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Trees, New Construction and Site Work:

One of the most common causes of tree death and decline (in developed areas) is site work and new construction. Property is purchased, plans drawn up, and site is laid out with admiration of the existing trees on the property. Everyone is full of excitement of how the house or building will set within the grouping of shade trees, knowing the trees will soften the look of the house, shade the back porch, or provide privacy from highway, neighbors, etc.

Now is when things tend to go downhill. Everyone usually forgets about the trees. Here is a textbook example of what I usually see inspecting trees during a construction project: (Actual project in Van Zandt County August 2013)

- Top soil stripped away. Drive way cut in with exposed roots, ripped, severed and torn. Large pile of clay pushed up into Critical Root Zone (CRZ). Contractors parking in CRZ of multiple Post Oaks. Natural Drainage harshly changed. 4' fill added to "level out" grade at large Red Oak. Underground utilities trenched through CRZ of huge trophy Oak.

Some of these issues were able to be corrected immediately, however, some cannot be. We are all aware of Newton's 3rd law: "For every action, there is an equal or opposite reaction." This is a list of biological reactions to expect from the above mentioned construction damages:

- Mulch Top Soil Stripped Away →Results: Root loss, excessive moisture loss, extreme loss of absorbing roots, and death of organisms / microorganisms within soil, super-heated soils, erosion, and compaction.
- Exposed and Damaged Roots →Results: Torn, ripped roots do not heal. Decay sets into the tree. Some decay effects can take many years to show up (sometimes 10 years)
- Adding Soil to Existing Grade/ Compaction Issues →Results: Both give same results: A soil environment with very little pore space holds very little, if any oxygen and absorbing roots die. Soil will not absorb adequate moisture either. Think of it like this – if you were to put a trash bag tightly over your head, what would the result be?

In short, take care to plan and put thought towards tree preservation during a construction project. Explain to your contractors and your builder, your concerns and goals and then be prepared to commit some time to "police" your site throughout the entire course of construction.

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