# Planting Trees Along Local Streets

*Description*

Local roads offer three areas to incorporate trees: the buffer, the median strip, and landscaped islands in cul-de-sacs or traffic circles (Figures 41 and 42). The buffer consists of the area between the edge of the road pavement and adjacent private property. The median strip is the area between opposing traffic lanes. Cul-de-sacs are large diameter bulbs that enable vehicles to turn around at the end of streets. They often involve large areas of pavement but present a good opportunity to plant trees in neighborhoods.

Trees planted along local roads can reduce air pollution and storm water runoff, provide habitat for wildlife such as birds, provide shade for pedestrians, reduce air temperatures, stabilize the soil, provide a visual screen and barrier from noise and highway fumes, and make for a visually pleasing environment for drivers and homeowners.

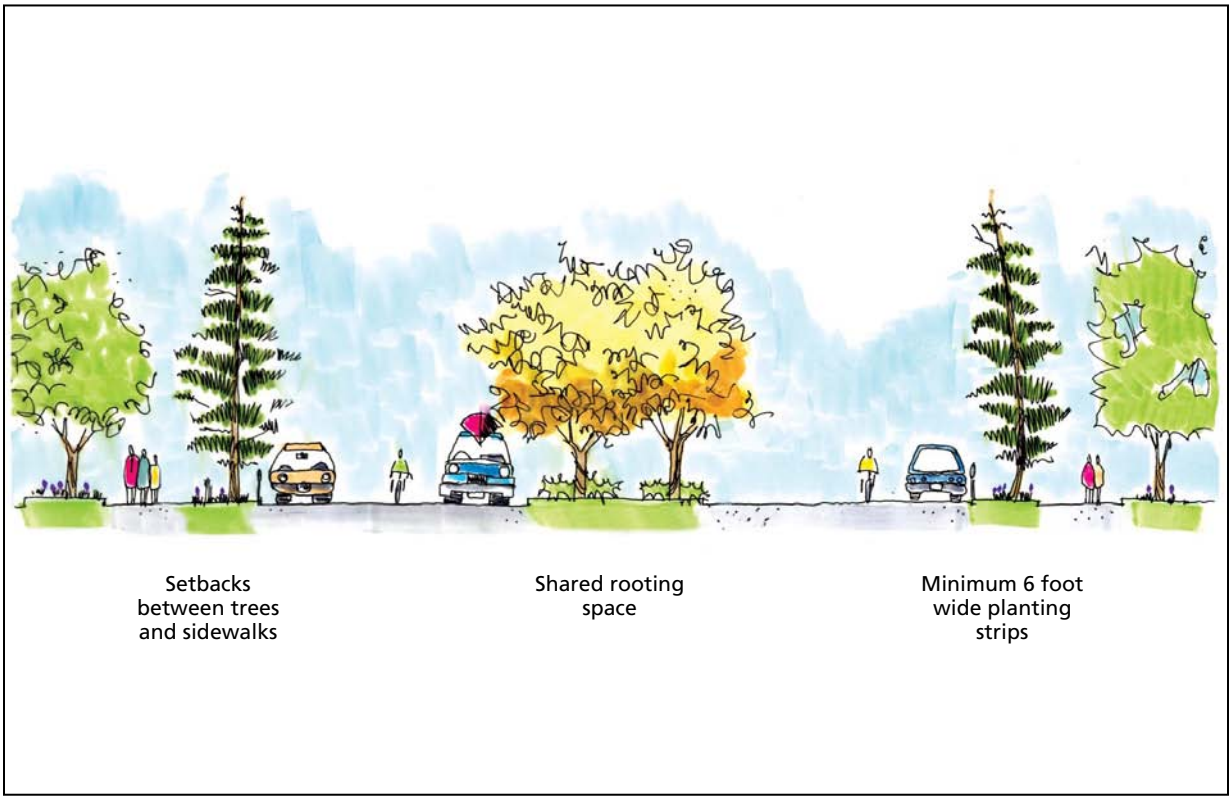


Figure 1. Trees can be incorporated into various planting areas along local roads.

