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Select and Locate Street Trees Properly

It's easy to get street trees wrong; here are some important tips.

The right tree: Given their potential health and environmental impacts, street trees, even in shopping districts, should be selected for their capacity to grow large and hefty. In tight circumstances, taller and narrower, but still substantial, species should be chosen. Smaller flowering trees can be used to create a special experience on a unique street, but should remain an exception to the rule. Most palm trees are merely decorative, and should not find their way onto city tree lists unless your city has Palm in its name. Or you could change the name.

Be consistent: The best streets develop a unique character by containing the same tree planted consistently down their full length. While fear of blights like Dutch elm disease has led some cities away from this approach, the risk can be averted by planting similar-appearing but genetically distinct subspecies side by side.

Proper spacing: The objective with street trees is to achieve “arboring:” canopies that touch at maturity. This means ideally planting the tree at an on-center spacing distance no greater than its anticipated diameter. Tighter spacing works just fine, and even the broadest trees can be happily planted 40 feet apart; any farther is not adequate to line a street. The proper

spacing for most urban trees is 30 feet on-center. Narrower species chosen due to a tight fit can be planted as closely as twenty feet on-center, budget permitting. One tree per parking space is a nice solution along a main street. Spacing should be as consistent as possible to create a legible rhythm.

Line ‘em up: While not essential, aligning the trees on both sides of the street contributes markedly to the quality of place, as it helps arboring to occur over the roadway. When three or more rows of trees are used, as with a median, alignment becomes even more impactful. In tighter circumstances, an aligned diagonal stagger can be a good solution. The challenge is to design each street’s tree cover in a way that imparts the greatest degree of rhythm and order to the street space.

Double allées: When sidewalks are wider than 20 feet, it often makes sense to insert a second row of trees on the inboard side of the walking zone. This solution, which can be seen on New York’s Fifth Avenue against Central Park, costs a bit more, but pays off in multiples in creating places of value.

Build to the corner: When designing a block with street trees, the trees closest to the corners should be located



In tight spaces, a vertical species like ginkgo biloba can provide ample cover—and fall color.

about 10 feet from the crosswalk edge. City codes that push them farther away from intersections need to modify their sight-triangle requirements.

No medians without trees: A median with regularly spaced street trees contributes markedly to a street's safety, comfort, and beauty. A median without trees makes a street look and function like a highway. Municipal engineers must sometimes be reminded that the era of referring to trees as FHOs—Fixed and Hazardous Objects—is over.

Structural soil and pervious top: The conventional tree-pit is designed for failure. Best practices have advanced, and the proper foundation for an urban street tree is a continuous trench of structural soil—an engineered, root-friendly, load-bearing substrate of crushed stone and soil—that should

sit beneath the entire sidewalk to a depth of about 3 feet.²³⁷ This trench is well drained underneath, and topped with a pavement that, at least within the tree-zone, allows ample infiltration. Pavements built on structural soil cost more, but they allow trees to thrive without creating the sort of root heaves that create accessibility failures and demand expensive replacement.

RULE 79: On most streets, plant trees of a consistent large species in a regular pattern with a spacing distance of 20 to 40 feet, depending on the tree. Use double allées where they fit, and put trees in all medians. Place urban street trees in structural soil following current best practices.