

Chapter 9

Landscape

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Chapter 9

Landscape

9.1 General

"Landscape" or "Landscaping" means any vegetation, mulches, irrigation systems, and any site amenities, such as, street furniture, specialty paving, tree grates, walls, planters, fountains, fences, and lighting (excluding public utility street and area lighting), as defined in **Rule Chapter 14-40.003, Florida Administrative Code, Highway Beautification and Landscape Management**. Community Identification Structures are also considered landscape site amenities and are discussed in **Section 9.4**.

Landscape plans should be designed to complement and enhance the natural and man-made environment. This may include irrigation systems and site amenities such as street furniture and specialty pavement, tree grates, walls, planters, fountains, fences, and lights.

To the extent practical, plans should consider the following elements:

1. Conservation of natural roadside growth (vegetation) and scenery.
2. Relocation of existing vegetation.
3. Selective clearing and thinning of existing vegetation.
4. Natural regeneration and succession of native plants.
5. Plants purchased from Florida based nurseries.
6. Large plants (plants equivalent or larger than those grown in 5 gallon containers) with combined value of 50% or more of the estimated value of all plants specified in the plans.
7. Florida native plants with known provenance (original source of plants stock) to be as close to planting site as possible.
8. Plant selection and placement that:
 - a. Preserves visibility of signage
 - b. Minimizes roadside maintenance requirements
 - c. Reduces stormwater runoff volume and velocity
 - d. Promotes water conservation
 - e. Minimizes impacts to natural areas

- f. Minimizes soil erosion
 - g. Avoids conflicts with existing and proposed above and below ground utilities
9. Irrigation system design that:
- a. Avoids overspray into the roadway, sidewalks, transit stops, etc.
 - b. Complies with state and local requirements (e.g., Florida Building Code, Water Management Districts, Florida Administrative Code, etc.)
 - c. Promotes water conservation (e.g., control system technologies including SMART irrigation technologies, reclaimed and reuse sources, etc.)
 - d. Durable materials (e.g., traffic rated materials, ultraviolet light resistant materials, etc.)
 - e. Considers local government entity maintenance standards and practices
10. Recycled and recyclable materials.

The Landscape should be designed to permit sufficiently wide, clear, and safe pedestrian walkways, bicycle ways, and transit waiting areas. Care should be exercised to ensure that requirements for sight distances and clearance to obstructions are observed, especially at intersections.

Landscape plans, including components such as irrigation systems, must be designed, constructed and maintained in conformity with the **Manual on Uniform Traffic Control Devices**, the **Standard Specifications for Road and Bridge Construction**, the **Design Standards**, Florida Statutes, Florida Administrative Code, Florida Building Code, and this manual. No landscaping shall screen from view a legally permitted outdoor advertising sign. Additional requirements related to irrigation systems as set forth by local agencies and water management districts shall be adhered to. The limits of the screening prohibition are provided in **Section 479.106(6), Florida Statutes**. Additional information is found in **Rule Chapter 14-40, Florida Administrative Code (F.A.C.)**. Landscape plans require a temporary traffic control plan in accordance with FDOT **Design Standards** (see **Chapter 10** of this volume).

When a legally erected and permitted outdoor advertising sign is within the project limits (adjacent to the right of way), and there is no permitted view zone, the landscape architect will notify the sign permittee that a highway landscape project is proposed. An example letter and other useful information are available at www.myfloridabeautiful.com. The sign permittee will have 30 days to establish a view zone by submitting an **Application to Permit Vegetation Management at Outdoor Advertising Sign** (form **650-050-06**) that proposes a view zone (see **Rule Chapter 14-40, Part III, F.A.C.**). If an **Application to Permit Vegetation Management at Outdoor Advertising Sign** is submitted within 30 days, a view zone will be established in accordance with the provisions of **Rule Chapter 14-40** upon approval of the application by the Department. If the sign owner does not respond to the notice within the 30-day time frame provided, and the specific location of the view zone is not established by permit or agreement, the view zone will be within an area beginning at a point on the edge of pavement perpendicular to the edge of the sign facing nearest the highway and continuing in the direction of approaching traffic for a distance of 350 feet for posted speed limits of 35 miles per hour or less and 500 feet for posted speed limits over 35 miles per hour (see **Section 479.106(6), F.S.**). Contact information for any permitted sign may be obtained by contacting the State Outdoor Advertising Administrator, Florida Department of Transportation, 605 Suwannee Street, MS 22, Tallahassee, Florida 32399-0450.

