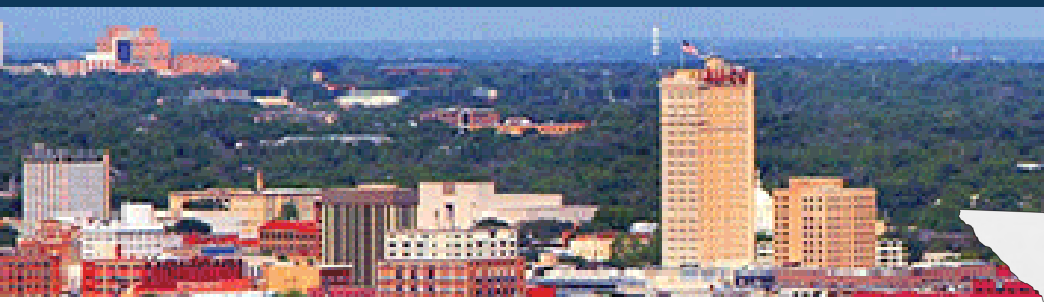
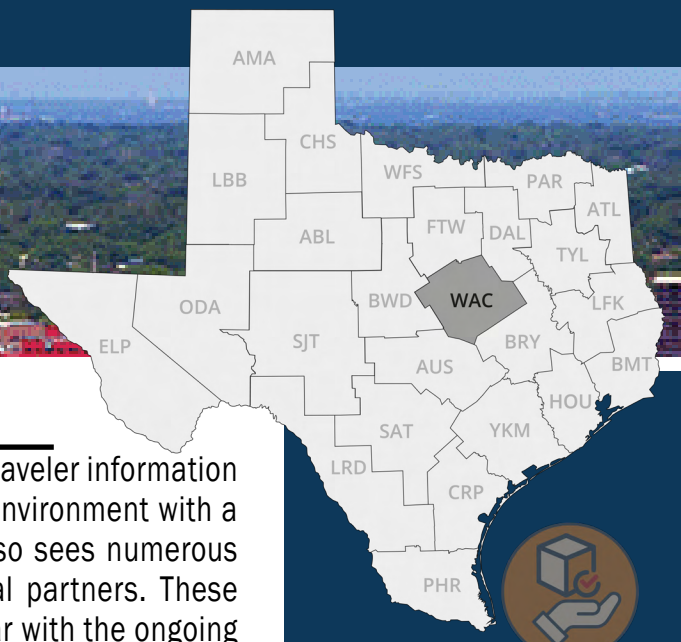
# TxDOT Innovations and Technology Deployment Briefs

## *Construction Specific Traveler Information*






## PROBLEM

Reconstructing I-35 in the Waco area brought new challenges to traveler information needs. The area sees a significant amount of travel in a dense environment with a mixed user group including pedestrians and bicyclists. Waco also sees numerous large events stemming from its cultural, retail, and educational partners. These events bring a constant stream of visitors who may not be familiar with the ongoing changes in the area. Additionally, freight impacts were potentially significant since I-35 is the most heavily traveled freight corridor in the state. There were no existing resources that addressed all the needs across all the traveler groups.

## SOLUTION

Current and projected travel conditions information is disseminated through email, text messaging, real-time websites, and social media via Twitter. Types of information include lane closures, travel times, significant delays, pedestrian and bicycle path closures, and incidents as well as camera snapshots and streaming video.

Streaming video capabilities to the public via YouTube was also used to support travel information for the construction project. There were 21 streaming video cameras throughout Waco from North Loop 340 to South Loop 340, which cumulatively streamed millions of minutes of video on demand to travelers.

Three comparative travel time signs and two current delay signs are part of the permanent highway signage. The information displayed is real-time analysis of the vehicle travel data collected throughout the corridor.

Freight-specific specialized emails provide information on lane closures and their projected delay, and freight-specific alerts also occur for corridor delay.

There are additional efforts to increase awareness, supply outreach, and education materials for bicyclists and pedestrians. The BE SAFE BE SEEN safety initiative, started May 2019, aims to inform pedestrians about safely walking and biking near or around construction zones. A highlight of this initiative has been the development and placement of pavement clings. The clings contain a QR code that when scanned will go directly to the pedestrian/bicycle map on the real-time map website.








