



CONTEXT SENSITIVE SOLUTIONS IN DESIGN

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What is CSS?

- CSS is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.
- CSS is an approach that considers the total context within which a transportation improvement project will exist. CSS principles include the employment of early, continuous and meaningful involvement of the public and all stakeholders throughout the project development process.



Why Do We Have CSS?

- Federal Objectives
- Community Objectives
- Project Facilitation



FHWA Environment Vital Few Objectives

The Federal Highway Administration is committed to the advancement of CSS nationwide as one of the objectives of its [Vital Few Goals on Environmental Stewardship and Streamlining](#). The objective is to improve the environmental quality of transportation decision making by incorporating context sensitive solutions principles in all aspects of planning and the project development process.

CSS & SAFETEA-LU

- CSS considerations are addressed in Section 6008. This section references:
 - Eight Characteristics of **Processes** to Yield Excellence; and
 - Seven Qualities of Excellence in Transportation **Design**, developed by the 1998 conference.

<http://www.contextsensitivesolutions.org/content/reading/safetea-lu-leg/>

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Are There CSS in Florida?

- FHWA has rated Florida as a "Mature" State for CSS implementation.
- 2 States have been rated as "exemplary" for CSS implementation.

Why is Florida Not an Exemplary State for CSS Implementation?

- Lack of a Specific CSS policy;
- CSS often not included in all areas of projects; and
- CSS Training is not required for all employees that may have a role in CSS implementation.

Number of States with...

- At least some CSS implementation: All but 6
- CSS Specific Policy/Legislation/Executive Order: 16
- A CSS Website: 14



Isn't CSS Just a "Planning" thing?

- No, project commitments during Planning and PD&E can be "undone" during design, construction, and even maintenance.
- CSS principles applied to a thoroughfare design process should address critical factors and issues **before** establishing design criteria.
- CSS looks at community objectives to achieve rationalized design trade-offs.



7 Qualities of Excellence in Transportation Design

1. Meets Purpose and Need
2. Safe for User and Community
3. In Harmony with Community
4. Exceeds Expectations of Designers and stakeholders



Qualities of Excellence in Transportation Design continued...

6. Efficient & Effective Use of Resources
7. Minimal Community Disruption
8. Added Lasting Value to Community



ITE's Common Tenets for CSS:

- Balance safety, mobility, community and environmental goals in all projects;
- Involve the public and stakeholders early and continuously;
- Use an interdisciplinary design team tailored to project needs;
- Address all modes of travel;
- Apply flexibility inherent in design standards and guidelines; and
- Incorporate aesthetics as an integral part of good design.



From NCHRP Report 480:

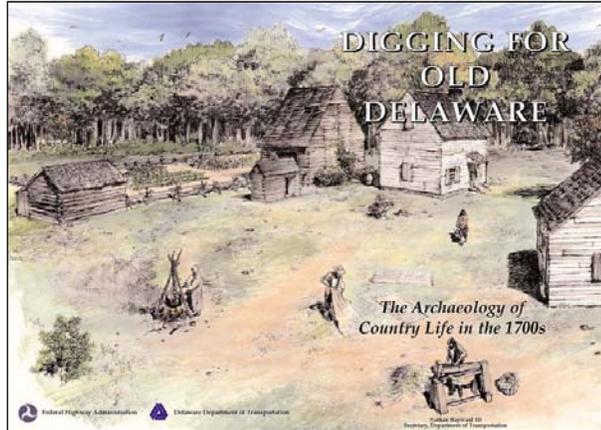
- Designers and the public should not confuse use of design standards with providing a "standard" design.
- A standard design is not always the "best" design.
- Site-specific issues that dictate another, more "context-sensitive" solution must often be considered.



What about Cost and Time?

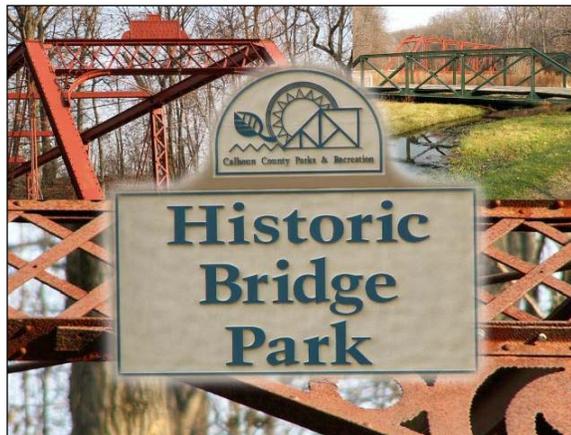
- By not using a CSS approach, projects may be delayed, which may affect cost;
- Enhancement types of CSS projects may cost more;
- Many CSS projects do not cost more, and facilitate consensus

Innovative public archaeology



Delaware Department of Transportation

Collaborative, CSS Mitigation



Bridge park – Calhoun County, MI



Typical Conflict Areas in Florida

- Not looking at **function and context** in applying design standards:
 - Applying a general SIS typical section design through downtowns, historical resources/districts or areas with sensitive resources.

Note: State-specific standards like those of SIS do not “trump” the need to avoid Section 4(f) resources. A design that is flexible to the context is needed.



Current FL Projects with Design Issues with possible CSS solutions

- SR 79 Design Reevaluation (D3) – community & historic structures
- SR 26 (D2) – Trenton community and historic district
- Krome Avenue South EIS (D6) – globally imperiled plant species and character of area

How Can Implementation of FIHS and SIS Achieve CSS?

- "Occasionally it becomes necessary to deviate from the design speed standards when improving existing or constructing new FIHS facilities. When this is necessary, a design exception or design variation is required." (FDOT Procedure – Dev't. of the FIHS)

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FDOT Plans Preparation Manual Allowances for CSS on SIS/FIHS:

- Allows less than the minimum Design Speeds for FIHS/SIS;
- Includes a Chapter on CSS in Design
- Includes 4-L Suburban Arterial Designs with narrower medians and maximum design speeds.
- Includes TDLC Chapter*

FHWA & SAFETEA-LU Go Even Further in CSS Allowances:

- FHWA made CSS part of its National Vital Few Objectives;
- SAFETEA-LU authorizes USDOT to consider in establishing design standards on the NHS, the following:
 - *Flexibility in Highway Design* which includes criteria that is more flexible than even the ASHTO "guidelines"; and
 - *The national context sensitive solutions workshop document, "Eight Characteristics of Process to Yield Excellence and the Seven Qualities of Excellence in Transportation Design"*.

SAFETEA-LU Section 6008

Summary

- CSS is part of FHWA national objectives for projects at all phases.
- Most States are using CSS; some are considered "exemplary" for CSS implementation.
- Florida uses CSS in limited amounts;
- Florida's manuals imply flexibility for CSS, which are used on **some** projects.
- There are many more Florida projects that would benefit from CSS.