



**Maryland Department of Transportation
State Highway Administration**

Parris N. Glendening
Governor
John D. Porcari
Secretary
Parker F. Williams
Administrator

MEMORANDUM

TO: See Distribution List
FROM: Thomas Hicks, P.E., Director
Office of Traffic & Safety
DATE: May 16, 2002
SUBJECT: Temporary Traffic Control Guidelines for Installation/Removal of
Temporary Traffic Counters

Please find attached the "Temporary Traffic Control Guidelines for Installation/Removal of Temporary Traffic Counters." These guidelines are to be used in combination with General Notes (MD 104.00 in the Book of Standards), State highway Administration's Standard Specification for Construction and Materials, and the Manual on Uniform Traffic Control Devices (MUTCD) - 2000. These guidelines may include some repetitive information from above reference materials for emphasis only. The comments on the draft guidelines, received from the Districts and Highway Information Services Division (HISD), have been incorporated in the attached guidelines.

If you have any questions, please feel free to contact Mr. Wayne Styles of my staff at 410-787-5864.

TH:jps

Attachments

- cc: All Assistant District Engineers-Traffic
- All Assistant District Engineers-Maintenance
- All District Engineers
- Mr. Michael Baxter
- Mr. Richard Daff
- Mr. Karl Hess
- Mr. Barry King
- ✓ Mr. Jawad Paracha
- Mr. Raj Patel
- Mr. Wayne Styles
- Mr. Eric Tabacek

My direct telephone number is 410-787-5815

Toll Free Telephone Number: 1-888-963-0307

Fax: ✓ (410)787-4082, (410)553-6399, (410)582-9469, (410)787-5823, (410)787-2863, (410)787-3798
Maryland Relay Service for Impaired Hearing or Speech: 1-800-735-2258 Statewide Toll Free

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Temporary Traffic Control Guidelines for Installation/Removal of Temporary Traffic Counters

The following guidelines shall be used in combination with General Notes (MD 104.00 in the Book of Standards), Standard Specifications for Construction and Materials, Book of Standards - Highway and Incidental Structures, and the Manual on Uniform Traffic Control Devices (MUTCD) - 2000.

Attire

All traffic counter installation personnel shall wear a fluorescent orange or yellow-green vest, shirt or jacket visible from a minimum distance of 1000 feet. During inclement weather, fluorescent orange or yellow-green rain gear may be substituted for the above clothing. For nighttime conditions, similar outside garments shall be retroreflective and visible from a distance of 1000 feet.

Vehicle

The vehicle used in the work area during the installation or removal of traffic counters shall be equipped with a flashing or revolving yellow strobe light or a bar of lights. If additional strobe lights are installed, they should be installed at the back of the vehicle on the right and left side of the vehicle (the lights generally should be mounted on the roof of vans and panel trucks and on upright shafts at the back of pick up trucks.) If a bar of lights is installed, it should be located on top of the vehicle so it will be visible to all approaching drivers. The vehicle should be pulled-off the roadway as far as possible to avoid any potential conflicts with mainline traffic.

Some temporary traffic control applications for installation/removal of temporary traffic counters may require a protection vehicle or police vehicle.

Cones

Cones (28" minimum height with reflective collar) shall be placed in advance of the vehicle, along the side of the vehicle and work area. The maximum spacing of channelizing devices shall be equal in feet to twice the posted speed limit in tangent sections, and shall be equal in feet to posted speed limit in tapers.

Work Area

The work site should be carefully selected, if possible, to ensure that it is not hidden by horizontal and/or vertical alignment. The work should take place approximately 100 feet in front of the work or protection vehicle in the direction of travel. However, if a TMA is used as the protection vehicle, work may take place a minimum of 50 feet in front of the protection vehicle. If there are any additional vehicles in the work area, these vehicles should be parked either on the shoulder or in front of the vehicle with the flashing warning lights. A spotter shall be used to assist other team member(s) installing the counter to warn of possible impending problems.

Temporary Traffic Control Typical Applications:

Temporary Traffic Control Typical Applications have been divided into three categories as noted below:

- *Low speed roadways (< 40 mph):*
Use above guidelines and Figures-1a, -1b, -1c.
- *High speed roadways (> 40 mph) excluding expressways/freeways:*
Use above guidelines and Figures-1a, -1b, -1c with TMA (optional).
- *Expressways/Freeways:*
Use above guidelines and Figures-2, -3 and -4 depending on the number of lanes.

