Mainstreaming Context Sensitive Solutions in the Workforce – Washington

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ABSTRACT

Washington State Department of Transportation (WSDOT) is committed to developing Context Sensitive Solutions (CSS) that strike a balance between transportation needs, community values, and environmental goals from early planning through project delivery and operation.

WSDOT encourages its employees to look beyond basic transportation issues and develop projects that are integrated with unique contexts within a project setting. WSDOT's Executive Order on CSS drives this CSS approach at all levels in the organization from Executive to technical staff in all aspects of work. The Executive Order provides the foundation and the case for change for the agency. It recognizes that the consensus or informed consent generated through development of CSS can benefit all parties and may help avoid delay and other costly obstacles to project implementation.

The strength and viability of WSDOT's CSS approach is ensured through its numerous informal and formal partnerships. The agency commitment to CSS is further demonstrated by a strong support for staff development of CSS skills, internal and external communication of the agency's CSS approach, and a rigorous, agency-wide performance measurement program.

INTRODUCTION

The Washington State Department of Transportation (WSDOT) is guided by a statewide vision for transportation and livable communities, which is part of the Washington Transportation Plan, "Washington's transportation system should serve our citizens' safety and mobility, the state's economic productivity, our communities' livability and our ecosystem's viability" (*1*).

To support this vision, WSDOT is integrating a Context Sensitive Solutions (CSS) approach to doing business agency-wide. The strength and viability of WSDOT's CSS approach is ensured through our numerous informal and formal partnerships. The agency commitment to CSS is further demonstrated by a strong support for staff development of CSS skills, internal and external communication of the agency's CSS approach, and a rigorous, agency-wide performance measurement program. This paper describes WSDOT's approach to CSS and successes and challenges to date.

BACKGROUND

Livable Communities Policy

In 2000, Washington's Transportation Commission, a seven member transportation accountability board appointed by Washington's Governor, adopted a *Livable Communities Policy.* This 50-year vision statement first identified community-based design and collaborative decision making as essential to maintain and improve the livability of communities in this state. The Livable Communities Policy led to revision and development of a number of policies, procedures and standards to promote CSS.

Multi-disciplinary Group

Efforts began in June 2001 to create a multi-disciplinary group, in part, to advise WSDOT on implementing CSS and community-based design. This group, still in place, is comprised of representatives from local agencies, the Association of Washington Cities, the County Road Administration Board, Metropolitan Planning Organizations, FHWA, advocacy organizations and various disciplines within WSDOT including Design, Planning, Traffic, Project Development, Local Programs, Environmental Services, and Landscape Architecture. To date, the group has advised the agency during development of the document titled, *Understanding Flexibility in Transportation Design.* This document and its executive summary incorporate CSS practices and principles into all aspects of project planning and development.

Environmental Policy Statement

Consistent and concurrent with the ongoing discussions of the multi-disciplinary group, WSDOT adopted an *Environmental Policy Statement* in 2001 that acknowledges the state's vital interests in protecting and preserving natural resources and other environmental assets and its citizens' health and safety, and directs that agency to conduct all its affairs in accordance with the dictates of sound environmental protection practices (*2*). It also commits all WSDOT employees to encourage citizens to communicate with the Department about ways to increase the effectiveness of Department's practices supporting its mission of environmental stewardship.

Gray Notebook – Accountability Program
Also in 2001, WSDOT initiated a rigorous agency accountability program designed to improve the quality and availability of information to the public. *The Gray Notebook*, named for its gray cover, is a key piece of this program. The Notebook provides quarterly, in-depth reports on agency and transportation system performance. The purpose of the Gray Notebook is to keep WSDOT accountable to Washington State citizens, the Transportation Commission, legislators, and transportation organizations. It is also an important internal management and integration tool and supports the agency's efforts to measure progress on CSS. For example, the latest publication of WSDOT's Gray Notebook, the 5th Anniversary Edition, provides regular quarterly performance measures on programs such as: capital project delivery and cross-cutting management issues, as well as highlighting performance measures for several programs including: workforce training, incident response, and Washington State Ferries (*3*).

