

DIVISION 32 - TREE PROTECTION AND TRIMMING

32 60 00 – TREE PROTECTION

DEFINITIONS

- A. Protected Tree: Any tree that the Campus Arborist, has designated to be of high value because of its type, age, or other professional criteria.
- B. Root Zone: The ground area surrounding each tree containing its root system, defined by a radius equal to the trunk diameter at breast height (dbh) in inches multiplied by 1.5 feet per inch. For example, a 10 inch dbh tree would have a root zone extending 15 feet from the trunk in all directions.
- C. Protected Root Zone (PRZ): The part of the Root Zone of a Protected Tree which must be protected from construction damage. The Protected Root Zone for other existing plants will be indicated on the Landscape Protection Plan.
- D. Landscape Protection Plan: A plan that identifies areas of plant preservation and methods of protection within the Protected Root Zones. The methods may consist of fencing, mulching, etc.
- E. Compaction: Increased soil density. This results in death of existing roots and/or greater difficulty for new roots to develop. Damage may be caused by many agents, including the use of heavy equipment, concentrated foot traffic, and storage of heavy materials under or around trees.
- F. Damage: Shall include any of the prohibited practices listed below.
- G. Prohibited Practices: Shall include, but are not limited to:
 - 1. Breaking of branches, scraping of bark, or unauthorized cutting.
 - 2. Nailing or bolting into trees or using trees as temporary support in any way (including cabling around any part of the tree).
 - 3. Unauthorized filling, excavating, trenching, or use of augers within Protected Root Zones.
 - 4. Compaction of or driving over Protected Root Zones.
 - 5. Storage of any materials or vehicles within Protected Root Zones.
 - 6. Dumping of construction waste or materials within Protected Root Zones.
 - 7. Disposal of liquid waste or contaminants in an area which may impact protected trees or their Protected Root Zones.
 - 8. Unauthorized removal or relocation of Protected Trees.
 - 9. Removal of tree protection barricades or construction fencing prior to completion of project.
 - 10. Any other practices listed on the Landscape Protection Plan.

QUALITY ASSURANCE

- A. Preconstruction Conference: Inspector may call a preconstruction conference to review project requirements, including tree protection and trimming, prior to start of construction.
- B. Before tree protection and trimming operations begin, Contractor will meet with UND PM to review tree protection and trimming procedures and responsibilities.
- C. On-going Site Inspection

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1. The Campus Arborist will monitor the construction site throughout the construction process. Violations and damages will be handled according to construction department guidelines and specifications stated in the contract or Landscape Protection Plan.
2. The Campus Arborist will notify the construction inspector of any breach of the contract or Landscape Protection Plan. At this time the contractor will stop and/or correct whatever practice led to the breach.
3. If a breach of contract occurs, damages will be assessed according to the Tree Appraisal Schedule listed in the landscape protection plan. (Damages are established based on the pre-established value of the affected tree and the amount of both short and long term damage done to that tree. The Campus Arborist shall perform the damage assessment.)
4. The Contractor shall immediately contact the Owner's representative should protected trees be compromised in violation of agreed upon specifications. Failure to communicate promptly could result in damages of up to 100% of the appraised value.

PREPARATION

- A. Temporary Fencing: Install 6-foot high, non-moveable, temporary, chain link fencing around Protected Root Zones where indicated on plans to protect remaining trees and vegetation from construction damage, Owner's representative may inspect fence locations to determine if fence is installed as noted on plans. Contractor to move, add or remove fencing if not as per plans. Maintain temporary fence and remove when construction is complete.
- B. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Keep Protected Root Zones free of ponding, eroding, or excessive wetting caused by dewatering operations.
- C. Mulch Protected Root Zones where indicated on plans to minimize compaction.
 1. Apply 12-inch (300-mm) average thickness of organic mulch. Do not place mulch within 6 inches (150 mm) of tree trunks.
 2. Mechanical equipment can be used to place and remove mulch as long as it operates only on previously placed mulch.
- D. Do not store construction materials, debris, or excavated material inside Protected Root Zones. Do not permit vehicles or persistent foot traffic within Protected Root Zones; prevent soil compaction over root systems.
- E. Maintain fence enclosed Protected Root Zones in pre-construction condition and free of weeds and trash.
- F. Do not allow fires within protected root zones.

EXCAVATION

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- A. Install shoring or other protective support systems to minimize sloping or benching of excavations adjacent to Protected Root Zones.
- B. Do not excavate within Protected Root Zones, unless otherwise indicated.
- C. Where utility trenches are required within Protected Root Zones the UND PM should be consulted. Tunneling under or around roots by drilling, auger boring, pipe jacking, or digging by hand may be required.
 - 1. Root Pruning: Cut roots with sharp pruning instruments; do not break or chop.

REGRAIDING

- A. Grade Changes: Where new finish grade is indicated below or above existing grade around trees, slope grade beyond Protected Root Zones. Maintain existing grades within Protected Root Zones.

TREE PRUNING

- A. All tree pruning before, during, and after construction activity, will be performed by Facilities Management.

TREE DAMAGE, REPAIR, AND REPLACEMENT

- A. Immediately notify UND PM of trees damaged by construction operations.
- B. Repairs and replacements will be handled by UND PM

DISPOSAL OF WASTE MATERIALS

- A. Burning is not permitted.
- B. Disposal: Remove excess excavated material and displaced trees per UND PM's direction.

END OF SECTION 326000