

REPORT TO THE TWENTY-FOURTH LEGISLATURE
STATE OF HAWAII
2007

PURSUANT TO ACT 70, SLH 2006, RELATING TO LIABILITY, THE
DIRECTOR OF TRANSPORTATION:

SHALL ESTABLISH FLEXIBLE HIGHWAY DESIGN GUIDELINES TO
GOVERN NEW CONSTRUCTION, RECONSTRUCTION, PRESERVATION,
RESURFACING, RESTORATION, OR REHABILITATION OF BRIDGES,
PRINCIPAL AND MINOR ARTERIAL ROADS, COLLECTOR AND LOCAL
ROADS AND STREETS.

PREPARED BY:

DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII
DECEMBER 2006

INTRODUCTION

Pursuant to Act 70, Session Laws of Hawaii 2006 (HB1947D1):

SECTION 2.

Act 185, Session Laws of Hawaii 2005, is amended by amending section 3 to read as follows:

SECTION 3.

(a) Before December 31, 2006, the director of transportation shall establish flexible Highway Design Guidelines to govern new construction, reconstruction, preservation, resurfacing (except for maintenance surfacing), restoration, or rehabilitation of bridges, principal and minor arterial roads, collector and local roads, and streets. The guidelines shall include and address the considerations set forth in section 2 of this Act.

The guidelines shall also provide for documentation of the facts, circumstances, and considerations involved in the flexible design decision, including an explanation of the process and the reasoning that led to the decision.

(b) The director shall establish a process to allow flexible highway design to be considered when designing improvements on the following highways:

- (1) Hana highway, east Maui;
- (2) Hanalei road, north Kauai;
- (3) Hamakua-Honokaa heritage corridor, island of Hawaii;
- (4) Upper Kona road, island of Hawaii; and
- (5) Ka Iwi coastal highway, eastern Oahu.

(c) In establishing the guidelines described under this section, the director shall solicit and consider the views of organizations and elected officials, including but not limited to:

- (1) Those with expertise in:
 - (A) Environmental protection;
 - (B) Historic preservation;
 - (C) Scenic conservation; and
 - (D) Bicycle and pedestrian transportation;
- (2) Community planning organizations;
- (3) The State historic preservation office of the department of land and natural resources; and
- (4) The Federal Highway Administration.

This report is submitted by the Department of Transportation (DOT) pursuant to Act 70, SLH 2006, Section 3.

REPORT TO THE LEGISLATURE

Guidelines and procedures for the application of Flexible Design on State highway projects were drafted in April 2006. These guidelines are based upon highly regarded procedures developed by the New York State Department of Transportation.

The draft guidelines were sent to the following organizations and individuals for their review and comments:

- Department of Health, Office of Environmental Quality Control
- Department of Land and Natural Resources, Historic Preservation Division
- Mayor's Offices, City and County of Honolulu, County of Maui, County of Hawaii and County of Kauai
- American Council of Engineering Companies of Hawaii, through Ken Hayashida, President, KAI Hawaii
- Lester Inouye, Lester Inouye and Associates and Board of Directors, The Outdoor Circle
- Carl Lindquist, Hana Business Council
- Dawn Lono, Hana Advisory Committee
- Bob Carroll, Maui County Council
- Kumukamalu Kaho'okele-Sili, Nahiku Community Association
- Cheryl Soon, Senior Vice President, Marathon Group
- John Goody, Mayor's Advisory Committee on Bicycling, City and County of Honolulu
- Kristi Schulenberg, Hawaii Bicycling League
- Keith Harrison, Federal Highways Administration Resource Center, San Francisco
- Mark McGuffie, Hawaii Island Economic Development Board
- Liz Barton, Hawaii Island Economic Development Board
- Mary Cooke, Malama o Manoa
- Jill Olson, Kona Historical Society
- Tomoe Nimori, Vice President, Pulama Ia Kona
- Barbara Franklin, Honokaa Business Association
- Marge Elwell, President, Na'alehu Main Street Program
- Jane Testa, Director of Research and Development, Hawaii County Department of Research and Development
- Jane Horike, Hawaii County Department of Research and Development
- Dawn Duensing, Maui County Cultural Resources Commission
- Millie Kim
- Barbara Robeson
- Carol Wilcox
- Lani Lapilio

The attached guidelines and procedures for the application of Flexible Design on State highway projects have been established. The guidelines include revisions and updates to address comments made by the organizations and individuals listed above and incorporates insight gathered at conferences and meetings held on the mainland.

ATTACHMENT

CONTEXT SENSITIVE SOLUTIONS

1. PURPOSE

This section establishes the guidelines and procedures for the application of Context Sensitive Solutions (CSS) on applicable roadway, highway and freeway projects.

2. BACKGROUND

Since the passage of the National Environmental Policy Act (NEPA) in 1969, the public has become increasingly aware of the impact of highway projects on the landscape and the need to sometimes mitigate that impact. Opportunities to consider the effects of proposed highway projects on the environment and to suggest changes to those projects are present in the NEPA public participation process and in the flexibility that is already built-in to the values presented by AASHTO's *A Policy on Geometric Design of Highways and Streets* (Green Book), but no formal process existed.

That changed with the Federal Highway Administration's (FHWA) 1997 publication of *Flexibility in Highway Design*, which had the goal of "...provoking innovative thinking for fully considering the scenic, historic, aesthetic, and other cultural values, along with the safety and mobility needs, of our highway transportation system." Further refinement of the process we now know as CSS occurred at the May 1998 conference "Thinking Beyond the Pavement: A National Workshop on Integrating Highway Development With Communities and the Environment". That conference developed a vision upon which most CSS initiatives are based, a vision that guides us to this day.

