

INTEGRATING Context Sensitive Solutions In Transportation Planning



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A solid understanding of the principles of context sensitive solutions (CSS) is needed in order to integrate CSS into transportation planning. A CSS approach means a commitment to meaningful stakeholder participation, and keeping the human and natural context foremost in mind, which will produce a plan for a transportation system that will be an asset to the community and/or region. The information presented here offers discussion of various aspects of each principle, describing how each is applicable with practical suggestions for implementation in a Question & Answer format. Additional information on CSS in transportation planning is available from the Federal Highway Administration (FHWA) website: [\[insert project url\]](#)

(Note: question numbers correspond to the CSS principles available at [\[insert principles url\]](#))

Process: The Planning Effort

1. What are the characteristics of communication with stakeholders when CSS principles are applied to the transportation planning process?

Communication with stakeholders should be open, meaning that all views are heard and honored. Open communication requires that a culture of respect be cultivated among all participants and teams. Communication should also be honest. This honesty must characterize the technical information included in the process; the constraints that must be recognized, including fiscal constraints; and the motivations/interests of stakeholders in the process. Communication must also be initiated early in the process so that stakeholders have time to digest information and contribute to the process as well as shape the plan from the very beginning. Yet communication does not end there. It should be continuous so that any subsequent changes, new information, and the final plan are communicated.

Noteworthy Practices: New Hampshire; Seattle Region

2. What is a multidisciplinary planning team? What interests should it represent?

A multidisciplinary team is a group of individuals, representing a range of interests, professions, perspectives, stages of life, resources, and geographic areas, who have come together to work toward developing a plan that will represent all groups. It should represent all aspects of context, both human and natural. Thus, team members will likely include, but not be limited to, local government officials, natural resource agencies, community/neighborhood groups, sports/recreation groups, and advocacy groups as well as transportation professionals and planners. Including the project development staff at this stage is an excellent way to help ensure that the work done during planning is carried through to project development and delivery. Operations and maintenance staff can offer input on the long-term feasibility of plan recommendations. The precise composition of the team will depend on the specific planning context and type of plan under development, but every effort should be made to have all interests represented on the team from the start. It may be that a very large team can operate more effectively if it is organized into smaller subgroups.





3. How should a CSS approach influence pre-planning activities?

CSS should influence even preplanning activities by involving all formal planning partners in an early identification of issues to be addressed in the planning process. Involving resource and other agencies early in the planning process will help streamline transportation decision making, decreasing the time required to complete environmental requirements while still planning for environmentally sound projects and programs. The formal partners involved at this early stage should include resource agencies, governmental entities, and community organizations. For some planning efforts, these formal partners may be identified in regulations (e.g., the current SAFETEA-LU requirement that MPOs consult with state and local agencies responsible for land-use management, natural resources, environmental protection, conservation, and historic preservation). Even if an agency has specific requirements for consulting planning partners, additional partners may need to be included in order to represent the full range of issues. Taking a context-sensitive approach means being open to including these additional partners as needed.

Noteworthy Practices: Seattle Region

4. How should CSS shape the strategies evaluated in the transportation plan?

A CSS-driven planning process will evaluate a range of strategies to address mobility needs. Although transportation planning in many parts of the United States has traditionally focused on planning for strategies to accommodate the growing travel demand of private auto users, there are many other ways to manage travel demand. With transportation funding becoming tighter and water/air quality becoming an issue in more and more areas, finding alternatives to new or expanded roadways will be an increasingly important task for transportation planners. Depending on the particular context, the transportation plan could investigate multimodal strategies; congestion management strategies, including pricing or intelligent transportation systems (ITS); travel demand management programs; and improving system operation through coordinated land-use planning and development. Alternative strategies may also involve finding new ways to finance transportation projects and programs, or cultivating new partnerships for operating programs.

Noteworthy Practices: Anchorage Region; New Hampshire; Savannah Region

5. How should an official CSS policy be linked to transportation planning?

When top officials of a planning agency and local leaders embrace the ideas of CSS, and follow through with practical support for integrating CSS into planning, this establishes a more productive framework for transportation planning. Formally adopting CSS as a policy helps ensure that there is continuity over time and through long-range transportation plan update processes. It gives the professional planning team confidence that its efforts to engage all stakeholders will be supported and, conversely, assures stakeholders of a high-level of commitment to seeking their input and planning according to their goals. Another reason that every agency should have an adopted CSS policy is that CSS is the current FHWA policy for transportation agencies. State DOTs and MPOs should also note that many CSS principles are in line with current transportation legislation (SAFETEA-LU).

