All pruning cuts should be made to minimize wounding, preferably at a right angle to the main stem. Flush- and stub-cuts should be strictly avoided. Select and maintain a strong, healthy, central leader. This should have already been done after the pruning in the nursery; however, future co-dominant leaders should be scouted for and carefully removed if they appear. Overly aggressive central leaders may have to be headed back to a lower branch or node if they appear to bend away from the central position.

Establish guidelines for a temporary branch zone. Temporary branches are those which appear below the height of the final canopy. American and hybrid elms should tolerate a lower live crown ratio (LCR) than the recommended 60% LCR. Lower LCRs at or shortly after planting reduce the need to remove large, temporary branches later or after long pruning cycles.

Remove branches with narrow crotches or visibly poor attachment in the temporary branch zone. Simultaneous removal of “Clustered Branching” appearing at a single point on the main stem can cause poor compartmentalization and internal decay. Clustered branches may have to be removed in phases depending on their diameter. Use suppression pruning cuts to slow growth until removal. Suppress growth of competing side branches that may compete with central leader. Always make heading back cuts to an existing branch crotch or dormant bud to avoid excessive water-sprouting at the wound site.

Lower, temporary branches before they reach a branch aspect ratio of 1:3 (before the temporary branch reaches a diameter 1/3 that of the stem where they are attached). If temporary branches cannot be removed in one pruning event, the branches should be suppressed using heading-back cuts to an existing branch crotch or bud to slow their growth at the point of attachment. Sterilize tools at frequent intervals to minimize spread and outbreak of bacterial wetwood diseases.

GENERAL PRUNING GUIDELINES

Removal of Co-dominant Leaders

Co-dominant leaders compete for valuable resources and a place in the mature crown of any tree. Due to the nature of this species and previous maintenance on them, co-dominant leaders should be scouted for, and removed, on an annual basis. Co-dominant leaders occasionally appear during the growing season and may overtake the existing central leader. If co-dominant leaders cannot be removed in one pruning cycle, they should be suppressed back to a lower bud or side branch. Don’t worry about “proper” pruning cuts at this time; suppressed co-dominant leaders can still form a branch protection zone (BPZ) and should be removed at the main stem within a year or two.

Extremely sharp, fine-toothed pruning saws and shears are required for any type of summer pruning on elms.
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Figure 1: Severe decurrent growth after "tipping-back" in the nursery (U. americana 'Princeton')

Figure 2: (above) After co-dominant removal and suppression of side branches (U. americana 'Princeton'). This tree still requires several suppression cuts on co-dominant leaders.

Figure 3: Overgrown Accolade™ elm (U. japonica x wilsoniana 'Morton') in boulevard.

Figure 4: After crown raising and suppression of co-dominant leaders.