

## **2A-28 Bridges for Sign Supports**

An overcrossing structure will sometimes serve for the support of overhead signs, and under some circumstances, may be the only practical solution that will provide adequate viewing distance. Such use of a structure as a sign support will eliminate the need for the foundations and sign supports along the roadside. On an urban freeway where overhead crossings are closely spaced, for example, it may be feasible to place some signs on the bridges.

## **2A-29 Sign Materials**

A variety of materials can be used effectively. However, it is recognized that technological progress may develop new and satisfactory or superior materials for highway signs, particularly in the fields of illumination and reflectorization. Nothing in this Manual should be interpreted to exclude any new material that meets the standard requirements for color and visibility.

## **2A-30 Maintenance**

All traffic signs should be kept in proper position, clean and legible at all times. Damaged signs should be replaced without undue delay.

To insure adequate maintenance, a suitable schedule for inspection, cleaning and replacement of signs should be established. Employees of the highway department, police and other governmental employees whose duties require that they travel on the highways should be encouraged to report any damaged or obscured signs at the first opportunity.

Special attention and necessary action should be taken to see that weeds, trees, shrubbery and construction materials do not obscure the face of any sign.

A regular schedule of replacement of lighting elements for illuminated signs should be maintained.

# **B. REGULATORY SIGNS**

## **2B-1 Application of Regulatory Signs**

Regulatory signs inform highway users of traffic laws or regulations and indicate the applicability of legal requirements that would not otherwise be apparent. These signs shall be erected wherever needed to fulfill this purpose, but unnecessary mandates should be avoided. The laws of many States specify that certain regulations are enforceable only when made known by official signs.

Some regulatory signs are related to operational controls but do not impose any obligations or prohibitions. For example, signs giving advance notice of or marking the end of a restricted zone are included in the regulatory group.

Regulatory signs normally shall be erected at those locations where regulations apply. The sign message shall clearly indicate the requirements imposed by the regulation and shall be easily visible and legible to the motorist concerned.

## 2B-2 Classification of Regulatory Signs

Regulatory signs are classified in the following groups:

1. Right-of-way series:
  - (a) STOP sign (sec. 2B-4 to 6)
  - (b) YIELD sign (sec. 2B-7 to 9)
2. Speed series (sec. 2B-10 to 14)
3. Movement series:
  - (a) Turning (sec. 2B-15 to 19)
  - (b) Alignment (sec. 2B-20 to 24)
  - (c) Exclusion (sec. 2B-25 to 27)
  - (d) ONE WAY (sec. 2B-28)
4. Parking series (sec. 2B-29 to 32)
5. Pedestrian series (sec. 2B-33 to 34)
6. Miscellaneous series (sec. 2B-35 to 43)

## 2B-3 Design of Regulatory Signs

Regulatory signs are rectangular, with the longer dimension vertical, and have black legend on a white background, except for those signs whose standards specify otherwise.

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 standards covering a particular sign or group of signs.



R1-1  
30" x 30"



R1-3  
12" x 6"



R1-4  
18" x 6"

## 2B-4 Stop Sign (R1-1)

STOP signs are intended for use on roadways where traffic is required to stop.

The STOP sign shall be an octagon with white message and border on a red background. The standard size shall be 30 inches by 30 inches. Where greater emphasis or visibility is required, a larger size is recommended. On low-volume local streets and secondary roads with low approach speeds, a 24-inch by 24-inch size may be used.

At a multiway stop intersection (sec. 2B-6), a supplementary plate (R1-3) should be mounted just below each STOP sign. If the number of approach legs to the intersection is three or more, the numeral on the supplementary plate shall correspond to the actual number of legs, or the legend ALL-WAY (R1-4) may be used. The supplementary plate shall have white letters on a red background and shall have a standard size of 12 inches by 6 inches (R1-3) or 18 inches by 6 inches (R1-4).

A STOP sign beacon or beacons may be used in conjunction with a STOP sign as described in section 4E-4.

Secondary messages shall not be used on STOP sign faces.

## 2B-5 Warrants for Stop Sign

Because the STOP sign causes a substantial inconvenience to motorists, it should be used only where warranted. A STOP sign may be warranted at an intersection where one or more of the following conditions exist:

1. Intersection of a less important road with a main road where application of the normal right-of-way rule is unduly hazardous.
2. Street entering a through highway or street.
3. Unsignalized intersection in a signalized area.
4. Other intersections where a combination of high speed, restricted view, and serious accident record indicates a need for control by the STOP sign.

STOP signs should never be used on the through roadways of expressways. Properly designed expressway interchanges provide for the continuous flow of traffic, making STOP signs unnecessary even on the entering roadways. Where at-grade intersections are temporarily justified for local traffic in sparsely populated areas, STOP signs should be used on the entering roadways to protect the through traffic. STOP signs may also be required at the end of diverging roadways at the intersection with other highways not designed as expressways. In most of these cases, the speeds will not warrant any great increase in the sign sizes.



STOP signs shall not be erected at intersections where traffic control signals are operating. The conflicting commands of two types of control devices are confusing. If traffic is required to stop when the operation of the stop-and-go signals is not warranted, the signals should be put on flashing operation with the red flashing light facing the traffic that must stop.

Where two main highways intersect, the STOP sign or signs should normally be posted on the minor street to stop the lesser flow of traffic. Traffic engineering studies, however, may justify a decision to install a STOP sign or signs on the major street, as at a three-way intersection where safety considerations may justify stopping the greater flow of traffic to permit a left-turning movement.

For other than emergency purposes portable or part-time STOP signs shall not be used.

STOP signs should not be used for speed control.

## **2B-6 Multiway Stop Signs**

The "Multiway Stop" installation is useful as a safety measure at some locations. It should ordinarily be used only where the volume of traffic on the intersecting roads is approximately equal. A traffic control signal is more satisfactory for an intersection with a heavy volume of traffic.

Any of the following conditions may warrant a multiway STOP sign installation (sec. 2B-4):

1. Where traffic signals are warranted and urgently needed, the multiway stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.