9.1.1 References

Additional information regarding landscape plans may be found in:

1. ***Florida Accessibility Code for Building Construction***
2. ***Florida-friendly Best Management Practices for Protection of Water Resources***
3. ***Florida's Best Native Plants; 200 Readily Available species*, Gil Nelson, 2003, University Press of Florida**
4. ***Florida Building Code Highway Beautification Policy # 000-650-011***
5. ***FDOT Drainage Manual***
6. ***FDOT Utility Accommodation Manual***
7. ***FDOT Voluntary Code of Conduct* regarding Invasive exotic plants**
8. ***FDOT-Florida Highway Landscape Guide.***
9. ***Florida Power and Light-Right Tree for Right Place:***
http://www.fpl.com/residential/trees/right_tree_right_place.shtml
10. ***Highway Beautification Policy # 000-650-011***
11. ***Highway Landscape, Beautification, and Plan Review Procedure (Topic No. 650-050-001).***
12. ***Identification & Biology of Non-Native Plants in Florida's Natural Areas*, Langeland and Burks, 1998, University of Florida.**
13. ***Rule Chapter 14-40, Florida Administrative Code, Highway Beautification and Landscape Management.***
14. ***Transit Cooperative Research Program Report 19 – Guidelines for the Location and Design of Bus Stops* (for additional guidance in areas where transit is present).**
15. ***Turf and Landscape Irrigation Best Management Practices, Irrigation Association, April 2005.***
16. ***Waterwise Florida Landscapes*, 2001, Florida's Water Management Districts.**
17. ***Rule Chapter 62-610, Florida Administrative Code, www.flrules.org***
18. ***Sections 125.568, 166.048, 255.259, 335.167, 369.251, 373.185, 373.227, and 581.091 Florida Statutes, www.leg.state.fl.us/statutes***
19. ***www.MyFloridaBeautiful.com***

9.2 Maintenance Plan

A performance based maintenance plan for all proposed landscape improvements must accompany the landscape plans. This may be on separate plan sheets or written documents. This maintenance plan will not be part of the construction contract documents, and does not affect the contractor's responsibility for plant establishment during the warranty period. The maintenance plan is intended to make sure that the landscape architect and the agency responsible for maintenance understand what resources and practices will be necessary to maintain the landscape in a safe and vigorous condition that meets the project objectives many years after construction is completed. The intent of design elements, such as to screen a view, maintain a clear sight distance, watering schedule, or assist with water retention, must be included in a description of the project, accompanied by a written or graphic guide describing the performance requirements of the maintaining agency. The maintenance plan shall define the limits of the maintenance activities that will be performed. The maintenance plan must also include performance requirements necessary to maintain and manage the following:

1. Sight distance
2. Horizontal and vertical clearance
3. Accessibility,
4. Plant health, form, height and spread
5. Turf (mowing)
6. Mulch thickness and cover
7. Edges
8. Weeds and litter
9. Irrigation system(s)
10. Erosion control
11. Irrigation
12. Hardscape, lighting, benches, and site amenities
13. Other requirements necessary for the design intent to be fulfilled.

Information setting forth the maintenance requirements for an irrigation system and its components shall also be provided. This may be on separate plan sheets or written documents. This maintenance plan shall not be part of the construction documents and does not affect the contractor's responsibility for the irrigation system and associated components installation. As with the landscape maintenance plan, the irrigation maintenance plan is intended to make sure that the landscape architect and the agency responsible for the maintenance understand what resources and practices will be

necessary to maintain the system and its components to ensure safety, efficient water delivery, and conservation of water resource many years after construction is completed. The maintenance plan shall define the limits of the maintenance activities that will be performed. A description of the project must be included which conveys:

1. Requirements setting forth the frequency for scheduled inspection
2. Reporting parameters for performance conditions
3. Detailed requirements associated with the system components inspection against the original design parameters
4. Adjustments necessitated over time as the landscape evolves
5. A written or graphic guide describing the plant water needs across changing weather conditions at the station or zone level

The maintenance plan must also include performance requirements necessary to maintain and manage the following:

1. Performance of backflow prevention
2. Water supply and pressure requirements
3. Desired operating pressure for pressure regulators
4. Filters and filtration requirements
5. Operation of controller, including battery backup
6. Sensors
7. Valve flow and operation
8. Flow regulators
9. Head adjustment and spray pattern
10. Testing requirements
11. Manufacturer specifications and user manuals
12. Winterization requirements (if applicable)
13. Future audit requirements
14. Other requirements necessary for the performance intent to be fulfilled

When necessary, the maintenance plan must include a temporary traffic control plan.

