

District Construction Engineers
November 6, 2000

THIS MEMO IS EXPIRED

November 6, 2000

MEMORANDUM NO. 31-00

TO: DISTRICT CONSTRUCTION ENGINEERS

FROM: Greg Xanders, State Construction Engineer

COPIES: Freddie Simmons, Bill Albaugh, Billy Hattaway, Sharon Holmes, Ed Rice, Jack Brown, John Chiarelli, District Production Directors, MOTC Members

SUBJECT: MOTORIST AWARENESS SYSTEM (MAS)
GUIDELINES FOR IMPLEMENTATION BY CONSTRUCTION

The purpose of a Motorist Awareness System (MAS) is to increase the motorist awareness of the presence of active work and provide emphasis on reduced speed limits in the active work area. A MAS is created by using a combination of several different traffic control elements to draw attention to the legal speed and inform the motorist of his vehicle speed. Descriptions of some MAS devices are provided below. *Index 670, Roadway and Traffic Design Standards*, provides details on the most effective combination and placement of MAS traffic control devices. This Index has been issued as an Interim Index and can be found on the Department's Roadway Design web site (*see attached*).

Prior to adding MAS to a project during construction the Project Engineer shall request approval from the District Construction Engineer. If approved, notify David Sumner, State Construction Office by E-Mail of the project number where the MAS will be used .

The MAS is new and its effectiveness is still being evaluated to determine future use on Department projects. The MAS setup shown on Interim Index 670 has been approved for use on rural high-speed high AADT highways, which have lane closures with no more than two lanes remaining open to traffic, and when the active work zone is less than one mile in length

If the recommended guidelines stated above are met and if the MAS setup complies with Index 670, minor documentation on the added pay items is all that will be required.

If the standard drawing for the MAS is changed for the project, approval must be requested in accordance with the *Construction Project Administration Manual (CPAM), Section 5.7.*

The following should be included:

- Sketch of the modified MAS set up must be provided
- Speed study prior to setting up the MAS
- Speed study after the MAS has been set up
- The results of the speed study
- Cost of MAS devices
- Department and Contractor agree that the cost of the documentation, speed study and devices will be shared equally

Note: Speed study shall be in accordance with the Departments Manual on Uniform Traffic Studies, Chapter 13 Vehicle Spot Speed Study Option 1 (Vehicle Spot Speed Study Form No 750-010-03 is available in the Department's Forms Library).

If a speed reduction is documented on several projects, a standard will be developed for the modified MAS setup. Projects where the MAS has been approved for use will be monitored to assess the effectiveness of the MAS and to identify needed improvements. Once the Department has completed its evaluation on the effectiveness of the MAS setup, standards, specifications and pay items, they will be made available for statewide use.

The following is a list of some of the devices that are used as part of a Motorist Awareness System.

Portable Regulatory Signs (PRS) Pay Item No. 900-102-1

The purpose of this device is to highlight the regulatory speed for the work zone. A portable regulatory sign is a portable trailer that has the regulatory speed sign mounted with flashing lights on each side of the sign. The lights are used to draw the driver's attention to the regulatory speed.

Radar Speed Display Unit (RSDU) Pay Item No. 900-102-2

The purpose of this device is to display the motorist's work zone speed. A radar speed display unit is a portable trailer that displays the speed of approaching motorists on a LED display panel. The radar mounted on the unit detects the speed. A regulatory sign with the posted speed is mounted above the LED display panel. The unit is fitted with a device, which counts the number of vehicles passing the Radar Speed Display Unit. The counter device is capable of:

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Digital readout of the number of vehicles passing the radar speed display unit.

Digital readout of the number of vehicles exceeding the speed limit shown on the radar speed display unit.

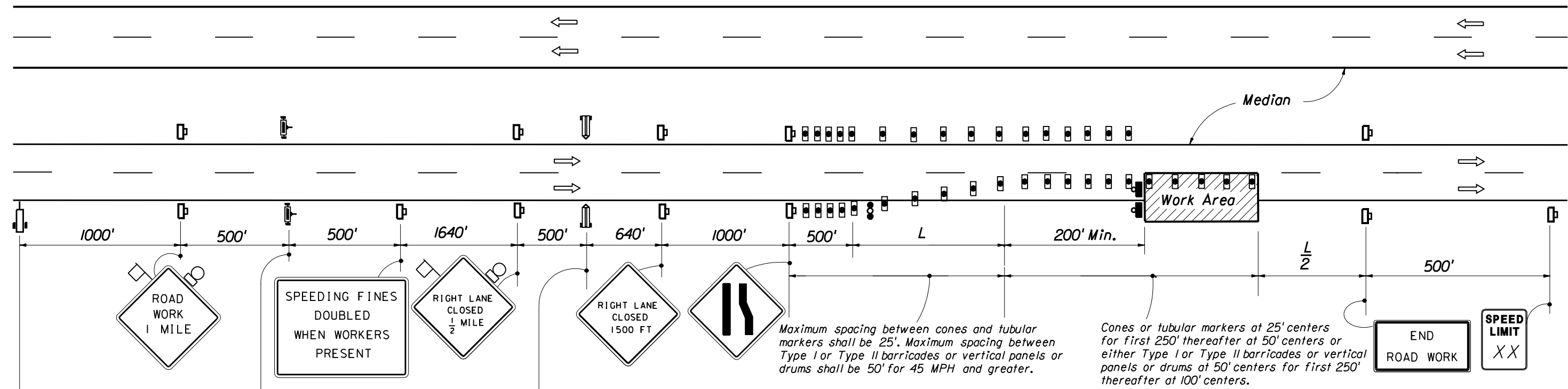
The device can be set that only speeds greater than the work zone speed are displayed.

