Planting Trees in Parks

Description

Parks provide ideal locations for reforestation since they often have large underutilized open areas for planting trees and are publicly owned. Benefits of planting trees in parks include wildlife habitat, shading, soil stabilization, reduced storm water runoff, and improved recreational opportunities, quality of life, and air quality.

Pre-Planting Considerations

☐ How do I address concerns about vandalism, safety, liability, and visibility?

☐ How do I integrate trees with recreational uses, such as ballfields and trails?

☐ How do I prevent soils in the planting area from being compacted by foot traffic?

☐ Can I make the area more attractive with plantings?

☐ Is there an opportunity to create habitat for wildlife?

☐ How do I address illegal dumping?

☐ How do I manage invasive plants?

☐ How do I address potential damage to trees from deer?

☐ How do I address potential conflicts between trees and street lights, utilities, and pavement?

☐ How do I prevent damage to trees from lawnmowers?

Species Selection

Selecting appropriate tree species is key because it can address most site conditions and is often more efficient than trying to change the site characteristics. Select a diverse mix of hardy, native species that are adapted to soils and site conditions.

Select species with similar growth rates when planting in groves (so they do not shade each other out). Limit use of understory trees and shrubs in areas where visibility and safety are important. Other desirable species characteristics include the following:

☐ Tolerates drought

☐ Tolerates urban pollutants

☐ Tolerates poor or compacted soils

☐ Tolerates inundation (if used for stormwater treatment)

☐ Large shade tree with a single leader that can be limbed up to 6 feet

☐ Provides food, cover, or nesting sites for wildlife

☐ Reflects local character and culture.

Site Preparation	☐	Clean up trash or other illegally dumped material
	☐	Remove invasive plants such as multiflora rose (may include mowing, cutting, or stump treatment)
	☐	Improve soil drainage if needed (e.g., amend with compost, mix soils to a depth of 6 to 18 inches).

General Planting Guidance	☐	Trees can be incorporated when developing landscaping plans for new parks. Select planting areas that are adjacent to existing forest or other natural areas or protect natural features such as streams (Figure 29).
	☐	Plant to provide shade around bleachers and ballfields. Use trees to create screens and boundaries between different areas.
	☐	Allow natural regeneration in less visible areas. Mow a strip outside the regeneration area and clearly mark with signs to educate the public and let them know it is intentional.
	☐	Plant street trees or specimen trees around the perimeter of the site at a spacing of 30 to 45 feet on center, to allow mowing in between for invasive species control.
	☐	Cluster trees to provide shared rooting space and an even canopy, using species that grow at about the same rate so they don't shade each other out. Use mulch rings and mow around the clusters.
	☐	Post signs to identify intentional plantings.
	☐	Use small plant materials (e.g., seedlings, whips) where foot traffic is not an issue and larger stock elsewhere. Mix stock where both understory and canopy trees will be planted (smaller understory stock and larger canopy stock), or in tree clusters to protect whips (plant large stock around perimeter and whips in center).
	☐	Where potential liability due to tree climbing is a concern, prune mature trees to the shoulder height of an adult and plant low shrubs or ground cover at tree base.
	☐	Use tree cages or benches to protect trees from vandalism, or plant species with inconspicuous bark or with thorns to discourage vandalism (Palone and Todd, 1998).
	☐	Plant only low growing herbaceous vegetation in areas where visibility is important for safety reasons. Do not plant evergreens, understory, or ornamental trees or shrubs in these areas. This includes within 10 feet of the centerline of trails, near seating areas, intersections and approaches to trails. Prune or limb trees in these areas up to 8 feet to maintain visibility (TCF, 1993). Provide trail breaks in case of emergency (TCF, 1993).
	☐	Plant trees where traffic is minimal, such as along fencelines. Protect trees and their critical root zone (generally a 25-foot radius) from foot traffic (soil compaction) by using recycled rubber or by directing foot traffic to certain areas using low metal fences, curbs, posts and chains, or porous pavers (Patterson, 1995)

Maintenance	☐	Plan for low maintenance of trees (frequent watering may not be feasible)
	☐	Use mulch to retain moisture and protect trees from mowers and foot traffic. Do not mulch deeper than 3 inches or build up mulch around trunk.
	☐	Mow around tree clusters, in setback areas, and in other areas that require access, safety, and visibility
	☐	Monitor and control invasive plants
	☐	Prune trees where necessary to maintain visibility and safety.

