

LAKELAND POWER SPECIFICATIONS FOR TREE TRIMMING

1. SCOPE

- 1.1 This Specification covers the requirements and standard practices for tree trimming and line clearing operations on all overhead transmission, distribution and secondary service lines of Lakeland Power Distribution.

This specification will also cover the trimming of all attachments to Lakeland Power poles consistent with Lakeland's Joint Use Agreements. This will include, but not limited to, Agilis, Bell Aliant, Cogeco, Hydro One and Lakeland Energy.

- 1.2 This Specification will govern all trimming and line clearing operations authorized by Lakeland unless specifically amended or authorized in writing, to meet special conditions and/or circumstances.
- 1.3 Any special requirements that differ from those covered in this Specification will be presented at the time of tender.

2. NOTIFICATION

- 2.1 Any work on trees, either on the public roadways or in private property requires notification to Municipal, Regional or Provincial authorities or private property owners.

Lakeland Power will obtain the necessary permits from Municipal, Regional and/or Provincial authorities.

The Contractor shall formally notify each and every private property owner. This notification shall be given to/delivered to between 7 and 14 calendar days prior to the commencement of work on said property.

Lakeland may assist the Contractor with notification, if required.

3. PROTECTION OF WORK AND PROPERTY

The Contractor shall be responsible for maintaining adequate protection of all his work area from damage and/or injury and restore any property to its original state.

The Contractor shall be responsible to supply, erect and maintain safety items such as guardrails, barriers, night-lights, sidewalk and curb protection, as required by the Towns of Bracebridge, Huntsville, Village of Burk's Falls, Sundridge and Magnetawan, the M.T.O. and the District Municipality of Muskoka.

Lakeland Power will provide the necessary hold off protection to the Contractor for the area being worked that day.

4. **SAFETY**

The Contractor shall be a member of EUSA (Electrical Utilities Safety Association/IHSA) and abide by the Association's rules and regulations regarding tree trimming in the vicinity of energized lines.

The Contractor shall ensure that their employees are knowledgeable of the EUSA/IHSA safety regulations, Occupational Health and Safety Act, Provincial and Federal rules and regulations, and anyone failing to observe them shall be required to leave the work site. All vehicles must have annual inspection certificates and have Manufacture certification in reference to structure, stability and di-electric tests CSA Standard C225-M88 for vehicle mounted aerial devices. Copies of certification must be presented to Lakeland, if awarded the tender. Certificates must be present with vehicles on each and every job site ready to be viewed if inspected by Lakeland, MTO, ESA, Ministry of Labour or other organization of authority.

5. **PERFORMANCE SPECIFICATIONS**

The Contractor shall be required to comply with the following:

- 5.1 Perform the work in accordance with established and/or approved tree-trimming and arboricultural practices.
- 5.2 Comply with all by-laws, rules and regulations established by governmental authorities relating to the work.
- 5.3 Submit a daily/weekly, as agreed upon with Lakeland, progress report showing the area worked, progress made, the degree of trimming and the number of men and vehicles used on the job.
- 5.4 Communicate daily with the Lakeland Line Supervisor or their delegate, before commencing any work, advising of the following:
 - 5.4.1 Location or area of work
 - 5.4.2 Feeders requiring hold-offs
- 5.5 Communicate daily with the Lakeland Line Supervisor or their delegate, after each workday, to inform Lakeland that both the work area and employees are clear and surrender and/or release all hold-offs.
- 5.6 Should a limb fall on any Lakeland overhead plant, or any of Lakeland's Attacher's Plant, advise the Line Supervisor immediately.
- 5.7 Lakeland Power's Line Supervisor shall have the sole authority on the acceptance and/or refusal of all work performed. Any doubtful situations should be referred to the Customer Area Manager/owner and Lakeland Power's Operations Manager for a decision.

- 5.8 Lakeland Power shall deal with any disputes with consumers resulting from any planned tree trimming operations on private property. It is the Contractor's responsibility to ensure that the utility is informed of any problems.

