

Community, Character and Cash:

How you can reform transportation
with context sensitive solutions



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Michigan Environmental Council

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The Michigan Environmental Council (MEC) is a 501(c)(3) non-profit organization providing a voice for the environment at the local, state and federal levels. Working with our 71 member groups and their collective membership of nearly 200,000 residents, MEC addresses the primary assaults on Michigan's environment; promotes alternatives to urban blight and suburban sprawl; advocates for a sustainable environment and economy; protects Michigan's water legacy; promotes cleaner energy; and works to diminish environmental impacts on children's health.

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Executive Summary: What CSS can do for Michigan

The term Context Sensitive Solutions (or CSS, as it is often known to transportation professionals and policy advisors) refers to a new transportation policy approved or being considered in various states across the U.S. The Michigan Department of Transportation approved its own CSS policy during the summer of 2005, providing a bare-bones guide to principals and ideas that are now slowly being integrated into state-level processes and planning methodologies.

Since 2003, the Michigan Environmental Council (MEC) — a coalition of more than 70 environmental, faith-based, health and transportation groups across the state of Michigan — has been one of the state's foremost advocates of CSS policy. MEC wrote this document to provide concerned citizens, elected officials and planning professionals with a straightforward overview of the CSS program development and status in Michigan.

Better decision-making for better economic and environmental health

The CSS program is intended to improve the way that transportation projects get envisioned, planned and built. If well implemented, it should reform outdated transportation planning and design procedures — many of which are holdovers from the Eisenhower interstate expansion era — to make them more appropriate and useful in the 21st century. That would mean, primarily, that transportation professionals, policy makers and projects themselves more effectively take into account local needs, better protect unique community assets, and reduce environmental and social impacts.

Finding a better way to make these decisions is important to Michigan's economic and environmental well-being. Transportation projects are some of the most controversial, expensive, and high-profile expenditures of tax dollars in Michigan. Across the state, huge, community-altering projects (like the proposed I-75 expansion and a proposed US-31 bypass around Petoskey), as well as local road resurfacing and tree removal, have a huge impact on homes, businesses, and communities.

MDOT's adopted CSS policy (see Appendix 2) provides a very general guide to the values and intentions of the program at the state level. However, CSS will need much more work and attention to fill out the details that will make it a reality of planning and public involvement. Similarly, CSS principals can and should be endorsed by local transportation agencies as well, since a large percentage of Michigan's transportation investment is conducted at the county level. This can be achieved through ordinances and resolutions by local elected officials.

Ten critical points you should know

In reviewing and analyzing CSS and related Context Sensitive Design (CSD) policies and programs in use around the country, MEC has developed a set of observations and recommendations that are critical to the successful program in Michigan:

1. CSS can save money, and requires funding flexibility

In today's tight fiscal climate, CSS could save the state and local agencies money by providing governments with more options and by reducing the number of projects that meet with public resistance, limiting the need to defend or redesign projects. Funding should also be flexible, so that local road improvements, for example, could be eligible for existing funding if the CSS process determines them to be more appropriate than more expensive options, such as a bypass.

2. CSS is primarily a process, not an outcome

CSS is about reforming the culture of road and highway development, trading "one-highway-fits-all" thinking with a process that puts all solutions on the table. This will require a targeted program to make some new and unfamiliar approaches to transportation planning common in Michigan's state and local transportation agencies and in college planning departments.

Transportation decisions made each day influence our quality of life and the future shape of our neighborhoods and communities.

3. CSS improves public engagement

Michigan transportation agencies typically inform the public of proposed activities related to state transportation projects, largely through “open house” style public meetings, required newspaper announcements and the like. However, it is clear that people continue to believe their input rarely makes a difference. CSS offers a renewed emphasis on engaging citizens and a broader array of tools to ensure their opinions are useful and informed. CSS makes communities true partners in the development of transportation ideas and solutions by helping the road agencies create more meaningful opportunities and more effectively plan their outreach strategies and logistics.

4. CSS means real alternatives, not just aesthetics

Attention to minor physical characteristics of projects, such as stone bridge work and guardrail color options, greatly reduces the impact of CSS and substitutes costly ‘amenities’ for actual transportation system improvements. CSS should encourage not only aesthetic improvement and flexibility in design, but should actually favor options other than building new roads, such as bus or rail service, or improving existing roads.

5. CSS requires more flexible design opportunities

Acceptance of minor or major deviations from standards, including validation of concepts such as reduced design speeds and narrower lane widths, is necessary to achieve greater respect for community and natural features. One ‘standardized’ engineering solution limits professional expertise, while flexibility can allow for increased safety as well as improved functionality.

6. CSS does not expose transportation agencies to additional liability

Concerns about increased exposure to liability from the use of flexible designs are largely unfounded. Most design manuals used by engineers include a range of permissible features, such as lane width, design speed and shoulder width. The Michigan Supreme Court has also set precedent that a unit of government cannot be subject to tort liability for issues relating to the design of a road, meaning that a design flexibility pursued by MDOT or a local road agency under a CSS policy would not subject government agencies to liability.

7. CSS will only be successful if locals implement similar programs

Local ordinances or resolutions targeted to county road agencies are important and will likely involve the proactive work and engagement of residents and elected officials. CSS applications based on the state model should be encouraged at local road agencies.

8. CSS policy provides only minimal guidance in its current form

The hard work of developing a CSS program for the state remains to be done, and key aspects of a successful CSS program are still in question. Michigan’s CSS program will be developed within the state department of transportation with little stakeholder engagement unless citizens and organizations take the initiative.

9. CSS will require continued engagement of stakeholders

The citizen organizations and professional organizations that contributed to the development of MDOT’s policy in 2004 and 2005 should be encouraged to continue this engagement throughout the important development of specific guidance and procedures. The input of these partners, as well as interested leaders, advocate communities and elected officials, can improve the state’s program as it develops, and also help establish related CSS ordinances and programs locally through municipal government and county road agencies.

10. CSS can help the state address land use and urban sprawl concerns

By better matching transportation infrastructure investment with long-range land use plans that promote compact development, neighborhood revitalization and open space protection, CSS can help state and local governments accommodate new growth while making sustainable transportation decisions.

Engage decision-makers now

If you want to get involved in the discussion about recent CSS reforms, engage your state elected officials, local leaders and regional transportation professionals now. Ensure that they are getting the proper training and education in CSS policy and principals and ensure that this program realizes its true potential.

The program’s ultimate impact on Michigan’s transportation planning agencies and landscapes largely depends on the feedback that transportation professionals receive.

CSS in Michigan: A recent timeline

In 2003, based largely on outcry and public opposition to proposed highway projects, the Michigan Environmental Council (MEC) began working with other groups, including the Michigan Road Builders Association (now the Michigan Infrastructure and Transportation Association), to bring CSS to Michigan. MEC took a strong role based largely on the interests of constituent member groups. In local communities across the state, citizen-based advocacy groups were expressing concern about the myriad environmental and social costs of transportation projects — such as vegetation cutting, increased stormwater pollution, pedestrian impediments from road widening, and disproportionate impacts to minority populations.

Land use council convenes in 2003

The biggest push for CSS concepts, including increasing flexibility in road design standards, however, came from a variety of voices represented on the Michigan Land Use Leadership Council, a high-level task force convened in 2003 to look at land use causes and consequences. During deliberations and in the final recommendations, the council offered support for more flexibility in transportation planning requirements, including allowing narrower road widths, with strong support coming from represen-



People should be the focus of transportation planning; transportation officials must consider a variety of modes of travel to meet a community's needs.

tatives of the Michigan Environmental Council, the Michigan Association of Homebuilders, the Michigan Land Use Institute and others.

The Michigan Land Use Leadership final report, “Michigan’s Land, Michigan’s Future,” can be found online at www.michiganlanduse.org.

Granholt signs executive directive

In Grand Rapids in November 2003, close on the heels of the release of the final recommendations of the Michigan Land Use Leadership Council, Michigan’s Governor Jennifer Granholt announced that CSS would be one of her top seven land use reform initiatives. On December 23, 2003 Governor Granholt signed Executive Directive 2003-25 (see Appendix 1), directing the Michigan Department of Transportation (MDOT) to develop and implement a CSS policy for future projects.

