

DIVISION 2 – SITEWORK

Section 02910 – Temporary Tree and Plant Protection

Introduction

- This section contains standards for protection of in-place and trimming of existing trees that interfere with, or are affected by, execution of the work, whether temporary or permanent construction.

Part 1 - General

- **Tree Protection Zone:** The area surrounding individual trees or groups of trees that are to remain during construction, defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

Part 2 - Products

- Chain-link fence panels for temporary fencing.
- Coarse bark mulch to cover area under protected trees.
- Plant material used to replace damaged plant materials shall be new plant material.

Part 3 - Execution

- **Preparation:**
 - Locate and flag with surveyor's tape trees and vegetation that are to remain or to be removed.
 - Engage Owner's Certified Arborist to direct pruning of trees to remain on site.
 - Install temporary fencing around tree protection zones to protect remaining trees and vegetation from construction damage. Locate fencing as shown on plans. Maintain temporary fence and remove when construction is complete.
 - Mulch tree protection areas with organic matter to a depth of 3 inches.
 - Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.
 - Do not store construction materials, debris, or excavated material inside tree protection zones. Do not permit vehicles or foot traffic within tree protection zones; prevent soil compaction over root systems. Locate portable restrooms outside tree protection zones.
 - Maintain tree protection zones free of weeds and trash.
 - Arrange with Owner for regular irrigation of protected trees.
- **Excavation:**
 - Install shoring or other protective support systems outside the tree protection zone to minimize sloping or benching of excavations onto the tree root zone.
 - **Outside the Tree Protection Zone:**
 - Shovel is to be pulled away from the edge of tree protection zone. If roots larger than 1 inch in diameter are encountered outside the tree protection zone, the Owner's Certified Arborist shall be consulted prior to pruning these roots.
 - Roots encountered during excavation will be redirected into the backfill areas where possible. If large, main lateral roots are encountered, the excavation limits will be extended as necessary to expose roots to a length as required to bend and redirect them into the backfill without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots cleanly 3 inches back from new construction.
 - If tree roots larger than 1 inch in diameter require pruning due to construction activities, the Owner's Certified Arborist shall be consulted prior to pruning.
 - Roots exposed during excavation will be protected to prevent drying until permanent backfill is placed.

Exposed roots will be covered with temporary earth cover or packed with peat moss, and wrapped with burlap and regularly watered to, maintain in a moist condition.

- Exposed roots will be temporarily supported and protected from compaction and damage until they are permanently relocated and covered with soil.
- Within the Tree Protection Zone:
 - Where excavation for new construction is required within tree protection zones, do not proceed without the Owner's written approval. Hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots.
 - If tree roots larger than 1 inch in diameter require pruning due to construction activities, the Owner's Certified Arborist shall be consulted prior to pruning.
- Utility Trenches: Where utility trenches are required within tree protection zones, do not proceed without the Owner's written approval. Tunnel under or around roots by drilling, auger boring, pipe jacking, or digging by hand. Use existing utility locations where possible.
 - Root Pruning: Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots with sharp pruning instruments; do not break or chop. Do not apply any material to cut faces of roots.
 - If tree roots larger than 1 inch in diameter require pruning due to construction activities, the Owner's Certified Arborist shall be consulted prior to pruning.
- Regrading
 - Minor Fill: Where existing grade is 6 inches or less below elevation of finish grade, fill with topsoil. Place topsoil in a single un-compacted layer and hand grade to required finish elevations. Do not grade so that tree trunk is in low spot after finish grading.
 - Change of grade beyond 6 inches: Where existing grade at tree protection zone differs by more than 6 inches from finish grade, construct retaining walls to keep original grade under tree.
- Hardscape around trees
 - In parking lots, allocate 8 foot x 8 foot uncovered space for trees preserved on site. Asphalt cover: Irrigate tree protection zone well the night before. Slope asphalt slightly into planting pit. Flood irrigate again after asphalt installation.
 - Concrete and impermeable paving: Flood irrigate tree protection zone the night before pouring. Protect tree zone from traffic, trash, or backwash during concrete pour. Irrigate tree again the following day.
 - Structural Soil, Structural Cells, and alternative media: Flood irrigate tree zone well the night before. Protect tree zone from backwash or trash during installation of aggregate. Irrigate again the next day.
- Tree repair and replacement
 - Notify the Owner immediately if trees and shrubs to remain in place are damaged during construction. Do not repair damage except with the Owner's Arborist written direction.
 - Promptly repair trees damaged by construction operations within 24 hours of damage. Treat damaged trunks, limbs, and roots according to Owner's Arborist's written instructions.
 - Trees indicated to remain on the site which die or are damaged during construction that Owner's Staff Arborist has determined are incapable of restoring to normal growth pattern will be removed and replaced during construction operations.
 - Provide new trees of same size and species as those being replaced; plant and maintain these trees.
 - Any and all costs of repair or replacement will be assessed to the contractor.

End of Section 02910