

SECTION 31 1300

SELECTIVE TREE REMOVAL AND TRIMMING

PART 1 GENERAL

1.00 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.01 WORK INCLUDED

- A. Provide all work necessary to perform selective clearing within the limits indicated on the Drawings and as specified herein. Selective clearing work shall include, but not be limited to, the following:
 - 1. Tree pruning.
 - 2. Removal of vines from trees.
 - 3. Removal of wire from trees.
 - 4. Cabling and guying of trees.
 - 5. Flush cutting shrubs and trees, and grinding of stumps and backfilling of holes with clean fill and topdress with 6 in. loam.
 - 6. Weeping tree crotches and cavities.
 - 7. Removal of deadwood and brush.
 - 8. Removal of all rubbish, debris, and other materials to be disposed of as a result of the work of this section.

1.02 RELATED WORK

- A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:
 - 1. Section 01 56 39, TEMPORARY TREE PROTECTION.
 - 2. Section 02 41 10, SITE PREPARATION; Clearing and grubbing and removal and disposal of felled trees and stumps outside of the work limits of this section: .
 - 3. Section 31 10 00, SITE CLEARING.

1.03 REFERENCES

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
 - 1. American National Standards Institute (ANSI):

A300	Best Management Practices Tree Support Systems: Cabling, Bracing, and Guying
Z133.1	Safety Requirements for Pruning, Trimming, Repairing, Maintaining and Removing Trees, and for Cutting Brush

Z133A Best Management Practices Tree and Shrub Fertilization

2. Tree Care Industry Association, 3537 Stratford Rd., Wantagh, NY 11793 (TCIA):

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| Ref. 1 | Pruning Standards for Shade Trees |
| Ref. 2 | Standard for Fertilizing Shade and Ornamental Trees |
| Ref. 3 | Bracing, Cabling and Guying Standard for Shade Trees. |

1.04 SUBMITTALS

- A. The Contractor shall submit to the Architect for review, proposed methods and materials for selective clearing, including a schedule indicating specific dates for implementing specific work items in each major work area.

1.05 QUALITY ASSURANCE

- A. Selective clearing and pruning methods shall conform to the applicable requirements of ANSI Z133.1
- B. Work of this section shall be completed by a professional ISA Certified Arborist with a minimum five years experience, who has successfully completed an exam and education program equal to the International Society of Arboriculture (ISA) Certification Program, sponsored by the International Society of Arboriculture 2009, P.O. Box 3129, Champaign, IL 61826 (217) 355-9411; Email: isa@isa-arbor.com.

1.06 TREE DAMAGE PENALTIES

- A. Refer to Section 01 56 39, TEMPORARY TREE AND PLANT PROTECTION.

PART 2 PRODUCTS

2.01 CABLES AND GUYING MATERIALS:

- A. Materials for guying and cabling trees shall conform to TCIA Ref. 3.

PART 3 EXECUTION

3.01 TREE PRUNING

- A. Tree pruning shall be "Class II Medium Pruning" conforming to TCIA Ref. 1.unless otherwise noted. Work shall conform to the requirements of ANSI Z133.1.
1. Class II Pruning: Medium Pruning the removal of dead, dying, diseased, interfering, objectionable, obstructing, and weak branches,as well as selective thinning to lessen wind resistance; an occasional branch as described , up to 1 in. diameter may remain within the main leaf area up to its full length when it is not practical to remove it.
- B. Schedule of trees to be pruned and extent of pruning shall be as indicated on the Drawings. Tree pruning shall be as directed and approved by the Architect.

