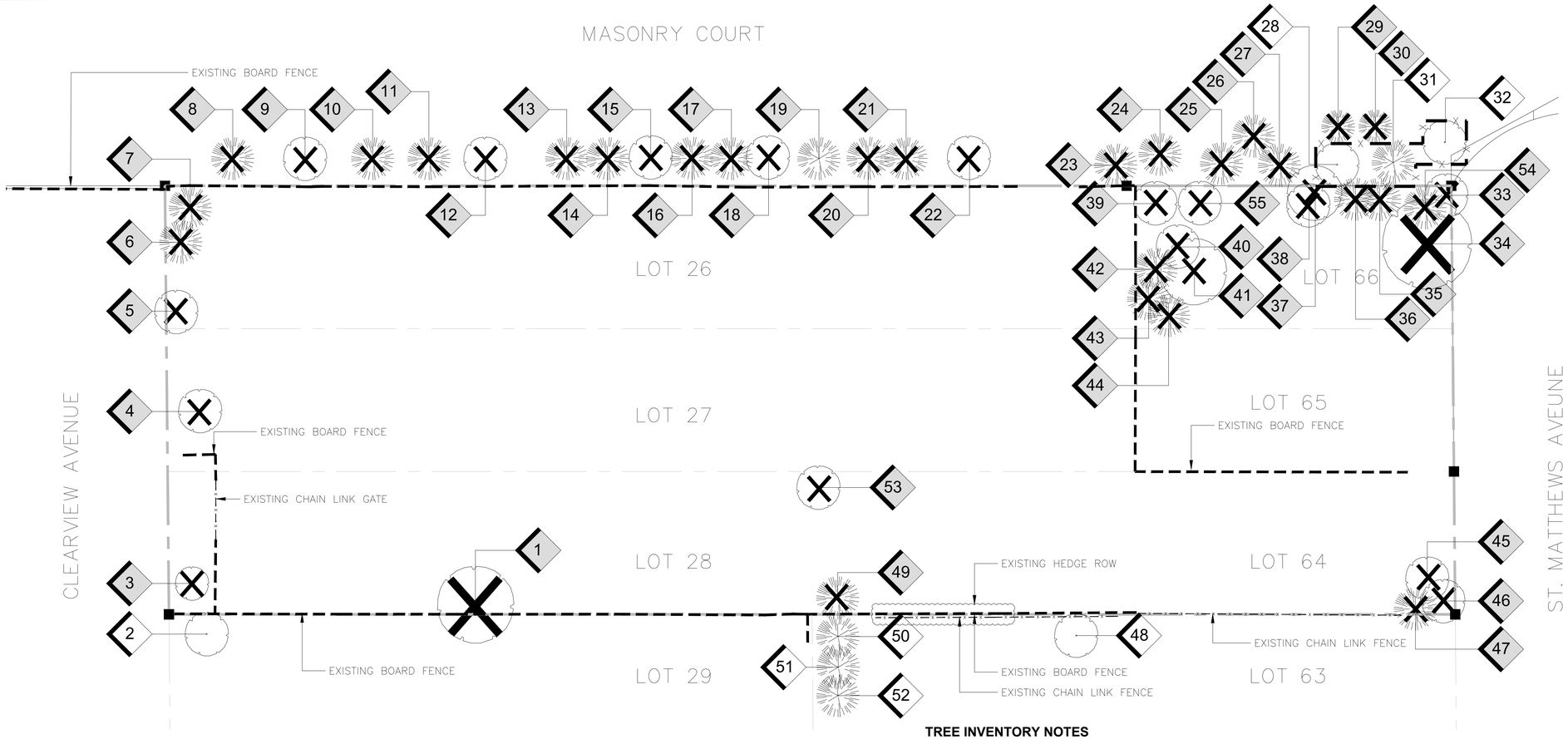
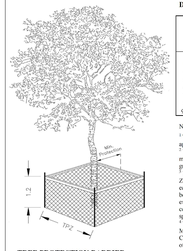


1 Tree Inventory, Protection, and Removals Plan
TI-1 Scale 1:250

2 Tree Protection Detail
TI-1 NTS

Tree Protection and Preservation Specification No.: SS12A

Detail TP-1 – Tree Protection Detail.



Trunk Diameter (DBH) [1]	Minimum Tree Protection Zone (MTPZ) Distances Required [2]	Critical Root Zone (CRZ) Distances Required [3&4]
< 10 cm	1.8 m	1.8 m
11 - 40 cm	2.4 m	4.0 m
41 - 50 cm	3.0 m	5.0 m
51 - 60 cm	3.6 m	6.0 m
61 - 70 cm	4.2 m	7.0 m
71 - 80 cm	4.8 m	8.0 m
81 - 90 cm	5.4 m	9.0 m
91 - 100+ cm	6.0 m	10.0 m

NOTES:

[1] The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the drip line.

[2] Diameter at breast height (DBH) is the measurement of tree trunk taken at 1.4 metres above ground.

[3] Minimum Tree Protection Zone and Critical Root 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 and is subject to Section 6 of this specification.

