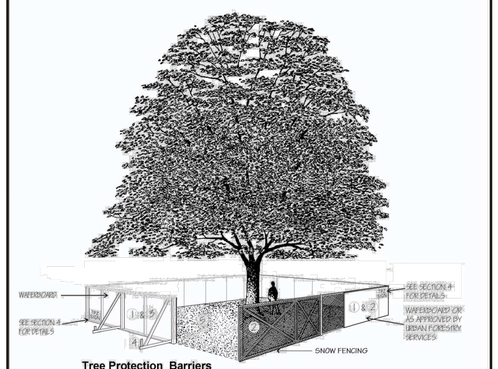
OAKVILLE

SCHEDULE 1
TREE PROTECTION BARRIER



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 plastic web snow fencing on a wood frame made of 2"x 4"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 excavations of any kind is permitted within the Tree Protection Zone.**

1 / TI-2 TREE PROTECTION BARRIER
N.T.S.

General Note:
Prior to the commencement of any site activity the tree protection barriers specified on this plan must be installed and written notice provided to Urban Forestry. The tree protection barriers must remain in effective condition until all site activities including landscaping are complete. Where required, signs as specified in the Arborist Report "Tree Protection Zone" must be attached to all sides of the barrier.
Written notice must be provided to Urban Forestry prior to the removal of the tree protection barriers.

ARBORICULTURAL WORK:
Any roots or branches which extend beyond TPZ indicated on this plan which require pruning, must be pruned by a qualified Arborist or other tree professional as approved by Urban Forestry. All pruning of tree roots and branches must be in accordance with good arboricultural standards. Roots located outside the TPZ that have received approval from Urban Forestry to be pruned must first be exposed by hand digging or by using a low pressure hydro vac method. This will allow a proper pruning cut and minimize rearing of the roots. The Arborist/tree professional retained to carry out crown or root pruning must contact Urban Forestry no less than 48 hours prior to conducting any specified work.

THE TREE PROTECTION ZONE:
The following chart is showing minimum required distances for determining a Tree Protection Zone (TPZ) for Town-owned trees located on a Town Street, in parks and trees on private property subject to either the Ravine and Natural Feature Protection By-law or the Private tree By-law. Some trees and some site conditions may require a larger TPZ.

Table 1 – Tree Protection Zones:

Trunk Diameter DBH*	Minimum Protection Distances Required** Town-owned and Private Trees	Minimum Protection Distances Required Trees in Areas Protected by the Ravine and Natural Feature Protection By-law Whichever of the two is greater:
<10cm	1.8m	The drip line****or 1.2m
10–30cm	2.4m	The drip line or 3.6m
31–50cm	3.0m	The drip line or 4.8
51–60cm	3.6m	The drip line or 6.0m
61–70cm	4.2m	The drip line or 8.4m
71–80cm	4.8m	The drip line or 9.6m
81–90cm	5.4m	The drip line or 10.8m
91–100cm	6.0m	The drip line or 12.0m

1. For trees over 100 cm. DBH, add 10cm. to the TPZ for every one centimeter of DBH.
2. Roots can extend from the trunk to 2–3 times the distance of the drip line (See Detail 3, TP–2)
3. Diameter at breast height (DBH) measurement of tree trunk taken at 1.37 metres above ground.
4. 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 the existing paved surface remains intact throughout the construction work.

*Diameter at breast height (DBH) measurement of tree trunk taken at 1.4 metres above the ground.
** Tree Protection Zone distances are to be measured from the outside edge of the tree base.
*** Diameter (30cm) at which the trees qualify for protection under the private tree by–law.
**** The drip line is defined as the area beneath the outer most branch tips of the tree.
***** Converted from ISA Arborists' Certification Study Guide, general guideline for tree protection barriers of 1 foot of diameter from the stem for each inch of stem diameter.

