



# Strategic Workforce Development

## Case Study



### Focus on Innovation:

Advanced Digital Construction  
Management Systems

Advanced Digital Construction Management Systems (ADCMS) are an important part of the Federal Highway Administration's (FHWA) ongoing, strategic effort to share innovative project delivery practices with State and other transportation agencies. ADCMS are technologies and processes that include systems for infrastructure planning and coordination, design, construction, maintenance, modernization and management, and asset management. Through its ADCMS Program, FHWA offers grants to help State departments of transportation (DOT) adopt advanced technology that can be used throughout various parts of the construction lifecycle.



## Alaska's unmanned aerial systems bring innovation to workflow and processes

The Alaska Department of Transportation (DOT) employs unmanned aerial systems (UAS) in many aspects of its operations and has shared valuable lessons to help other States adapt the advanced technology. With UAS, the Alaska DOT can conduct operations that are beyond the visual line of sight more easily, plus develop and utilize remote dock workflows. UAS technology also has allowed the Alaska DOT to provide site visits to remote docks that include satellite internet systems, off-grid power, and edge computing systems.



Source: FHWA

## Texas improves operational efficiency with digital delivery

The Texas Department of Transportation (TxDOT) uses digital software, hardware, and processes to streamline operations by sharing data and 3-D construction models throughout all phases of its projects. The advanced technology has made it easier for TxDOT to plan, design, test, and deliver transportation projects. Plus, with digital data-driven decision making, TxDOT can achieve efficiencies across the project lifecycle, support asset management, and provide a safe and resilient transportation system for the public.



Source: Getty Images.



# Delaware increases safety with integrated, data-driven project management and UAS technology

The Delaware Department of Transportation (DelDOT) collaborated with HaulHub Technologies to transition to a digital, centralized data management system. Through the system, DelDOT collects and integrates construction material and equipment data to share with crews and communicate with the public. The platform is designed to simplify contractor participation and remain involved in projects. It also helps DelDOT target and deploy specific safety messages for motorists. The digital data management system gives an opportunity for continuous process improvement through project insights, trend analysis, and performance evaluation.

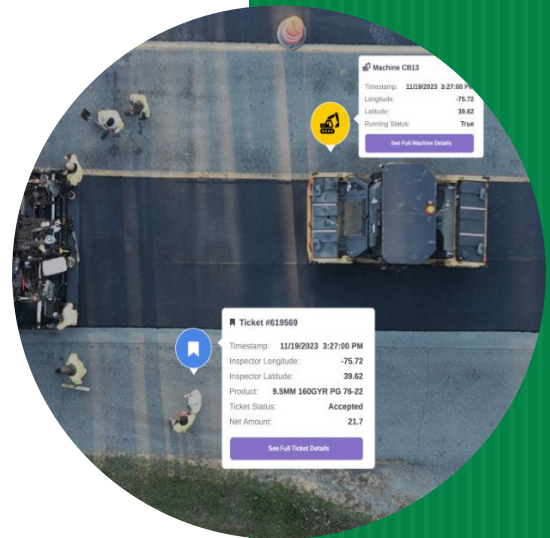
To advance its on-site operations in highway construction projects, DelDOT employs UAS technology that offers immediate, current data for crews. Instant access to information helps crews quickly identify, adapt, and respond to any complex issues that may arise. The real-time data integration also helps with workforce development and recruitment as it can appeal to tech-savvy prospective employees.

## Learn more at:

To get information about how your State can innovate its operations with advanced digital construction management systems, visit [fhwa.dot.gov/construction/adcms/](https://fhwa.dot.gov/construction/adcms/) or email [digitalconstruction@dot.gov](mailto:digitalconstruction@dot.gov).

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Source: Delaware Department of Transportation (DelDOT) SR 72 project featuring real-time data integration powered by HaulHub Technologies.

# 479

digital work zones

have been created since October 2024, with **748,000+** automated worker presence events logged.

## Let's collaborate to build the highway construction workforce.

Reach out to discover how to build a highway construction workforce in your State.

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U.S. Department of Transportation  
Federal Highway Administration

<https://www.fhwa.dot.gov/swd>