further information.

- **Tree #4: Flowering Crabapple (subject site)**
  A Certified Consulting Arborist shall be on-site during excavation for the proposed driveway reconfiguration/encroachment to determine the size and quantity of Tree #4's roots that could be affected. Any roots in the immediate area of the excavation shall be assessed and, if feasible and reasonable, be properly pruned by the attending Arborist. Please refer to Page 8 for further information.

Irrigation

An irrigation plan for preserved trees should be designed and implemented with the assistance of a Certified Consulting Arborist. The amount and frequency of irrigation will depend on factors such as soil type, local and seasonal precipitation patterns, duration of droughts, and the amount of construction activity near specific trees. The top 30cm of soil in a tree's root zone should be kept moist without being saturated. Infrequent deep watering produces trees with deeper roots, while frequent shallow watering produces shallow-rooted trees. *When combined with soil aeration improvement techniques such as vertical mulching, drill holes, and radial trenching, an adequate but not excessive supply of moisture to a tree's root zone can be an effective and efficient way to help alleviate construction injury.*

Preserved trees should be monitored at regular intervals by a Certified Consulting Arborist for signs of drought stress or excess irrigation.

- **An irrigation plan will be developed upon determination of tree injury levels after completion of any required root pruning.**

Horizontal Mulching

It may be determined by the Certified Consulting Arborist that trees within close proximity of construction activities will require a layer of composted wood chip mulch applied to the root zones inside the TPZ hoarding. Decomposed wood mulch 5–10cm (2-4 inches) deep applied to a tree's root zone should help to retain soil moisture, regulate soil temperature, and provide a natural organic source of nutrients in their elemental form over time. Piling of mulch against the tree stem shall be avoided. Fresh wood chip mulch shall be applied to a depth of 10-15cm beneath steel plates or plywood on vehicle and equipment traffic areas within close proximity to the TPZ to distribute weight on the soil and help reduce potential root zone soil compaction.

- **There are no specific mulching requirements at this time.**

Root Zone Aeration Improvements

Aeration improvement techniques such as drill holes, vertical mulching, soil fracturing, and radial trenching have the ability to reduce various degrees of soil compaction by increasing the amount of soil macro and micropores. Any form of root zone aeration improvement should be performed post-construction and under the supervision of a Certified Consulting Arborist to help remediate soil compaction caused by construction activity near preserved trees.

- **There are no root zone aeration improvements required on this site at this time.**

Transplanting

Transplanting of larger caliper trees, through either hand digging or tree spade, allows for relocation and retention of desirable trees that might have otherwise been removed due to conflict with the proposed property construction design. Trees should be tree-spaded out by a reputable operator, and are best transplanted during dormancy in late autumn. No construction activity should take place near re-located trees either before or after transplantation.

Any transplanted trees should be fertilized using a complete fertilizer with a preferred nitrogen/phosphorus/potassium ratio of 1-2-2, with the Nitrogen component in slow release form. A 10cm layer of composted wood mulch should be applied to the root zone, and the tree should receive regular irrigation for a period of at least one year. The tree may also require staking for a period of 1 year to provide stability while it re-establishes its root system.

- **There are no trees recommended for transplanting on this site at this time.**

Tree Preservation Plan

The following Tree Preservation Plan shall be implemented prior to any on-site construction activity.

Hoarding

Hoarding is used to define the **Tree Protection Zone** (TPZ), which protects a tree's root zone, trunk, and branches from injury during both construction and landscaping phases of the project. Hoarding must be installed prior to any construction activity, and remain intact until construction and landscaping is completed. The TPZ must **NOT** be used for the temporary storage of building materials, storage or washing of equipment, or the dumping of construction debris, excess fill, or topsoil.

As required by the Town of Oakville, hoarding shall be constructed of 4x8 plywood or waferboard sheets using 2x4 top and bottom rail construction with supports and braces. A TPZ may be constructed of orange safety fencing using 2x4 top and bottom rail construction and supports & braces or T-bars when protecting street trees where site line obstruction is a concern. TPZ signage shall be posted in visible locations on the TPZ hoarding. The architect of record for the project shall update the most current site plan/grading plan to include all existing trees properly plotted and numbered, with tree canopy diameters and TPZ hoarding locations clearly indicated and to scale.