3. GUIDANCE

Context Sensitive Solutions, also known as Context Sensitive Design (CSD) or Flexible Design is defined by FHWA as, "...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. CSD is an approach that considers the total context within which a transportation improvement project will exist."

Although CSS is referred to here as a process, it is first and foremost a philosophy; a method of understanding the way a highway fits into and impacts the environment. Because of this, the steps presented below shall not be viewed as limitations, but shall instead be considered the minimum necessary to comply with this procedure.

CSS is not an "either/or" process. Safety and mobility do not have to be sacrificed to achieve the goals of CSS. Utilizing the CSS philosophy, planning and design professionals determine which safe solution best fits, given a site's conditions and context. CSS is about making carefully considered decisions based on input from many sources.

CSS is not limited to the planning and design phases of a project. The CSS philosophy must be maintained through the construction and maintenance of a project in order to preserve the stakeholders' vision. To this end, all personnel involved in the planning, design, construction and maintenance of roadway, highway and freeway projects should be trained to understand the CSS philosophy and the commitments that must be made in order to establish a successful CSS program.

CSS is not an aesthetic treatment; rather, CSS involves developing a transportation solution that fits into its context. The purpose of the CSS approach is to identify and address both transportation and project area needs during project development. CSS requires the flexibility to consider alternative solutions that can benefit a broad range of stakeholders, while recognizing the fiscal constraints and the limits of the transportation agency. Effective transportation solutions that fit a project's context, rather than project enhancements, are the purpose of CSS.

The cornerstone of a successful CSS program is public involvement. Early, effective and continuous public involvement fosters meaningful participation and a sense of ownership in the project development process. Effective public involvement builds understanding of the issues raised by a project among all those involved in the process. The open collaboration and exchange of information and concerns can promote consensus for project outcomes and trust among all stakeholders.

Further background and guidance on CSS can be found in the following publications:

- *Flexibility in Highway Design*, U.S. Department of Transportation, Federal Highway Administration
- NCHRP Report 480, *A Guide to Best Practices for Achieving Context Sensitive Solutions*, Transportation Research Board
- *A Guide for Achieving Flexibility in Highway Design*, American Association of State Highway and Transportation Officials

4. POLICY

The CSS philosophy and public involvement procedures may be applied to any roadway, highway or freeway project and shall be considered on the following:

- A. Projects on routes designated as Scenic Byways;
- B. Projects that fall, entirely or in part, within any of the following corridors (subject to amendment by the Legislature):
 1. Hana Highway, east Maui;
 2. Hanalei Road, north Kauai;
 3. Hamakua-Honokaa Heritage corridor, Island of Hawaii;
 4. Upper Kona Road, Island of Hawaii; and
 5. Ka Iwi Coastal Highway, eastern Oahu.

C. Projects that do not fall within 4A and 4B above, as directed by the Director of Transportation.

5. RESPONSIBILITY

CSS, by nature, should occur early in the project development process. Because of this, the Planning Branch (HWY-P) will be the overall coordinator of the CSS process and will be responsible for managing and documenting the public involvement portion of CSS.

At the conclusion of the public involvement process, HWY-P shall transmit a package consisting of all forms and documents arising from the process (meeting minutes, drawings, attendance sheets, etc.) to the appropriate Design or District office, if one has been assigned. The package shall also contain a summary of the public involvement process, including commitments and agreements made on behalf of the Department, as well as descriptions of the contents of the package that may not be self-explanatory.

Design offices (within HWY-D, HWY-T and/or Districts), Rights of Way (HWY-R) and Construction and Maintenance (HWY-C and/or District personnel) shall be responsible for attending public meetings to support HWY-P and to advise the meeting participants on limitations and problems that may arise during the design and construction phases.

Construction personnel shall coordinate with Design personnel to insure that commitments made during the public involvement process are maintained throughout the construction phase of the project.

Maintenance personnel shall insure that they are aware of the features of the roadway, highway or freeway that were constructed to comply with agreements made during the CSS process and exercise caution during regular maintenance activities so that the nature of those features is not compromised.

6. PROCEDURE

CSS implementation is project specific and details will vary depending on the affected community and on the issues the process seeks to address. The purpose of public involvement is to insure that effective public outreach occurs early in the project development process.

All projects covered by these procedures shall, at minimum, go through a public involvement process that will result in a completed Public Outreach Worksheet (Worksheet). The Worksheet shall be a complete document; in other words, solutions or recommendations made in the Worksheet should be conclusive and should not require additional meetings or study to resolve. The Worksheet shall serve as a guideline for CSS features that should be strongly considered during the design phase.

These guidelines shall be followed when going through the process:

- Full commitment to the process by DOT management and staff.
- Early establishment of an inter-disciplinary project team.
- Identification and involvement of the full range of stakeholders.
- Identification of problems in the project area that need to be addressed and concurrence from the stakeholders on these problems prior to determining project objectives and potential solutions.
- Understanding of the landscape, community and valued historic, scenic and archeological resources.
- Maintenance of open and continuous communication with the stakeholders.
- Application of a full range of tools and technology, as appropriate, to convey project information to the public.
- Consideration of a full range of project alternatives, including proposals from the community.

Complex or controversial projects may require public involvement beyond what is outlined in these procedures; the scope and breadth of public outreach for those projects will have to be determined on a case-by-case basis.