

Part I. GENERAL PROVISIONS

1A-1 Purpose of Traffic Control Devices

The purpose of traffic control devices and warrants for their use is to help insure highway safety by providing for the orderly and predictable movement of all traffic, motorized and non-motorized, throughout the national highway transportation system, and to provide such guidance and warnings as are needed to insure the safe and informed operation of individual elements of the traffic stream.

Traffic control devices are used to direct and assist vehicle operators in the guidance and navigation tasks required to traverse safely any facility open to public travel.

Guide and information signs are solely for the purpose of traffic control and are not an advertising medium.

1A-2 Requirements of Traffic Control Devices

This Manual sets forth the basic principles that govern the design and usage of traffic control devices. These principles appear throughout the text in discussions of the devices to which they apply, and it is important that they be given primary consideration in the selection and application of each device.

The Manual presents traffic control device standards for all streets and highways open to public travel regardless of type or class or the governmental agency having jurisdiction. Where a device is intended for limited application only, or for a specific system, the text specifies the restrictions on its use.

To be effective, a traffic control device should meet five basic requirements. They are:

1. Fulfill a need.
2. Command attention.
3. Convey a clear, simple meaning.
4. Command respect of road users.
5. Give adequate time for proper response.

In the case of regulatory devices, the actions required of vehicle operators and pedestrians should be specified by State statute, or by local ordinance or resolution which are consistent with national standards. Uniformity of meaning is vital to effective traffic control devices. Meanings ascribed to devices in this Manual are in general accord with

the Uniform Vehicle Code of the National Committee on Uniform Traffic Laws and Ordinances, which is the nationally recognized standard in this area.

Five basic considerations are employed to insure that these requirements are met. They are: design, placement, operation, maintenance, and uniformity.

Design of the device should assure that such features as size, contrast, colors, shape, composition, and lighting or reflectorization are combined to draw attention to the device; that shape, size, colors, and simplicity of message combine to produce a clear meaning; that legibility and size combine with placement to permit adequate time for response; and that uniformity, size, legibility and reasonableness of the regulation combine to command respect. In the design of a device, minor modifications of the specified design elements may be necessary, provided that the essential appearance characteristics are met.

Placement of the device should assure that it is within the cone of vision of the viewer so that it will command attention; that it is positioned with respect to the point, object, or situation to which it applies to aid in conveying the proper meaning; and that its location, combined with suitable legibility, is such that a driver traveling at normal speed has adequate time to make the proper response.

Operation or application should assure that appropriate devices and related equipment are installed to meet the traffic requirements at a given location. Furthermore, the device must be placed and operated in a uniform and consistent manner to assure, to the extent possible, that vehicle operators can be expected to properly respond to the device, based on their previous exposure to similar traffic control situations.

Maintenance of devices should be to high standards to assure that legibility is retained, that the device is visible, and that it is removed if no longer needed. Clean, legible, properly mounted devices in good working condition command the respect of vehicle operators and pedestrians. In addition to physical maintenance, functional maintenance is required to adjust needed traffic control devices to current conditions and to remove unnecessary traffic control devices. The fact that a device is in good physical condition should not be a basis for deferring needed replacement or change. Furthermore, carelessly executed maintenance can destroy the value of a group of devices by throwing them out of balance. For example, replacement of a sign in a group or series by one that is disproportionately large may tend to deprecate others in the vicinity.

Uniformity of traffic control devices simplifies the task of the road user because it aids in recognition and understanding. It aids road users, police officers, and traffic courts by giving everyone the same interpretation. It aids public highway and traffic officials through economy in manufacture, installation, maintenance and administration.

Simply stated, uniformity means treating similar situations in the same way. The use of uniform traffic control devices does not, in itself, constitute uniformity. A standard device used where it is not appropriate is as objectionable as a nonstandard device; in fact, this may be worse, in that such misuse may result in disrespect at those locations where the device is needed.

1A-3 Responsibility for Traffic Control Devices

The responsibility for traffic control devices rests with a multitude of governmental jurisdictions. In virtually all States, traffic control devices placed and maintained by State and local officials are required by statute to conform to a State Manual which shall be in substantial conformance with this Manual. Many Federal agencies have regulations requiring standards in conformance with this Manual for their control device applications.

