Safety Corridors in Iowa

Tom McDonald, Co-Principal Investigator
Proposed

• Synthesis of Practice Research Study Completed

• Any program in Iowa yet to be approved by the Iowa Department of Transportation and Department of Public Safety

• Possible action in next several months

• Road Safety Audits on two possible routes completed
Safety Corridor for Iowa

- A relatively short segment of roadway (2-20 miles)
- Higher than average severe crash rate
- Multiple years of duration, minimum one year
- **Multi-disciplinary** in approach
Components

• Engineering improvements, generally low cost
• Enhanced enforcement
  – Focus on issue of interest
    • Speeding
    • Seat belt
    • alcohol
• Public information and education
  – News releases, brochures, media events, etc.
• Special signing
Other States’ Practices

- First CSIP in PA in 1988
- FHWA workshop in 1990
  - Voted most promising short term countermeasure for safety
- FHWA guidelines in 1996
- Known programs in at least 12 states
Anticipated Contributors

- State and local law enforcement
- Governor’s Traffic Safety Bureau
- Department of Transportation
- County/city agencies
- Local traffic safety committee
- Emergency responders
- Schools
- News media
- Businesses
Advantages for Iowans

• Quick reaction to identified crash problem
• Responsive to public demands
• Implementation costs relatively low
• Interim step until more costly improvements can be programmed
• Multi-disciplinary approach is effective
• Flexible in approach
• Excellent record of effectiveness
Possible Strategies

- Dedicated enforcement
- Adjusted speed limits
- Required or suggested headlight use
- Double fines for moving violations
- Larger signs
- Enhanced pavement markings
- Public awareness thru local media
- Education of younger drivers
- Remove objects in clear zone
- Targeted campaigns for seat belts, speed, impaired, etc.
- Distribution of safety materials to public
- Use of multi-disciplinary team
- Paved shoulders, rumble strips
- Add turning lanes
- Automated enforcement
- Other ??
Recommended Steps

• Select corridor(s) with significant crash histories
• Identify and invite a task group
• Identify decision makers
• Select an experienced leader
• Generate public support
• Make data driven recommendations for improvements
• Find funding for improvements
• Evaluate the effectiveness
Possible Iowa Corridors

• US 52 from Iowa 136 to Dubuque

• US 61 from Muscatine to Davenport
Rural Primary Roads with the Highest Fatal and Major Injury Crash Density Involving an Impaired Driver

Original 5% Candidate Locations (2001 - 2005)

- ~247 miles

5% Future Candidate Locations Being Monitored (2002 - 2006)

- ~81 miles

*BAC>0, Alcohol Test Refused, Drug Test Positive, Drug Test Refused OR Driver Condition = Under Influence of Alcohol/Drugs/Medication

7/18/2007
Corridors with the Highest Fatal and Major Injury Crash Density for Single Vehicle Run-off-the-Road Crashes on Rural Primary and Paved Secondary Roads

Original 5% Candidate Locations (2001 - 2005)
- Red: Primary Roads (~184 mi)
- Black: Secondary Roads (~71 mi)

5% Future Candidate Locations Being Monitored (2002 - 2006)
- Orange: Primary Roads (~82 mi)
- Blue: Secondary Roads (~40 mi)
Rural Expressway and Two-lane Primary Roads with the Highest Fatal and Major Injury Crash Density for Speed-related* Crashes

Original 5% Candidate Locations (2001 - 2005)
- ~249 miles

5% Future Candidate Locations Being Monitored (2002 - 2006)
- ~50 miles

* Driver Contributing Circumstances:
  - Exceeded Authorized Speed
  - Driving Too Fast for Conditions
  - Lost Control, Followed Too Close
  - Over Correction/Over Steering
Rural Primary Roads with the Highest Fatal and Major Injury Crash Density of Unbelted Drivers and Passengers*

Original 5% Candidate Locations (2001 - 2005)  
- Red ~240 miles

5% Future Candidate Locations Being Monitored (2002 - 2006)  
- Orange ~138 miles

* Excluding motorcyclists & bus passengers.
Road Safety Audits

• Initial step before Safety Corridor Program even approved

• Multi-disciplinary approach

• November 28-29 in Dubuque County

• December 5-6 in Muscatine/Scott Counties
Audit team

- Federal Highway Administration
- Governor’s Traffic Safety Bureau
- Iowa DOT
- Law enforcement
  - State Patrol
  - County Sheriff
- Consultant
- CTRE
- Others
Local Input

- Information and advice about route
- Suggestions for other team members
  - Sheriffs Department
  - Frequent commuter
- Support for effort
Chronology for an Iowa Pilot Project

• Complete synthesis project

• Using results, formulate proposal for Iowa

• Present to Iowa DPS and DOT

• If accepted, proceed with development
Research Project Tasks

- Summarize Iowa’s past safety enhancements
- Invite and assemble an expert advisory panel
- Select corridor(s) for pilot study
- Develop specific data to aid in mitigation
- Select mitigation measures
- Monitor, assess, and modify mitigation steps
- Prepare final report
### Effectiveness of Safety Corridors

**Budget Estimates**

**7/1/07 - 6/30/08**

#### Staff Detail

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<th>Faculty</th>
<th>Level of effort</th>
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<th>Total Project Amount</th>
<th>MTC</th>
<th>laDOT</th>
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**Total Personnel**

|                  |                  |          | $24,993 | $6,720 | $18,273 |

#### Budget Summary by Category

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**TOTAL DIRECT COSTS**

|                  | $34,193 | $10,385 | $23,808 |

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