

Tree Trimming Maintenance Program

PURPOSE

The purpose of this document is to provide direction for the proper pruning and management of trees, shrubs, vines and other vegetation that are in contact with, or have the potential to come in contact with power lines as located within rights-of-way, easements or pruning zones. All pruning of trees, shrubs, vines and other vegetation shall be in accordance with the requirements as described within this document including work performed by both contracted tree trimming firms and employees of Kerrville Public Utility Board (KPUB).

SAFETY

ALL applicable safety requirements regarding vegetation management within public power line rights-of-way addressed by The American National Standards Institute (ANSI), The American Public Power Association (APPA) and The Occupational Safety & Health Administration (OSHA) shall be followed by KPUB employees, the tree service for hire (CONTRACTOR), and CONTRACTOR's crews while performing the work.

CONTRACTOR shall be responsible for the acquisition of all copies of safety materials of applicable requirements.

CONTRACTOR shall be responsible for all education of CONTRACTOR's applicable employees of said requirements.

TRIMMING PRIORITIES

EMERGENCY

Emergency conditions shall be defined as situations where trees must be trimmed prior to reinstating power or when visible arcing between trees and power lines exist.

URGENT

Urgent conditions shall be defined as situations where it appears that trees and distribution lines are in close enough proximity to pose potential hazards during high wind or storm conditions.

ROUTINE

Routine conditions shall be defined as the normal trimming of right of way, as provided for in the tree trimming specifications contained in this document.

CUSTOMER COMMUNICATION

Contractor is required to notify KPUB customers of need to perform tree trimming operations. Notification guidelines based upon priority are listed below. KPUB will provide door hangers to Contractor. Notification to customers is required 1 to 2 days in advance of proposed trimming operation. Contractor shall give immediate attention to complaints of any nature received from property owners, agents, or public authorities, and efforts shall be made for a resolution of issue.



- For routine conditions every attempt will be made to contact the property owner prior to tree trimming. Trimming will be scheduled so as to provide adequate time for contacts to be made. Property owner approval for routine conditions. Verbal approval shall be acceptable prior to tree trimming for routine maintenance.
- For urgent conditions an attempt to contact the property owner will be made, but trimming will proceed. If contact cannot be made within time frame relative to urgency of the hazard presented.
- Emergency conditions do not require notification of property owners.

Written notification of customers who refuse to allow tree trimming will be forwarded to the KPUB engineering department. Signed approval forms will be required prior to any tree removal.

TREE TRIMMING SPECIFICATIONS

TECHNICAL GUIDELINES

- "Pruning Trees Near Electrical Utility Lines: A Field Guide for Qualified Line Clearance Workers" by Dr. Alex Shigo.
- "Best Management Practices-Utility Pruning of Trees" by The International Society of Arboriculture;
- ANSI A300 guidelines.

SPECIFICATIONS

Work consists of the furnishing of all supervision, labor, equipment and materials necessary to trim and/or remove trees interfering with power lines, to cut and/or chemically treat brush and undergrowth on the right-of-way and to cut and/or clean right-of-ways for new line construction and to dispose of the debris resulting from such work. No portion of the work shall be subcontracted to other parties.

All tree trimming shall be done in the directional trimming method so as to obtain maximum clearance with due regard to the current and future health of the trees. Whenever practicable and permissible, all hanging and severed limbs shall be removed from the trees.

Materials and methods to be used for chemical treatment work shall be mutually determined and agreed upon by the Contractor and KPUB.

The Contractor shall perform all work to the complete satisfaction of KPUB and in accordance with all state, federal, county and city laws and ordinances applicable.

All trimming shall be done in accordance with the best recognized and approved principles of modern arboriculture and tree surgery, with balanced emphasis on current tree health, symmetry and clearance.

All branches or limbs shall be cut flush with the supporting trunk or limb so that no stub is left. When a limb is to be partially removed it shall, if possible, be cut back flush to a limb at least one third of the diameter of the portion removed.

Contractor shall use linemen' climbers only in trees being removed.



The amount of clearance to be obtained shall be determined on the job after position occupied by the wires in reference to tree, the varied rate of growth of different trees, and the desires of the property owners have been given proper consideration. Contractor shall secure maximum clearance consistent with good economy and with regard to the rights and interest of property owners and the public. When adequate clearance cannot be obtained because of property owner objections or other factors, special effort shall be made to secure a reasonable amount of temporary clearance.

Effort shall be made wherever possible to regain and improve the quality of the clearance secured at the last trimming.

Effort shall be made wherever possible to eliminate all tree parts and growth points beneath the wires, and all weak, diseased and dead limbs above the wires which may fall or blow into them.

