WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DESIGN DIRECTIVE

DD-207
WEST VIRGINIA DIVISION OF HIGHWAYS "CONTEXT SENSITIVE SOLUTIONS" POLICY
June 22, 2006

This Design Directive will give guidance and instruction on the West Virginia Division of Highway's Context Sensitive Solutions Design Policy, and its implementation within the various design units within the Division, to include the Central Office and all Districts.

Attachments

10. General

In 1997, the Federal Highway Administration (FHWA) published *Flexibility in Highway Design* to encourage creative thinking when designing and constructing transportation projects. This guidance grew out of the design related provisions of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the National Highway System Designation Act of 1995.

Section 109 of Title 23, United States Code, provides that a design for new construction, reconstruction, resurfacing, restoration, or rehabilitation of any highway on the National Highway System (other than a highway designated as an Interstate Highway) may take into account [in addition to safety, durability, and economy of maintenance] the following:

A. The constructed and natural environment of the area;

B. The environmental, scenic, aesthetic, historic, community, and preservation impacts of the activity; and

C. Access for other modes of transportation.

The Forward of the latest adopted edition of the AASHTO publication *A Policy on Geometric Design of Highways and Streets* states "The intent of this policy is to provide guidance to the designer by referencing a recommended range of values for critical dimensions. Sufficient flexibility is permitted to encourage independent designs tailored to particular situations".

To this end, Context Sensitive Solutions (CSS) is the vehicle that will allow designers to blend the design of transportation facilities into the ideas presented in 10.A., B., and C. above.

20. Context Sensitive Solutions

"Context Sensitive Solutions" (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits in 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." – paraphrased from the Context Sensitive Solutions main page of the Federal Highway Administration's web site.

"Stakeholders" may be defined as residents, businesses, governmental agencies, local politicians, other agencies or groups, etc., adjacent to or otherwise affected by a proposed project. Governmental agencies, such as cities, counties, the Division of Highways itself, the Army Corps of Engineers, the US Environmental Protection Agency, etc. become stakeholders when a proposed

project falls within its jurisdiction. Other agencies or groups may be defined as local Chambers of Commerce, development or community groups, schools, construction experts, etc. It is imperative that all stakeholders in a proposed project be identified and involved in the project from its conception to completion of construction.

30. Context Sensitive Solutions Policy and Implementation

This document will provide general information and guidance regarding the implementation of an integrated CSS approach at the project level within the Division of Highways of the West Virginia Department of Transportation. The CSS policy described herein is to be the reference for designers, squad leaders, project managers and other Division employees who may be involved in projects where the CSS approach is applied. It is also to be provided to consultants at the time of the Scope of Work meeting on those projects where the CSS approach is integrated.

The following 5 criteria will be achieved so that the West Virginia Division of Highways (WVDOH) will be considered as having achieved CSS at a project level:

A. There is a written CSS commitment and/or policy. This Design Directive will serve as the policy.

B. Technical staff will be trained in the CSS approach, both in the field and central offices, and across disciplines (i.e., planning, environmental, design, right-of-way, construction, and maintenance). A substantial portion of the staff will be trained in CSS for project development, to include Central Office and District staff, and consultants.

C. At a minimum, all <u>new</u> projects will be developed in accordance with CSS concepts, consistent with scope, size, and type of project. The level of effort for small-scope projects, such as pavement overlay or rehabilitation projects, or a small bridge rehabilitation or replacement in the same location projects, may not need to be as intense as for a roadway realignment or widening, or a roadway on new alignment project. This determination will be made by the project manager at the inception of the project, or as the situation warrants during the development of the project.

D. There will be early, continuing, and interactive public involvement throughout the project development process. The WVDOH Public Involvement Process (DD-201) dated November 22, 1993, provides for communication and public interaction throughout the process. The current Public Involvement Process is to be utilized for all WVDOH projects.

E. Interdisciplinary teams will be involved in the process from the beginning until the end. WVDOH Policies provide opportunities for multi-discipline team input from conception to construction of transportation projects.

Some examples of where the interdisciplinary team approach is used are as follows:

1. NEPA Process;

2. Value Engineering Process (See Design Directive 816 for more information concerning Value Engineering);

3. Design Reviews (See Design Directive 202 for more information concerning Design Reviews);

4. Partnering (Construction); and

5. FHWA Detailed Design, Active Construction, Detailed Physical Maintenance Reviews

The following *Characteristics of Process to Yield Excellence* were developed during the 1998 Thinking Beyond the Pavement National Workshop. Section 109(c)(2) United States Code, Title 23 was amended in SAFETEA-LU Section 6008 to adopt the *Characteristics of Process to Yield Excellence*. Those involved in project development are encouraged to apply these CSS principles when planning, designing, and constructing projects in West Virginia.

A. Communication with all stakeholders is open, honest, early, and continuous.

B. A multidisciplinary team is established early, with disciplines based on the needs of the specific project, and with inclusion of the public.

C. A full range of stakeholders is involved with transportation officials in the scoping phase. The purposes of the project are clearly defined, and consensus on the scope is forged before proceeding.

D. The highway development process is tailored to meet the circumstances. This process should examine multiple alternatives that will result in a consensus of approach methods.

E. A commitment to the process from top Division of Highways officials and local leaders is secured.

F. The public involvement process, which includes informal meetings, is tailored to the project.

G. The landscape, the community, and valued resources are understood before engineering design is started.

H. A full range of tools for communication about project alternatives is used (e.g., visual aids, renderings, etc.).

Those involved in project development are also encouraged to consider the following approaches for Context Sensitive Solutions.

A. Start early: Consider community and customer values and needs from the project selection process through design, construction, and maintenance. This would also include getting local governments and citizens involved from the start.

B. Involve local governments and citizens: Remember to include all affected parties and those with partnership interest.

C. Balance wants, needs, money and the law: Availability of transportation funds is a major factor and should be considered with the competing needs of safety and mobility.

D. Think "outside the box": Encourage creative thinking during the project development process.

E. Listen and keep an open mind: Be willing to listen to our customers and incorporate their ideas into the project. This will help achieve buy-in.

F. Support teamwork and communication: Work together to add value to the communities through which our projects travel.

40. References

Federal Highway Administrator January 24, 2002 Memorandum on CSS
http://www.fhwa.dot.gov/csd/012402

FHWA: October 29, 2002 Memorandum on CSS
http://www.fhwa.dot.gov/csd/102902

FHWA: *Flexibility in Highway Design*
http://www.fhwa.dot.gov/environment/flex/index

FHWA: *Community Impact Assessment*
http://www.ciatrans.net/ciahomes

AASHTO: *A Policy on Geometric Design of Highways and Streets*

Transportation Research Board *NCHRP Report 480: A Guide to Best Practices for Achieving Context Sensitive Solutions*
http://gulliver.trb.org/publications/nchrp/nchrp_rpt_480a