

PARKING AREA TREES – URBAN ECOLOGY, GREEN LAWS, CHALLENGES AND DESIGN *

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Since 1997, Mr. Ruggiero has practiced landscape architecture at architecture and engineering firms and has designed parking facilities in a range of urban design and site planning projects. With formal training in horticulture, he has designed comprehensive plantings for many of these projects, and been recognized for their creativity and integrity. He graduated with honors in horticulture while earning a Bachelor of Science from The Ohio State University, and later earned a Master in Landscape Architecture from the Harvard University Graduate School of Design. In 2006, he won a Merit Award from the New York Chapter of the American Society of Landscape Architects. He is LEED certified and currently practices in New York City with AECOM Transportation.

Introduction

This chapter focuses on environmental issues and landscape mitigation measures related to surface lots in urban and suburban locations. The same issues and measures, however, are relevant for roof decks on parking structures. The chapter is geared for planners, administrators, management operators and designers involved in the following types of facilities in particular:

- Existing lots in urban locations, especially those slated for an upgrade, retrofit or expansion;
- Municipal and private lots in Central Business Districts and Business Improvement Districts;
- Existing and proposed surface lots in urban, suburban, and rural locations.

Parking professionals and designers will find the information herein not only practical and beneficial for business operations but also enlightening for themselves as citizens in their communities.

*The Design segment of this article, published in 2009 by IPI, is on the following pages. Bibliography for whole article is on last page.

DESIGN *Suburban Parking Landscapes Move Beyond the Monoculture Siren*

Many in parking development view tree plantings as merely a requirement in site development, and for it consider a handful of tree species - slightly beyond a monoculture - enough.

Monocultures (one species planting) are not permitted because they leave entire plantings vulnerable to disease and insect devastation. American Elms decimated in the last fifty years are an example. Yet even in communities with the most sophisticated landscape codes, planning boards will approve projects with plant lists that contain very few tree species.

Along these lines, many landscape architects do not view parking lots or their tree canopies as high design priorities. Still, for parking areas, those with penchants for planting design will vary the species mix and attempt to make a composition, mostly allowing the circulation structure to reveal itself. Although tree selection is restricted to the most resilient trees, such as street trees, facile use of them and will to use a few distinctive trees to highlight entries make client parking areas *a lot* more interesting. Topographical variations and bioretention areas make sites even more interesting.

Parking areas are opportunities to create interesting spaces without strenuous effort. When the parking tree matrix is thoughtfully combined with screening evergreens and existing trees the result is akin to a landscape garden, an effect seen in the best of parking area landscapes.

The most admirable parking areas result from tree canopies that are integral to site *spatial* design, and not merely afterthoughts to fulfill zoning requirements, like frosting of a cake to make the area “pretty.” In other words, parking areas should be thought of as worthy *landscape architecture* projects. This chapter has been written in the hope that parking areas are regarded as such *routinely*, are shaded and accentuated well with trees, and further, that landscape maintenance can be sustained without budgetary strain - to benefit owners, users, and the general public.

Helpful Planting Measures

1. Distinguish entry trees.
2. Provide transparency at building front (i.e., columnar habit trees).
3. Differentiate trees between interior and end islands.
4. Provide filter strip.
5. Integrate evergreen screening.



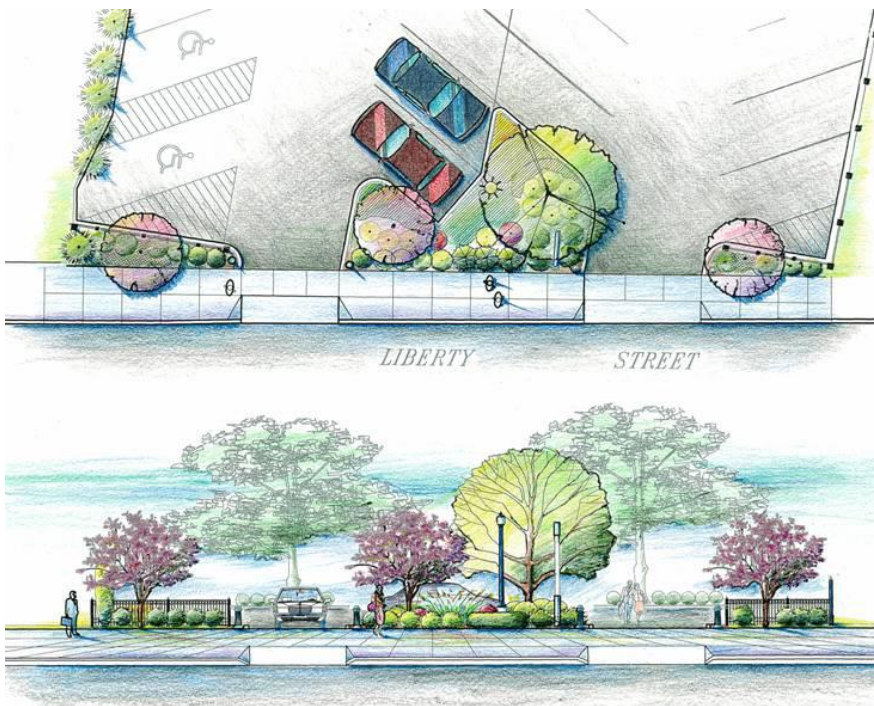
Rendering and planting plan by M. V. Ruggiero, 2006

DESIGN *Business Districts, Urban Revitalization & Parking Canopy*

Nationwide, parking areas occupy considerable urban land, particularly in central business districts. Aside from mitigating local heat islands and other environmental issues, individual trees and tree canopies contribute to good urban form. They help create hierarchy of urban spaces, highlight civic buildings, and downplay certain land uses.

Measures that are common to revitalize downtown areas are streetscape initiatives along Main Street. While agencies do commendable work to create urban canopies through these initiatives, revitalization effort can be sustained through thoughtful tree plantings in downtown parking areas. When developed in unified fashion to create a continuous canopy, downtown lots can form a nucleus of greenery and become a catalyst for further downtown revival.

When upgrades to downtown lots are addressed in isolation without cohesive urban design, opportunity for that is missed. Where urban cohesion is a priority, design objectives must be stated clearly to the client, contractors and the public, so that goals come to fruition through construction and ongoing maintenance thereafter.



Parking Area Entry

Harmonizing here with the tree canopy design are dwarf evergreen shrubs and salt tolerant perennial plantings. The plantings complement lot signage and ornamental light fixtures, fencing, and bollards to create an appealing entry.

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Organization & Websites

International Society of Arboriculture (ISA)
Urban Forestry Council
Unites States Green Building Council (USGBC)