

TREE PROTECTION STANDARDS

City of Monterey – Division of Planning, Engineering, and Environmental Compliance.
The following standards are established pursuant to Section 37-2.5 of the Monterey City Code, which states:

All public or private construction projects requiring acquisition of a building permit shall comply with the tree protection guidelines established by the City in order to safeguard and protect any trees affected by said construction.

These Tree Protection Standards apply to all "Protected Trees" in the City of Monterey, defined as:

- a. trees located on a vacant private parcel that are more than two inches (2") in diameter when measured at diameter standard height (DSH), a point four feet six inches (4'6") above the tree's natural grade; and,
- b. trees located on a private, developed parcel that are more than six inches (6") when measured at a point four feet six inches (4'6") above the tree's natural grade.

These standards do not apply to unprotected trees or trees previously approved for removal.

Pre-Construction

1. An arborist report may be required for any commercial or residential project. Reports should include the following minimum information.
 - Tree information for protected trees: tree number, species, diameter as measured at 54" above grade (DSH), condition, remove or retain
 - Site map with tree locations
 - Site plans, including grading and utilities
 - Tree protection plans and/or drawings
2. Projects that involve properties with several trees and proposed developments may require the owner, or contractor to hire a private Certified Arborist to inspect and monitor the construction work to guarantee that the tree protection guidelines are enforced and that the trees to remain are not damaged, or negatively impacted during any phases of work.
3. All cut, fill and/or building foundations shall be located a minimum of 4.0 times the diameter of the tree away from the outside edge of the trunk of all trees scheduled for preservation. However, the minimum distance permitted shall be 6' - 0", away from the outside edge of the trunk for all trees of a trunk diameter less than 2' - 0". The diameter of a tree shall be measured at 4', 6" above the surrounding grade [Diameter at Standard Height (DSH)].

Tree Protection Zones

1. All Protected Trees shall be marked with a spot of paint, or flagging and temporarily fenced during construction. The marking serves to notify City inspectors and workers that the tree is to be fenced at all times during construction. Fencing and marking shall be installed prior to the issuance of building or grading permits and shall be located at the edge of the root zone.

The tree protection zone (TPZ) shall extend to the dripline of all trees with decurrent form (broad canopy). For trees with excurrent form (typically conifers) the TPZ fencing shall be located at a distance of 15 times the trees diameter measured at 4' 5" above grade in all directions. Tree protection fencing shall be no less than 4' and height and shall be constructed of chain link or snow fencing. Fenced areas shall not be used for material stockpile, storage, vehicle parking, or dumping of materials, chemicals, or garbage. Fenced areas shall be maintained in a natural condition and not compacted. Removal of fencing shall only be approved by the City Forester.

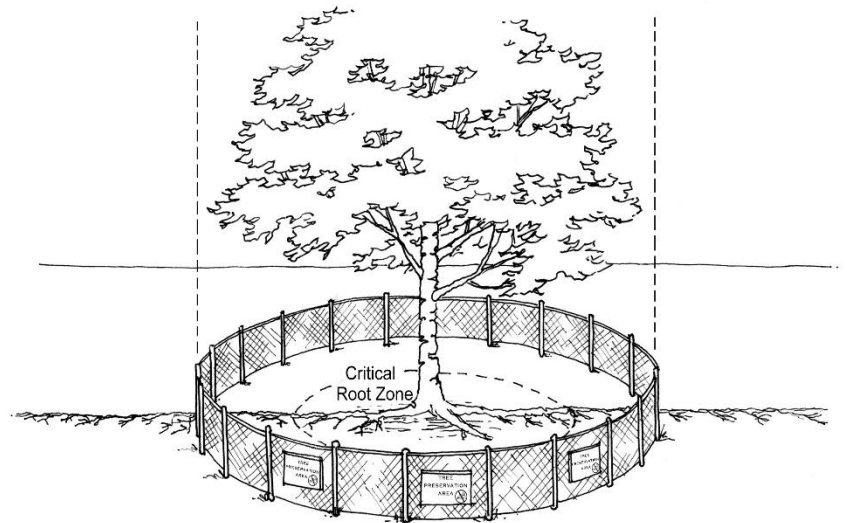


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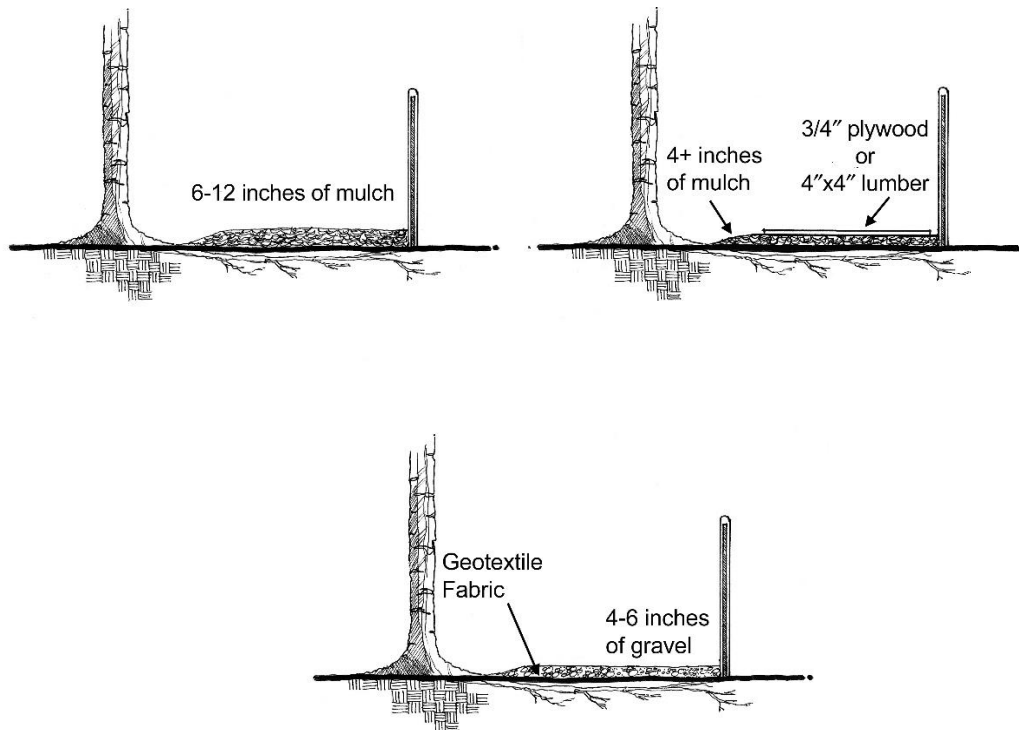


