

01 56 39 | Temporary Tree & Plant Protection

This design guideline is written to the designer of record (DOR). This guideline is written to document UA standards of work, assist the designers in ensuring UA standards are incorporated into the contract documents and provide a resource to facilitate the design process. It is the designer of record's responsibility to coordinate the criteria set forth in design guideline and in conjunction with the manufacturer requirements and use the most stringent standard.

General

A. REQUIREMENTS

1. The contractors shall furnish all labor, materials, equipment, and services necessary for the protection of existing trees and vegetation as required and as specified herein.
2. The plans shall include annotation that indicates it is the responsibility of the General Contractor to repair, replace, or reimburse UA for any damaged plant material within a Tree Protection Zone.
3. All landscape materials shall be protected to ensure they are not damaged.
4. All staging areas located on planting areas shall be covered with woven geotextile fabric and have a minimum six inch mulch bed placed over area prior to any staging of equipment or materials to prevent soil compaction.
5. All vehicular or motorized equipment access to a staging area over turf shall be covered with woven geotextile fabric with a minimum of six inches of mulch bed placed over the area to prevent the compaction of soil.
6. The General Contractor is responsible for removing all construction or construction related debris from the project site and adjacent landscape or shrub beds.
7. The project site survey shall include accurate locations and diameters of existing trees as well as a sufficient number of spot elevations to determine the existing elevation of the tree root zone and root flare.

B. DEFINITIONS

1. Root Protection Zone – Area extending from the edge of the protected tree trunk 1.5' per every 1" of tree diameter at breast height measured 4.5' from the ground. (Example: 10" Oak Root Protection Zone = 10" x 1.5' = 15' radius from the edge of trunk)
2. Root Protection Zone Barrier – Minimum 4' chain-link fence supported by 2" diameter post driven 2' into the ground with one 3' wide gate for maintenance. Fence shall have an 8 1/2 by 11 inch sign which reads "Root Protection Zone, Do Not Disturb". Enclosed area shall also be covered by 4" of pine bark mulch.
3. Drip line: Outer perimeter of branches of any plant.
4. Alternatives – Prearranged variations of work within the Root Protection Zone discussed during required Preconstruction Tree Protection Meeting and approved in writing by the UA Landscape Architect. These alternatives will allow for flexibility of specific requirements which arise during construction and will be considered on a case by case basis.

C. CALCULATING THE TREE ROOT PROTECTION ZONE

1. Measure the tree's diameter at breast height (DBH), in inches. DBH is calculated using the circumference of the tree trunk at 4.5 feet above grade.
2. Multiply the DBH by 1.5.
3. Example = 7" DBH x 1.5 = 10.5'.
4. The result expressed in feet shall be the minimum radius of the TRPZ.



5. For trees less than 8" in DBH, the TRPZ shall not be less than the diameter of the canopy drip line.
6. For shrubs scheduled to remain the protection shall be the drip line of the existing plant or plant grouping.

D. COORDINATION

1. The project arborist will coordinate with other trades and contractors affecting or affected by work of this section to ensure that tree protection measures are understood prior to work commencing.
2. An on-site review of tree protection measures will be completed among the designer, Landscape Architect, contractor, and UA Project Manager prior to any site work or grading is started.
3. During this meeting the pre-construction evaluation of those trees identified to remain shall be completed.
4. The contractor is responsible for maintaining all tree protection measures during all construction phases of the project.
5. The project arborist and UA Project Manager and FS Landscape Manager or designee shall be contacted immediately if any of the trees on site are damaged during the construction of the project. The project arborist in consultation with the UA Project Manager and FS Landscape Manager or designee will assess the damage to any tree and provide corrective measures, which may include pruning; tree wound repair, or even removal.
6. Upon completion of the project the project arborist will contact the UA Project Manager and review the post construction evaluation of the trees on the site.
7. No tree shall be removed from the site without the completion of a tree condition report and prior notification and approval of the UA Project Manager.
8. Tree removal within the UA National Historic District requires a Historic Tree Checklist to ensure that any trees being removed are not considered historic. An arborist report must accompany the Historic Tree Checklist.

Materials

A. FENCING

1. The contractor is responsible for installing a tree protection fence around all the trees identified to remain on site prior to the start of any site work, grading, or staging of any equipment or materials.
2. The tree protection fence shall be a galvanized chain link fence that measures a minimum of six feet high.
 - a. The fence shall be secured using steel posts that are the same height as the fence.
 - b. The steel posts shall be driven no less than two feet into the ground, and be a minimum of ten feet apart.

B. SIGNAGE

A highly visible sign shall be posted on the chain link fence demarking the area as a tree root protection zone. The sign shall remain posted and unobstructed until the project is completed.

Execution

Tree protection barriers shall be installed prior to the start of any site activity and shall remain in effective condition until start of landscape construction in the immediate area of the project.

A. SITE SURVEY

1. Provide a copy of the completed site survey to the UA Landscape Architect, prior to the development of the tree protection plan.

B. SCOPE

1. Install fencing around the Root Protection Zone.
2. Install mulch in Root Protection Zone.
3. Maintain Root Protection Zone.

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