General:

- Consultants are authorized to arrange with the Assistant District Engineer-Maintenance in the appropriate District for assistance in providing maintenance of traffic during setup and take down. Please provide plenty of lead time when requesting this assistance.
- Consultants are not authorized to invoice as direct costs any equipment used in maintenance of traffic and other work zone safety equipment for interstate and other freeways. Highway Information Services Division (HISD) and SHA are not responsible for the cost of lane closure and traffic control. These expenses are considered to be part of overhead and are not to be invoiced as direct costs without prior written approval for each occurrence.
- Schedule of each week's proposed count activities must be submitted to HISD no later than noon of the Friday prior to the counts being performed. These schedules must be sent to Mr. Karl Hess by email at khess@sha.state.md.us or faxed to Mr. Hess at 410-209-5033. A copy of the schedule should also be sent to the Office of Traffic & Safety (Attn: Mr. Wayne Styles) and Assistant District Engineer of Traffic for the District in which a count is to be performed. Local government officials may also need to be notified when performing counts on county or municipal roads.

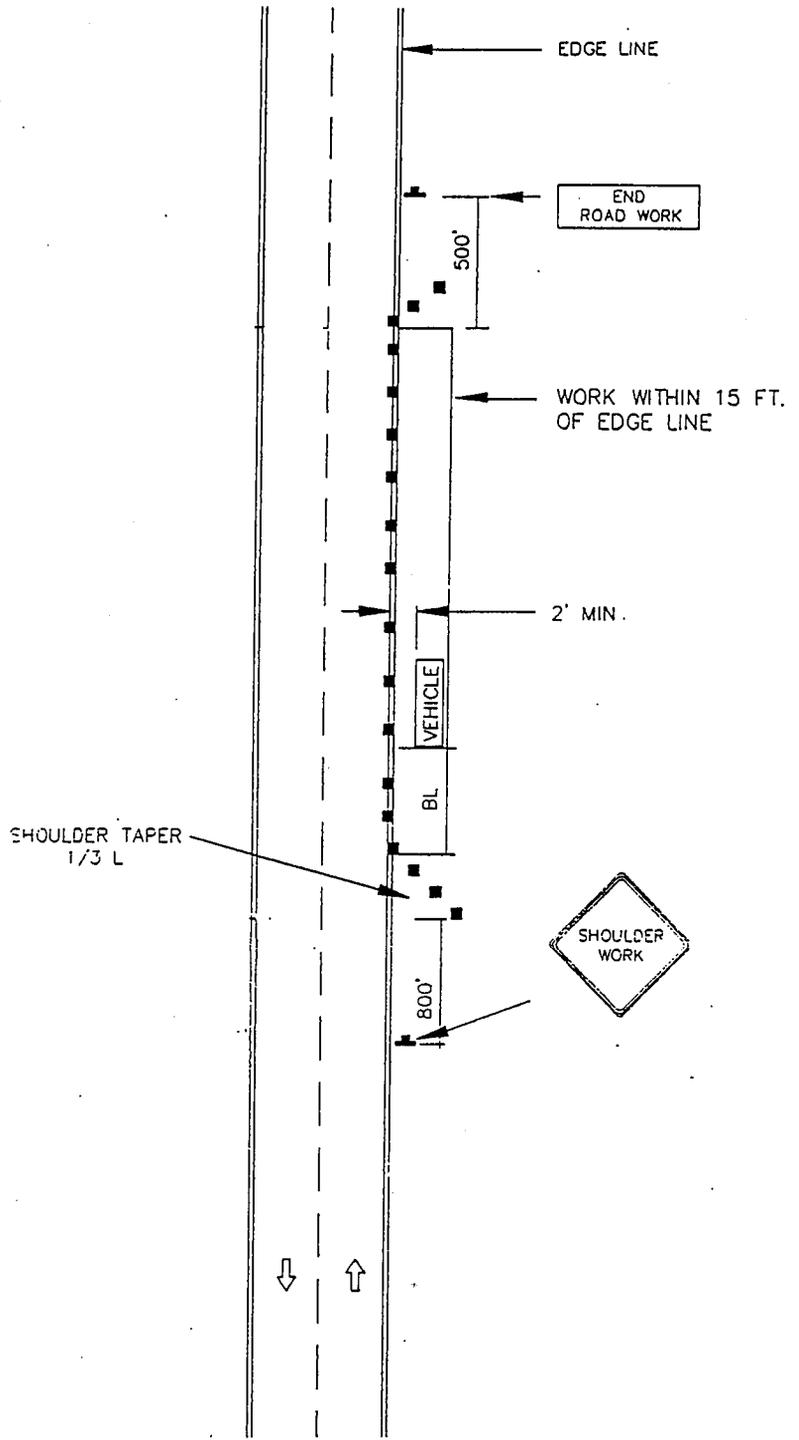
DRAFT

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

IMPORTANT: THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AT THE BEGINNING OF STANDARDS NO. MD 104.00.

KEY:

- ■ CHANNELIZING DEVICES
- SIGN SUPPORT
— FACE OF SIGN
- ↑ DIRECTION OF TRAFFIC
- WORK SITE



SPECIFICATION
104

CATEGORY CODE ITEMS
SECTION 100

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHOULDER WORK/2-LANE, 2-WAY



APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROV: 5-10-02	APPROVAL:
REVISED	REVISED
REVISED	REVISED
REVISED	REVISED

Figure - 1a

DRAFT

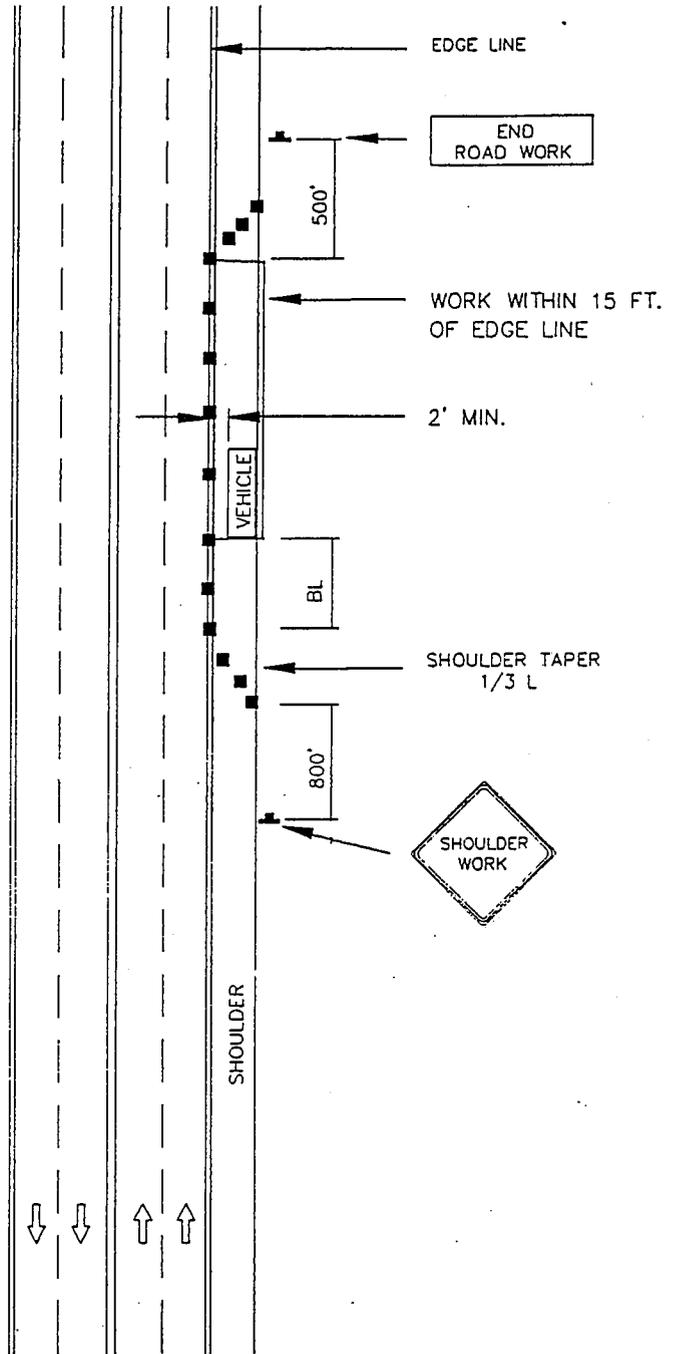
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- ← FACE OF SIGN
- ↑ DIRECTION OF TRAFFIC
- WORK SITE



SPECIFICATION 104	CATEGORY CODE ITEMS SECTION 100		
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
	APPROVAL 5-6-02	APPROVAL	
	REVISED	REVISED	
	REVISED	REVISED	
	REVISED	REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHOULDER WORK/MULTILANE UNDIV.

