Work Zone Safety and Mobility Update

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Agenda

- What does 2008 work zone crash data indicate?
- What are the impacts of the policies since implementation?
- What are on-going work zone issues?
Work Zone Fatal and A Injury Crashes 2008
2008 Work Zone Crash Statistics

Collision Type

<table>
<thead>
<tr>
<th>Collision Type</th>
<th>A Injury</th>
<th>Fatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Object</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td>Head On</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Turning</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Angle</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Rear End</td>
<td>32%</td>
<td>30%</td>
</tr>
<tr>
<td>Parked Vehicle</td>
<td>3%</td>
<td>10%</td>
</tr>
</tbody>
</table>
2008 Work Zone Crash Statistics

Lighting Conditions

<table>
<thead>
<tr>
<th>Time</th>
<th>A Injury</th>
<th>Fatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day</td>
<td>70%</td>
<td>63%</td>
</tr>
<tr>
<td>Night</td>
<td>26%</td>
<td>37%</td>
</tr>
</tbody>
</table>
2008 Work Zone Crash Statistics

Of the 31 fatal crashes in work zones, the work zone was a contributing factor 42\% (13/31) of the time. Of these 13 crashes:

- 79\% Daylight
- 93\% Dry Pavement
- 36\% Driver drug or alcohol impaired
- Most Frequent Type – 57\% Rear End
2008 Work Zone Crash Statistics

- Parked vehicles are significant factor
- Queue’s in work zone
- Large vehicles over represented

Implications:
- Manage queues in work zone and driver awareness
- Queue detection technology worthwhile
- Flagger training to avoid unauthorized maneuvers (i.e. U-turns)
Impacts of the Subpart J Policy

- Mandated Work Zone Safety and Mobility Policy Process Review currently being finalized
  - Safety and Mobility goals added emphasis
  - Queuing analysis is a challenge, but has impacted design of traffic control plans
  - “Significant Route” designation helpful, but not a perfect science, local system clarification needed
  - Feedback from resident engineers on fatal crashes very helpful for analysis, liability concerns
  - Transportation Management Plan (TMP) feedback: too soon to tell
Impacts of the Subpart K Policy

- Policy effective December 4, 2008 to meet requirement: Subpart K to 23 CFR Part 630
- Applies to all state system projects and local federal-aid projects
- Target for implementation was November 2009 letting in original policy; full implementation in 2010
- Exceptions to the policy requested through District, Central Bureau of Safety Engineering, and FHWA as required
Key Components of the Policy

- Guidance for Use of Positive Protection Devices
  - Mobile vs Stationary operations guidance
  - Types of devices (NCHRP 350)
  - Consider in developing Transportation Operations Plan as part of TMP’s

- Design Policy to Minimize Drop-off Exposure
  - Condition 1 for Lane-to-Lane (Excludes Patches)
  - Condition 2 for Lane-to-Shoulder
Key Components of the Policy (continued)

- Law Enforcement in Work Zones
  - State Police hireback program history and implementation described
  - Photo speed enforcement
  - Enforcement training
  - Enforcement on local agency projects
  - Emergency traffic patrols / Emergency patrol vehicles

- Illinois already in substantial compliance in other areas
  - Separate pay items for work zone traffic control, quality assurance of devices
Where is the Policy Online?

- [http://www.dot.state.il.us/illinoisSHSP/workzonesafety.html](http://www.dot.state.il.us/illinoisSHSP/workzonesafety.html)
- IDOT web site
  - Doing Business
    - Bureau of Safety Engineering Programs and Policies
      - Safety 3-07
      - Safety 4-08
On-Going Work Zone Issues

- Re-write of Bureau of Design and Environment Manual incorporating both policies

- Construction and Operations impacts to users

- Special Provisions and/or standards being developed for:
  - TMA use for short-term closures as a positive protection option
  - TMA use during traffic control set up/removal
  - Managing sequence of operations to limit length or duration of drop-off exposure
  - Local agency standard layout for traffic control to enforce work zone speed limits and fines
Questions