I-35 Construction Traveler Information System
<table>
<thead>
<tr>
<th>DELAYS</th>
<th>CURRENT TRAVEL TIMES</th>
<th>INCIDENTS</th>
<th>LANE CLOSURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Stopwatch]</td>
<td>![Map and Chart]</td>
<td>![Warning]</td>
<td>![Road Work Cones]</td>
</tr>
<tr>
<td>FORECASTED TRAVEL TIMES</td>
<td>DETOUR ROUTES</td>
<td>CURRENT SPEEDS</td>
<td>SNAPSHOTS</td>
</tr>
<tr>
<td>![Graph]</td>
<td>![Map]</td>
<td>![Speedometer]</td>
<td>![Snapshot]</td>
</tr>
<tr>
<td>Issue</td>
<td>Information Need</td>
<td>Solution</td>
<td>On-Road Deployment</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Localized congestion</td>
<td>Current travel times on I-35</td>
<td>Present recent travel time information over next 5-10 miles</td>
<td>BT readers, Travel time PCMS, CCTV</td>
</tr>
<tr>
<td>Lane closure- queues &amp; speed differentials</td>
<td>Warning for slow/stopped traffic</td>
<td>Provide a mobile queue warning system, deployed nightly as needed</td>
<td>Mobile queue warning system, Data driven PCMS messaging</td>
</tr>
<tr>
<td>Lane closures – delay</td>
<td>Before departing - Advance notice</td>
<td>Analyze lane closures for impact and disseminate</td>
<td>Wavetronix</td>
</tr>
<tr>
<td></td>
<td>While traveling - Expected delay updates</td>
<td>Communicate expected delays along I-35 corridor</td>
<td>Wavetronix, On-call queue warning system, BT readers, Construction delay signs</td>
</tr>
<tr>
<td>Construction impacts</td>
<td>Detailed performance metrics</td>
<td>Collect, archive, and analyze lane closure activities and impacts.</td>
<td>Mobile queue warning system, BT readers, Wavetronix</td>
</tr>
</tbody>
</table>
## Aggregate User Needs

<table>
<thead>
<tr>
<th>Travelers</th>
<th>Contractors</th>
<th>Mobility Coordinators</th>
<th>TxDOT</th>
<th>Traffic Management Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Clock" /></td>
<td><img src="image" alt="Traffic Cone" /></td>
<td><img src="image" alt="Exclamation Mark" /></td>
<td><img src="image" alt="Queue" /></td>
<td><img src="image" alt="Communication" /></td>
</tr>
<tr>
<td>Travel Time/Speed</td>
<td>Lane Closure Information</td>
<td>Incident Information</td>
<td>Queue Warning</td>
<td>Information Pre-trip and En Route</td>
</tr>
<tr>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Gears" /></td>
<td><img src="image" alt="Cloud" /></td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Upward Arrow" /></td>
</tr>
<tr>
<td>System Information</td>
<td>Management and Operations Devices</td>
<td>Data Warehouse</td>
<td>System Reports</td>
<td>TMC Data Exchange</td>
</tr>
</tbody>
</table>
SE Process

1. Identify Needs
2. Plan
3. Staff & Budget to accomplish plan
4. Build Systems
5. Operate, Maintain & Improve
Project Outputs

Travel Time Signs

- Real-time using BT matches
- Updated every 5 minutes
- 21 locations across corridor
- All communications take place using Lonestar and C2C
Project Outputs

End-of-Queue Warning System

- Database all lane closures
- Assess for queue and delay impacts
- Recommend deployment based on forecasted queue
End of queue warning system

- Plan 1 or 2 depends on projected queue length
- Warns of distance to slow speeds, stopped traffic
- Input into the construction delay calculations and sign posting
- Has received national, international attention
Project Outputs

Real-Time Map

• Closures
• Incidents
• Travel Times
• Trip Planner
• Delimit by direction
• Device and orientation responsive
• Tabbed interface
Project Outputs

Lane Closure Emails

- Daily, with 4pm update
- Rolling 7-day forecast (2x weekly)
- High-impact only
- By subscription
Project Outputs

Twitter
I-35 at Ross Rd, Ross

**MILE MARKER:** MM 346 (McLennan County)
**VEHICLE(S):** Multiple
**SEVERITY:** Major
**AFFECTED:** All Lanes
**TYPE:** Vehicle Fire
**EST. TIME TO CLEAR:** 30-60 min
**EST. BACKUP:** 2-4 miles
**MAP:** Click to see map

**DETAILS**

**JUL 28 9:39 AM** Cleared
**JUL 28 8:33 AM** Verified  NB lanes should open in 30-45 minutes, concrete traffic barriers are being reinstalled at this time.
**JUL 28 5:38 AM** Verified
**JUL 28 2:09 AM** Detected Accident involving multiple vehicles, all lanes closed at this time.
For more information:

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