Research

Guide to Context Sensitive Solutions

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16. Abstract

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GUIDE TO CONTEXT SENSITIVE SOLUTIONS

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PREFACE

This research report is intended to assist the New Mexico Department of Transportation in the implementation of context sensitive solutions in its transportation decision-making process including planning, project design and implementation, construction and maintenance.

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DISCLAIMER

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ABSTRACT

Context sensitive solutions are being implemented by the New Mexico Department of Transportation (NMDOT) in its transportation planning and project delivery processes. The NMDOT seeks to incorporate CSS methodologies and techniques into its planning, design, construction, and maintenance of New Mexico transportation projects. This *Guide to Context Sensitive Solutions* can be used by NMDOT for uniformity in implementation of these processes as well as training.

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INTRODUCTION

Context Sensitive Solutions (CSS) use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. CSS are reached through a collaborative, interdisciplinary approach involving all stakeholders. To achieve these goals, the New Mexico Department of Transportation (NMDOT) will be integrating CSS approaches in the planning, designing, constructing, maintaining, and operating of its multimodal transportation system. The *New Mexico Department of Transportation Guide to Context Sensitive Solutions* has been developed to assist in the implementation of CSS in NMDOT planning and project development processes.

CSS excellence results in a coordinated transportation network that provides safe, user-friendly access and movement and responds to community values. A balanced and informed approach requires a partnership of transportation agencies and stakeholders through a proactive public involvement process. A CSS approach to transportation planning, design, and implementation considers the broad context that streets and roads play in enhancing communities and natural environments while balancing functionality and engineering concerns.

For decades, the focus of state and federal transportation departments has been to promote highway travel with more and better roads. Traditional methods of planning and designing transportation projects relied on the transportation engineers to identify problems, design a solution, and then offer it to the public for approval. This process resulted in many project reworks. During the 1990s, highway design changed rapidly as transportation agencies learned they must be more sensitive to the impact of transportation facilities on the environment and the community. Following the completion of the interstate system, new and better ways of

designing transportation facilities have evolved based on growing interest in other transportation modes and public involvement in the transportation decision-making processes.

Today's CSS approach emphasizes transportation planning and design focused on modal connectivity and community livability. Transportation's future is grounded in a system that is multimodal in form, intelligent in character, and inclusive in service. On the other hand, the public wants a multimodal transportation system that provides choices, a quality of life that respects history and protects its environment, engagement in making decisions, and goals within the bounds of responsible funding.

This *Guide* will detail the procedures for the utilization of CSS systems approach for NMDOT planning, project development, construction, and maintenance of transportation projects as well as CSS outcomes through performance measures.

NMDOT CSS POLICY FRAMEWORK

The policy framework for CSS is the NMDOT's *Directive on Context Sensitive Design and Solutions (CSS Directive*) issued by Secretary Rhonda Faught in June 2006. (See Appendix A). The *CSS Directive* supports the NMDOT's Mission Statement, *Guiding Principles,* and *Environment and Energy Principles* issued by Secretary Faught in 2003 when the NMDOT transitioned to a multimodal department of transportation.

The *CSS Directive* applies to all projects from early planning phases through construction and operation and includes the following guidelines:

- A proposed transportation project must be planned not only for its physical aspects or context as a facility serving specific transportation objectives of maintaining safety (for user and community) and mobility, but also for its effects on the aesthetic, social, economic and environmental values, needs, constraints and opportunities in a larger community setting.
- Engage from the project's inception with stakeholders and representatives of affected communities, including elected and appointed officials and a widely representative array of interested citizens.
- Assure that transportation objectives of projects are clearly described and discussed with local communities in a process that encourages reciprocal communication about local views and needs in the overall project setting.
- Pay attention to and address community and citizen concerns.
- Consider the appropriate level of multimodal relationships for enhanced mobility.

The NMDOT's Mission Statement and *Guiding Principles* are supportive of the *CSS Directive.* According to its Mission Statement, NMDOT's primary responsibilities are to plan, build, and maintain a quality statewide transportation network which will serve the social and

economic interests of its citizens in a productive, cost-effective, and innovative manner. In order to achieve this mission, the *Guiding Principles* were adopted in 2003 by NMDOT as it was transitioning to a multimodal department of transportation. These principles advance NMDOT's business practices by incorporating their values of stewardship, leadership, partnership, practice, and commitment.

EXECUTIVE ORDERS WITH POLICY GUIDANCE

The NMDOT's policy framework for CSS is also formed through executive orders issued by Governor Richardson. Four executive orders issued over the last two years will be integrated into the NMDOT's implementation of CSS in its planning and project development processes. These executive orders concern environmental issues such as climate change, reduction of greenhouse gases, and promotion of clean, alternative energy sources. Other executive orders concern community livability as well as environmental justice. These executive orders are listed below and the full text of each order is contained in Appendices B through E.

- Climate Change and Greenhouse Gas Reduction: Executive Order 2005-033.
- Declaring New Mexico the "Clean Energy State," Creating a Clean Energy Development Council, and Directing State Agencies to Support and Participate: Executive Order 2004-019.
- Environmental Justice: Executive Order 2005-056.
- Creating a Task Force on "Our Communities, Our Future: Executive Order 2004-053.

FEDERAL INVOLVEMENT IN CSS

In 1994, the Federal Highway Administration (FHWA) published its environmental policy statement that called for the incorporation of environmental concerns and community values into transportation decision making. Subsequently, the National Highway System Designation Act (1995) was enacted that emphasized, among other things, flexibility in highway design to further promote preservation of historic, scenic, and aesthetic resources as well as access to other modes of transportation. To provide guidance to this process, the FHWA produced the *Flexibility in Highway Design* document in 1997.

At the groundbreaking "Thinking Beyond the Pavement" workshop (1998), CSS principles were developed for CSS practice in state DOTs. These principles have remained largely unchanged and have been expanded over time beyond project design to include planning, construction, and maintenance.

QUALITIES OF EXCELLENCE IN TRANSPORTATION DESIGN

- Project satisfies the purpose and needs agreed to by a full range of stakeholders. This agreement is forged in the earliest phase of the project and amended as warranted.
- The project is a safe facility for both the user and the community.
- The project is in harmony with the community and preserves environmental, scenic, aesthetic, historic, and natural resource values of the area.
- The project exceeds expectations of designers and stakeholders and achieves a level of excellence in people's minds.
- Project involves efficient and effective use of resources (time, budget, community) of all involved parties.

- The project is designed and built with minimal disruption to the community.
- The project is seen as having added lasting value to the community.

CHARACTERISTICS OF THE PROCESS TO YIELD EXCELLENCE

- Communication with all stakeholders is open, honest, early, and continuous.
- A multidisciplinary team is established early with disciplines based on the needs of the specific project and with the inclusion of the public.
- A full range of stakeholders is involved with transportation officials in the scoping phase. Project purposes are clearly defined and consensus on the scope is forged before proceeding.
- The highway development process is tailored to meet the circumstances. It employs a process that examines multiple alternatives and results in consensus on approaches.
- A commitment to the process from top agency officials and local leaders is secured.
- The public involvement process, which includes informal meetings, is tailored to the project.
- The landscape, community, and valued resources are understood before design starts.
- A full range of tools for communication about project alternatives is used.

More recently, the Federal Highway Administration (FHWA) adopted its Vital Few Goals, one of which focuses on improving environmental stewardship and environmental streamlining through the implementation of five CSS criteria (Figure 1). Through CSS policies and practices, transportation improvement solutions balance multiple objectives and stakeholder desires concerning safety, mobility, environmental, and community values. As of 2006, twenty-six states have adopted or have planned to adopt CSS in their practices. The FHWA goal is to have all states adopt CSS by 2007. NMDOT is taking the necessary steps to meet that goal.

Criterion A: There is a written commitment or policy.

Criterion B: State Department of Transportation (DOT) technical staff are trained in CSS approaches, both in field and central offices, and across disciplines (planning, environment, design, right-of-way, operations, maintenance).

Criterion C: Most projects are being implemented using CSS approach, tools, and methodologies.

Criterion D: There is early, continuing, and iterative public involvement throughout the project development process.

Criterion E: Interdisciplinary teams are involved in the process from the beginning to the end.

FHWA CSS/CSD Game Plan (2003)

FIGURE 1 FHWA CSS Goals for State DOTs.

A. Chapter Resources:

Context Sensitive Solutions Web site (2001) [online]. U.S. Department of Transportation, FHWA. www.fhwa.dot.gov/csd/

FHWA Environmental Policy Statement 1994: A Framework to Strengthen the Linkage Between Environmental and Highway Policy' (1994) [online]. U.S. Department of Transportation, FHWA. www.fhwa.dot.gov/environment/epsfinal.htm

Flexibility in Highway Design, (1997) [online]. U.S. Department of Transportation, FHWA, FHWA-PD-97-062. www.fhwa.dot.gov/environment/flex/index.htm

Neuman, T. R., Schwartz, M., Clark, L. and Bednar, J. (2002) *A Guide to Best Practices for Achieving Context Sensitive Solutions* [online]. NCHRP Report 480, Transportation Research Board. trb.org/publications/nchrp/nchrp_rpt_480.pdf

New York State Department of Transportation, Context Sensitive Solutions Web Site [online]. www.dot.state.ny.us/design/css/css.html

Project for Public Spaces, CSS/Transportation Services Web Site [online]. www.pps.org/trans/css/

"Thinking Beyond the Pavement 'Qualities and Characteristics'" (1998) [online]. U.S. Department of Transportation, FHWA. wwwcf.fhwa.dot.gov/csd/qualities.htm

CSS PRIMARY COMPONENTS

CSS is a systems approach to transportation planning and project development. The primary components of CSS include the multimodal approach, public involvement, environmental stewardship, performance measures, and safety conscious planning which are discussed in the upcoming sections in this chapter.

The goal of CSS is to plan and design transportation projects that fit into their surroundings. Engaging stakeholders and partners is a cornerstone of successful CSS and is a continuous process from transportation planning to project implementation. The CSS process can ensure that stakeholder views are carefully considered throughout the planning, project visioning, alternatives development, and decision-making processes. Context sensitive solutions is a collaborative, interdisciplinary approach in which stakeholders are part of the planning and design team. Key activities in the CSS process include:

- Identifying physical, environmental, social, cultural, aesthetic, and transportation elements
- Understanding community values before beginning design
- Respecting context throughout the design and constructions process
- Planning the transportation experience

CSS is not a separate process or set of standards, but it guides NMDOT's decision-making processes and its outcomes through performance measures. Through CSS, transportation improvements and services will fit into community values and context while enhancing transportation performance. There are five key elements in the CSS approach:

- Keep safety paramount while balancing mobility, community needs, the environment, and financial costs.

- Involving stakeholders in the decision-making process early and continuously while addressing all modes of transportation in planning and project development processes.
- Using all appropriate disciplines to help plan for and design the project.
- Applying the flexibility inherent in the NMDOT design standards to fit a project into its surroundings and add lasting value to the communities it serves.
- Incorporating aesthetics as an integral part of good design.

Typically, transportation factors drive the need for a project while CSS considers the contextual and functional factors on a level playing field. These factors include: topography, pedestrian and bicyclist needs, cultural resources, social/community context, architectural features, and environmental justice considerations. The CSS approach, with its heavy reliance on public processes, results in valuable feedback from diverse stakeholders about ways to address transportation problems and create informed consensus solutions between state transportation agencies and stakeholders. Ultimately, the decision as to how to best balance competing values remains the responsibility of NMDOT.

The benefits of applying the *CSS Directive* to NMDOT's planning and project development processes are wide ranging and include:

- Building community support through public acceptance and trust.
- Positive relationships with stakeholders as partners rather than opponents.
- Making timely decisions that stick.
- Improving project delivery process.
- Protecting or enhancing environmental assets.
- Looking and fitting better as a part of the community.

- Helping decrease the time and cost of redoing tasks that might have been addressed earlier in the project.
- Getting projects built.

A. MULTIMODAL APPROACH

The NMDOT has adopted the complimentary principles of environmental stewardship, conservation, and multimodal transportation. Multimodal transportation is a fundamental cornerstone which supports the vitality of the state by improving the state's economic growth and competitiveness through the safe, efficient movement of people, goods, and services within New Mexico and protects the environment, natural beauty, and cultural heritage of New Mexico. Efficiencies are gained system-wide when every mode of transportation maximizes what it does best, including non-motorists such as pedestrians.

A strong, multimodal transportation system plays a critical role in providing access to employment, medical and health care, education, recreation, and other community services thereby ensuring New Mexicans access to independence, access, and mobility.

It is important to consider all modes that could maximize transportation efficiencies, not just those related to the highway. Through public involvement, the CSS process can facilitate an open and honest balancing of all competing interests and constraints and search for an informed consensus among them. Within CSS, the multimodal approach includes:

- A review of the full range of transportation modes and options to ascertain how they impact mobility system connectivity for all users including pedestrians, bicyclists, the aged and the handicapped as well as a variety of travel modes including personal vehicles, trucks, emergency vehicles. In the alternatives assessment process, modes are to be considered to determine what alternatives address the project's needs and purpose.

- Capacity enhancement to move as much traffic as possible, as quickly as possible, is not always the best goal for the non-interstate system. Operational improvements and modal considerations are to address the purpose and needs of a project.
- Coordinating efforts with public transportation agencies to determine what kinds of transportation opportunities exist for a particular project.
- Developing multimodal performance measures to support desirable system performance characteristics.

Through CSS and the multimodal approach, transportation planning and improvements are considered in broader context through a system-wide approach that facilitates mobility for all users resulting in greater system connectivity and enhanced community livability.

B. PUBLIC INVOLVEMENT

An important underpinning for achieving CSS is an effective public involvement process involving stakeholders. The ultimate goal of public involvement activities is to collect useful information that will lead to better decisions during planning and project development. Having a wide range of stakeholder interests included in the public involvement process is crucial to effective decision making. These interests may include:

- Experience with transportation systems and related issues
- Knowledge about the community
- Interest in transportation issues
- Connection to diverse community networks
- Possessing a good mix of interests, backgrounds, and experiences
- Those affected by the plan/project.

Developing a contact network is essential to make sure important stakeholders are included in the public involvement process. Potential stakeholders include:

- Elected officials
- Public agency representatives
- Special interest groups including environmentalists, historical preservation, cultural resources, and non-motorists
- Appointed officials
- Professional organizations
- Business community
- Transportation professionals
- Non-profit organizations
- Residential associations
- Recreational groups
- Tourist industry

Stakeholders have an essential role in the development of transportation plans by helping identify community goals and objectives, establishing a common vision, identifying transportation problems and potential solutions, and helping decision-makers set priorities. NMDOT goals for public participation during planning and programming are to:

- Identify improvements to the transportation system which will help citizens meet their mobility needs.
- Identify and document community support or concerns with planned transportation improvements and carry that information forward for consideration in project development decisions.

- Prioritize proposed improvements and recommend which should be programmed and moved forward in the project development process.

In order to have an effective effort, a Public Involvement Plan (PIP) must develop strategies and procedures for outreach to identify and inform stakeholders, create opportunities for participation, provide feedback, and create informed consensus. The PIP should include the following considerations:

- Think strategically about goals for public involvement.
- Use the plan to communicate the process, decision points, and who makes the decisions.
- Identify stakeholders.
- Identify public involvement techniques to use based on the identified goals.
- Develop a schedule of planned activities.
- Identify staff and budget resources needed to accomplish these activities.
- Update as needed.
- Develop performance measures for public involvement process.

The PIP must also consider provisions of the Americans with Disabilities Act. NMDOT encourages full participation and provides accommodations for persons with disabilities in the public involvement process by:

- Holding meetings in fully accessible facilities
- Providing documents in alternative formats upon request
- Considering accessible presentation alternatives such as interpreters

Additional information about public involvement, stakeholders, and techniques can be found in the Appendices. These include:

- Public Involvement Checklist Identification of Stakeholder Issues (Figure 10)

- Public Involvement Techniques in the Project Development Process (Figure 11)
- Public Involvement: Specific Experience (Figure 12)
- Strategies for Reaching the Project Community (Figure 13)
- Identifying Protected Populations (Appendix F)
- Public Involvement Tools and Techniques (Appendix G)

From a NMDOT perspective, skills that are needed to have an effective CSS public involvement process include: communicating early and often, dealing with perceptions, and facilitating an informed consensus. Key principles for effective public involvement include:

- Listening: Public involvement is two-way communication that is not just about talking but also about listening.
- Honesty: Public involvement without integrity is worse than no public involvement.
- Attitude: If you believe in public involvement and respect all involved, it will go a long way to improve trust.
- Ownership: Community members who are part of the process also gain a sense of ownership and pride in the project.
- Identify project stakeholders, or groups of people, who have a stake in the project outcome.
- Study the physical environment for homes, businesses, historic and cultural resources, schools, non-motorist activities, and modal connectivity.
- Solve the puzzle by considering the community, having a view from all sides, and using flexibility in design.

Effective public involvement processes must include a facilitator who is a good communicator who asks questions as a proactive listener and is able to:

- Listen and restate when necessary

- Maintain control but empower the group
- Ensure that all views are placed on the table
- Redirect dominators and encourage shy ones
- Apply structured tools to build consensus
- Know when a break would be useful

No two projects are alike, so public involvement tools and techniques should be tailored to reflect the particular character of the NMDOT project including its group of stakeholders, its geographic location, successes and failures of previous public outreach programs, and the level of complexity and controversy. Even cultural differences in stakeholder groups can be important in identifying effective techniques. Strategies for identifying stakeholders will depend on the scope and complexity of the project as well as the nature of the issues involved.

Performance measures to ascertain the effectiveness of the public involvement process and its outcomes are discussed later in the *Guide*.

C. ENVIRONMENTAL STEWARDSHIP

NMDOT implementation of the *CSS Directive* demonstrates its commitment to environmental stewardship by developing transportation systems that fit within the context of the community. The community assessment process is a tool which incorporates the *CSS Directive* of public involvement and the CSS environmental goal to preserve the scenic, environmental, historic, and cultural resources for a sustainable future.

Transportation plans and facilities can make important contributions to a community's quality of life and impact the natural, cultural, and community environment. Transportation system choices and NMDOT's environmental stewardship responsibilities are based on understanding these complex relationships. The NMDOT is committed to planning, designing,

constructing, and maintaining an interconnected transportation system while striving to preserve and enhance the state's natural, historical, and cultural resources.

The NMDOT is fully committed to sound environmental stewardship principles through its *CSS Directive* and *Guiding Principles.* These policy initiatives have been augmented by two executive orders by Governor Bill Richardson. Executive Order 2004-053 concerns community livability and smart growth…"new approaches to community growth will contribute to the creation of high-quality jobs, mixed-use and mixed-income development, and successful new transportation systems." This focus coincides with the new planning requirements in SAFETEA-LU. More recently, Executive Order 2005-056 affirms the state's commitment to environmental justice and forms an interagency task force (including NMDOT) to develop policies and procedures to address environmental justice issues. The Governor's Climate Change and Greenhouse Gas Reduction Executive Order 2005-033 named NMDOT to participate in the Climate Change Action Council whose charge is to make recommendations to reduce greenhouse gas emissions by 75% by 2050. Lastly, the Governor issued Executive Order 2004-019 "Declaring New Mexico as a Clean Energy State, Creating a Clean Energy Development Council and Directing State Agencies to Support and Participate." NMDOT is also a named participant in this Executive Order.