Within a TPZ there must be:
– no construction;
– no altering of grade by adding fill, excavating, trenching, scraping, dumping or disturbance of any kind.
– no storage of construction materials, equipment, soil, construction waste or debris.
– no disposal of any liquids e.g. concrete sleuth, gas, oil, paint.
– no movement of vehicles, equipment, or pedestrians.
– no parking of vehicles or machinery.
– directional micro–tunneling and boring may be permitted with the limits of a TPZ subject to approval by Urban Forestry.
– open face cuts outside a TPZ that are consistent with an approved plan and that require root pruning, require the services of a qualified arborist or approved tree professional. An exploratory dig, either by hand or using low water pressure hydro vac method, must be completed prior to commencing with open face cuts outside the TPZ.

The above mentioned requirements are for area(s) designated as a TPZ. These requirements should also be implemented outside the TPZ in areas where tree roots are located. The roots of a tree can extend from the trunk to approximately 2–3 times the distance of the dripline.

2 / TI-1 TREE PROTECTION NOTES

Tree No.	Owner	Common Name	Botanical Name	DBH (cm)	Canopy Diameter (m)	Condition	Structure	Comments - Condition Related	Recommendation
1	N	Silver Maple	Acer saccharinum	132	12	P	P	Signs of rot typical of an older growth tree	P
2	N	Silver Maple	Acer saccharinum	180	12	P	P	Signs of rot typical of an older growth tree	P
3	N	Dead Coniferous		30	0	D	D	Tree is Dead	P
4	N	Norway Spruce	Picea abies	57	10	F	F		P
5	N	Norway Spruce	Picea abies	65	6	F	P	Co-dominant stems	P
6	N	Norway Spruce	Picea abies	46	8	F	F		P
7	N	Norway Spruce	Picea abies	59	8	F	F		P
8	SN	Ash sp.	Fraxinus Sp.	39	6	P	P	2 stem, tree is nearly dead due to EAB	P
9	M	Norway Spruce	Picea abies	55	8	F	F		P
10	M	Norway Spruce	Picea abies	27	4	P	F		P
11	M	Siberian Elm	Ulmus pumila	53	8	P	P	Significant deadwood in canopy	P
12	M	Siberian Elm	Ulmus pumila	22	2	F/P	P		P
13	M	Siberian Elm	Ulmus pumila	65	6	P	F/P		P
14	M	Siberian Elm	Ulmus pumila	76	8	P	P	Fruiting bodies present	P
15	M	Siberian Elm	Ulmus pumila	26	2	P	P		P
16	M	Siberian Elm	Ulmus pumila	27	4	P	P		P
17	M	Siberian Elm	Ulmus pumila	42	8	F/P	P		P
18	M	Siberian Elm	Ulmus pumila	18	2	F/P	P		P
19	M	Siberian Elm	Ulmus pumila	24	4	F/P	P		P
20	M	Ash sp.	Fraxinus Sp.	16	2	P	P		P
21	M	Siberian Elm	Ulmus pumila	46	10	F/P	P		P
22	M	Siberian Elm	Ulmus pumila	33	8	P	P	Internal trunk rot and fruiting bodies are evident	P
23	M	Siberian Elm	Ulmus pumila	40	6	P	P		P
24	M	Siberian Elm	Ulmus pumila	29	6	P	P	Co-dominant stems, included bark	P
25	M	Siberian Elm	Ulmus pumila	20	4	F/P	P		P
26	M	Siberian Elm	Ulmus pumila	70	12	P	P	Co-dominant stems, included bark	P
27	M	Siberian Elm	Ulmus pumila	44	4	P	P	Co-dominant stem was cut	P
28	M	Siberian Elm	Ulmus pumila	46	10	P	P	Co-dominant stem was cut	P
