Tall trees, such as: maple, oak, spruce, and pine

Plant the right tree in the right place
Plant taller trees away from overhead utility lines

Medium trees, such as: washington hawthorn and goldenrain tree

Small trees, such as: redbud, dogwood, and crabapple

Tree pruning zone

40 feet height or less
25 feet height or less
20 ft
50 ft

The National Arbor Day Foundation
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For Immediate Release

Avoid Tree and Utility Conflict- Plan Ahead

CHAMPAIGN, IL (April 12, 2005) - Look up, look down. Follow this advice given by the International Society of Arboriculture (ISA) before deciding what type of tree to plant and where the tree will be planted. Proper tree and site selection will provide trouble-free beauty and pleasure for years to come.

One of the most important things to consider is the location of utility lines. “Trees that are small now can create significant problems in the future as they grow into maturity and into power lines,” says Derek Vannice, Executive Director, Utility Arborist Association (UAA). The location of utility lines should have a direct impact on tree and site selection. Both overhead lines and underground lines need to be considered.

Look up-Overhead Lines
Overhead lines for utilities such as electric, telephone, or cable television are the easiest to see but are the most taken for granted. These lines may appear harmless, but can be extremely dangerous. Children or adults climbing in trees that are too tall and growing in to the utility lines can be severely injured or possibly killed if they accidentally come in contact with the wires.

If tall growing trees are planted under utility lines, then they require pruning to maintain clearance because lines making contact with the wires can result in service interruptions. Utility pruning can result in the tree having an unnatural appearance. According to Vannice, “Planting a tall growing tree under a power line will not allow the tree to realize its proper size and form.” Proper selection and placement of trees around overhead utilities can help eliminate power outages, which reduces expenses for utilities and rate payers. Correct selection will also eliminate potential public safety hazards, and improve the appearance of landscapes.

Look down-Underground Lines
Potential problems that are much harder to recognize are those involving underground utilities such as water, sewer, and natural gas. Trees are much more than just what you can see. The root area of a tree is usually larger than the branch spread above ground. Tree roots and underground lines usually coexist without problems. However, if a tree is planted near one of these utility lines that needs to be dug up for repairs, the result could be damage to the root system of the tree.

The most important thing to remember is to determine the location of utility lines before planting. Often these lines are closer to the surface than we think, so verify the location of the lines with the utility company before digging the hole. Accidentally digging into a line can cause serious personal injury as well as costly interruption of utility service.
Planting Trees Around Homes
This illustration indicates approximately where trees should be planted in relation to utility lines.

- **Tall Zone** – Appropriate area for trees that grow as tall as 60 feet. Should be planted at least 35 feet from the house to allow for root development and to minimize damage to the house.
- **Medium Zone** – Appropriate for trees that grow up to 40 feet tall. Should have planting areas at least four to eight feet wide. These trees provide decoration or framing for your house.
- **Low Zone** – For trees that grow no more than 20 feet tall. Must be planted in an area extending at least 15 feet on either side of the utility wires. Low zone trees are good for areas with limited growing space, such as narrow planting areas (less than four feet wide).

**Right Tree-Right Place**
Planning before planting can help ensure that the right tree is planted in the right place. Proper tree selection and placement enhances your property value, prevents costly and sometimes unsightly maintenance trimming, and lowers the risk of damage to your home and property.

If you need help selecting the proper tree, consult a nursery or an ISA Certified Arborist or an ISA Certified Arborist/Utility Specialist. For more information on tree selection and new tree planting, or to find a Certified Arborist visit [www.treesaregood.com](http://www.treesaregood.com). To learn more about trees and utilities go to [www.utilityarborist.org](http://www.utilityarborist.org).

The International Society of Arboriculture (ISA), headquartered in Champaign, Ill., is a nonprofit organization supporting tree care research around the world. As part of ISA’s dedication to the care and preservation of shade and ornamental trees, it offers the only internationally-recognized certification program in the industry. For more information, contact a local ISA Certified Arborist or visit [www.isa-arbor.com](http://www.isa-arbor.com).

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