CSS Executive Order
On November 24, 2003, Doug MacDonald, Washington's Secretary of Transportation, executed an *Executive Order E 1028.00 Context Sensitive Solutions*. In his Order, Secretary MacDonald endorses the CSS approach for, "all projects, large and small, from early planning through construction and eventual operation" (*4*), and explains, "This means that WSDOT employees working on projects and facilities should:
- Engage from the project's inception with representatives of affected communities, including elected and appointed officials and a widely representative array of interested citizens.
- Assure that transportation objectives of projects are clearly described and discussed with local communities in a process that encourages reciprocal communication about local views and needs in the overall project setting.
- Pay attention to and address community and citizen concerns.
- Ensure the project is a safe facility for both the user and the community" (*4*).
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Project Delivery
Most recently, WSDOT has also developed a process of project development known as *Managing Project Delivery* discussed within WSDOT's Design Manual. The process is a CSS approach that the WSDOT uses to develop and deliver all WSDOT projects and all agency involved projects. The process calls for collaborative interaction with multi-disciplinary teams in order to develop and deliver projects on time and within budget. The following key features define this approach:
- Building a multi-disciplinary team with the necessary skills and understanding of the project.
- Effectively defining the project scope and managing that scope throughout the project delivery process.
- Scaling the process based on project complexity and team size.
- Including the customers in the project delivery process.
- Communication
- Managing customer expectations.
- Managing change (*5*).

MULTI-DISCIPLINARY PARTNERSHIPS

Partnerships with communities, other state agencies, regional and local governments and stakeholder organizations form the foundation of WSDOT's CSS approach.   WSDOT has taken a number of steps to formalize and to foster these ongoing partnerships.

Community Partnerships Forum

In 2002 WSDOT launched a Community Partnerships Forum to address CSS. Participants in the Forum included cities, counties, consulting firms, transit, the Association of Washington Cities, and FHWA. The work of the Community Partnerships Forum is captured in the WSDOT publication entitled, *Building Projects that Build Communities*. The guidebook is intended to assist practitioners in implementing the community-based approach to project delivery.

Formal Partnerships and Agreements

Additionally, WSDOT has developed a number of formal partnerships with a list of resource and regulatory agencies to establish CSS policies and processes. These agreements help WSDOT to implement the agency's Environmental Policy, which also supports the agency-wide Executive Order for Context Sensitive Solutions.

For example, in 2004 WSDOT and Washington State Department of Ecology entered into an agreement to assist both agencies in maintaining compliance on permits, orders, certifications and approvals issued by the Department of Ecology related to Washington's Water Quality Standards (*6*). Since that time, WSDOT has designed all projects to comply with these standards. Other examples include agreements with resource and/or regulatory agencies related to aquatic permitting, construction in state waters, farmland and forest preservation, control of fugitive dust (Puget Sound Clean Air Authority), hazardous waste management, historic and cultural resource preservation, and wetlands protection and management to name a few.

Multi-Agency Permitting (MAP) Team

Another way WSDOT has partnered with other agencies and organizations is through the Multi-Agency Permitting (MAP) Team. The MAP Team represents a business model that provides enhanced communication and coordination between agencies and the public on transportation projects. The team consists of WSDOT, Washington State Department of Ecology, Washington Department of Fish and Wildlife, United States Army Corps of Engineers and King County. They provide permit services and technical assistance for WSDOT projects, identify potential permitting risks, develop cooperative processes and solutions, and provide a unified package of environmental information to the project manager early enough to make changes and improvements without excessive costs. The MAP Team instituted performance measure to gauge the project's overall success in reducing processing time, ensuring effective agency investment, and meeting customer expectations. For the 2003-2005 biennium, the MAP Team reported measures including:

- Thirty-seven projects active;
- Twenty-three new applications;
- Seventeen permits complete;
- Five additional permit processes avoided; and
- All projects fully permitted prior to the advertisement date (*7*).

Transportation Permit Efficiency and Accountability Committee (TPEAC)
WSDOT has been a leading member in TPEAC, an effort to coordinate and streamline the
environmental permitting process for transportation projects and to achieve both the
transportation and environmental goals of the state. To date, the Committee has piloted a
number of projects using CSS processes. Several examples include: watershed based mitigation
(I-405), permit streamlining (SR 104 and SR 24), and development of environmental compliance
assurance measures for all Maintenance and Washington State Ferries projects and activities (*8*).
TPEAC and its technical subcommittees produced important tools to improve the permitting
process, including:

- Multi-agency web tools to coordinate and improve permitting.
- Multi-agency programmatic agreements that reduce the cost and time needed to permit routine projects and activities.
- A Multi-agency Permit (MAP) Team to enhance coordination between agencies.
- Watershed characterization tools that change the way mitigation sites are selected.
- Improvements to local government permitting with emphasis on permitting maintenance activities.
- Better permit compliance for construction projects.
- More training opportunities for WSDOT and partners.
- Better communication with tribes.

