

# CMS: VMS-DMS-PCMS-PVMS

## Discussion of Changeable Message Signs – MUTCD Part 2 and Part 6

### Basics – (1) MUTCD Strategic Plan for 2033; (2) Vehicle Infrastructure Interconnectivity

ITS Maryland – 09/19/14 - THicks PE

# Guiding Principles

- Fulfill a need
- Provide simple and clear meaning
- Provide adequate time for response
- Command attention and respect
- Human Factors
  - Expectancy
  - “Two-Second Rule”
  - Placement and Visibility



TIME TO TUNNELS

I-895	13 MI	13 MIN
I-95	13 MI	13 MIN

# Some Operational and Safety Issues

- Basic “Driver Premise”
  - Let ‘em go – let ‘em drive!
  - Avoid unneeded controls/information
  - Very brief message; or no message at all
  - Glance legibility; Kassoff’s “auto-pilot”
  - Non-relevant traffic messages
  - Standard design, use and application



## Operational/Safety Issues (cont'd)

- WZTC – not to replace standard signs (PCMS)
- WZTC – DMS only in immediate WZ area as Supplemental unless other routes suggested
- DMS – brightness; PCMS – angularity issues
- DMS – use of auxiliary beacons
- Special Events – utilize a “traffic message”
- Limit “Non-traffic” messages



# Concluding Thoughts

- Adopt a “Standard of Care”
- Adhere to Guidelines/Directives of MdMUTCD
- Bob Marburg’s comments
- Mixture of Toll and SHA facilities
- Specific “Toll Information” DMS
- Future “express toll lanes” (directional)
- Liability issues
- RSA – review, include human behaviorist