Figure - 1b

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

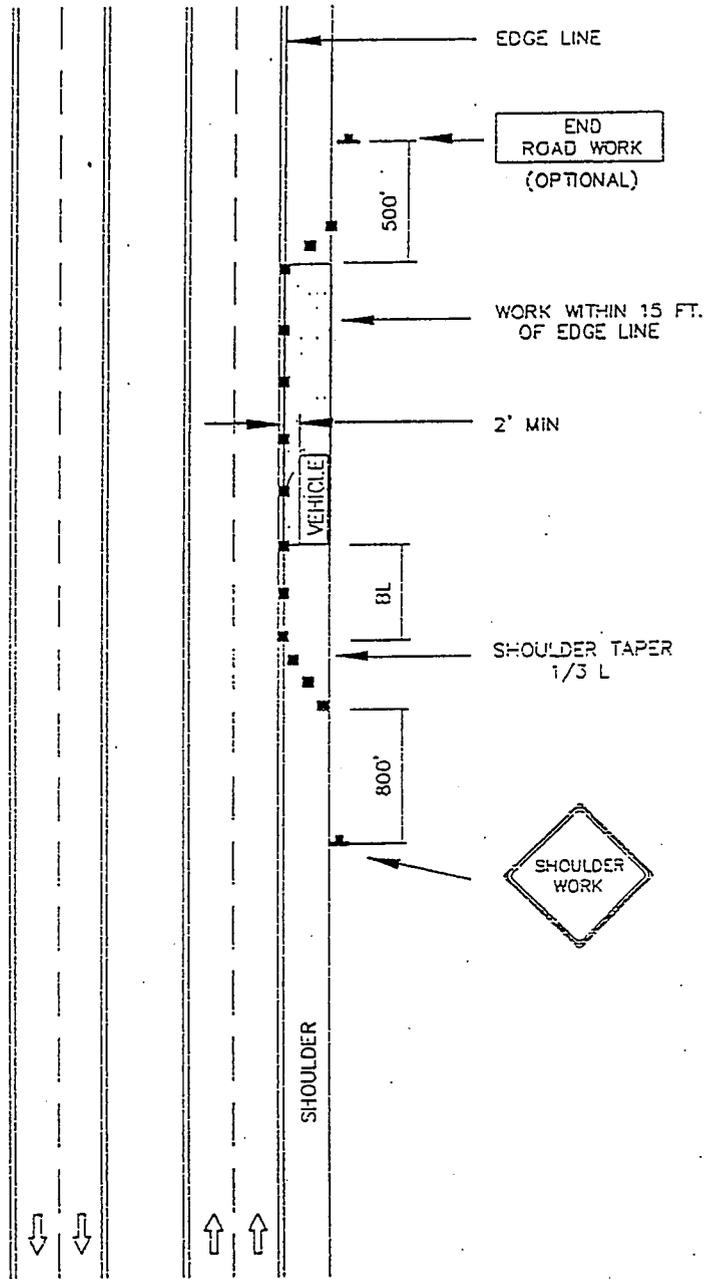
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- ■ CHANNELIZING DEVICES
- ← SIGN SUPPORT
← FACE OF SIGN
- ↑ DIRECTION OF TRAFFIC
- WORK SITE



SPECIFICATION 104	CATEGORY CODE ITEMS SECTION 100	APPROVED _____ DIRECTOR, OFFICE OF TRAFFIC AND SAFETY	
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
	APPROVAL 5-6-02	APPROVAL	
	REVISED	REVISED	
	REVISED	REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHOULDER WORK/DIVIDED UNCON.