Throughout 2004 and into 2005, MDOT officials and partner organizations engaged stakeholders in designing the CSS policy for the state. The deliberation process was extensive and included several working groups working independently on various aspects of CSS, including environmental, economic and public involvement. The final result of this outreach effort was a workshop on December 14, 2004, where the draft CSS policy was shared with representatives from the business, economic, environmental and conservation communities. Changes were suggested and incorporated, and the revised proposal was circulated through the necessary government channels for presentation to the Michigan Transportation Committee.

Michigan adopts policy in 2005

On May 26, 2005, the State Transportation Commission debated, discussed, and officially adopted the Context Sensitive Solutions policy outlined in Appendix 2. The responsibility for implementing the programs was assigned to MDOT’s Bureau of Highway Development, which is currently conducting staff trainings and developing new guidance documents to implement the full CSS program.

Why does Michigan need CSS?

From the proposed \$600 million expansion of I-75 in Southeast Michigan to the more than \$15 million dollars spent trying (unsuccessfully) to push a bridge over the Boardman River in Northwest Michigan, to the widening of small two-lane roads across the state, transportation decisions continue to make headlines and spark controversy. Context sensitive solutions (CSS) represent the state's best opportunity to create a more integrated transportation system that more effectively preserves scenic, aesthetic, historic and environmental resources while continuing to achieve both safety and mobility.

Better public input is crucial

Michigan's transportation planning agencies at the state and local levels have not always embraced the need for integration with local land use planning. In certain situations, this has heightened tensions between people that live near road projects and the people who plan and design them.

Some projects became mired in years of costly lawsuits or dissatisfied residents. Examples of this tension have been found in big cities and small towns, in high-profile cases and in relatively obscure areas. Similarly, problems and conflicts often arise when there is a lack of early, continuous and meaningful public participation in transportation planning and decision-making.

When existing problems and project objectives are not defined in collaboration with community members, transportation systems often fail to adequately address, protect or embrace the community's vision for its economy and unique environmental features. In such cases, transportation expenditures can become seen as threats or obstacles to the local community, rather than tools for achieving a shared vision for the future.

A suburban building explosion

CSS addresses the critical need for an innovative approach to transportation planning in the 21st century. With the completion of the country's interstate road system, the rise in low-density suburban housing models, and increasing pressures to reduce air pollution and traffic congestion, the need to bring together land use planning and transportation planning has never been greater.

When many of today's transportation planning procedures were developed, in the 1940s and 1950s, land use and transportation needs and priorities were much different than they are today.

The explosion in new suburban housing and commerce in traditionally rural areas far outside of core communities has increased the conflict between local residents, land use planners and transportation agencies. Longer and longer commutes, increased traffic congestion and a widely dispersed, low-density population means that transportation planning can no longer take place independently from land use and community planning.

Budget woes force priorities

Additionally, continued budget shortfalls at both the state and local level mean that not all transportation projects can or should be undertaken, and more pressure is placed on prioritizing the needs. Preserving and maintaining existing roadways and infrastructure makes good fiscal sense for state government and for local communities.

Where new or expanded projects are advanced, it is critical to engage the public so community members understand decisions and agency limitations.

Breaking the confrontation cycle

Unfortunately, long-standing procedural and funding requirements often reinforce the status quo approach to transportation. Policies often require that projects get "programmed" and into the long-range plan (or even partially designed) before community member are brought into the process.

When community members are informed of a project, it is often too late for meaningful input. This leads to a frustrating experience for the community members as well as the planning department, since the only individuals coming forward to offer their perspective are nay-sayers rather than open-minded community partners.

Public input has often become merely a bureaucratic hurdle to jump rather than an opportunity to work in collaboration with the system's users to develop a meaningful, long-lasting and helpful transportation solution.

CSS holds the potential to break this cycle and offer a new model for community engagement. State and local road agencies can accrue numerous benefits when they implement an effective CSS policy, but perhaps the most important benefit is increased trust among the public they serve.

Vibrant Detroit community fights proposed railyard

In the shadow of the Ambassador Bridge, southwestern Detroit is a quietly growing community. Newly repopulated with hundreds of new residents, dozens of new businesses and a reinvigorated spirit to create a safe and walkable community, this section of Detroit has enjoyed a surging revitalization. The community received a \$100,000 “Cool Cities” grant to revitalize the “Old Fellows” building and make it the home of Southwest Detroit Business Association and several other businesses.

However, a very real threat looms over southwest Detroit: the Detroit Intermodal Freight Transit yard (DIFT). “The DIFT is really a public health issue,” says Kathryn Savoie, Ph.D., Environmental Program Director for the Arab Community Center for Economic and Social Services (ACCESS) in Dearborn. “Southwest Detroit has some of the worst air pollution in the state; if there is a significant increase in truck traffic it will be a gigantic step backwards in the quality of life for this burgeoning community.”

The DIFT project, led by MDOT, transportation consultants at the Corradino Group and four major railroads (CSX, Norfolk Southern, Canadian National and Canadian Pacific), centers on the idea that the four major intermodal railyards in the Metro-Detroit area (NS/CSX-Livernois Junction Yard in Southwest Detroit, CP-Expressway in Corktown, CP-Oak in Grandmont and CN-Moterm in Ferndale) should be consolidated to increase the overall effectiveness and economic viability of freight shipping in Michigan.

The DIFT “consolidation” proposal is an 800- to 850-acre truck terminal that would stretch seven miles, encompassing an area from Junction Yard to Livernois (at John Kronk in southwest Detroit) to west of Wyoming and Michigan streets in southeast Dearborn.

MDOT has also put forth alternative proposals, known as “No Action,” and the “Improve/Develop,” option, at all of the railyards in Southeast Michigan, essentially consolidating just three of the yards into Junction Yard. Many citizen groups reject all these proposals, suggesting an alternative that would modernize and consolidate existing uses of the

railyard in a smaller geographic footprint. Their proposed facility would be secured for internal operations and public safety, and use a single access road along the rail right-of-way for access.

Capitalizing on the rail opportunities, under this proposal passenger rail with transit-oriented development would be developed on the site. A greenbelt would surround the transit and freight facilities, especially where it fronts residential property. The remaining land would be developed for residential and neighborhood commercial uses.

“We have had a difficult time getting railroads to maintain the borders between their property and the community,” says Karen Kavanaugh of the Southwest Detroit Business Association. “This has an impact on surrounding residential communities, leaving it significantly blighted. We are hoping that any proposal will take the community in mind over the economic considerations of intermodal transportation.”

With the institution of a true Context Sensitive Solutions (CSS) policy at MDOT, there should be consideration of these community visions, and an opportunity to assess the need for the project in the community’s long-range planning. However, the Draft Environmental Impact Statement (DEIS), released in May of 2005, does not offer consideration of these options in the formal alternatives to the DIFT project. Nor does the DEIS offer a comprehensive study of health impacts or long-term land use impacts that the “consolidation” or proposed alternatives would levy on the community.

Public comments on the Draft Environmental Impact Statement were due to MDOT on August 16, 2005. The department is expected to study and respond to all of the comments in a Final Environmental Impact Statement by Spring 2006.

Developing a successful CSS program in Michigan

The state has made several laudable attempts to address concerns about transportation planning and public engagement. It has launched ongoing programs that address historic preservation, managed access points to trunklines and protected some assets of particularly scenic corridors.

CSS, while incorporating many of the same goals, promises greater success than these limited programs by addressing the underlying problem more comprehensively.

Generally, CSS is built on the following key goals:

Safety. Transportation projects should promote the interest and safety of all residents in design, construction and maintenance.

Mobility. People should be the focus of transportation planning, and a variety of modes of travel should be considered in order to meet a community's needs.

Environment. Well-designed transportation systems can and should promote and protect an area's scenic resources and natural environment.

Community. By incorporating local interests and unique values and needs, transportation projects should serve to enhance community character.

Public participation. To reduce costly delays and public resentment, transportation planning should actively engage local residents early in the process of design and, more importantly, of need assessment.

