105 Aesthetic Design

105.1 General

Merriam-Webster defines aesthetic as "*pleasing in appearance; beautiful*." Aesthetics has to do with human perception of whether places or objects are beautiful or ugly; elegant or tasteless; elaborate or plain. It is difficult to define aesthetics because it is a subjective topic. However, humans can generally arrive at a consensus of what is "pleasing in appearance."

Successful implementation of aesthetics can be summarized in a quote by Alvar Aalto: "Beauty is the harmony of function and form." In the design of transportation facilities, the roadway should blend with its physical and social environment.

Aesthetic design should achieve a balance between form, function, color, texture, durability, and cost. It is important that designers be sensitive to the aesthetic implications of their work and also to their personal aesthetic capabilities and limitations.

Florida's beauty is a combination of the natural and built environment; credited with attracting millions to visit, invest, live, and work here. Transportation facilities are the largest, most visited, and most visible land use in Florida; the largest public spaces in most communities. Quality transportation design should not diminish the visual quality of a place and the experience of being there.

105.2 Aesthetic Design

Aesthetics is an integral part of the transportation design process and should not require additional tasks. Aesthetic designs are not an afterthought to embellish or provide adornments, frills, decorations, or add-ons to cover ugly parts. Affordable, biddable, constructible, and maintainable designs can artfully respond to the Department's and communities' safety, mobility, and aesthetic ideals. Even when there are no known aesthetic issues or when a project is minor, transportation facilities must not be ugly and detract from Florida's beauty.

It is important to achieve a balance between form, function, color, texture, durability, and cost in the design of transportation facilities. Implementation of aesthetic principles in transportation design involves the balanced combination and implementation of the following elements:

- Form
- Scale
- Proportion
- Location
- Materials
- Color
- Perspective
- Context
- Viewsheds
- Durability
- Orientation
- Aspect
- Exposure
- Lightness, darkness, shade, shadow, and reflection

The placement of transportation elements (e.g., signs, signal control boxes, handrails) should be carefully considered during design. It may be possible to strategically place these items to avoid disturbing a scenic view.

105.3 Policies

Constitution of the State of Florida, Article II, Section 7(A):

> "It shall be the policy of the state to conserve and protect its natural resources and scenic beauty."

Section 334.044 (26) Florida Statutes:

> "The department shall have the powers and duties to...conserve the natural roadside growth and scenery; and to provide for the implementation and maintenance of roadside conservation, enhancement, and stabilization programs."

Aesthetic effects and roadway design considerations are discussed in the ***PD&E Manual (Topic No. 650-000-001), Part 2 Chapter 5, and the FDOT Drainage Manual section 5.4.4.2 Detention and Retention Ponds***.

105.4 Guidelines

Integrating aesthetics into transportation projects accomplishes the following:

(1) Support safety, mobility, and enjoyment of all users, and can be integrated with functional elements.

(2) Provide facilities that are compatible with the surrounding natural and built environment, based on the context of the roadway; e.g., the urban scale, surrounding architecture, forests, farms, parks, neighborhoods, landscape, community features, water bodies, views, and vistas.

(3) Avoid, minimize, and mitigate insensitive solutions that detract from Florida's beauty.

(4) Coordinated to provide a clear sense of order, clarity, and continuity.

(5) Use materials and design solutions sensitive to scale, form, materials, color, pattern, texture, and architectural style of existing and proposed elements.

(6) Address maintenance needs and responsibilities.

Roadways should blend into the landscape, avoiding large cuts and fills into the existing terrain. Horizontal and vertical alignments should be coordinated so that a driver has an opportunity to gain a sense of the local environment. Combinations of horizontal and crest vertical curves and broken-back curves should be avoided. Excessively long tangent sections become monotonous. Curvature or other features should be added to maintain drivers' interest and awareness.

Vistas of exceptional beauty should be accentuated by the roadway geometrics. Ideally, such vistas should be on the outside of horizontal curves, without excessive roadside appurtenances and signs to clutter the view. Consider the view from and the view of the transportation facility.

Preferred design solutions may require additional right of way (R/W). Aesthetics is an acceptable design objective. The Department has wide discretion to select the amount and location of property to be acquired. Courts can inquire whether the Department has adequately considered alternatives, costs, environmental factors, long-range planning, and safety. As long as these factors are adequately considered, courts generally are not authorized to substitute their design judgment for that of the Department unless the Department acts illegally in bad faith or abuses its discretion.

Often, the most attractive and elegant design solution can be low cost or no cost and add little or no time to the project schedule.

105.5 Process

Although beauty is subjective, two or more people can usually find consensus on what is attractive or beautiful and what is not. Seek and use the opinions of others to inform the final design.

Consideration of aesthetics begins early and is as integral to the design process as safety and mobility. Within the time and budget available, identify and build on opportunities to improve the project aesthetics.

Visualize and evaluate each design element as it will appear from the road, the sidewalk, the bike lane, and from adjacent properties (both day and night). Visualize how the element will appear after ten or more years of weather, minimal care, and typical use.

105.6 Safety and Scenic Beauty

The general principles of aesthetic design include form, scale, order, and proportion. Due to the need for uniformity in roadway design, there is often a lack of contrast and variety. This can contribute to driver monotony, a real safety concern. By integrating aesthetic design principles throughout the design process, the need for uniformity can be balanced with the need for variety and interest.