29	M	Siberian Elm	Ulmus pumila	28	0	D	D	Tree is Dead	RX
30	M	Siberian Elm	Ulmus pumila	26	4	P	P	Ash growing out of base	P
31	M	Siberian Elm	Ulmus pumila	53	8	P	P		P
32	M	Siberian Elm	Ulmus pumila	36	4	F/P	P		P
33	M	Siberian Elm	Ulmus pumila	16	2	P	P	Main leader was cut	P
34	M	Siberian Elm	Ulmus pumila	68	4	P	P	Co-dominant stems	P
35	M	Siberian Elm	Ulmus pumila	48	6	P	P		P
36	N	Siberian Elm	Ulmus pumila	55	12	P	P		P
37	N	Siberian Elm	Ulmus pumila	16	0	D	D	Tree is Dead	P
38	N	Siberian Elm	Ulmus pumila	24	4	P	P		P
39	N	Siberian Elm	Ulmus pumila	43	6	P	P		P
40	N	Siberian Elm	Ulmus pumila	43	0	D	D	Tree is Dead	P
41	N	Siberian Elm	Ulmus pumila	12	2	P	P		P
42	N	Siberian Elm	Ulmus pumila	21	6	P	P	Co-dominant stems, signs of internal rot	P
43	N	Siberian Elm	Ulmus pumila	33	8	P	P		P
44	N	Siberian Elm	Ulmus pumila	60	8	P	P		P
45	N	Cherry Sp.	Prunus Sp.	23	6	F	F		P
46	N	Austrian Pine	Pinus nigra	63	10	F	F		P
47	N	Colorado Spruce	Picea pungens	27	4	F	F		P
48	N	Austrian Pine	Pinus nigra	75	10	F	F		P
49	N	Red Maple	Acer rubrum	70	12	F	F	Root flare is grown into garage	P
50	N	Siberian Elm	Ulmus pumila	37	8	F/P	P		P
51	N	Siberian Elm	Ulmus pumila	38	4	F/P	P		P
52	N	Siberian Elm	Ulmus pumila	40	8	F/P	P		P
53	N	Siberian Elm	Ulmus pumila	43	0	D	D	Tree is Dead	P
54	N	Siberian Elm	Ulmus pumila	50	10	P	P		P
55	N	Siberian Elm	Ulmus pumila	17	2	P	P		P
56	N	Siberian Elm	Ulmus pumila	53	8	P	P	Co-dominant stems	P
57	N	Siberian Elm	Ulmus pumila	61	10	P	P	Signs of rot	P
58	P	Red Oak	Quercus rubra	104	12	F	F	Moderate deadwood in canopy	P
59	P	Red Oak	Quercus rubra	45	8	F	F		R
60	P	Red Oak	Quercus rubra	40	8	F	F		R
61	P	Red Oak	Quercus rubra	48	10	F	F		R
62	P	Red Maple	Acer rubrum	41	8	F/P	F/P	Trunk cavity present. Signs of internal rot.	P
63	P	Red Maple	Acer rubrum	54	10	F	F		P
64	P	Red Maple	Acer rubrum	64	12	F	F	Trunk cavity present. Signs of internal rot. Significant structural failures on one side of the tree	P
65	P	Siberian Elm	Ulmus pumila	10-15	2	F	F		R
66	P	Siberian Elm	Ulmus pumila	10-15	2	F	F		R
67	P	Siberian Elm	Ulmus pumila	10-15	2	F	F		R
68	M	Siberian Elm	Ulmus pumila	10-15	2	F	F		P
69	M	Siberian Elm	Ulmus pumila	10-15	2	F	F		P
70	M	Siberian Elm	Ulmus pumila	10-15	2	F	F		P
71	M	Willow sp.	Salix Sp.	15-20	4	F	F		P
72	M	Black Walnut	Juglans nigra	16	4	F	F		P
73	M1	Red Oak	Quercus rubra	59	12	F	F		R
74	M1	Siberian Elm	Ulmus pumila	78	10	F	F		P
75	M1	White Mulberry	Morus alba	17	4	F	F		P
76	M1	Black Walnut	Juglans nigra	20-23	6	F	F		P
77	M1	Manitoba Maple	Acer negundo	42	5	F	F		P
78	M1	Ash sp.	Fraxinus Sp.	21	3	D	D	EAB	P
79	M1	White Cedar	Thuja occidentalis	10-15	4	F	F	4 stem, part of hedge	P
80	M1	White Cedar	Thuja occidentalis	10-15	4	F	F	3 stem, part of hedge	P
81	M1	Red Oak	Quercus rubra	57	10	F	F		P
82	M1	Ash sp.	Fraxinus Sp.	32	5	F	F		P
83	M1	Ash sp.	Fraxinus Sp.	31	5	F	F		P
84	M1	Ash sp.	Fraxinus Sp.	21	3	F/P	F	EAB	P
