

STATE OF CALIFORNIA  
BUSINESS AND TRANSPORTATION AGENCY  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC MANUAL**  
**CHAPTER 11**  
**RULES AND REGULATIONS**

**Prescribing Uniform Standards and Specifications  
for Official Traffic Control Devices  
in Compliance with CVC Section 21400**

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## **RULES AND REGULATIONS FOR OFFICIAL TRAFFIC CONTROL DEVICES**

### **INTRODUCTION 11-00**

These "Rules and Regulations Prescribing Uniform Standards and Specifications for Official Traffic Control Devices" have been published by the California Department of Transportation in compliance with Section 21400 of the California Vehicle Code, which provides in part:

"The Department of Transportation shall, after consultation with local agencies and public hearings, adopt rules and regulations prescribing uniform standards and specifications for all official traffic control devices placed pursuant to this code, including, but not limited to, stop signs, yield right-of-way signs, speed restrictions signs, railroad warning approach signs, street name signs, lines and markings on the roadway, and stock crossing signs placed pursuant to Section 21364."

Commonly used traffic control devices, conforming to the statutory requirements, if any, in effect at the time of their installation, may continue in use until replacement is necessary because of damage or normal maintenance.

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## CHAPTER 11

### RULES AND REGULATIONS FOR OFFICIAL TRAFFIC CONTROL DEVICES

#### General 11-01

##### 11-01.1 Definitions

(a) The following terms are defined in the California Vehicle Code:

- (1) Official Traffic Control Device. CVC Section 440,
- (2) Street. CVC Section 590
- (3) Street or Highway. CVC Section 591.
- (4) Street or Highway-Highway Exclusion. CVC Section 592.
- (5) Roadway. CVC Section 530.
- (6) Official Traffic Control Signal. CVC Section 445.
- (7) Engineering and Traffic Survey. CVC Section 627.

(b) Department

"Department" means the California Department of Transportation.

(c) Shall, Should and May

Meanings of "Shall", "Should", and "May" as they deal with the design and application of traffic control devices describe specific conditions concerning these devices. To clarify the meanings intended 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.

(d) Traffic Sign Specifications

"Traffic Sign Specifications" means the detailed drawings of signs approved by the Department for use in California on public streets and highways and other applicable places in cities, counties, parks, forests, reservations, schools, and parking areas.

(e) Uniform Sign Chart

"Uniform Sign Chart" means the current edition of the Uniform Sign Chart published by the Department.

(f) Markings

"Markings" means all lines, words, or symbols, except signs, officially placed within the roadway to regulate, warn, or guide traffic.

Note: Authority and reference cited: CVC Section 21400.

##### 11-01.2 Unauthorized Traffic Devices

Unauthorized Traffic Devices are prohibited as provided in the California Vehicle Code.

- (a) Unauthorized Traffic Devices. CVC Section 21465.
- (b) Prohibited Signs and Devices. CVC Section 21467.
- (c) Public Utilities. CVC Section 21468.

Note: Authority and reference cited: CVC Sections 21465, 21467, and 21468.

**11-01.3 Color Code**

The following color code establishes general meanings for colors that have been identified as being appropriate for use in conveying traffic control information.

The meanings described in this section are of a general nature. More specific assignments of colors are given under 11-02.2, Sign Colors, and in California Traffic Manual Chapter 4. For curb markings see 11-05.2, Markings-Colors.

YELLOW	- General Warning
RED	- Stop or Prohibition
BLUE	- Motorist services guidance, handicapped parking regulation
GREEN	- Motorist services guidance, handicapped parking regulation
BROWN	- Recreational or cultural guidance
ORANGE	- Construction and maintenance, and incident area warning
BLACK	- Regulation
WHITE	- Regulation

Note: Authority and reference cited: CVC Section 21400.

**11-01.4 Authorization to Experiment**

Advances in technology may produce changes in the highway, the vehicle, and in driver proficiency, and portions of the system of control devices may gradually become obsolete. It is important to have a procedure for recognizing these developments and for introducing new ideas and modifications into the system.

