

## **NCDOT Context Sensitive Solutions Goals and Working Guidelines**

### **Background**

For years the NCDOT has built transportation infrastructure through the natural and human environment, changing those environments to fit the demands for increased transportation mobility. Nationally and within North Carolina, people are driving more and traveling longer distances. Citizens of our State have become increasingly aware of rapid changes to their natural and human environments. Requests to modify transportation infrastructure projects to protect natural and human environmental resources have, in some cases, turned into demands with lawsuits. Context sensitive solutions is a national approach supported by AASHTO and FHWA to change the way we plan, design, construct, and maintain our transportation infrastructure.

### **Purpose**

Provide a framework to implement the Context Sensitive Solutions training with the ultimate goal of an infrastructure that provides safe and effective transportation while preserving and enhancing where possible the natural and human environment.

### **Goals for CSS in NCDOT**

- Weave the concepts from the Context Sensitive Solutions workshop “A Better Way” into all aspects of transportation systems planning, design, construction, and maintenance.
- Integrate the NCDOT Environmental Stewardship Policy into all aspects of our day-to-day operations and decision making.
- Work to fit the transportation infrastructure into the existing natural and human environment.
- NCDOT employees will be advocates for the natural environment as we provide the “lightest possible touch” from the transportation infrastructure. We will initiate or trigger protection of all High Quality Resources through avoidance as the first alternative, minimization as the second alternative, and mitigation as our last alternative.
- NCDOT employees will be the focal point for the human environment needs as we provide transportation infrastructure to our customers. We will solicit input from all stakeholders in every way needed to ensure all relevant needs are addressed and answers are provided to the suggestions and questions. Seeking first to understand the values

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and interests of the communities and genuinely evaluating the input prior to pre-judging their responses.

### **Guidelines for CSS**

- Create permit applications within all levels of NCDOT (Maintenance, Operations, Multi-modal Divisions, Planning, Design, Construction, Purchase Order Contracts) that show a thoughtful concern for the human and natural environment that is applied when making decisions.
- Create permit applications for TIP Projects that show a profound understanding of the Merger 01 process and thoughtful concern for the human and natural environment that is applied when making decisions.
- Actively build good human relationships and coordination with all stakeholders in the Context Sensitive Solution concept through effective communication that all stakeholders can understand and actions that will grow trustworthiness and lead to trust.
- Use critical internal analysis to review and assess our permit applications and the resulting actions to deliver products that will meet or exceed other agencies expectations. This will lead to trust and a Quality Control (NCDOT)/Quality Assurance (other Agencies) relationship that will reduce time spent in the permitting process.
- Understand how to use the AASHTO Design Guide and its fullest range of options to achieve maximum flexibility in design. Expand use of the AASHTO Design Guide for Very Low Volume Roads (under 400 ADT). Some examples of this are: lower design speeds; restriction of certain vehicle types; high design 2-way; 2-lane roadways in lieu of 4 lane divided roadways; unpaved roadways; returning roadways to adjacent property owners; traffic calming procedures to reduce vehicle speeds; and adjustment of vertical and horizontal alignments to reduce cuts and fills. Learn to use design techniques that “lay lightly on the land”.
- Use vegetative material as buffers; preserve, enhance, and create animal habitat where possible; use innovative technology to create permanent soil erosion solutions from temporary installations; strive to design soil erosion measures for zero run off conditions; use innovative practices and products to ensure the establishment of temporary and/or permanent ground cover of areas that have been denuded due to removal of root mat prior to rain events.

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- Exceed agency expectations by utilizing drainage practices that are consistent with riparian buffer regulations on projects that fall outside of the river basins that currently have buffer regulations
- Let to contract and construct work during periods of the year when it is least harmful to the natural and human environment
- Pursue CSS solutions for projects serving as gateways to and/or along naturally, historically, and culturally significant properties. Identify areas early in design and involve stakeholders in the development of the design.
- Planners, Designers, Constructors, and Maintainers will communicate to ensure that innovative ideas and techniques are shared and doable across all four disciplines. Provide environmental training to stakeholders to ensure stewardship is practiced throughout the Department.
- When CSS solutions are identified for a situation that could create a time delay or cost increase seek consultation about how to proceed from the individuals listed below.

Project Document Process

Greg Thorpe – PD&EA

TIP Project Design

Debbie Barbour – Preconstruction

TIP Project under Construction

Steve DeWitt – Construction

Division Project & Maintenance

Steve Varnedoe – Operations