When the landscape project is to be maintained by the Department, a maintenance cost estimate based on anticipated maintenance activities must be attached to the plans. When the landscape and irrigation project is to be maintained by a local governmental entity, the

maintenance plans will become an exhibit to the maintenance agreement. The local government should participate during development of the maintenance plan.

For Landscape Plan contents refer to **Chapter 26** of **Volume 2**.

9.3 Cost Estimate

A cost estimate for all proposed landscaping must accompany the landscape plans. This must be on separate plan sheets or written documents. This cost estimate will not be part of the construction contract documents. The cost estimate is intended solely for use by the Department.

The cost estimate must break out the total cost for large plants and total cost for small plants as defined in ***Volume 2, Chapter 26, Landscape Plans***. The totals must include all incidental costs associated with the landscape plans.

9.4 Community Structures

Community Structures are designed and placed on the highway right of way for the sole purpose of representing, reflecting, or recognizing nearby community cultural and/or natural values and resources, or to enhance the sense of place through which a highway passes. The following criteria do not apply to Place Name Signs or Customized Place Name Signs. Requirements for Place Name Signs and Customized Place Name Signs are in **Rule 14-51 Part IV Place Name Signs**:

http://www.dot.state.fl.us/trafficoperations/Operations/Studies/TEM/14-51_PartIV.shtm

A proposed Community Structure located on the Interstate System must be approved by the State Roadway Design Engineer and the Federal Highway Administration (FHWA). A proposed Community Structure located on the State Highway System but not on the Interstate System can be approved by the District Design Engineer without further approvals if consistent with the established criteria.

For consideration, plans for a proposed Community Structure must be accompanied by a resolution of the local government legislative body endorsing their financial support of project design, construction, and perpetual project maintenance. If private funding is to be used, local endorsement is also required.

Prior to any construction within the highway right of way, the local government (or private enterprise) must execute a maintenance agreement with the Florida Department of Transportation.

These features are not eligible for regular federal-aid. They would not be eligible for repair or replacement under FHWA's Emergency Relief (ER) program.

Any changes to the FDOT's criteria shall be reviewed and approved by FHWA. Approval by the State Roadway Design Engineer is required when any of the Community Structure criteria in **Section 9.4.1** cannot be met.

9.4.1 Design Criteria

The design of a Community Structure must meet the following:

1. The structures/features site plan should be laid out so as to strongly discourage drivers from stopping to take pictures, or otherwise create an unsafe situation by stopping on the shoulder.
2. The location must be as far outside the appropriate clear zones as practical. Placement on Interstate routes should be well outside the minimum clear zone, a minimum of 50 feet, 100 feet preferred, from edge of the travel lane or ramp, whether guardrail is present or not. The 50 feet minimum/100 feet preferred lateral placement will help to minimize driver distraction, and reduce the likelihood that vertical structures will become storm debris blown across the roadway.
3. Structures shall not be placed in the median regardless of median width.
4. The object's highest point must not be greater in elevation than 14 feet above the nearest point of the roadway.
5. The structures must not contain any messages (alpha-numeric characters), signs, other traffic control features, auditory devices, flashing lights, or moving illumination, and be devoid of advertising per the **MUTCD** and **23CFR 1.23** which prohibits advertising on or commercial use of the right of way. Commercial advertising on state right of way is prohibited by **Section 479, Florida Statutes**, including charitable, fraternal, religious, or political signs, symbols, logo's, banners or any other such device. The permit for the Community Structure shall be immediately revoked by the Department for violation of this provision.
6. Only one structure is allowed per mainline interchange approach; thus, pick one site from amongst the ramp and the mainline, along the outside of a ramp, or the area inside a loop ramp.
7. The structure must meet all applicable building codes and design criteria for similar structures or landscapes placed adjacent to the highway's right of way, including wind loading commensurate with highway signs in the area.
8. The structures/features must meet all environmental regulations.
9. The structure must not obstruct any signs or interfere with any sight triangle or view zone (see **Section 9.1**).