NOTE: A tree's root system extends 2-3 times beyond the edge of the canopy/dripline. As Tree Protection Zone (TPZ) hoarding protects only that portion of the root system governed by municipal regulations, most trees on urban residential properties may sustain a degree of injury (including but not limited to root severance, soil compaction and disturbance) during proposed construction activities.

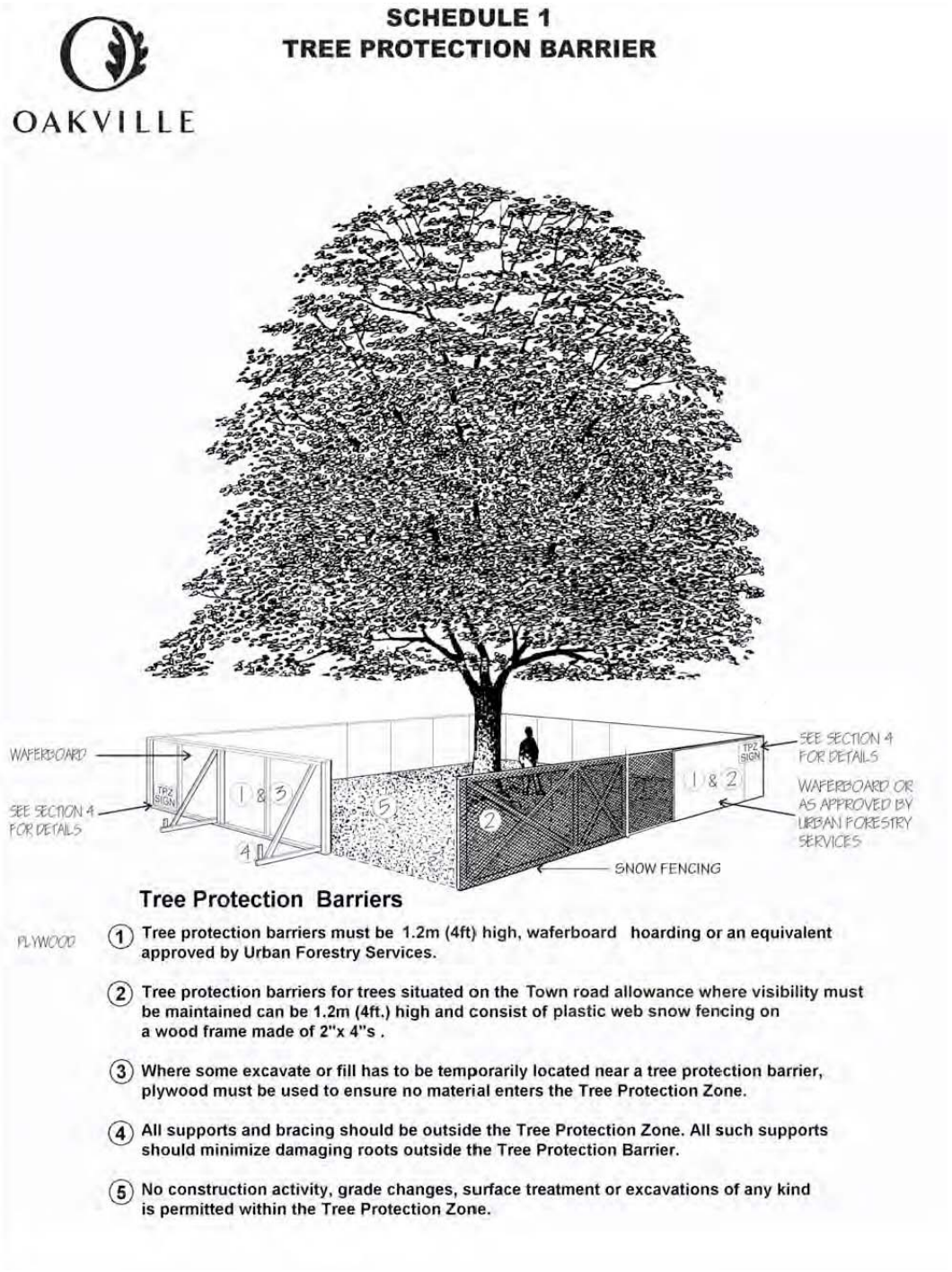
Hoarding Installation

A diagram of the proposed hoarding plan for this site can be found in Appendix A on Page 22 of this report. The recommended radial distances from the trunk for installation of TPZ hoarding are listed in Appendix B starting on Page 23 of this report, and the hoarding shall be installed using the following guidelines:

1) All TPZ hoarding shall be placed at the recommended radial distance from the base of all trees to be protected, or up to all existing and/or proposed hard surfaces to allow for construction.
2) Any large numbers of trees that can be grouped together in a closed box or continuous line system for protection shall have their TPZ hoarding placed at the recommended radial distance from the base of all of the largest peripheral trees of the system, or up to all existing and/or proposed hard surfaces to allow for construction.
3) Encroachment within a tree's TPZ will require a special permit from the Town of Oakville and/or on-site supervision by a Certified Consulting Arborist during any proposed excavation activities for root pruning and assessment.

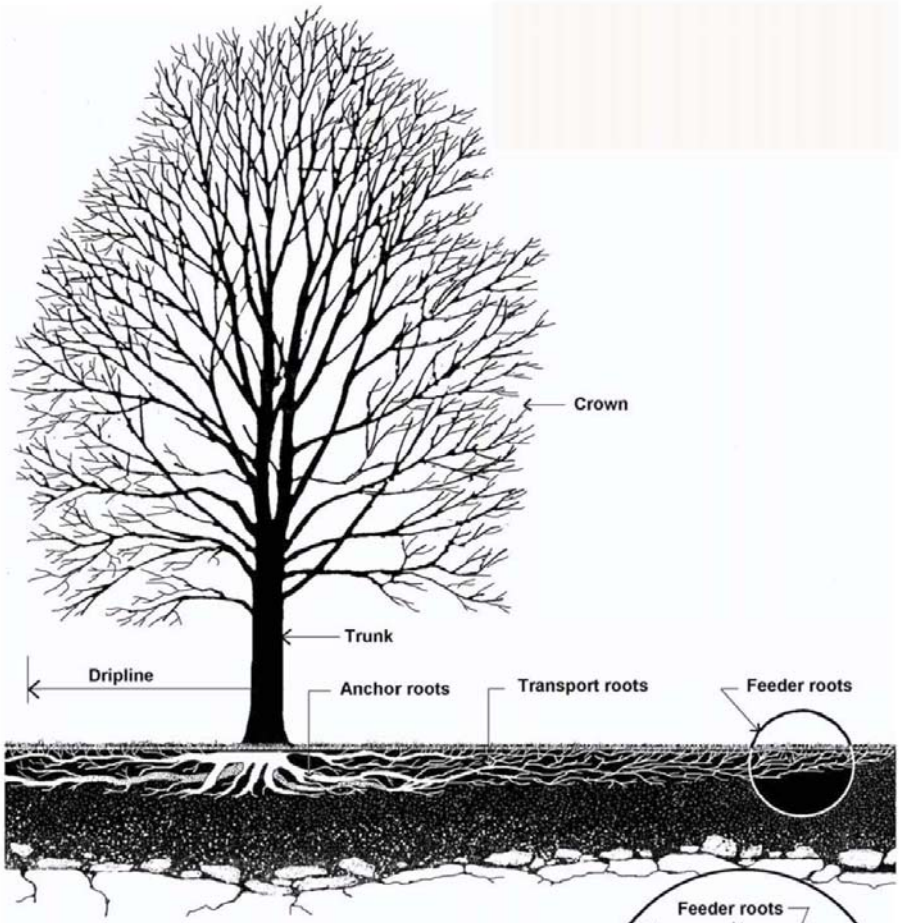
Town of Oakville TPZ Hoarding Specifications

The diagram below provides the Town of Oakville's standards for Tree Protection Zone (T.P.Z) hoarding.