These Executive Orders address livability issues including smart growth, environmental justice, climate change, clean energy, and alternative fuels. Implementing these executive orders will impact the NMDOT planning and project development decision-making processes.

As one of the largest builders and landowners in the state, NMDOT's programs and projects have far-reaching and visible impacts on communities and the natural landscape. NMDOT as a trustee of the environment has a unique opportunity and responsibility to manage

and execute transportation systems in a manner that leaves the environment in a better condition for future generations. This depends upon strong partnerships between NMDOT and those organizations and agencies that share a vested interest in balancing environmental protection and transportation development.

1. CSS and the Community Impact Assessment Process

Through the community impact assessment (CIA), the CSS Directive can be used by NMDOT to work proactively in collaboration with communities to evaluate the effects of proposed transportation actions on a community and its quality of life in order to:

- Recognize and understand the importance of community resources, needs, values, and goals, and objectives in achieving balanced and equitable transportation decisions.
- Proactively identify and analyze community impacts throughout all phases of the project development process. (See Appendix H: Identifying Direct and Indirect Impacts.)
- Recognize those attributes and characteristics that define a community quality of life even if they are not easily measured or quantified.
- Recognize the transportation needs and concerns of all populations within communities during the transportation decision-making process, including those who have not traditionally participated in public involvement activities.
- Promote meaningful citizen participation and public involvement throughout all phases of the transportation planning and project development processes.

The CIA process is conducted in conjunction with environmental review process. The CIA process should be performed early as part of the planning and project identification processes in order to provide necessary documentation for the development of the project's purpose and needs statement as well as project alternatives. This process is designed to take into

account the community's history or heritage, present conditions, and anticipated conditions. One technique for conducting a CIA is through a Community Context Audit (CCA). The purpose of the CIA is to identify community and land use characteristics; an infrastructure assessment; neighborhood culture, aesthetics, and street amenities; economic development assessment; and community planning initiatives (see Appendix I). The integration of the public involvement process and CIA is shown in Table 1.

TABLE 1 Integration of CSS and CIA

Transportation Decision-Making Process	CIA Activities
Planning	Broad-based scoping of community boundaries and identification of baseline conditions and potential beneficial and adverse effects Conduct community context audit.
Prioritization and Programming	Review and update broad-based CIA information developed in planning phase to confirm conditions and update community issues and concerns.
Preliminary Design (preliminary engineering and environmental studies)	Detailed CIA activities building on the broad-based information developed at the planning and prioritization/programming phases and incorporating a thorough assessment of project-level impacts. CIA information should be documented and included as a part of National Environmental Policy Act (NEPA) compliance.
Final Design (design development, right of way and utility coordination)	Review and update detailed CIA information developed at preliminary engineering phase to confirm effects.
Construction	Review CIA solutions and mitigation commitments, if any exist.

Source: Pennsylvania Department of Transportation. http://65.207.30.22/css/www/community_assessment.php

2. CSS and the National Environmental Policy Act (NEPA)

NEPA (1969) established a national environmental policy requiring that any project using federal funding must examine the effects and impacts that transportation decisions have on the environment before a federal decision is made. This NEPA mandate is an integral part in CSS principles and CIA practices.

The NEPA process strikes a balance among many different factors: mobility needs, economic prosperity, health and environmental protection, community, historic and cultural resources, neighborhood preservation, and quality of life for present and future generations. The essential elements of NEPA decision making include:

- Assessment of the social, economic, and environmental impacts of a proposed project;

- Analysis of a range of reasonable alternatives to the proposed project, based on the applicants defined purpose and need for the project
- Consideration of appropriate impact mitigation: avoidance, minimization and compensation
- Interagency participation: coordination and consultation
- Public involvement including opportunities to participate and comment

With the passage of SAFETEA-LU, requirements have been added to the statewide and metropolitan planning processes to better link planning and project development. These transportation plans must now address environmental mitigation, improved performance, and multimodal capacity issues.

The CIA process is an important part of transportation planning and project implementation and forms the center piece for evaluating the direct, indirect, and cumulative impacts under NEPA. The inclusion of CIA facilitates community concerns (mobility, safety, employment effects, relocations, and isolation) to be addressed in transportation decision-making. Significant potential environmental impacts depend on the context of the impact as well as their intensity. Public involvement is an integral part of every aspect of transportation planning and project development and most importantly in the NEPA and CIA processes.

D. PERFORMANCE MEASURES

As CSS becomes part of the way state DOTs do business, many agencies seek ways to gauge their performance in this important area. While few have yet adopted CSS performance measures, performance measurement is a management tool that many DOTs are already using to help achieve a variety of strategic goals and objectives. Context sensitive project solutions often appear deceptively simple, yet the holistic, multi-disciplinary, community-driven nature of CSS-based project delivery makes measurement challenging. CSS touches many parts of project development and every project is different. The tools that make CSS successful include, but are not limited to top-level leadership and commitment, agency-wide training, adoption of CSS in formal guidance and manuals, early and continuous dialogue with the general public and interest groups, interaction among multiple professional disciplines, and effective consideration of alternatives. This is what DOTs must seek to measure.

Source: Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs: http://trb.org/publications/nchrp/nchrp_w69.pdf

NMDOT's mission, *New Mexico 2025 Statewide Multimodal Transportation Plan* and the *Good to Great Strategic Plan* articulate the policy direction for the NMDOT. Performance measures should be aligned with these policies in order to ascertain whether the NMDOT's investments and services are achieving desired outcomes. The reasons for adopting performance measures includes accountability, efficiency of project delivery, communication of progress toward specifically defined goals and objectives, and to document NMDOT's accomplishments. While evaluating CSS through performance measures can be both quantitative and qualitative**,** a good measurement system will be acceptable and meaningful to the end user when it:

- Supports the organization's long-range plan, strategic priorities, and values as well as the relationship the NMDOT has with citizens, elected officials, policy makers, and transportation professionals
- Comprises a balanced set of a limited vital few measures
- Produces timely and useful reports at a reasonable cost
- Displays and makes readily available information that is shared, understood, and used by an organization and matches reports to the needs of intended users

In this context, a CSS performance measurement system should be used to:

- Strengthen NMDOT leadership support for the *CSS Directive*
- Maintain focus on strategic CSS goals
- Strengthen trust with stakeholders and customers

Just as CSS decision-making is a process, so is the development and implementation of CSS performance measurements for planning and projects. In the publication, *Serving the American Public: Best Practices in Performance Measurement* (govinfo.library.unt.edu/npr/library/papers/benchmrk/nprbook.html), key steps and critical practices are identified for performance-based management. They are as follows:

1. **Define Mission and Goals (including Outcome-Related Goals)**
    a. Involve key stakeholders in defining missions, long range plans, strategic priorities, as well as goals.
    b. Identify key factors that could significantly affect the achievement of the goals.
    c. Align activities, core processes, and resources to help achieve the goals.
2. **Measure Performance**
    a. Develop a set of performance measures derived from a specific goal or objective at each organizational level that demonstrate results, are simple to understand, are limited to the vital few indicators, respond to multiple priorities, link to responsible programs, and are not too costly.
    b. Collect sufficiently complete, accurate, and consistent data to document performance and support decision making at various organizational levels.
    c. Report performance information in a way that is user friendly and readily understandable to the non-NMDOT public.

3. Use Performance Information

a. Use performance information in systems for managing the agency or program to achieve performance goals.

b. Communicate performance information to key stakeholders and the public.

c. Demonstrate effective or improved program performance.

d. Support resource allocation and other policy decision making.

4. Reinforce Performance-Based Management

a. Devolve decision making with accountability for results.

b. Create incentives for improved management and performance.

c. Build expertise in strategic planning, performance measurement, and use of performance information in decision making.

d. Integrate performance-based management into the organizational culture and day-to-day activities of an organization.

The evaluation of CSS projects requires a new approach in developing performance measures. *Performance Measures for Context Sensitive Solutions – A Guidebook for State DOTs* (NCHRP Document 69 (Project 20-24(30) provides a measurement framework for CSS that is an indicator of project and organization-wide performance. The framework for CSS performance measures includes processes and outcomes at both the project level (micro) and organization-wide (macro). This basic framework and its elements are illustrated in Figure 2.

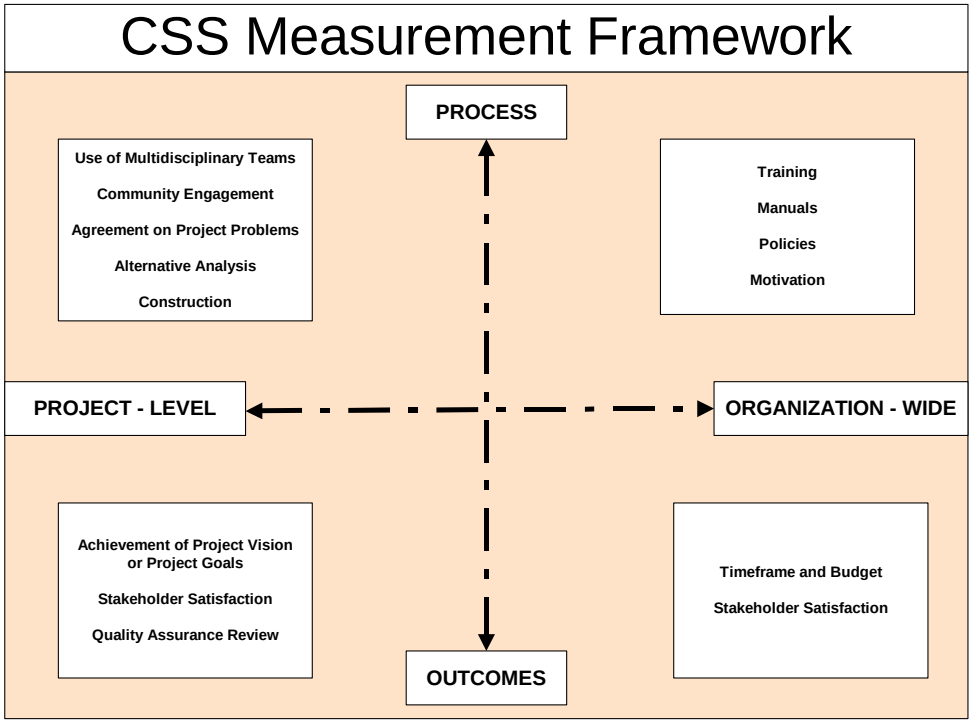


FIGURE 2 CSS Measurement Framework. Source: *Performance Measures for Context Sensitive Solutions – A Guidebook for State DOTs* (NCHRP Document 69 (Project 20-24(30)

At the project level, some measures may apply across many projects, while others may be scaled for use on an individual project. On the other hand, organization-wide measures provide a complement to tailored project measures. They offer insights on organization-wide trends that cannot be captured through micro-level measures on individual projects. Successful CSS implementation will require organizational changes such as revised project development manuals, training initiatives, and planning and project management strategies.

Another dynamic in CSS measures is balancing between process and outcome measures. Generally, organization measures are broader in scope and are fewer in number than project-level measures. See Table 2 for an overview of the key characteristics and focus areas of the CSS measurement framework.

TABLE 2 Overview of CSS Performance Measurement Framework

Performance Measurement Level	Key Characteristics	Focus Areas
Project-Level	▸ Used to assess individual projects ▸ Addresses both processes and outcomes ▸ Work for one or many projects ▸ Rely on collaborative self-assessment by project team and stakeholders ▸ Vital resource for project leaders/teams ▸ Use of multi-disciplinary team input ▸ Process measures applicable at key project milestones ▸ Outcome measures appropriate at project level	Process-Related ▸ Public engagement (early and continuous) ▸ Consensus on project vision or goals; consensus on project problems and needs, project vision or goals ▸ Alternatives analysis ▸ Construction and maintenance Outcome-Related ▸ Achievement of project vision or goals ▸ Stakeholder satisfaction ▸ Quality assurance review
Organization-wide	▸ Used to assess performance of entire organization ▸ Addresses both processes and outcomes ▸ Independent of individual projects ▸ Vital resource for senior management ▸ Monitored on regular schedule	Process-Related ▸ CSS Policy ▸ Manuals and website integrate CSS principles ▸ Motivation ▸ CSS Training Outcome-Related ▸ Project completion timeframe ▸ Budget met

Source: *Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs.* NCHRP Document 69. (trb.org/publications/nchrp_w69.pdf).

This chapter provides the basic framework for performance measures for processes and outcomes at the project and organization-wide levels. More input is needed from NMDOT concerning CSS in its planning efforts and the processes establishing performance measures for its strategic priorities. It is an important consideration that these performance measures be reflected in individual projects that should have a cross-modal component.

E. CSS AND SAFETY CONSCIOUS PLANNING

Promoting safety and safe travel is at the core of transportation engineering. With the passage of SAFETEA-LU, safety has been given more prominent attention in the Safety Conscious Planning (SCP) initiative which is a system-wide, multimodal, and proactive process that better integrates safety into surface transportation decision-making.

In the CSS context, SCP has a broader focus that incorporates safety considerations into the transportation planning process in a more comprehensive way, including setting the policy and planning context for eventual project development. SCP implies a proactive approach aimed at preventing accidents and unsafe conditions.

Similar to other issues that can be linked to the construction and operation of transportation facilities (such as air quality and economic development), travel safety is an issue that can be affected by how a transportation system is designed, constructed, operated, and maintained. Given that transportation planning leads to changes in a transportation system, safety should be thoroughly integrated into an agency's planning process.

A comprehensive safety program involves many different agencies and groups which includes a range of strategies and actions. Safety consideration is important for all users including pedestrians, bicyclists, motorists, and transit riders. Comprehensive safety strategies require the combined efforts of many of these participants to be effective. SCP is comprehensive. It considers all aspects of transportation safety—not only infrastructure-related improvements but also enforcement and education strategies as well as enhancing emergency service response to incidents. Consequently, the many different agencies and groups responsible for safety-related programs and efforts need to coordinate their activities and exchange information on what needs to be done to make these activities more successful. These

comprehensive SCP requirements should be considered at the state and metropolitan levels through the transportation planning process. Performance measures are to be established that are quantifiable so that progress towards goals and objectives can be measured and monitored. Examples are provided in Table 3:

TABLE 3 Examples of Safety Goals, Objectives, and Performance Measures

Goals	Objectives	Performance Measures
Increase highway safety	Reduce highway fatalities 10 percent by 2020	Number of fatal highway crashes
		Rate of fatal highway crashes
		Total number of people fatally injured in highway crashes
	Reduce highway crashes 10 percent by 2020	Number of motor vehicle highway crashes
		Rate of motor vehicle highway crashes
Increase pedestrian safety	Reduce pedestrian crashes	Number of pedestrian crashes
		Number of pedestrian fatalities
		Number of pedestrian crashes resulting in an incapacitating injury or a fatality
Increase heavy vehicle transportation safety	Improve heavy vehicle safety on the highway	Number of highway crashes involving a heavy vehicle
		Percentage of highway crashes involving a heavy vehicle
		Number of fatal and incapacitating injury crashes involving a heavy vehicle
		Percentage of fatal and incapacitating injury crashes involving a heavy vehicle
		Rate of heavy vehicle crashes on the highway (using heavy vehicle miles traveled as exposure)

Source: FHWA, Travel Model Improvement Program: tmip.fhwa.dot.gov/clearinghouse/docs/safety/chapter2.stm

F. CHAPTER RESOURCES

◊ General CSS

Building Projects that Build Better Communities, Recommended Best Practices (2003) First Edition [online]. Developed by the Community Partnership Forum. Published by the Washington State Department of Transportation. www.wsdot.wa.gov/biz/csd/BPBC_Final/

Context Sensitive Solutions On-Line Resource Center (Context Sensitive Solutions.org) [online]. Created by the Project for Public Spaces in collaboration with Scenic America to assist the FHWA in the integration of context sensitive solutions. www.contextsensitivesolutions.org

'Context Sensitive Solutions: Understanding Flexibility in Highway Design' (2003) [online]. Washington State Department of Transportation. www.wsdot.wa.gov/publications/folio/ContextSensitiveSolutions.pdf

Gee, K. W. (February 2003) 'A Guide to Best Practices for Achieving Context Sensitive Solutions, NCHRP Report 480,' Memorandum [online]. *Context Sensitive Design/Thinking Beyond the Pavement*, USDOT, FHWA. www.fhwa.dot.gov/csd/020703.htm

◊ Multimodal Approach

Cambridge Systematics, Inc (1999*). Multimodal Transportation: Development of a Performance-Based Planning Process.* NCHRP Web Document (Project B8-32(2)A) Prepared for the National Cooperative Highway Research Program. http://gulliver.trb.org/publications/nchrp/nchrp_w26-a.pdf

Fontaine, M. and J. Miller (2002). *Survey of Statewide Multimodal Transportation Planning Practices*. Prepared for the Virginia Transportation Research Council. http://www.virginiadot.org/vtrc/main/online_reports/pdf/03-tar9.pdf.

Jones, et al.(2003). *Multimodal Transportation Planning Needs Survey* (UTCA Report #01225) (2003). University Transportation Center for Alabama. http://utca.eng.ua.edu/projects/final_reports/01225-rpt.pdf.

◊ Public Involvement

Hear Every Voice: A Guide to Public Involvement (June 1999) [online]. Minnesota Department of Transportation. www.dot.state.mn.us/pubinvolve/pdf/sep10hev.pdf

Florida Department of Transportation Public Involvement Handbook (2003) [online]. Florida Department of Transportation. www.dot.state.fl.us/emo/pubs/public_involvement/pubinvolve.htm

'Planning Public Involvement and its Role in Project Development.' Source: *Public Involvement Techniques for Transportation Decision-Making* (September 1996) [online]. Publication

No. FHWA-PD-96-031 HEP-30/9-96/(4M)QE. US Department of Transportation, FHWA. www.fhwa.dot.gov/environment/pi_p_d.htm

◊ Environmental Stewardship

AASHTO's Center for Environmental Excellence [online]. American Association of State Highway and Transportation Officials (AASHTO). environment.transportation.org/

Amekudzi, A. and Meyer, M. (June 2003) *NCHRP Report 541, Consideration of Environmental Factors in Transportation Systems Planning* [online]. Transportation Research Board. www4.nationalacademies.org/trb/crp.nsf/%20All+Projects/NCHRP+8-38

Community Impact Assessment: A Quick Reference for Transportation [online]. Community Impact Assessment Web site. USDOT, FHWA, Office of Environment and Planning. www.ciatrans.net/TABLE.html

Environment Guidebook [online]. U. S. Department of Transportation, FHWA. www.environment.fhwa.dot.gov/guidebook/ index.asp

Environmental Review Toolkit [online]. U.S. Department of Transportation, FHWA. www.environment.fhwa.dot.gov/index.asp

NEPA and Transportation Decision Making [online]. U.S Department of Transportation, FHWA. www.environment.fhwa.dot.gov/projdev/pd3tdm.asp

'PENNDOT Community Impact Assessments Policy/Guidance' (2003) [online]. Pennsylvania Department of Transportation. 65.207.30.22/css/www/docs/CIApolicy10-6-03.pdf

Re:NEPA – the Federal Highway Administration's "community of practice" [online]. U.S Department of Transportation, FHWA. nepa.fhwa.dot.gov/renepa/renepa.nsf

Skaer, F. (2003) 'Interim Guidance: Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process,' Memorandum [online]. *Environmental Guidebook*, U. S. Department of Transportation, FHWA. www.environment.fhwa.dot.gov/guidebook/qaimpact.asp

Transportation Planning Capacity Building Program, Community Impact Assessment Roundtable, Peer Open Forum Report (September 2003) [online]. U.S. Department of Transportation, FHWA. www.planning.dot.gov/Peer/Forums/ indiana_PF.htm

◊ Performance Measures

Best Practices in Transportation Department Performance Measurement Structures (2004). Tennessee Department of Transportation. http://www.mtgmc.com/documents/Performance%20Measurement%20Best%20Practices%20Report.pdf

Crossett, J. and Oldham, S. (2005). "A Framework for Measuring DOT Performance in Context Sensitive Solutions." Presented at the Transportation Research Board 2005 Annual Meeting.

Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs. NCHRP Document 69 (trb.org/publications/nchrp_w69.pdf).

Performance Measures to Improve Transportation Planning Practice: A Peer Exchange. Transportation Research Circular Number E-C073 (May, 2005). [online] trb.org/news/blurb_detail.asp?id=5022.

Serving The American Public, Best Practices In Performance Measurement: Benchmarking Study Report (1997) [online]. National Performance Review. govinfo.library.unt.edu/npr/library/papers/benchmrk/nprbook.html

Strategic Performance Measures for State Departments of Transportation: A Handbook for CEOs and Executives. NCHRP Task 20-24(20). [online]. http://downloads.transportation.org/Quality-CEOHandbook.pdf

◊ Safety Conscious Planning

'Considering Safety in the Transportation Planning Process' [online]. Prepared by AECOM Consulting Transportation Group, Bellomo-McGee Inc., Ned Levine & Associates for FHWA. tmip.fhwa.dot.gov/clearinghouse/docs/safety/

Meyer, M. (2005). 'Linking Safety-Conscious Planning and CSS.' [online] *ITE Journal.* www.findarticles.com/p/articles/mi_qa3734/is_200508/ai_n14899733

Petzold, R. (May/June 2003) 'Proactive Approach to Safety Planning' [online]. *Public Roads.* www.tfhrc.gov/pubrds/03may/02.htm

'Safety in Planning' (January 2001) [online]. E-Circular Number E-C025. TRB Committee on Traffic Safety Management. US Department of Transportation, FHWA, Travel Model Improvement Program. www.fhwa.dot.gov/planning/scp/ec025scp.htm

'What is Safety Conscious Planning?' [online]. US Department of Transportation, FHWA. safety.fhwa.dot.gov/state_program/scp/index.htm

CSS – PLANNING

NMDOT is responsible for developing the state's comprehensive, multimodal, long range-plan which establishes their twenty-year transportation system goals and investment decisions throughout the state. NMDOT's responsibilities entail planning safe and efficient transportation that will serve the mobility needs of people and freight while fostering economic growth and minimizing transportation-related fuel consumption and air pollution. The NMDOT's long-range plan results from a regional and statewide process of collaboration and consensus and serves as the defining vision for the state's transportation systems and services. The NMDOT's consultative process includes federal, state, local, and tribal governments and the public. Federal statutes govern the long-range planning process which is conducted by the NMDOT Statewide Planning Section as delineated in Title 23 United State Code, Sections 134 and 135, as well as SAFETEA-LU Section 6001.

Planning is the first stage in the development of transportation projects. In keeping with the *CSS Directive*, getting early and frequent public input and coordinating activities with stakeholders affected by transportation decisions is critical to the success of any transportation planning efforts. In developing a vision for the state's transportation system, consideration should be given to demographic characteristics and travel patterns of the region, state, or metropolitan area and estimate how these characteristics might change over the next several years and form the foundation for NMDOT's planning efforts. This transportation planning is to reflect the desires of communities and take into account the impacts on both the natural and human environments. The steps in the long-range planning process are illustrated in Figure 3.

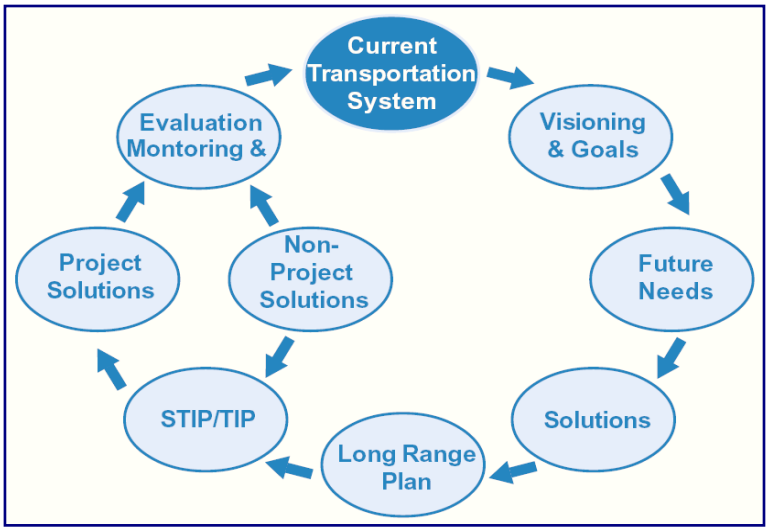


FIGURE 3 Steps in the Long-Range Planning Process.
Source: *The Government and Transportation Decision-Making*, FHWA. (www.fhwa.dot.gov/planning/citizen/citizen4.htm)

The NMDOT Statewide Planning Section develops the Long Range Multimodal Transportation Plan which provides input for short-range programming of specific projects. The NMDOT coordinates the State Transportation Improvement Program (STIP) process with input from the Regional and Metropolitan Planning Organizations, transportation stakeholders, tribes and the general public. STIP is a staged, multiyear listing of projects proposed for federal, state, and local funding encompassing the entire state, and the STIP is developed on a two-year cycle.

The STIP is a compilation of the Transportation Improvement Program (TIP) prepared for metropolitan areas, as well as project information for non-metropolitan areas of the state and for transportation between cities. The TIP is also a staged, multiyear (typically three to five years) listing of surface transportation projects proposed for federal, state, and local funding within a metropolitan area. The NMDOT oversees New Mexico's nine Regional Planning Organizations; coordinates with the five Metropolitan Planning Organization activities; and coordinates planning with tribal governments.

A. SAFETEA-LU STATEWIDE PLANNING REQUIREMENTS

With the passage of SAFETEA-LU, statewide planning provisions Section 6001 have been modified and are listed below. State and MPO plan or program updates must reflect these changes beginning July 1, 2007.

1. Statewide Planning in General

- Coordinate with metropolitan planning and with statewide trade and economic development planning activities and related multi-state planning efforts.
- Promote consistency between transportation improvements and state and locally planned growth and economic development patterns.

2. Long-Range Statewide Plan

- Develop a long-range statewide plan in consultation with state, tribal, and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. Consultation will involve comparison of transportation plans to state and tribal conservation plans or maps and to inventories of natural or historic resources.
- Include a discussion of potential environmental mitigation activities along with potential sites to carry out the activities to be included in consultation with federal, state, and tribal wildlife, land management, and regulatory agencies.
- Include capital, operations and management strategies, investments, procedures, and other measures to ensure the preservation and most efficient use of the existing transportation system.

- Add representatives of users of pedestrian walkways, bicycle transportation facilities, and the disabled as parties to be provided with the opportunity to participate in the statewide planning process.
- Enhance the public participation process by conducting public meetings at convenient, accessible locations at convenient times and employ visualization techniques to describe the plans.
- Make the plan available electronically in a user-friendly Web-accessible format in accordance with ADA, Section 508 guidelines (www.ada.gov).

3. State Transportation Improvement Program

- Covers a period of four years and be updated every four years (more frequently if the governor elects to do so).
- Representatives of users of pedestrian walkways, bicycle transportation facilities, and the disabled are specifically added as parties to be provided with the opportunity to participate in the planning process.
- Includes an annual list of projects for which funds have been obligated in the preceding year. The list will be published or made available through the cooperative effort of the state, transit operators, and MPO for public review, and the list is to be consistent with the funding categories identified in each MPO TIP.

B. Public Outreach and Involvement

A crucial element of the NMDOT long-range planning process is the development and implementation of an on-going public involvement plan that includes:

- How stakeholders are to be involved in the process: identify diverse populations; develop contact network; identify public involvement techniques strategies; involve stakeholders from urban and rural areas.
- How public involvement activities and input will be documented: publish analyses of stakeholder visions, perceptions, and feedback in long range plan as well as make available on the Web; provide information to the public.
- What methods and techniques are to be used: outreach, surveys, Internet, charettes (intensive meetings intended to resolve a specific issue) and focus groups targeting underserved, transportation users; citizen conferences, listening sessions Internet – Web site questionnaire survey, presentations at partners' scheduled meetings; printed copies for those without Internet access. (Various public involvement techniques are listed in Figure 4 on page 5-7.)

To be effective and meaningful, stakeholders are to be involved early in the process of plan development to maintain credibility and improve acceptance. The focus should not only be on public meetings but also on developing on-going relationships with interested parties. It is important to create multiple ways for interested citizens and stakeholders to provide input into the transportation planning and decision-making processes. It is vital to select public involvement techniques that encourage participation by non-motorists, underserved populations and others who do not normally participate in the NMDOT's multimodal long-range planning process.

In order to make the public and stakeholders informed partners in this process, outreach materials and technical transportation documents are to be produced in a user-friendly, non-

technical manner and in both English and Spanish where appropriate. ADA requirements must be adhered to, including making materials available in other formats where needed.

Given the increased importance of multimodalism in the SAFETEA-LU legislation, advisory committees such as multimodal and freight should be formed to provide modal input into the long-range plan. Public involvement is a continuing process to ensure that the proposals in the plan are implemented through advisory committees or seeking input from local planning bodies.

Detailing communication techniques to inform stakeholders and the general public about NMDOT's long-range planning activities and their results are important in developing acceptance and support for the plan. These techniques may include:

- Providing e-mail meeting notifications and updates to planning process participants.
- Establishing an 800 number for ease of communication.
- Establishing a NMDOT Web site for the long range planning process so that the public involvement plan, current planning activities, meeting calendars, and drafts of the plan can be posted. NMDOT planning staff contact information should be provided on the website as well as opportunities for feedback from the public. Printed copies of materials should be made available for those without Internet access.
- Developing informational brochures about the planning process itself as well as a summary of the primary goals, objectives, and strategies contained in the long-range plan. Distribute widely and make available on the NMDOT Web site.

Thirty-five different public involvement techniques and an assessment of the level of appropriateness in the planning process are listed in Table 4.

TABLE 4 Public Involvement Techniques in the Planning Process

KEY: ● Always Appropriate ◗ Sometimes Appropriate ○ Not Very Appropriate

Tool/Technique	Total Planning Process	Plan Process: Developing Values, Goals & Objectives	Choosing Alternatives	Plan Implementation	Feedback-Modification
Civic Advisory Committee (Advise)		●	●	○	○
Citizens on Decision & Policy Bodies (Recommend)		○	○	●	○
Collaborative Task Force (Problem Solve)	●	●	●	●	●
Mailing Lists	●	●	●	●	●
Public Information Materials	●	●	●	●	●
Key Person Interviews	●	●	●	●	●
Briefings	●	●	●	●	●
Video Techniques		◗	●	◗	○
Telephone Techniques		◗		◗	◗
Media Strategies	●	●	●	●	●
Speakers Bureau & P.I. Volunteers		●		◗	○
Public Meetings/Hearings (Formal)		○	●	○	○
Open Forum/Open Houses		◗	●	○	◗
Conferences, Workshops & Retreats	●	●	●	●	●
Brainstorming		●		○	○
Charrettes	●	●	●	●	●
Visioning		●	●	○	○
Small Group Techniques	●	●	●	●	●
On-line Services		●		◗	◗
Hotlines		◗	●	◗	●
Drop-in Centers		◗	●	○	○
Focus Groups	●	●	●	●	●
Public Opinion Surveys		●	●	○	●
Facilitation		○	●	○	○
Negotiation & Mediation		○	○	●	○
Transportation Fairs		◗	●	○	○
Games & Contests		○	●	○	○
Improving Meeting Attendance	●	●	●	●	●
Role Playing		○		○	○
Site Visits		◗	●	●	○
Non-Traditional Meeting Places & Events	●	●	●	●	●
Interactive Television		◗	●	○	○
Interactive Video Displays & Kiosks		◗	●	○	◗
Computer Presentations & Simulations		◗	●	●	○
Teleconferencing		○	◗	○	◗

Source: Minnesota Department of Transportation. *Hear Every Voice* (1999). www.dot.state.mn.us/publinvolve/pdf/sep10hev.pdf).

C. PERFORMANCE MEASURES

In order to be meaningful, NMDOT's long-range planning performance measurement framework must be put into a context of a systems approach to transportation planning and project implementation. Such a systems approach to performance measures would connect the NMDOT's *CSS Directive, Guiding Principles, Commitment to the Environment and Energy*, its long-range multimodal planning, STIP, and project implementation processes with its strategic directions and anticipated outcomes. Currently, NMDOT Multimodal Statewide Long Range Plan includes goals and implementation strategies but does not contain quantifiable long-term performance targets.

However, the long-range planning does lend itself to evaluation of the public involvement process. Elements of such an evaluation could include:

- Accessibility to the decision making process and opportunities for participation
- Diversity of views represented and integration of stakeholder concerns
- Information exchange through mutual respect and learning
- Planning decisions acceptability
- Number of hits or visits to the NMDOT Web site; analysis of Web site feedback
- Number of public meetings, workshops, or community events sponsored by or participated in by NMDOT; attendance at public involvement events and activities

D. Chapter Resources

City of Minneapolis, MN. *Integrating CSS Into System Planning: The Minneapolis Ten-Year Action Plan.* 2005 Midwest Region CSS&S Workshop.

Fontaine, M. and J. Miller (2002). *Survey of Statewide Multimodal Transportation Planning Practices*. Prepared for the Virginia Transportation Research Council. http://www.virginiadot.org/vtrc/main/online_reports/pdf/03-tar9.pdf.

Mineta Transportation Institute. 2001. *Best Practices in Developing Regional Transportation Plans* (MTI Report 01-10). transweb.sjsu.edu/publications/01-10.pdf

Minnesota Department of Transportation. 2003. *Minnesota Department of Transportation Statewide Transportation Plan.* www.oim.dot.state.mn.us/StatePlan/index.html

Michigan Department of Transportation. *MDOT State Long Range Plan Background*. www.michigan.gov/documents/MDOT_SLRP_Backgroundnocover_149672_7.pdf

New Hampshire Department of Transportation. 2005. Citizens *Guide to Transportation: Planning the Future.* www.nh.gov/dot/transportation planning/pdf/CitzensGuide-PlanningTheFuture.pdf

North Carolina Department of Transportation. 2004. *Charting a New Course for North Carolina: Long Range Multimodal Transportation Plan*. www.ncdot.org/doh/preconstruct/tpb/statewideplan/pdf/NCStatewideTransportationPlan

Pennsylvania Department of Transportation. 2004. *PennPlan Moves! Pennsylvania Statewide Long Range Transportation Plan 2000-2025.* www.dot.state.pa.us/internet/secinet.nsf/frmPage2GeneralInformation?OpenFrameSet&Frame=contents&Src=%2Finternet%2Fsecinet.nsf2FinfoPennPlanMoves%3FReadForm%26AutoFramed

Transportation Research Board. 2004. *Context Sensitive Solutions in the Planning Process: North Carolina's Experience.*

Transportation Research Board. 2003. *Public Involvement and Consulting Practices in States with Exemplary Statewide Multimodal Planning Programs*. www.trb.org/AM/IP/archives/papaper_detail.asp?paperid+18533

U.S. Department of Transportation, FHWA. 2002. *Evaluation of Statewide Long-Range Transportation Plans.* www.fhwa.dot.gov/hep10/state/evalplans.htm

U.S. Department of Transportation. FHWA. Planning. www.fhwa.dot.gov/planning/

U.S. Department of Transportation, FHWA. *Resource Index for Publications, Resources, and Services.* www.fhwa.dot.gov/planning/matrix.asp

CSS – PROJECT DEVELOPMENT

The NMDOT is committed to a CSS approach to transportation problems in the Location Study Phase for selected projects for project development. CSS implementation will be fully developed during the detailed design stage of project development. CSS is first and foremost about the NMDOT carrying out its mission of providing for the safety and mobility of the public. The goal of CSS is to encourage an open, interdisciplinary framework, in which project teams can develop roadway designs with multimodal considerations that fully consider the aesthetic, historic, cultural, and scenic values along with considerations of safety and mobility which is the essence of CSS.

A successful CSS project includes effective decision making and implementation, outcomes that reflect community values and are sensitive to environmental resources, and ultimately, project solutions that are safe and financially feasible. For background on Context Sensitive Design, the engineer is referred to NCHRP Report 480, *A Guide to Best Practices for Achieving Context Sensitive Solutions,* Transportation Research Board, 2002. An additional reference is *Flexibility in Highway Design* published by FHWA. This design guide illustrates how it is possible to make highway improvements while preserving and enhancing the adjacent land or community. *Flexibility in Highway Design* urges highway designers to explore beyond the standard design approaches of *A Policy on the Geometric Design of Highways and Streets* (AASHTO Green Book).

A. CONTEXT SENSITIVE SOLUTIONS PLAN

The engineer is responsible for the development and approval of a CSS Plan. The CSS Plan is to be submitted within 30 days of the Notice to Proceed and is to include the following:

1. Identification of the Key Decision Points in the Project Development Process

In the NMDOT CSS project development process, the following eight key steps are to be considered. Information generated through these processes will be input into databases A and B of the location study process.

- Define the management structure:
  - Identify the project development team, also referred to as the Technical Advisory Committee (TAC)
  - Identify stakeholder participants
  - Civic Advisory Committee (CAC) if needed
  - Public Involvement Plan (PIP)
  - Agency coordination
  - Other local entities
- Complete a Place Audit:
  - Stakeholder issues
  - Aesthetic, cultural, historic, scenic issues
  - Environmental
  - Traffic and engineering (safety and mobility)
- Problem definition:
  - Synthesize information
  - Development of project purpose
  - Development of project need
- Project development:
  - Evaluation framework
  - Incorporate stakeholder comments
- Alternatives development:
  - Effective decision-making
  - Multimodal

- Economically feasible
- Community values
- Environmentally compatible

- Display and communicate ideas:
  - Visuals
  - Written

- Alternatives screening, evaluation, and selection:
  - Funding
  - NEPA
  - Regulatory
  - Community feedback
  - Environmental

- Project Implementation:
  - Technical design
  - Continuing CSS involvement

Table 5 is to be completed defining CSS strategies employed at each key decision point:

TABLE 5 Defining CSS Strategies

	Effective Decision Making	**Reflecting Community Values**	**Achieving Environmental Sensitivity**	**Ensuring Safe and Financially Feasible Solutions**
Management Structure				
Problem Definition				
Project Development and Evaluation Framework				
Alternatives Development Including Multimodal Options				
Alternatives Screening Evaluation and Selection				
Implementation				

Source: *A Guide to Best Practices for Achieving Context Sensitive Solutions* (2002). NCHRP Report 480 (trb.org/publications/nchrp/nchrp_480.pdf).