2. An accident problem, as indicated by five or more reported accidents of a type susceptible of correction by a multiway stop installation in a 12-month period. Such accidents include right- and left-turn collisions as well as right-angle collisions.

3. Minimum traffic volumes:

- (a) The total vehicular volume entering the intersection from all approaches must average at least 500 vehicles per hour for any 8 hours of an average day, and

- (b) The combined vehicular and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same 8 hours, with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour, but

- (c) When the 85-percentile approach speed of the major street traffic exceeds 40 miles per hour, the minimum vehicular volume warrant is 70 percent of the above requirements.

## 2B-7 Yield Sign (R1-2)

The YIELD sign assigns right-of-way to traffic on certain approaches to an intersection. Vehicles controlled by a YIELD sign need stop only when necessary to avoid interference with other traffic that is given the right-of-way.



R1-2  
36" x 36" x 36"

The YIELD sign shall be a downward pointing, equilateral triangle having a red border band and a white interior and the word YIELD in red inside the border band; the border band to be 5 inches for the 36-inch sign and 6 inches for the 48-inch sign.

## 2B-8 Warrants for Yield Signs

The YIELD sign may be warranted:

1. On a minor road at the entrance to an intersection where it is necessary to assign right-of-way to the major road, but where a stop is not necessary at all times, and where the safe approach speed on the minor road exceeds 10 miles per hour.
2. On the entrance ramp to an expressway where an acceleration lane is not provided.
3. Within an intersection with a divided highway, where a STOP sign is present at the entrance to the first roadway and further control is necessary at the entrance to the second roadway, and where the median width between the two roadways exceeds 30 feet.
4. Where there is a separate or channelized right-turn lane, without an adequate acceleration lane.
5. At any intersection where a special problem exists and where an engineering study indicates the problem to be susceptible to correction by use of the YIELD sign.

YIELD signs should not ordinarily be placed to control the major flow of traffic at an intersection. They should not be erected on the approaches of more than one of the intersecting streets or highways or used at any intersection where there are STOP signs on one or more approaches, except, under special circumstances, to provide minor movement control within complex intersections.

YIELD signs should not be used on the through roadways of expressways. They may be used on an entering roadway without an adequate acceleration lane, but in a well designed interchange, the sign would interfere with the free merging movement, and it should not be used under those circumstances.

## 2B-9 Location of Stop Sign and Yield Sign

A STOP sign should be erected at the point where the vehicle is to stop or as near thereto as possible, and may be supplemented with a Stop line and/or the word STOP on the pavement, as shown in figure 2-2. A YIELD sign should be erected in the same manner, at the point where the vehicle is to stop if necessary to yield the right-of-way. Where there is a marked crosswalk on the pavement, the sign should be erected approximately 4 feet in advance of the crosswalk line nearest to approaching traffic.

Where only one sign, STOP or YIELD, is used, it shall be on the right-hand side of the traffic lane to which it applies. At an intersection where a wide throat exists on the signed approach, observance of the sign may be improved by the erection of an additional sign on the left side of the approach road, and by the use of a Stop line. Where two lanes of traffic are subject to the STOP sign, a second sign should be placed where it is visible to traffic in the inner lane. At certain channelized intersections, the additional sign may be effectively placed on a channelizing island. In no instance shall one STOP or YIELD sign be mounted above another on the same post.

Where two roads intersect at an acute angle, the STOP or YIELD sign should be positioned at an angle, or shielded, so that the message is out of view of traffic to which it does not apply.

In the event the visibility of a STOP sign or a YIELD sign at any location is restricted, the sign shall be located as specified, and a STOP AHEAD sign (sec. 2C-14) or a YIELD AHEAD sign (sec. 2C-15) shall be erected in advance of the STOP or YIELD sign.

Figures 2-2, 2-6a, 2-6b, & 2-6c show typical STOP and YIELD sign installations.

## 2B-10 Speed Limit Sign (R2-1)

The Speed Limit sign shall display the limit established by law, or by regulation, after an engineering and traffic investigation has been made in accordance with established traffic engineering practices. The speed limits shown shall be in multiples of 5 miles-per-hour.

In order to determine the proper numerical value for a speed zone on the basis of an engineering and traffic investigation the following factors should be considered:



1. Road surface characteristics, shoulder condition, grade, alignment and sight distance.

2. The 85-percentile speed and pace speed.

3. Roadside development and culture, and roadside friction.

4. Safe speed for curves or hazardous locations within the zone.

5. Parking practices and pedestrian activity.

6. Reported accident experience for a recent 12-month period.

Two types of speed limit signs may be used: One to designate passenger car speeds including any nighttime information or minimum speed limit that might apply, and the other to show any special speed limits for buses and trucks. No more than three speed limits should be displayed on any one speed limit sign or assembly. Where a special speed limit applies to trucks or other vehicles, the legend TRUCKS 40, or such similar message as is appropriate, shall be



R2-1  
24" x 30"



R2-2  
24" x 24"

shown below the standard message or on a separate plate (R2-2). When used independently, the Truck Speed sign should carry a reference to SPEED or MPH.

Minimum speeds shall be displayed only in combination with the posted speed limit (sec. 2B-12).

Advisory Speed signs are treated under section 2C-36.

The standard Speed Limit sign shall be 24 inches by 30 inches. On expressways the sign should be at least 36 inches by 48 inches, with 48 inches by 60 inches prescribed for use on freeways.

#### 2B-11 Night Speed Sign (R2-3)

Where different speed limits are prescribed for day and night, both the limits shall be posted. This may be done in either of two ways:

1. Immediately below the standard Speed Limit sign (R2-1) or combined with it, a Night Speed sign (R2-3) carrying the legend NIGHT 45 (or other suitable numerical limit) may be erected. In

this case the numerals in the Night Speed sign and only the words SPEED LIMIT in the standard sign, should be reflectorized. As a special but logical exception to the general color scheme, the Night Speed sign should have its legend in white upon a black background.

