

# De-Identification of Work Zone Signage

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# Overview

- MUTCD References
- Worker Safety
- Motorist Confusion and Anxiety
- De-Identification Techniques
- Selection Criteria

# MUTCD References (12)

- Section 1A.04
- 03 Guidance: *Unnecessary traffic control devices should be removed. The fact that a device is in good physical condition should not be a basis for deferring needed removal or change.*

# MUTCD References (Cnt.)

- Section 1A.08
- 08 Guidance: Any unauthorized traffic control device or other sign or message placed on the highway right-of-way..... should be removed. All unofficial or nonessential traffic control devices, signs, or messages should be removed.

# MUTCD References (Cnt.)

- Section 2A.03
- 05 Standard: Each standard sign shall be displayed only for the specific purpose as prescribed in this Manual. Determination of the particular signs to be applied to a specific condition shall be made in accordance with the provisions set forth in Part 2.....Signs required by road conditions or restrictions shall be removed when those conditions cease to exist or the restrictions are withdrawn.

# MUTCD References (Cnt.)

- Section 2C.02
- 02 Guidance: The use of warning signs should be kept to a minimum as the unnecessary use of warning signs tends to breed disrespect for all signs. In situations where the condition or activity is seasonal or temporary, the warning sign should be removed or covered when the condition or activity does not exist

# MUTCD References (Cnt.)

- Section 6B.01
- 09 Standard: All TTC devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time, TTC devices that are no longer appropriate shall be removed or covered

# MUTCD References (Cnt.)

- Section 6F.07
- 01 Standard: If a TTC zone requires regulatory measures different from those existing, the existing permanent regulatory devices shall be removed or covered and superseded by the appropriate temporary regulatory signs. This change shall be made in compliance with applicable ordinances or statutes of the jurisdiction.



# Worker Safety

- Strict enforcement of MUTCD can jeopardize worker safety
  - High traffic volume and speed will compromise worker safety when de-identifying signs
  - De-identification can take place during low or no light conditions.
  - The sign height usually requires a ladder on uneven surfaces.
  - Inclement weather

# Motorist Confusion and Anxiety

- Service vehicle parked along the road contributes to more confusion.
- At what point does the sign message become irrelevant?
- Work zone speed limits when no workers are present.
- An 'Active' work zone is not active.

# Construction Zone Statistics

- 2014, 669 fatalities, 1.8/day
- [ops.fhwa.dot.gov/wz/resources/facts\\_stats/safety.htm](http://ops.fhwa.dot.gov/wz/resources/facts_stats/safety.htm)
- ".... a reduced speed limit when there is no roadwork activity encourages drivers to disregard the speed restriction when workers are present."
- ".... sometimes the signs posted in work zones do not accurately reflect the current driving condition, and drivers learn to disregard them." "If the speed signs are not current, they are not credible and will be ignored."
- [https://www.fhwa.dot.gov/resourcecenter/teams/operations/ops\\_6SS.pdf](https://www.fhwa.dot.gov/resourcecenter/teams/operations/ops_6SS.pdf)

# De-Identification Techniques

- Removal of the sign
- Qualify the message
- Cover the sign
- Folding Sign

# Qualify the Message



Zone was not active, one light was flashing  
Malfunctioning light or operator error

# Sign Covers



- Fabric
- Plastic Bags
- Plywood



What happens when the cover is partially on and partially off?

# Folding Signs

## Manual Folding

- Still requires physical changing



## Remote Folding

- Safest alternative



# Remote Folding Signs



## Remote Controlled

- Folding Sign is solar powered
- Worker can change sign from safely from vehicle
- Signs can be designated to a specific remote
  - i.e.. Northbound lane can be designated to a different remote than the southbound lane.



# Remote Folding Signs



# Folding Signs

De-identification made easy

Open



Closed



# Issues to be considered

- Side lights
  - Random flashing
  - Controlled flash rate
  - Alternate side flashes
- Sign face contact/rubbing
  - Resolved with FlipSign™ using radial and linear motion to create separation between signs

# Selection Criteria

- Worker Safety
  - Wireless remote control simple, foolproof
    - Allows operator to be out of harm's way
    - Ability to control work zone while taking shelter from weather
    - Short, defined communication range
- Motorist Safety

# More Selection Criteria

- **Reliable**
  - Foolproof electronic communications
  - Solar Charging
  - Not failure prone

# Safety Technologies Products:

- Details at [www.autoflagger.com](http://www.autoflagger.com)
- Manufacturer of
  - AutoFlagger™
    - AF-76x
    - Af-54
  - RapidRouter™
  - FlipSign™
- My contact info: [chuckf@autoflagger.com](mailto:chuckf@autoflagger.com)
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Thank You