DEVELOPING CSS SKILLS AT ALL LEVELS
WSDOT Executives and managers have demonstrated the value they place in sharing our
experiences related to CSS as well as learning from others through the sponsorship of both a
regional and an international CSS symposium. In 2002, WSDOT in cooperation with FHWA,
the British Columbia Ministry of Transportation, and the Oregon Department of Transportation,
sponsored a very successful regional workshop entitled *Safety, Aesthetics, and Community
Partnerships: Context Sensitive Solutions.* The workshop brought together transportation
leaders who shared their experience in balancing community values with moving regional traffic.
Over 330 people attended the workshop that received recognition as the "best in the country to
date on this subject" according to John Horsley, Executive Director of the American Association
of State Highway and Transportation Officials. Following the regional workshop, WSDOT
hosted the CSD-100 International Symposium, *Main Street America Meets Main Street Europe.*
This symposium was designed to transfer knowledge from European transportation leaders to
FHWA and State DOT executives. Over 80 State DOT executives, FHWA administrators, and
other transportation leaders from across the country and Europe attended the symposium.

Formal CSS Training
Beginning in 2004, WSDOT has conducted a series of two-day CSS training courses. The courses provide the knowledge and skills to collaboratively develop transportation projects addressing the needs of a broad range of users and interested parties. Participants learn about flexible design, community-based project development, innovative stakeholder involvement, and evaluation of alternatives when developing solutions to transportation issues that are specific to individual sites. These courses have now been offered seven times with at least one course offered in each of the six WSDOT Regions reaching over 150 local agency staff and 150 WSDOT staff and others across the state. Course attendees included a mix of transportation engineers, planners, environmental professionals, tribal nation representatives, consultants, contractors, interested citizens and others.

Staff Liaison Program
Placing staff in resource agencies is part of a WSDOT and Federal Highways effort to improve environmental stewardship awareness and ensure community-based transportation project planning, permitting, and project delivery. Since 1999, the Resource Agency Project Liaison Program has provided staff dedicated to the delivery of transportation project improvements at several state and federal resource agencies. This active and growing program provides specialists to work only on WSDOT and local agency transportation projects and issues such as early coordination on transportation permits, Endangered Species Act (ESA) concurrence, and environmental review. WSDOT has Staff Liaisons in the following agencies:
- US Army Corps of Engineers has three staff positions;
- US Fish and Wildlife Service has three staff positions;
- US NOAA Fisheries Service has three staff positions;
- WA Department of Ecology has eight staff positions;
- WA Department of Fish & Wildlife has five staff positions; and
- Tribal Organizations in WA State has three staff positions.

Other Staff Development Efforts
In addition to the CSS training courses that provided skill development to management and staff at local agencies, resource agencies, advocacy groups, consultants and others, WSDOT delivers environmental training to educate WSDOT staff and our partners on the use of community-based approaches to meeting the requirements of environmental laws, regulations, and policies. WSDOT provides a wide range of training opportunities included, but not limited to: Model for Environmental Justice, Cultural Resources, Integrated Streambank Protection, GIS courses, Endangered Species Act and Project Delivery, Community Impact Assessments, and many more. These courses ensure that people working on transportation projects are considering these issues as integral to developing a project's initial scope, cost and schedule, and not as hurdles to be negotiated after a project is already designed.

The Environmental Justice Training has a special CSS focus and has been given particular attention within WSDOT. WSDOT conducted regional workshops focused on environmental justice analysis during the spring of 2004.   Participants gained an understanding of the mutually supportive elements of environmental justice and CSS. They learned effective ways to improve communication and methods to evaluate a project's potential impacts on the social values, needs, constraints and opportunities of the community.

COMMUNICATING THE AGENCY COMMITTMENT TO CSS
Communication of the CSS vision, definition and implementation, have come from the Secretary of Transportation, Executives, and the staff from throughout the agency.