Optimal Tree Crown and Root Structure – Town of Oakville

DETAIL TP-1



A minimum of 1.5 M of well drained soil depth is required for the growth of a tree to maturity. A tree's root system grows mainly within the top 60 cm. of the surface and extends outward 2 to 3 times the dripline dimension. The root system of a tree has three main parts : The large "anchor roots" providing structural support ; a framework of "transport roots" ; and a complex network of "feeder roots" that grow outward and upward from the transport roots. These non-woody roots branch out to form fans of thousands of slender roots with fine root hairs. These tiny roots provide the major portion of the absorption surface of a tree's root system.

Note:
Graphic and technical information supplied by the City of Toronto, Urban Forestry Services

Name: **The Crown and Root Structure of a Tree in an Optimum Growing Environment**

Date: **November 2016**

Scale: **N.T.S.**

File No: -

OAKVILLE

S:\DEPARTME\PARKS\FOR&CMTY\Tree Protection Details\THE CROWN AND ROOT STRUCTURE.CDR

Tree Preservation Plan Summary

I.) Pre-Construction Phase

- It is recommended that an on-site meeting take place with the project Certified Consulting Arborist, a representative from the Town of Oakville's Urban Forestry Department, the property owner(s), and any Architects, Engineers, and contractors involved with the project to discuss the Tree Preservation Plan.
- Complete all Tree Care Recommendations, including pruning and any required tree removals.
- Install Tree Protection Zone (TPZ) hoarding as required.
- Where required, apply composted wood mulch to tree root zones within the TPZ hoarding, and apply fresh wood mulch over steel plates and/or plywood to any high-traffic areas immediately adjacent to the TPZ hoarding to help reduce soil compaction.
- If permitted by the Town of Oakville, root-prune any preserved trees adjacent to excavation areas prior to construction under the supervision of a Certified Consulting Arborist.
- Establish an irrigation plan with the assistance of a Certified Consulting Arborist.

II.) Construction Phase

- Maintain and respect TPZ hoarding throughout the construction phase. Do not store or dump materials in this area.
- Continue irrigation plan as directed by a Certified Consulting Arborist.
- If permitted by the Town of Oakville, prune any roots exposed during excavation under the supervision of a Certified Consulting Arborist.
- On-going monitoring by a Certified Consulting Arborist to evaluate construction injury/stress and make recommendations.

III.) Post-Construction Phase

- Remove hoarding only after permission from the Town of Oakville.
- Continue irrigation program as directed by a Certified Consulting Arborist.
- Supplemental fertilizer needs assessment by a Certified Consulting Arborist.
- Post-construction monitoring of all trees by a Certified Consulting Arborist.

NOTE:
Post-Construction Monitoring

Construction injury may take several years to become apparent. All preserved trees should be inspected by a Certified Consulting Arborist on a semi-annual basis for a period of up to 2 years to pro-actively address any tree health related issues as they occur.

ASSUMPTIONS AND LIMITING CONDITIONS

Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, by-laws, or other governmental regulations.

Care has been taken to obtain all information from reliable sources, and all data has been verified insofar as possible. The consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.

The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

Loss or alteration of any part of this report invalidates the entire report.

Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone other than the person to whom it is addressed without the prior expressed written or verbal consent of the consultant/appraiser.

Neither all nor any part of the contents of this report, nor any copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media without the prior expressed written or verbal consent of the consultant/appraiser particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society, institute, or any initialed designation conferred upon the consultant/appraiser as stated in his/her qualification.

This report and the values expressed herein represent the opinion of the consultant/appraiser, and the consultant/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as either engineering or architectural reports or surveys.

Unless expressed otherwise: 1) Information contained in this report covers only those items that were examined and reflections the condition of those items at the time of inspection, and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

CERTIFICATE OF PERFORMANCE

I, Tom Bradley, certify that:

- I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of any evaluation or appraisal is stated in the attached report and the Limits of Assignment.

- I have no current or prospective interest in the vegetation of the property that is the subject of this report, and have no personal interest or bias with respect to the parties involved.

