

## 32 01 90.23 Pruning

### 1. Introduction

- A. Pruning trees shall be limited to addressing minimal structural defects.
- B. Root pruning shall be done whenever there will be grading, cutting or compaction disturbance underneath the dripline of a tree. Root pruning is when tree roots are cleanly severed from the tree in order to prevent damage, which would be caused by excavation. This system prevents future problems with the tree by minimizing damage to its roots.

### 2. References

- A. ANSI A 300 – Standard Practices for Tree, Shrub and other Woody Plant Maintenance, most current edition and parts.
- B. Pruning practices shall conform to recommendations “Structural Pruning: A Guide For The Green Industry” most current edition; published by Urban Tree Foundation, Visalia, California and ANSI A300 Pruning standards.
- C. Related specification sections:
  - 31 1 13.26 Mulch
  - 32 01 90.26 Watering
  - 32 90 00 Planting
  - 32 91 00 Planting Preparation
  - 32 91 13 Soil Preparation
  - 32 93 00 Plants
  - 32 93 13 Groundcovers
  - 32 93 43 Trees
  - Appendix 01 56 39 Temporary Tree and Plant Protection

### 3. Design Standards

- A. Root pruning shall be done prior to disturbance of the site.
- B. No disturbance shall be done within a tree’s structural root plate (distance of 3x the diameter of the tree), due to stability concerns.
  - 1. For example, a 2 foot diameter tree will have a 6 foot structural root plate holding it up. For some trees, this structural root plate is even larger.
- C. When digging beneath the dripline of a tree you will need to root prune.
  - 1. Root pruning shall be done by or under the supervision of an ISA Certified Arborist, and meet or exceed ANSI A300 or approved Tree Care Industry Standards.

2. A certified arborist must be onsite during the entirety of root pruning.
3. If a large percentage of the roots will be pruned, the tree may require other types of care. This should be determined during the site visit prior to starting work.
  - a. For mature trees, no more than 30% of roots may be pruned.
4. No tree paint or sealants shall be used.

#### 4. Documentation and Review Requirements

- A. Prior to any work within the dripline, contractors must contact Landscape Services to coordinate work.
  1. Before disturbance, meet with Landscape Services on site to confirm location of root pruning. Root pruning shall be conducted at an agreed upon location.
  2. This location will be marked on the ground between the disturbance and the tree, typically 6" closer to the tree than edge the disturbance.
  3. Landscape Services' Main Office: 919.660.4280
- B. The following companies have the expertise to perform successful root pruning on campus, although other certified arborists may be considered:
  1. Bartlett Tree Experts (Kevin Riegner; [kriegner@Bartlett.com](mailto:kriegner@Bartlett.com); 919.291.9246)
  2. Skillin Tree Care (Mike Skillin; [mike@skillintree.com](mailto:mike@skillintree.com) 919.923.3669)

#### 5. Installation and Performance Requirements

- A. Large tree pruning
  1. Use pole pruners or if needed, from a ladder or hydraulic lift to gain access to the top of the tree.
  2. Do not climb newly planted trees.
- B. Root pruning
  1. For major roots mark the location of the root pruning trench on the ground.
  2. It is preferable to expose the roots prior to root pruning.
  3. Root pruning shall only be as deep as necessary to ensure the cutting of all roots which would be impacted by the disturbance.
  4. Root pruning trench

- a. The soil around the roots is removed by hand or by utilizing an air knife so the roots can be seen before pruning. The pruning trench should be cleared in a way that exposes the roots while leaving them intact.
- b. Do not use an excavator, as this will pull on the roots and possibly damage the trunk.
- c. If a root larger than 2" is exposed, leave this root intact and contact Landscape Services.
- d. Once the roots are exposed, use a sharp tool to cleanly cut all roots which are 1-2" in diameter, to the depth of the proposed disturbance.
  - (1) Appropriate tools include sharp lopping shears, handsaws, a root pruner, a reciprocating saw and any other sharp tool which leaves a clean, smooth cut.
  - (2) You may not use a chainsaw or chain trencher to make the final cuts.
  - (3) All roots shall be left with clean, smooth ends and no ragged edges.

#### 5. Post Pruning

- a. Tree roots must be kept moist. If roots ends will be left exposed for more than 8 hours, cover the hole with moist burlap.
- b. Fill the hole with high quality top soil, mulch the area with triple shredded hardwood to a depth of 3", and water well.

#### 6. As-Built Requirements

- A. All necessary pruning should be noted within the as-built drawings with the location and the quantity.
  - 1. Any roots over 2" in diameter should be noted with the resolution discussed with Landscape Services.
- B. The disturbance area shall be noted within the as-built drawings.
- C. The selected ISA Certified Arborist should be noted.