2. A changeable message sign may be used, so that only the appropriate regulation is visible at a given time. The sign may have interchangeable panels, or reflectorization of the nighttime speed superimposed over the unreflectorized numerals of the daytime speed, to permit only the nighttime speed to become legible in the beam of motor-vehicle headlamps at night.



R2-3  
24" x 24"

#### 2B-12 Minimum Speed Sign (R2-4)

Where an engineering and traffic investigation shows that slow speeds on a highway consistently impede the normal and reasonable movement of traffic, signs may be used to post a minimum legal



R2-4  
24" x 30"



R2-4a  
24" x 48"



speed. Driving slower than the minimum limit is illegal except when necessary for safe operation or in compliance with the law. The minimum speed shall be displayed only in combination with the posted speed limit, and if desired, these two signs may be combined (R2-4a). The Minimum Speed sign shall have a standard, and minimum, size of 24 inches by 30 inches.

### 2B-13 Location of Speed Limit Sign

Speed Limit signs, indicating speed limits for which posting is required by law, shall be located at the points of change from one speed limit to another. These signs shall not be erected until the speed limits are approved and officially authorized.

At the end of the section to which a speed limit applies, a Speed Limit sign showing the next speed limit shall be erected. Additional signs shall be installed beyond major intersections and at other locations where it is necessary to remind motorists of the limit that is applicable.

The Speed Zone Ahead sign (sec. 2B-14) may be used to give advance notice of a speed zone with a lower limit.

In rural districts on U.S. and other State numbered routes, Speed Limit signs indicating the statutory speed limits shall be erected at entrances to the State and at boundaries of metropolitan areas. A special oversize sign is often desirable at these locations.

### 2B-14 Sign for Reduced Speed Ahead (R2-5)

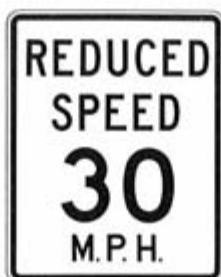
This sign should be used in rural areas to inform the motorist of a reduced speed zone when an advance notice is needed to comply with the speed limit posted ahead. The sign is not ordinarily needed in urban areas where speeds are relatively low.

This sign shall always be followed by a Speed Limit sign erected at the beginning of the zone where the altered speed limit applies.

This sign shall have a standard size of 24 inches by 30 inches. It shall, however, be of the same size as the Speed Limit sign at the



R2-5a  
24" x 30"



R2-5b  
24" x 30"



R2-5c  
24" x 30"

beginning of the speed zone, shall be erected in the same manner, and shall display one of the three illustrated legends.

### 2B-15 Turn Prohibition Signs (R3-1 to 3)

Turn Prohibition signs should be used to indicate the turns that are prohibited or restricted at a particular intersection.

The standard, and minimum, size of the NO RIGHT TURN sign (R3-1), the NO LEFT TURN sign (R3-2), and the NO TURNS sign (R3-3) shall be 24 inches by 24 inches.



R3-1  
24" x 24"  
24" x 18"



R3-1a  
24" x 30"



R3-3  
24" x 24"

Turn Prohibition signs should be placed where they will be most easily seen by drivers intending to turn. The No Right Turn sign shall be placed at the near right-hand corner of the intersection. Where No Left Turn or No Turns signs are required, two shall be used, one at the near right-hand corner and one at the far left-hand corner, facing traffic approaching the intersection. Where there is a traffic signal on the far right corner, the sign on the right-hand side should be placed near that signal.

If advance signs are used, care should be taken that no alley or public driveway exists between them and the intersection where the turning movement is prohibited. At an intersection with a one-way street, whether signalized or not, the ONE WAY sign (sec. 2B-28) shall be used, and may be supplemented by the Turn Prohibition sign (fig. 2-3). A Turn Prohibition sign is not needed at a ramp entrance to an expressway where the design is such as to indicate clearly the one-way traffic movement on the ramp. The DO NOT ENTER sign (sec. 2B-25) will serve in lieu of the Turn Prohibition

sign where it is necessary to emphasize the one-way traffic movement on the ramp.

When the movement restriction applies during certain periods only, the use of Turn Prohibition signs calls for special treatment. The following alternatives are listed in order of preference:

1. Variable message signs or internally illuminated signs that are lighted and made legible only during the restricted hours, particularly desirable at signalized intersections.
2. Permanently mounted signs incorporating a supplementary legend showing the hours during which the prohibition is applicable.
3. Portable signs off the roadway at each corner of the intersection where required, put in place under police supervision only when applicable and removed at other hours.

The appropriate word message, NO RIGHT TURN (R3-1a) or NO LEFT TURN (R3-2a), on a 24" x 30" panel may be used as an alternate.

#### 2B-16 U-Turn Prohibition Sign (R3-4)

The NO U TURN sign is intended for use at or between intersections to indicate locations where U turns are prohibited. The sign shall have a standard size of 24 inches by 24 inches.

The word message, NO U TURN (R3-4a), on a 24" x 30" panel may be used as an alternate.



R3-4  
24" x 24"  
24" x 18"



R3-4a  
24" x 30"

#### 2B-17 Lane-Use Control Signs (R3-5 to 9)

Lane-Use Control signs shall be used where turning movements are required or where unconventional turning movements are per-



mitted from specific lanes at an intersection. The standard size of these signs shall be 30 inches by 36 inches when mounted overhead, and 30 inches by 30 inches when post mounted. Signs for overhead mounting shall be mounted over the lanes to which they apply. The Mandatory Movement sign (R3-5) shall show a single arrow and the regulatory word message ONLY. The optional movement sign (R3-6) shall show a straight-through and a curved arrow with the lower ends of their shafts superimposed, to indicate that either of the movements symbolized is permissible. The letters "OK" may be added to the legend of the R3-6 sign. The optional movement sign (R3-6) shall not be used alone to effect a turn prohibition.



R3-5  
30" x 36"



R3-6  
30" x 36"

The mandatory turn sign (R3-7) designed for post mounting shall carry the message Right (or Left) Lane Must Turn Right (or Left).