Texas Department of Transportation

**District: Waco** **December 2022**

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## BENEFITS

TxDOT is able to keep the traveling public informed using the latest technology by providing clear, timely, and accurate construction-specific travel information, allowing travelers to see potential delays and safety hazards before leaving their homes.

## KEY TASKS

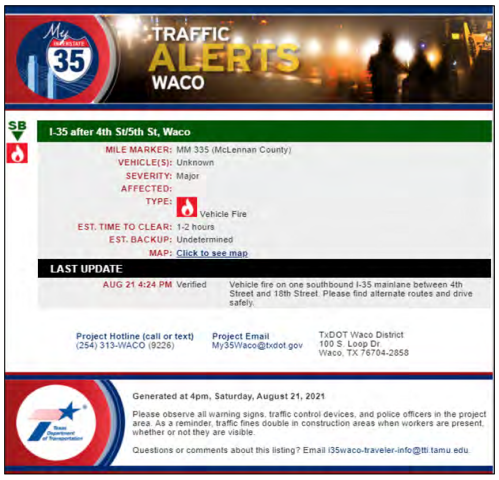
- Understand needs and plan for meeting them across multiple user groups.
- Systematically review and update.
- Objectively evaluate enhancements.

## DATA SOURCES

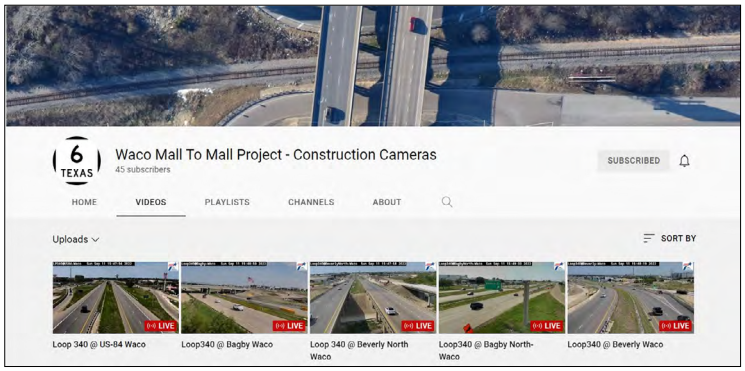
Bluetooth readers across the District provided much of the original traveler information data. Then, in FY22, the District moved away from these field devices and began to collect data through a third-party data source purchased by the department.

## PROACTIVE APPROACH

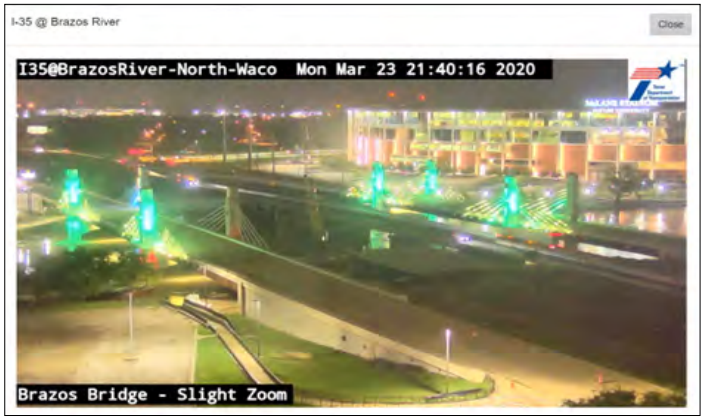
TxDOT took a very proactive approach with the I-35 construction, focusing on identifying all impacted user groups, understanding their specific needs, and constructing solutions that addressed those needs. This project was the first time large scale streaming cameras were set up, the first pedestrian and bicycle closure map, the first comparative travel time usage in the state, and the first incident text messaging system. Combined with the innovations in work zone safety and queue warning, TxDOT kept travelers informed and up to date via numerous communication channels.




*Waco incident alert.*




*Dissemination of streaming video via YouTube.*




*Snapshot of one of the 21 streaming cameras.*

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