With the support of the W.K. Kellogg's People and Land program, Michigan Environmental Council (MEC) and our partners undertook a comprehensive analysis of the existing literature and conducted personal interviews with implementers from around the country.

Our goal is to provide more specific recommendations for those interested in making Michigan's transportation system more sensitive to communities and individuals. We offer this information in the sincere hope that it will be useful for government

officials, road agencies, local planners, and citizens interested in bringing CSS to their community.

In developing these observations, MEC staff examined two primary areas of interests:

1. Processes and results of CSS and context sensitive design (CSD) program reforms undertaken in other states.
2. The range of existing programs with the Michigan Department of Transportation (MDOT) that provide a groundwork for CSS reform.

These state case studies and a survey of existing MDOT programs are available on our website at www.mecprotects.org. See Appendix 1 for more information.

In addition, we undertook to answer common concerns about CSS, especially for local governments. This includes concerns about liability when design flexibility is increased, and also concerns about the interaction between state and local transportation agencies.

In bringing CSS to Michigan, transportation planners and elected officials at both the state and local levels should strive to deliver a program that incorporates the features on the following pages.

Saving money

In today's tight fiscal climate, it is important to recognize CSS's potential to save state and local agencies money by providing them with more options and by reducing the number of projects that meet with public resistance, limiting the need to defend or redesign projects. CSS can often save money not only by reducing delay and litigation, but also by leading to the selection of less costly alternatives. For example, while the Michigan Department of Transportation (MDOT) proposed a \$90 million bypass for Petoskey, the CSS alternative of improving local roads would have cost approximately \$10 million (according to the Environmental Law and Policy Center).

Transportation agencies are required to notify and receive public input through a lengthy hearing process, but it is clear with each controversial project that citizens, businesses and community leaders who have a vested interest in the planning process often feel little ownership of the final design. The resulting delays can add thousands or millions of dollars to a project's total cost. By ensuring that community leaders and constituents have a shared and vested interest in the project, CSS can reduce these costs and ensure more timely and efficient use of financial resources.

Resistance to CSS is often based on a notion that the process will add time and cost to projects and departments. However, case studies indicate that cost advantages can accrue to well-designed and implemented CSS programs, primarily in the form of streamlining projects in the delivery stage through additional success in the planning and development stages.

You can avoid costly delays

In many cases, state transportation and local road commissions have spent millions of dollars in litigation or arbitration while trying to push through an unpopular project that meets resistance from the impacted community. This outcome costs money and delays often result in forfeited federal funding opportunities. By more effectively collaborating with the public in developing projects and agreeing on project need and purpose to a greater degree, transportation planners can invest more time and energy up front and often eliminate or reduce costs down the road when the agency implements the project.

Benefits are also seen in developing projects that provide an economic boon to travel and tourism in established communities and easing the pressure for more widely scattered development that would require additional infrastructure in future years.

Focusing on process more than product

Based on the experiences and reports of other states, it is important to understand that CSS is a process rather than an outcome, be it a final design product or project. It is a collaborative approach to development that encourages participants to consider the effects of proposed projects and the range of solutions for a given transportation concern. It may, in many cases, result in a project that is different than that which would have been envisioned by a transportation agency working alone. CSS works to change the discussion around transportation, and it encourages project managers and staff to more effectively engage stakeholders earlier in the process.

CSS requires a targeted, specific program in order to make new and unfamiliar approaches to transportation planning commonplace in Michigan's state and local transportation agencies and college and university planning departments. CSS programs consider a broader range of community assets and impacts when developing a vision for a new or improved transportation facility, and they work to find solutions that truly fit the current and future physi-

Land use and transportation needs have drastically changed since the 1940s, when many current procedures were established.

cal, economic and social setting. CSS, in short, can move transportation planning beyond a "highways-only" model and take instead the community vision as a guide in meeting both mobility, community, and land use needs.

Early involvement is key

The experiences of CSS programs in other states reiterate that CSS cannot just be a design change or aesthetic "add-on." A successful program needs to involve specific reforms to timing and interaction with the public, collaborative project development activities and the process and attitude by which transportation planning decisions are made. CSS is not a superficial feature; it is a process that is used by all employees and managers, a way of doing business that improves on existing approaches. The steps towards achieving this cultural shift include instituting training programs, public involvement reforms and promoting the adoption of more flexible design standards.

Increasing public interest and engagement

CSS provides the opportunity to develop public engagement processes for all transportation projects — not just highly controversial ones. These reforms are available and long-overdue in Michigan, where one person is responsible for all public involvement activities related to state transportation projects.

MEC is particularly interested in the potential for CSS policy to improve the amount and quality of public input engagement received early in a project's definition and development stage.

"Knowing something is a concern as I'm developing a project is much different than finding out something is a concern after I've handed in a design," agrees Mark Van Port Fleet, who currently heads up the CSS development project for MDOT and was responsible for drafting the CSS policy.

This requires the early and ongoing engagement of the public as well as transportation directors,

consultants, and engineers. By working more collaboratively with community members in the initial planning and problem definition stages of a transportation project, CSS can alleviate many of these costs, delays and controversies. Proactive involvement through a CSS approach to projects will help preserve community resources while maintaining safety and mobility, and it will provide infrastructure that unifies rather than divides communities.

Research and documentation reviews repeatedly assert that successful CSS programs are those in which specific efforts are made to engage community members in defining the purpose and need for a project. This means that all stakeholders need to understand when a transportation problem has been identified and to be involved in developing and refining that purpose and need.

Communities can agree on purpose and need

We saw throughout the CSS literature that context sensitive solutions are those that satisfy the purpose and need as agreed to by a full range of project stakeholders — those impacted by a project, including adjacent businesses, communities and users — and that this often means engaging communities in identifying their own community values, transportation impacts, and other opportunities. Only after there is agreement on the purpose and need for a project, including what issues and problems it is intended to address, can collaborative creative problem-solving, design, and implementation occur.

In almost every example from CSS programs in other states, successful CSS implementation defined a clear way for citizens to gain increased access to the planning and implementation process of their transportation provider.

Too often, projects are programmed and developed with little opportunity for the public and the transportation department to interact with each other in a productive manner. This can lead to contention later on, when a community feels the project is being thrust upon them, rather than developed in a collaborative way. The result is often litigation, controversy, and arbitration that can slow a project, expend resources, and create a contentious relationship between road agencies and the public.

Give residents clear information

A successful CSS program should give residents a clear understanding of the opportunities they have for engaging in the project planning and the tools and knowledge to work in partnership with transportation

In almost every success story, CSS defined a clear way for citizens to gain access to the planning process.

planners rather than in reaction to them. Where the community members see a need to preserve, protect and enhance the natural environment, they should be able to carry those desires to MDOT and know that they will be heard. Transportation professionals will agree that, more often than not, as traffic issues are brought forward and projects are programmed, a predisposed standard solution is assumed and proposed. In many situations that solution may be the best or correct solution; however, without community engagement in examining the problem and root need for the project, alternate or “best” solutions may never be considered.

A critical part of the CSS policy is the notion that communities should be proactively engaged in an early visioning process, so shared values are met when transportation problems and needs are being defined. For example, some community members may feel that additional lanes are necessary to relieve a specific traffic congestion problem. However, a collaborative visioning and problem identification process might reveal other contributing factors — such as limitations in alternate routes or modes — which could be addressed to alleviate the problem while more successfully achieving a community’s desires.

Communities can identify problems

Community engagement in problem identification also helps implement an equitable application of CSS across communities. Early visioning activities increase the opportunity for communities to recognize regionalized transportation opportunities.

Examples of this approach are available in other state policies:

- Connecticut: “Develop and implement creative identification of a project’s purpose and intent.”
- New Jersey: “a collaborative, interdisciplinary approach to identifying and solving transportation problems, in which consensus building extends from defining the project need and purpose, concept evolution, design and construction through maintenance and operation.”

Proactive dialogue with MDOT is critical

While drafting MDOT's CSS policy, various methods were discussed for ensuring that all affected communities and their members are engaged in identifying problems and needs as part of implementing a successful CSS proposal. These included new processes for informing community members of project analysis and intent at the earlier possible time in the process: i.e., when potential transportation problems arise, and before solutions are presented. It was also suggested that it is critical to proactively engage and educate community members using innovative design tools such as markable maps available in community locations (for example, libraries, grocery stores, and other centers of activity). Transportation charettes and other non-traditional approaches were also recommended.

