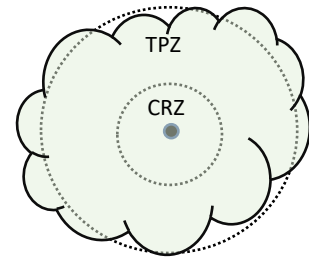


Protect Trees During Construction

The unique character of Northern Baltimore has long been defined by its towering trees that remain from a time when the land was field and forest. Not only are these trees beautiful, but they make our community more livable through lowering temperatures on hot days, intercepting and absorbing stormwater, filtering air, producing oxygen, and storing and sequestering carbon dioxide from the atmosphere. Too often, construction near trees does not account for root zones, resulting in tree death and increased risk of tree uprooting. To protect the health of our valuable trees and avoid creating safety hazards in the community, we must account for the root zones of trees when repairing or constructing sidewalks, driveways, underground utilities, and house additions.

In accordance with the American National Standard for Tree Care Operations (ANSI A300), trees have two circular zones around their trunks. The larger of these is called the Tree Protection Zone (TPZ). If this zone is protected from soil compaction, excavation, and other disturbance, it will ensure that the tree will survive construction with minimal impacts to its health. The TPZ can be determined by a qualified arborist, based on the species, size, and health of the tree. The second zone is called the Critical Root Zone (CRZ). If construction activities take place in this zone, not only will the health of the tree almost certainly be harmed, but the structural integrity of the tree's roots can be compromised, creating a risk of the whole tree uprooting. Again, the CRZ can be determined by a professional, qualified arborist.



Sometimes, construction activities are unavoidable in the TPZ and CRZ of trees. To minimize damage, necessary root pruning should always be performed by a qualified arborist in accordance with ANSI A300 standards. Additionally, there are many alternative construction methodologies that can be used to avoid damaging trees and creating hazards. Some of these are as follows:

- Sidewalks and driveways: rerouting around trees, "ramping" over roots with traditional sidewalk slabs or asphalt, bridging roots with boardwalks, substituting permeable or pervious pavement.
- Home additions: using pier footings.
- Underground utilities: rerouting around trees, directional drilling, pipe bursting.

At the beginning of any construction project, I highly recommend utilizing a Maryland Licensed Tree Expert to perform a few crucial tasks:

- Evaluate the health and structure of the existing trees in the construction area and recommend maintenance that may be necessary regardless of construction;
- Determine the Tree Protection Zone and Critical Root Zone;
- Recommend alternative construction techniques and work with contractors to protect existing trees.

About the Author

Mary Charlotte Gitlin is an International Society of Arboriculture Certified Arborist and New Jersey Licensed Tree Expert. She holds a bachelor's degree from Rutgers University in Ecology, Evolution, and Natural Resources. Mary Charlotte attributes her love of ecology and trees to growing up in the area and believes that these communities can be a model for others in the Northeast. She welcomes all tree and ecology related questions via email at marygitlin@hotmail.com.