Figure - 1c

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

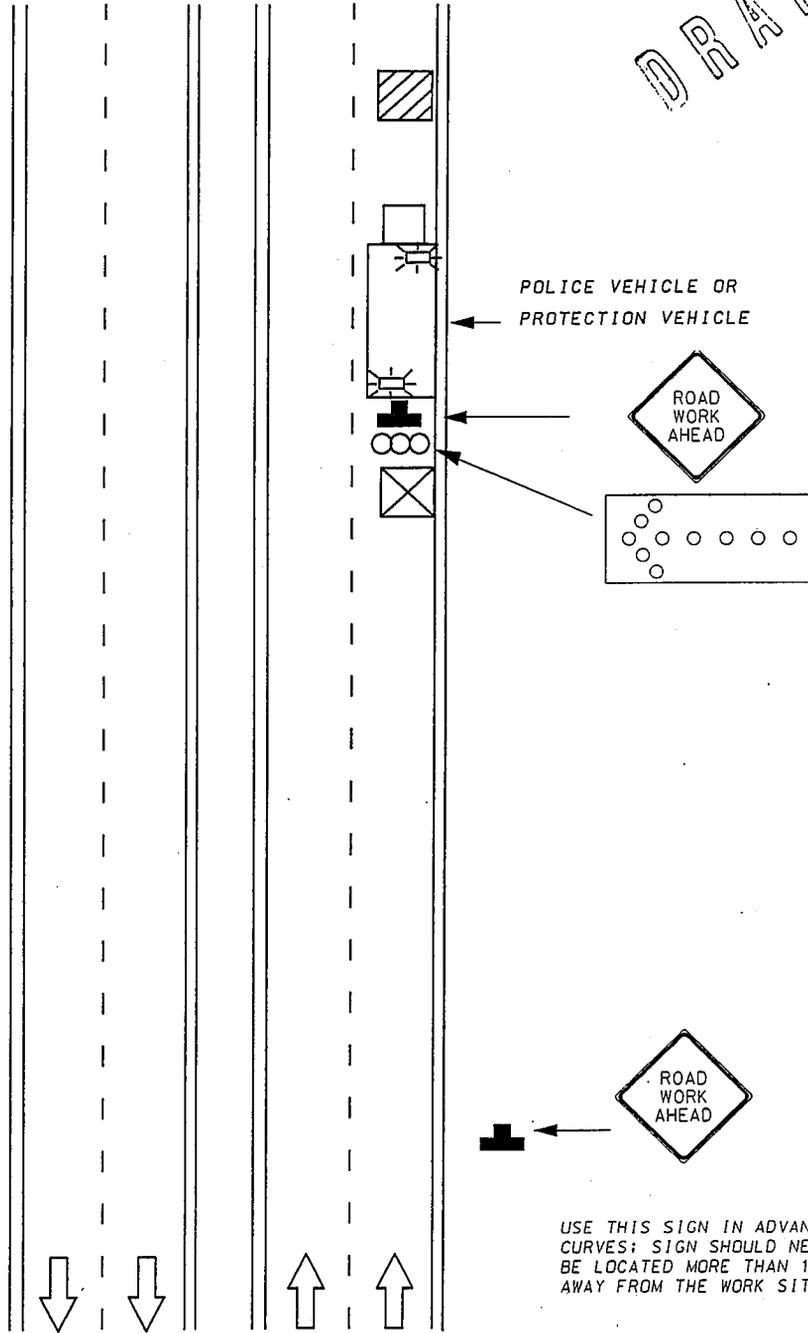
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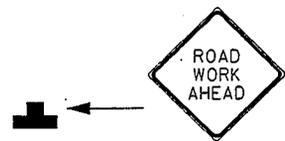
NOTES:

PROTECTION VEHICLES AND POLICE VEHICLES ARE INTERCHANGEABLE



KEY:

- ← SIGN SUPPORT
← SIGN FACE
- ARROW PANEL
- APPROVED VEHICLE SAFETY LIGHT
- ↑ DIRECTION OF TRAFFIC
- TRUCK MOUNTED ATTENUATOR (TMA)
- WORK SITE



USE THIS SIGN IN ADVANCE OF CURVES; SIGN SHOULD NEVER BE LOCATED MORE THAN 1500' AWAY FROM THE WORK SITE.

