Generalized Tree Preservation and Pricing

For Red Oak at 21 Beech Street, Bowmanville

ABSTRACT
A generalised methodology is presented to retain the oak tree by supporting the limbs and thus reducing risk

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Re: Beech Street Oak Tree

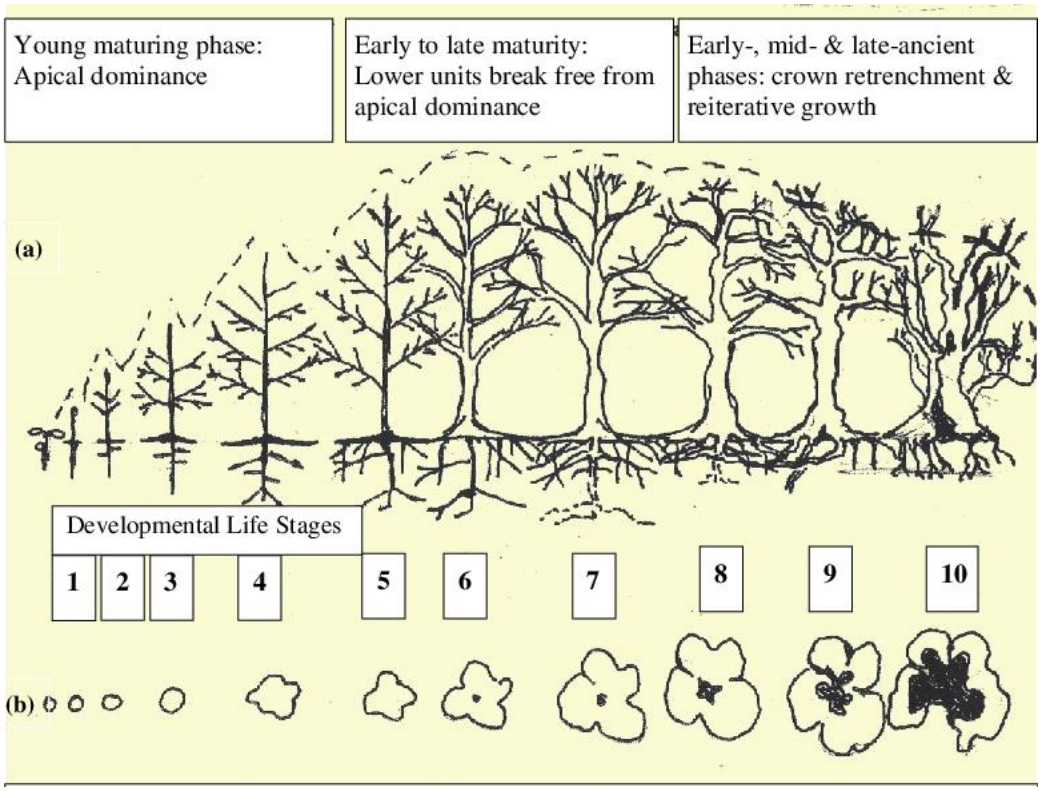
This pricing is a generalized guide for the retention of the oak tree at 21 Beech St., Bowmanville. It does not provide specific prices but rather provides a guide to understand the cost of retaining the tree using wooden utility poles.

The assumption is that this methodology is acceptable but it is expected an engineer is needed to verify the size and suitability of various portions of the system.

The subject tree is 186 cm diameter red oak on the front lawn/municipal road allowance at 21 Beech St. The tree is approximately 230 years old and can certainly live for another 50 years if cared for. The primary issue with the tree is the two lowest, over-extended, heavy limbs that are at risk of failure. Secondarily other limbs are at risk of failure.

The primary mechanism for short term retention is to support limbs using a combination of utility poles supporting the limbs and cabling the limbs to the pole. Pruning of the tree shall be done to remove deadwood and reduce the size of the tree. It is hoped that new interior growth can be encouraged and the tree can be further reduced in the future.

Morpho-physiological Age of Trees



Trees do not have a finite lifespan but rather are subject to the strains of their site and grow larger to an ultimate size then reduce in size and hollow. This is a fully natural process and we can hope to prolong the life of a tree, and manage risk, by reducing the size of the tree and supporting it where necessary.