The following procedures apply to requests for experimentation:

- (a) Requests for permission to experiment shall be sent to:

Secretary,  
California Traffic  
Control Devices Committee  
1120 "N" Street  
Sacramento, CA 95814

Requests will be reviewed and forwarded with a recommendation to the Department for action.

- (b) Requests for permission to experiment shall contain the following information:

- (1) A statement indicating the nature of the problem.
- (2) 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.
- (3) Any illustration which would be helpful to understand the experimental device or use of this device.
- (4) 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 device or application came to be chosen.

- (c) All experimentation installations must be removed upon termination of the experimentation when a decision is made on the basis of the experimentation that a change in the State Traffic Manual to permit the device is not warranted.

Note: Authority and reference cited: CVC Section 21400.

## Regulations for Signs 11-02

### 11-02.1 Sign Types

Four types of signs function as traffic control devices as described in Section 11-03. "Traffic Sign Specifications" and the "Uniform Sign Chart" show approved signs in each category. They are available from the California Department of Transportation, Publications Unit, 1900 Royal Oaks Drive, Sacramento, CA 95815.

Signs other than those shown in the "Traffic Sign Specifications" may be required under special conditions when or where a standard sign by itself is not sufficient. Simplicity and uniformity in design, position, and application are necessary. "Uniformity in Design" includes shape, color, size and illumination or reflectorization.

All symbols shall be unmistakably similar to those shown and where a word message is applicable, the wording shall be as provided. Standardization of these designs does not preclude minor changes in the proportion of symbols, width of borders, or layout of word messages, but all shapes and colors shall be as indicated in the "Traffic Sign Specifications."

### 11-02.2 Sign Colors

The colors to be used on signs shall be as follows:

**Red** is used only as a background color for STOP signs, multi-way supplemental plates, DO-NOT-ENTER messages, WRONG-WAY signs and on Interstate route markers; or as a legend color for YIELD signs, parking prohibition signs, the circular outline and diagonal bar prohibitory symbol and symbol STOP AHEAD and YIELD AHEAD signs.

**Black** is used as a background on some ONE WAY signs and certain EXEMPT RXR signs, and as a legend color on white, yellow and orange signs.

**White** is used as the background for regulatory signs except STOP signs, route markers, some guide signs, the Fallout Shelter Directional signs, and for the legend on brown, green, blue, black, and red background signs. Wherever white is specified herein as a sign color, it is understood to include silver-colored reflecting coatings or elements that reflect white light.

**Orange** is used as the background color for signs in construction and maintenance work zones, and incident management areas, and shall not be used for any other purpose.

**Yellow** is used as the background color on warning signs, except in work zones and incident management areas where orange is specified as noted above.

**Brown** is used as the background color for guide and informational signs related to points of recreational or cultural interest.

**Green** is used as the background color for guide signs (other than those using brown or white), and as a legend color with white background for permissive parking regulation and signal ahead signs.

**Blue** is used as the background color for information signs related to highway users services (including police services and rest areas), handicapped parking regulation, and the Evacuation Route Marker.

### 11-02.3 Sign Shapes

Certain shapes have been identified as appropriate to convey traffic control information. The standard sign shapes are as follows:

The **octagon** shall be used only for the STOP sign.

The **equilateral triangle**, with one point downward, shall be used only for the YIELD sign.

The **round** shape shall be used only to warn of existing or possible hazards either on the roadway or adjacent thereto.

The **diamond** shape shall be used only to warn of existing or possible conditions either on the roadway or adjacent thereto to be aware of when traversing the highway. The diamond shape is a square sign with one diagonal vertical.

The **rectangle** shall be used for regulatory signs, except STOP signs and YIELD signs, guide signs except certain route markers and recreational area guide signs and for educational and supplemental signs mounted below and on the same post with another warning sign. The rectangular shape may also be used for unusually large warning signs.

The **pentagon**, with point upward, shall be used for School Advance and School Crossing signs.