SPECIFICATION 104	CATEGORY CODE ITEMS SECTION 100	<p>Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES TRAFFIC COUNTER INSTALLATION/EXP-FREEWAY TWO LANES /ALL SPEEDS</p>										
APPROVED DIRECTOR - OFFICE OF TRAFFIC AND SAFETY												
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Figure - 2

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TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION

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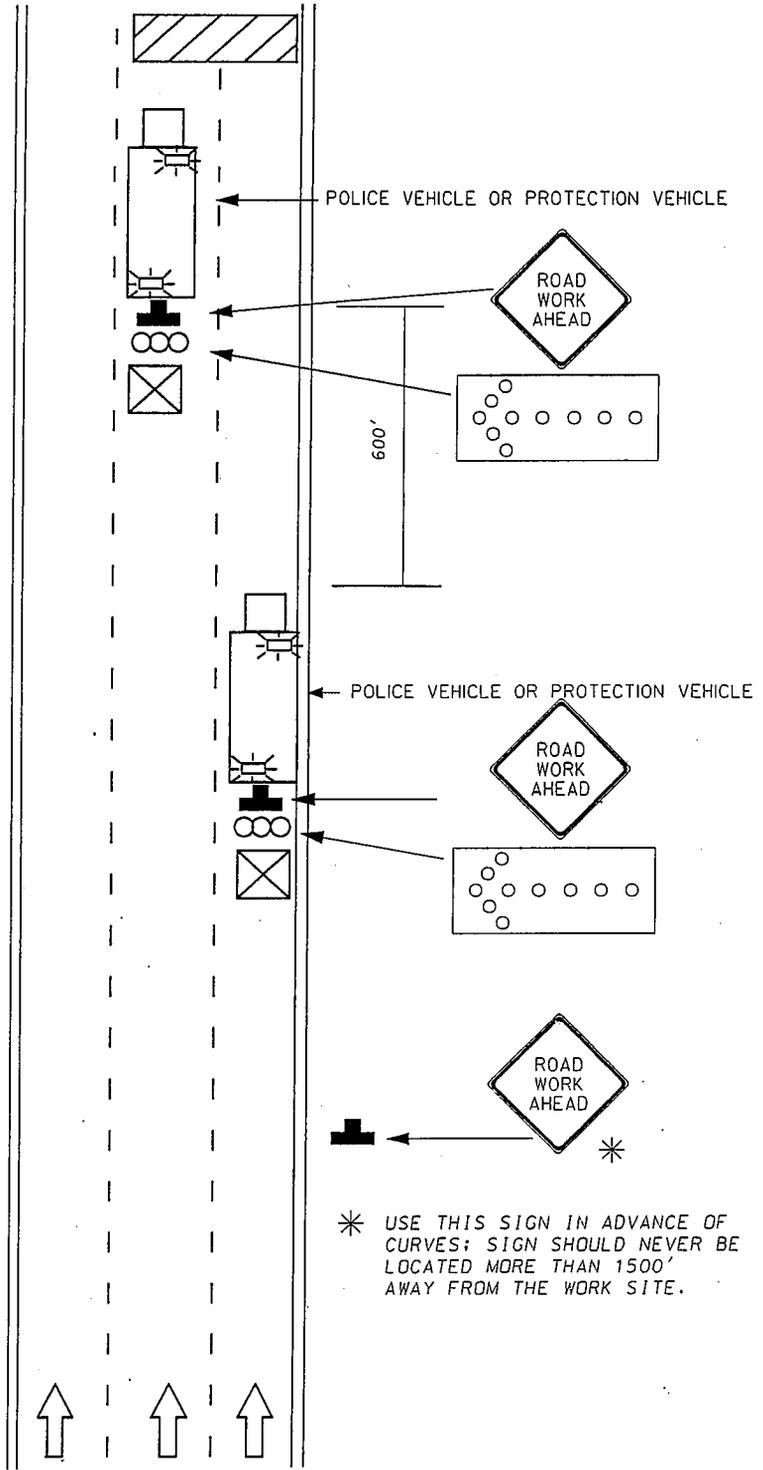
NOTES:

PROTECTION VEHICLES AND POLICE VEHICLES ARE INTERCHANGEABLE

IN URBAN AREAS THE DISTANCE MAINTAINED BETWEEN VEHICLES MAY BE DECREASED AS NEEDED.