The Uniform Vehicle Code has the following provision in Section 15-104 for the adoption of a uniform manual:

"The (State Highway Agency) shall adopt a manual and specifications for a uniform system of traffic-control devices consistent with the provisions of this act for use upon highways within this State. Such uniform system shall correlate with and so far as possible conform to the system set forth in the most recent edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, and other standards issued or endorsed by the Federal Highway Administrator."

Under authority granted by Congress in 1966, the Secretary of Transportation has decreed that traffic control devices on all streets and highways in each State shall be in substantial conformance with standards issued or endorsed by the Federal Highway Administrator.

1A-3.1 Placement Authority

Traffic control devices shall be placed only by the authority of a public body or official having jurisdiction, for the purpose of regulating, warning, or guiding traffic. No traffic control device or its support shall bear any advertizing or commercial message, or any other message that is not essential to traffic control.

Any unauthorized sign placed on the highway right-of-way by a private organization or individual constitutes a public nuisance. All unofficial and nonessential signs should be removed.

With proper authority being given, construction contractors and public utility companies are permitted to erect construction and maintenance signs at work sites to protect the public, equipment, and workmen, provided that such signs conform to the standards of this Manual.

All traffic islands shall be installed by the authority of the public body or official having jurisdiction. For those islands that are elements of street and highway design and are included in the design of the street or highway, no specific authority is required.

All regulatory devices, if they are to be enforced, need to be backed by applicable laws, ordinances, or regulations. Effective traffic control depends not only on appropriate application of devices, but on reasonable enforcement of regulations as well. Standards in this Manual are based on that concept.

1A-4 Engineering Study Required

The decision to use a particular device at a particular location should be made on the basis of an engineering study of the location. Thus, while this Manual provides standards for design and application of traffic control devices, the Manual is not a substitute for engineering judgment. It is the intent that the provisions of this Manual be standards for traffic control devices installation, but not a legal requirement for installation.

Qualified engineers are needed to exercise the engineering judgement inherent in the selection of traffic control devices, just as they are needed to locate and design the roads and streets which the devices complement. Jurisdictions with responsibility for traffic control, that do not have qualified engineers on their staffs, should seek assistance from the State highway department, their county, a nearby large city, or a traffic consultant.

1A-5 Meanings of "Shall," "Should" and "May"

In the Manual sections dealing with the design and application of traffic control devices, the words "shall," "should" and "may" are used to describe specific conditions concerning these devices. To clarify the meanings intended in this Manual by the use of these words, the following definitions apply:

1. **SHALL**—A *mandatory* condition. Where certain requirements in the design or application of the device are described with the "shall" stipulation, it is mandatory when an installation is made that these requirements be met.

2. **SHOULD**—An *advisory* condition. Where the word "should" is used, it is considered to be advisable usage, recommended but not mandatory.

3. **MAY**—A *permissive* condition. No requirement for design or application is intended.

1A-6 Developing New Standards and Interpretation and Revision of Existing Standards

Advances in technology will produce changes in the highway, the vehicle, and in driver proficiency and portions of the system of control devices in this Manual will gradually become obsolete. In addition, unique situations often arise for device applications which may require interpretation or clarification of this Manual. It is important to have a procedure for recognizing these developments and for introducing new ideas and modifications into the system.

The following procedures will generally apply to the handling of interpretations, experimentation and changes to the MUTCD:

1. Requests for any interpretation, permission to experiment or change may be sent to one of the appropriate organizations of the National Advisory Committee or directly to the NAC Executive Director, Office of Traffic Operations, HTO-20, Federal Highway Administration, Washington, D.C., 20590. Requests forwarded to particular organizations will provide them the opportunity to review the submission and comment before forwarding them to the NAC Executive Director.

2. Requests for interpretation or change in the Manual should contain the following information:

- (a) A statement indicating what change, modification, or question is to be resolved.
- (b) Any illustration which would be helpful to understand the request.
- (c) Any supporting research data which is pertinent to the item to be reviewed.

3. Requests for permission to experiment should contain the following information:

- (a) A statement indicating the nature of the problem.
- (b) A description of the proposed change, how it was developed, the manner in which it deviates from the standard, and how it is expected to be an improvement over existing standards.
- (c) Any illustration which would be helpful to understand the experimental device or use of this device.
- (d) Any supporting data as to how the experimental device was developed, if it has been tried, in what ways it was found to be adequate or inadequate, and how this choice of device or application was arrived at.

Additional details are available from the Federal Highway Administration.