CSS should help ensure that community members are treated as vital participants in the process of defining the purpose of, and need for, any proposed

design solutions. This would mean that community partnerships with MDOT staff would be needed, to offer a venue for community members to articulate their vision for the form and function of their local transportation system, including any potential opportunities to better integrate and plan ahead for the introduction of mass transit, biking, walking and other forms of transportation.

Working together before a solution is proposed

A successful program would have MDOT staff and community members working together early in the process, before specific solutions are put forward, helping to clearly articulate a community's transportation vision. Early problem and need identification would occur in close collaboration with community members, and this process would consider perceived transportation problems (accident rates, new development, congestion) and discuss projects in the con-

Boardman River Valley: Fighting to be heard

One of Michigan's most prominent transportation struggles occurred between Grand Traverse residents and the Traverse City Road Commission over the Hartman-Hammond Bridge in Traverse City's majestic Boardman River Valley.

The battle over the bridge began in 1987 when voters rejected county plans to buy land for the river crossing as part of a broader road expansion proposal. The initial proposal was to build a 20-mile, \$100 million beltway around Traverse City. It would have started near Omena in Leelanau County and loop around to M-72 in Acme Township. Also planned as part of the beltway proposal were "essential" feeder routes, like the Bugai Road extension, which is designed to relieve congestion on Route 22, and a \$20 million east-west corridor, which included a proposal for a new \$2 million bridge across the Boardman River Valley.

Residents roundly rejected this proposal over concerns that the project would contribute to sprawl by inviting more national chain stores and mall developers into the region, undermining the compact and successful city center. They also had environmental concerns, contending that the bypass design process failed to comply with environmental laws and ignored the effects the new road would have in opening up farmland to development. Businesses, local governments, and

environmental and conservation groups criticized the project as a threat to air, water, and forest resources. The proposed four-lane bridge across the Boardman River would have required filling in approximately 10 acres of wetlands.

After almost 15 years of citizen opposition, lawsuits, alternative studies and negative environmental impact studies, the state canceled most of the bypass in 2001. A 2002 lawsuit brought against the road commission by a coalition of environmental and conservation organizations, including the Michigan Land Use Institute, the Sierra Club and the North Michigan Environmental Action Coalition contended that, under the Michigan Environmental Protection Act, a project that is likely to harm the river, wetlands, and surrounding natural resources is unlawful unless the road commission can show it has no other alternative. The groups contended that an alternative had existed for more than four years in the form of the community-based "Smart Roads Grand Traverse Region" study.

In the fall of 2004, the road commission finally scrapped the last vestiges of the controversial plan. They are now working on a comprehensive land use and transportation study to better respond to the Grand Traverse region's accelerating growth.

text of a community's transportation vision. It would offer new tools and methods such as maps, charettes and visioning sessions. A more open and engaging dialogue would occur as problems are identified.

Overall, these new processes and policies would mean that fewer controversial projects are undertaken, and more public comments and input would be received from stakeholders earlier in the process. The public, therefore, would better understand the constraints on the transportation agency and they would be better able to visualize alternatives.

As one stakeholder explained, "Excellent context-sensitive design means the road agency has no pre-conceived ideas about the transportation problems or solutions in a particular locale. It means a robust competition of ideas in all transportation planning."

Moving beyond aesthetic concerns

Transportation officials need to focus on project functions rather than superficial aesthetics. Attention to minor physical characteristics of projects, such as stone bridge work and guardrail color options, greatly reduces the impact of CSS and substitutes costly "amenities" for actual transportation system improvements. Many of the stakeholders in the CSS program development, including MEC, took for granted that CSS would go far beyond the increased consideration of "aesthetic" issues.

Recommendations regarding public engagement, need identification and planning coordination are very important to the future of the CSS program. Without them, the program could easily spend too much time and energy on one aspect of CSS (such as aesthetic concerns) and fail to address other areas of concern (i.e., how to engage the public earlier in the "problem and need" identification phases of a proposed project).

However, because aesthetic issues are among the easiest issues to address, there is legitimate concern that the Michigan Department of Transportation (MDOT) might spend too much time worrying about

how projects "look" and not enough about how and what projects are built.

In the April 15, 2005 issue of *The Building Tradesman*, Mark Van Port Fleet, MDOT's engineer of design and head of the CSS program, suggests only that MDOT is beginning to work harder to "determine what would look good here or be appropriate there," and that in 2000, MDOT made a formal commitment to "aesthetically pleasing design" for bridge construction and renovation as part of their "context-sensitive solutions" program.

This tendency to focus on aesthetics is clear in the use of CSS in project activities undertaken since the passage of the policy in the summer of 2005.

At a community-centered "CSS" meeting on the 8-Mile/Woodward bridge in late August 2005, participants reportedly focused almost entirely on non-structural considerations (see the photo below and the case study on the next page).

MDOT presentations regarding \$21 million worth of construction on the I-94 corridor in Washtenaw County included a reference to the "context sensitive" elements that were included. Unfortunately, most of these, including aesthetic surface coatings, soundwall aesthetics and a bikepath, were focused



MDOT planned to rebuild the bridge at Woodward and 8 Mile in the Detroit community of Ferndale when local officials offered a different solution: outright demolition and a return to a simple intersection. However, MDOT decided to stick with the original plan. Residents and local officials are now left to discuss details of the rebuilding, but not the primary decision: what the community really needed at the intersection.

MDOT & Detroit's 8 Mile Bridge: To be, or not to CSD?

In 2001, when Michigan Department of Transportation (MDOT) officials in Lansing first started considering their options for the aging bridge at the famed intersection of Woodward Avenue and 8 Mile Road in Detroit, they didn't expect much controversy. In fact, according to MDOT officials, the task of rebuilding the eyesore was one of several projects that fell under a Categorical Exclusion — a status given to transportation projects that, due to very low anticipated impacts, are not subject to a requirement for public hearings.

But the project quickly joined a growing list of complicated and controversial road and bridge projects, becoming a lightning rod of contention for departmental policy reforms, including "Preserve First" and the infant Context Sensitive Solutions (CSS) program.

Conceived in the early 1950s, the bridge has become an eyesore in recent years, with a deteriorating surface deck, underside and piers. "To their credit, MDOT came to us two or three years ago and told us they were looking at rebuilding the bridge, and asked us for our input," said Tom Barwin, city manager in the city of Ferndale, where the bridge is located. "I put the question to our staff. Our planning director came back and said basically, 'The bridge needs repair. But actually, we're not sure the bridge is really needed at all anymore.'"

The bridge once carried more than 70,000 vehicles a day. According to MDOT, the daily traffic count is now below 30,000. Barwin and other Ferndale officials offered a different solution to the bridge question: outright demolition, and a return to a simple intersection. They talked to consulting firms, real estate agents, developers and citizens from the surrounding community, and a vision began to emerge of a Woodward and 8 Mile intersection without the bridge — for about the same price as rebuilding it.

Controversy escalated, and the project quickly came off the MDOT's Categorical Exclusion list. An Environmental Assessment was started. MDOT hosted a series of public meetings and heard concerns from a well-organized group of community residents that lived near the bridge, as well as from historic preservation interests and engineers concerned about traffic safety. Barwin talked to real estate representatives and developers who said

that removing the bridge would improve property values within a half-mile of the intersection.

In early June 2004, MDOT made their decision — they would pay to rebuild the bridge as it stands. In August 12, 2005, MDOT made a formal Finding of No Significant Impact (FONSI) for the rehabilitation of the 8 Mile Bridge, meaning that the project can proceed to final design, right-of-way acquisition, and construction phases. MDOT will be moving forward with rehabilitating the existing bridge with maintenance and aesthetic improvements instead of tearing the bridge down in favor of a more community cohesive design that could have crossed the symbolic barrier between Detroit and the suburbs.