Noteworthy Practices: Chicago Region; New Hampshire; Savannah Region; Anchorage Region

6. How should CSS shape the public involvement/participation plan for a transportation planning effort?

A CSS-driven planning approach will be based fundamentally on the opportunity for meaningful and respectful public participation and outreach. Yet it requires moving beyond simply collecting and recording public





comments. Genuine public involvement means that members of the public are part of the decision-making process. Even after the transportation plan is complete, continuing to involve the public in evaluating the success of the planning process, including the degree to which the CSS principles were applied, is very useful. A post-planning evaluation that includes diverse stakeholder perspectives, as well as the assessment of the planning agency, will help point to areas that need improvement before the next planning cycle.

Involving the public in an efficient yet thorough and transparent manner requires a comprehensive public involvement/participation plan. Such a plan would outline the types of events needed as well as how they will be scheduled, advertised, managed, and documented. Neighborhoods and interest groups that the planning team invites should be specifically identified. Particular care should be taken to see that any groups that have had little or no involvement in prior transportation planning efforts, or who may not normally be involved in civic affairs, are fully integrated. The public involvement/participation plan should note any cultural norms that will influence how they will respond to invitations or affect their participation. As the planning effort proceeds, it may be useful to revisit the public involvement/participation plan to see if outreach efforts need to be redirected or increased to meet the goal of full stakeholder participation.

Noteworthy Practices: Anchorage Region; Lansing Region

7. What elements of context should be considered? When should they be investigated?

There are three broad categories of context that should be the starting point for any planning effort. First, the landscape, which includes the combination of natural and man-made features that together produce the unique characteristics and qualities of a place, should be understood by the planning team. Second, the characteristics, qualities, and function of the communities, which can be neighborhoods, towns, urbanized areas, or regions, should be understood, as these factors will be important influences on the transportation plan and planning process. Valued resources are the third type of context. Resources can be natural (e.g., a unique stand of trees or a sensitive riparian zone), cultural (e.g., vernacular architecture or a local farming economy), or human (e.g., community action groups or any current direction of demographic change). CSS requires that consideration of context go beyond recognizing elements that are protected by law, such as historic sites or threatened species, although such elements are also an important part of the planning context. Using GIS is an excellent way to access, coordinate, and analyze many different kinds of spatial data. Aside from using “official” maps and data, local knowledge should be collected to define context.

This investigation should precede any transportation solutions that are proposed or even explored. In fact, a transportation planning process that is truly responsive to context will not even begin to analyze or define the transportation problems prior to understanding the context. Mechanically approaching transportation deficiencies with a ready-made, formulaic solution in mind can produce projects and practices that are out of step with the surrounding setting.

Noteworthy Practices: Savannah Region

8. How can CSS shape the tools used to communicate various transportation plan options?

During the transportation planning process, a variety of tools can be used to convey possible scenarios. Tools can be technologically advanced, such as demonstrating changes in traffic flows graphically using micro-simulation, or simple, such as poster maps. Using a range of tools is also important because a single communication tool will likely fail to reach all groups who need to understand the proposals for their future transportation system. The planning team should show imagination and flexibility in presenting transportation





options with a combination of tools that could include maps; data tables; photos of current conditions alongside photo visualizations; field visits; tours by alternative modes; websites; and facilitated, interactive exercises. To some extent, the scale of the planning effort will determine the techniques used, yet for every plan, large or small, communication must be effective for the stakeholders it needs to reach.

Noteworthy Practices: Daytona Beach Region; Anchorage Region; Nevada I-15

9. How does CSS improve transportation planning when data are limited? What documentation should a CSS-driven process produce?

Transportation planning requires tremendous data inputs; yet, even detailed data collection will remain an abstraction of reality. Projecting future travel requires reliance on these imperfect data, with all their limitations in quality and quantity (completeness). Yet if the transportation plan uses the context as the point of departure and is based on a genuine visioning process, data limitations will be less of an obstacle, and data can be augmented through outreach to particular groups.