- The analysis, opinions and conclusions stated herein are my own, and are based on current scientific procedures and facts.

- My compensation is not contingent upon the reporting of a pre-determined conclusion that favours the cause of the client or any other party, or upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

- My analysis, opinions and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.

- No one provided significant professional assistance to the consultant, except as indicated within the report.

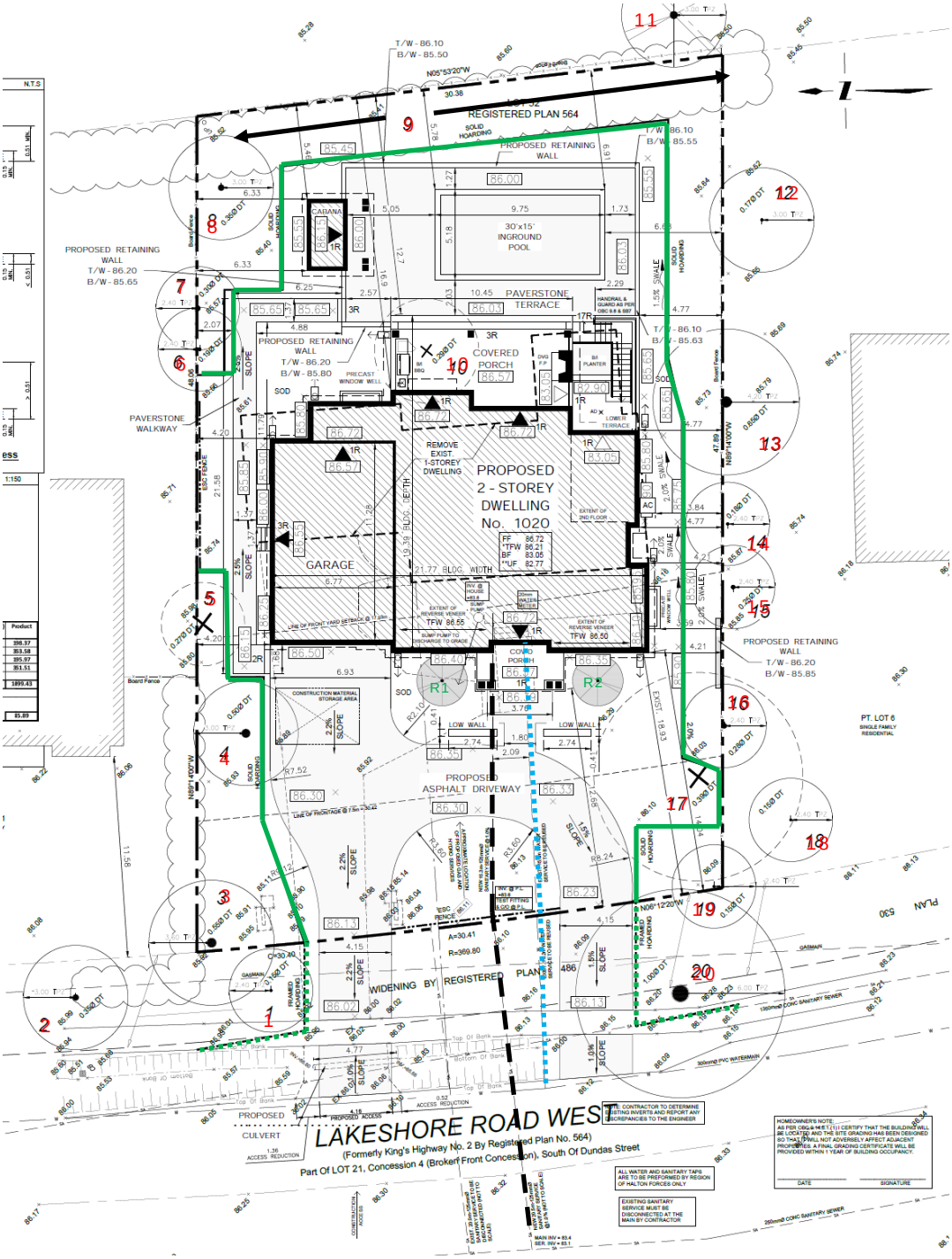
I further certify that I am a Registered Consulting Arborist through the *American Society of Consulting Arborists (A.S.C.A)* and both a Certified Arborist and Certified Tree Risk Assessor with the *International Society of Arboriculture (I.S.A).* I have been involved in the fields of Arboriculture and Horticulture in a full-time capacity for a period of more than 20 years.