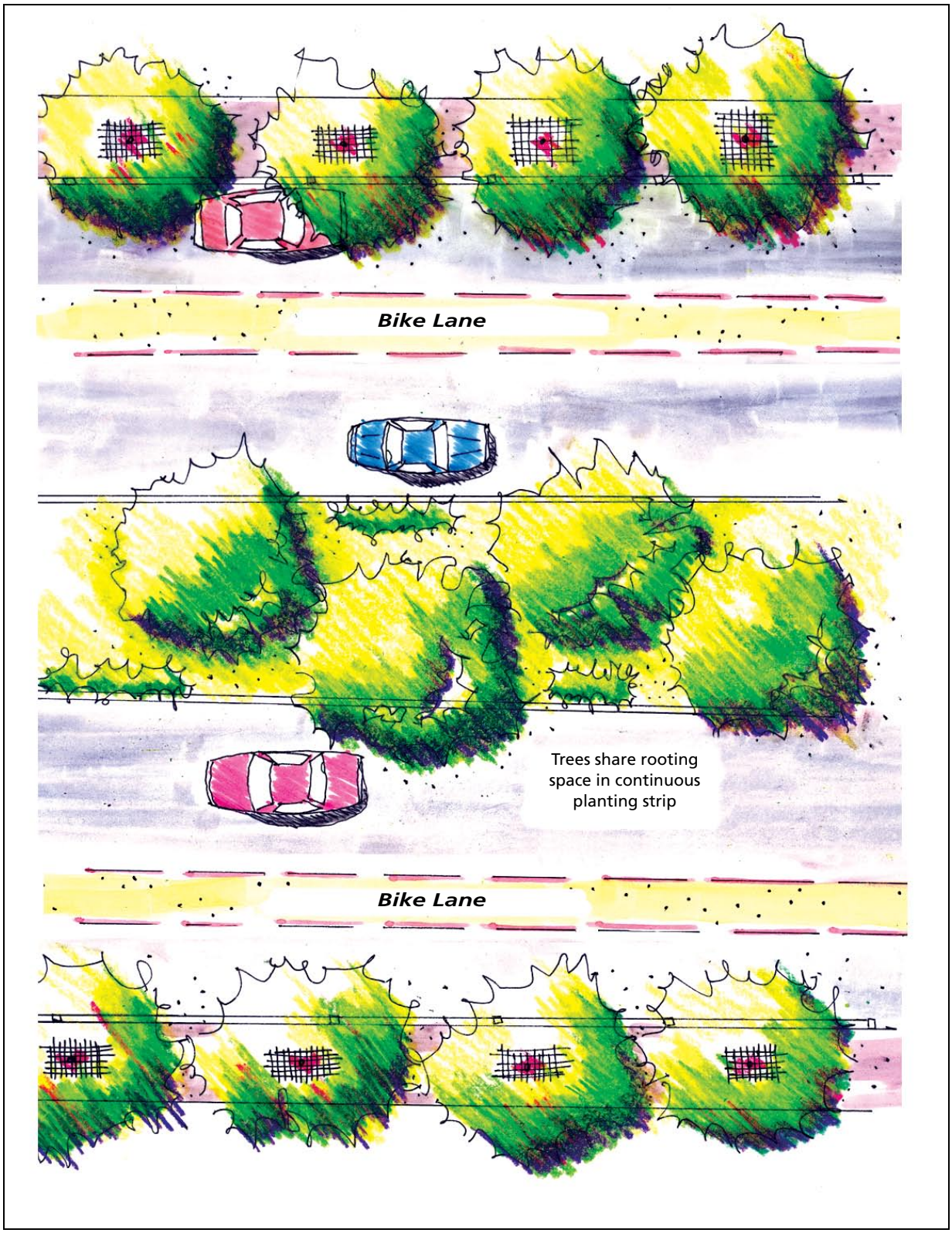


Figure 2. Tree planting along local roads (plan view) can utilize wide, linear planting areas to accommodate large, healthy trees.