The tree is at approximately stage 7/8. The hope is to support the limbs, allow new interior growth and reduce the tree over the next 20 to 50 years.

The largest limb over the road is to be supported by two poles. The shorter one will support the distal end while the taller pole will support the proximal end and be used to cable limbs to.

The lowest limb over the property of 21 Beech Street will be supported in the same manner and the larger of the poles will also be used to cable limbs to.

Generalized proposal

1) Get locates
2) Design system (in conjunction with engineer?)
3) Gain written landowner permissions, i.e., Municipal, 21 Beech, Older Bowmanville Residents
4) Prune tree
5) Install one 75-foot H-1 utility pole to support proximal end of limb over road and to act as maypole for wires supporting other limbs
6) Install one 75-foot H-1 utility pole to support proximal end of limb over yard and to act as maypole for wires supporting other limbs
7) Install 1 30-foot pole to support distal end of limb over road
8) Install 1-25-foot to support midpoint of limb over yard
9) Cable limbs to maypole
10) Soil invigoration and mulching.

Sequence of steps

1) Decide on preservation path based on price, feasibility, risk management, homeowner, residents etc.
2) Design support system based on:
    a. Locates
    b. Engineering as required
    c. 21 Beech St homeowner agreement, ability to place poles
    d. Tree components to be supported
3) Prune Tree
    a. Remove all deadwood >5cm diameter
    b. Reduce limbs by 3-4 in length to allow sunlight to penetrate and encourage reiterations
    c. Tree pruning to be supervised by Michael Richardson to achieve goals of crown reduction and to initiate new interior growth
    d. Tree pruning to be done by a company that meets standards for pruning set by Michael Richardson (thus companies specializing in tree removal and utility line clearing may not be able to provide proof of pruning knowledge and experience required)
4) Locate Poles on site
5) Hydrovac holes
    a. Hydrovac company shall be chosen by pole install company
    b. Water pressure shall be reduced to avoid damage to roots
    c. Hydrovac shall be supervised by Michael Richardson
6) Install poles
    a. A utility company will do this
    b. Pole installation shall be supervised by Michael Richardson
7) Install cross braces if needed
    a. Pole installation company can do this
8) Install cabling
    a. Cable limbs to pole using approved hardware
    b. Cabling shall be supervised by Michael Richardson
9) Soil invigoration
    a. Reduce soil compaction and introduce fish fertilizer into soil
    b. Develop prescription to encourage reintroduction of organic matter into soil.
    c. Mulch boulevard with wood chips
10) Yearly monitoring
11) Further pruning, likely year 8--10

Generalized costs

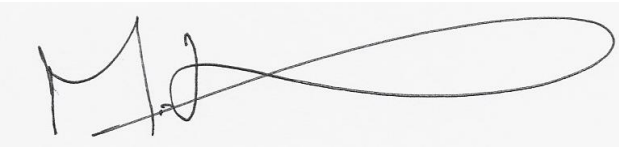
These costs have been estimated by talking to suppliers and contractors. Prices are estimates only and will change based upon the specifics. In particular the costs of engineering, poles, and cabling hardware will be determined once a formalized plan is developed.

Design of support System, create detailed pruning specifications, gather quotes etc. (Michael Richardson)	$1500
Engineering of Support System	$5000?
Deadwood & Pruning	$3000
Supervision of Pruning (Michael Richardson)	$800
Poles 2-75 H1 poles $8500/pole 1-30 $2500 1-25 $2500	$23000
Hydrovac	$3500
Supervision of Hydrovac (Michael Richardson)	$500
Pole Install	$3500
Supervision of Pole Install (Michael Richardson)	$800
Cabling Equipment	$7500 (likely high)
Cabling labour	4000
Supervision of Cabling (Michael Richardson)	1000
Soil invigoration – can be delayed	2000
Locates	Free?

Specific Costs

If you wish to proceed, we can begin the process of developing a specific plan, quantifying materials and obtaining quotes.

Signed



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