Potential for Stormwater Treatment

Trees planted in parks may be used to provide treatment of stormwater runoff since these areas often have large open areas available for stormwater treatment practices. Depending on available space, site conditions, and runoff volume, the following types of practices may be used: stormwater wetlands, bioretention and bioinfiltration, swales and filter strips. Trees can be incorporated into all of these treatment practices, and design and planting guidance for each is presented in Part 2 of this manual series.
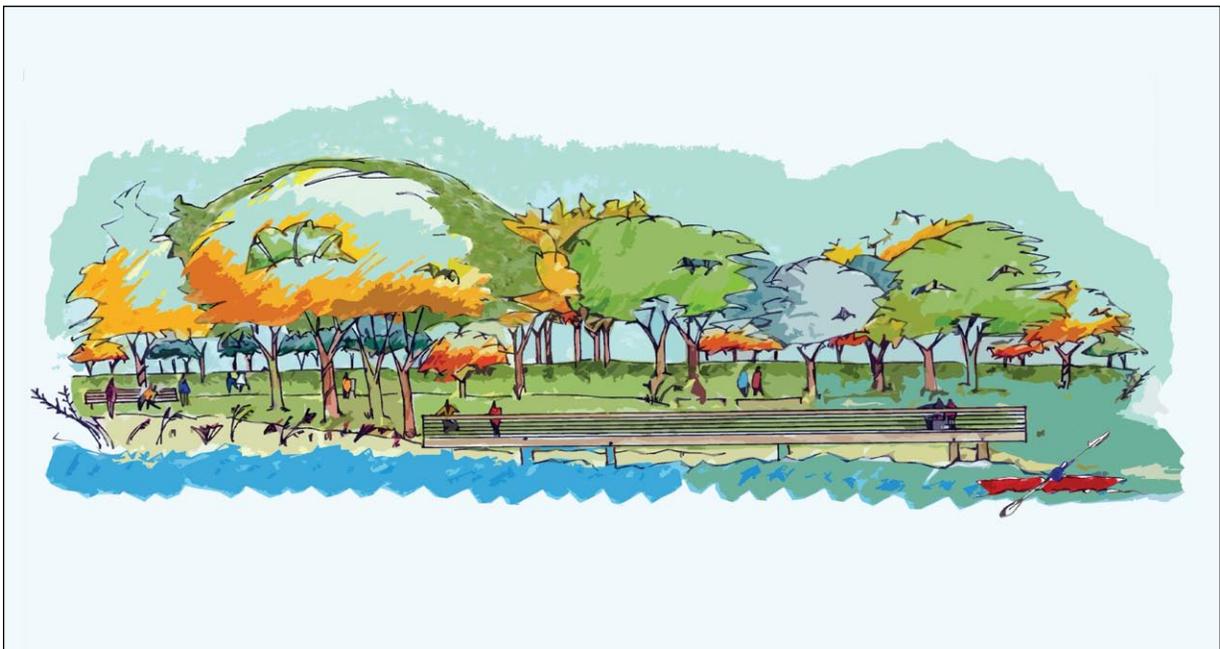
Further Resources

Northeastern Illinois Planning Commission (NIPC). 1997. *Natural Landscaping for Public Officials*. Chicago, IL.

Parks and People Foundation. Online: www.parksandpeople.org

The Conservation Fund (TCF). 1993. *Greenways: A Guide to Planning, Design and Development*. Island Press. Washington, DC.