MDOT has touted the CSS approach that will be used for the rehabilitation, with citizen involvement meetings scheduled to discuss aesthetic issues of lighting and railing. But Barwin rightly contends that a true CSS policy would have incorporated the public's interest in real alternatives before the big decisions were made — not just bringing citizens instead to talk about "whether the bridge is going to be pink or blue." He points to lost opportunities for future mass transit options, increased pedestrian safety and sense of community, and the need to remove the physical and symbolic barriers between city and suburb.

The CSS program has the potential to reduce controversy and increase the likelihood that projects will support a community's long-term vision of its growth and development. But projects like the 8 Mile and Woodward bridge have people like Barwin frustrated and skeptical.

"CSS is a good idea," says Barwin. "I'm happy that Lansing is talking the talk. But frankly, we gave them a golden opportunity to consider real alternatives and they blew it. If they're really going to do CSS, they have to get down to the quality of the input they receive. This state has practiced one mode — bigger and wider. This project held great potential for MDOT to look at something completely new. But in the end, the process was not what we expected."

on the look of the project rather than on the more substantive concerns.

Discussions of colored pre-cast materials, colored coatings on bridge surfaces, and “unique railings” can easily become the dominant concern of the CSS program if MDOT is not careful. This means that important issues may not get the attention they deserve as the CSS program is implemented — many of which are critical to the long-term success of the program.

Allowing more flexibility in design standards

Fully adopting a CSS program will require allowing more flexibility with regard to traditional design requirements. Acceptance of minor or major deviations from standards, including validation of concepts such as reduced design speeds and narrower lane widths, is necessary to achieve greater respect for community and natural features. One “standardized” engineering solution limits professional expertise, while flexibility can allow for increased safety as well as improved functionality.

A certain degree of design flexibility and an increased use of new design standards or even “design exceptions” will be necessary in the effort to make transportation projects more context sensitive. Discussions with other MDOT staff suggest that accomplishing this task will require overcoming significant potential obstacles to achieving CSS; participants and engineers have suggested that, up until now, design exceptions have been viewed by engineers as failure.

Exploring alternative designs

Increased flexibility in design is vital to the success of CSS, and is critical to ensuring that it is more than simply offered as aesthetic afterthought. Creativity in design solutions must begin at the problem definition stage of planning by involving communities in identifying their own community values, assessing transportation impacts and exploring avoidance, minimization, mitigation and enhancement opportunities. When these features guide the project, safety, mobility and community values can be provided with a greater variety and flexibility of design options.

Flexibility in design includes more options for designers in terms of target speeds and modes involved in a project as well, so that safety and mobility are considered in a larger context to better meet community desires.

CSS is an opportunity for engineers to put problem-solving tools to work in service to community

and to consider a broader range of potential solutions rather than relying on one-size-fits-all projects.

Alleviating concerns about liability

MDOT, local road commission representatives, and other contractors who design and build roads have expressed some concern about CSS policies, fearing that design flexibility could lead to deviation from traditional highway design standards and subject these agencies and departments to legal liability.

In particular, MDOT and contractors fear that if an accident occurs on a road that deviates from the design guidelines set forth in the American Association of State Highway and Transportation Officials’ (“AASHTO”) *Policy on Geometric Design of Highways and Streets* (commonly known as the “Green Book”), the victim will be able to claim that MDOT and/or the contractor was negligent in failing to design the road in the safest way possible.

Michigan Supreme Court set precedent

According to Shannon Fisk of the Environmental Law and Policy Center in Chicago, Illinois, the Michigan Supreme Court has set precedent that a unit of government cannot be subject to tort liability for issues relating to the design of a road,¹ meaning that a design flexibility pursued by MDOT or a local road agency under a CSS policy would not subject government agencies to liability.

In *Hanson*, the Court concluded that the so-called “highway exception” imposed only a duty to keep an existing road well-maintained and does not impose liability for the failure to “design, or to correct defects arising from the original design or construction of highways.”²

“It is clear that *Hanson* forecloses any liability that could possibly arise out of CSS for MDOT and local road agencies,” says Fisk. “The liability con-

¹ See *Hanson v. Bd. of County Road Commissioners of the County of Mecosta*, 465 Mich. 492 (2002).

² *Ibid* at 502.

³ National Cooperative Highway Research Program, *A Guide to Best Practices For Achieving Context Sensitive Solutions*, Report 480 (2004) at 51.

⁴ See NCHRP Report 480 at 51; Federal Highway Administration, *Flexibility in Highway Design*, pp. 39–40; Center for Transportation Studies, *Context Sensitive Design: The Road Best Traveled* at 11; Hal Kassoff, *Making Highway Design More Context Sensitive: Key Challenges in the New Millennium*, Making Better Communities Through Contextual Infrastructure Planning (Mar. 2001); Clallam County, *Road Work: Review and Recommendations for Rural Road Design* (Dec. 2000) at 12.

cerns relating to CSS are that if the policy leads to a non-standard design, such as a narrower lane width, a plaintiff who is injured in a car accident could claim that the decision to select a narrower lane width negligently failed to ensure the safety of the highway. The Court in *Hanson* addressed exactly such a claim – that the road did not comply with applicable standards for sight distances – and concluded that the road agency was immune from it.”

Green Book encourages design flexibility

Fisk also suggests that “it is very unlikely that a court would consider design decisions made pursuant to a CSS policy negligent. CSS largely does not require deviation from such Green Book standards, but rather encourages contractors and agencies to take advantage of the design flexibility already allowed for under the Green Book.” The Green Book and other sources do not necessarily set out extremely rigid standards, but typically set forth flexible guidelines that include a range of permissible criteria for critical issues such as lane width, design speed, and shoulder width.

“Many of the states leading the way on CSS, such as Maryland and Kentucky, are finding that much of CSS can be achieved simply by taking advantage of the inherent, but long neglected, flexibility allowed under the Green Book,” Fisk stated.³

In cases where CSS does lead to a deviation from Green Book guidelines, most commentators agree

The Michigan Supreme Court concluded that the “highway exception” does not impose liability for the failure to “design, or to correct defects arising from the original design or construction of highways.”

that such deviation will not be found negligent so long as the contractor or agency backs up the decision with documentation justifying such deviation.

Fisk suggests that The Transportation Research Board’s National Cooperative Highway Research Program, the Federal Highway Administration, the Center for Transportation Studies, a Parsons’ Brinkerhoff program manager, and the Clallam County, Washington Rural Roads Design Standards Advisory Committee all have concluded that CSS should not lead to liability concerns so long as the contractor or agency carefully evaluates and documents design decisions.⁴

Controversial project crawls forward: US-31 & the Grand Haven – Holland bypass

Since 1993, MDOT has been studying ways to relieve congestion problems in Grand Haven in scenic Western Michigan. In 1998, they chose to pursue the most expensive and least popular option of the many proposed solutions to that problem: a 27-mile bypass around US-31.

The \$600 million project would connect I-196 and I-96 with a bypass that would run roughly parallel to 120th Avenue between Zeeland and Muskegon. The project would also include improvements to the existing US-31 in Holland and Grand Haven, including the eventual reconstruction of a bridge over the Grand River.

The Coalition for Sensible Transportation Solutions — made up of township governments, the Michigan Farm Bureau, and the West Michigan Environmental Action Council — provided studies

showing that the project would destroy almost 70 acres of wetlands, including high-quality wildlife areas, and undermine Michigan’s investment in the protection of area trout streams. The project would also tear up 800 acres of prime farmland, 205 homes and 138 businesses and increase regional traffic and air pollution.

Even MDOT’s Draft Environmental Impact Statement indicated that growth and traffic triggered by the bypass might actually increase congestion on US-31. MDOT also indicated that existing US-31 would have to be widened to six or eight lanes in Grand Haven because the bypass would not sufficiently reduce congestion there.

Still, in the face of community opposition, MDOT pushed the project forward.

Encouraging local adoption of CSS resolutions and ordinances

Local communities must implement their own forms of CSS through local ordinances or resolutions targeted to county road agencies. This will likely involve the proactive work and engagement of residents and elected officials to develop appropriate CSS applications based on the state model. The full engagement of local road agencies, both individually and as a statewide organization, will likely require the development of local ordinances in each community.

