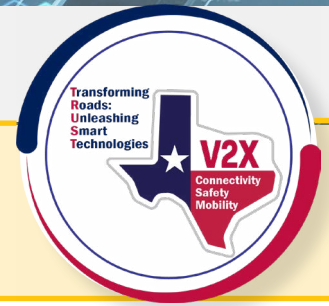


Saving Lives with Connectivity: Accelerating Vehicle to Everything (V2X) Deployment

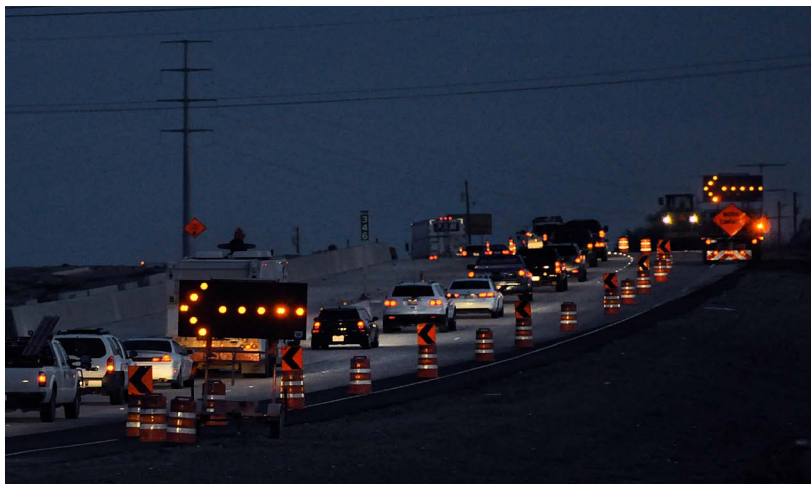


USE CASE #8

Planned Construction and Special Events

WHAT IS VEHICLE-TO-EVERYTHING (V2X)?

V2X functions like a group chat for the road. It allows cars, traffic lights, and other road users to communicate in real-time by sending messages to each other, and each message can carry different safety and roadway information.



Nighttime traffic slows through an active construction zone. (source TTI)

USE CASE #8 DESCRIPTION

Drivers often feel they are the last to know about upcoming construction or special events. Message boards can be helpful, but they're easy to miss or forget, and maintaining them can be expensive. This use case shows how V2X technology keeps drivers informed about construction and lane closures with timely, location-specific updates.

WHAT CAN I EXPECT FROM THIS USE CASE?

Drivers will receive alerts about construction, lane closures, and special events both before and during these events through their mobile navigation app. These alerts will be location-specific and delivered only when relevant to the driver's route, helping drivers plan their trips, avoid delays, and travel more safely.

HOW DOES IT WORK?

Planned construction and event data are collected from two sources: scheduled activities and real-time roadway information. This information is converted into V2X messages and shared with mobile navigation apps to notify drivers within a defined geofenced area.

HOUSTON. 2024

DRIVERS
SPENT

~47

HOURS

IN RUSH-HOUR TRAFFIC



On average Texas has:

3,000+ ACTIVE
WORK ZONES



>26,000
CRASHES

>193
FATALITIES

>806
SERIOUS
INJURIES

USER STORY

The Challenge: You are driving from College Station to visit family in Houston. You remember seeing a message sign about upcoming lane closures but didn't catch all the details.

V2X Solution: Planned construction information is processed and delivered using V2X to your mobile navigation app. You are notified days or weeks in advance, and again as you enter the affected area. This gives you time to plan or choose a different route home.

Outcomes & Benefits: You can plan your trip in advance, avoid delays, and arrive home safely and on time.

Planned Construction and Special Events

TEXAS TRUST PROJECT

The Transforming Roads: Unleashing Smart Technologies (TRUST) project is a federally funded initiative led by the Texas A&M Transportation Institute (TTI).

TTI, in partnership with state, local, and industry partners, is implementing V2X technology in Houston and Bryan-College Station through 15 real-world use cases that demonstrate how V2X can enhance safety, mobility, efficiency, and economic growth. TRUST aims to develop solutions that work across different technologies and regions, while sharing insights to help create a national blueprint to accelerate V2X adoption and implementation nationwide.

USE CASES

LOCATION:

NATIONAL HIGHWAY SYSTEM

6. Incident Management / Hurricane Evacuation
7. Adverse Weather Events / Flooding
- 8. Planned Construction and Special Events**
9. Curve Speed Warning



LEARN MORE ABOUT TEXAS TRUST & V2X

For more information on Texas TRUST and to explore V2X educational resources, project updates, and use cases, please visit: <https://v2xtexastrust.com/>

For a list of supporting references used in these materials, visit: [V2X Use Case Sources](#).



Robert Brydia, PMP

Division Head

System Operations and Technologies

Texas A&M Transportation Institute



Questions? Email us at v2xtexastrust@tti.tamu.edu