

SECTION 01 56 18 _ Tree Protection University Contact: UD Assistant Director of Grounds:
Office (302) 831-2797
UD Landscape Planner:
Office (302) 831-1817

PART 1 – GENERAL

Information in this Section is to be followed unless otherwise directed by University of Delaware (UD) Owner Representative and UD Grounds Representative (Assistant Director of Grounds or Landscape Planner).

1.1 SUMMARY

- A. This section contains information about protecting existing trees from damage during the execution of any exterior work.

1.2 RELATED DOCUMENTS AND REFERENCES

- A. Refer also to:
 - 1. International Society of Arboriculture (ISA)-Best Management Practices (BMP)-Managing Trees during Construction;
 - 2. ANSI A300-Tree Care Operations.

1.3 DESIGN REQUIREMENTS

- A. Before the start of **any** activity that will disturb exterior site conditions, trees and plantings to be protected shall be clearly identified and approved by the Assistant Director of Grounds or UD Landscape Planner.
 - o Schedule a pre-construction meeting with the Owner’s Representative and UD Grounds’ Representative as per this Section’s contacts, prior to beginning any work, to review the execution of this Section relative to protecting and/ or mitigating impacts to tree canopy and roots that are to remain and be protected. Pre-construction meeting shall consist of, but not be limited to, the following:
 - General Contractor;
 - ISA Certified Arborist approved by UD Assistant Director of Grounds / UD Landscape Planner;
 - Subcontractor assigned to install Tree and Plant Protection measures;
 - All subcontractors or site contractors that may be required to dig or trench into the soil;
 - Irrigation contractor as approved by UD Assistant Director of Grounds or UD Landscape Planner.

Trees that were not identified for removal, and that are damaged during the course of a project, will be replaced or mitigated by an ISA Certified Arborist at the project's or contractor's expense and with the approval of Assistant Director of Grounds or UD Landscape Planner.

All canopy pruning, root pruning, branch tie back, tree removal, root pruning, and fertilizing required by this Section shall be performed by or under the direct supervision of an approved ISA Certified Arborist.

PART 2 – PRODUCTS

2.1 FENCING

4 – 8' high wood or metal fencing with posts no farther than 8' OC (plastic, reflective fencing may be used with prior permission on a project by project basis; see also PART 3 EXECUTION).

2.2 SIGNS

Weather resistant, 8.5 x 11" reflective signs clearly stating 'Tree Preservation Area' or approved equivalent.

2.3 MULCH

Double shredded, hardwood mulch, free from debris, non-dyed.