CSS represents a chance for creative solutions to interesting engineering problems. Some states have seen success in implementing an awards program that gives project managers the opportunity to compete to gain recognition for particularly well-managed and context sensitive projects. This allows engineers to study other projects for new techniques and reinforces tools and strategies learned in CSS training situations.

CSS programs seek to integrate the traditional transportation priorities of safety and mobility with community priorities such as character and environmental protection. While the state is now on the right path to creating a friendlier road design policy, many of the most contentious projects remain in the purview of local road agencies at the city or county level. The policies, implementation plans and trainings developed at the state level should be helpful in revising local approaches as well.

Model ordinances under development

The first step for local government may be the development of model CSS ordinances for counties and cities, developed in conjunction with local officials and community leaders. MEC staff is currently investigating local projects with an eye toward alleviating the pressures between engineers and community members. Research will be incorporated into a model ordinance development process ongoing in Washtenaw County, where a collaborative of local governments, citizens groups and businesses share concerns over the transportation systems and its impacts on community development, both positive and negative.

Washtenaw County forms a microcosm that reflects much of Michigan as a whole. It contains one of the state's most vibrant cities (Ann Arbor) and one of its most challenged (Ypsilanti), as well as 170,000 acres of farmland and 110,000 acres of recreation and forest land. If a CSS ordinance can meet the

needs of this diverse population, it should be viable in many other Michigan communities.

Obviously there are important considerations for county road commissions, especially regarding local roads that have defined the historical downtown model of many of our small communities.

Local road agencies see benefits

“In examining other states’ CSS programs, there is no formal mandate for local road agencies to take up the Context Sensitive Solutions program that the state DOT does,” according to Shannon Fisk, of the Environmental Law and Policy Center.

“However, in many cases the local road agencies adopt the practices out of their own volition, mainly because they see the benefits of the program at the state level. These benefits include easier integration with the public, which saves time and money. Also, in many cases the local road agencies use the same design standards as the state DOT, so if the state’s design standards are based off of CSS principles then the locals can easily follow suit.”

According to Mr. Fisk, local road agencies would have to shift the ideology of their current thinking to undertake public participation procedures and more creative design solutions. This could be seen as an initial hindrance in that it would force some local agencies to change their practices.

However, from a broader perspective, CSS is designed to give local governments and citizens more say in designing a project. In addition, CSS might create more funding flexibility, thereby allowing local communities to get funding to improve their existing road systems.

Developing additional specific guidance

There is concern that the CSS policy adopted by the State Transportation Commission (see Appendix 2) lacks the amount of detail and specific recommendations necessary to allow the department to actually implement a successful CSS program. The policy is a “guide” only, outlining the general direction the program should go and the large, thematic changes that should be implemented. At best, it suggests a direction of CSS implementation, but it leaves the particulars of implementation ambiguous.

The hard work of developing a CSS program for the state remains to be done, and key aspects of a successful CSS program are still in question. Michigan’s CSS program will be developed within the

state department of transportation with little stakeholder engagement unless citizens and organizations take the initiative.

Focus group recommendations available

However, when creating their CSS policy, MDOT project managers solicited specific input from a wide range of stakeholder groups, including local governments, state and federal environmental agencies and citizens groups. To gather the input of these diverse groups, they were subdivided into smaller groups according to the issue areas that they were most interested in addressing, such as aesthetics, public involvement, and environmental concerns.

Each subgroup then met independently, with MDOT guidance and leadership, over the next nine months, discussing and documenting needs and proposing specific recommendations for the CSS program.

Some of the most important suggestions from the focus group discussions included these recommendations from the Environmental Quality group:

- Utilize alternative transportation options including public transportation, non-motorized and pedestrian options.
- Work with planning and community development officials and agencies to limit the negative effects . . . associated with sprawl by working to create an integrated transportation system that reflects the local communities' needs related to potential preservation, development and growth.

- Consider transportation alternatives that protect rare, threatened and endangered species, minimize habitat fragmentation and adverse impacts to wetland and upland habitats.

Suggestions from the Public and Agency Involvement focus group included recommendations to:

- Engage the public in “problem and need identification” activities prior to programming proposed projects into long-range planning guidance.
- Review current road design guidelines for opportunities to incorporate additional design flexibility, including reduced lane requirements and slower required design speeds.
- Create a Community Ombudsman position to act as a representative of select non-traditional stakeholders during project development and planning discussions.

The process resulted in many pages of specific information, references, concerns and ideas for making a successful CSS program in Michigan. However, many of the suggestions and information collected during this process could not be included in the final CSS policy, which was planned to be a short overview format. MDOT has indicated that they plan to incorporate these suggestions into a larger, more detailed implementation guidebook for use by MDOT staff, along with much-needed specific CSS training and education for engineers and project managers.



The explosion in new housing and commerce in traditionally rural areas far outside of core communities has increased the conflict between local residents, land use planners and transportation agencies.

Oakland County residents struggle against poor planning

Julie LeBlanc and Lorna McEwen are familiar faces at local planning board meetings in sprawl-choked Oakland County, where a lack of coordination between land use and transportation plans continues to increase congestion and wreak environmental havoc on the once pristine landscape. As the rolling hills and quiet lakes give way to Wal-Marts, Costco, and a booming housing construction industry, the residents are fighting an uphill battle to save the last vestiges of a rapidly fading way of life in Union Lake Village.

The county road commission is considering a recommendation from a consulting firm to widen a road through the Union Lake area where Julie, Lorna and the other members of the Four Towns Citizen Action Team are fighting to protect what remains of the wetlands and wildlife. The plan calls for widening Union Lake and Williams Lake roads to five lanes to accommodate increased traffic — while destroying several local businesses, homes and the local environment in the process. Julie and

Lorna and 600 other residents contend that other congestion relief solutions are available, including adding a turn lane and improving the timing of stoplights. But so far their suggestions have gone unheeded.

“The immediate threat of the five-lane widening would be to bordering communities,” says Lorna. “Both houses and businesses would be destroyed, and it would play a significant role in advancing the next ring of westward sprawl.”

The lake-dotted swath of Oakland County bordered by M-59 on the north and I-96 on the south has seen rapid housing and commercial development over the last decade and continues to add infrastructure and people. Residents and the EPA contend that the ecological value of the remaining lakes and wetlands in the area are more important than one more strip mall and housing development; the EPA blocked a connector between M-59 and I-96 several years ago.



Top: Overhead, looking north from the I-96 interchange, M-5 only stretches approximately three miles before dead-ending at a new proposed development. Bottom: Local residents protest that most of the businesses near Village and Union Lake Roads will be destroyed if a new road widening and straightening project goes through.



Despite objections from residents and neighboring communities, the Commerce Township Downtown Development Authority (DDA) bought land north of M-5 and plans to move forward with a new mixed-use development that will push more people and pavement — including the widening of Union Lake and Williams Lake roads — farther and farther north into the lake district.

The plight of Julie, Lorna and the other members of the Four Towns Citizen Action Team is all too familiar in Michigan. They are up against the combined forces of county road commissions and development-hungry local planning officials who, as in other rapidly growing areas across the state, fail to coordinate land use plans with transportation plans.

MEC is working with the Four Towns citizens group to improve the transportation planning process and is relying on the state's Context Sensitive Solutions (CSS) program to offer new hope of resolution. If implemented with a focus on early and inclusive involvement of citizens in defining the real transportation need in the area, CSS should help communities grow their economies while curbing unwanted sprawl and protecting the environment.



The radical redesign of a proposed Village and Union Lake Road intersection, based on a Giffles-Webster Engineers Map from their Four Towns Corridor Study.

Training reduces confusion

In many other state CSS programs, the engineers and consultants most responsible for project implementation were not sufficiently trained in the CSS approach and sometimes carried misconceptions about the CSS program, particularly regarding issues of design flexibility and legal liability.

Engineers have often been trained with a certain set of standards and solutions for varied transportation problems, and building roads with the community's context in mind seems a radical departure. Proper training and education can alleviate this resistance and reduce confusion by highlighting the collaborative nature of the problem and need identification, and the greater creativity of designing context-specific projects.

