

# A Systematic Approach to Building With Trees

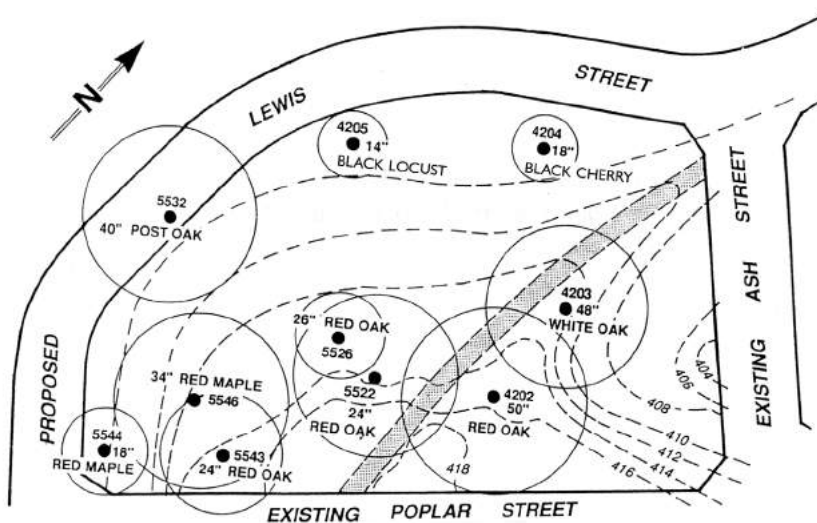


from the **TREE CITY USA®  
BULLETIN**

Where trees exist on land that is to be developed, it makes good sense both economically and environmentally to preserve these assets. A systematic approach and proven techniques can protect trees during construction and into the future. The result is higher property values and a more pleasant place to live or work.

## Step One: Tree Stand Delineation

RATING CHART							
#	SPECIES	DIAMETER AT BASE HEIGHT	HEALTH	CANOPY	ROOTS	OTHER	RECOMMENDATION
5532	POST OAK	40"	FAIR	GOOD	GOOD		SAVE, POSSIBLE AERATION SYSTEM
5546	RED MAPLE	34"	FAIR	GOOD	GOOD		SAVE
5543	RED OAK	24"	FAIR	GOOD	GOOD		SAVE
5544	RED MAPLE	18"	EXCELLENT	GOOD	GOOD		SAVE, ROOT ZONE IN PROPOSED STREET
5526	RED OAK	26"	POOR	POOR	POOR		REMOVE
5522	RED OAK	24"	FAIR	GOOD	GOOD	EXISTING PAVING	SAVE
4202	RED OAK	50"	FAIR	EXCELLENT	GOOD	EXISTING PAVING	SAVE
4203	WHITE OAK	48"	GOOD	EXCELLENT	GOOD	EXISTING PAVING	SAVE, STEEP SLOPE NEARBY
4204	BLACK CHERRY	18"	GOOD	GOOD	GOOD		REMOVE, NEAR END OF LIFE
4205	BLACK LOCUST	14"	FAIR	POOR	POOR		REMOVE, POOR CANOPY SHAPE



A map resulting from the tree survey identifies and briefly describes all trees of importance, shows critical root zones, and notes preliminary recommendations. Ideally, each tree's base elevation is also shown so that the potential impacts of grade changes can be easily determined.

Map courtesy of City of Gaithersburg, Maryland

## Step Two: Tree Survey

STEP TWO OF A FOUR-STEP PROCESS TO SAVE TREES DURING DEVELOPMENT OF ONE OR MORE LOTS.

This step may be combined with Step One, especially on smaller properties. However, this survey will be used in the engineering phases of the project, whereas tree stand delineation is intended to aid conceptual design.

The tree survey is more detailed and precise. It locates all trees that will be impacted by construction. And since root zones are the key to a tree's survival, it shows these areas as little circles around each tree. Traditionally, the critical root

zone has been considered synonymous with a tree's drip line. In reality, roots often extend far beyond the drip line. Doing an investigative dig to follow key roots outward from the base on sample trees will yield valuable clues to the root patterns on a particular site. Another method is to estimate 1 foot of radius for each inch of trunk diameter 4 feet above ground. Root zones should be enlarged accordingly on the tree survey map.

### MORE IN THIS ISSUE:

- Techniques for construction administration that saves trees
- Five essential communication needs
- A mini-directory of tree protection techniques
- And more

In this step, each tree is located with surveyors' or foresters' instruments, given a number that is keyed to its location on the map, and described in list form showing species, diameter, and the tree's condition.



**Arbor Day Foundation®**  
100 Arbor Avenue • Nebraska City, NE 68410