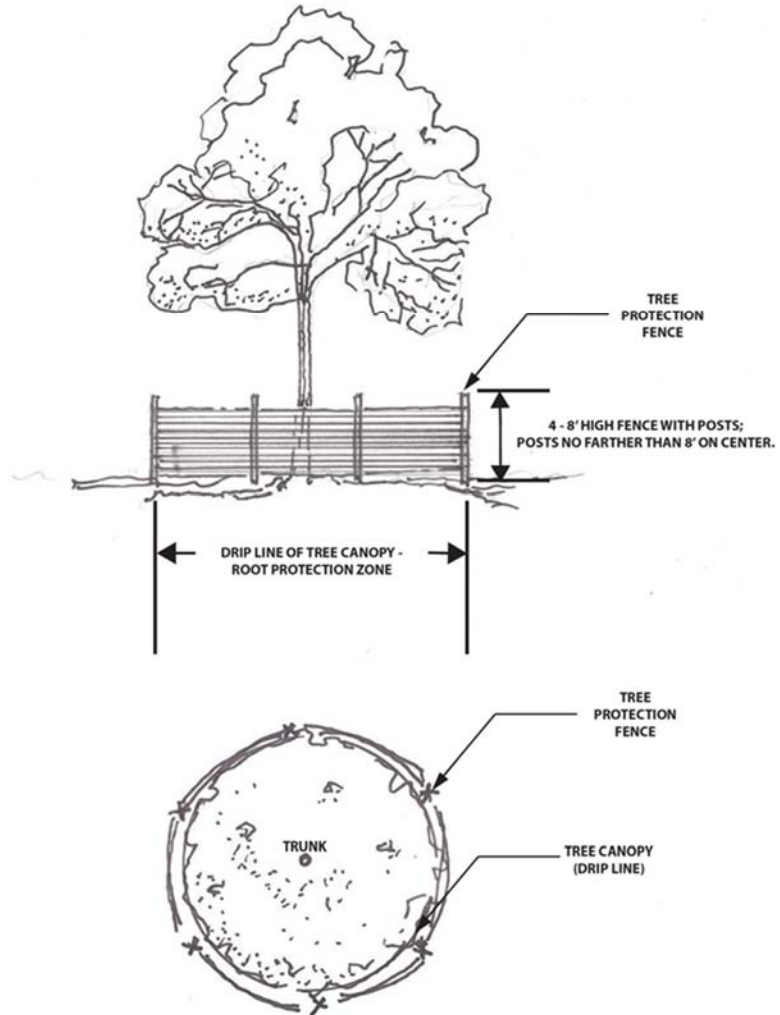
PART 3 – EXECUTION

- A. Fencing: Trees identified for protection should have a 4 – 8' high wood or metal fence securely installed at or beyond the trees' drip line, delineating the protection zone, prior to any site disturbance or commencement of construction activity or prior to any UD Event.
1. Plastic reflective snow fencing may be used for smaller projects of short duration or for UD Events and Activities, only with prior permission from *Assistant Director of Grounds or UD Landscape Planner*.
 2. Fencing is to be maintained in a secure, upright position for the duration of the project or event, and repaired immediately if damaged.
 3. If site access or project needs warrant a root protection zone smaller than the dripline of the tree, an ISA Certified Consulting Arborist, approved by the Assistant Director of Grounds or UD Landscape Planner, should be contracted to identify the minimum critical root zone that will preserve the tree along with any additional treatments or injections that would be warranted in this situation.

- C. Install 4-6" of natural non-dyed mulch over the protection zone for water retention. Do not place mulch within 6" of the base of the tree.
 - 1. Ensure a water source and specific contractor is identified to provide supplemental water, as needed, to root zone areas until tree protection can be removed.
- D. Identify project lay-down areas, equipment and vehicle (etc.) storage away from protected trees.
- E. Do not allow vehicle access over root zones of trees, if this area needs to be accessed temporarily, install 6 – 8" of mulch over entire root zone area along with ¾" plywood to act as a bridge for vehicle access.
- F. Protect trees from equipment or construction damage due to spillage, overhead branch damage from cranes, booms, machinery, etc.
 - 1. If, during the construction process, a conflict arises between project work scope and any part of a protected tree that could incur damage to the tree, work is to be stopped and the Owner's Representative and Assistant Director of Grounds or UD Landscape Planner is to be immediately notified to determine how best to proceed without damage to the tree.
- G. Do not allow any trenching, excavation or storage within the tree protection zone.
 - 1. If access to utilities, or other, is unavoidable near protected root zones, use boring or tunneling rather than trenching. An ISA Certified Consulting Arborist should be retained in a situation like this to perform any root pruning or mitigation of disturbance to ensure tree's viability at the project's expense.
- H. Tree protection and associated mulch or materials are to be removed after completion of all project construction activities. Final review of tree health is to be performed by Owner's Representative and Assistant Director of Grounds or UD Landscape Planner and an ISA Certified Consulting Arborist to determine if additional mitigation is needed.

PART 4 - ATTACHMENTS

4.1 Fencing Installed at Dripline of Tree



4.2 Example: Wooden Tree Protection Fence installed during Harrington Dormitory Renovations, University of Delaware, 2014.



4.3 Example: Tree Protection Sign used during the Harrington Dormitory Renovations, 2014.



END OF SECTION