



Promote Safety and Efficiency



Like many urban areas, Washington, D.C., can be a challenge for drivers navigating congested streets and planners scheduling road, utility and other construction work that can add to traffic woes. To address those challenges, the District Department of Transportation developed a work zone tool to streamline the project coordination process.

It all started in 2007, when agency officials realized that several road and construction projects in D.C. on busy New York Avenue, in the Nationals Park area and at the Washington Convention Center had interconnected impacts on travelers. The District DOT developed a software-based **Work Zone Project Management System** to integrate construction schedules, identify congestion hot spots, analyze traffic impacts and generate mitigation strategies.

Now, the District DOT uses the system to create maps and reports, including an annual transportation management plan that examines work zone mitiga-

tion strategies by project, corridor and region. The agency arranges meetings with project engineers to find solutions to conflicts, such as schedule adjustments or changes in maintenance-of-traffic plans for projects. It also uses system outputs in developing public outreach and media relations efforts.

The District DOT's project coordination process is one example of how transportation departments across the country are deploying **smarter work zone** strategies to optimize road user and worker safety and traffic mobility. In the third round of Every Day Counts, more than 40 agencies are using smarter work zones and more than a dozen plan to institutionalize them.

During EDC-3, the Federal Highway Administration is encouraging adoption of two smarter work zone approaches:

- **Project coordination** to minimize work zone traffic impacts involving projects in a corridor, network or region—even across agency jurisdictions
- **Technology applications** to improve safety and mitigate congestion by deploying intelligent transportation systems to dynamically manage work zone traffic impacts



The North Carolina DOT collects data on the mobility impacts of manual flagging operations on rural roads.

The North Carolina Department of Transportation is applying technology to enhance work zones by developing a method to collect data and assess mobility on construction projects in its Statewide Rural Surfacing/Resurfacing program. The technology application involves using a K-band Doppler radar to evaluate performance criteria for manual flagging operations in single-lane work zones.

The radar device detects how long vehicles wait in a queue during a 15-minute period. The data collected are used to develop average daily and project mobility scores for the work zone. Having a mobility measure helps the North Carolina DOT make decisions on actions to improve work zone mobility on future projects, such as performing site visits to determine if flaggers are using proper techniques.

The North Carolina DOT plans to expand its work zone data collection program, initially developing a statewide mobility rating for rural work zones and eventually devising performance measures for work zones on more heavily traveled routes.

After enough data are collected, the agency wants to predict the number of 15-minute periods during which poor mobility is expected on a planned project. This type of system could provide information for limiting work zone lane closures during peak times of the day to reduce impact on traffic.



Credit: District Department of Transportation

Want to Learn More?

- See the **Smarter Work Zones Toolkit** for a one-stop online shop for information on deploying project coordination and technology applications.
- Watch sessions in the **smarter work zones webinar series** and register for upcoming webinars.
- For technical assistance and training, contact Smarter Work Zones Innovation Deployment Team leaders **Paul Pisano** and **Jawad Paracha** of the FHWA Office of Operations.



View **Comprehensive Overview of the Smarter Work Zone Initiative** webinar.

The District DOT's Work Zone Project Management System helps the agency identify and mitigate work zone conflicts.