R3-7  
30" x 30"



R3-8  
30" x 30"



R3-9  
24" x 30"

Double-turn signs for post mounting may be needed at such locations as at the right curb (for double right turns) or on the left side of a one-way street or on the median of a divided highway (for

double left turns). The post-mounted double-turn signs (R3-8) should carry, side by side on the same plate, two arrow symbols similar to the designs for the overhead signs. The letters OK may be added to the double turn portion of the legend for the R3-8 sign.

The Center Lane-Left Turn Only sign (R3-9) shall be used where a lane in the center of a highway is reserved for the exclusive use of left-turning vehicles in either direction and is not used for passing and overtaking. Pavement markings shall be used with the sign (sec. 3B-12). The sign should be mounted over the lane to which it applies.

## **2B-18 Application of Lane-Use Control Signs at Intersections**

Lane-Use Control signs shall be used at intersections whenever it is desired to require vehicles in certain lanes to turn, or to permit turns from an adjacent lane.

Lane-use controls permitting left (or right) turns from two (or more) lanes are normally warranted whenever the turning volume exceeds the capacity of one turning lane, and when all movements can be accommodated in the lanes available to them.

When multiple-lane left turns are to be permitted at signalized intersections, special signal phasing should be used to allow the turning movements without interference from opposing or cross traffic.

## **2B-19 Location of Lane-Use Control Signs**

Overhead Lane-Use Control signs are preferred because they can be placed over the lanes to which they apply. This type of control, and particularly the multiple-lane turn, occurs where volumes are high and an overhead installation can be justified.

When post-mounted Lane-Use Control signs are used, one sign should be placed at the intersection. A second Lane-Use Control sign should be placed at an adequate distance in advance of the intersection so that motorists can select the appropriate lane before reaching the ends of the lines of waiting vehicles. Pavement markings (sec. 3B-18) may be used to supplement post-mounted signs and should be used with mandatory turn signs.

## **2B-20 Do Not Pass Sign (R4-1)**

The DO NOT PASS sign may be used on a two- or three-lane road at the beginning of, and at intervals within, a zone through which restricted sight distance or other condition makes overtaking and passing hazardous. Where standard pavement markings (sec. 3B-3) are present, the sign need not be used. However, the sign

may be used in addition to the pavement markings to emphasize the restriction on passing.

The standard DO NOT PASS sign shall be 24 inches by 30 inches in size, with a minimum size for minor roads of 18 inches by 24 inches.

Because a driver about to pass a vehicle ahead often has only a restricted view to the right, an additional sign on the left-hand side of the roadway may be desirable. The NO PASSING ZONE sign (sec. 2C-39) may be used as a supplemental sign on the left-hand side of a two-lane road.

Standards for determining the location and extent of no-passing zones are set forth in connection with pavement markings through such zones (secs. 3B-4, 5).



R4-1  
24" x 30"

#### 2B-21 Pass With Care Sign (R4-2)

The PASS WITH CARE sign should be used at the end of a no-passing zone where a DO NOT PASS sign has been erected at the beginning of the zone. It shall be of the same size and erected in the same manner as the DO NOT PASS sign.



R4-2  
24" x 30"



## 2B-22 Slower Traffic Keep Right Sign (R4-3)

The SLOWER TRAFFIC KEEP RIGHT sign may be used on multiple-lane roadways to reduce unnecessary weaving. It should be erected just beyond the beginning of a multiple-lane pavement, and at selected locations on the median strip of a divided highway where there is a tendency on the part of the motorist to drive in the left-hand lane (or lanes) below the normal speed of traffic. It should not be used on the approach to an interchange or through an interchange area.

This sign shall have a standard, and minimum, size of 24 inches by 30 inches. Because it is not used on secondary roads, no small design is provided. On expressways the sign should be at least 36 inches by 48 inches, with 48 inches by 60 inches prescribed for freeways.



R4-3  
24" x 30"

## 2B-23 Signs for Uphill Traffic Lanes (R4-5, R4-6)

Where an extra lane has been provided on an upgrade for slow-moving traffic, it should be preceded by a sign directing such traffic into this "climbing" lane. The SLOWER TRAFFIC KEEP RIGHT sign (sec. 2B-22) is applicable for this purpose, or more specific messages such as TRUCKS USE RIGHT LANE (R4-5) may be used. The standard, and minimum, size of these signs shall be 24 inches by 30 inches.

In advance of the beginning of the climbing lane a sign, TRUCK LANE (500) FEET (R4-6), may be erected, of the same size as the sign at the beginning of the climbing lane. The distance shown should approximate that of the actual location of the sign.

In advance of the end of the climbing lane, a Pavement Width Transition warning sign should be erected (sec. 2C-18). This is particularly important, as the end of the climbing lane will normally

be concealed beyond the crest of the grade. A duplicate sign on the left of the roadway is also desirable to warn the faster traffic, as the sign on the right may be obscured by the slower moving trucks.

Pavement markings should clearly indicate how the climbing lane is designed to operate.



R4-5  
24" x 30"



R4-6  
24" x 30"

#### 2B-24 Keep Right Sign (R4-7)

The Keep Right sign should be used within and at the ends of medians, parkways, loading islands, and refuge islands, at traffic islands, and at underpass piers, where traffic is required to keep to the right. The word message KEEP RIGHT, with an arrow, on a 24" x 30" panel may be used as an alternate for the R4-7 sign.



R4-7  
24" x 30"  
24" x 18"



R4-7a  
24" x 30"



R4-7b  
24" x 30"



R4-8  
24" x 30"  
24" x 18"

The Keep Right sign shall have a standard size of 24 inches by 30 inches. On expressways the sign should be at least 36 inches by 48 inches, with 48 inches by 60 inches prescribed for use on freeways. A smaller size of 18 inches by 24 inches is permissible for use on narrow medians and at median openings to serve entering cross traffic and to remind through traffic of the regulation.

A certain amount of flexibility must be allowed in the mounting height for Keep Right signs. Where the obstruction is in or so near the lane of traffic that the sign at a normal minimum height may be obscured by vehicles, a second sign of the same design may be mounted directly above the standard sign with its bottom edge at a height of 8 to 10 feet above the pavement. In this case the lower sign may be placed somewhat below the normal minimum height.

