Above & Below Tree Care
A tree is for life

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ARBORIST REPORT

PREPARED FOR
MACKENZIE SWOPE

SITE ADDRESS
145/149 SPENCE STREET, WINNIPEG,
MANITOBA, R3C 1Y2

DATE
12 NOVEMBER 2021

PREPARED BY
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SUMMARY

This report is in regards to 145/149 Spence Street, Winnipeg, a double residential property that will be demolished, and constructing a new multi-family property on a new foundation. The frontage faces west and is on a quiet, connecting street in a busy neighbourhood. Cars are frequently parked within close proximity to one of the trees at the front, as well as regular foot traffic walking under the canopy. 1 of the trees is in the excavation area for the sunken plaza, and the other tree pertaining to this report belongs to the City of Winnipeg and resides on the boulevard.

The property is currently inhabited by 1 Boxelder (BE1), and 1 American Elm (AE1) on the publicly owned boulevard. Both these trees are large and have grass as their groundcover. Reflected heat, soil & air pollution and the limiting root space all contribute to the trees condition and future as discussed in this report.

BE1 is a large, single-stem tree on the north west corner of 145 Spence Street. This tree is likely hazardous in its current state, mainly as a result of decayed areas in the trunk, improper pruning and an imbalanced canopy. Is tree is arching to the east in an apparent bid to find adequate sunlight, but as a result of previous pruning has been left with some unhealthy wounds and dead stubs, while introducing decay areas in a species that is not good at containing decay and maintaining structural integrity. This tree is producing an abundant of suckers at the base of the tree, indicating stress of one or more reasons.

AE01 is a large single-trunk tree on the east blvd of Spence Street. Its root system may be causing some heaving on the sidewalk to the east, and the rest of the area is surrounded by grass and bare soil. This tree separates at approximately 6ft to individual stems and has an elevated, balanced canopy.

ASSIGNMENT

Above & Below Tree Care (ABTC) was hired by 2 Architecture to complete an Arborist Report and Tree Preservation plan for the proposed construction at 145/149 Spence Street, Winnipeg, Manitoba. An inventory and assessment of the trees affected by the proposed construction was conducted. Trees were assessed for their overall health, size, structural defects and potential impacts that would be caused by the proposed construction.

LIMITATIONS OF THE ASSIGNMENT

It must be understood that ABTC is the assessor of the trees in relation to tree preservation practices. The construction supervisors should incorporate the information and recommendations provided within this report into their construction methodology to complete their project in a reasonable manner. This Arborist Report and Tree Preservation Plan are based on the project scope and details for tree preservation as discussed. All proposed construction methods are limited to what was provided in the site plans and in discussions with the Project Leader. Measurements and comments regarding tree preservation were based on the proposed construction plans supplied.

OBSERVATIONS

- There were 2 individual trees inventoried for the report.
- 1 tree is privately owned, the other is owned by the City of Winnipeg.
- Both trees had sparse foliage on inspection.
- The proposed excavation area is outside of the existing footprint of the buildings.
- The proposed sunken plaza will encompass BE1.
- BE1 has an imbalanced canopy.
- BE1 has considerable deadwood in the canopy.
- Improper pruning to BE1 has left dead branch stubs and decay exposure.
- Excessive suckering from BE1, likely for more than 1 growing season.
- AE1 appears to be in reasonable health.
- AE1 has had previous pruning to raise the canopy.
- Soil compaction could be an issue for AE1.
- Sidewalk heaving indicates that that there is a root presence from AE1 on 145 Spence Street.

For further details, trees have been numbered and can be cross-referenced in the Tree Inventory (Appendix 1.)

RECOMMENDATIONS

- Remove BE1 prior to construction.
- Fertilise, water and protect AE1 prior to demolition of the existing property.
- Plant new trees in new landscape, to replace lost canopy and carbon storage.

TREE PROTECTION ZONE (TPZ)

The following is a chart showing optimal distances for determining a tree protection zone[1]. Some site conditions may dictate the need for a smaller TPZ. The City of Winnipeg Urban Forestry Branch must be notified in these instances. Forestry will determine if the smaller TPZ is acceptable in the specific circumstance and advise of any additional tree protection or removal requirements.

Table 1 – Tree Protection Zones

Trunk Diameter Minimum Protection (DBH)[2]	Distances Required[3]
11-40cm	2.4m
41-50cm	3.0m
51-60cm	3.6m
61-70cm	4.2m
71-80cm	4.8m
81-90cm	5.4m
91-100cm+	6.0m

TREE PROTECTION BARRIERS

Trees within tree protection zones shall be protected by means of a "tree protection barrier" meeting the following specifications:

- The required barrier is a 1.2 metre (4 ft) high orange plastic web snow fencing on 2" x 4" frame or as directed by the City of Winnipeg Urban Forestry Branch in accordance with City of Winnipeg Protection of Existing Tree Specifications. The barrier can be lowered around branches lower than 1.2 metres (4 ft). The barrier location can be adjusted to align with curbs and edges at clear path of travel zones.
- Tree strapping material will be installed on individual trees, where work will be completed within the TPZ.
- 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 applicant shall notify the City of Winnipeg prior to commencing any construction activities to confirm that the tree protection barriers are in place.
- All supports and bracing used to safely secure the barrier should be located outside the TPZ. All supports and bracing should minimize damage to roots.
- No grade change, storage of materials or equipment is permitted within this area. The tree protection barrier must not be removed without the written authorization of the City of

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[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) measurement of tree trunk taken at 1.4 metres above ground

[3] 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.

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TREE PROTECTION SIGNS

A sign should be displayed on the TPZs. Signage reminds contractors of the purpose of the TPZ, and shows the public that the developer is going the extra mile in preserving the trees on site.

MONITORING

The developer may contract Above & Below Tree Care for site monitoring if they so choose.

STAGING AREAS AND CONSTRUCTION ACCESS

All staging areas are understood to be outside of the Tree Protection Zone. At no time is material or debris to be stacked, staged, or piled inside the hoarding (Tree Protection Fencing). The north side of the property will be used as a construction access points.

CONCLUSION

The proposed scope of building calls for removal of 1 tree and protection of another.

BE1 is a tree in poor health, with a hazardous structure that is within the construction zone of the new building.

AE1 will suffer some root zone damage as a result of the excavation, but is to be considered a small portion of the rootzone of the entire tree. Protecting the trunk and vital rootzone around the blvd area will help this tree deal with the construction stress and reduce damage in the future. Fertilising prior to commencing the project, watering weekly during and fertilising on completion is recommended to further reduce stress on the tree.

APPENDIX 1

Tree Number	Category	Species	DBH (cm)	Height (approx m)	MCD[4] (approx m)	Tree Condition			Trunk lean (approx)
						TI[5]	CS[6]	CV[7]	
AE1	Public	Ulmus americana	65	22	16	G	G	F	0°
BE1	Private	Acer negundo	35	13	8	P	P	P	0°

Tree Number	TPZ Size (m)	Recommendation	Comments
AE1	4.2m	Fertilise, water and protect.	Minor root zone excavation planned. Outside of excavation area. Appears to be in reasonable health.
BE1	N/A	Remove and replace.	Imbalanced canopy. Improper pruning performed in the past. Suckering at the base.

[4]Maximum Crown Diameter
[5]Trunk Integrity. G = Good, F = Fair, P = Poor
[6]Canopy Structure. G = Good, F = Fair, P = Poor
[7]Canopy Vigour. G = Good, F = Fair, P = Poor