Queue Warning Systems

Used on Interstate loop around Sioux Falls, SD & I-90 between Rapid City and Sturgis, SD
Provides warning to drivers based on vehicle speeds.
Specs included in the Project Plans

Plan Notes & Detection Zone Layouts

Specify the number and location of detection zones plus the number and location for the advance warning portable changeable message signs.
Working on getting a system that maintenance crews could quickly deploy for work on interstate where traffic queues are a concern.
Permanent queue warning systems are being incorporated into the variable speed limit/ITS corridors being planned for installation in the next couple years on I-90 and I-29.
Digital Speed Limit Signs

Used to implement variable work zone speed limits

Not running on algorithms to adjust to any speeds, but given set thresholds to reduce the speed limit to 45 or 35 mph

Used for interchange reconstruction project on I-229 at Sioux Falls; may be used for similar projects in the future

Remote Operation Benefit

In theory, these would also help with worker speed limits being left up when no workers are present since someone could remotely change these to the appropriate speed

In practice, on a project on a rural segment of I-29, this wasn’t necessarily the case, though there could be improvement with time/use
Radar Speed Feedback Signs in Work Zones

To help with work zone speed compliance

- Has been tried in construction projects with lane closures on interstate
- Seems to work well, especially initially; some concern that over time compliance is worse where commuter traffic is prevalent
- Contractor feedback was positive
• Require to be used in conjunction with the posted or advisory speed limit

• Potential implementation for maintenance work zones ➔ Draft – Not Adopted
SDDOT will be putting together an educational campaign and utilizing late merge messaging for work zones with peak hour congestion.
Automated Flagger Assistance Device (AFAD)

Test Project 2021 Construction Season

Good feedback on visibility and the gate
NEVER Forget About the “dumb” Work Zone!

Technology can’t replace good traffic control.

Always set up with the fundamental principles of traffic control in mind.
CONTACT INFORMATION

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