Extreme care shall be exercised when cutting brush or trees that are close to or touching wires to prevent breaking or wrapping the wires together or otherwise interrupting service. If any such trouble should result, KPUB shall be notified of the location of such trouble as quickly as possible.

Vines growing on a pole or wire shall be pulled down and be cut at the ground line.

Existing right of way shall be cleared to the same width as the previous clearing.

On new construction, the right of way shall be cleared to the width required to accommodate construction activities within the bounds of identified easements.

Trees adjacent to cleared right of ways which constitute a hazard to the wire shall be removed after permission from the property owner is obtained.

TREE TRIMMING MATERIAL

The tree materials (chips and logs) will be made available to the property owners or other interested person on sight.

The branches, brush, and debris resulting from the trimming shall be collected and disposed of in suitable disposal areas. The premises of the property owner shall be at least as neat as they were before the work began.

Brush and debris shall be handled in such a manner as to avoid obstructing roads, paths, or water ways.

Individual requests by property owners for special handling of brush shall be granted where reasonable. If any doubt exists as to the action to be taken, the requests shall be referred to the property owner for instruction.

Where clearing includes the removal of trees, the logs and limbs shall be disposed of as designated by the permit, or if not designated, such logs and limbs shall be piled at the edge of the right of way in such a manner that they will not interfere with foot or vehicular traffic.

Where clearing includes wild cherry, necessary precautions shall be taken to eliminate the possibility of livestock being poisoned by eating brush or leaves.



OAK WILT PREVENTION

Neither KPUB employees nor KPUB contracted utility arborist will represent themselves as experts in tree disease, however, they will be trained to recognize the symptoms of oak wilt.

No routine condition tree trimming will be performed during the months of March thru May.

All tree materials taken from trees suspected to have oak wilt will be disposed of at an approved land fill.

Any property owners with trees found to have oak wilt will be notified in order to allow them to take measures to prevent the spread of the disease.

All cuts made with a saw on oak trees will be painted with an asphalt based approved arbor type tree dressing.

PLANNED AND NON PLANNED CIRCUIT TRIMMING

KPUB conducts tree trimming through a planned circuit maintenance approach that coincides with defined growth patterns of the vegetation addressed. Defined circuits are patrolled routinely. Through inspection, circuits may require additional maintenance outside of planned circuit trimming due to rapid vegetation regrowth. Factors that could influence more frequent circuit trimming are prevalent vegetation or drought/rain conditions in recent history. For circuit trimming, the focus shall be on aerial trimming and not clear cut right of way trimming. Trees are removed if the customer allows, and it is a benefit to future tree trimming needs.

Planned trimming should adhere to the following clearances to create the desired trim cycle for the prevalent trees in KPUB's service area. For primary lines we trim ten foot each side of the primary. On three phase KPUB trims ten feet from the middle phase. For the primary neutral, KPUB trims approximately four feet below. On secondary voltages, KPUB trims on an as needed basis when requested by the customer. In most cases KPUB will drop the service line and the customer can have the tree work completed. After the work is complete KPUB will return and re-install the service. There will be no charge for this service as long it is scheduled during KPUB's normal working hours. These clearances should allow a tree trim cycle average of 5 years with the individual cycles to not be less than 3 years and not more than 10 years under normal weather conditions.

CONTRACTED RESOURCES

Contractor shall have commercially licensed drivers to operate necessary equipment at all times. The crews are to be staffed and equipped at a minimum as follows:

- Foreman/EQ Operator
- Ground Man (Trimmer C)
- Bucket Truck, 55'
- 12" Disk Chipper

TREE TRIMMING CREWS

Crews should be under the supervision of one (1) General Foreman.



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The General Foreman is required to have six (6) years of experience in the tree trimming of power lines. The working Foreman is also expected to have approximately 3 years of experience performing tree trimming on power lines.

Trimming crews must be capable of both bucket and climbing work. Contractor's personnel and equipment shall at all times present a neat appearance. Contractor's employees are to wear company shirts. All tools and equipment shall be kept in good working condition and maintenance of all tools and equipment shall be performed on Contractor's time. Equipment that is down for repairs shall be back in service within two (2) working days. Equipment that is down for repairs shall not be invoiced.

CREW ALLOCATION

A bucket truck crew should be paired with any climbing crew. This pairing shall be dedicated to circuit trimming. They are placed in close proximity of each other so that the bucket truck crew can come by the climbing crew work site and chip the brush periodically. Any other bucket truck crews allocated are to be dedicated to tree trimming tickets and right of way clearing for rebuilds or new construction. When there is no need for these activities, allocation will be made to circuit trimming.