CSS Quick Facts – CSS Performance Measures

The Purpose of Performance Measurement

Use of performance measures is becoming widespread among DOTs as a tool for improving management of important business priorities like pavement and bridge condition, project delivery and safety. Few agencies, however, have adopted CSS performance measures. DOTs would benefit from greater use of CSS performance measures in many important ways including:

- To help make CSS state-of-the-practice, not state-of-the-art,
- To strengthen support from agency leadership for CSS principles,
- To maintain agency-wide focus on strategic CSS goals, and
- To strengthen trust with stakeholders and customers.

Creating Measures – Leadership and Strategic Planning

No two CSS performance measurement programs will be exactly alike; however, two key ingredients for creating a program are leadership and strategic planning. Strong leadership is needed to place a program on the right footing. Executive management must show considerable support for the concept from the outset, or resources and commitment may run out before the work is done and performance measures are in place. Equally important, measurement programs need a day-to-day champion capable of orchestrating and managing daily activities during the program establishment phase and during program implementation.

Implementing Measures – a Tailored, Collaborative, Self-assessment Approach

An effective CSS measurement program should become an integral component of every project team's responsibilities. The principles of CSS do not apply only to large projects, and measurement initiative should include large and small projects. For example, what seems like a minor repaving job could have a significant effect on the scenic, historic and environmental qualities of a road if the project includes widening shoulders. Many measures of CSS performance, particularly at the project level, are likely to rely on self-administered surveys of team members and their stakeholders. In a collaborative environment, all team members should participate in choosing individual measures that work for their project and in discussing results.

Process-related, Project-level Measures

Adopting CSS holistically as part of the way an agency "does business" means changing project delivery processes from initial planning down to the project level. Examples of project-level process changes associated with the principles of CSS include early and comprehensive consideration of project needs and impacts, regular community outreach, use of techniques to identify common interests and build consensus on project solutions, use of interdisciplinary teams, and integration of NEPA with CSS. Measurement of process changes helps demonstrate whether a project is on a satisfactory course towards holistic integration of CSS principles within the project.

Outcome-related, Project-level Measures

While effective project-level processes are key to successful CSS integration, project-level outcomes are also important. Successful incorporation of CSS principles may be manifested in one or more project characteristics such as adoption of a "low-build alternative," special attention to landscaping, lower design speeds, or inclusion of pedestrian features and multimodal transportation links. Measurement of the success or projects, however, just ultimately focus on stakeholder satisfaction with completed projects.

Process-related, Organization-level Measures

Organization-wide measures can be used to address the process of achieving cultural changes in organization-wide attitudes toward CSS. Agencies bring about changes in culture through a combination of factors that start with strong leadership, but include provision of agency-wide training and guidance.

Outcome-related, Organizational-level Measures

As with project-level measures, specific outcomes are more difficult to measure at the organizational level than processes, but can be particularly helpful in determining progress. Outcomes closely related to CSS implementation of great interest in many DOTs are timeframe, budget, and stakeholder satisfaction.

Process-related, Project-level Measures	
Principle	**Ideas for Measurement**
Use of Multidisciplinary Teams	Share of large projects for which multi-disciplinary team deployed Were the right people on the team Did the team function effectively Did the project focus on CSS principles
Consensus on Project Vision or Goals	Consistency with local or regional planning documents Evidence of support for vision and goals from community
Public Engagement	Presence of a public involvement plan Were external champions for the project created Was public input sought and used at key decision points Adequacy of DOT expertise and resources Quality of public involvement strategy
Consensus on Project Problems, Opportunities and Needs	Support for statement of problems and needs Linkage of problems and needs to develop and evaluate alternatives
Alternatives Analysis	Adequacy of the range of alternatives developed Existence of criteria for evaluation of alternatives Design considerations – design speed, level of service and safety Need for redesign Multi-modal considerations
Construction and Maintenance	CSS related construction issues considered during project development CSS related maintenance considered during project development
Outcome-related, Project-level Measures	
Achievement of Project Vision or Goals	Match between original problems and needs statement and final project Tracking adherence to project commitments Were project vision or goals met Does the project support community values Are environmental resources preserved or enhanced Did the project leverage other resources
Stakeholder Satisfaction	Tailored surveys of key stakeholders Achievement of consensus during the project Impacts of construction
Quality Assurance Review	Project review and evaluation form for use at internal review Project performance data sheet Post project reviews
Process-related, Organization-level Measures	
Training of DOT staff and contractors is a key mechanism for strengthening departmental commitments to CSS	Quantity of training/workshops/classes Number of DOT staff/consultants trained Assessment of the quality of training Focus of training
Manuals provide guidance that helps ensure agency staff and consultants develop projects that meet appropriate standards	Have changes been made to key DOT manuals Evidence of adherence to changes in manuals
Policies – organization wide implementation may require changes in standard policies	Implementation of an official CSS Policy Have changes been made to key DOT policies Evidence of adherence to policy changes
Outcome-related, Organization-level Measures	
Project Timeframes and Budget – Efforts to identify "extra" costs or time required to apply CSS principles undermines the holistic nature of CSS	Share of projects build using CSS principles Share of CSS projects delivered on schedule Share of CSS projects delivered on budget Compare cost of CSS design versus traditional design Cost savings associated with use of CSS priorities
Stakeholder satisfaction is a keystone for CSS implementation	Share of projects with high stakeholder satisfaction ratings