On a median, the Keep Right sign should be mounted not more than 50 feet beyond the approach end of the island. On a pedestrian island or intersection channelizing island it should be mounted at the approach end or as close thereto as practicable. The sign should be mounted on the face of or just in front of a pier or other obstruction in the center of the roadway. Where appropriate, a Keep Left sign (R4-8) may be used (sec. 5E-2).

#### 2B-25 Do Not Enter Sign (R5-1)

To prohibit traffic from entering a restricted road section the DO NOT ENTER sign should be conspicuously placed in the most appropriate position at the end of a one-way roadway or ramp. The sign



should normally be mounted on the right-hand side of the roadway, facing traffic entering the roadway or ramp in the wrong direction. However, a second sign on the left-hand side of the roadway may be justified, particularly where traffic may be approaching in a turn.

The DO NOT ENTER sign shall be a 30-inch white square on which is inscribed a 29-inch diameter red circle, with a white band 5 inches in width placed horizontally across the center of the circle. The legend DO NOT ENTER shall appear in white letters with the words DO NOT above the band and ENTER below the band. Larger sizes are prescribed for use on major streets or on expressways with one-way ramp or roadway connections.



R5-1  
30" x 30"

#### 2B-26 Wrong Way Sign (R5-9)

The WRONG WAY sign (R5-9) may be used as a supplement to the DO NOT ENTER sign (R5-1) where an exit ramp intersects a crossroad or a crossroad intersects a divided highway in a manner that may invite wrong-way entry.

The sign should be placed at a location along the exit ramp or the divided roadway farther from the crossroad than the DO NOT ENTER sign.



R5-9  
36" x 24"

#### 2B-27 Selective Exclusion Signs

The laws of most States permit the State or local authority having jurisdiction to exclude trucks or other commercial vehicles from any

designated highway where signs have been placed giving this notice. Sign legends should be developed to meet requirements established by statute or ordinance. The No Trucks symbol (R5-2), COMMERCIAL VEHICLES EXCLUDED (R5-4), and TRUCKS (VEHICLES) WITH LUGS PROHIBITED (R5-5) are suggested as suitably specific legends.



R5-2  
24" x 24"  
24" x 18"



R5-2a  
24" x 24"



R5-4  
24" x 30"



R5-5  
24" x 30"

The word legend NO TRUCKS (R5-2a) on a 24" x 24" panel may be used as an alternate for the R5-2 sign.

Most States provide that the proper authority may exclude pedestrians, bicycles, or other type traffic and shall erect signs setting forth such restrictions. To be effective such signs must clearly indicate the type of traffic that is admitted or the type that is excluded. Typical exclusion messages include PEDESTRIANS PROHIBITED (R5-3), NO BICYCLES (R5-6), NONMOTORIZED

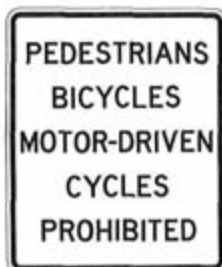
TRAFFIC PROHIBITED (R5-7), MOTOR-DRIVEN CYCLES PROHIBITED (R5-8) or an appropriate combination or grouping of these legends into a single sign, such as PEDESTRIANS BICYCLES MOTOR-DRIVEN CYCLES PROHIBITED or PEDESTRIANS AND BICYCLES PROHIBITED (R5-10).



R5-3  
24" x 12"



R5-6  
24" x 24"  
24" x 18"



R5-10  
30" x 36"



R5-10  
30" x 18"

If an exclusion is to be governed by vehicle weight, a Weight Limit Sign (sec. 2B-39) rather than an Exclusion sign should be used.

Because of the variety of possible messages for these signs, it is not practicable to fix standard sizes for them as a class. In all cases the lettering should be large enough to give adequate legibility. They should be conspicuously placed at all entrances to the restricted roadway.

The Exclusion sign should be placed on the right-hand side of the roadway approximately 25 feet from the intersection so as to be



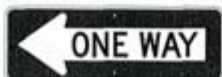
clearly visible to all drivers and others turning into the roadway which has the exclusion. A supplementary sign may be necessary on the left-hand side of the restricted roadway.

A PEDESTRIANS PROHIBITED (R5-3) sign should be used at interchanges or elsewhere where pedestrians can enter the expressway right-of-way and endanger themselves or others, particularly where they attempt to cross the roadways. The sign may also be used at underpasses or elsewhere where safe pedestrian facilities are not provided. The sign should be erected wherever it can be most effective. Because of the length of the words constituting its legend, a horizontal panel is warranted, 24 inches by 12 inches in size. As an exception to the general rule (sec. 2B-3), it need not be reflectorized or illuminated.

### 2B-28 One Way Sign (R6-1, R6-2)

The ONE WAY sign shall be used when required to indicate streets or roadways upon which vehicular traffic is allowed to travel in one direction only. The sign shall be either (a) a white arrow, right or left, on a black horizontal rectangle of a standard, and minimum, size of 36 inches by 12 inches with the words ONE WAY centered in the arrow (R6-1); or (b) a vertical rectangle of a standard, and minimum, size of 18 inches by 24 inches with black lettering and a right or left arrow on a white background (R6-2). The vertical design has advantages where lateral space is limited.

One Way signs shall be placed on the near right-hand and the far left-hand corners of the intersection so as to face traffic entering or crossing the one-way street (fig. 2-3). Where the intersection is signalized, the signs should be placed near the appropriate signal faces. One Way signs should also be placed parallel to the one-way street directly opposite the exits from alleys and other public ways. A One Way sign should always be used, where applicable, and may be supplemented by a Turn Prohibition Sign (sec. 2B-15).



R6-1  
36" x 12"



R6-2  
18" x 24"

One Way signs are not ordinarily needed on the one-way roadways of divided expressways, where the design of interchanges indicates the direction of traffic on the separate roadways.