Other shapes are reserved for special purposes; for example, the shield or other characteristic design for route markers.

#### 11-02.4 Sign Sizes

The dimensions prescribed in the "Traffic Sign Specifications" are the standard sizes for application on public streets and highways. Larger sizes may be used where greater legibility or emphasis is needed. For expressways and freeways, special designs or large signs are prescribed. Under special conditions such as alleys, parking facilities, parks, etc., the use of approved sizes smaller than standard size signs may be justified based on engineering judgement. When sign sizes are changed, standard shapes and colors shall be used and standard proportions shall be retained insofar as practicable.

Note: Authority and reference cited: CVC Section 21400.

### Sign Functions 11-03

#### 11-03.1 Regulatory Signs

Regulatory signs inform highway users of traffic laws or regulations and are erected only when and where needed to fulfill this purpose. Signs are not ordinarily needed to confirm rules of the road.

Regulatory signs are normally erected at the locations where the regulations apply. The sign message shall indicate the requirements imposed by the regulation and be visible and legible to the highway user.

All regulatory signs shall be reflectorized or illuminated to show the same shape and color both by day and by night, unless excepted in the "Traffic Sign Specifications."

##### (a) STOP Sign

STOP signs are used where traffic is required to stop.

The standard size shall be 750 mm x 750 mm. Where greater emphasis or visibility is desired, a larger size may be used and may be supplemented by a red flashing beacon. On low volume local streets and secondary roads with low approach speeds, a 600 mm x 600 mm size may be used.

Other messages shall not be placed on STOP sign faces. Mounting of other signs on the same support should be avoided.

##### (b) YIELD Sign

YIELD signs are used where traffic need stop only when necessary to avoid interference with conflicting traffic.

YIELD right-of-way signs shall be located at or near the entrance to the intersection or highway where motorists are required to yield the right-of-way. CVC Section 21356.

The standard size shall be 900 mm x 900 mm x 900 mm. Where greater emphasis or visibility is desired, a larger size may be used. On low-volume local streets and secondary roads with low approach speeds, a 750 mm x 750 mm x 750 mm size may be used.

(c) Speed Limit Sign

Speed limit signs shall display the limit established by law, or by regulation. Speed limits shown shall be in multiples of 5 miles per hour and may be shown both in miles per hour and in kilometers per hour.

The minimum size shall be 600 mm in width and 750 mm in height, and may be larger.

Note: Authority and reference cited: CVC Section 21400.

### 11-03.2 Warning Signs

Warning signs are used to guide and warn traffic of conditions on or adjacent to a highway or street.

Warning signs alert vehicle operators to use caution, reduce speed or make a maneuver in the interest of the operator's safety and/or that of other vehicle operators and pedestrians.

Warning signs shall be reflectorized or illuminated to show the same shape and color both by day and by night, unless otherwise specified in the "Traffic Sign Specifications." Signs may be supplemented with a yellow flashing beacon.

Sign sizes and legends for various type facilities are found in the "Traffic Sign Specifications."

Where greater emphasis or visibility is desired, a larger size may be used.

Railroad Advance Warning approach signs shall be erected as provided in CVC Section 21362.

Railroad Advance Warning approach signs shall be yellow and black. The standard size shall be 900 mm in diameter. On low volume local streets, a 750 mm size may be used.

Note: Authority and reference cited: CVC Section 21400.

### 11-03.3 Guide Signs

Guide signs are used to provide information to highway users not provided by regulatory, warning or work zone and incident area signs. They are reflectorized or illuminated, unless otherwise specified in the "Traffic Sign Specifications".

"The minimum letter height for the principal legend shall be 100 mm.

At each signal-controlled intersection on streets and highways, there shall be street name signs as provided in CVC Section 21366.

Street and highway name signs shall be erected in urban areas at all street intersections regardless of other route markings that may be present, and shall be erected on rural areas to identify important roads not otherwise marked. Supplemental name signs may be installed in advance of intersections as necessary. In business districts, two street name signs shall be visible on each approach to the intersection.