2. Project Stakeholder Involvement in the Decision Making Process

Early stakeholder involvement is of primary importance and can insure that all issues that can impact the project are brought forth at the earliest possible stage. The CSS plan shall identify the stakeholder participants and their roles in the decision-making process and outline the sources and methods to be used to gather stakeholder comments and recommendations.

An interdisciplinary project development team should be identified. Generally, a Technical Advisory Committee (TAC) will be used. Strategies could include the use of a Civic Advisory Committee (CAC). Define how stakeholder comments and recommendations are to be transmitted to the project development team. Define the participants for developing the project purpose and need; the identification of alternatives; the screening of alternatives; the development of evaluation and rating criteria for alternatives; the screening and rating of alternatives; and other project development activities.

Include specific plans for agency or pueblo coordination. If necessary, individual consultation (rather than team participation) may be required. Provide strategies to ensure this is included in the decision making process.

3. Identification of Stakeholder Issues

The CSS Plan should include a preliminary identification of potential stakeholder issues and their significance to the project development process. Table 6 is not all-inclusive but provides some examples. This effort is ongoing throughout the project development process, with new issues added and clarification or resolution documented.

TABLE 6 Identification of Stakeholder Issues

Issue	Stakeholder Group	Key People	Type of Impact	Significance of Outcome
Increased traffic, noise, light pollution and degradation of scenic views; scale of project; design speed; function of road	Public/ Neighborhood Associations; residents; business owners	Neighborhood Association Representative (Name)	Noise; aesthetics/visual; light/glare; community values; community cohesion	Potential for increased traffic noise, light pollution, and impacts to homeowner's views.
Impacts to cultural resources	Tribal Government	Tribal Representative (Name)	Access; cultural resources; community values.	May affect tribal support for proposed improvements.
Potential drainage issues Traffic impacts to local streets during construction	Local Government	Local Government Representative (Name)	Drainage; safety; congestion; increased maintenance.	Local government may have to share burden of improvements.
Access issues, Loss of access/visibility during construction	Local businesses, residents	Business Association Representative (Name)	Negative business impacts.	Improvements may have both temporary and permanent effect on local business.
Incorporation of alternate modes of travel including transit, bicycle, pedestrian. Operational enhancements including ITS, HOV	Bicycle and pedestrian advocacy groups; transit riders; underserved groups; MPO	Group representatives	Multi-modal mobility	Less congestion, better safety
Aesthetic issues	Local government planning department; residents; business owners	Planning representative	Quality of life	Better quality of life
Construction traffic safety, traffic design	Law enforcement; residents; businesses	Law enforcement	Accidents, congestion; blocked access to businesses and residences	Improved safety and traffic operation; follow-on to agreements reached in CAC process

Source: *A Guide to Best Practices for Achieving Context Sensitive Solutions* (2002). NCHRP Report 480 (trb.org/publications/nchrp/nchrp_480.pdf).

4. Technical Advisory Committee (TAC)

The role of the TAC is to make recommendations, generally by consensus but not always necessary, to NMDOT management to assist in the decision-making process. The TAC considers stakeholder comments received from the CAC, agency coordination efforts, and the

public involvement process. For general reference and guidance, the description and function of the TAC should remain consistent with the Location Studies Procedures Manual and supplanted with information described herein.

The TAC is to be led by the Project Development Engineer and include participants from the following technical units:

- District Engineer
- District Technical Support Engineer
- District Traffic Engineer
- District Construction Engineer
- District Maintenance Engineer
- Bridge Design Section
- Traffic Technical Support Section
- Drainage Section
- Environmental Section
- Surveying and Lands Engineering
- Right-of-Way Bureau
- Railroad and Utilities Section
- Federal Highway Administration

5. Public Involvement Plan (PIP)

The CSS Plan is to include a preliminary Public Involvement Plan (PIP). While the CSS Plan includes specific initiatives to ensure stakeholder involvement, the PIP describes in detail public involvement activities required for environmental documentation and other public outreach efforts. The PIP must be approved by the NMDOT prior to the first public involvement activity.

The PIP is expected to be an evolving document, specific to the Location Study Procedures for the project development process (Phase A, B, and C). At the end of Phase A, the preliminary PIP will be evaluated and updated as necessary to proceed into subsequent project phases.

A general strategy for successful public involvement is to be described which includes: the objectives and goals of public involvement for this project; a brief project description; planning history and background information; a community profile; discussion of anticipated community issues; known or likely impacts (positive and negative); and planned approaches to resolution of issues. The PIP is to include the schedule and type of public meetings proposed. The schedule should correspond to key points in the project development process as well as those timeframes required by the environmental documentation process. The type of meetings proposed may include information centers, informal workshops, formal public meetings, or public hearings. Additional outreach effort should be described such as local or tribal government briefings, business group presentations, coordination with elected officials and community representatives, or individual meetings including property owner interviews.

The PIP is also to include: the planned methods of advertising public meetings (newspaper, radio, television, roadside message boards, etc.); meeting locations and times proposed to ensure accessibility for all members of the community; communication techniques such as visual graphics and consideration of bilingual written and verbal requirements; description of all documentation that will be provided to record proceedings and respond to comments; and provisions for mailing lists, e-mail lists and other means to provide a database for public involvement.

Project specific PIP initiatives such as proposed web sites, newsletters, flyers, or media coverage should also be included.

The engineer shall be responsible for the implementation and cost of all public meeting coordination including: advertisement of the meetings; arrangement and cost for required recording equipment; news media coordination; providing and arranging for the meeting facilities; responding to agency and public comments; preparation of handouts, exhibits and displays; coordination of meetings; preparation of reports of all meetings and contacts; preparation of transcripts and summaries of public meetings; and any coordination with the general public, property owners, or agency involvement that may be required before or after the public meetings.

Property owner contacts shall be conducted in the field by arranging to meet with owners at their respective parcels. An overview of the project will be discussed and include preliminary access, drainage, and fencing issues. Also, the specifics on how the property owner's access, fencing, gates, drainage, etc., will be affected by the project are to be discussed.

The PIP may include the use of a Public Involvement Specialist to assist the engineer with the implementation of the PIP. This Public Involvement Specialist may prepare handouts, exhibits and displays for the meetings, preparation of reports of all meetings and contacts and preparation of transcripts and summaries of public meetings.

6. Civic Advisory Committee (CAC)

The CAC should function as described within the Location Study Procedures Manual and information provided herein is intended to enhance the Location Study Procedures Manual. The intent of the CAC is to foster partnership with tribal governments, local governments, and the general public in the decision making process. The CAC is a representative group of stakeholders that meets regularly to discuss issues of common concern. Agency representation provides a means of interaction to achieve local stakeholder input to transportation planning and

project development. The primary role of the CAC is to provide formal stakeholder input necessary for an effective decision making process.

The CAC provides a forum for hearing stakeholders' ideas and molds participants into a working group. CAC meetings are held regularly, comments and points of view of participants are recorded, and consensus on issues is sought but not required. The CAC provides an opportunity to educate stakeholders on technical issues and enhances understanding of the effort and milestones of public agency progress. A successful CAC demonstrates a commitment to participation in the decision making process.

Non-participating CAC stakeholder representatives are to be promptly replaced. Replacement of a CAC stakeholder representative will be based on non-participation of a member without good reason and will be supported by the participating CAC members.

A schedule for CAC meetings is to be developed and coordinated with the key decision points in the project development process. The time-frame and location of CAC meetings should be convenient for all participants. The frequency of CAC meetings should be commensurate with the project development process. CAC meetings should be scheduled with sufficient lead time so that CAC input may be considered by the TAC and evaluated within the CSS framework to assess the feasibility of incorporating recommendations into key project development decisions.

In addition to defining CAC participants and the proposed meeting schedule, the CSS plan should address the structure of the CAC. The CAC should select its own leader; however, in some cases a formal facilitator may be required. Each meeting needs to have a clear agenda with meeting minutes recorded and provided to participants. The CSS plan can include

visualization graphics which could facilitate an understanding of concepts and alternatives to non-technical CAC participants.

7. Agency Coordination

Agency coordination will include any agency with management responsibilities, sensitive resource responsibilities, or permit authority for project activities. Coordination may be required with the following agencies:

- *Federal Agencies*
  - Army Corps of Engineers
  - Bureau of Indian Affairs
  - Bureau of Land Management
  - Bureau of Mines
  - Bureau of Reclamation
  - Department of Defense
  - Department of Housing and Urban Development
  - Environmental Protection Agency
  - Federal Aviation Administration
  - General Services Administration
  - National Park Service
  - Rural Electrification Administration
  - Department of Agriculture, Forest Service
  - Department of Agriculture, Natural Resources Conservation Service
  - Fish and Wildlife Service
  - U. S. Geological Survey

- *New Mexico State Agencies*
  - Agriculture Department
  - Energy, Minerals, and Natural Resources Department
  - Environment Department
  - Game and Fish Department
  - Human Services Department
  - Historic Preservation Division
  - Office of Indian Affairs
  - State Engineer's Office
  - State Planning Office
  - State Land Office
  - Department of Tourism
  - Department of Economic Development
- *Local Governments*
  - County
  - City
  - Village

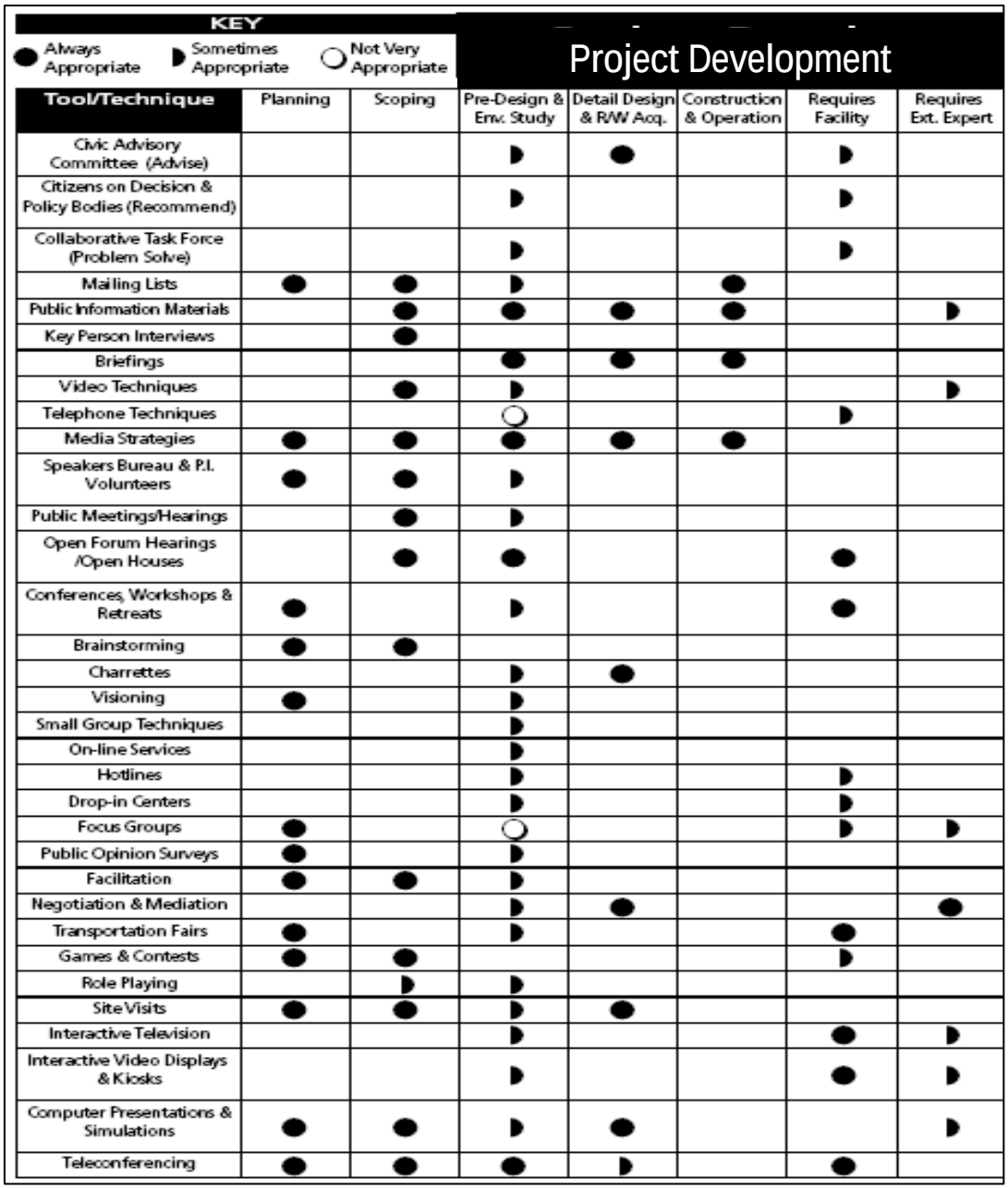
Agency concerns will be included as appropriate in the development, screening, and evaluation of alternatives. All results of agency coordination will be reported to the TAC and fully documented for the project file and inclusion in the environmental document.

B. PUBLIC INVOLVEMENT

A general discussion of stakeholders, public outreach and public involvement techniques were presented in Chapter IV. Discussion of the elements of Public Involvement Plans were

detailed earlier in this chapter. Specific public involvement objectives, techniques for the project development processes, and resources required in the process are provided in Tables 7, 8, 9 and 10.

TABLE 7 Public Involvement Techniques in the Project Development Process



KEY: ● Always Appropriate ◗ Sometimes Appropriate ○ Not Very Appropriate

Tool/Technique	Planning	Scoping	Project Development: Pre-Design & Env. Study	Detail Design & R/W Acq.	Construction & Operation	Requires Facility	Requires Ext. Expert
Civic Advisory Committee (Advise)			◗	●		◗	
Citizens on Decision & Policy Bodies (Recommend)			◗			◗	
Collaborative Task Force (Problem Solve)			◗			◗	
Mailing Lists	●	●	◗		●		
Public Information Materials		●	●	●	●		◗
Key Person Interviews		●					
Briefings			●	●	●		
Video Techniques		●	◗				◗
Telephone Techniques			○			◗	
Media Strategies	●	●	●	●	●		
Speakers Bureau & P.I. Volunteers	●	●	◗				
Public Meetings/Hearings		●	◗				
Open Forum Hearings /Open Houses		●	●			●	
Conferences, Workshops & Retreats	●		◗			●	
Brainstorming	●	●					
Charrettes			◗	●			
Visioning	●		◗				
Small Group Techniques			◗				
On-line Services			◗				
Hotlines			◗			◗	
Drop-in Centers			◗			◗	
Focus Groups	●		○			◗	◗
Public Opinion Surveys	●		◗				
Facilitation	●	●	◗				
Negotiation & Mediation			◗	●			●
Transportation Fairs	●		◗			●	
Games & Contests	●	●				◗	
Role Playing		◗	◗				
Site Visits	●	●	◗	●			
Interactive Television			◗			●	◗
Interactive Video Displays & Kiosks			◗			●	◗
Computer Presentations & Simulations	●	●	◗	●			◗
Teleconferencing	●	●	●	◗		●	

Source: Minnesota Department of Transportation. *Hear Every Voice: A Guide to Public Involvement at MnDOT* (http://www.dot.state.mn.us/pubinvolve/pdf/sep10hev.pdf)

TABLE 8 Public Involvement: Objectives, Methods, and Techniques

Public Involvement Objective	General Method	Specific Technique
INFORM	Committees	Civic Advisory Committees (Advise) Citizens on Decision Policy Bodies (Recommend) Collaborative Task Forces (Problem Solve)
	Communication	Mailing Lists Public Information Materials Key Person Interviews Briefings Video Techniques Telephone Techniques Media Strategies Speakers Bureau & P.I. Volunteers
INVOLVE	Meetings	Public Meetings/Hearings (Formal) Open Forums/Open Houses Conferences/Workshops/Retreats
	Techniques	Brainstorming Charrettes Visioning Small Group Techniques
FEEDBACK	Establishing Places	On-Line Services Hotlines Drop-In Centers
	Designing Programs	Focus Groups Public Opinion Surveys Facilitation Negotiation & Mediation
PARTICIPATION	Special Techniques	Transportation Fairs Games & Contests Improving Meeting Attendance Role Playing Site Visits Non-Traditional Meeting Places & Events Interactive Television Interactive Video Displays & Kiosks Computer Presentations & Simulations Teleconferencing

Source: Minnesota Department of Transportation. *Hear Every Voice: A Guide to Public Involvement at MnDOT.* (www.dot.state.mn.us/puubinvolve/pdf/sep10hev.pdf)

TABLE 9 Strategies for Reaching the Project Community

Using Existing Contact Networks			
Purpose	**Benefits**	**Pitfalls**	**Examples**
Identify people Share information Solicit input	Takes advantage of existing resources Builds community relationships	May miss the traditionally underserved	Professional organizations Chambers of Commerce Community Groups Neighborhood Associations
Develop Organized Outreach Efforts for Large Projects			
Share information Solicit input Monitor effectiveness of program	Builds community contacts and relationships Establishes NMDOT and MPO credibility	More appropriate for larger projects or studies Requires dedication of staff and resources	Speakers bureau Oversight committees Project advisory groups
Hold Meetings			
Share information Identify issues Solicit input Build consensus	Effective for reaching large and small groups Establishes NMDOT and MPO credibility	Can require extensive planning and resources	Workshops Design charrettes Focus groups Brainstorming sessions Public hearings
Traditional Printed Materials			
Share information	Generally inexpensive Familiar technique	Lacks personal contact May not reach the whole audience	Informational flyers Project newsletters News releases Meeting notices Pamphlets/brochures Newspaper ads
Use a Direct Approach			
Solicit input	Obtains specific information Raises level of importance Timely	Can be time intensive	Facsimile requests Telephone calls Letter requests Surveys Personal interviews
Experiment Using Alternative Media			
Share information Solicit input	Reaches broader audiences Catches the public's attention	Unfamiliar techniques	Radio/television talk shows E-mail & online bulletin boards Public service announcements Automated telephone services

Source: Florida Department of Transportation (2003). *Public Involvement Handbook.* (www.dot.state.fl.us/emo/pubs/public_involvement/pubinvolve.htm)

TABLE 10 Public Involvement Techniques and Resource Use

KEY: ● Very Intensive ◗ Moderately Intensive ○ Less Intensive

Tool/Technique	Resources Required: Use of Time Resources	Use of Money Resources	Use of Staff Resources
Civic Advisory Committee (Advise)	○	●	●
Citizens on Decision & Policy Bodies (Recommend)	◗	○	◗
Collaborative Task Force (Problem Solve)	◗		◗
Mailing Lists	○	◗	◗
Public Information Materials	○	○	○
Key Person Interviews	○		●
Briefings	○		●
Video Techniques	◗	●	
Telephone Techniques	○		●
Media Strategies	◗		◗
Speakers Bureau & P.I. Volunteers	◗		◗
Public Meetings/Hearings (Formal)	○	○	○
Open Forum/Open Houses	○	○	◗
Conferences, Workshops & Retreats	○	○	◗
Brainstorming	○	◗	◗
Charrettes	○	◗	◗
Visioning	○	◗	◗
Small Group Techniques			◗
On-line Services	○	○	◗
Hotlines	○	○	◗
Drop-in Centers	○	◗	◗
Focus Groups	◗	◗	◗
Public Opinion Surveys	◗	◗	●
Facilitation	◗	○	◗
Negotiation & Mediation	●	●	◗
Transportation Fairs	◗	◗	◗
Games & Contests	○	◗	○
Improving Meeting Attendance	○	○	○
Role Playing	○	○	○
Site Visits	○	○	○
Non-Traditional Meeting Places & Events	○	○	○
Interactive Television	○	●	◗
Interactive Video Displays & Kiosks	◗	●	◗
Computer Presentations & Simulations	◗	●	◗
Teleconferencing	○	○	○

Source: Minnesota Department of Transportation.
Hear Every Voice: A Guide to Public Involvement at MnDOT
(www.dot.state.mn.us/pubinvolve/pdf/sep10hev.pdf)

C. PERFORMANCE MEASURES

(The following CSS performance measures have been excerpted from NCHRP Document 69: *Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs* at http://trb.org/publications/nchrp_w69.pdf).