Signed: 

Date: December 6, 2023

Appendix A: Proposed Site Plan – 1020 Lakeshore Rd. West, Oakville

Note: The location of Tree #12 is an approximation. The proposed Tree Protection Zone (TPZ) hoarding is drawn as green lines and has been drawn to scale on the site plan by the project architect. Rx denotes two (2) replacement trees and their approximate proposed locations.



Legend:

Solid Hoarding

Framed Hoarding

Water Service (re-used)

Sanitary Service (proposed)

Appendix B: Tree Survey – 1020 Lakeshore Rd. West, Oakville

*** denotes estimated DBH due to restricted site access/private property**

I.D #	Owner	Tree Species Common Name	Tree Species Botanical Name	DBH (cm)	Height (m)	Canopy (m)	Tree Health	Structural Condition	Comments	Minimum TPZ unless otherwise noted
1	Town of Oakville	Schubert Chokecherry	*Prunus virginiana 'Schubert'*	15	7	5	Good	Fair	Small-caliper deadwood in canopy; small aspect ratio co-dominant stems with included bark union 2m from tree base; branch canopy above 2m and shaded/reduced on north side; epicormic shoots at base; approx. 10 degree stem curve south at 2m	Preserve: TPZ = 2.4m
2	Town of Oakville	Red Oak	*Quercus rubra*	35*	16	12	Good	Fair	Small-caliper deadwood in canopy; small aspect ratio co-dominant stems with included bark union 4m from tree base	Preserve: TPZ = 3.0m
3	Subject Site	Norway Maple	*Acer platanoides*	55	16	11	Good	Good	Small-caliper deadwood in canopy; branch canopy above 4m	Preserve: TPZ = 3.6m
4	Subject Site	Flowering Crabapple	*Malus spp.*	23, 27, 35 (50)	12	10	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with included bark union 0.5m from tree base; branch canopy above 2m	Preserve: TPZ = 3.0m
5	Subject Site	Common Lilac	*Syringa vulgaris*	8, 9, 12, 12, 17 (27)	6	8	Good	Fair	Small-caliper deadwood in canopy; multi-stem shrub form	Remove: Proposed site plan in conflict with the tree
6	Subject Site	Green Ash	*Fraxinus pennsylvanica*	11, 16 (19)	12	4	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with narrow included bark union at tree base; branch canopy shaded/reduced on south and east sides	Preserve: TPZ = 2.4m
7	*Shared Ownership*	Black Walnut	*Juglans nigra*	20, 22 (30)	12	10	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with narrow included bark union at tree base	Preserve: TPZ = 2.4m
8	Subject Site	Mulberry	*Morus alba*	8, 10, 12, 15, 18, 19 (35)	11	12	Good	Fair	Small-caliper deadwood in canopy; large and small aspect ratio co-dominant stems with included bark unions at tree base; branch canopy shaded and reduced on north side	Preserve: TPZ = 3.0m
9	Subject Site	Cedar hedge (36 plants)	*Thuja occidentalis*	15-25	8-10	3-4	Good	Good	Small-caliper deadwood in canopy; branch canopy shaded/reduced on east side; wooden privacy fence on east side of hedge	Preserve: TPZ = 2.4m

