

Avoiding tree damage during construction

By Ramona Frances

As the towns of Madera, Oakhurst, Coarsegold, North Fork and Raymond expand with new construction, trees are put at risk. Buildings are often designed to incorporate the beauty and value trees lend, but sadly, things don't always work out well. Construction can cause damage that can injury leading to the death of a tree.

Though I am reluctant to use the ³rd word, I must advise caution regarding possible construction injuries. Damage caused by this isn't always evident at the time of injury. Unless damage is extreme, trees may not die immediately. Instead, they may decline over several years. With a delay in symptom development, the loss of the tree may not be associated with construction at all.

Trees can be preserved if protective measures are taken, assuming the tree is worth saving. Malformed trees, trees with diseased cores, trees with heavy, mishapen branches, and those with fruit or pods that cause heavy littering may not be desirable to have at a residential or office site. But, if you or a tree consultant determine the tree(s) is worth saving, see the following information provided by the International Society of Arboriculture (ISA), a non-profit supporting tree care research around the world and dedicated to the care and preservation of shade and ornamental trees. See www.isa-arbor.com.

Cutting of roots: The digging and trenching that accompany construction and underground utilities will likely sever tree roots. Roots typically will be found growing a distance of 1 - 3 times the height of the tree. Severing one major root can cause 5 - 20 percent of the root system.

Soil compaction: An ideal soil for root growth is about fifty percent pore space. These pores, the spaces between soil particles, are filled with water and air. Heavy equipment used in construction compacts soil, reducing pore space. This not only inhibits root growth and penetration, but decreases oxygen essential to growth and function of roots.

Smothering Roots: Since 90 percent of the fine roots that absorb water and minerals are in the upper 6-12 inches of soil. Piling soil over the root system or increasing the grade will smother the roots. It only takes a few inches of added soil to kill a mature tree.

Exposure: Trees in a wooded area grow as a community, protecting each other from the elements. Removal of neighboring trees, or opening shared canopies of trees will expose the remaining trees to increased sunlight and wind that can damage or kill trees.

All measures intended to protect your trees must be written into the construction specifications. The written specifications should detail exactly what can and cannot be done to and around trees. Each sub-contractor has to be made aware of the barriers, limitations and specified work zones. It is a good idea to post reminders.

This column is provided by the University of California Cooperative Extension Master Gardener Program in Madera County. The Master Gardener program extends research based information in home horticulture and pest management, verified by University of California experts to the citizens of our state. Call your U.C. Cooperative Extension Office in Madera with your gardening questions at 559-675-7879 Ext.204 to leave a message, or stop by the office on Mondays from 1:00 - 3:00 p.m. to speak to a Master Gardener in person. Ramona Frances may be contacted at ramona@maderatribune.net.