A general discussion and CSS performance measure framework was presented in Chapter 4. Project-level process performance measures can be used to assess the performance of one or many projects and rely on a self-assessment by the project team and stakeholders. General focus areas for project development processes and outcomes are as follows:

- Project Process-Related Focus Areas:
  - Multi-disciplinary project team—; right people; function effectively
  - Public engagement specific to type of effort; quality of public involvement strategy
  - External champion created; public input used at crucial decision points
  - Adequacy of NMDOT resources
  - How project problems, opportunities, and needs were addressed measuring linkage of problems, opportunities and needs to evaluation alternatives
  - Project vision or goals—consistency with local plans; consensus on vision and goals; supportive of community needs
  - Analysis of alternatives—adequacy of range of alternatives developed;
  - Evaluation criteria for alternatives; design considerations (speed, LOS, safety) multimodal considerations
  - CSS related construction and maintenance issues considered in project development.

- Project Outcome-Related Focus Area (post construction):
    - Project vision or goals – match between problems, opportunities and needs and the final project; track adherence to project commitments; were environmental resources preserved/enhanced
    - Stakeholder satisfaction; customer measures - achievement of consensus during project
    - Construction impacts
    - Quality assurance
    - Mobility and safety measures;
    - environmental stewardship;
    - project delivery;
    - economic measures

The project level focus areas listed above are further detailed below.

1. Project-Level Project Measures

Project-level project measures include: multi-disciplinary teams; public engagement; project consensus, vision and goal consensus; alternative analysis; and construction and maintenance.

Suggestions for Measuring the Project Team

Public engagement has become a key component of most successful transportation projects, and serves as an underpinning for achievement of the *CSS Directive*. Effective engagement should be tailored to local needs, frequent and ongoing, inclusive, innovative, educational, supported by strong leadership, and intended to affect project results. Stakeholders in public engagement include the public, local jurisdictions, resource agencies, various interest groups, as well as

highway designers, environmental professionals and project managers within the sponsoring agency.

Some questions to ask about the project team include:

- Were the right people on the team?
- Did the team function effectively?
- Was there focus on Context Sensitive Solution principles?

Suggestions for Measuring Public Engagement Effectiveness and Strategies

Public involvement is a key to a successful CSS process. Some questions to ask about the public involvement include:

- Are the needs of affected communities understood and are communities actually engaged and playing a meaningful role?
- Was there a public involvement plan?
- Were external champions for the project created?
- Was public input sought and used at key decisions points?
- Were the NMDOT expertise and resources adequate? Were adequate expertise and resources provided by the NMDOT to enable the community to understand the project? For example, do community members believe that issues involving technical terms and professional judgments were explained in a manner that they could comprehend and understand? Did the NMDOT provide a facilitator for community meetings?
- Were public engagement methods such as charrettes, newsletters, Web sites, or text translations appropriate to the scale of the project and the audiences who needed to be involved?

- Were visual aids (drawings, simulated photos, videos simulating the visual appearance and functionality of alternatives) used to convey clearly the alternatives under consideration?
- Did the project yield a public involvement process that was deemed so successful that this agency or others adopted its approaches to use elsewhere?
- Was the public involvement strategy given positive public recognition or an award?
- Do stakeholders feel pride of ownership in the project?

These suggestions for performance measures for public involvement can be grouped into families of measures which are summarized in Table 11.

TABLE 11 Public Involvement Family of Measures

Outcome	Measure
Build NMDOT credibility	a. When to initiate a P.I. Plan and contact frequency b. Types of media is used (including non-English venues) c. Stakeholders' perceptions: Do they feel that they are a part of planning and project design from the start of process?
Public Involvement is accessible to all segments of the public	d. Meeting convenience: time, place, and transit-accessible e. Clear and effective communication tools f. Survey the effectiveness of participation from the participant's perspective g. Outreach program tailored to specific community needs, e.g. cultural and/or language barriers
Public Involvement involves a representative group of the community that is part of the planning/project area	h. Document demographics of participants i. Civic Advisory Board established, if appropriate
Public Involvement is responsive to the input received	j. Feedback k. Information exchange l. Integration of concerns m. Stakeholder groups able to overcome their self-interest and work toward an overall problem solution n. Documentation of where P.I. affected the plan or project
NMDOT develops plans/ projects that support community goals and values	o. Support of neighborhood/civic/interest groups and affected units of government

Source: Minnesota Department of Transportation. *Hear Every Voice: A Guide to Public Involvement at MnDOT.* (www.dot.state.mn.us/pubinvolve/pdf/sep10hev.pdf)

Suggestions for Measuring How Project Problems, Opportunities, and Needs Were Addressed

Some questions to ask include:

- Was there adequate support for statement of problems, opportunities, and needs?
- Do the transportation problems, opportunities, and needs reflect the understandings of both the project team and stakeholders about transportation problems and needs?
- Does the problems, opportunities, and needs statement reflect the community's needs related to the project area as well as environmental issues?
- Was consensus reached among these parties on the statement of problems, opportunities, and needs?
- Were objective, measurable criteria developed related to components of the problems, opportunities, and needs statement that can be used to evaluate the appropriateness of project alternatives?

Suggestions for Measuring Project Vision or Goals

- Some questions to ask include:
- Was the project vision or goals consistent with local plans?
- Is the vision or goals statement consistent with local comprehensive plans?
- Is there consensus on project vision and goals?
- Did the project team, including citizens and regulatory agency staff, reach consensus on the vision or goals statement?
- Does the vision or goals statement constitute a "shared vision" by all project stakeholders?
- Are performance measures identified for assessing achievement of the vision or project goals?
- Is supportiveness of community needs achieved? If it is, will the vision or goals support the values of the community in the project area?

Suggestions for Measuring the Analysis of Alternatives

Some questions to ask include:

- Are project team members and stakeholders satisfied with the range of alternatives considered? How many schemes were considered that did not meet the optimum transportation goals? Was a no-build alternative included as part of the list of alternatives under serious consideration?
- Were criteria developed relating to the statement of problems, opportunities, and needs and to the project vision or goals for use in evaluating alternatives? Were representatives of the public involved in evaluating the alternatives?
- Does the facility encourage multimodal considerations – modes of transport beyond vehicular? Is there intermodal connectivity? Are sidewalks complete? What is the average percentage of destinations within a fifteen minute walk?
- Design considerations: Design Speed. Were alternate design speeds considered? Was the community involved in considering the design speed? Was a design speed lower than the current design speed chosen? Was this choice made to fit the transportation facility better into the context? In addition to the minimum design speed, was a maximum design speed considered so that the design elements would reinforce a maximum operating speed?
- Design considerations: Level of Service. Were alternate levels of service targets considered? Was the community involved in considering the target level of service? If the design speed or level of service target was reduced to fit the facility into the context in one area of the project, were these criteria reduced on other parts of the route to achieve continuity and consistency to respond to driver expectations?

- Design considerations: Safety. Were design decisions made to respond to safety needs demonstrated through actual accident data as a complement to designing to meet AASHTO Green Book guidelines?
- Was there a need for redesign? What is the measure of major design changes made? Are they beyond the 30% mark? The 50% mark? Or the 75% mark of design?

2. Outcome-Related Focus Areas

This is probably the most difficult outcome to measure and should be applied when the project is completed. Outcome related measurements include achievement of project vision or goals; stakeholder satisfaction and quality assurance.

Suggestions for Measurement Achievement of Project Vision or Goals

Some questions to ask include:

- Was there a match between the original problems, opportunities, and needs statement and the final project? Do team members and stakeholders agree that the project successfully addresses the identified problems, opportunities, and needs. Do project team members from the NMDOT and consultants concur? Do community stakeholders and regulatory agency staff concur?
- Tracking and adherence to project commitments: Many DOTs are starting to use systems that track commitments made during planning and design. Were project commitments to the public and resource agencies tracked throughout the project delivery process? Were these commitments met by the completion of the project?
- Do project team members from the NMDOT and consultants community stakeholders and regulatory agency staff agree that project visions or goals met? Was the project vision

achieved or goals met at project completion? If a sketch was done at the start of the project to illustrate the project vision, does this exist in the community now?

- Ask community members if the project supports community values? Does the completed project support the sense of community in the project area?
- Are environmental resources preserved or enhanced? Have environmental resources, scenic and historic resources, and aesthetic values been maintained or enhanced by the project as completed? Do the project team members from the NMDOT and consultants as well as community stakeholders and regulatory agency staff concur?
- Did the project leverage other resources? Did the project attract financial support from funding sources other than the DOT? Did the project serve as a catalyst for additional projects and/or economic development activities?

Suggestions for Measurement of Stakeholder Satisfaction

Stakeholder satisfaction can be measured a number of ways, including focus groups, town hall meetings, one-on-one qualitative interviews, or tailored surveys of key stakeholders. Survey elected officials' satisfaction levels at meeting project problems, opportunities and needs and meeting the project vision or goals. Some questions to ask include:

- Do post-project delivery customer surveys of funding partners (such as cities and counties) see how well NMDOT has responded to their issues and concerns.
- What is the percentage of concerns from resource agencies that were satisfied? Survey local planning officials to determine the project's consistency with local land use plans. Survey members of the community affected by the project to ask them if the project meets the agreed upon project vision or goals.

Suggestions for Measurement of Achievement of Consensus during the Project

- Ask team members and project stakeholders about the degree to which they think the NMDOT reached consensus with all stakeholders on problems, opportunities and needs statements, on the project vision or goals, and on the preferred alternative.

Suggestions for Measurement of Quality Assurance Review

- In the opinion of community members, was the project constructed with minimal disruption to the community?

A sample Context Sensitive Solutions Evaluation Form is contained in Appendix J.

D. Chapter Resources:

U.S. Department of Transportation, FHWA. *Flexibility in Highway Design* (FHWA Pub. No. FHWA-PD-97-062) (www.fhwa.dot.gov/environment/flex/index.htm).

A Guide to Best Practices for Achieving Context Sensitive Solutions (2002). NCHRP Report 480 (trb.org/publications/nchrp/nchrp_480.pdf).

Minnesota Department of Transportation. *Hear Every Voice: A Guide to Public Involvement at MnDO*. (www.dot.state.mn.us/pubinvolve/pdf/sep10hev.pdf).

Florida Department of Transportation (2003). *Public Involvement Handbook* (www.dot.state.fl.us/emo/pubs/public_involvement/pubinvolve.htm).

Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs. NCHRP Document 69 (trb.org/publications/nchrp_w69.pdf).

CSS – CONSTRUCTION

The NMDOT *CSS Directive* is applied to all aspects of transportation planning, project development and project implementation. Included in the *CSS Directive* is NMDOT's commitment to environmental stewardship by minimizing negative construction impacts on the environment. During the project development process, the interdisciplinary team should include environmental, construction, and maintenance staff so that construction and long-term maintenance issues can be addressed and incorporated into the project design. NMDOT's environmental staff takes responsibility for proactively working together with engineers and construction personnel to identify potential issues early and obtain the proper permits and take positive action before any permit violations can occur.

In addition, NMDOT is to monitor contractor follow-through on commitments made during CSS project development, particularly as they relate to the mitigation techniques used to reduce the impact on facility users and communities during construction. The NMDOT's CSS holistic approach includes constructability reviews and a construction commitment tracking approach to insure that commitments made during the public involvement process are being revisited and continually addressed. Commitments made during the CSS are to be written and made part of construction contracts for the project.

AASHTO's Center for Environmental Excellence has prepared a Compendium of Environmental Stewardship Practices in Construction and Maintenance (NCHRP 25-25 (04) which is a valuable compilation of approximately 7,000 environmental stewardship practices, policies, and procedures employed by DOTs and other organizations for highway construction and maintenance (environment.transportation.org/nchrp.asp).

A. PUBLIC INVOLVEMENT

Stakeholders should continue to be involved through the construction phase in order to communicate modifications to the project that may occur during the post-planning project phase, such as changes to the plan, schedule delays, reductions in funding for mitigation or community-desired improvements, or changes in construction detours.

B. PERFORMANCE MEASURES

Suggestions for Measuring CSS related Construction Issues Considered in Project Development

Some questions to ask include:

- Was the construction staff involved with the project team at all key milestones?
- Was a list of commitments to stakeholders maintained throughout the planning and design phases and incorporated into construction documents prior to beginning construction?
- Was the project monitored to ensure that commitments were acted on?
- Were there many requests for change orders during construction?

Suggestions for Measurement of Impacts of Construction.

- In the opinion of community members, was the project constructed with minimal disruption to the community?

C. Chapter Resources:

Environmental Stewardship Practices, Policies and Procedures for Road Construction and Maintenance (2004). NCHRP Project 25-25 (trb.org/news/blurb_detail.asp?id=4501).

Construction Compliance Procedures (2005). Washington State Department of Transportation (www.wsdot.wa.gov/envornment/compliance/docs/ NWEnvCompPlan2005.pdf).

Missouri DOT 2002 Contractor Performance Questionnaire. Missouri Department of Transportation (www.fhwa.dot.gov/programadmin//contracts/cpq2002.htm).

Hancher, D et al. "Context-Sensitive Construction in Kentucky." Transportation Research Record 1861 (2003).

Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs. NCHRP Document 69 (trb.org/publications/nchrp_w69.pdf).

Illinois Department of Transportation Contractors Performance Evaluation [online] (http://www.dot.state.il.us/constructionmanual/doc/wordforms/bc%201777%20(4-03).dot).

CSS – MAINTENANCE AND OPERATIONS

The maintenance of transportation facilities designed and implemented using CSS processes is more than just cleaning and repairs. Maintenance staff should be included in the CSS project development process to ensure that the road design and subsequent road operations can be adequately handled. NMDOT's responsibility is to ensure the public a safe, well-maintained facility on which to travel. The *CSS Directive* can often be carried through under maintenance and operation agreements with communities.

A. PERFORMANCE MEASURES

Some questions to ask for measuring CSS-related maintenance issues include:

- Was maintenance staff involved with the project team at all key milestones?
- Were maintenance needs/requirements taken into consideration when alternatives were evaluated?
- Is a maintenance plan in place to ensure that the project investment will be maintained?
- As a reflection of community buy-in and support, has the local government or has a local organization agreed to maintain some portion of the project improvements?

B. Chapter Resource

Environmental Stewardship Practices, Policies and Procedures for Road Construction and Maintenance (2004). NCHRP Project 25-25 (trb.org/news/blurb_detail.asp?id=4501).

Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs. NCHRP Document 69 (trb.org/publications/nchrp_w69.pdf).

CSS ORGANIZATION-WIDE MEASURES

CSS organization-wide incorporates a systems approach to performance measures that can serve many purposes. Program-wide areas, such as safety, are generally measured using organization-wide performance measures based on data collected across the NMDOT. Many graphic representations of this type of data are available using techniques such as "dashboards." This data is presented in an easily understandable fashion and allows managers to "drill down" from the highest-level to understand the factors that impact performance as well as present data regionally. Using system-wide performance measures facilitates assessments beyond individual projects and gains feedback on overall progress towards department-wide adoption of CSS.

A second function of using organization-wide performance measures is to assess the integration of CSS into the NMDOT's organizational culture such as its policies, manuals, and training.

Key characteristics of organization-wide measures include:

- Fewer in number than project-level measures
- Address both processes and outcomes
- Independent of individual projects
- Rely on central reporting of data
- Important resource for senior management
- Monitored on a regular schedule

A. PROCESS-RELATED FOCUS AREAS

Organization-wide measures can be used to address the process of achieving cultural change in organizational attitudes towards CSS. Changes in organizational culture start with strong leadership but also must include department-wide training and guidance. Staff training (quantity,

focus, quality) and integration of the *CSS Directive* in NMDOT manuals and procedures are important ingredients in this effort. NMDOT staff recognition of quality CSS achievements will identify CSS best practices. The CSS awards will be presented jointly with the New Mexico Division of FHWA at the annual Engineering Conference. (See Appendix K.)

B. ORGANIZATION-WIDE PROCESS-RELATED FOCUS AREAS

The implementation of CSS into NMDOT's planning and project development will mean changes in their organizational culture and operating procedures. These changes include training, manuals, motivation, and policies. Progress in CSS process-related areas can be measured organization-wide by considering areas such as those listed below.

Suggestions for Measurement of Staff CSS Training

Some questions to ask include:

- What was the quantity of CSS staff training? The quantity of training can provide some basic information such as the number of staff, consultants, and external stakeholder groups trained; the number of staff in specific disciplines or with different job responsibilities trained; or the number of project managers that have CSS training. What was the focus of CSS staff training? Consider measuring the range of topics that are addressed by training programs, such as design flexibility, collaborative teamwork, consensus building, conflict resolution, and facilitation.
- What was the quality of training? Assess staff and consultant attitudes before training and after. Measure the degree to which there is a cross-disciplinary focus in training, in which people of different technical backgrounds train together. Ask "what have you learned from this training and what will you do differently as a result of this training?" Ask staff if they

feel they have learned the skills needed to successfully meet the *CSS Directive* in their projects?

Suggestions for Measurement of Incorporation of CSS in NMDOT Manuals

- Have changes been made to NMDOT manuals to integrate CSS?
- How effective have the changes in NMDOT manuals been in implementing CSS?

C. ORGANIZATION-WIDE OUTCOME-RELATED FOCUS AREAS

As with project-level measures, outcomes are more difficult to measure than processes, but can be helpful in determining progress. Two outcomes closely related to CSS implementation that are of great interest are timeframe and budget, and stakeholder satisfaction.

Timeframe and Budget

The costs of implementing a CSS-based project development approach are to be integral to project costs and timeframe. Use of CSS can help make project schedules more predictable by reducing conflict during project development, and discovery of a low build alternative to meet stakeholders' needs can generate cost and time savings. Macro-level analysis of these trends across multiple projects may be valuable.

