I-35 Connected Work Zone
I-35 Expansion in Waco

- $2.1 billion coordination of 17 projects with multiple contractors
- 96-mile different projects, 55,000 to 111,000 vehicles per day
- 30 million travelers per year
- 25% to 35% truck traffic
- Peak construction 2012-2014
- 200 miles directional
- Central Texas corridor construction project cost
- Estimated complete 2019
I-35 Example Traveler Information Outputs

THRU TEMPLE VIA

LOOP

WEST

35 Mins

35

18 MILES

39 MIN

Current Delay As of 8:36 PM

0 min

Hillsboro (MM 368) to Waco (MM 334)

0 min

Waco (MM 334) to Temple (MM 301)

20 min

10 min

5 min

Temple (MM 301) to Salado (MM 279)

5 min

Waco's 6th St Pedestrian Bridge WB Pedestrian Path @I-35 | closed permanently

Wakatrace | I-35 & SH@US-287 | Various lanes closed tonight 9PM to 6AM Fri-Sat

maps.tamu.edu/?id=12121 #My35
Freight 7-Day Closure Forecast

LISTING COVERS 7AM FRIDAY, NOVEMBER 24 THROUGH 7AM FRIDAY, DECEMBER 1

This listing is subject to change due to inclement weather or other unforeseen events that may occur.

HILLSBORO to WACO (I-35E)

<table>
<thead>
<tr>
<th>DATES/TIMES</th>
<th>LOCATION</th>
<th>ROADWAY</th>
<th>CLOSED</th>
<th>MAP</th>
<th>NB</th>
<th>SB</th>
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</thead>
<tbody>
<tr>
<td>11/27 - 11/28, 9PM - 6AM</td>
<td>I-35 at US-287, Waxahachie</td>
<td>I-35 E Mainlanes (MM 402.0)</td>
<td>All lanes closed</td>
<td>LNK</td>
<td>0 min</td>
<td>0 min</td>
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<td>7PM 8PM 9PM 10PM 11PM</td>
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Current Delay as of 3:30 PM

- Hillsboro (MM 368) to Waco (MM 334) | 75 min
- Waco (MM 334) to Temple (MM 301) | 5 min
- Temple (MM 301) to Salado (MM 279) | 5 min
I-35 Connected Work Zone

- Right Lane Closed Ahead
- Lane Ends Merge Left
- Work Zone Ahead
- Slow Down To 55 mph
Two-Tiered Solution

High fidelity scenario
- Detailed lane-level mapping of the roadway and work zone is possible
- Reference point (beginning of lane closure taper) can be accurately defined
- Full information load for RSZW/LC application is supported

Low fidelity scenario
- Less detailed mapping of the roadway and work zone
- Reference point is estimated
- Reduced information load for RSZW/LC application is supported
Results

• Methodologies for managing periodic impacts
• Development of test beds
• Testing of connected hardware
• Testing work zone mapping procedures
• Evaluation of queue warning application
• Methodology for Lonestar automation and message dissemination
• Development of Work Zone Data Exchange for lane closures
Latest Areas of Emphasis

- Testing SwRI OBU Application for Work Zone Warning
- Testing Other CWZ Applications
- Developing CWZ Information Pathways to Freight Carriers
- Utility of 3rd Party Data
- Incorporating CWZ Information into Traveler Information Databases