85	M1	White Mulberry	Morus alba	15-17	5	F	F	3 stem	P
86	M1	White Mulberry	Morus alba	11-23	5	F	F	3 stem	P
87	M1	White Mulberry	Morus alba	12-20	5	F	F	3 stem	P
88	M1	Manitoba Maple	Acer negundo	39	5	F	F		P
89	M1	Red Oak	Quercus rubra	34	5	F	F		P
90	M1	Manitoba Maple	Acer negundo	25-42	5	F	F	2 stem	P
91	M1	Ash sp.	Fraxinus Sp.	29	4	F/P	F	EAB	P
92	M1	Manitoba Maple	Acer negundo	45	6	F	F		P
93	M1	Manitoba Maple	Acer negundo	52	7	F	F		P
94	M1	Red Oak	Quercus rubra	25	4	F	F/P		P
95	M1	Red Oak	Quercus rubra	58	9	F	F		P
96	M1	Red Oak	Quercus rubra	65	10	F	F		P
1401	SN	Ash sp.	Fraxinus Sp.	21		D	D	EAB	RX
1402	SN	Ash sp.	Fraxinus Sp.	32		D	D	EAB.	RX
1403	P	Ash sp.	Fraxinus Sp.	20		D	D	EAB	RX
1404	N	Ash sp.	Fraxinus Sp.	33		D	D	EAB, Beaver damage.	RX
1405	P	Ash sp.	Fraxinus Sp.	22		D	D	EAB	RX
1406	P	Ash sp.	Fraxinus Sp.	15		D	D	EAB	RX
1407	N	Ash sp.	Fraxinus Sp.	24		D	D	EAB.	RX
1408	P	Ash sp.	Fraxinus Sp.	31		D	D	EAB	RX
1409	P	Ash sp.	Fraxinus Sp.	22		D	D	EAB, 2 stem co-dominant	RX
1410	SN	Ash sp.	Fraxinus Sp.	25		D	D	EAB.	RX
1411	P	Ash sp.	Fraxinus Sp.	24		D	D	EAB	RX
1412	P	Ash sp.	Fraxinus Sp.	27		D	D	EAB	RX
1413	P	Ash sp.	Fraxinus Sp.	24		D	D	EAB	RX
1414	P	Ash sp.	Fraxinus Sp.	30		D	D	EAB	RX
1415	P	Ash sp.	Fraxinus Sp.	28		D	D	EAB	RX
1416	P	Ash sp.	Fraxinus Sp.	31		D	D	EAB	RX
1417	P	Ash sp.	Fraxinus Sp.	33		D	D	EAB	RX
1418	P	Ash sp.	Fraxinus Sp.	31		D	D	EAB	RX
1419	P	Ash sp.	Fraxinus Sp.	30		D	D	EAB	RX
1420	P	Ash sp.	Fraxinus Sp.	23		D	D	EAB	RX
1421	SN	Ash sp.	Fraxinus Sp.	24		D	D	EAB, 2 stem	RX
1422	P	Ash sp.	Fraxinus Sp.	28		D	D	EAB	RX
1423	P	Ash sp.	Fraxinus Sp.	22		D	D	EAB	RX
1424	P	Ash sp.	Fraxinus Sp.	26		D	D	EAB	RX
1425	P	Ash sp.	Fraxinus Sp.	18		D	D	EAB	RX
1426	P	Swamp Cedar	Thuja occidentalis	17		F/P	F	Part of hedge of smaller caliper cedar +/- 40 stems.	RX
1427	P	Ash sp.	Fraxinus Sp.	24		D	D	EAB	RX
1428	P	Ash sp.	Fraxinus Sp.	25		D	D	EAB	RX
1429	P	Ash sp.	Fraxinus Sp.	26		D	D	EAB	RX
1430	P	Ash sp.	Fraxinus Sp.	43		D	D	EAB	RX
1431	P	Ash sp.	Fraxinus Sp.	40		D		EAB	RX
1432	P	Swamp Cedar	Thuja occidentalis	15		F		4 stem, part of hedge of similar caliper cedars +/- 50 stems at 10-15	R
1433	P	Swamp Cedar	Thuja occidentalis	17		F		Part of hedge	R
1434	P	Manitoba Maple	Acer negundo	54	10	F	F		R
1435	P	Manitoba Maple	Acer negundo	38	8	F	F		R
1436	P	Manitoba Maple	Acer negundo	22	7	F	F/P	Co-dominant at base	R
1437	P	Ash sp.	Fraxinus Sp.	30		D		EAB	RX
1438	P	Ash sp.	Fraxinus Sp.	56		D		EAB	RX
1439	P	Manitoba Maple	Acer negundo	29	8	F	F	Mild lean	R
1440	P	Manitoba Maple	Acer negundo	30	6	F/P	P	Mild lean	R
1441	P	Manitoba Maple	Acer negundo	21	5	F	F	Mild lean	R
1442	P	Manitoba Maple	Acer negundo	42	12	F	P	Co-dominant at 1.2m, weak union with included bark and signs of probable failure	R
1443	P	Manitoba Maple	Acer negundo	34	9	F	F	Mild lean	R
1444	P	Manitoba Maple	Acer negundo	20	6	F	F		R
1445	SN	Manitoba Maple	Acer negundo	24	5	F	F	Mild lean	P
