Work Area Safe Entry/Exit for Work Vehicles

“DON’T FOLLOW ME”

National Traffic Management & Work Zone Safety Conference
March 12, 2009
Overview

- Rule on Traffic Control Devices, Subpart K
- Current SHA Guidelines
- Additional Proposed Treatments
- Ongoing Assessment of Issues Related to Work Area Entry/Exit
Rule on Traffic Control Devices
(23 CFR 630, Subpart K)

• Effective date of December 04, 2008
• Requires States to consider road user and worker safety by addressing:
  - Use of positive protection devices to prevent intrusions;
  - Exposure control measures;
  - Other traffic control measures to minimize crashes;
  - Safe entry/exit of work vehicles/equipment from the travel lanes
• Sparked SHA’s evaluation of work zone related standards and guidelines related to entry/exit of work vehicles/equipment.
Current SHA Guidelines

Rule mandates addressing safe entry/exit of work vehicles/equipment to/from work area

- SHA’s guidelines primarily deal with sign placement in the work zone

- SHA’s guidelines are provided in:
  - General Notes, Book of Standards
  - Standard Details, Book of Standards
  - Standard Specifications
General Notes

4.17 TRUCK CROSSING (W11–(10)1) signs shall only be used during the following two situations:

1) A work area entrance is allowed along a controlled access highway.

2) A work area entrance is provided along highways other than controlled access, the entrance does not have adequate decision sight distance for approaching traffic, and the entrance cannot be relocated to provide adequate decision sight distance. Refer to Standard No. MD 104.00–03 of the General Notes for decision sight distance criteria.

TRUCK CROSSING signs shall be placed according to the Shoulder Work Typical Applications, with TRUCK CROSSING signs replacing all SHOULDER WORK signs.

Any distances to be displayed on the TRUCK CROSSING sign shall be installed using supplemental distance plaques.
General Notes – Safe Entry/Exit

- W 11-10(1) sign on controlled access facilities
- W11-10(1) sign on any facility where stopping sight distance is less than requirement and entrance cannot be relocated
- Place at same interval as “Shoulder Work” signage

W11-10(1)
TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

IMPORTANT:
1. The example shown shall be used in accordance with Md. Code, Trans., Art. 26, Secs. 151 and 152 and Standard Details MD 104.01-01 – MD 104.01-02.

NOTES:
Shoulder closed signs are required in place of shoulder work signs when the shoulder is closed by a physical barrier refer to Standard No. MD 104.06-14.

When work involves a pavement edge drop-off, refer to Standard No. MD 104.06-11 to MD 104.06-13.

KEY:
- Channelizing Devices
- Sign Support
- Face of Sign
- Direction of Traffic
- Work Site

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

SHOULDER WORK / 2-LANE, 2-WAY
GREATER THAN 40 MPH

STANDARD NO. MD 104.02-01
Standard Specifications

MD 104.02.03 Construction

- Addresses movement of work vehicles in work zones
- Mandates vehicle entrance and exit in the direction of traffic flow
Additional Proposed Treatments

• Specific Vehicle Safety Light Requirements
  – Provides guidance on lighting packages to ensure proper visibility
  – Lighting packages arranged by “category” of vehicle
  – Improves motorist awareness of work vehicle movement
# Vehicle Safety Light Detail

## Temporary Traffic Control Typical Application

### Vehicle Lighting Selection Chart

<table>
<thead>
<tr>
<th>Level</th>
<th>Vehicle Types</th>
<th>Action</th>
<th>SPECIAL INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Passenger Cars, Short Utility Veh., Pick-Up Trucks, Rollers, Winvans</td>
<td><img src="chart.png" alt="Diagram" /></td>
<td>- Be lights to be used for other permanent installation are not recommended.</td>
</tr>
<tr>
<td>2</td>
<td>Utility Vehicles, Crew Cab, Work Trucks, Rollers, Paint Trucks, Bridge Inspection Vehicles, Graders, Snow Plows, Loaders, Excavators, Mowers, Backhoes, Forklifts, Crash Vans, Passenger Vans, Etc.</td>
<td><img src="chart.png" alt="Diagram" /></td>
<td>- Be lights to be used for other permanent installation are not recommended.</td>
</tr>
<tr>
<td>3</td>
<td>Vehicles Retricted with Arrow Panel on FVMV</td>
<td><img src="chart.png" alt="Diagram" /></td>
<td>- Be lights to be used for other permanent installation are not recommended.</td>
</tr>
</tbody>
</table>

**Key:**
- X = Required / Optional
- Flashing strobe or flashing rotating
- **Flashing strobe and flashing rotating**
- One strobe/rotating left and one strobe/rotating right
- Double strobe/rotating left and right

**Device Descriptions:**
- Rotating lights - Device designed to project light on a sweeping 360 degree arc.
- Light bar - A rotating unit or group of rotating units on a frame, designed to project warning lights in each housing.
- Strobe light - Device that emits light in pulses at a rate not to exceed 3 pulses per second in all directions.

**Notes:**
- Additional lights should be added to the vehicle to outline obstacles attached to the vehicle such as a blaze or trailer.

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**Maryland Department of Transportation**

**State Highway Administration**

**Standards for Highways and Incidental Structures**

**Temporary Traffic Control**

**Vehicle Lighting Selection Chart**

**Standard No.** MD 104.01-18 B
Additional Proposed Treatments

• Nighttime Signing of Delivery Vehicles
  – Increases motorist awareness of vehicular movement
  – Provides specific direction to following motorists
  – Protects workers from “errant” vehicles

  ![Sign](1111)

  Black Legend on Fluorescent Orange
Additional Proposed Treatments

• Allowance for PVMS Supplemental Signing
  – Provides for use in “more complex” situations
  – Provides additional advance warning

• Recommendation for Delivery Coordination
  (arrange for off-peak hours)
  – Reduces probability for congestion-causing movements
Ongoing Issues Assessment

• Characteristics of the Facility
  – Speed (accel/decel, alignment constraints?)
  – Traffic Volumes and Queues

• Configuration of Access
  – How do vehicles gain access?
  – How is traffic affected?

• Motorist Expectancy
  – Is ample direction given to the motorist?

• Work Zone Signing
  – Is additional signing necessary?
For More Information…

- Visit SHA’s Book of Standards Website:

- Visit SHA’s Standard Specifications for Construction and Materials Website:
Thank You!

Michael Paylor, P.E.
Team Leader, SHA – OOTS
Traffic Policy and Management Team
MPaylor@sha.state.md.us
410-787-5864