Clear timelines keep programs going

When CSS programs are examined on a national level, it becomes clear that sustainability is a concern in many programs and that programs tend to fade into the background when faced with the status quo method of delivering transportation projects. This problem can be alleviated by providing clear timelines and targets for CSS development, implementation and evaluation. These should include measures gauging success in policy adoption, staff and programmatic changes, staff training and operational procedures.

Measures of success need to be quantifiable and measurable and should focus on success in implementing reforms. When measures of success are not clearly defined it makes it easier for the CSS program to stagnate or flounder. If there are defined goals and stakeholders are engaged in charting progress, the program will have the opportunity to grow and improve to better meet community interests.

Keep employee assigned to program

In all of the state programs examined, a transportation department employee was assigned to oversee the initial planning and implementation phase of the CSS program. However, in many cases, this person was a member of the design or planning department and they generally discontinued their involvement after the program was up and running.

This approach often led to problems with sustainability or devaluation of the program to the level of simply "another design caveat." A staff member responsible for tracking progress and evaluating reforms and training programs is critical to ensuring

that the program is seen as valuable and that measures of success in implementation are made and unforeseen barriers and obstacles are addressed.

Addressing land use and urban sprawl concerns

By better matching transportation infrastructure investment with long-range land use plans that promote compact development, neighborhood revitalization and open space protection, CSS can help state and local governments accommodate new growth while making sustainable transportation decisions. Transparency and collaborative approaches to citizen interests promise to help deliver projects that satisfy public desire as well as the needs of safety and mobility that transportation engineers hold as paramount.

Traffic patterns and mobility are among the most frequently cited concerns with new development. But typically, transportation and land use planning agencies understand their role only as a reaction to population trends and growth patterns, rather than as a critical force in shaping them. The central goal of transportation planning — providing safe, efficient and long-lasting transportation solutions at a low-cost and with public support — can too often be seen only as a reactive solution rather than a proactive opportunity.

CSS offers local planners new tools for redevelopment

With an effective CSS program in place, transportation projects and priorities are developed in collaboration with the public and local communities. CSS programs help transportation agencies and local planning entities communicate and work toward a common vision for the future of their communities and can reduce resistance to development and encourage redevelopment in older communities.

Similarly, rigid construction and design standards dictating wide, straight and uncompromising roads have carved swaths of character from the middle of Michigan's most cherished communities, farms and forests. CSS offers more flexibility in meeting community needs for safety and mobility while protecting community assets. Early and effective communication between transportation and land use planning officials can help determine where and when this kind of flexibility would be most appropriate and beneficial for achieving long-range community visions.

Often, increased congestion on roads prompts an outcry for new roads and bypasses, but studies indicate that building more capacity rarely achieves long-term reduction in congestion. In fact, these actions often increase the demand for residential and commercial development, creating a self-reinforcing cycle wherein newer roads and bypasses are built and more car-dependent, congestion-creating development follows in their wake.

Experience has proven that CSS programs are more likely to remain sustainable if the program is designed, implemented and maintained with the direct input of varied stakeholders. Transportation projects impact a wide range of different community members and stakeholder groups, including business interests, community development groups, environmental advocates, public transit riders, disability rights interests and the farming community.

A formalized working group should be developed to meet and regularly discuss the implementation of the program and examine opportunities for improvement and reform. This interaction also helps to increase collaboration between transportation providers and affected land uses and groups, smoothing the way for future projects and opportunities.

Conclusion

In examining the various programs from other states and within the existing Michigan Department of Transportation, it becomes clear that CSS is more than aesthetics and superficial design changes. To be successful, the program itself, including programming of projects, long-range planning, funding sources and limitations, flexibility in project design and community involvement all need to be examined. Transportation projects must be implemented and understood as fundamental parts of a community's land use, economy and quality of life. Changes in the transportation planning process need to be undertaken to assure that projects assist communities in meeting these goals.

The CSS policy signed by the transportation commission in 2005 is only a guide. Without the full engagement of transportation leaders, planners, paid consultants and local advocates, this policy cannot deliver real benefits to the people of Michigan.

Partnerships must be developed to achieve the necessary training and education at the state and local levels. Similarly, real systemic change must be made to redirect the massive funding opportunities that currently dictate transportation investments. We must begin to reform the process by which projects get "programmed," i.e., entered into the long-range planning and development process. And of course, local road commissions and planning officials must begin to adopt their own CSS approaches and integrate their programs with the state's land use and transportation needs and goals.

We at MEC are optimistic that a successful CSS policy in Michigan can make transportation decision-making more supportive of our quality of life, improve neighborhoods and communities, help preserve more of our historic buildings, trees and vegetation, and improve the complicated movement of people and products in our cities and communities.

We look forward to working with Michigan's transportation professionals, elected leaders and local residents to better integrate land use planning and transportation investments in our state. Together, we can achieve a better, more vibrant, and ultimately more sustainable economy and environment using CSS tools.

Local residents rally for threatened bridge, hope for more sensitive

On a dusty, semi-rural road in a fast-growing corner of Washtenaw County, an old timber bridge has become a focal point of controversy between local residents and the county road commission. Lined with 100-year old Osage orange, maple and oak trees, the historic timbers and scenic views of the Judd Road Bridge are slated for destruction.

Jack Valentine, a quiet and hardworking retiree who spends his afternoons restoring antique cars in his garage, now finds himself fighting a daily battle against his local road commission, as he and his neighbors struggle to preserve this important piece of their community's character and history.

"We love the bridge," Valentine says. "It's a travesty. All these trees are going. The road commission is banking on safety as their excuse to do anything they wish on our road. I think the way they do it now is not very democratic."

The controversy has become an all-too familiar scenario in Michigan. The planned replacement for the scenic one-lane bridge on the once remote country road is a 23'-clearance, concrete span with a likely design speed of 55 mph — something local residents claim is out of character with their hopes and dreams for the community and which requires longer sight distances and longer bridge approaches. "My neighbor will have a 12-foot high wall in his front yard because they'll have to raise the whole road."

Valentine admits the bridge needs some rehabilitation. But he and neighbors maintain that there are workable options besides complete replacement of the bridge. In 2000, the road commission obtained funding under the federal critical bridges program, which has design requirements that will make the old bridge obsolete.

The residents and neighbors keep hoping for a more palatable and sensitive option, arguing that a modern bridge with a speed limit of 55 miles per hour would destroy the rural character of the area and endanger the safety of pedestrians and bikers. In May 2004, about 130 people turned out to celebrate the 50th anniversary of the 1954 reconstruction of the bridge with a pig roast and commemorative T-shirts.

Dennis Hallock, 55, who has lived next to the bridge for 27 years, recently told the *Ann Arbor News* that he and his neighbors enjoy the summer canopy created by the nearby hardwood trees. "It's gorgeous, just a beautiful drive. A lot of people walk," he said.

The publicity and local outcry hasn't swayed the commission's plans. Residents were told at a meeting that safety trumps other considerations,



Jack Valentine has led his neighbors and residents in a protest of the destruction of historic and scenic Judd Road Bridge in Washtenaw County.

solutions that consider historic features

including community concerns and natural beauty. Roy Townsend, director of engineering at the road agency told the *Ann Arbor News* and residents that a petition to designate the road a natural beauty road would have minimal impact on the project. “We can go ahead if it’s considered safety improvement.”

“It’s a waste of taxpayer money,” Valentine argues. The solution, he says, is much easier and

much cheaper: “We could save the taxpayers money. Just repair it instead of replacing it.”

Similar problems are currently being addressed at the state level as well as the county level. The Michigan Department of Transportation policy known as Context Sensitive Solutions (CSS) would help ensure that roads and transportation planning is done with more public participation and involvement, considers community needs, and provides more consideration for historic and environmental features.

The CSS proposal, a policy priority of the Michigan Environmental Council and directed by Governor Granholm’s Executive Order (2003-25), was approved by the State Transportation Commission in July 2005. The next hurdle will be helping local road agencies follow the state’s lead, in hopes of avoiding more Judd Road Bridge controversies in the future.



Passing over a single train track that carries two trains a day, the Judd Road Bridge was originally built in the 1880s and was repaired with large wooden timbers after a train accident in 1954.