1446	P	Manitoba Maple	Acer negundo	59	21	P	F/P	Significant deadwood in canopy, tree is in decline	R
1447	P	Manitoba Maple	Acer negundo	40	10	F	F	Mild lean	R
1448	P	Manitoba Maple	Acer negundo	37		D		EAB	RX
1449	P	Burr Oak	Quercus macrocarpa	24	6	F/P	P	Strangled by vines	R
1450	P	White Birch	Betula papyrifera	19	4	P	P	Significant failure of former co-dominant stem, unbalanced, former co-dominant stem has failed, remaining stem has moderate/significant lean	RX
1451	P	Manitoba Maple	Acer negundo	61	9	F/P	P		R
1452	P	Manitoba Maple	Acer negundo	30	8	F	F/P		R
1453	P	Manitoba Maple	Acer negundo	34	9	F	P	Imbalanced crown	R
1454	P	Manitoba Maple	Acer negundo	19	4	F	F		P
1455	P	Manitoba Maple	Acer negundo	31	7	F	F	Mild lean	P
1456	P	Manitoba Maple	Acer negundo	15	4	F	F		P
1457	P	Manitoba Maple	Acer negundo	26	6	F/P	F		P
1458	P	Ash sp.	Fraxinus Sp.	31		D			P
1459	P	Manitoba Maple	Acer negundo	21	6	F/P	F/P		R
1460	P	Manitoba Maple	Acer negundo	28	12	F	F		R
1461	P	Manitoba Maple	Acer negundo	26	4	F/P	F/P		R
1462	P	Manitoba Maple	Acer negundo	23	5	F	F/P	3 Stem, co-dominant at base	R
1463	P	Ash sp.	Fraxinus Sp.	16		D			RX
1464	P	Manitoba Maple	Acer negundo	39	22	F/P	F/P	2 Stem, co-dominant, moderate/significant deadwood in canopy	P
1465	P	Manitoba Maple	Acer negundo	45	18	F/P	F/P	2 Stem, co-dominant, moderate/significant deadwood in canopy	P
1466	P	Manitoba Maple	Acer negundo	45	20	F	F/G		P
1467	N	White Pine	Pinus strobus	17	5	F/G	G		P
1468	N	White Pine	Pinus strobus	18	6	F/G	G		P
1469	N	White Pine	Pinus strobus	20	7	F	G		P
1470	N	White Pine	Pinus strobus	22	7	G/H	G		P
1471	N	White Pine	Pinus strobus	18	6	G/H	G		P
1472	N	White Pine	Pinus strobus	17	5	F/G	G		P
1473	P	Manitoba Maple	Acer negundo	37	10	F/P	P	2 stem	P
1474	P	Manitoba Maple	Acer negundo	40	15	F	P		P
1475	P	Red Oak	Quercus rubra	21	6	F/P	F		P
1476	P	Red Oak	Quercus rubra	34	12	F	F		P
1477	P	Red Oak	Quercus rubra	33	14	F	F	Mild lean	P
1478	N	Black Cherry	Prunus serotina	42	18	P	P		P
1479	N	White Oak	Quercus alba	108	30	P	F/P	Significant deadwood in canopy, multiple developing structural issues, tree in severe decline	P
1480	P	Cherry Sp.	Prunus Sp.	23	6	F	F/P		P
1481	P	American Elm	Ulmus americana	15	4	F	F		P
1482	N	Cherry Sp.	Prunus Sp.	15	3	F	F		P
1483	P	Red Oak	Quercus rubra	18	4	F	F/P		P
1484	N	Burr Oak	Quercus macrocarpa	64	20	F/P	F	Signs of internal rot	P
1485	N	Burr Oak	Quercus macrocarpa	25	8	F	F/P		P
1486	P	American Elm	Ulmus americana	17	4	F/P	P		P
1487	SN	Burr Oak	Quercus macrocarpa	29	8	F	P	co-dominant at 0.9m with included bark	P
1488	N	Burr Oak	Quercus macrocarpa	45	16	F	F/P	co-dominant at 1.5m	P
1489	N	Red Oak	Quercus rubra	35	17	F	F		P
1490	P	American Elm	Ulmus americana	18	4	F	F	Mild lean	P
1491	P	Burr Oak	Quercus macrocarpa	29	7	F/P	F		P
1492	SN	Burr Oak	Quercus macrocarpa	34	9	F	F		P
1493	P	Burr Oak	Quercus macrocarpa	30	7	F/P	F		P
1494	N	Burr Oak	Quercus macrocarpa	43	14	F/P	F		P