The Transportation Planning Office
Washington's (Long Range) Transportation Plan (WTP) embodies fundamental principles of CSS. The WTP identifies nine key cross-cutting issues and calls for effective community based design and collaborative decision making in all of these areas. To implement the policies and goals of the Transportation Plan, WSDOT has adopted a new Route Development Planning process that evaluates all nine issues outlined in WTP to identify deficiencies and prioritize needs. The WTP's vision statement reflects the balance between mobility needs and the quality of our communities – "Washington's transportation system should serve our citizens' safety and mobility, the state's economic productivity, our communities' livability and our ecosystems' viability" (*1*).

The Environmental Services Office
The Environmental Services Office has promulgated the WSDOT Environmental Policy, the Environmental Procedures Manual and an Environmental Management System. These documents clearly communicate to employees, agency partners, and the public WSDOT's commitment to community-based project development.   These documents also spell out WSDOT's commitment to systematically conducting all agency affairs in accordance with the dictates of sound environmental protection practices, including pollution prevention, mitigation of adverse environmental impacts, and tracking and meeting environmental commitments. Additionally, the Environmental Services Office makes environmental data available and easy to use in early planning through project development and operations through an extensive GIS workbench.

The Tribal Liaison Office
The Tribal Liaison Office, established in 2001, has responsibility for assisting tribes and the department with implementing effective government-to-government relations. As part of this role, the Tribal Liaison Office develops and annually updates the agency Centennial Accord Plan. The Centennial Accord Plan is developed collaboratively with the forty tribal nations in Washington and includes a detailed description of the programs, services, and funding each of the WSDOT divisions and offices offers to the tribes nations within Washington State. Additionally, the Tribal Liaison Office offers training and other technical assistance that highlights a range of practices implemented by tribal and non-tribal governments to advance tribal consultation in statewide and metropolitan transportation planning.

Innovative Project Delivery

WSDOT's Innovative Project Delivery group has implemented the CSS vision and environmental stewardship awareness by partnering with other agencies and organizations in through the Multi-Agency Permitting (MAP) Team. The MAP Team provides permit services and technical assistance for WSDOT projects, identifies potential permitting risks, develops cooperative processes and solutions, and provides a unified package of environmental information to the project manager early in the process. To date, over sixty projects have either begun or been completed with MAP Team assistance.

The Highways and Local Programs Division

Highways and Local Programs has communicated the CSS vision of community based design and collaborative decision making to local agency partners, WSDOT staff and others through the development of a publication entitled *Building Projects that Build Communities – Recommended Best Practices Guidebook*. The Division has also initiated of an ongoing CSS Training Program, an Awards of Excellence Program, and ongoing development and reporting of project performance measures.

The Design Office

The Design Office has communicated to and from all levels of the agency through the development and publication of the document and accompanying summary titled, *Understanding Flexibility in Transportation Design – Washington*.   This document serves as a companion to WSDOT's Design Manual, outlines how to integrate CSS principles into all aspects of the project delivery process, and presents case studies of projects within Washington State that illustrate the use of the CSS approach.

Construction

WSDOT has developed an Environmental Management Program (EMP) specifically for construction activities. The program is based on regional environmental compliance plans that include area specific GIS maps of critical areas, cultural and historic resources, and other areas of community interest. Each region, including the Urban Corridors Office, has developed environmental compliance plans that include goals for improving communication between WSDOT, the public, and partner agencies to demonstrate WSDOT's environmental stewardship. Training and work procedures that apply to specific construction activities are also important program elements.

Maintenance
WSDOT has developed and is implementing a process within the highway maintenance program that includes the development of Integrated Vegetation Management (IVM) plans for each maintenance area throughout the state. The goal of this process is to establish and support desirable, appropriate, native vegetation which will naturally out-compete weeds and other unwanted plants. In addition to providing maintenance crews with guidance on proper maintenance practices to meet this goal in their areas, the plans serve as a basis for dialogue with local and tribal communities about roadside maintenance activities and outcomes. The plans include GIS maps identifying locations for routine maintenance activities, as well as reoccurring weed infestations, sensitive areas, and other relevant information. WSDOT also uses the principles of IVM to design and construct roadsides that can be maintained to grow and evolve with the natural ecosystem.