KEY:

-  SIGN SUPPORT
-  SIGN FACE
-  ARROW PANEL
-  APPROVED VEHICLE SAFETY LIGHT
-  DIRECTION OF TRAFFIC
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  WORK SITE



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SPECIFICATION 104	CATEGORY CODE ITEMS SECTION 100	
APPROVED _____ DIRECTOR - OFFICE OF TRAFFIC AND SAFETY		
	APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL 5-6-02	APPROVAL
	REVISED	REVISED
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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
TRAFFIC COUNTER INSTALLATION /EXP-FREEWAY
THREE LANES /ALL SPEEDS

Figure - 3

DRAFT

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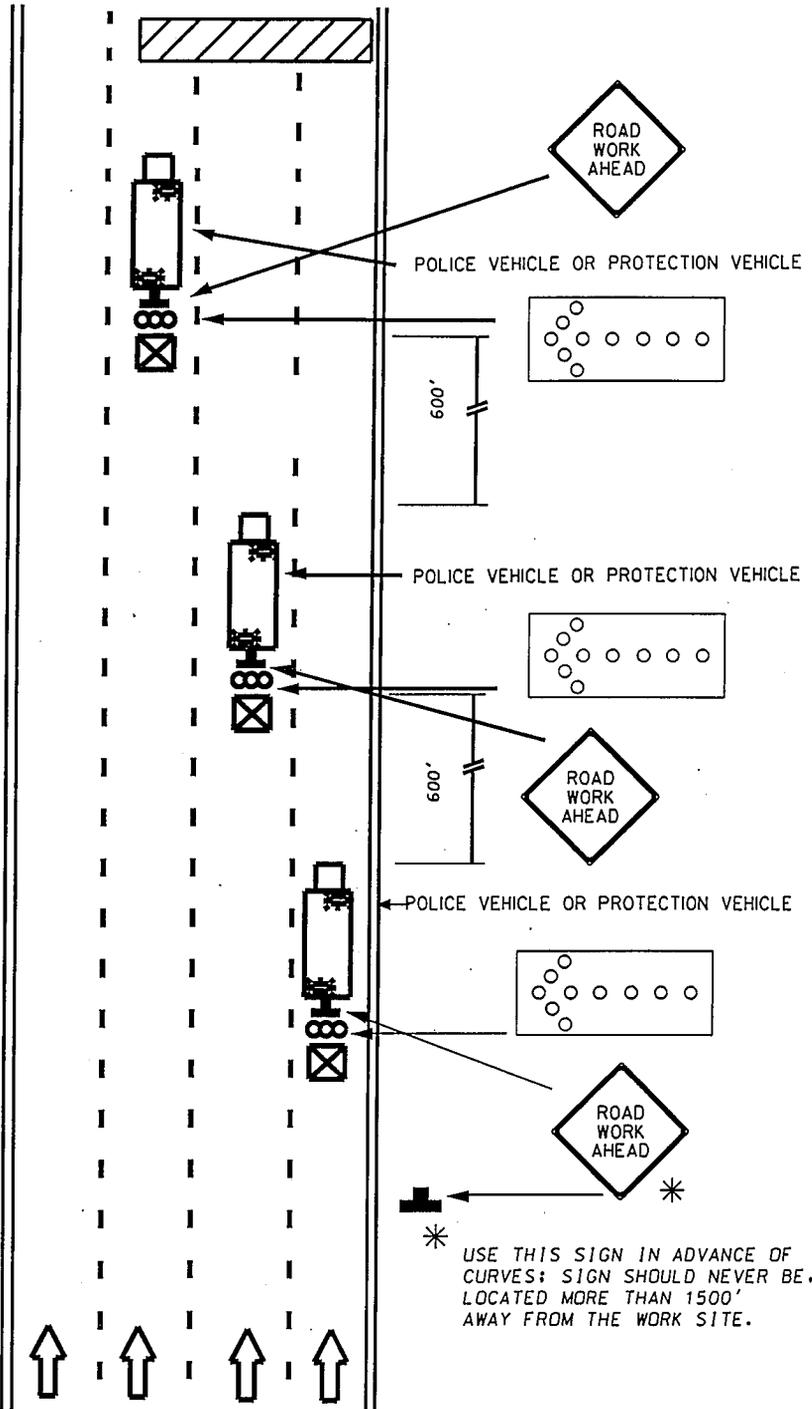
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-  WORK SITE



SPECIFICATION 104	CATEGORY CODE ITEMS SECTION 100												
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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
 STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
 TRAFFIC COUNTER INSTALLATION / EXP-FREEWAY
FOUR LANES /ALL SPEEDS

Figure - 4