Key to Owner Codes

P	Private client owned tree	M	Municipal tree on boulevard
N	Neighbour (private) owned tree	M1	Municipal tree in park, open space or naturalized area
SN	Shared ownership with neighbour (private)	SM	Shared ownership with Municipality

Key to Condition Ratings

Structure and Health ratings are measured on a scale of Good (G), Fair (F), Poor (P)

GENERAL NOTES

1. Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.
2. This drawing is to be read in conjunction with the project site plan. landscape plan, and engineering plan.
3. The tree inventory includes assessment of trees >10cm DBH. The trees have been assessed based on species, size and condition.
4. The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.
5. The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.
6. This drawing is to be used for development approval only.
7. Do not leave any holes open overnight.
8. Keep area outside construction zone clean and useable by others at all times. Contractor shall throughly clean areas surrounding the construction zone at the end of each work day.
9. Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.
10. This drawing is Copyright MHBC Planning, 2023.

REVISION NO.	DATE	ISSUED / REVISION	BY
6.	July 11, 2023	RE-ISSUED FOR SPA	PD
5.	June 06, 2023	RE-ISSUED FOR SPA	PD
4.	JUNE 16, 2022	RE-ISSUED FOR SPA	CC
3.	NOVEMBER 17, 2021	RE-ISSUED FOR SPA	CC
2.	MARCH 01, 2021	RE-ISSUED FOR SPA	CC
1.	DECEMBER 19, 2019	ISSUED FOR SPA	SN

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
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STAMP

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS NICOLA A WIXE MEMBER

ISSUED FOR SPA ONLY
NOT FOR CONSTRUCTION

DATE: DECEMBER 2018
DRAWN BY: CC
PLAN SCALE:
FILE NO.: Y593BD
CHECKED BY: N.M.
OTHER:

PROJECT
560 WINSTON CHURCHILL BLVD
TOWN OF OAKVILLE, ON

NORTH

FILE NAME
TREE INVENTORY, PROTECTION, AND REMOVALS

DWG NO.
TI-2