The resulting transportation plan is one type of documentation. However, all public-involvement events, decisions, partnership agreements, data collection/compilation work, and committee meetings should also be documented. As far as possible, and where the law and trust are not violated, documentation should be readily available to all planning partners. This transparency will lend credibility to the transportation plan, the process, and the planning agency. Good documentation is a way to carry forward institutional memory within planning agencies, help move the transportation plan into project development, track commitments, improve the efficiency of future planning efforts, and develop consistency in including stakeholders over time. Documentation should be in an accessible format and location.

Noteworthy Practices: St. Louis Region

10. How can a CSS-driven transportation planning process improve overall planning coordination?

In the same way that transportation systems have substantial interaction with the natural and human environment, transportation planning must interact and coordinate with other planning efforts. Coordinated planning improves efficiency across agencies as other planning efforts may involve similar visioning exercises, community outreach efforts, and data collection. This coordination and integrating is an important part of a CSS approach to transportation planning. The value of planning coordination is embodied in the requirements in the current transportation legislation (SAFETEA-LU), which has increased requirements for consultation with other entities. The Executive Order 13274, signed in 1992, also requires Federal agencies to improve interagency cooperation on transportation projects. FHWA notes that integrated planning includes linking short- and long-range transportation planning and corridor-level planning studies performed by State and local governments with resource agency and land-use planning processes, and with project-specific environmental reviews, approvals, and permitting processes.

Noteworthy Practices: Albany Region; Tennessee



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Product: The Transportation Plan

1. How can CSS improve the development of the problem statement for transportation plans?

At the outset of the transportation planning process, a problem statement is developed that identifies the various transportation issues that need to be addressed in the transportation plan. The problem statement frames the scope and breadth of each aspect of the plan. A CSS approach means that even this very early task is approached collaboratively. By pulling together information (data, other plans and reports) and the various stakeholder perspectives, the problem statement(s) will serve as a foundation for a plan that will truly be responsive to the local context.

Noteworthy Practices: New Hampshire

2. How can CSS improve the safety aspects of the transportation plan?

Safety has long been the highest priority for transportation agencies. CSS also gives considerable weight to safety, with safety as one of the important principles that should be part of any planning effort. In the past, the focus was largely on vehicular traffic safety, but in recent years transportation professionals have begun to think about safety more broadly. A CSS approach supports safety by influencing the transportation plan to consider a full range of safety considerations for all modes and users as well as the surrounding community and even wildlife populations that interact with the transportation system. It can mean that the idea of safety is expanded to include supporting healthy lifestyles through improving access to needed services, promoting nonmotorized modes, and specifically attending to the needs of special populations, such as the elderly, children, or persons with disabilities.

Noteworthy Practices: Chicago Region; St Louis Region

3. How does CSS improve the articulation of a community/regional vision? How can CSS improve the relationship between the transportation plan and the environment?

When the transportation plan is in harmony with the vision of a community and/or the larger region, it serves to show what the implementation of the vision will look like, how it will change the patterns of travel and time use for residents, what will change, and what will be preserved. In this way, the plan helps clarify the vision, showing how the ideas expressed in the vision will be translated into tangible infrastructure or into changes in system management/operations. In some places, there may be little or no land-use planning, and the community vision may be undocumented, poorly articulated, or conflicting projects and programs are proposed. In such cases, a transportation planning agency may collaborate with communities to help develop and focus a vision that allows for consistent policies and proposals.

A transportation plan driven by CSS principles will be sensitive to the human and natural environment. The plan will adhere to the idea that environmental, scenic, aesthetic, historic, and natural resources valued by the community should be preserved. This means going beyond the minimum regulatory requirements. It will require developing innovative strategies, carefully analyzing the tradeoffs involved, and perhaps making hard choices. Yet the community vision and values will always anchor the transportation plan's recommendations.

Noteworthy Practices: Albany Region





4. How does CSS aid in integrating diverse visions into a single plan?

CSS requires a strong commitment to public involvement/participation and to taking a collaborative approach. This is particularly important when a transportation plan must reconcile differences in visions and goals between communities (in a region) or between neighborhoods (within a single community). This can be accomplished in a number of ways. One approach is to reach consensus on a larger vision that still accommodates a range of needs and desires. Another approach is to ensure that the plan includes projects and programs that can accommodate the full range of needs of all groups. Still, in many cases not all views can be accommodated. In such cases, the dissenting views should be honored and the reasons for deciding to pursue other options clearly stated.