Law Enforcement Officer (LEO) (Hireback Officers)

The use of active officers on a random basis, in conjunction with the other MAS devices, has proven to be effective. If a LEO is deemed necessary, payment for this service will be made through established procedure between this Department and the Department of Safety.

If you have any questions regarding the MAS System, please contact David Sumner at SC 994-4198

GX/cc
Attachment



VMS
 Note: VMS to be used when HAR is used. See note II

PRS

LEO
 FHP Law Enforcement Officer Should Patrol The Active Work Area on 15 to 20 Minute Intervals

RSDU

SYMBOLS

- Work Area
- Sign With 18"x18" (Min.) Orange Flag And Type B Light
- Type I Or Type II Barricade Or Vertical Panel Or Drum (With Steady Burning Light At Night Only). (Tubular Markers May Be Used During Daylight Only. Cones May Be Used -See Index 600).
- Type I, Type II Or Type III Barricade Or Vertical Panel Or Drum (With Flashing Light)
- Work Zone Sign
- Advance Warning Arrow Panel
- (1) VMS = Variable Message Sign (When Called For In Plans)
- (1) HAR = Highway Advisory Radio (When Called For In Plans)
- (2) PRS = Portable Regulatory Sign - Speed Limit When Flashing
- (2) RSDU = Radar Speed Display Unit
- (1) LEO = Law Enforcement with Flashing Lights and Radar Paid As: FHP (Contract) (Do Not Bid)

GENERAL NOTES

1. Work operations shall be confined to one traffic lane, leaving the adjacent lanes open to traffic.
2. All vehicles, equipment, workers and their activities are restricted at all times to one side of the roadway.
3. The first two warning signs, each side, shall have a 18" x 18" (min.) orange flag and a Type B light attached and operating at all times.
4. All signs shall be post mounted if the closure time exceeds 12 hours.
5. When work is performed in the median lane on divided highways the barricading plan is inverted and left lane closed and lane reduction signs substituted for the right lane closed and lane reduction signs.
6. L (min.) = Length of taper in feet:
 = WS for speeds ≥ 45 mph
 Where:
 W = Width of lateral transition in feet
 S = Posted speed limit (mph)
7. Arrows denote direction of traffic only and do not reflect pavement markings.
8. Longitudinal dimensions are to be adjusted to fit field conditions. See Index No. 600.
9. When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
10. For general TCZ requirements and additional information refer to Index No. 600.

- II. Highway Advisory Radio may be considered as a supplement to the Motorist Awareness System. The following operating parameters must be adhered to when using an Highway Advisory Radio:
 - A. Daytime construction periods only
 - B. Per CFR 90.242 (a) (5) the transmitting site of the HAR is restricted to the immediate vicinity of the following specified areas:
 Air, Train, Bus Transportation Terminals, Public Parks, Historical Sites, Bridges and Tunnels.
 Any Intersection of the following Federal Interstate Highway with any other Interstate, Federal, State, or Local Highway: 1-4, 1-10, 1-75, 1-275, 1-95 and 1-295

Conditions

1. The MAS is intended for use on rural high-speed high volume highways, which have lane closures with no more than two lanes open to traffic, and when the active work zone is less than one mile in length.
2. The MAS should be considered on projects where the likelihood of excessive speeds in the work area needs to be controlled.

VMS Display
 Message 1: TUNE TO XXX AM
 Message 2: FOR CONST INFO

INTERIM STANDARD IN ENGLISH UNITS APPLICABLE TO ROADWAY AND TRAFFIC DESIGN STANDARD BOOKLETS PUBLISHED IN EITHER ENGLISH OR METRIC UNITS.

THE SEALED RECORD OF THIS STANDARD IS ON FILE IN THE ROADWAY DESIGN OFFICE.

NEW INDEX 11/27/00

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD DESIGN		
MOTORIST AWARENESS SYSTEM		
INTERIM STANDARD	APPROVED BY 	
THIS INDEX IS A SUPPLEMENT TO THE ROADWAY AND TRAFFIC DESIGN STANDARDS, BOOKLETS DATED JANUARY 2000.	REVISION NO. 00	SHEET NO. 1 of 1 INDEX NO. 670