

# **RIGHT TREE RIGHT PLACE**

GTC Trees & Electrical Safety Seminar Bill Haws, GPC Utility Arborist Sr February 24,2021



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# **OVERVIEW**:

- Observations of common mistakes
- Tree species/site selection
- Overhead utility considerations
- Harmon Street Project case study (cultivating partnerships)





Potential consequences of poor planting choices:

- Newly planted trees fail to establish & flourish (waste of time and resource\$)
- Increased maintenance costs
- Trees don't reach full growth potential
- Cracked foundations, curbs, drives, & sidewalks
- Sight line issues; driving & pedestrian hazards
- Power outages: impacts to safety & service reliability





Right Tree, Right Place? *'If you fail to plan, you plan to fail'* (Common parking lot plantings)









## **Live Oaks Planted Under 3-Phase Primary Lines**









New Live oak planted directly under 3-phase lines, close to pole & transformer





# Palms (Tiki torch?)









What came first? The power lines or the tree?







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## Wrong Tree Wrong Place!







# Trees & Utilities: Think <u>Safety</u> + <u>Service Reliability</u>





### Planting Guide

Plant the right tree in the right place



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#### Tall Zone (3)

You may use larger types of trees in zone 3, including trees that grow 60 feet in height, but you should consider your neighbor's view and landscaping. Plant large trees at least 35 feet away from the house for proper root development and to minimize possible tree damage to your house or building. Higher trees could be used in any location 50 feet or more from power lines. Trees near your house can provide energy benefits by providing cooling shade in summer and giving protection from winter winds

Medium Zone (2) This zone is for trees that grow no taller than 40 feet and includes your lawn area. Landscaping should decorate or frame your home instead of hiding it from sight. Select trees first, then plant shrubs to complement the trees. Trees that grow no more than 40 feet in height are recommended for areas adjacent to the low zone to avoid branches that overhang power lines or trees that could topple over into the lines during severe storms.

Low Zone (1) These are plant species that will not exceed 25 feet in beight in the area adjacent to the Utility Right-of-Way. Taller existing trees in this zone will be pruned by the utility company to grow away from the lines. (In some cases, trees may be considered for removal by the utility company)

The minimum clearance distance determined by the local utility company must be kept clear of trees, shrubs and vines to provide safe access for utility workers (and to avoid damage to landscaping when maintenance or repairs are needed). It is important to note that high-voltage transmission lines require a larger clearance zone. A utility representative can assist in determining if a high-voltage line is located on the right-of-way adjacent to customers' property. Call **Residential Customer Service** at 1.888.660.5890 to get further information.

Utility Right-of-Way

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#### Choosing the best planting location

Research and planning are essential before planting a tree. Good intentions can often turn into disappointments and lead to serious problems. Cracked foundations, drives and sidewalks, clogged sewers, and power outages are commonly the result of a misplaced tree.

Trees can be used to promote energy savings. Deciduous trees planted on the south

Planting trees is an investment in your property. Selecting the best trees for your yard is an important decision. To avoid future problems, decide what type of tree you want for your landscape. Always select and plant trees with their mature height. and spread in mind. Many varieties of trees are available: tall, short, shade, ornamental, evergreen, deciduous, etc. Some require full sunlight, and some must be grown in partial shade.

home will provide shade. Evergreens planted to the north and northwest divert winter winds. with your local nursery, extension service, or library. Avoid planting large-growing trees in confined areas and under or nearby overhead utility wires. Trees and shrubs

and southwest sides of your

underground distribution lines or within 10 feet of the front or 3 feet from the sides of transformers for underground utilities.

must not be planted over

Mulch should spread over an area at least two times larger than the planting hole.

Most new trees do not need to be staked. Stakes and guys are used to prevent the tree from falling over as a result of root ball slippage in high winds. A small tree must be able to move in the wind and flex from its base for proper development.

You should not add fertilizers or do any pruning except. for the removal of dead or dying branches for the first growing season.

#### **Questions** to ask before selecting a tree

- Why are you planting the tree? Do you want shade, screening, spring flowers, fall color or simply something green?
- What will be the size of the tree at maturity? Does the tree have room to grow in width as well as in height?
- Will the tree form an upright, round or spreading crown?
- Will the tree bear any undesirable fruit or flowers? Or, will it produce any large seed crops that will litter the yard?
- Will the tree survive in the local climate and soil?
- Is the tree strong enough to bear loads of ice and wind without breakage?
- Is the tree relatively resistant to insects and disease?
- Will the size of the tree complement your home's architecture? For example, some very large trees can make a ranch house look out of proportion.
- What effect could the tree have on utility lines both above and below the ground?
- Could the tree be an inconsiderate choice? Will it shade your neighbor's roses or hang over on their property?