5. How does CSS improve the efficiency of the transportation planning process?

Many people have a perception that using a CSS approach will take more time and resources, and negatively affect planning agencies' efficiency. This need not be the case. A CSS approach may, however, necessitate a reallocation of resources with more investment in the early phases. Collaboratively involving a full range of stakeholders also means the potential to coordinate data and information. Efficiency gains are also realized when early collaboration streamlines the process, with shortened timetables for review and requirements. This is in keeping with the FHWA policy goal of exercising good stewardship over resources, including financial resources. A good public-involvement/participation plan takes time to develop, yet it also will mean that the planning effort has focus and direction from the outset and can save time in later phases of developing the plan. Transportation plans that are truly excellent examples will demonstrate all the qualities of excellence and still meet the deadlines for deliverable documents.

6. How can a CSS approach help address the issue of community disruption in connection with transportation plan recommendations?

A transportation plan often proposes considerable changes to a transportation system. This can have profound effects on the landscape; land-use patterns; travel patterns; and access to jobs, needed services, and educational opportunities. Although some disruption is probably inevitable, the transportation plan should give attention to minimizing disruption. When disruptions are anticipated to be largely temporary in nature, for example in connection with construction, the plan should carefully consider in what order projects should be built and how each project should be phased. When disruption will be more permanent, perhaps displacing residents or businesses, the plan should carefully explain the tradeoffs involved and the benefits that will be realized for all groups affected as well as for the transportation system as a whole.

Noteworthy Practices: Greensboro Region

7. In what ways can CSS improve the overall quality of the transportation plan?

By involving a broader range of stakeholders, considering a full range of alternatives, and taking a collaborative approach, applying CSS in transportation planning will help develop a plan that is closely tied to the community vision. The set of recommendations in the plan should also meet or exceed the transportation goals and objectives, yet still meet Federal requirements that it be in line with the financial resources available for implementation (i.e., meet the requirement of "fiscal constraint"). Together, these two accomplishments will indicate that the transportation plan is of high quality as a policy and implementation document.

Noteworthy Practices: Tampa Region



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8. What is the role of CSS in establishing or strengthening the connection between transportation planning and project development?

Many of the tradeoffs involved with developing a project or program that is in harmony with the human and natural environment will have been carefully and thoroughly considered in the transportation planning process. Transportation planning also involves the compilation of vast amounts of data, including contact information for stakeholders who should be brought into the project development process. The plan may have triggered some interagency agreements that have implications for project development, or the transportation planning process may have revealed some "hot" issues that will need particular care and attention. This is an important component of streamlining, a Federally supported initiative that promotes the coordination of multiple and overlapping environmental reviews, analyses, and permitting actions required during project development. Strengthening the connection between transportation planning and project development can improve overall efficiency, stakeholder involvement, and help ensure that the delivered project or program carries forward the CSS qualities of the transportation plan.

Noteworthy Practices: Anchorage Region; Nevada I-15; Greensboro Region

For More Information:

- [FHWA CSS website](http://www.fhwa.dot.gov/csd/index.cfm): <http://www.fhwa.dot.gov/csd/index.cfm>
- [AASHTO CSS website](http://environment.transportation.org/environmental_issues/context_sens_sol): http://environment.transportation.org/environmental_issues/context_sens_sol
- [Online Resource Center for CSS](http://www.contextsensitivesolutions.org): <http://www.contextsensitivesolutions.org>
- FHWA Vital Few Goals:
 - [Safety](http://safety.fhwa.dot.gov): <http://safety.fhwa.dot.gov>
 - [Congestion Management](http://www.fhwa.dot.gov/congestion): <http://www.fhwa.dot.gov/congestion>
 - [Stewardship/Streamlining](http://www.environment.fhwa.dot.gov/strmlng/index.asp): <http://www.environment.fhwa.dot.gov/strmlng/index.asp>
- [Information on SAFETEA-LU from FHWA](http://www.fhwa.dot.gov/safetealu): <http://www.fhwa.dot.gov/safetealu>