6. **COMMUNICATIONS EQUIPMENT**

The Contractor shall be required to have radio or telephone apparatus allowing direct communication between Lakeland Power and the Work Crews.

7. **CLEARANCES TO ENERGIZED CIRCUITS AND APPARATUS**

- 7.1 Under the Terms and Conditions of all Lakeland Power Joint Use Agreements, the Contractor agrees to trim to all attachments.
- 7.2 All branches and limbs in proximity of the 44KV, 27.6 KV, 12.5KV and 4160V lines will be pruned to within 3.0 metres (10 feet) of the lines.
- 7.3 All branches and limbs in proximity of Joint Use Attachments including but not limited to Bell, Cable Television, Fibre Optic Cable will be pruned to within 1.5 metres (5 ft.) of these lines. The Contractor shall consult with the Lines Supervisor in those situations (e.g. unsightly appearance) where the required clearances cannot be achieved. Every effort will be made to remove any fast growing species including but not limited to White Pine, Balsam, Aspen, Poplar exceeding 6 ft. in height and standing within 10 ft. of the centre line of any overhead services. These sucker growth and saplings of fast growing species will be removed at ground level.
- 7.4 Guy wires and strain insulators should never be in contact with heavy limbs.
- 7.5 Branches and limbs will be pruned to provide a minimum clearance of 1.5 metre (5 ft.) in all directions from pole mounted distribution transformers, drop leads secondary bus and secondary services. In addition, enough space will be cleared to permit a lineman to climb the pole without being obstructed by branches, limbs or climbing vines.
- 7.6 All dead wood shall be removed regardless of the location of the tree that in falling could strike the conductors or any part of the electrical equipment. Visibly dead trees with a basal diameter of 15 cm. or greater that are outside of Lakeland's specified trimming distances but in danger of falling into the lines should be noted and communicated to Lakeland in writing.

8. **PROTECTION OF TREE BARK**

Spurs should not be used to climb trees.

9. PRUNING

9.1 Cuts

9.1.1 Saw and pruner cuts shall be flush with the parent limbs of the trunks of trees. Spring and summer cuts should leave approximately 3 cm. away from trunk. In any case, efforts should be made to make trimming cuts perpendicular to the trimmed branch vs. parallel to the tree trunk. All efforts should be made to protect the collar /branch back ridge at the base of the branch.

9.1.2 Limbs should be removed in such a manner as to prevent stripping of the bark.

9.1.3 If in order to satisfy the specified line clearances more than 30% of a tree's canopy has to be removed and is on public property – if basal area is less than 15 cm., tree is to be removed. If basal area is greater than 15 cm., contact Lakeland and is on private property, contact Lakeland and the customer.

9.2 Cut branches

9.2.1 Ropes shall be used for lowering cut branches where necessary, to prevent damage to trees, conductors, fences and other property.

9.2.2 No hangers shall be left on the trees after pruning and no twigs or branches shall be left on the conductors.

9.3 Corrective Pruning

Old stubs remaining from previous line clearing operations in excess of 3 cm. long shall be removed as well as any stubs on the line side of the tree, resulting from storm damage.

9.4 Shaping

When a line passes through a tree, the opening shall be cut back in a slope, away from the line towards the top, so that the notch is a “V” shape. The cutting of slots is not permitted. The cutting of “V” notches shall be kept to a minimum.

Where lines run alongside a tree, the tree should be trimmed to give correct clearance at the lowest utility line and slope away from the upper circuits.

If, in obtaining the desired line clearance, **trees are rendered unsightly due to lack of symmetry, further pruning to restore their appearance shall be carried out.** The extent of such shaping shall be governed by the location of the trees, the nature of their surroundings, etc. Full shaping shall consist of:

9.4.1 The removal of shortening by natural or ‘drop-crotch’ method, or branches in crown of tree. Sufficient growth must be left on branches that are cut back to keep them alive. When possible, the branch being removed shall be cut in such a way as to preserve the

natural appearance of the tree. "Hedge-pruning" or excessive clipping with pole pruners and brush saws shall be avoided.