I.D #	Owner	Tree Species Common Name	Tree Species Botanical Name	DBH (cm)	Height (m)	Canopy (m)	Tree Health	Structural Condition	Comments	Minimum TPZ unless otherwise noted
10	Subject Site	Common Pear	*Pyrus communis*	29	8	4	---	---	Dead tree – within proposed building footprint – no replacement trees required	Remove: Proposed site plan in conflict with the tree
11	Neighbour	Douglas Fir	*Pseudotsuga menziesii var.glauca*	45*	20	10	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with narrow included bark union 2m from tree base; branch canopy above union and shaded/reduced on west side; fence on east side	Preserve: TPZ = 3.0m
12	Neighbour	Green Ash	*Fraxinus pennsylvanica*	10, 10, 10 (17)*	11	4	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with narrow included bark union at tree base; branch canopy above 2m; fence on north side of stem	Preserve: TPZ = 2.4m
13	*Shared Ownership*	Black Walnut	*Juglans nigra*	65*	26	16	Good	Good	Small-caliper deadwood in canopy; branch canopy above 6m; north canopy branch over existing dwelling will require clearance pruning	Preserve: TPZ = 4.2m
14	Neighbour	Green Ash	*Fraxinus pennsylvanica*	18*	12	9	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with included bark union 5m from tree base; branch canopy above 1.8m; north branch canopy over existing dwelling will require clearance pruning	Preserve: TPZ = 2.4m
15	Neighbour	Black Walnut	*Juglans nigra*	25*	18	12	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with included bark union 8m from tree base; north canopy branch over existing dwelling will require clearance pruning	Preserve: TPZ = 2.4m
16	*Shared Ownership*	Black Walnut	*Juglans nigra*	28*	15	9	Good	Good	Small-caliper deadwood in canopy; branch canopy above 2m	Preserve: TPZ = 2.4m
17	Subject Site	Sugar Maple	*Acer saccharum*	39	6	6	Poor	Fair	Small-caliper deadwood in canopy; central leader dead above 2m; 3 branches on north side only	Remove: Tree in decline
18	Neighbour	Sugar Maple	*Acer saccharum*	15*	10	2	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with narrow included bark union 2m from tree base; branch canopy above 1m	Preserve: TPZ = 2.4m

I.D #	Owner	Tree Species Common Name	Tree Species Botanical Name	DBH (cm)	Height (m)	Canopy (m)	Tree Health	Structural Condition	Comments	Minimum TPZ unless otherwise noted
19	Subject Site	Sugar Maple	*Acer saccharum*	15	9	3	Good	Good	Small-caliper deadwood in canopy; branch canopy above 2m and shaded and reduced on west side	Preserve: TPZ = 2.4m
20	Town of Oakville	Black Walnut	*Juglans nigra*	69, 72 (100)	26	17	Good	Fair	Small-caliper deadwood in canopy; large aspect ratio co-dominant stems with narrow included bark union at tree base; branch canopy above 6m	Preserve: TPZ = 6.0m

Tree Protection Zone Standards – Town of Oakville 2023

Trunk Diameter (DBH)	Tree Protection Zone (distance from trunk)
<10cm	1.8m
10-30cm	2.4m
31-50cm	3.0m
51-60cm	3.6m
61-70cm	4.2m
71-80cm	4.8m
81-90cm	5.4m
91-100cm	6.0m
100cm or greater	Add 10cm to TPZ for every cm of DBH

Appendix C: Tree Valuation Appraisals – Trunk Formula Method

TREE APPRAISAL
Trunk Formula
Method

Tree Number:	One (1)
Address:	1020 Lakeshore Road West, Oakville
Owner:	Town of Oakville
Date of Appraisal:	October 30, 2023
Appraiser:	Tom Bradley
Certification Number:	R.C.A. #492 (A.S.C.A.)

Field Observations (based on *Guide for Plant Appraisal, 9th Edition*)

1	Species:	Schubert Chokecherry			*Prunus virginiana 'Schubert'*
2	Condition:		78	%	
3	DBH:		15	cm	
4	Location:		65	%	

Regional Plant Appraisal Committee Information - *Guide for Plant Appraisal, 9th Edition*

5	Species Rating:	55	%
6	Replacement Plant Size:	5	cm
6b	Trunk Area:	19.625	cm^2
7	Replacement Plant Cost:	$185.00	
8	Installation Cost: (1.5x Plant Cost)	$277.50	
9	Installed Tree Cost:	$462.50	
10	Unit Tree Cost:	$23.57	

Calculations by Appraiser Using Field and /or Regional Information

11	Appraised Trunk Area (using Table 4.6) :	177	cm^2
12	Appraised Tree Trunk Increase (#11 - #6b):	157	cm^2
13	Basic Tree Cost (#12 x #10 + #9) :	$4,171.34	
14	Appraised Value (#13 x #5 x #2 x #4) :	$1,165.04	
15	Appraised Value > $5000.00 is rounded to the nearest $100.		
16	Appraised Value < $5000.00 is rounded to the nearest $10.		