The Research Office
The Research Office communicates and implements the agency CSS vision through their new system for selecting research projects based on goals that were developed by the citizens of the state and adopted by the Governor and the Washington State Department of Transportation. The Research Office enlists that support of several Research Advisory Committees made up of WSDOT staff. These advisory committees focus on areas including project delivery, operations, finance, and multi-modal transportation. They review and rank research proposals based the Governor's *Management Agenda* and *Key Goals*, Governor's *Priorities of Government* report, WSDOT's *Business Directions*, and *Washington's Transportation Plan*.

Individual Project Offices
Individual project offices communicate agency CSS vision to members of Washington's communities, partnering agencies and others. Each of WSDOT's project offices has made great strides in communicating and implementing CSS principles. Several recent examples include SR 99 Des Moines, I-405, US-12 Coppei Creek Bridge, and I-90.

WSDOT Website
WSDOT's new and award-winning website not only clearly communicates the Agency CSS vision to the public, it was developed based on customers' feedback of the information they want and need the most.

Reader Friendly Toolkit
WSDOT's Reader-Friendly Tool Kit provides managers, coordinators, and writers with tools to help WSDOT staff and others create more reader-friendly documents, particularly environmental documents. This effort supports CSS principles by improving our communication with the decision makers including the public. We are finding that both the level of public involvement and the quality of comments has improved since we have been producing more reader-friendly documents.

Awards Programs
WSDOT Highways & Local Programs Division administers the Award of Excellence award.
These awards are presented to local agencies, organizations and individuals in order to recognize
projects of high quality, to reward exceptional coordination efforts and perseverance, and to
honor projects which serve as a model for the state. The awards program recognizes projects
that have achieved excellence in safety enhancements, construction, innovative design,
environmental compatibility, and public involvement and satisfaction.

DEFINING SUCCESS THROUGH CSS
To assess the impact of CSS, WSDOT uses a number of tools for soliciting quantifiable feedback
from partners, customers and members of communities around the state.

Value Engineering (VE) and CSS
Value Engineering provides a significant tool to help WSDOT assess the impacts of CSS. The
WSDOT Value Engineering program strives to include representatives from stakeholder groups
on each VE study team. Each team member comes to a Value Engineering study with a
perspective of the project based on the discipline or community group they represent. Value
engineering is an effective tool to build consensus, avoid delay and overcome obstacles to
project implementation.
        Although VE studies can add value to a project at any time during project development,
WSDOT has determined that performing a VE study at the problem definition stage provides the
best opportunity for considering a variety of design solutions and being responsive to the needs
and values of the community.
        Upon completion of a project, these studies are reviewed using established criteria to
determine the overall impact of the CSS approach. WSDOT sees potential in this VE-CSS
evaluation process.

Other CSS Tools
Visual Preference Surveys
        WSDOT's visual preference survey is a tool for helping communities determine the
elements most fitting and desirable for their transportation project. It uses images to help
participants evaluate their existing environment and envision their community's future. Tailored
for the needs of each city or county, this survey provides a foundation for designing and
implementing their project.
        One example is SR 101 within the City of South Bend, WA. Self selected members of
the community took part in a visual preference survey that provided direct input into the design
process. This led WSDOT to consider certain design elements that may not have otherwise been
incorporated.

Transportation Design Charrettes or Workshops
Transportation design charrettes or workshops create a forum for the public, together with a professional team of transportation designers, planners, and traffic engineers to develop a common vision for a corridor or other transportation project. Typically, charrettes take two days to complete. The emphasis of a charrette is on community participation, interactive design, and informative presentations.

Stratified Random Sample Surveys and Opinion Polls
These, typically telephone or written surveys, are conducted prior to developing the public involvement plan and also used for social impact assessments and environmental justice analysis. Many projects are also using a combination of surveys of business and social service agencies to better understand the project effects on a community and incorporate ideas for avoidance, minimization and mitigation.

CONCLUSIONS
WSDOT has taken significant steps to integrate CSS into all facets of the agency's business from the executive level to technical staff, and from early planning through delivery and operation. WSDOT, guided by an Executive Order and a rigorous accountability process, is identifying new ways to move CSS forward each day.   Some areas of current focus include:

- Establishing a process to ensure consistency between WSDOT maintenance and safety projects, local comprehensive plans and regional plans.

- Developing additional CSS accountability and performance measurement tools focused on project development.

- Continuing to take steps to foster an ecosystem approach to planning, developing and operating the transportation system.

- Continuing to conduct research to address some of the outstanding questions related to flexibility in design (e.g, urban street and rural road design issues).

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