9.4.2 Removal or shortening of long straggly branches at side of trees.

9.4.3 Removal or shortening of branches at backs of trees, to restore balance which was suffered as a result of limbs being removed to obtain clearance on the line side.

Care must be exercised to avoid an effect similar to girdling, as a result of removing too many adjacent branches.

9.4.4 Removal or shortening of side branches on line side of tree to eliminate or reduce to a minimum a gouged effect.

9.5 **Limbs under Conductors**

Limbs growing up into the conductors from the side of a tree shall be removed at the main trunk. If this appears impractical or inadvisable, the limbs shall be shortened to avoid whipping up into the line.

9.6 **Limbs Parallel with Conductors**

Limbs that are growing out from the side of a tree, parallel with conductors, and could sway or be blown into the conductors, shall be removed wherever practical. Otherwise, they shall be shortened.

9.7 **Trees Below a Line**

Young trees of beneficial species growing directly under a line are to be topped and rounded in a pleasing manner. Young trees growing directly under a line of fast grow species as defined in Section 7.2 are to be removed at ground level.

9.8 **Overhanging Limbs**

Limbs directly over the conductors shall be removed if possible; otherwise, they shall be shortened sufficiently to prevent their dropping into the conductors under the additional weight of snow or ice.

9.9 **Dead Limbs**

All dead wood, level with or above the conductors, in trees immediately adjacent to the line, shall be removed. All dead limbs that might be blown into the line from trees located across the road or elsewhere in the near vicinity shall also be removed.

9.10 **Tops of Weak-Wooded Trees to be Lowered**

All tall, weak-wooded trees, towering above the line, shall have their tops lowered as much as practical. The lower the tops, the "drop-crotch" method shall be used so that the tree will not appear to have been chopped off at a definite height.

10. **MINIMUM LINE CLEARANCE**

10.1 **Major Operations**

Clearance shall provide for at least seven (7) years growth, except when this would seriously mutilate the tree. A discussion with Lakeland/landowner is required. This should be particularly borne in mind when dealing with fast growing trees such as Manitoba Maple, Willow, etc. All limbs that, by falling, swaying or other means are liable to contact the conductor, shall be removed wherever practical.

10.2 **Children Climbing**

In establishing clearances, the possibility of children climbing trees and making contact with live apparatus must always be borne in mind. Particular caution shall be exercised regarding trees on or near schoolyards and playground areas.

Where adequate clearance cannot be obtained without mutilating the tree, the Contractor shall inform Lakeland in writing, immediately.

11. **DISPOSAL OF WOOD, BRUSH AND DEBRIS**

The disposal of brush, wood, and other debris resulting from the Contractor's activities shall be governed by the following:

- 11.1 The Contractor shall dispose of all brush, wood and other debris at an approved dumping site. Any expense involved in the disposal shall be borne by the Contractor.
- 11.2 Brush, wood and debris, shall not be left lying overnight along streets, highways, country roads or any main travelled road. Brush left overnight on lightly travelled roads shall be stacked neatly so as not to obstruct traffic and shall be removed the following day. Lawns and grassed areas shall be raked to eliminate small twigs, branches and debris.
- 11.3 All tree trimming operations performed on trees that are growing (the majority of the trunk lies within) on Town or District road allowances will be cleaned up. All trimming operations performed on privately owned trees will be the cleanup responsibility of the property owner.

12. **TREES OF DOUBTFUL STRENGTH**

The Contractor shall report in writing all trees of doubtful strength that, in falling, could strike the Corporation's lines. These shall include all trees that are over mature, diseased or showing signs of decay. All oak, beech and basswood trees, regardless of their outward appearance, shall also be reported, since trees of these species are particularly prone to internal decay.

13. INSPECTION

The work done by the Contractor shall be subjected to regular inspections by Lakeland's representatives. It is the Contractor's responsibility to point out any doubtful or difficult situations and/or discuss methods to rectify them with Lakeland's representatives.

Lakeland has sole authority on the acceptance or refusal of work performed.