Note: Authority and reference cited: CVC Section 21400.

### 11-03.4 Construction and Maintenance Zone and Incident Management Area Signs

Construction and maintenance zone signs, and incident area signs, are used to warn and otherwise inform highway users of special conditions resulting from work in progress or an accident or other incident in the area. Pursuant to CVC Section 21400, Uniform Standards Prescribed by the Department of Transportation, The Department has determined and publicized specifications for uniform types of warning signs, lights and devices to be placed upon a highway. The specifications for these devices are contained in the current issue of the "Traffic Controls for Construction and Maintenance Work Zones" (Chapter 5 Traffic Manual).

Note: Authority and reference cited: CVC Section 21400.

### School Zone Signs 11-04

The Department and local authorities shall establish warrants for traffic control devices near schools as provided in CVC Section 21372.

Recommended warrants are contained in the Departments' "School Area Pedestrian Safety" pamphlet (Chapter 10, Traffic Manual.)

Note: Authority and reference cited: CVC Section 21372.

### Pavement and Curb Markings 11-05

#### 11-05.1 Markings - General

##### (a) Functions and Limitations

Markings are used to supplement the regulations or warnings of other devices such as traffic signs or signals. In other instances, they are used alone and produce results that cannot be obtained by the use of any other device.

##### (b) Standardization of Application

Markings shall be used only to convey the meanings prescribed herein. Before any new highway, surfaced detour, or temporary route is opened to traffic, markings should be in place.

Markings no longer applicable should be removed or obliterated as soon as practicable.

#### 11-05.2 Markings - Colors

Markings, except curb markings and directional markings for tourists, shall be yellow or white.

Black may be used in combination with the above colors to improve contrast.

#### 11-05.3 General Principles - Longitudinal Markings

Longitudinal markings shall conform to the following basic concepts:

- (1) **Yellow** lines delineate the separation of traffic flows in opposing directions and the left edgeline of each roadway of divided highways and of one-way roadways.
- (2) **White** lines delineate the separation of traffic in the same direction and the right edgeline.
- (3) **Red** markings (wrong-way raised pavement markers) delineate roadways that shall not be entered or used by the viewer of these markings.
- (4) Markings which must be visible during hours of darkness shall be reflectorized.

#### 11-05.4 Widths and Patterns

##### (a) Longitudinal Markings

The widths and patterns of longitudinal markings shall conform to those approved by the Department as shown in Chapter 6, Markings, in the Traffic Manual.

(b) Transverse Markings

Transverse markings, including shoulder markings, word and symbol markings, limit lines (stop lines), crosswalk lines, -marking of highways patrolled by aircraft, and parking stall markings, shall be white except for yellow markings near schools as provided in CVC Section 21368, Crosswalks Near Schools.

(c) Curb Markings

Whenever local authorities indicate parking regulation by the use of paint upon curbs, the color shall be as provided in CVC Section 21458.

(d) Directional Markings

Directional markings for tourists shall conform to the provisions of CVC Section 21374.

Note: Authority and reference cited: CVC Sections 21368, 21374, 21400, and 2145.

### Signals 11-06

Whenever traffic is controlled by traffic-control signals exhibiting different colored lights, or colored lighted arrows, successively one at a time or in combination, only colors green, yellow and red shall be used except for pedestrian control signals.

Traffic control signals shall have the meanings as described in CVC Sections 21100 and 21450 through 21457.

Whenever separate pedestrian control signals are

provided, they may exhibit the "Walking Person" symbol in lieu of "WALK" and the "Upraised Hand" symbol in lieu of "WAIT" or "DON'T WALK."

Note: Authority and reference cited: CVC Sections 21100 and 21450 through 21457.

### Other Traffic Control Devices 11-07

Except as provided under Section 11-01.4, Authorization to Experiment, in this Chapter, all official traffic control devices placed or erected shall conform to the statutory requirements, if any, in effect at the time of their installation.

Note: Authority and reference cited: CVC Section 21400.,