National Rural ITS Conference
September 16–19, 2012

Work Zone Accident Reduction Deployment (WZARD)

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WZARD is a part of a Destination Innovation Project; Safe Corridor Enhancement (SCorE)

- Three SCorE projects on eastbound I–94.
  - RTMC Backbone Extension
  - CITE
  - WZARD

- The projects are interrelated and designed to reduce crashes and improve safety.
All projects are located on the Eastbound I-94 Corridor from the Twin Cities to St. Cloud (45 miles).
RTMC Backbone Extension Project

- Provides for
  - Fiber optic communication
  - Power
  - 13 changeable message signs
  - Detection
    - Radar
    - CCTV
Corridor Enhancement via Technical Enforcement (CITE)

Roadside mounted license plate readers (LPR’s) installed along the corridor.
WZARD

- Provides automated dynamic warning to approaching vehicles of current snow plow and or maintenance operations upstream.
Concerns Leading to WZARD

Snow Events
- Reduced visibility
- Reduced roadway friction
- Unexpected change in conditions
  - Snow cloud due to plow

Roadway Characteristics
- High speeds
- Increasing volumes
WZARD Goals

To improve safety for snow and ice and other work zone operations by providing advanced notification of:

- Maintenance
- Work zone
- Incident management
- Law enforcement
WZARD Operation

Infrastructure
- Fiber optics and wireless communications
- Changeable message signs
- IRIS

Plows
- AVL equipped

Zone
- Geofence
**WZARD Benefits**

**Improve**
- Corridor safety during maintenance operations
- Traffic incidents
- Traffic enforcement activities

**Reduce the occurrence of**
- Snow plow/vehicle crashes.
- Occurrence of secondary incidents.
Next Steps

WZARD lessons learned can be applied to future deployments

- Other corridors with AADT issues such as I–35

Public Communications/Traveler Information

- Provide real-time traveler information
- Provide travelers with advance warning of maintenance operations upstream
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