Suggestions for Measurement of Timeframe and Budget Timeframe

Some questions to ask include:

- What proportion of projects is completed on, or ahead of schedule?
- Were few or no project redesigns required because of the program-wide budget?
- Were low-build options selected?
- Were there added costs attributed to changes in scope mid-way through the design process?

- Were there cost overruns during construction attributable to changes in design during the construction phase?

Stakeholder Satisfaction with Department Performance

- Conduct tailored surveys of key stakeholders. Distribute results of system-wide overall project delivery performance. Survey elected officials' satisfaction levels at meeting project problems, opportunities, and needs, and meeting the project vision or goals.
- Do post-project delivery customer surveys of funding partners (cities and counties) to see how well NMDOT has responded to their issues and concerns. What percentage of concerns from resource agencies was satisfied?
- Survey local planning officials to determine if projects were consistent with local land-use plans. Survey members of the community affected by the project to ask them if the project meets the agreed upon project vision or goals.

Suggestions for Measurement of Satisfaction with Department Performance

- Was there achievement of consensus during projects department-wide? Ask team members and project stakeholders about the degree to which they think the DOT reached consensus with all stakeholders on the problems, opportunities, and needs statement, on the project vision or goals, and on the preferred alternative.
- What were impacts of construction department-wide? In the opinion of community members, were the projects constructed with minimal disruption to communities?

D. Chapter Resources:

Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs. NCHRP Document 69 (trb.org/publications/nchrp_w69.pdf).

MARKETING CSS RESULTS

The integration of CSS into NMDOT's transportation planning and projects will result in processes and outcomes that meet the safety and mobility requirements of good engineering and are acceptable to the community through effective public engagement processes. The CSS framework facilitates the development of performance measures that should be communicated within the NMDOT and to its stakeholders, the public, and decision-makers.

Ten factors that shape the success of CSS should be a part of NMDOT's marketing strategies:

- Planning and ongoing public involvement
- Perseverance of the individual in making a difference
- Visionary leadership in implementing CSS
- Maximizing funding opportunities
- Integration of interdisciplinary experts
- Flexible and innovative design
- Learning from the success and failures of others
- Visual and environmental quality without excessive cost
- Presenting and promoting the results
- Attitude that supports tradition and excellence

APPENDICES

Appendix A

To: All NMDOT Employees

From: Rhonda G. Faught, P.E., Cabinet Secretary

Re: Secretary's Directive on Context Sensitive Design and Solutions (CSS):

(This Directive instructs all NMDOT employees and others involved in the planning, development, construction, maintenance, and operation of all State transportation and support facilities to apply and adhere to CSS principles on all department projects.

Context Sensitive Design Solutions (CSS)

Context Sensitive Solutions is a model for transportation project development that has recently received much discussion and broad acceptance. Its essence is that a proposed transportation project must be planned not only for its physical aspects as a facility serving specific transportation objectives of maintaining safety and mobility, but also for its effects on the aesthetic, social, economic and environmental values, needs, constraints and opportunities in a larger community setting. In following NMDOT's Guiding Principles, NMDOT endorses the CSS approach for all projects, large and small, from early planning through construction and eventual operation.

This means that NMDOT employees working on projects and facilities should:

- Engage from the project's inception with representatives of affected communities, including elected and appointed officials and a widely representative array of interested citizens.
- Assure that transportation objectives of projects are clearly described and discussed with local communities in a process that encourages reciprocal communication about local views and needs in the overall project setting.
- Pay attention to and address community and citizen concerns.
- Ensure the project is a safe facility for both the user and the community.
- Consider the appropriate level of multi-modal relationships for enhanced mobility

CSS is a process that places a high value on seeking and identifying the "range of stakeholder wants", and if possible include desired project characteristics by, incorporating stakeholder values through project involvement and team consensus. NMDOT's belief is that consensus is highly advantageous to all parties and may help avoid delay and costs of project delivery.

The NMDOT will use CSS as an approach to plan, design, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, mobility, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders.

The context of all projects and activities is a key factor in reaching decisions. As of now it will be considered for all State transportation and support facilities when defining, developing, and evaluating options. When considering the context, issues such as funding feasibility, maintenance feasibility, traffic demand, impact on alternate routes, impact on safety, and relevant laws, rules, and regulations must be addressed.

GOALS

Often times across New Mexico, communities desire that their main street be an economic, social, and cultural asset as well as provide for the safe and efficient movement of people and goods. In urban areas, communities want transportation projects to provide alternatives and opportunities for enhanced modal choice for travel and visual quality. In natural areas, projects can fit aesthetically into the surroundings by including contour grading, aesthetic bridge railings, and special architectural and structural elements. Addressing these needs will assure that transportation solutions meet more than transportation objectives.

CSS meet transportation goals in harmony with community goals and natural environments. They require careful, imaginative, early planning, and continuous community involvement. The Department's design manuals, Federal Highway Administration (FHWA) regulations, FHWA's Flexibility in Highway Design publication, the American Association of State Highway Transportation Officials' A Policy on Geometric Design of Highways and Streets, NCHRP Report 480, Best Practices for Context Sensitive Design and Context Sensitive Solutions, and many of the new guidelines in CSS principles and solutions all share a philosophy that explicitly point out the inherent flexibility within the design and engineering manuals and standards we use and where through sound engineering analysis and judgment design exceptions and variances can be processed. This design philosophy seeks transportation solutions that improve mobility and safety while complementing and enhancing community values and objectives.

PLAN

The Secretary will create and develop an environment in which innovative actions, such as CSS, can flourish:

- Recognizes and highlights individuals, teams, and projects that advance the goals of this policy.
- Encourages staff to conduct and participate in meetings and conferences to expand the knowledge of CSS solutions internally and externally.

The NMDOT, through the CSS Bureau, will:

- Aid development and support of CSS transportation facilities.
- Revise manuals and procedure documents to facilitate the application of CSS.

- Initiate and coordinate research to enable CSS.
- Encourages innovation, flexibility, and application in design.
- Facilitates coordination with resource agencies to assure facilities and activities are in harmony with the surrounding environment.
- Ensures communities have the opportunity to be actively involved in the environmental stage of the project development process.
- Ensures CSS commitments are sustained, as warranted, as a project moves through the environmental approval process.
- Support the inclusion of CSS when programming transportation projects.
- Communicate the importance of CSS solutions to the New Mexico Transportation Commission.
- Encourages the development of funding partnerships for CSS.
- Proactively ensure early and continuous involvement of stakeholders.
- Are responsive to requests by local communities, resource and other agencies, and the general public for CSS solutions.
- Assure CSS solutions are applied to local and other projects within the State right-of-way.

Approved by:

_____ _____

Rhonda G. Faught, PE Dated
NMDOT Cabinet Secretary

Resources Reference :

- AASHTO "A Guide for Achieving Flexibility in Highway Design – 2004
- NCHRP- Report 480, " A Guide to Best Practices for Achieving Context Sensitive Solutions
- Existing Guides and Links on NMDOT CSS Weblink

State of New Mexico
Office of the Governor

Bill Richardson
Governor

CLIMATE CHANGE AND GREENHOUSE GAS REDUCTION
EXECUTIVE ORDER - 05-033

WHEREAS, scientific consensus is that the global climate is warming at rates that could cause significant temperature increases and weather pattern disruptions across the globe;

WHEREAS, the Intergovernmental Panel on Climate Change and the National Academy of Sciences have confirmed these global warming trends;

WHEREAS, atmospheric carbon dioxide levels are at the highest in more than 500,000 years and are projected to reach their highest level in four million years by mid-century;

WHEREAS, much of this sudden and sharp increase in atmospheric greenhouse gas levels is directly attributable to human activity, such as the combustion of fossil fuels and release of methane and other greenhouse gases;

WHEREAS, the trends could result in global surface temperature differences of approximately five to nine degrees Fahrenheit by mid-century, threatening the economy, quality of life, and environment that our generation will provide for future generations including children who are growing up in New Mexico today;

WHEREAS, the southwestern United States will likely suffer significant impacts from such temperature changes, such as decreased annual precipitation, faster evaporation of surface water supplies, and increased runoff at the end of winter when snowpack will melt faster;

WHEREAS, business leaders in the United States and around the world, representing corporate energy developers, utilities, insurance companies, and others, recognize the need to address the risk of global warming and reduce greenhouse gas emissions in a predictable, enforceable fashion;

WHEREAS, internationally and in the United States, the federal government has failed to address the issue of global warming in a fashion that will protect future generations from a variety of impacts such as rising sea levels, drought, weather disturbances and other threats;

WHEREAS, preparing to reduce greenhouse gas emissions provides New Mexico the opportunity to assume a leadership role in the new emerging clean energy economy and enjoy the economic development and high wage job creation associated with it;

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WHEREAS, the State of New Mexico is committed to joining regionally and nationally with other states in assuming a leadership role in addressing the risks of climate change;

WHEREAS, in Executive Order 2004-019, I declared New Mexico the Clean Energy State;

WHEREAS, the New Mexico Legislature has adopted a number of clean energy initiatives encouraging energy conservation and efficiency, the development of renewable energy, and strengthening clean energy industries;

WHEREAS, in 2004 New Mexico joined in the unanimous adoption by the Western Governors' Association of my proposal with California Governor Arnold Schwarzenegger to establish goals for energy efficiency in the Western states (20% improvement by the year 2020) and for clean energy development in the Western states (30,000 megawatts of clean energy by 2015);

WHEREAS, New Mexico's leadership in the development of state and regional climate change action plans will insure that New Mexico businesses are in the best position to benefit from future national climate change actions and that national policies will take into consideration the concerns of this state; and

WHEREAS, New Mexico will be the first "energy state" (energy revenues making up a substantial part of the state's revenues) to take on the issue of climate change.

NOW, THEREFORE, I, Bill Richardson, Governor of the State of New Mexico, by the virtue of the authority vested in me by the Constitution and by the Statutes of this State, do hereby ORDER and DIRECT:

1. The creation of the Climate Change Action Council which shall be advisory in nature and shall be chaired by the Secretary of the Environment and comprising the following state officials or their designees: State Engineer; the Director of Game and Fish; and the Secretaries of Agriculture; Economic Development; Energy, Minerals, and Natural Resources; General Services; Health; Indian Affairs; and Transportation; and the Governor's Advisor on Energy and Environment. The Climate Change Action Council shall review and provide recommendations to the Governor's Office regarding climate change policy.

2. The creation of the New Mexico Climate Change Advisory Group consisting of diverse New Mexicans who may be affected by climate change. The Advisory Group shall present proposals to the Council to reduce New Mexico's total greenhouse gas emissions to 2000 levels by the year 2012, 10% below 2000 levels by 2020 and 75% by 2050. The Advisory Group's proposals shall include consideration of costs and benefits. Because New Mexico cannot resolve this global issue unilaterally, the Advisory Group shall investigate and report on regional and national initiatives, particularly in association with nearby states, that will help create meaningful regional and national policy to address climate change. The Secretary of the New Mexico Environment Department shall

appoint and oversee the Advisory Group. The Advisory Group shall finalize a report to the Climate Change Action Council with findings and recommendations, including an inventory of existing and planned actions that contribute to greenhouse gas emissions reductions, no later than December 1, 2006.

3. The New Mexico Environment Department to convene a technical state agency working group including the designated representatives of the State Engineer; of the Director of the Department of Game and Fish; and of the Secretaries of Agriculture; Economic Development; Energy, Minerals, and Natural Resources; General Services Department; Health; Indian Affairs; and Transportation. The working group shall report to the Climate Change Action Council on potential impacts of global warming on New Mexico by December 31, 2005 and shall provide support to the Climate Change Advisory Group and the Climate Change Action Council.

4. The Office of the State Engineer to work with other state agencies, with local and federal agencies, and with the State's research institutions to prepare an analysis of the impact of climate change on the State's water supply and ability to manage its water resources. A report summarizing findings shall be completed no later than July 2006.

5. The New Mexico Environment Department to convene a science advisory panel consisting of state and regional scientists who are recognized for their expertise on climate change to serve as a resource to the Action Council and the Advisory Group.

6. The New Mexico Environment Department to develop a New Mexico greenhouse gas emissions inventory and forecast and create a staff position dedicated to global warming and climate change issues in New Mexico.

7. The New Mexico Environment Department to produce an annual report assessing progress toward achieving greenhouse gas emission reductions. This report shall be presented to the Governor by July 1 of each year, starting in 2007.

8. The General Services Department to develop recommendations to reduce greenhouse gas emissions in all aspects of New Mexico state government capital projects, including public education, transportation and daily operations. The General Services Department will further propose changes to procurement policies for new state vehicles to have hybrid electric engines and/or utilize alternative fuels. The General Services Department shall work with other state agencies to implement its duties under this Order.

9. All state agencies to assist as appropriate in implementing this Order and achieving its purposes. The actions mandated as a result of this Executive Order shall be accomplished within the bounds of, and consistent with, the relevant agency's existing statutory and regulatory authority.

10. Nothing in this Executive Order is intended to create a private right of action to enforce any provision of this Order or any Action Plan developed pursuant to this Order; nor is this Order intended to diminish any existing legal rights or remedies.

THIS ORDER supersedes any other previous orders, proclamations, or directives in conflict. This Executive Order shall take effect immediately and shall remain in effect until such time as it is rescinded by the Governor.

ATTEST:

REBECCA VIGIL-GIRON
SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE THIS
9TH DAY OF JUNE, 2005

WITNESS MY HAND AND THE GREAT SEAL
OF THE STATE OF NEW MEXICO

BILL RICHARDSON
GOVERNOR

State of New Mexico

Office of the Governor

Bill Richardson
Governor

EXECUTIVE ORDER NO. 2004-053

CREATING A TASK FORCE ON "OUR COMMUNITIES, OUR FUTURE"

WHEREAS, New Mexico's community heritage and culture is long-established, unique and integral to the lives of the people of the State;

WHEREAS, from pueblos to plazas, the State's history of community development has reflected the State's diversity and has helped its economy grow;

WHEREAS, today, New Mexicans can collaborate on new approaches to community growth that will contribute to the creation of high-quality jobs, mixed-use and mixed-income development, and successful new transportation systems;

WHEREAS, communities, residents, businesses and local governments, as well as state agencies, will benefit from collaboration leading to positive new community development policies; and

WHEREAS, collaboration on our communities, our future will help move New Mexico's economy forward by encouraging the development of great places in which to live, work, invest, and create jobs.

NOW THEREFORE, I, Governor of the State of New Mexico, by virtue of the authority vested in me by the Constitution and the laws of the State of New Mexico do hereby do hereby establish the Governor's Task Force on Our Communities, Our Future. The duties of the Task Force shall be:

1. To prepare recommendations for the Governor and Legislature by January 15, 2005, and as needed thereafter, regarding urban and rural community development and describing opportunities for high-quality investment and development in New Mexico's communities, from our largest cities to our smallest villages;

2. To meet with the public for the purpose of building a public record regarding the values that underlie New Mexico's community livability, and the best opportunities for public-private partnerships for 21st Century prosperity and community growth.

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3. To respect local and county jurisdiction, recommending incentives for investment that will help reinforce New Mexico's communities and families, support transit-oriented development and jobs, and help assure that community growth is efficient and livable.

The membership of the Task Force shall serve at the pleasure of the Governor and shall represent the diverse interests of the Citizens of New Mexico, including business people, community advocates, academics, local and county government, and New Mexicans who value the State's history and culture.

THIS ORDER supersedes any other previous orders, proclamations, or directives in conflict. This Executive Order shall take effect immediately and shall remain in effect until April 30, 2005, at which time it shall automatically expire.

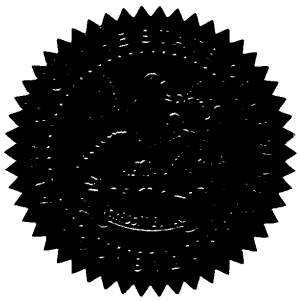
ATTEST:

REBECCA VIGIL-GIRON
SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE THIS
THIS 24TH DAY OF SEPTEMBER, 2004

WITNESS MY HAND AND THE GREAT SEAL
OF THE STATE OF NEW MEXICO

BILL RICHARDSON
GOVERNOR



State of New Mexico
Office of the Governor

Bill Richardson
Governor

EXECUTIVE ORDER 2005-056

ENVIRONMENTAL JUSTICE EXECUTIVE ORDER

WHEREAS, the State of New Mexico is committed to affording all of its residents, including communities of color and low-income communities, fair treatment and meaningful involvement in the development, implementation, and enforcement of environmental laws, regulations, and policies regardless of race, color, ethnicity, religion, income or education level;

WHEREAS, the State of New Mexico is further committed to promoting the protection of human health and the environment, empowerment via public involvement in the development, implementation, and enforcement of environmental laws, regulations, and policies, and the dissemination of information related to the environment to inform and educate, especially in people of color and low-income communities;

WHEREAS, environmental justice issues exist in New Mexico, as they do in other states, causing concern and creating problems for some communities, businesses and households that bear the impacts of air and water contamination, noise, crowding, reduced quality of life, and depressed land and housing values – many of which could be mitigated by better siting decisions and processes;

WHEREAS, the cumulative impact of multiple sources of exposure to environmental hazards in low-income and people of color communities, and the roles of multiple agencies in addressing the causes and factors that compromise environmental health and quality of life in these communities require an interagency response; and

WHEREAS, the Federal government has underscored the importance of Environmental Justice in Executive Order 12898 and created the National Environmental Justice Advisory Council to integrate environmental justice into federal policies, programs, initiatives and activities.

NOW, THEREFORE, I, Bill Richardson, Governor of the State of New Mexico, by the virtue of the authority vested in me by the Constitution and by the Statutes of this State, do hereby ORDER and DIRECT:

1. All cabinet level departments and boards and commissions that are involved in decisions that may affect environmental quality and public health shall provide meaningful opportunities for involvement to all people regardless of race, color, ethnicity, religion, income, or education level. Programs and policies to protect and promote protection of human health and the environment shall be reviewed annually to ensure that program implementation and dissemination of information meet the needs of low-income and communities of color, and seek to address disproportionate exposure to environmental hazards and risks.

2. All cabinet level departments and boards and commissions shall recognize the need to communicate in writing and orally significant public health and environmental information in languages other than English by

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ensuring that all publicly disseminated information, including websites, is available in Spanish and in English, at a minimum, and in tribal languages and dialects as appropriate for areas of the state where these languages are spoken.

3. All relevant cabinet level departments and boards and commissions shall utilize available environmental and public health data to address impacts in low-income communities and communities of color as well as in determining siting, permitting, compliance, enforcement, and remediation of existing and proposed industrial and commercial facilities.

