



12.1.2.6 If there is maintenance required on any tree that is designated for retention, that maintenance should be completed prior to construction or demolition. This can include but is not limited to crown pruning, deep root fertilization, tree watering, and/or soil replacement.

**12.1.3 Tree Protection Zones**

12.1.3.1 Tree protection zones (TPZ) shall be established based on the criteria in Table 1.

12.1.3.2 Barriers will not be placed within the TPZ rather on the outside of the predetermined area.

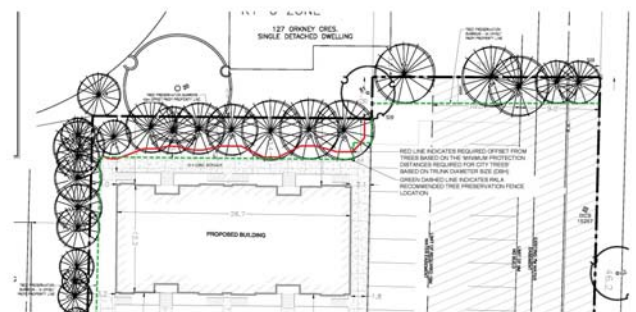
Table 1 Tree Protection Zones:

Trunk Diameter (DBH)	Minimum Protection Distances Required City-owned Trees	Minimum Protection Distances Required For areas designated Open Space or Woodlands
< 10cm	Whichever of the two is greater: The drip line or 1.2 m	Whichever of the two is greater: The drip line or 1.2 m
10-29 cm	The drip line or 1.8 m	The drip line or 3.6 m
30-40 cm	The drip line or 2.4 m	The drip line or 4.8 m
41-50 cm	The drip line or 3.0 m	The drip line or 6.0 m
51-60 cm	The drip line or 3.6 m	The drip line or 7.2 m
61-70 cm	The drip line or 4.2 m	The drip line or 8.4 m
71-80 cm	The drip line or 4.8 m	The drip line or 9.6 m
81-90 cm	5.4 m	The drip line or 10.8 m
91-100 cm	6.0 m	The drip line or 12.0 m
>100 cm	6 cm protection for each 1 cm diameter	12 cm protection for each 1cm diameter or the drip line

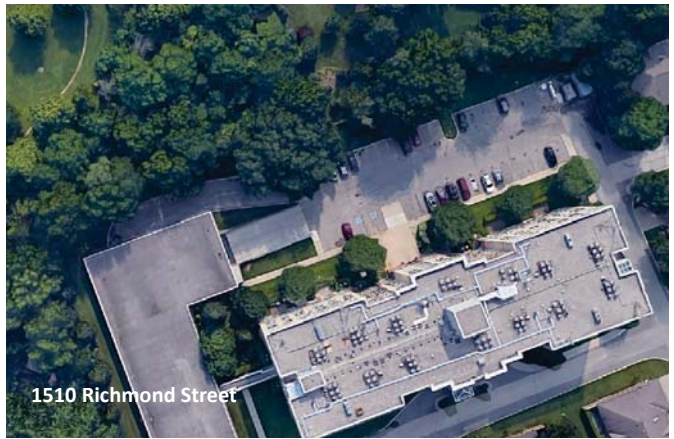
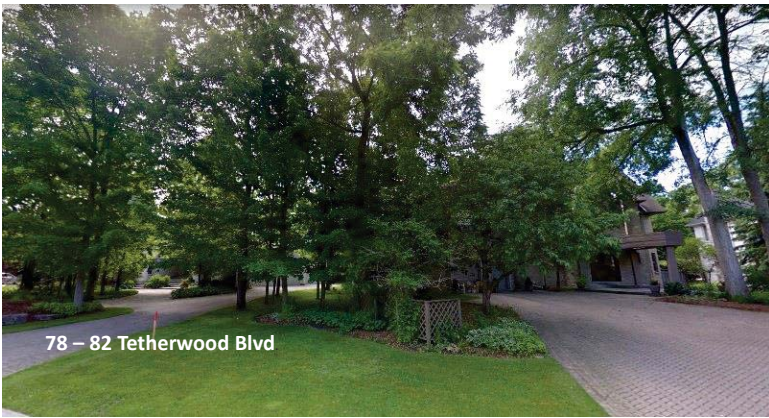
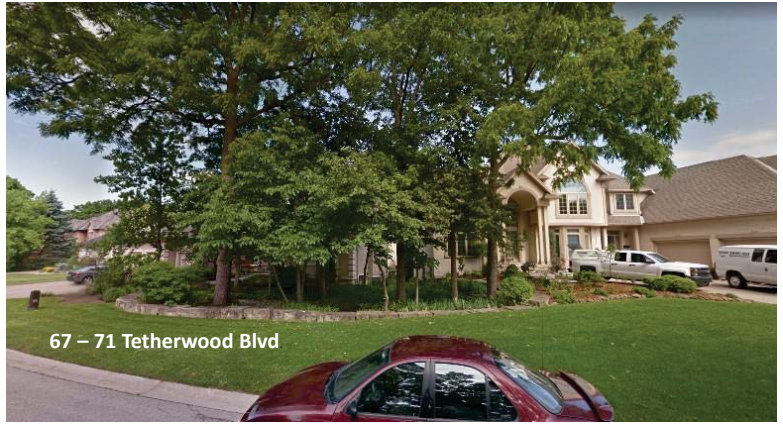
12.1.3.3 An exception to the minimum distance of the TPZ may be when the tree is flanked by a curb, sidewalk, and/or asphalt road. In such cases the barrier may be limited to the furthest extent of the grassed boulevard area however root pruning using approved methods must be incorporated to reduce impacts on tree roots due to razing or tearing of roots. Hand digging, low pressure hydro- or air spades may be used to uncover roots for pruning or avoidance by an authorized operator may be pruned to a depth which will meet the construction requirements. This operation is only to be done with the approval of the City. Roots that are exposed should be covered with wet burlap or soil as soon as possible and watered regularly to prevent them from drying out. Watering is required until such time as the burlap and soil has been replaced satisfactorily or as otherwise directed by the City.

Table 1 Tree Protection Zones:

Trunk Diameter (DBH)	Minimum Protection Distances Required City-owned Trees	Minimum Protection Distances Required For areas designated Open Space or Woodlands
	Whichever of the two is greater:	Whichever of the two is greater:
< 10cm	The drip line or 1.2 m	The drip line or 1.2 m
10-29 cm	The drip line or 1.8 m	The drip line or 3.6 m
30-40 cm	The drip line or 2.4 m	The drip line or 4.8 m
41-50 cm	The drip line or 3.0 m	The drip line or 6.0 m
51-60 cm	The drip line or 3.6 m	The drip line or 7.2 m
61-70 cm	The drip line or 4.2 m	The drip line or 8.4 m
71-80 cm	The drip line or 4.8 m	The drip line or 9.6 m
81-90 cm	5.4 m	The drip line or 10.8 m
91-100 cm	6.0 m	The drip line or 12.0 m
>100 cm	6 cm protection for each 1 cm diameter	12 cm protection for each 1cm diameter or the drip line







Conclusions

1. Set back recommended exceeds the distance recommended under City Guidelines
2. White Spruce is tolerant of construction impacts
3. Preservation area is much larger than similar set backs used for surrounding properties
4. With good monitoring during and post construction the trees have a very high likelihood of little or no detrimental impact