4. Request will be classified as follows:

- (a) *Interpretation*—this includes application and operation of standard traffic control devices, official meanings of standard traffic control devices, or variations from standard device designs.
- (b) *Change*—this includes consideration of new devices to replace a present standard device, or revisions to recommended application or meaning criteria.
- (c) *Experimentation*—this includes consideration of testing or evaluating a new traffic control device, its application or manner of use.

5. The Federal Highway Administration will be responsible for notifying the party originating the request and providing the parent organization of the National Advisory Committee with a copy of each official ruling.

6. The Federal Highway Administration will maintain files on all officially designated requests and actions taken on the development of improved standards.

7. Periodically, text revisions and approved interpretations and experimentations will be published and distributed by the Government Printing Office to those Manual owners shown on the GPO subscription list. For additional copies or information about such revisions, write to the Federal Highway Administration (HTO-20), Washington, D.C. 20590.

1A-7 Relation to Other Documents

Two publications by the National Committee on Uniform Traffic Laws and Ordinances are specifically designed to provide the content and language of legislation needed to give regulatory devices the same meaning in all jurisdictions. These are the Uniform Vehicle Code (chapter 11, Rules of the Road) for States, and the Model Traffic Ordinance for municipalities. Both the Code and the Ordinance require the placing of signs or other traffic control devices to make some of their provisions effective, and both define the legal meaning of certain devices. The Code directs the State authorities to adopt a manual for a uniform system of traffic control devices, and requires all devices to conform thereto. The Ordinance also requires municipal devices to conform with the State manual. The adoption of appropriate legislation is an essential step toward uniformity.

To the extent they are incorporated by specific reference, the following documents are made a part of this Manual:

Standard Alphabets for Highway Signs and Pavement Markings, Federal Highway Administration, 1977 Edition.

Standard Color Tolerance Charts, Federal Highway Administration, 1970.

Standard Highway Signs, Federal Highway Administration, 1979 Edition.

Vehicle Traffic Control Signal Head Equipment Standards, Institute of Transportation Engineers, 1985.

Pedestrian Traffic Control Signal Indications, Institute of Transportation Engineers, 1985.

Standard for Flashing and Steady Burn Barricade Warning Lights, Institute of Transportation Engineers, 1981.

Standard for Traffic Signal Lamps, Institute of Transportation Engineers, 1980.

Other documents that are useful sources of information with respect to utilization of these standards include:

Transportation and Traffic Engineering Handbook, Institute of Transportation Engineers, 1982.

Highway Capacity Manual, Transportation Research Board.

A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 1985.

Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways, American Association of State Highway and Transportation Officials, 1984.

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List of Control Cities for Use in Guide Signs on Interstate Highways, American Association of State Highway and Transportation Officials, 1984.

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Manual on Traffic Engineering Studies, Institute of Transportation Engineers, 1976.

Volume 12, Highway Safety Program Manual, Highway Design, Construction and Maintenance, Federal Highway Administration.

Volume 13, Highway Safety Program Manual, Traffic Engineering Services, Federal Highway Administration.

Traffic Control Devices Handbook—Federal Highway Administration, 1983.

1A-8 Color Code

The following color code establishes general meanings for eight colors in a total of twelve colors that have been identified as being appropriate for use in conveying traffic control information. Central values and tolerance limits for each color are available.*

The four colors for which no meaning has been assigned are being reserved for future applications. The meanings described in this Section are of a general nature. More specific assignments of colors are given in the individual Parts of this Manual relating to each class of devices.

Color Code:

YELLOW—General Warning.

RED—Stop or prohibition.

BLUE—Motorist Services guidance.

GREEN—Indicated movements permitted, direction guidance.

BROWN—Recreational and cultural interest guidance.

ORANGE—Construction and maintenance warning.

BLACK—Regulation.

WHITE—Regulation.

PURPLE—Unassigned.

STRONG YELLOW—GREEN—Unassigned.

LIGHT BLUE—Unassigned.

CORAL—Unassigned.

1A-9 Definitions of Words and Phrases

Unless otherwise defined herein, definitions contained in the most recent editions of the Uniform Vehicle Code, AASHTO Highway Definitions, and other documents specified in section 1A-7 are also incorporated and adopted by reference.

Unless otherwise defined herein, the term "roadway" shall be defined as: "That portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the berm or shoulder. In the event a highway includes two or more separate roadways, the term 'roadway' as used herein, refers to any such roadway separately, but not to all such roads collectively."

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* Available from the Federal Highway Administration, (HTO-20), Washington, D.C. 20590.