4. There is hereby created a multi-agency task force, to be named the Environmental Justice Task Force, which shall include designees from the New Mexico Environment Department (NMED), State Engineer's Office, Department of Agriculture, Department of Health, New Mexico Department of Transportation, Energy, Minerals, and Natural Resources Department, Department of Public Safety, Department of Labor, and Department of Education. The NMED shall serve as the lead agency. The Task Force shall be an advisory body, the purpose of which is to make recommendations to State Agencies regarding actions to be taken to address environmental justice issues consistent with agencies' existing statutory and regulatory authority. The Task Force shall develop policies and procedures for communities to request the Task Force to address environmental justice issues in those communities. The Task Force is authorized to consult with, and expand its membership to, other agencies and stakeholders as needed to address concerns raised in affected communities. The Task Force shall meet not later than March 31, 2006 and shall report Task Force accomplishments to the Office of the Governor not later than December 31 of each year.

5. The NMED shall continue to work with the existing Environmental Justice Policy Committee, whose mission is to make recommendations regarding Environmental Justice issues in New Mexico to the Secretary and Deputy Secretary of NMED.

6. All state agencies shall assist as appropriate in implementing this Order and achieving its purposes. The actions mandated as a result of this Executive Order shall be accomplished within the bounds of, and consistent with, the relevant agency's existing statutory and regulatory authority.

7. Nothing in this Executive Order is intended to create a private right of action to enforce any provision of this Order or any Action Plan developed pursuant to this Order; nor is this Order intended to diminish any existing legal rights or remedies.

8. This Executive Order shall take effect immediately.

ATTEST:

REBECCA VIGIL-GIRON
SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE THIS
18TH DAY OF NOVEMBER, 2005

WITNESS MY HAND AND THE GREAT
SEAL OF THE STATE OF NEW MEXICO

BILL RICHARDSON
GOVERNOR OF NEW MEXICO

State of New Mexico

Office of the Governor

Bill Richardson
Governor

EXECUTIVE ORDER NO. 2004-019

DECLARING NEW MEXICO THE "CLEAN ENERGY STATE," CREATING A CLEAN ENERGY DEVELOPMENT COUNCIL AND DIRECTING STATE AGENCIES TO SUPPORT AND PARTICIPATE

WHEREAS, the State of New Mexico is an "energy state," producing oil and gas, wind power, coal, and other energy sources, and has the potential to sharply and profitably increase its production of solar, biomass, and geothermal power;

WHEREAS, the State of New Mexico has significant expertise in energy issues, being home to two national laboratories, several universities, and a large number of established and growing energy companies;

WHEREAS, the State of New Mexico exports the majority of the energy it produces, and has access to energy markets throughout the Western United States;

WHEREAS, the development of diverse new clean energy sources will help stabilize the national economy, save consumers and businesses money, prevent the export of energy dollars, create jobs and economic opportunity in New Mexico, reduce pollution and the emission of global warming gases, and lessen our nation's exposure to foreign threats to our energy supplies;

WHEREAS, in the past two legislative sessions the State of New Mexico has adopted groundbreaking new laws regarding the development of clean energy and implementation of clean energy projects, while creating incentives for clean energy investment and growth;

WHEREAS, "clean energy" can include wind, solar, geothermal, biomass, and fossil fuel technologies that eliminate or significantly reduce emissions of pollutants and greenhouse gases in the production of usable energy;

WHEREAS, New Mexico's clean energy campaign should also include reduction of energy use through building design, land use planning that reduces energy demand, energy efficiency, and energy conservation; and

WHEREAS, declaring New Mexico as the "Clean Energy State" and creating new structures to implement a clean energy campaign will place New Mexico in the forefront of an economic sector that is certain to thrive in coming decades, providing jobs and business expansion in New Mexico.

NOW THEREFORE, I, Bill Richardson, Governor of the State of New Mexico, by virtue of the authority vested in me by the Constitution and the laws of the State of New Mexico do hereby declare New Mexico the "Clean Energy State" and hereby order the creation of a Clean Energy Development Council which shall include the Secretaries of the Energy, Minerals, and Natural Resources Department, Environment Department, Economic Development Department, the Department of Transportation, the Department of Agriculture and the General Services Department as well as the State Engineer with staff support from the Office of the Governor.

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The Council shall recommend to the Governor the creation of task forces necessary to accomplish its purposes. The Governor shall appoint the task forces, consisting of members of the public from New Mexico and other experts. The task forces shall work collaboratively with existing clean energy programs and work on specific initiatives and issues such as concentrated solar power, residential and commercial solar power applications, biomass energy production, wind power production, hydrogen energy development, energy efficiency and conservation, transportation and transmission, advanced coal technologies, reduction of energy use in public buildings, and financing clean energy projects in New Mexico.

The Clean Energy Development Council shall work with appropriate task forces for the purposes of:

1. Develop policy recommendations that will enhance the opportunities for successful clean energy business growth in New Mexico;

2. Meet with the Governor, investors, companies, and researchers who can grow clean energy businesses in New Mexico; and

3. Communicate with appropriate stakeholders, lawmakers, and the public about the potential for clean energy development in New Mexico.

Prior to December 15, 2004, the Clean Energy Development Council shall present the Governor a set of recommendations regarding significant clean energy policy measures to be presented to the 2005 Legislature, and the Clean Energy Development Council shall thereafter report annually to the Governor on its recommendations and activities; and

The Clean Energy Development Council may seek funding from foundations and donors to support the activities of the Clean Energy Development Council and its task forces.

THIS ORDER supersedes Executive Order 1991-7 and any other previous orders, proclamations, or directives in conflict. This Executive Order shall take effect immediately and shall remain in effect until such time as it is rescinded by the Governor.

ATTEST:

REBECCA VIGIL-GIRON
SECRETARY OF STATE

DONE AT THE EXECUTIVE OFFICE THIS
14th DAY OF APRIL, 2004

WITNESS MY HAND AND THE GREAT
SEAL OF THE STATE OF NEW MEXICO

BILL RICHARDSON
GOVERNOR

Appendix F

Identifying Protected Populations

Source: NCHRP Report 532 (gulliver.trb.org/publications/nchrp/nchrp_rpt_532.pdf)

Summary of methods for identifying protected populations

Method	Assessment level	Appropriate uses	Use when	Data needs	Expertise required
1. Local knowledge and public input	All	Recommended in all situations	Initial evaluation of potential for distributive effects and to assure quality of findings of other methods	Low	Local area/ community involvement
2. Threshold analysis	Screening/ detailed	Regional plans, STIP/TIP, system assessment	Demographic patterns must be evaluated for large areas	Low	GIS, Census data
3. Spatial interpolation	Screening/ detailed	Corridor/ project	Demographic patterns must be evaluated for small areas or population patterns must be evaluated for finite areas of effect	Medium	GIS, Census data
4. Field survey	Detailed	Corridor/ project	Detailed residence, business, and public space location information is required	Low/ medium	GPS & photo interpretation can be useful
5. Customer survey	Detailed	All	System users could experience distributive effects	Medium/ high	Survey design
6. Population surfaces	Detailed	Regional plans/ corridor/ project	Scenario modeling or integration with grid-based modeling packages is required	High	GIS, Census data
7. Historic data review	Detailed	All	Past projects or investment plans are at issue, or when population trends are needed	Medium/ high	GIS, Census data
8. Population projection	Detailed	Regional plans, STIP/TIP	Planning horizon is five years or more	High	Census data, statistical modeling
9. Environmental justice index	Screening/ detailed	All	Combined analysis of multiple demographic factors is needed	Medium/ high	Census data, GIS
10. Personal interviews	Screening/ detailed	Regional plans/ corridor/ project	Analysis of a relatively well-defined impact area	Low/ medium	Interview techniques
11. Abbreviated diary	Detailed	Corridor/ project	Analysis of movement along a corridor is needed	Medium	Sampling, surveys
12. Space-time activity analyses	Detailed	Corridor/ project	Analysis of movement along a corridor is needed	High	Sampling, surveys, GIS, GPS

Public Involvement Tools and Techniques

Technique	Description	Benefit
Briefings	Information meetings with a community group or leader	Provides immediate opportunities for focused communication
Video Techniques	Recorded visual and oral messages	Provides an additional medium for reaching people; ensures a consistent message is conveyed
Telephone Techniques	A unique, two-way communication utilizing a toll-free hotline or telethon	Reaches a broad variety of people in an interactive manner
Media Strategies	Informs stakeholders about a project through newspapers, radio, TV, billboards, posters, etc.	Proactively frames the message to deliver a uniform message
Speakers Bureaus & Public Involvement Volunteers	Groups of specifically trained representatives who speak about a plan or project	Expands the possibility of community participation
Public Meetings/Hearings	Present information to the public and obtain informal input from community residents	Helps elicit community comments; can be tailored to the Department's needs
Open Forum Hearings/Open Houses	An informal setting for people to get information about a plan or project	Provides an informal, friendly environment and an opportunity for interaction with project staff
Conferences, Workshops & Retreats	Special meetings to inform people and solicit input on specific issues, plans or projects	Useful at any phase of a project; allows for a better understanding of the plan or project
Brainstorming	Participants come together in a free-thinking forum to generate ideas	Brings new ideas to bear on a problem; helps reduce conflict
Charrettes	A meeting to resolve a specific problem or issue	Provides solutions to produce visible results
Visioning	Leads to goal statements and can create priorities and performance standards	Offers the widest possible participation; an integrated approach to policy-making
Small Group Techniques	Groups with fewer than 20 people	Allows people to participate freely and actively; more effective than larger groups
On-Line Services	Provides communication through a computer	Enables the Department to post information about a plan or project; encourages the sharing of information

Technique	Description	Benefit
Citizens Advisory Committee	A representative group of stakeholders that meets regularly to discuss issues of concern	Provides a forum for people to present their ideas; is democratic and representative of opposing points of view
Citizens on Decision & Policy Bodies	Groups organized around civic, environmental, business or community interests that serve as experts in a field	Brings fresh new viewpoints and ideas with a community perspective to the forefront
Collaborative Task Force	A group assigned a specific task with a time limit to reach a conclusion or resolve an issue	Helps extend community input and support; assists in resolving impasses
Elderly, Ethnic, Minority & Low-Income Groups	Traditionally underserved populations that find participation in public involvement difficult	Bridges cultural and economic differences; ensures that all constituents have an opportunity to be heard
Americans with Disabilities	A 1990 law requiring that people with disabilities be involved in the development of services	Provides a forum for the disabled community which represents as much as 14% of the population
Mailing Lists	A collection of names of those affected by or interested in a plan or project	Helps organize public communications; focuses on a targeted group of people; provides flexibility
Public Information Materials	Wide range of products available to promote a transportation project	Provides basic information; easy to update periodically; information presented in graphic, non-technical, non-verbal ways
Key Person Interviews	One-on-one talk with an individual on a specific topic or issue	Transmits information informally; helps identify issues, concerns and desired agendas

Source: FHWA, Public Involvement Techniques for Transportation Decision-making. (www.fhwa.dot.gov/reports/pittd/cover.htm)

Identifying Direct and Indirect Impacts

Transportation plans and projects have both direct and indirect effects on the environments in which they are located. NEPA requires that an assessment be performed and that disclosure be made of 'reasonably foreseeable effects as a part of the environmental impact assessment process.' Procedures have been established to identify and estimate direct effects and efforts are made to avoid, minimize, or reduce those adverse effects and enhance the beneficial ones. Indirect impacts are more difficult to identify and assess as they often times are removed and not readily apparent. These indirect effects "may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40CFR 1508.8). Distinctions between indirect and direct impacts are reflected in Figure 16 and Figure 17 list examples of indirect effects.

Type of Effect	Direct	Indirect	Cumulative
Nature of Effect	Typical/ Inevitable/ Predictable	Reasonably Foreseeable/ Probable	Reasonably Foreseeable/ Probable
Cause of Effect	Project	Project's Direct and Indirect Effects	Project's Direct and Indirect Effects and Effects of Other Activities
Timing of Effect	Project Construction and Implementation	At Some Future Time than Direct Effect	At Time of Project Construction or in the Future
Location of Effect	At the Project Location	Within Boundaries of Systems Affected by the Project	Within Boundaries of Systems Affected by the Project

FIGURE 4: Distinctions between Types of Effects.
Source: *Guidance for Estimating the Indirect Effects of Proposed Transportation Projects.* NCHRP 466 (2001) (gulliver.trb.org/publications/nchrp/nchrp_rpt_466.pdf).

PROJECT ACTION	DIRECT EFFECT	INDIRECT EFFECT	INDIRECT EFFECT	INDIRECT EFFECT	INDIRECT EFFECT
Socioeconomics and Land Use					
Bridge to undeveloped area	-> Improved access	-> Residential development			
Highway extension	-> Improved access	-> Land use development	-> Floodplain encroachment		
Harbor improvements	-> Improved movement of goods	-> Industrial development near waterfront	-> Visual impact on shoreline		
New highway	-> Improved access	-> Land use development	-> Pre-emption of farmlands		
By-pass highway	-> Improved access	-> Development of commercial land uses on by-pass	-> Increased tax revenues from commercial ratables		
Construction of new highway	-> In-migrant Construction work force	-> Income to construction workers spent locally	-> Local businesses hire new employees	-> Population increase because of new employees moving into area	-> Increased demand for community facilities
New highway	-> Improved access to vacant land suitable for industrial development	-> Development of new businesses and industries on these industrial lands	-> Regional economic growth (increased income, employment & earnings)		
New highway bypass around congested downtown area	-> Improved access to vacant suburban land suitable for commercial development	-> New shopping malls and highway-oriented businesses locate on this land	-> Business declines in older downtown area which was by-passed	-> Downtown area deteriorates	
Adopt 'No Action' alternative instead of highway bypass around congested downtown area	-> Additional parking areas and bus routes provided to serve downtown businesses	-> Downtown businesses upgraded	-> More business activity and shopping takes place in downtown	-> Public improvements such as malls, sheltered bus stops, etc	
Adopt `No Action' alternative instead of highway bypass around congested downtown area	-> Businessmen and planners can not agree on downtown renewal program	-> Downtown business slows and the area deteriorates	-> The city suffers declines in population, income, employment		
New general aviation airport	-> Aviation-related businesses locate on or near new airport	-> New businesses hire and provide income for local workers	-> Regional economy improves		
Addition of new runway at metropolitan area airport	-> Construction materials purchased in region of airport	-> Local suppliers use increased income for productivity improvements	-> Productivity improvements increase competitiveness of local suppliers	-> Improved competitive position of local suppliers leads to increased employment	-> Regional economic growth results from new employment and income
Water Quality					
Highway extension	-> Improved access	-> Land use development	-> Increased non-point source water pollution	-> Decline in surface water quality	-> Health problems
Highway extension	-> Improved access	-> Land use development	-> Increased non-point source water pollution	-> Contaminants enter water supply aquifer	-> Contamination of groundwater
Wetlands					
New highway	-> Improved access	-> Land use development	-> Many small wetlands eliminated during development	-> Significant aggregate loss of wetlands due to development	
New highway	-> Alteration of surface water drainage patterns	-> Elimination or degradation of downstream wetlands			

FIGURE 5: Examples of Indirect Effects.

Ecology					
New commuter rail line	-> Removal of vegetation and habitat	-> Fragmentation of large habitat area	-> Elimination of species which require this large habitat		
New highway on barrier island	-> Migration of dunes places sand on highway, interrupting traffic	-> Structures built to keep sand off highways	-> Migration pattern of dunes altered	-> Impacts to sensitive barrier island habitat	
New highway in coastal area	-> Culverts built over numerous small streams	-> Interruptions to migration patterns of anadromous fish	-> Juvenile anadromous fish killed in fresh waters	-> Decline in numbers of adult anadromous fish in salt water	-> Decline of commercial fishery for anadromous fish
Air Quality					
New highway	-> Improved access	-> Development of new suburban shopping center and associated commercial activities	-> Creation of air quality contamination 'hot spot' exceeding standards	-> Reduction in available increment for future highway projects	
Noise					
New or expanded major international airport	-> New access roads and parking areas required to handle increased passenger load	-> Additional vehicular traffic on these roads produces noise above standards	-> Nearby residential property values are lowered		
Cultural Resources					
New rail mass transit project	-> Improved access for employees to station areas	-> Development of office parks in the vicinity of stations	-> Historic buildings are removed to make way for offices		
New Interstate highway interchange near older city	-> Improved access to nearby rural area	-> Development of land uses in vicinity of interchange	-> Significant alteration of view from historic farm property		
Other					
Highway extension	-> Improved access to undeveloped areas near a city	-> New land use development encounters hazardous waste sites			
New highway	-> Improved access	-> Land use development	-> Increased traffic on local roads and highway	-> Reduced access due to traffic congestion on local roads and highway	
New highway	-> Improvement of traffic flow, stabilization of vehicular speeds	-> Reduced fuel usage for vehicles using new highway	-> Reduced utilization of fossil fuels		

Source: Guidance for Estimating the Indirect Effects of Proposed Transportation Projects. NCHRP Reports 403 (1998) and 466 (2001)

Community Context Audit

For Transportation Projects

Purpose: The Community Context Audit form is intended to be a guide to identify various community characteristics that make each transportation project location unique to its residents, its businesses and the public in general. This information will help to define the purpose and need of the proposed transportation improvements based upon community goals and local plans for future development. The audit is designed to take into account the community's history or heritage, present conditions and anticipated conditions. As you complete this audit, please consider the interaction of persons and groups within your community when considering factors such as mobility and access *(vehicular, non-vehicular and transit modes)*, safety, local and regional economics, aesthetics and overall quality of life.

Municipality: _____

Project Location & Limits: _____

Attach a project location map to this form.

State Route #: _____ Road Name: _____

Project Estimate/Budget/Funding Sources: _____

_____

Project Type:

☐ Resurfacing	☐ New Roadway	☐ Intersection Improvements
☐ Widening	☐ Bridge Rehabilitation	☐ Enhancement Project
☐ Betterment Project	☐ Bridge Replacement	☐ Other _____

Project Description: _____

_____

Reason for Project: _____

_____

Contact Person: _____
Telephone #: _____

Individual Completing Context Audit Form: _____

Date: _____

Source: PennDOT Context Sensitive Solutions Initiative (audit form).
65.207.30.22/css/www/docs/community_context_audit.pdf

Community Context Audit

For Transportation Projects

Section 1: Community Characteristics/ Land Use

Please conduct a visual assessment in the field and attach a project location map. If appropriate, include a photo index for the project area. If appropriate gather public opinions and concerns about the proposed project. Consider community needs as the basis for this assessment. Assess the community characteristics and indicate the community's perception of importance for each characteristic currently and based upon known / planned future conditions.

Community Characteristics	Presence		Importance Present and Future		
	Yes	No	High	Medium	Low
Is this place an established center?	☐	☐	☐	☐	☐
Is this place a multi-modal transportation center?	☐	☐	☐	☐	☐
Is this place a commercial center?	☐	☐	☐	☐	☐
Is this place a residential center?	☐	☐	☐	☐	☐
Is this place a mixed residential /commercial center?	☐	☐	☐	☐	☐
Is this place an industrial center?	☐	☐	☐	☐	☐
Is this place a rural/agricultural area? Comments:	☐	☐	☐	☐	☐
Are there important cultural features or identifiers within the project area? If yes, list:	☐	☐	☐	☐	☐
Are there social/community features or identifiers within the project area? If yes, list:	☐	☐	☐	☐	☐
Are there important architectural features within the project area? If yes, list:	☐	☐	☐	☐	☐
Are there important natural features within the project area? If yes, list:	☐	☐	☐	☐	☐
Is this place of historical significance to the community? If yes, list:	☐	☐	☐	☐	☐

Overall assessment of community characteristics and setting: ☐ **Urban** ☐ **Suburban** ☐ **Rural**
(Please note, this is not the identification of a functional classification. This is an assessment of the community based upon physical characteristics noted above.)

