PURPOSE:

To establish standards and requirements for the design, installation, and maintenance of private landscaping placed within public right-of-way by any person, entity, corporation, company, subdivision, or organization.

BACKGROUND:

Landscape additions must meet standards of public safety, environmental and economic sustainability, and fit aesthetically within the context of the surrounding area. This procedure outlines requirements for landscape additions that fulfill one or more of the following goals:

- Increasing shade and vegetative cover
- Creating and improving neighborhood identity at subdivision entries and along roadsides
- Providing stabilization and erosion control
- Increasing visual interest and creating “sense of place” in roadside and median areas devoid of vegetation
- Taking advantage of excess roadway stormwater runoff by creating water harvesting areas, and
- Fulfilling mitigation requirements of Title 18.72, the Native Plant Preservation Ordinance (NPPO) and Title 16.30, Riparian Habitat Protection.

DEFINITIONS:

Landscape is defined as all vegetation (both naturally occurring native and introduced vegetation), irrigation, and hardscape elements, such as decorative paving, benches, rocks, boulders, and decorative walls. It includes native grasses and other understory native plants, in addition to the plants on the Arizona Department of Agriculture’s Protected Native Plants List (1).
**PROCEDURE:**

1. Landscape additions not required by the NPPO shall be identified on a planting plan and submitted as part of the **Right-of-Way Use Permit**. The plan shall adhere to Section 3 of this procedure, be drawn to scale and include the following:

   - Bar scale and north arrow
   - Location Map
   - Right-of-way line
   - Pavement, including existing curbs and paths
   - Utility locations—overhead and underground
   - Topography—existing and proposed
   - Structures in vicinity—i.e. walls, utility boxes, building, signs
   - Street names
   - Limits of disturbance used in constructing project
   - Sight visibility triangles
   - Drainage structures—i.e. curb inlets, drainage basins, culverts, etc.
   - Existing vegetation in and adjacent to the project area
   - Existing washes
   - Proposed plant types, including scientific name, container size, and quantities
   - Lighting
   - Existing Regional Flood Control District (RFCD) riparian areas (if applicable)
   - Method of irrigation (if applicable)

2. Landscape additions that are required by the NPPO shall be shown on the project’s landscape plans submitted with the Tentative Plat or Development/Site Construction Plan. A separate landscape plan for the right-of-way is not required. All proposed landscaping shall adhere to Section 3 of this procedure.

   - Landscape plans shall be reviewed by Development Services Department (DSD) staff assigned to review NPPO submittals and/or by RFCD staff assigned to review riparian habitat disturbance. Landscape mitigation shall be designed to be compatible with adjacent landscape bufferyard plantings.
   - Landscape mitigation plans shall indicate watering methods that will insure long-term survival of plants. If an automatic irrigation system is used, an irrigation plan shall be submitted along with the landscape plan. Cacti generally do not require automatic
irrigation systems, while irrigation systems are typically recommended for tree plantings. See Section 3 (II) for irrigation requirements.

3. Landscape Guidelines

I. All proposed landscape plantings shall follow these requirements:

- Required setbacks

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Tree (Greater than 20’ canopy spread at maturity)</td>
<td>8’-0” minimum from edge of shoulder or pedestrian path</td>
</tr>
<tr>
<td>Small Tree/Large Shrub</td>
<td>4’-6” minimum from edge of shoulder or pedestrian path</td>
</tr>
<tr>
<td>Small Shrubs/Cacti/Accents</td>
<td>4’-0” minimum from pedestrian path, face of curb, or edge of paving</td>
</tr>
</tbody>
</table>

**Note:** Large trees have > 20’ canopy spread at maturity. Small trees have < 20’ spread at maturity.
• Plant selections:

  a. Native plants observed growing in the immediate site vicinity or found historically within the project area should be used.
  b. When a wider selection of plants is desired, plants shall be selected from the Low Water Use Drought Tolerant Plant List (2).
  c. Plants not meeting the recommended setback distances require more frequent pruning and maintenance.
  d. Consideration should be given to placing appropriate shrubs and small trees within clear zone limits. No individual part of the plant shall be larger than 4" in diameter at mature size. Trees and shrubs that are twiggy in character with multiple branches are appropriate. Many desert trees could be classified as large shrubs and can be used in the clear zone.
  e. Trees shall be selected that are multi-trunk or low branching and do not require staking. This form is typical of native desert trees. Planting structurally stable trees that do not require staking is preferred. If staking is used, it shall comply with American Nursery Association standards.

II. Invasive Non-Native Species: If invasive non-native species are present, the landscape plan will show the approximate locations of the invasive, state the schedule for, and type of treatment.

III. Irrigation: The method of watering new plantings is to be identified in the planting or landscape plan. Proposed plantings of cacti and succulents may not require supplemental irrigation depending on what time of year they are planted. Natural rainfall may be supplemented with drip irrigation system when necessary. Irrigation methods may include one or a combination of the following:

  • If the landscaping in the right-of-way requires only minimal irrigation, emitter lines may be extended from the adjacent private property’s irrigation system into the right-of-way and shall meet the specification for emitters under 808-2.13 of the Pima Association of Governments (PAG) Standard Specification for Public Improvements or unless approved otherwise by the County.
  • If a more extensive irrigation system is required, an irrigation system either within the right-of-way with its own dedicated water meter and shut-off or outside of the right-of-way on private property in conformance with Figure 2.
may be used. In either case, approval from Pima County Department of Transportation (PCDOT) is required.

- Landscape irrigation system installed within the right-of-way shall adhere to the latest requirements specified in the PAG Standard Specification for Public Improvements.
- Stormwater and rainwater harvesting may be incorporated in order to take advantage of natural stormwater runoff and rainfall. Basins shall be shown on the landscape plan. Maximum depth of basins = 1 foot with a minimum of 3 inches of freeboard. Guidance on stormwater harvesting basins can be found at [Low Impact Design and Green Infrastructure Guidance Manual](3).
- Truck, hand, or other manual watering methods may be used.

![Figure 2: Extending Private Irrigation into Public Right-of-way](image)

- Irrigation plans for the development shall be provided with the submittal.
- All irrigation piping within the right-of-way shall be PVC Schedule 40.
- The portion of the irrigation system extending into the right-of-way shall be accessible to PCDOT in accordance with the diagram at left.
- An isolation valve shall be installed within the right-of-way to enable the system to be shut off by PCDOT when necessary.
IV. Maintenance:

- The person, entity, corporation, company, subdivision, or organization installing plantings in the right-of-way is responsible for the first year of landscape establishment. PCDOT shall assume landscape maintenance responsibility after one year for all landscape enhancements that have been approved under this Standard Operating Policy and Procedure. Privately installed plantings that mature to establish growth outside of the right-of-way on private property may be trimmed or removed by PCDOT.
- All landscape additions in which plants non-native to the Tucson region are selected or that are planted closer than recommended distances shall be maintained in perpetuity by the applicant.
- Maintenance activities performed within the right-of-way by the applicant are to be identified in a License Agreement with the County.

V. Disclaimer:

It shall be recognized as a condition of the license agreement that PCDOT may remove or trim plants in the County right-of-way at any time for road or shoulder widening or any purpose deemed necessary for the health, safety, and welfare of the public.

REFERENCES