## *Pre-Planting Considerations*

Before planting trees along local roads, designers need to address some important considerations:

- ☐ How to provide clear lines of sight, safe travel surfaces, and overhead clearance for pedestrians and vehicles
- ☐ How to prevent compaction of planting area soils by construction and foot traffic
- ☐ How to resolve potential conflicts between trees and utilities, pavement, and lighting
- ☐ How to make the road corridor more attractive with plantings
- ☐ How to reduce tree exposure to auto emissions, polluted runoff, wind, and drought
- ☐ How to provide enough future soil volume for healthy tree growth
- ☐ How to prevent damage to trees from cars
- ☐ How to address concerns about increased tree maintenance, damage to cars from trees (e.g., sap, branches) and roadway snow removal and storage

## *Species Selection*

Species selection is very important in the road corridor, because of the many potential urban stressors associated with roadway planting. A diverse mix of hardy species should be selected that are adapted to soil and site conditions and are tolerant of the following:

- ☐ Drought
- ☐ Poor or compacted soils
- ☐ Inundation (if used for storm water treatment)
- ☐ Urban pollutants (oil and grease, metals, chloride)

In addition, select tree species with these characteristics:

- ☐ Do not produce abundant fruits, nuts, or leaf litter
- ☐ Have fall color, spring flowers, or some other esthetic benefit
- ☐ Can be limbed up to 6 feet to provide pedestrian and vehicle traffic underneath.

### *Site Preparation*

- ☐ Clean up trash.
- ☐ Improve soil drainage by tilling and adding compost.
- ☐ Remove invasive plants if present.

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### *General Planting Guidance*

- ☐ Provide adequate soil volume, preferably by having at least a 6-foot wide planting strip, or locating sidewalks between the buffer and street to allow more rooting space for the trees in adjacent property.
- ☐ Provide adequate setbacks from utilities, signs, lighting, and pavement.
- ☐ Use tree clusters as an alternative to linear plantings, which will provide shared rooting space.
- ☐ Use structural soil under pavement to provide shared rooting space.
- ☐ Use groupings of species that provide fall color, flowers, evergreen leaves, and varying heights to create an esthetically pleasing landscape.

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### *Maintenance*

- ☐ Use mulch to retain moisture.
- ☐ Plan for minimal maintenance of trees (watering may not be feasible).
- ☐ Water trees during dry periods if possible.
- ☐ Have trees pruned by a qualified arborist to maintain sight lines and overhead clearance.
- ☐ Monitor and control invasive species.

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### *Potential for Storm water Treatment*

Local road buffers and median strips are ideal locations to treat storm water runoff from roads. Trees planted in these areas can be incorporated in storm water forestry practices such as bioretention and bioinfiltration facilities, alternating side slope plantings, tree check dams, forested filter strips, multi-zone filter strips, and linear storm water tree pits.

Trees planted in landscaped islands can be used to intercept rainwater and treat storm water runoff from the surrounding pavement. Bioretention and bioinfiltration facilities may be well suited to cul-de-sac islands. See Chapter 3 for more detail on storm water forestry practices.

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## *Further Resources*


Bassuk, N.; Grabosky, J.; Trowbridge, P.; Urban, J. [N.d.]. Structural soil: an innovative medium under pavement that improves street tree vigor. Ithaca, NY: Cornell University, Urban Horticulture Institute. www.hort.cornell.edu/department/faculty/bassuk/uhi/outreach/csc/article.html

Costello, L. R.; Jones, K. S. 2003. Reducing infrastructure damage by tree roots: a compendium of strategies. Cohasset, CA: Western Chapter of the International Society of Arboriculture.

Georgia Forestry Commission. 2002. Community tree planting and establishment guidelines. Macon, GA. www.gfc.state.ga.us/Publications/UrbanCommunityForestry/CommunityTreePlanting.pdf

Gerhold, H. D.; Wandell, W. N.; Lacasse, N. L. 1993. Street tree factsheets. University Park, PA: The Pennsylvania State University College of Agricultural Sciences.

Metro. 2002. Green streets: innovative solutions for stormwater and stream crossings. Portland, OR.

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