Decurrent Trees (broad canopy)



Excurrent Trees (typically conifers)

2. If construction activities inside the TPZ are unavoidable one of the following measures must be enacted to avoid soil compaction and root damage
- Apply 6-12" of clean locally sourced mulch
 - Laying $\frac{3}{4}$ " minimum thickness plywood, beams, commercial logging or road mats over a 4" thick layer of wood mulch
 - Applying 4 to 6" of gravel over taught staked geotextile fabric.



Images Courtesy of the International Society of Arboriculture

- Any stone or mulch greater than 4" in depth shall be removed when the threat of root damage has passed and fencing shall be re-installed for the remainder of the construction activities.
- If TPZ fencing is to be removed for any period of time, a 4-foot chain link fence shall be erected in the critical root zone which is defined as an area no closer than 3' from the stem of the tree. This fencing may be removed once TPZ fencing is reinstalled.
- Rules forbidding material stockpile, storage, vehicle parking or dumping of materials, chemical or garbage still apply during times when fencing has been removed.

3. Trees outside of the construction zone but in close proximity to increased equipment or truck traffic may require protection to avoid damage to the stem. These measures should include fencing at the critical root zone (three feet) and installing thick wood planks around the trunk bound by straps or wire.

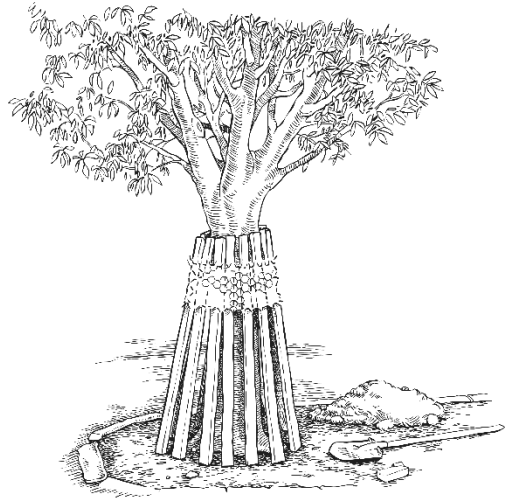


Image Courtesy of the International Society of Arboriculture

Root Pruning and Root Zone Impact Mitigation

All approved construction work within the root zone of trees scheduled for preservation shall observe the following minimum tree protection practices:

1. Hand trenching at point or line of grade cuts closest to the trunk to expose major roots 2" in diameter or larger. In cases where rock or unusually dense soil prevents hand trenching, mechanical equipment may be approved by the City Forester, provided that work is closely supervised to prevent tearing or other damage to major roots.
2. Exposed major roots shall be cut with a saw to form a smooth surface and avoid tears or jagged edges.
3. -Absorbent tarp or heavy cloth fabric shall be placed over new grade cuts where roots are exposed and secured by stakes. 2" to 4" of compost or woodchip mulch shall be spread over the tarp to prevent soil moisture loss. The tarp should be thoroughly wetted at least twice per week to insure constant moisture levels until backfilling occurs. In very dry climate conditions, additional watering may be required to maintain a constant moisture level. This program of watering shall be maintained through all phases of construction including delays and other periods of inactivity.

4. Decks located within the root zone of trees scheduled for preservation shall be of post and beam construction to eliminate any need for root pruning or removal.
5. On-grade patios or paving that cover more than one-third of the feeder zone of pine trees or oak trees shall be constructed of permeable materials that allow aeration and water penetration. Patios and paving shall be combined with any other non-permeable surface or structure for purposes of calculating the one-third coverage standard. A maximum 80% compaction for permeable surfaces shall be allowed. The paving design shall specify this restriction.
6. Planting beneath trees scheduled for preservation shall take into consideration watering requirements of the tree to prevent damage from over or under watering. Planting beneath native oak trees is of special concern and should be avoided. At a minimum, all new irrigation should be directed away from the trunks of oak trees. Installing lawn or other planting that requires frequent watering insures a slow death for oak trees due to their sensitivity to over watering and susceptibility to oak root fungus. Over-watering may also damage native pines.

Failure to comply with these Tree Protection Standards is punishable by Civil penalty, including Citation and fines.

-All Tree Protection devices must be in place prior to issuance of a Building Permit. Please contact the City Forester at 646-3860 for inspection to confirm Tree Protection or with any general tree preservation questions.

Chapter 37, Preservation of Trees and Shrubs, is available at www.monterey.org or <http://www.codepublishing.com/ca/monterey/>