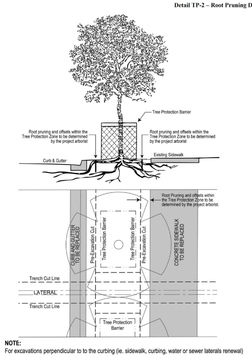
[4] Where work is being performed beyond the Minimum Tree Protection Zone but within the Critical Root Zone the works are subject to Section 8 of this specification.

TREE PROTECTION BARRIER

1. The required barrier is a 1.2 metre (4 ft) high orange plastic web snow fencing on 2" x 4" frame. Where orange plastic web snow fencing creates a restriction to sightlines, page wire fencing with reflective tape can be used.
2. Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place throughout the entire duration of the project. The barriers shall be maintained erect and in good repair throughout the duration of construction operations with breaks and unsupported sections repaired immediately. Tree protection may be not be removed prior to the completion of construction without written authorization from the City Arborist.
3. All supports and bracing used to safely secure the barrier should be located outside the MTPZ. All supports and bracing should minimize damage to roots.
4. Where some fill or excavated material must be temporarily located near a MTPZ, a wooden barrier with silt fencing must be used to ensure no material enters the MTPZ.
5. No materials or fill may be stored within the MTPZ.
6. Equipment or vehicles shall not be operated, parked, repaired, or refueled within the MTPZ.
7. No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the MTPZ without written authorization from the City Arborist.
8. A laminated Minimum Tree Protection Zone sign (See Detail TP-3 – Minimum Tree Protection Zone Sign) must be attached to the side of the Tree Protection where it will be visible by persons entering the site. Minimum size must be 10"x14".

Tree Protection and Preservation Specification No.: SS12A

Detail TP-2 – Root Pruning Detail



NOTE:
For excavations perpendicular to to the curbing (ie. sidewalk, curbing, water or sewer laterals renewal)

(a) The contractor is to use a trench box to minimize the width of the open cut.
(b) When the lateral replacement is within the Tree Protection Zone of a tree, the contractor is to complete the works using trenchless technologies.

TREE PROTECTION FENCING PER CITY OF BURLINGTON STANDARDS.

THE FINAL LOCATION OF THE EXTENT OF PROPOSED TREE PROTECTION FENCING WILL BE CO-ORDINATED BETWEEN THE PROJECT ARBORIST AND PROJECT ENGINEER TO ENSURE THAT DAMAGE TO EXISTING TREES IS MINIMIZED DURING CONSTRUCTION.

Burlington

TREE PROTECTION ZONE (TPZ)

No equipment or vehicles shall be operated, parked, repaired or refueled within the Tree Protection Zone.

No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

No materials or fill may be stored within the Tree Protection Zone.

This tree protection barrier must not be removed prior to the completion of construction without written authorization from the City of Burlington, Urban Forestry Department.

For information, contact:
City of Burlington, Development and Infrastructure Division,
905-335-7642.

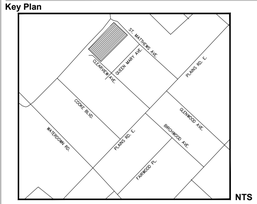
Detail TP-3 - Minimum Tree Protection Zone Sign