## 2B-29 Urban Parking and Stopping Signs (R7 Series)

Parking signs and other signs governing the stopping and standing of vehicles cover a very wide variety of regulations and only general specifications can be laid down here. Typical examples are as follows:

NO PARKING ANY TIME (R7-1)

NO PARKING 8:30 AM to 5:30 PM (R7-2)

NO PARKING EXCEPT SUNDAYS AND HOLIDAYS  
(R7-3)

NO STOPPING OR STANDING (R7-4)

ONE HOUR PARKING 9 AM-7 PM (R7-5)

NO PARKING LOADING ZONE (R7-6)

NO PARKING BUS STOP (R7-7)



R7-1  
12" x 18"



R7-5  
12" x 18"



R7-107  
12" x 18"



R7-108  
12" x 18"



R7-201  
12" x 6"

Many other wordings will be found necessary to fit local conditions. To minimize the number of parking signs, blanket regulations that apply to a given district may, if legal, be posted at municipal boundary lines. School area parking signs are treated in Part VII of this Manual.

The legend on parking signs shall state whatever regulations apply, but the signs shall conform to the standards of shape, color, location and use. Generally, parking signs should display such of the following information as is appropriate, from top to bottom of the sign, in the order listed:

1. Restriction or prohibition.
2. Time of day it is applicable, if not at all hours.
3. Days of week applicable, if not every day.

In addition there should be a single-headed arrow pointing in the direction the regulation is in effect, if the sign is at the end of a zone, or a double-headed arrow pointing both ways, if the sign is at an intermediate point in a zone. As an alternate to the arrow, if the signs are posted facing traffic at an angle of 90 degrees to the curb line, there may be included on the sign, or on a separate plate below the sign, such legend as **HERE TO CORNER**, **HERE TO ALLEY**, **THIS SIDE OF SIGN**, or **BETWEEN SIGNS**.

Where parking is prohibited at all times or at specified times, parking signs shall have red letters and border on a white background (Parking Prohibition signs). Where only limited-time parking or parking in a particular manner are permitted, the signs shall have green letters and borders (Parking Restriction signs).

For emphasis the word **NO** or the numeral showing the time limit in hours or minutes may be in a reversed color arrangement in the upper left-hand corner of the sign, i.e., in white on a rectangular area of red or green (R7-107, 108). This design should be confined to signs using the word **PARKING** rather than **STOPPING** or **STANDING** so that the proper size and series of letters need not be sacrificed.

Where parking is prohibited during certain hours and permitted under a time limit at other periods of the day, two parking signs should ordinarily be used, the red above the green. As an alternative both messages, in different colors may be used on a single plate, with the sign lengthened vertically if necessary.

On urban streets parking signs shall have a standard, and minimum, size of 12 inches by 18 inches and need not be reflectorized.

At the transition point between two parking zones it may be advantageous to use, instead of two signs, a single sign 21 inches by 18 inches. This is in effect two standard signs mounted side by side. Such a sign should display a right and a left arrow pointing in the directions that the respective restrictions apply.



Where it is essential that all traffic lanes be kept open for moving traffic, some city authorities make it a practice to tow away illegally parked vehicles. To make the parking regulations more effective and to improve public relations by giving a definite warning, a sign reading TOW-AWAY ZONE (R7-201) may be appended to, or incorporated in, any parking prohibition sign. It should have red legend on a white background.

Where special parking restrictions are imposed during heavy snowfall, Snow Emergency signs may be erected. The legend will vary according to the regulations, but the signs shall be vertical rectangles, having a white background with the upper part of the plate a red background.

### **2B-30 Placement of Urban Parking Signs**

Parking signs with arrows are used to indicate the extent of the restricted zones. The signs should be set at an angle of not less than 30 nor more than 45 degrees with the line of traffic flow to be visible to approaching traffic.

Care should be exercised to see that the single arrows point in the proper direction to indicate the regulated zone. Where the zone is unusually long, signs showing a double arrow are desirable at intermediate points within the zone.

If the signs are mounted at an angle of 90 degrees to the curb line, two signs shall be mounted back to back at the transition point between two parking zones, each with the appended plate reading THIS SIDE OF SIGN. At intermediate points within a zone, a single sign without any arrow or appended plate should be used, facing in the direction of approaching traffic. Otherwise the standards of placement should be the same as for signs using directional arrows.

### **2B-31 Parking Prohibition Signs in Rural District (R8-1, 2, 3, 5, 6)**

In rural districts, special parking prohibition signs may be used to emphasize that no person shall stop, park, or leave standing any vehicle on the paved or traveled part of the highway. Rural parking prohibition signs shall have a red legend on a white background.

The legend on rural parking signs must be appropriate to the restrictions imposed. The legend NO PARKING ON PAVEMENT (R8-1) is generally suitable. Where a roadway has paved shoulders, the NO PARKING EXCEPT ON SHOULDER (R8-2) is less likely to cause confusion. If necessary, the word STOPPING may be substituted for PARKING (R8-5). The simple legend, NO PARKING (R8-3) prohibits any parking along a given high-



way. However, if the restriction applies to a limited area or zone, the limits of the zone should be shown by arrows or supplemental plates as used on urban parking signs. If necessary, the word STOPPING (R8-6) may be substituted for PARKING.

The standard size for rural parking signs shall be 24 inches by 30 inches. On secondary roads a smaller size of 18 inches by 24 inches is permitted. Expressway parking signs should be at least 36 inches by 48 inches.



R8-1  
24" x 30"



R8-5  
24" x 30"



R8-2  
24" x 30"



R8-6  
24" x 30"



R8-3  
24" x 30"

## 2B-32 Emergency Parking Signs (R8-4, 7)

Stopping of vehicles on expressways can be exceedingly hazardous. If an emergency stop is necessary, it should be made on the shoulder, well off the pavement. Except where adequate paved turnouts are provided, the road shoulders should be reserved for emergency use by vehicles that must leave the roadway to stop because of mechanical breakdown, tire trouble, lack of fuel, or other emergencies involving the vehicles or their occupants.