3.02 GOVERNING STANDARDS - PRUNING

- A. Work procedures will be guided by the current provisions of the American National Standard Institute. Complete detail of the provisions are to be found in the references listed. The three basic objectives of the pruning operation shall include:
1. Hazard Reduction Pruning: Hazard reduction pruning shall be completed to remove visible hazards in a tree. Hazard pruning shall consist of one or more of the maintenance pruning types.
 2. Crown Reduction Pruning: shall be performed in accordance with ANSI A300 Part 1 Pruning standards using the Reduce Method (7.4). A written description that details the location and size of branches to be removed shall be approved by the Architect and Certified Arborist prior to the start of work.
 3. Maintenance Pruning: Maintenance pruning shall be completed to maintain and improve tree health and structure and includes hazard and crown reduction pruning.

3.03 MAINTENANCE PRUNING TYPES

- A. Both hazard reduction pruning and maintenance pruning shall consist of one or more of the following pruning types in accordance with ANSI A300:
1. Crown Cleaning: Crown cleaning shall consist of the selective removal of one or more of the following items: dead, dying, or diseased branches, weak branches, water sprouts and stubbed branches.
 2. Crown Thinning: Crown thinning shall consist of the selective removal of branches to increase light penetration, air movement, and reduce weight.
 3. Crown Raising: Crown raising shall consist of the removal of the lower branches of a tree to provide clearance.
 4. Crown Reduction, or Crown Shaping: Crown reduction shall consist of decreasing the height and/or spread of a tree.
 5. Vista Pruning: Vista pruning shall consist of selective thinning of framework limbs or specific areas of the crown.
 6. Crown Restoration: Crown restoration pruning shall improve the structure, form and appearance of a tree which has been severely headed, vandalized, storm damaged or improperly pruned.

3.04 UTILITY PRUNING

- A. Utility pruning shall consist of one or more of the following items:
1. Trees Underneath: Pruning trees growing directly under and growing into the facility/utility space.
 2. Trees Along Side: Pruning of trees growing directly along side and growing into or toward the facility/utility space.

3.05 TREE REMOVAL

- A. Trees indicated on the Drawings as "Remove" or trees tagged in the field by the Landscape Architect to be removed shall be felled.
1. Tags of each felled tree shall be saved and returned to the Architect.
- B. Remove trees to permit installation of new construction.

1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 2. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches (450 mm) below exposed subgrade.
 3. Chip removed tree branches and dispose of off-site.
- C. Fill depressions caused by tree removal operations with satisfactory soil material unless further excavation or earthwork is indicated.
1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches (200 mm), and compact each layer to a density equal to adjacent original ground.
- D. Do not apply herbicide to remaining stumps or plant life to inhibit growth.
- E. Burning shall not be permitted on-site.
- 3.06 TREE CABLING AND GUYING
- A. Cabling and guying methods shall conform to ANSI A300, Best Management Practices Tree Support Systems: Cabling, Bracing, and Guying.
1. Provide cabling and guying systems to accomplish structural support of the tree as scheduled on the Drawings.
- 3.07 PRUNING GIRDLING ROOTS
- A. Where specified in the schedule, the Contractor shall remove girdling roots from base of trees. Removal shall include sawing and splitting as required to remove roots.
- 3.08 VINE REMOVAL
- A. Vines shall be removed from trees.
- 3.09 WIRE REMOVAL
- A. Barbed wire and other wire shall be removed from trees.
- 3.10 DEADWOOD AND BRUSH REMOVAL
- A. Deadwood and brush within the limits of work indicated on the Drawings shall be disposed of as follows:
1. Brush, limbs, and other material less than 6 in. in diameter shall be chipped and stockpiled on-site in an area designated by the Architect.
 2. All deadwood shall be chipped and stockpiled as specified above.
 3. Limbs 6 in. and larger shall, at the Contractor's option, be disposed of as follows:
 - a. Material shall become the property of the Contractor and be disposed of off-site, or;
 - b. Material shall be cut to 4 ft. lengths and stacked in an on-site location designated by the Architect.
- B. All debris material not otherwise indicated shall be legally disposed of off-site.
- 3.11 WASTE MANAGEMENT
- A. Separate and dispose of waste in accordance with the Project's Waste Management Plan

END OF SECTION