Detail TP-4 - Tree Protection Fencing Sign

TREE INVENTORY NOTES

Tree #	Common Name	Botanical Name	DBH (CM)	Condition	Comments	Recommendation
1	Silver Maple	Acer saccharinum	69, 61, 74	Fair	3 Stems. Moderate deadwood in canopy. Significant root girdling.	Remove
2	Dense Yew	Taxus x media 'densiformis'	40	Fair		Retain
3	Amur Maple	Acer ginnala	6	Fair		Remove
4	Silver Maple	Acer saccharinum	12	Fair/Good	Mechanical damage at root flare.	Remove
5	Norway Maple	Acer platanoides	36	Fair		Remove
6	Balsam Fir	Abies Balsamea	20	Fair	Guy wire electrical pole in canopy.	Remove
7	Balsam Fir	Abies Balsamea	20	Fair		Remove
8	Austrian Pine	Pinus nigra	40	Fair		Remove
9	White Oak	Quercus alba	17	Poor	Main leader is dead. Tree in decline.	Remove
10	Austrian Pine	Pinus nigra	38	Fair	Moderate dead wood in canopy.	Remove
11	Scots Pine	Pinus sylvestris	24	Fair		Remove
12	Red Oak	Quercus rubra	23	Fair	Minor dead wood in canopy.	Remove
13	Scots Pine	Pinus sylvestris	20	Fair	Minor dead wood in canopy.	Remove
14	Scots Pine	Pinus sylvestris	20	Fair	Minor dead wood in canopy.	Remove
15	Red Oak	Quercus rubra	25	Fair	Minor dead wood in canopy.	Remove
16	Austrian Pine	Pinus nigra	31	Fair		Remove
17	Austrian Pine	Pinus nigra	28	Fair/Poor	Moderate to significant dead wood in canopy.	Remove
18	Red Oak	Quercus rubra	24	Fair	Minor dead wood in canopy.	Remove
19	Scots Pine	Pinus sylvestris	25	Fair	Moderate dead wood in canopy.	Remove
20	Scots Pine	Pinus sylvestris	20	Poor	Tree in sever decline. Significant dead wood in canopy.	Remove
21	Scots Pine	Pinus sylvestris	12	Fair/Poor		Remove
22	Red Oak	Quercus rubra	22	Fair	Minor to moderate dead wood in canopy.	Remove
23	Austrian Pine	Pinus nigra	22	Fair/Poor		Remove
24	Austrian Pine	Pinus nigra	24	Fair		Remove
25	Austrian Pine	Pinus nigra	21	Fair		Remove
26	Austrian Pine	Pinus nigra	18	Dead		Remove
27	Austrian Pine	Pinus nigra	18	Dead		Remove
28	Red Oak	Quercus rubra	21	Fair		Retain
29	White Spruce	Picea glauca	5	Poor		Remove
30	Austrian Pine	Pinus nigra	5	Fair/Good		Remove
31	Austrian Pine	Pinus nigra	28	Fair		Retain
32	Norway Maple	Acer platanoides	27	Fair/Good		Retain
33	Red Oak	Quercus rubra	20	Fair/Good		Remove
34	Silver Maple	Acer saccharinum	74	Fair	Moderate dead wood in canopy. Minor to moderate limb breakages.	Remove
35	Austrian Pine	Pinus nigra	27	Fair		Remove
36	Austrian Pine	Pinus nigra	31	Fair		Remove
37	Black Walnut	Juglans nigra	43	Fair		Remove
38	Silver Maple	Acer saccharinum	40	Fair		Remove
39	Manitoba Maple	Acer negundo	28	Poor		Remove
40	Manitoba Maple	Acer negundo	34	Fair/Poor		Remove
41	Tree of Heaven	Ailanthus altissima	56	Fair/Poor	Moderate to significant deadwood in canopy. Tree growing into Manitoba Maple (40).	Remove
42	Austrian Pine	Pinus nigra	13	Fair		Remove
43	Austrian Pine	Pinus nigra	15	Fair		Remove
44	Austrian Pine	Pinus nigra	19	Fair		Remove
45	Japanese Maple	Acer palmatum	14	Fair		Remove
46	Mountain Ash	Sorbus	20	Fair		Remove
47	White Spruce	Picea glauca	25	Fair		Remove
48	Black Walnut	Juglans nigra	18	Fair		Retain
49	White Spruce	Picea glauca	34	Fair		Remove
50	White Spruce	Picea glauca	30	Fair		Retain
51	White Spruce	Picea glauca	30	Fair		Retain
52	White Spruce	Picea glauca	30	Fair		Retain
53	Littleleaf Linden	Tilia cordata	21	Fair		Remove
54	Austrian Pine	Pinus nigra	19	Fair		Remove
55	Tree of Heaven	Ailanthus altissima	35	Fair	Co-dominant stem.	Remove

Key Plan



Legend

- CONIFEROUS TREE – TO BE RETAINED
- DECIDUOUS TREE – TO BE RETAINED
- CONIFEROUS TREE – TO BE REMOVED
- DECIDUOUS TREE – TO BE REMOVED
- # TREE IDENTIFICATION KEY TREE to be RETAINED
- # TREE IDENTIFICATION KEY TREE to be REMOVED
- CHAIN LINK FENCE – EXISTING
- BOARD FENCE – EXISTING
- PROPERTY LINE
- TREE PROTECTION FENCING PER CITY OF BURLINGTON STANDARDS. THE FINAL LOCATION OF THE EXTENT OF PROPOSED TREE PROTECTION FENCING WILL BE CO-ORDINATED BETWEEN WITH THE PROJECT ARBORIST AND PROJECT ENGINEER TO ENSURE THAT DAMAGE TO EXISTING TREES IS MINIMIZED DURING CONSTRUCTION.

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 project site plan, landscape drawings and engineering plans.
3. The tree inventory includes assessment of all on and off site trees within 6.0m of the subject property. 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. No trees are to be removed unless permits have been issued by the City of Burlington.
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, 2019.

Revision No.	Date	Issued / Revision	By
2	May 23, 2019	Issued for Review	JD
1	July 19, 2018	Issued for Review	JD

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Stamp

ASSOCIATION OF LANDSCAPE DESIGNERS ONTARIO — PAMELA A. MIGHTON — OALA MEMBER

NOT FOR CONSTRUCTION

All drawings and specifications are instruments of service and will remain the property of MHBC Planning and must be returned at the completion of the work. This drawing shall not be used for construction purposes unless the drawings are marked 'Issued for Construction' and the professional seal is signed and dated by the landscape architect.

Date	July 2018
Drawn By	J.D.
Plan Scale	as noted
File No.	15226M
Checked By	S.N.
Other	

Project

PROPOSED RESIDENTIAL
1085 CLEARVIEW AVE.
CLEARVIEW AVE. & PLAINS RD. EAST
BURLINGTON, ON.

north

File Name

TREE INVENTORY, PROTECTION, AND REMOVALS PLAN

Dwg No.

TI-1