The EMERGENCY PARKING ONLY sign (R8-4) may be used on expressways a short distance beyond an interchange entrance and at random intervals as needed, particularly where scenic or other attractions create a tendency to stop temporarily, and no turnout or rest areas have been provided. If necessary the word STOPPING (R8-7) may be substituted for PARKING. These signs are designed as horizontal rectangles as shown below and shall have a black legend on a white background. A size of 48 inches by 36 inches is prescribed for use on freeways.



R8-4  
30" x 24"



R8-7  
30" x 24"

#### 2B-33 Walk on Left and No Hitchhiking Signs (R9-1, 4)

The pedestrian sign WALK ON LEFT FACING TRAFFIC may be used to encourage safer pedestrian habits on rural highways where no sidewalks are provided. This sign shall be in only one standard size of 18 inches by 24 inches, and need not be reflectorized. It should be erected on the right-hand side of the road where pedestrians must walk on the pavement or road shoulder in the absence of pedestrian pathways or sidewalks.



R9-1  
18" x 24"



R9-4  
18" x 24"

The NO HITCHHIKING sign may be used to post prohibition against standing in the roadway for the purpose of soliciting a ride.

The sign shall be in only one standard size of 18 inches by 24 inches. It may be erected at locations where hitchhiking has been observed contrary to law.

#### 2B-34 Pedestrian Crossing Signs (R9-2, R9-3)

Pedestrian Crossing signs may be used selectively to aid in limiting pedestrian crossing to safe places. They will ordinarily be required only in urban areas and, when used, shall be erected to face the traffic for which they are intended. The messages shown below are typical:



R9-2  
12" x 18"



R9-3  
12" x 18"

The CROSS ONLY AT CROSS WALKS sign (R9-2) may be used, where crosswalks are clearly defined, to discourage jay-walking or unauthorized crossing. The NO PEDESTRIAN CROSSING sign (R9-3) may be used to prohibit pedestrians from crossing a roadway at a point which is considered to be hazardous, especially in front of a school or other public building where a crossing is not designated.

Pedestrian Crossing signs (R9-2 and R9-3) shall have a standard size of 12 inches by 18 inches and need not be reflectorized.

#### 2B-35 Traffic Signal Signs (R10-1 to 4)

To supplement traffic signal control, auxiliary signs of the type illustrated are often desirable or necessary for the instruction of pedestrians and drivers.

Among the traffic signal instruction signs applicable to pedestrians are those shown below. These signs (R10-1, 2, 3, and 4) need not be reflectorized.



R10-1  
12" x 18"



R10-2  
12" x 18"



R10-3  
9" x 12"



R10-4  
9" x 12"



R10-5  
12" x 18"

Permissible as an alternate message for the Pedestrian Actuated Signal sign (R10-3, R10-4) is the legend TO CROSS STREET (arrow) PUSH BUTTON WAIT FOR GREEN (WALK) SIGNAL (R10-3a, R10-4a).

The Pedestrian Actuated Signal sign shall be 9 inches by 12 inches in size and shall be mounted immediately above or incorporated in the pedestrian push-button unit (sec. 4D-6).

Signal instruction signs may be needed at certain locations to clarify signal control. Among the legends for this purpose are LEFT ON ARROW ONLY (R10-5), or LEFT (RIGHT) TURN SIGNAL (R10-10) for compliance with certain turn signals, STOP HERE ON RED (R10-6) for observance of signal limit lines, DO NOT BLOCK INTERSECTION (R10-7) for avoidance of traffic obstructions, USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to lane-direction control signals and RIGHT TURN

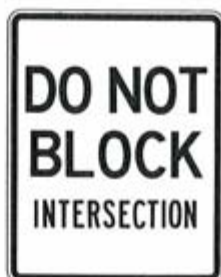


ON RED AFTER STOP (R10-9) to permit a right turn on a red signal after stopping.

Where improved utilization of progressive signal systems is desired, the Traffic Signal Speed sign (sec. 2D-49) should be used.



R10-6  
24" x 36"



R10-7  
24" x 30"



R10-8  
24" x 30"



R10-9  
18" x 24"



R10-10  
24" x 30"

### 2B-36 Keep Off Median Sign (R11-1)

The Keep Off Median sign is intended for use where driving into or parking on the median is prohibited.

The KEEP OFF MEDIAN sign shall have a standard, and minimum, size of 24 inches by 30 inches. On expressways it should be at least 36 inches by 48 inches, with 48 inches by 60 inches prescribed for freeways.

The sign should be erected on the left of the roadway within the median wherever there is a tendency for drivers to enter or cross and at random intervals as needed.



R11-1  
24" x 30"

#### 2B-37 Road Closed Sign (R11-2)

The ROAD CLOSED sign should be used to mark roads that have been closed to all traffic (except authorized vehicles) either because of construction or maintenance operations (Part VI) or because of a temporary emergency. It should not be used where traffic is maintained or where a route is detoured several miles in advance of the actual construction or blockade. In the latter case the Local Traffic Only sign (sec. 2B-38) should be used.

The Road Closed sign shall have a standard, and minimum, size of 48 by 30 inches.

Where the sign faces through traffic, it shall be preceded by an Advance Road Closed warning sign (sec. 6B-17) and, if applicable, an Advance Detour warning sign (sec. 6B-16).



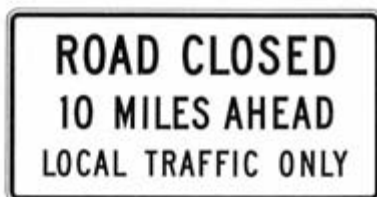
R11-2  
48" x 30"

#### 2B-38 Local Traffic Only Sign (R11-3, R11-4)

The Local Traffic Only sign should be used where through traffic must detour to avoid a closing of the highway for construction or maintenance work (Part VI), or for a temporary emergency some distance beyond, but where the highway is open for traffic up to the point of closure. It shall carry the legend ROAD CLOSED (10) MILES AHEAD—LOCAL TRAFFIC ONLY, or optionally for

urban application, ROAD CLOSED TO THRU TRAFFIC. Both signs shall be designed as horizontal rectangles.