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# **Planting Zones**

Recommended plantings near power lines

Species	Botanical Name	Species	Botanical Name
Apricot, Japanese	Prunus mume	Holly, Myrtle	llex myrtifolia
Azalea	Rhododendron spp.	Holly, Yaupon	llex vomitoria
Bottlebrush Buckeye	Aesculus parviflora	Hydrangea	Hydrangea spp.
Boxwood, Common	Buxus sempervirens	Lilac, Common	Syringa vulgaris
Buttonbush, Common	Cephalanthus occidentalis	Magnolia, Saucer	Magnolia x soulangiana
Camellia	Camellia spp.	Magnolia, Star	Magnolia stellata
Chastetree	Vitex agnus-castus	Maple, Japanese	Acer palmatum
Chinese Fringe-flower	Loropetalum chinense var.	Olive, Fragrant	Osmanthus fragrans
Tonto Crapemyrtle	Lagerstroemia spp.	Olive, Holly Tea	Osmanthus heterophyllu
Fringe Tree	Chionanthus virginicus	Olive, Tea	Osmanthus fortunei spp.
Fringe Tree, Chinese	Chionanthus retusus	Persimmon, Japanese	Diospyros kaki
Dogwood	Cornus spp.	Pomegranate	Punica granatum
Dogwood, Corneliancherry	Cornus mas	Serviceberry	Amelanchier spp.
Firethorn, Formosa	Pyracantha koidsumii	Smoketree	Cotinus coggygria
Firethorn, Laland	Pyracantha coccinea 'Lalandei'	Snowbell Tree	Styrax spp.
Flowering Crabapple	Malus spp.	Sparkleberry Tree	Vaccinium arboreum
Forsythia	Forsythis spp.	Ternstroemia, Jade Tiara	Ternstroemia gymnanther
Holly, Brilliant	llex x aquipernyi 'Brilliant'	Viburnum	Viburnum spp.
Holly, Cassine or Dahoon	Ilex cassine	Waxmyrtle	Myrica spp.
Holly, Chinese	llex cornuta	Winterberry, Common	llex verticillata
Holly, Emily Bruner	llex x Emily Bruner	Witchhazel	Hamamelis spp.
Holly, Foster #2	llex x attenuata	Korean Yew, Southern	Podocarpus macrophyllu
Holly, Lusterleaf	llex latifolia		

Distribution lines feed electricity to homes and businesses. This recommended planting list is intended for use near our distribution rights-of-way only.

Geogia Power Company understands the desire of property owners to maintain plantings on the portions of their properties located within Georgia Power Company easements. However, the provision of reliable electric service must remain paramount. The permission for plantings set forth in this guide may be modified or revoked, in whole or in part, at any time and from time to time by Georgia Power Company in its sole discrittion. Current and future mesk, regulations and orders of federal and State authorities may also be applicable to and restrict or prohibit plantings. In connection with any such restriction, prohibitions modification or revocation, whether by Georgia Power Company is obe discrittion. Current and future networks and the structure of the structure of the prover Company reserves the right to require timining or removal, at Georgia Power Company is obe discrittion, of plantings previously permitted, whether under this guide or otherwise. No rights to maintain any planting will result from reliance on the guide.





#### Consider <u>ALL</u> Site Variables <u>BEFORE</u> Selecting Species



- Size of planting space (above & below ground)
- Soil type, drainage
- Exposure to sunlight
- Proximity & height of adjacent buildings
- Presence of utilities (below & above ground)
- Distance to street intersections (sight line)
- Proximity of hardscape, sidewalks, pedestrian traffic, etc...





## **Know Your Species & Cultivars**

- Mature height/width (plan for <u>future</u> size)
- Hardiness Zone
- Tolerances (soil, light, heat, salt, drought, drainage, susceptibility to breakage etc...
- Resistance to insects/disease
- Pruning/maintenance requirements
- Growth/branch habit, rooting habit, fruit production, foliage, blooms, etc...
- Seasonal color interest (i.e. blooms, fall color)











#### 'Chinese Snowball' Viburnum









#### 'Zhou Zhou' std Lorapetalum







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#### **Chinese Fringetree**









#### 'Cherokee Princess' Dogwood



#### 'Cherokee Brave' Dogwood















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#### 'Tonto' Crapemyrtle

#### 'Tuskeegee' Crapemyrtle









Description:

Cooperative project between the City of Savannah (COS), Savannah Tree Foundation (STF), and Georgia Power Company (GPC) to improve/beautify the streetscape on the Harmon Street corridor between E Gwinnett Street and E Anderson Street for the benefit of the community.

- Narrow 2-3' treelawns in close proximity to buildings & streets
- Overhead 3 phase primary electric distribution lines
- Inappropriate tree species for site. Primarily sweetgum trees. High maintenance trees prone to failure, heaving sidewalks & curbs, etc....
- Win, win, win! Opportunity for collaboration to effect positive change in the community, with positive PR for all partners





- A total of <u>28</u> undesirable trees targeted for removal (primarily sweetgum trees)
- GPC removed trees in cooperation with the City of Savannah (COS)
- COS removed debris & ground stumps
- COS prepared sites for replanting & selected more site appropriate trees (single stem crapemyrtles)
- New trees planted in cooperation with Savannah Tree Foundation and COS Mayor's Youth Council
- STF coordinated all volunteers, including the Savannah Youth Council, which offered the additional opportunity to educate kids about trees!
- Local news media ran the story on the evening news





# Harmon Streetscape Project (Before)









# **Tree Removal Phase**







# **Planting Phase**





































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The Harmon Street Project was a successful, collaborative, multi-agency right tree, right place project because all involved could 'see the forest for the trees' and recognize the long range benefits to the community.





# **Project Takeaway Message**

We all share common ground! Communicate and work together to find it! We can discover opportunities for education, collaboration, and partnerships that benefit <u>all</u> involved and the communities we serve.





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**Transmission Arborist Territories** 





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# **Thank You!**

# **Questions?**