Community Context Audit

For Transportation Projects

Section 2: Infrastructure Assessment

Assess the project or study area for the presence and adequacy of the following infrastructure items. If present *(a yes response)* and in poor condition, please make notation and provide any other relevant comments in space provided for each item. If not present (*a no response)*, indicate in the comment section if the item needs further evaluation. Indicate the level of importance each item may have to the community currently and based upon known / planned future conditions.

Infrastructure	Presence		Importance Present and Future		
	Yes	No	High	Medium	Low
Sidewalks Comments:	☐	☐	☐	☐	☐
ADA Compliance Comments:	☐	☐	☐	☐	☐
Bicycle Lanes/Paths/Facilities Comments:	☐	☐	☐	☐	☐
On-street Parking Comments:	☐	☐	☐	☐	☐
Transit Connections Comments:	☐	☐	☐	☐	☐
Transit Shelters Comments:	☐	☐	☐	☐	☐
Street Lighting Comments:	☐	☐	☐	☐	☐
Pedestrian Lighting Comments:	☐	☐	☐	☐	☐
Pedestrian Crossings Comments:	☐	☐	☐	☐	☐
Signals (Traffic. Directional & Pedestrian) Comments:	☐	☐	☐	☐	☐
Crosswalks Comments:	☐	☐	☐	☐	☐

Other Comments: _____

_____

_____

Community Context Audit

For Transportation Projects

Section 3: Neighborhood Culture, Aesthetics and Street Amenities

Assess the study area for the following amenities and cultural, aesthetic and comfort factors. If present *(a yes response)* and items are in poor condition, please make notation and provide any other relevant comments in the space provided for each item. If not present *(a no response)*, indicate in the comment section if the item requires further evaluation. Indicate the level of importance each item may have to the neighborhood currently and based upon known / planned future conditions.

Resource	Presence		Importance Present and Future		
	Yes	No	High	Medium	Low
Neighborhood Parks /Open Space /Civic Areas Comments:	☐	☐	☐	☐	☐
Benches Comments:	☐	☐	☐	☐	☐
Trash Containers Comments:	☐	☐	☐	☐	☐
Street Trees Comments:	☐	☐	☐	☐	☐
Landscaping Comments:	☐	☐	☐	☐	☐
Wayfinding Signage Comments:	☐	☐	☐	☐	☐
Community Safety Issues Comments:	☐	☐	☐	☐	☐
Traffic Safety Comments:	☐	☐	☐	☐	☐

Please list any seasonal events affected by proposed improvements at this location. _____

_____

Overall Comments: _____

_____

Community Context Audit

For Transportation Projects

Section 4: Economic Development

Assess the project or study area for the following community development indicators. Indicate the level of importance for each indicator currently and based upon known / planned future conditions.

Resource	Presence		Importance Present and Future		
	Yes	No	High	Medium	Low
Has this area been identified for new development? If yes, describe the proposed or planned development.	☐	☐	☐	☐	☐
Are visitors attracted to this area? If yes, indicate why?	☐	☐	☐	☐	☐
Is the local economy supported by historic, natural, cultural and entertainment resources?	☐	☐	☐	☐	☐
Does the roadway serve as a commuter corridor?	☐	☐	☐	☐	☐
Does the roadway serve as a gateway?	☐	☐	☐	☐	☐
Do stakeholders include business or other advocacy groups? *(in addition to public agencies and residential associations)*	☐	☐	☐	☐	☐
Is limiting sprawl a regional concern applicable to this place?	☐	☐	☐	☐	☐
Is redevelopment underway or planned for this place? If yes, how does the proposed transportation project impact redevelopment?	☐	☐	☐	☐	☐

Other Comments: _____

_____

_____

_____

Community Context Audit

For Transportation Projects

Section 5: Community Planning Assess the proposed project in context to local planning initiatives. Please provide the following information and documentation related to the project or study area.		
	Yes	**No**
Does the municipality have a comprehensive plan? If yes, indicate the date of the plan.	☐	☐
Is this project generally consistent with the municipality's comprehensive plan? If yes, indicate how.	☐	☐
Are there any special studies associated with this project? If yes, please indicate the name of study or studies and attach copies.	☐	☐
Has the municipality adopted a growth management plan or designated growth area? If yes, is this project located within the designated growth area.	☐	☐
Does this project have regional significance? If so, explain.	☐	☐
Are there other scheduled or planned projects that may tie into this project or impact this project? If yes, please indicate the project name(s) and type of project(s).	☐	☐
Identify planning and project development partners for this project:		
Other Comments:		

CONTEXT SENSITIVE SOLUTIONS
Project Evaluation Form

Please rate the quality and characteristic criteria listed on the attached evaluation form using the scale shown below.

Evaluation Scale:

1. Does not meet characteristic or quality. Requires explanation.
2. Meets some aspects of characteristic or quality.
3. Fully meets characteristic or quality.
4. Exceeds characteristic or quality.
5. Extraordinary steps were taken. Far and above characteristic or quality. Requires explanation, include the innovative techniques which were utilized.

Stakeholder:
A "stakeholder" is anyone who has something at stake in a specific policy or particular project. This includes any entity who uses, regulates, or is affected by the facility.

Optional:
In our effort to evaluate this tool, it would help us if you identify your position and/or office.
Position: _____ Office: _____

Comments on this Evaluation Tool:
We would welcome any comments you have on using this evaluation tool. Are the descriptions sufficiently clear? Did you have enough information about the project to respond to these questions? Or are there other comments you would like to make?

_____

_____

_____

_____

_____

_____

_____

_____

Source: *Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs.* NCHRP Document 69 (trb.org/publications/nchrp_w69.pdf).

Characteristics:

1. Establish a multi-disciplinary team early with disciplines based on the needs of the specific project and include the public. *Was a multi-disciplinary team formed at the beginning of the planning and/or design process (to develop a design program to include needs, goals, and objectives)? Was representation from the public included? Were appropriate team members added as work proceeded in response to project requirements? Were regular project meetings held where all team members were expected to attend and project issues were reviewed by all in a comprehensive manner?*	☐ **Does not meet**: no multi-disciplinary team was established. ☐ **Meets some aspects:** A multi-disciplinary team was established but it was done late and/or important specialists or public not included or the team did not meet on a regular basis throughout the project. ☐ **Fully meets**: A multi-disciplinary team was established, all specialist and the public were included, and the team met regularly to determine questions of process and project. ☐ **Exceeds**: A multi-disciplinary team was established, all specials and the public were included, extra team building steps were taken to insure that the team functioned well, allowing, for example, team members other than the project leader to take important roles in representing the project to review agencies, elected and agency officials and the public. ☐ **Extraordinary steps were taken:** _____ _____
2. Seek to understand the landscape, the community, and valued resources before beginning engineering design. *Did the project team initiate the planning and/or design process with a comprehensive site evaluation informed by the opinions of all stakeholder groups?*	☐ **Does not meet**: No effort was made to perform a comprehensive site evaluation. ☐ **Meets some aspects:** Some effort was made to perform a comprehensive site evaluation and opinions of some stakeholders were sought and reflected. ☐ **Fully meets**: The team performed a comprehensive site evaluation and sought and reflected opinions of all know stakeholders. ☐ **Exceeds**: The team performed a comprehensive site evaluation, sought out resource data beyond that readily available and sought out and reflected a broad range of stakeholders' opinions. ☐ **Extraordinary steps were taken**: _____ _____

3. Involve a full range of stakeholders with transportation officials in the scoping phase. Clearly define the purposes of the project and forge consensus on the scope before proceeding. *Were all stakeholders identified and involved early on in developing the scope of the project? Was a written design program developed that identified specific needs, goals, and objectives for the project? Did all parties (project team members and other stakeholders) reach consensus on the design program? Consensus is an opinion which is held by all or by most; not all have to agree, but all have to be able to live with it.*	☐ **Does not meet**: No design program was developed or it was developed without stakeholder input. ☐ **Meets some aspects:** The design program developed lacks detailed goals and objectives or was developed without full stakeholder involvement. ☐ **Fully meets**: A design program with a clear needs statement and detailed goals and objectives was developed with full stakeholder involvement and consensus was achieved on this program before proceeding. ☐ **Exceeds**: A detailed written design program was developed with consensus achieved and the program was used by all stakeholders throughout the planning and/or design process ☐ **Extraordinary steps were taken**: _____ _____
4. Tailor the highway development process to the circumstances. Employ a process that examines multiple alternatives and that will result in consensus on approaches. *Was the highway development process evaluated and adapted to the particular circumstances of this project? Were multiple alternatives identified and evaluated with the involvement of all stakeholders and did the team and stakeholders reach consensus on the chosen alternative?*	☐ **Does not meet**: The highway development process may have been adapted but multiple alternatives were not developed and consensus was not reached. ☐ **Meets some aspects:** The highway development process was adapted and multiple alternatives were developed but consensus was not reached with other stakeholders. ☐ **Fully meets**: The highway development process was adapted and multiple alternatives were developed. Consensus on an alternative was reached within the project team and with other stakeholders. ☐ **Exceeds**: The highway development process was adapted and multiple alternatives were developed and consensus within the team and other stakeholders was reached; the project design of the chosen alternative met and even exceeded the goals and objectives of the design program. ☐ **Extraordinary steps were taken**: _____ _____

5. Secure commitment to the process from top agency officials and local leaders. *Were top agency officials and local leaders consulted at appropriate milestones throughout the project for their review, input and written approval? When positions changed, was the new individuals commitment secured in a timely manner?*	☐ **Does not meet**: No attempt was made to secure commitment from top agency officials and local leaders. ☐ **Meets some aspects:** Some attempt was made to secure commitments but these may not have been written or may have included agency officials but no local leaders or vice versa. ☐ **Fully meets**: Written commitment was secured from both top agency officials and local leaders and when positions changed, new official's and leader's commitments were secured in a timely manner. ☐ **Exceeds**: Written commitments were secured from agency officials and local leaders; newly appointed or elected individuals were brought into the process quickly and their commitments secured in a timely manner. Extra steps were taken to insure continued commitment as the project evolved. ☐ **Extraordinary steps were taken**: _____ _____
6. Communication with all stakeholders is open and honest, early and continuous. *Did all stakeholders including project team members and the public receive regular communications articulating project issues an decision points? Did the multi-disciplinary team recognize that communication needs to be two-way, e.g. listening as well as telling?*	☐ **Does not meet**: Communication within the project team was not open and honest, early and continuous. Communication with the public was also spotty. ☐ **Meets some aspects:** Not all information was communicated and communication was intermittent or may have been within the project team but not with all stakeholders. ☐ **Fully meets**: Communication within the project team and with all other stakeholders was open and honest, early, and continuous. The project team met regularly throughout the project. ☐ **Exceeds**: Communication was open, honest, early, and continuous within the team and with other stakeholders and extra steps were taken to get feedback from stakeholders on how well the communication process was working. ☐ **Extraordinary steps were taken**: _____ _____

7. Tailor the public involvement process to the project. Include informal meetings. *Was the public involvement process customized to get the best input possible from the public? Was the process too extensive, insufficient, or just about right?*	☐ **Does not meet**: There was little or no attempt at public involvement. ☐ **Meets some aspects:** The public involvement process was adapted to the project but included only formal meetings. ☐ **Fully meets**: A public involvement process tailored to the project was conducted, including formal and informal meetings. ☐ **Exceeds**: A public involvement process tailored to the project was conducted including formal and informal meetings and extra steps were taken to involve people not initially aware of the project and to get feedback from the public on how well the process was working. ☐ **Extraordinary steps were taken**: _____ _____
8. A full range of 2D and 3D illustrations of the alternatives along with explanatory information such as graphics, video, etc. were easily available Use a full range of tools for communication about project alternatives were applicable (e.g. visualization). *Did the tools and techniques used effectively, communicate/ illustrate project alternatives? Was a creative range of techniques used such as 3D visualization, role playing, web sites, etc?*	☐ **Does not meet**: Communications of concepts was primarily verbal and with engineering drawings. ☐ **Meets some aspects:** Some color graphics and explanatory boards were used. ☐ **Fully meets**: A full range of 2D and 3D illustrations of the alternatives along with explanatory information such as graphics, video, etc. were easily available to interested stakeholders by request or at frequent intervals. ☐ **Exceeds**: A full range of 2D and 3D illustrations of the alternatives along with explanatory information such as graphics, video, etc. were easily available to interested stakeholders at their convenience through a web site or store front office. ☐ **Extraordinary steps were taken**: _____ _____

Qualities:

1. The project satisfies the purpose and needs as agreed to by a full range of stakeholders. This agreement is forged in the earliest phase of the project and amended as warranted as the project develops. *This quality relates to characteristics #3 and #4. Was the project designed/ built to meet the statement of needs, goals and objectives as articulated in the design program? Were the goals and objectives modified as necessary as the project progressed and was continued support gained from stakeholders?*	☐ **Does not meet**: The project addresses the identified needs but meets few of the goals and objectives agreed upon or meets some goals and objectives of the project team but few goals and objectives of other stakeholders. ☐ **Meets some aspects:** The project meets some of the initially identified goals and objectives, but goals and objectives were not modified as the project developed. ☐ **Fully meets**: In the opinion of a full range of stakeholders, the project meets the goals and objectives as initially identified and then amended through the project development. ☐ **Exceeds**: The project not only meets the goals and objectives as initially identified and amended, but also meets community or project goals not formally included in the scope of the project. ☐ **Extraordinary steps were taken**: _____ _____
2. The project is a safer facility both for the user and the community. *Is the facility viewed as safe by a full range of stakeholders?*	☐ **Does not meet**: The project has worsened safety. ☐ **Meets some aspects:** Safety is increased in some areas but other safety problems remain. ☐ **Fully meets**: The project team and the community view the project as safe. ☐ **Exceeds**: Project safety has been accomplished in a manner that also enhances other project values such as scenic, historic, aesthetic and environmental concerns. ☐ **Extraordinary steps were taken**: _____ _____

3. The project is in harmony with the community and preserves environmental, scenic, aesthetic, historic and natural resource values of the areas. i.e. exhibits context sensitive solutions. *Does the project derive some of its qualities from the community's sense of its own identity and the physical attributes of the community, e.g. historic resources or landscape qualities of the community?*	☐ **Does not meet**: The project ignores the environmental, scenic, aesthetic, historic and natural resources of the area surrounding the project. ☐ **Meets some aspects:** The project preserves some resources in the surrounding area. ☐ **Fully meets**: The project preserves the community's environmental scenic, aesthetic, historic and natural resources and reflects their qualities in some project design elements. ☐ **Exceeds**: The project both preserves and enhances the community's environmental, scenic, aesthetic, historic and natural resources and uses them as an inspiration for many project design elements. ☐ **Extraordinary steps were taken**: _____ _____
4. The project involves efficient and effective use of resources (time, budget, community) of all involved parties. *Did the project meet or exceed its budget? Was the project completed within the agreed upon timeframe? Was redesign of part, or all of the project, required? Was involvement of the public designed in a manner to fit individuals' abilities to offer time?*	☐ **Does not meet**: The project encountered substantial delays, due either to the late identification of significant resources or the exclusion of certain stakeholder groups from the initial setting of project goals and objectives or for some other reason. ☐ **Meets some aspects:** The project encountered substantial delays, due either to the late identification of significant resources or miscommunication with stakeholder groups or for some other reason. ☐ **Fully meets**: There was efficient execution of work, on time and on budget, with effective participation from stakeholders. The project team worked from the inception toward the generally acceptable solution. ☐ **Exceeds**: There was quick and efficient execution of work, on time and on budget and with coordinated involvement of all stakeholders from inception through construction. ☐ **Extraordinary steps were taken**: _____ _____

5. The project is designed and built with minimal disruption to the community. *Were the needs of business, residents and the traveling public considered throughout design and construction of the project?*	☐ **Does not meet**: There was major community disruption during construction. ☐ **Meets some aspects:** There was some community disruption during construction. ☐ **Fully meets**: There was person by person coordination with adjoining property owners and coordination with all affected parties to minimize disruption to the community. ☐ **Exceeds**: In the views of members of the community, construction disruption was avoided to the extent possible and everything reasonable was done to mitigate its effects. ☐ **Extraordinary steps were taken**: _____ _____
6. The project is seen as having added lasting value to the community.	☐ **Does not meet**: The community is not satisfied with the project. ☐ **Meets some aspects:** The community is satisfied with some parts of the project but not with others. ☐ **Fully meets**: The community is satisfied with all aspects of the project. ☐ **Exceeds**: The community is pleased with all aspects of the project and describes it to other communities as a model project of its type. ☐ **Extraordinary steps were taken**: _____ _____
7. The project exceeds the expectations of both designers and stakeholders, and achieves a level of excellence in people's minds. *This quality incorporates all of the other qualities for an overall evaluation of the project. Its measure may be the sense of pride that project team members have in their accomplishments, or the pleasure taken by citizens in the beautification yet functionalism of the project area, or the recognition of the project through awards or citations of its success.*	☐ **Does not meet**: The project does not meet expectations of either designers other stakeholders. ☐ **Meets some aspects:** The project meets expectations of designers and other stakeholders in many areas. ☐ **Fully meets**: The project exceeds expectations of both designers and other stakeholders and is cited by both as an example of excellence in NMDOT's work. ☐ **Exceeds**: The project exceeds expectations of both designers and other stakeholders and is cited by citizens as an example of the best of NMDOT's work. ☐ **Extraordinary steps were taken**: _____ _____

Source: Connecticut Department of Transportation (trb.org/publications/nchrp/nchrp_w69.pdf).

Context Sensitive Solutions Award Selection Criteria

		A. Relative Weight	B. Rating (0-4)	C. Score (AxB)
Category 1: Technical Content (50%)				
A	The constructed project addresses both transportation needs and community issues	25		
B	Specific design elements were used or modified to meet both transportation needs and community issues	15		
C	Creative solutions were used in the planning, design and construction of the project.	10		
	Subtotal Category One			
Category 2: Public Involvement (35%)				
A	Extent of early, continuous and proactive public involvement throughout planning, design and construction	20		
B	Extent of partnerships with stakeholders (such as municipalities, state/local agencies, other organizations)	7.5		
C	Project received positive community and/or media feedback either post-design or postconstruction	7.5		
	Subtotal Category Two			
Category 3: Environmental Improvement (15%)				
A	Project features benefit the natural environment, above and beyond permit or minimum design requirements	7.5		
B	Project features benefit the constructed environment, above and beyond permit or minimum design requirements	7.5		
	Subtotal Category Three			
Was this project recognized or celebrated within the region ?				
	Total			

0 = Poor or not applicable
1 = Fair
2 = Good
3 = Above average
4 = Excellent

Source: *Performance Measures for Context Sensitive Solutions: A Guidebook for State DOTs.* NCHRP Document 69 (trb.org/publications/nchrp_w69.pdf).

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