APPRAISED VALUE: $1,170

Welwyn Consulting

TREE APPRAISAL
Trunk Formula
Method

Tree Number:	Two (2)
Address:	Property north of 1020 Lakeshore Rd. W., Oakville
Owner:	Town of Oakville
Date of Appraisal:	October 30, 2023
Appraiser:	Tom Bradley
Certification Number:	R.C.A. #492 (A.S.C.A.)

Field Observations (based on *Guide for Plant Appraisal, 9th Edition*)

1	Species:	Red Oak			*Quercus rubra*
2	Condition:		81	%	
3	DBH:		35	cm	
4	Location:		68	%	

Regional Plant Appraisal Committee Information - *Guide for Plant Appraisal, 9th Edition*

5	Species Rating:	81	%
6	Replacement Plant Size:	9	cm
6b	Trunk Area:	63.585	cm^2
7	Replacement Plant Cost:	$340.00	
8	Installation Cost: (1.5x Plant Cost)	$510.00	
9	Installed Tree Cost:	$850.00	
10	Unit Tree Cost:	$13.37	

Calculations by Appraiser Using Field and /or Regional Information

11	Appraised Trunk Area (using Table 4.6) :	962	cm^2
12	Appraised Tree Trunk Increase (#11 - #6b):	898	cm^2
13	Basic Tree Cost (#12 x #10 + #9) :	$12,859.95	
14	Appraised Value (#13 x #5 x #2 x #4) :	$5,783.36	
15	Appraised Value > $5000.00 is rounded to the nearest $100.		
16	Appraised Value < $5000.00 is rounded to the nearest $10.		

APPRAISED VALUE: $5,800

Welwyn Consulting

TREE APPRAISAL
Trunk Formula
Method

Tree Number:	Twenty (20)
Address:	1020 Lakeshore Rd. W., Oakville
Owner:	Town of Oakville
Date of Appraisal:	October 30, 2023
Appraiser:	Tom Bradley
Certification Number:	R.C.A. #492 (A.S.C.A.)

Field Observations (based on *Guide for Plant Appraisal, 9th Edition*)

1	Species:	Black Walnut			*Juglans nigra*
2	Condition:		81	%	
3	DBH:		100	cm	
4	Location:		77	%	

Regional Plant Appraisal Committee Information - *Guide for Plant Appraisal, 9th Edition*

5	Species Rating:	67	%
6	Replacement Plant Size:	6	cm
6b	Trunk Area:	28.26	cm^2
7	Replacement Plant Cost:	$225.00	
8	Installation Cost: (1.5x Plant Cost)	$337.50	
9	Installed Tree Cost:	$562.50	
10	Unit Tree Cost:	$19.90	

Calculations by Appraiser Using Field and /or Regional Information

11	Appraised Trunk Area (using Table 4.6) :	7230	cm^2
12	Appraised Tree Trunk Increase (#11 - #6b):	7202	cm^2
13	Basic Tree Cost (#12 x #10 + #9) :	$143,909.24	
14	Appraised Value (#13 x #5 x #2 x #4) :	$60,061.12	
15	Appraised Value > $5000.00 is rounded to the nearest $100.		
16	Appraised Value < $5000.00 is rounded to the nearest $10.		

APPRAISED VALUE: $60,100

Appendix D: Site Photos – 1020 Lakeshore Rd. West, Oakville

Photo #3 (Tree #20 – Black Walnut – Town tree – 100cm DBH – Minimum TPZ = 6.0m)

Please refer to Pages 7 and 13 of this report for further information.