

## **Standard No. 030.01**

## **TREE PLACEMENT**

---

The following Tree Placement Standard consists of three parts: Statement of Intent, Tree Placement Standards for Close Section Roadway Segments, Tree Placement Standards for Open Section Roadway Segments and General Standards Applicable for All Roadway Types.

### **INTENT:**

To establish appropriate locations for placement of street trees on county roads that provide safe facilities for all users and attain the environmental, aesthetic, character, and place-making objectives for developed areas in the county. Street trees may provide a number of valuable functions including enhancing community character, defining the roadway edge, providing a visual buffer for abutting properties, contributing stormwater and air quality benefits, shading the roadway and sidewalk, and in some cases, encouraging lower operating speeds. Improperly sited trees, however, may pose a safety hazard and may obstruct sight-lines to intersections, important traffic control devices and inhibit restoration of utilities. Improper locations of trees may also result in poor tree health. The following standard is intended to achieve the desired benefits of trees and to avoid the unintended hazards described above.

### **STANDARD:**

#### **Closed Section**

- On closed section roadway segments where the target speed is less than or equal to 35 mph, trees should be placed in the buffer panel between the curb and the sidewalk.
- On closed section roadway segments where the target speed is 40 mph, tree species from the approved "Small Street-Tree" list may be placed in the buffer panel between the curb and the sidewalk.
- On URBAN and Suburban closed section roadways segments where the target speed is equal to 40 mph, a 10 feet minimum clear zone should be provided when placing trees. Widths of the gutter pan, parking lane and/or bike lane may be measured as clear zone width. When the distance between the edge of the right-most motor vehicle travel lane and sidewalk is less than 13 feet, trees must be placed outside of the sidewalk.
- On SUBURBAN closed section roadway segments where the target speed is greater than 40 mph, apply the clear zone dimensions from Table 3.1, pg 3-6 of AASHTO's 2002 *Roadside Design Guide* (or the latest edition thereof) based on the design speed and estimated ADT's.
- On RURAL closed section roadway segments where the target speed is greater than or equal to 40 mph, apply the clear zone dimensions from Table 3.1, pg 3-6

Montgomery County Context Sensitive Road Design Standards  
Standard 030.01- Tree Replacement

of AASHTO's 2002 *Roadside Design Guide* (or the latest edition thereof) based on the design speed and estimated ADT's.

- On closed section roadway segments where trees may be located between the curb and sidewalk as noted above, the following guidelines apply:
  - A six (6) foot buffer panel is encouraged for placement of a tree which should be centered in the buffer panel. In retrofit situations or for species that can tolerate a narrower buffer, a four (4) foot minimum buffer is required with the tree centered in the buffer panel.
  - When the distance between the sidewalk and the back of curb is greater than 6 feet and less than or equal to 10 feet, the tree should be located 3 feet from the edge of the sidewalk.
  - When the distance between the sidewalk and the back of curb is between 10 and 14 feet, the tree should be located 7 feet from the back of the curb.
  - When the distance between the sidewalk and the back of curb is greater than 14 feet, the tree should be centered in the landscape buffer.
  - When the cross section elements permit, the designer should place trees to achieve the clear zone dimensions from Table 3.1, pg 3-6 of AASHTO's 2002 *Roadside Design Guide* (or the latest edition thereof) through modification of the placement guidelines listed above.

### Open Section

- In open section residential roadway classifications, trees may be located on the foreslope with a minimum clear zone of 6 feet for tertiary roads, 9 feet for secondary roads and 12 feet for primary roads.
- For all other open section roadway classification segments with target speeds less than or equal to 40 mph, trees should be placed at a location above the bottom of a swale on the backslope at least 14 feet from the edge of the right-most vehicle travel lane.
- For all open section roadway segments with target speeds greater than or equal to 45 mph, the designer should apply the clear zone dimensions from Table 3.1, pg 3-6 of AASHTO's 2002 *Roadside Design Guide* (or the latest edition thereof) based on the target speed and estimated ADT's. Trees should be placed at a location above the bottom of a swale on the backslope or closer to the edge of the right-of-way.

### General Standards for All Roadway Types

- Generally, dimensions are measured to the center of the tree.
- The width of bike lanes, parking lanes, shoulder and gutter pan may be measured as clear zone width.

Montgomery County Context Sensitive Road Design Standards  
Standard 030.01- Tree Replacement

- Trees may not be planted where the tree placement will impair a driver's cone of vision to intersections, signage, traffic control devices, crosswalks, and other key features along the roadside. As a general guideline, the driver should have clear sight-lines to a point 10 feet outside the edge of the travel lane from a distance of 100 feet. When engineering studies verify that driver's line of sight is impaired, trees should be offset from the intersection to improve sight distances. In no instance should trees be planted within 30 feet of an intersection.
- Trees may not be planted within 5 feet of a utility appurtenance (manhole, valve, or other structure, except a SWM structure intended to incorporate a tree as part of the design) or 10 feet of a driveway, fire hydrant, or fire service appurtenance.
- When adjacent to a sidewalk, trees should be at least 3 feet from the edge of the sidewalk.
- The longitudinal spacing of the trees should be determined on a project by project basis to accommodate emergency service access requirements, stormwater management structures, traffic signs, street lights, transit stops and the three preceding general standards while achieving the desired tree canopy cover and placemaking objectives.
- For reconstruction projects, existing trees may be maintained closer to the edge of the right-most motor vehicle travel lane if the safety record of the roadway does not include a crash history involving trees and if the reconstruction does not cause the right-most vehicle travel lane to be any closer to the trees than existed prior to the reconstruction.
- Trees planted in a median must meet the appropriate lateral offsets from travel lanes defined in the closed and open section components of this standard based on the area type and target and design speed. Median trees should also satisfy the general requirements enumerated in this section of the standard.