The words BRIDGE OUT (or similar message) may be substituted for ROAD CLOSED where applicable. Where the sign faces through traffic, it shall be preceded by an Advance Road Closed warning sign (sec. 6B-17) with the secondary legend AHEAD and, if applicable, an Advance Detour warning sign (sec. 6B-16).



R11-3  
60" x 30"



R11-4  
60" x 30"

#### 2B-39 Weight Limit Signs (R12-1 to 4)

Due to seasonal weakening of the road surface, obsolescence of bridges or pavements, or other impairment of roadway, it is often necessary to limit the load permitted on a roadway.

The Weight Limit sign (R12-1) carrying the legend WEIGHT LIMIT (10) TONS, may be used to indicate restrictions pertaining to total vehicle weight including load.

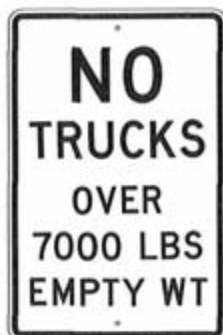
Where the restriction applies to axle weight rather than gross load the legend may be AXLE WEIGHT LIMIT (5) TONS (R12-2).



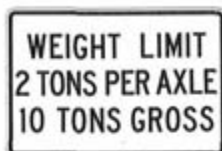
R12-1  
24" x 30"



R12-2  
24" x 30"



R12-3  
24" x 36"



R12-4  
36" x 24"

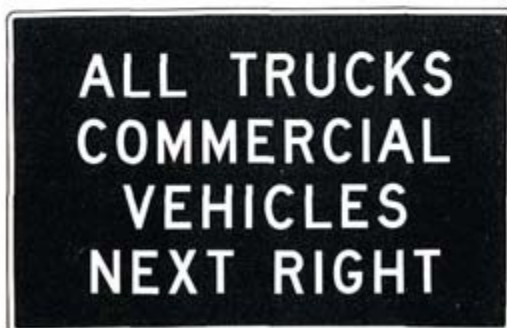
In residential districts, where it is intended to restrict trucks of certain sizes by reference to empty weight, the legend may read NO TRUCKS OVER (7000) LBS EMPTY WT (R12-3).

In areas where multiple regulations of the type described above are applicable, a sign combining the necessary messages on a single panel may be used, such as WEIGHT LIMIT (2) TONS PER AXLE 10 TONS GROSS (R12-4).

A Weight Limit sign shall be located immediately in advance of the section of highway or the structure to which it applies. The standard, and minimum, size shall be 24 inches by 30 inches but a larger size is desirable on major roads and streets.

#### 2B-40 Weigh Station Signs (R13 Series)

The laws of many States provide for the establishment of Weigh Stations at ports of entry and elsewhere, and require that trucks and other classes of vehicles shall stop at these stations for weighing, inspection, and clearance. A regulatory sign is usually necessary to



R13-1  
96" x 60"



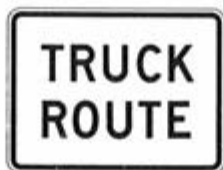
direct the concerned traffic into the Weigh Station. When so required, the message ALL TRUCKS/COMMERCIAL VEHICLES/NEXT RIGHT (R13-1) is recommended. This sign should be supplemented by a series of guide signs standardized for the identification and operation of Weigh Stations (sec. 2D-45).

Although the standard regulatory sign color combination is a black legend on a white background, the reverse color combination, white legend on black background, is preferred for this sign.

#### **2B-41 Truck Route Sign (R14-1)**

The TRUCK ROUTE sign (R14-1) should be used to mark an unnumbered truck route which has been designated by proper authority where either a weight limit restriction or a truck exclusion has been imposed on alternate routes.

On a numbered highway, the auxiliary TRUCK marker (sec. 2D-20) will be applicable.



R14-1  
24" x 18"

#### **2B-42 Railroad Crossbuck Sign (R15-1, 2)**

The crossbuck shall be white with the words RAILROAD CROSSING in black lettering. If there are two or more tracks, including sidings, the number of tracks shall be indicated on an auxiliary sign of inverted T shape mounted below the crossbuck. The crossbuck shall be used at every railroad crossing, alone or in combination with other protective devices.

The design of the commonly used Railroad Crossbuck (R15-1) with auxiliary sign showing the number of tracks (R15-2), has been standardized by the Association of American Railroads.

The crossbuck sign is usually furnished and installed by the railroad company and is usually located on the railroad right-of-way. The distance that should be assumed to separate tracks before an additional crossing sign is considered necessary is 100 feet, unless local conditions require otherwise. The sign shall be erected on the right-hand side of the roadway on each approach to the crossing.

The practice, in some localities, of placing the Railroad Crossbuck sign on a pedestal or an island in the center of an undivided roadway is strongly disapproved. A Railroad Advance Warning sign (sec. 2C-31) should be used in advance of the Railroad Crossbuck.



R15-1  
48" x 9"  
(drilled for 90-degree mounting)



R15-2  
9" x 9"  
27" x 9"

## 2B-43 Other Regulatory Signs

Regulatory signs other than those classified and specified in this Manual may be required to aid the enforcement of other laws or regulations.

Typical miscellaneous regulatory signs are KEEP OFF WET PAINT, NO DUMPING ALLOWED, DO NOT THROW LITTER, NO FISHING FROM BRIDGE, and EMERGENCY AND AUTHORIZED VEHICLES ONLY, the uses of which are sufficiently obvious to require no detailed specifications. Care should be taken to avoid the use of special signs whenever a standard sign will serve the purpose.

### C. WARNING SIGNS

#### 2C-1 Application of Warning Signs

Warning signs are used when it is deemed necessary to warn traffic of existing or potentially hazardous conditions on or adjacent to a highway or street. Warning signs require caution on the part of the motorist and may call for reduction of speed or a maneuver in the interest of his own safety and that of other motorists and pedestrians. Adequate warnings are of great assistance to the vehicle operator and are valuable in safe-guarding and expediting traffic. The use of warning signs should be kept to a minimum however, because the unnecessary use of them to warn of conditions which are apparent tends to breed disrespect for all signs.