Where can I get more information?

General websites

- “People and Pavement,” available through the Michigan Land Use Institute (MLUI), or at www.mlui.org/downloads/flexibledesign.pdf
- The federal program for context sensitive design, www.fhwa.dot.gov/csd/
- Broad-based context sensitive solutions research, www.ContextSensitiveSolutions.org

State context sensitive solutions websites

- Connecticut
www.ct.gov/dot
- Minnesota
www.cts.umn.edu/education/csd/
- Kentucky
www.ktc.uky.edu
- Washington
www.wsdot.wa.gov/biz/csd/
- Maryland
www.marylandroads.com/events/oce/thinkingbeyondpavement/thinking.asp
- New Jersey
www.state.nj.us/transportation/eng/CSD/
- Utah
www.udot.utah.gov/index.php/m=c/tid=144
- Vermont
www.aot.state.vt.us
- Nevada
www.nevadadot.com/pub_involvement/landscape/

Well-designed transportation systems can and should promote and protect an area’s scenic resources and natural environment.

- New York
www.dot.state.ny.us/design/css/css.html
- Illinois
www.dot.state.il.us/css/home.html
- California
www.dot.ca.gov/hq/oppd/context/
- Federal/Tribal Lands
www.fhwa.dot.gov/flh/

Books

- Timothy R. Neuman, *A Guide to Best Practices for Achieving Context Sensitive Solutions (Report 480)*, National Cooperative Highway Research Program, 2002.
- *Flexibility in Highway Design*, Federal Highway Administration (FHWA), www.fhwa.dot.gov/environment/flex/.
- Deborah L. Myerson, *Getting it Right in the Right-of-Way: A Citizen’s Guide to Context Sensitive Solutions*, Scenic America, 2000.
- Krista L. Schneider, *The Paris-Lexington Road: Community-Based Planning and Context Sensitive Highway Design (Case Studies in Land and Community Design)*, Island Press, 2003.
- Paul Daniel Marriott, *Saving Historic Roads: Design & Policy Guidelines*, National Trust for Historic Preservation, 1998.



Appendix 1: MEC research findings

With the support of the W.K. Kellogg's People and Land program, Michigan Environmental Council (MEC) and our partners undertook a comprehensive analysis of the existing literature and conducted personal interviews with implementers from around the country.

Our goal is to provide more specific recommendations for those interested in making Michigan's transportation system more sensitive to communities and individuals. We offer this information in the sincere hope that it will be useful for government officials, road agencies, local planners, and citizens interested in bringing CSS to their community.

In developing these observations, MEC staff examined two primary areas of interests:

1. Processes and results of CSS and context sensitive design (CSD) program reforms undertaken in other states.
2. The range of existing programs with the Michigan Department of Transportation (MDOT) that provide a groundwork for CSS reform.

These state case studies and a survey of existing MDOT programs are available on our website at www.mecprotects.org.

National meeting spurs state program development

In 1998, a national workshop was co-sponsored by AASHTO and the Federal Highway Administration (FHWA) which set the stage for CSS implementation across the country. Hosted by the Maryland State Highway Administration, the "Thinking Beyond the Pavement" conference was subtitled, "A National Workshop on Integrating Highway Development with Communities and the Environment While Maintaining Safety and Performance."

Held at the University of Maryland Conference Center, the conference provided a landmark opportunity for 325 invited participants from 39 states and the District of Columbia to develop a vision of excellence in highway design for the 21st century. Participants included chief engineers, senior designers and planners from 29 state departments of transportation, representatives of national transportation organizations, and a variety of stakeholders from government, the private sector, and citizens' organizations.

The goal of the conference was to find and publicize the best ways of integrating highways with their communities and the environment while maintaining



MDOT project managers solicited specific input from a wide range of stakeholder groups to create their CSS policy. The Public and Agency Involvement focus group recommended reviewing current road design guidelines for opportunities to incorporate additional design flexibility, including reduced lane requirements and slower required design speeds.

safety and performance by encouraging continuous improvement in the design of transportation projects and achieving flexible, context-sensitive design. The result was general consensus on the qualities of projects that reflected the best in context sensitive characteristics for the highway planning and development process. These qualities could begin the integration of transportation facilities with communities and the environment, as well as help overcome barriers to context-sensitive design, namely educating transportation professionals and stakeholders on this approach and encouraging its application to all projects.

This conference also resulted in the selection of five pilot states to begin instituting CSS: Connecticut, Kentucky, Minnesota, New Jersey and Utah. Currently, these states are all either undertaking or have already implemented CSS. There are also CSS policies now underway in New Jersey, Washington, New York and one for Federal and Tribal Lands. Several states, such as Nevada and Vermont, have not adopted formal CSS programs but use CSS principals to inform their overall transportation planning process.

Research provides program overviews and outlines implementation practices

Each of the states described in our research is implementing CSS through new policies on project development, staff training, conferences, research, and community outreach and involvement. Taken together, they provide a template for success and offer guidelines for building a program in Michigan.

Along with the programs outlined on our website, there are several other states that have taken up CSS as a revolution in their transportation planning process, including California, Massachusetts, Pennsylvania and Texas. The number of states developing and implementing CSS outnumber the number of states not considering it at all, approximately 38 to 12 at publication.

Different states have used different terms to describe their context sensitive road design programs. For example, Connecticut uses Context Sensitive Solutions (CSS) to describe its holistic transportation planning program change, feeling that this name better captured the more comprehensive changes, including public involvement, undertaken by the department in developing solutions to transportation problems. For the purposes of our research, we followed the lead of the Michigan Department of Transportation in using Context Sensitive Solutions (CSS). This reflects the broad, program-wide reform, whereas Context Sensitive Design (CSD) might refer only to specific design features.

Appendix 2

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	COMMISSION POLICY	IDENTIFIER	EFFECTIVE DATE			
		10138	5/26/05			
		SUPERCEDES	DATED			
		NEW				
RESPONSIBLE ORGANIZATION:		Bureau of Highway Development				
SUBJECT:	Context Sensitive Solutions					

The Governor’s Executive Directive 2003-25 defines context sensitive design as “a collaborative, interdisciplinary approach involving stakeholders for the development of a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, cultural, and environmental resources, while maintaining safety and mobility.”

The Michigan Department of Transportation (MDOT) will pursue a proactive, consistent and Context Sensitive Solutions (CSS) process in keeping with its mission to provide the highest quality integrated transportation services for economic benefit and improved quality of life. A successful CSS program will require mutual commitment on the part of both transportation agencies and stakeholders to identify appropriate opportunities to plan, develop, construct, operate and maintain infrastructure in accordance with CSS principles without undue costs or scheduling burdens.

The Department will incorporate an appropriate level of CSS into its Transportation Program consistent with CSS principles which include:

- Early and Continuous Public Involvement
- Effective Decision Making
- Reflecting Community Values
- Achieving Environmental Sensitivity and Stewardship
- Ensuring Safe and Feasible Integrated Solutions
- Protecting Scenic Resources and Achieving Aesthetically Pleasing Solutions

MDOT will develop or revise procedures and guidelines to expand the use of CSS for state transportation projects. The procedures and guidelines will:

Promote partnerships with local governments, state agencies, business, community groups, and transportation system users and providers to better coordinate resources.

Use flexibility within state and federal design standards, and develop alternate state standards where appropriate, without compromising safety and mobility.

Encourage early and continuous dialog with stakeholders on defining the transportation problems and solutions during project planning and development.

Use integrated transportation solutions to enhance access to jobs, support economic development activities with local government and other state agencies, and preserve the environment.

Consider the need for integrated transportation options in the early planning and development process for transportation improvements, especially for state highway, bridge, and safety projects which construct, reconstruct, or relocate a roadway, bridge, or intersection

Promote the use of CSS principals with local land use and transportation agencies.

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The Department will report back to the Commission six months after adoption of this policy, to give a progress report on implementation. After the initial report to the Commission, the Department will present an annual review of implementation progress to the Commission.

Adopted by the State Transportation Commission May 26, 2005.

Commission Advisor: Signed Copy on File Date: 5-26-05

