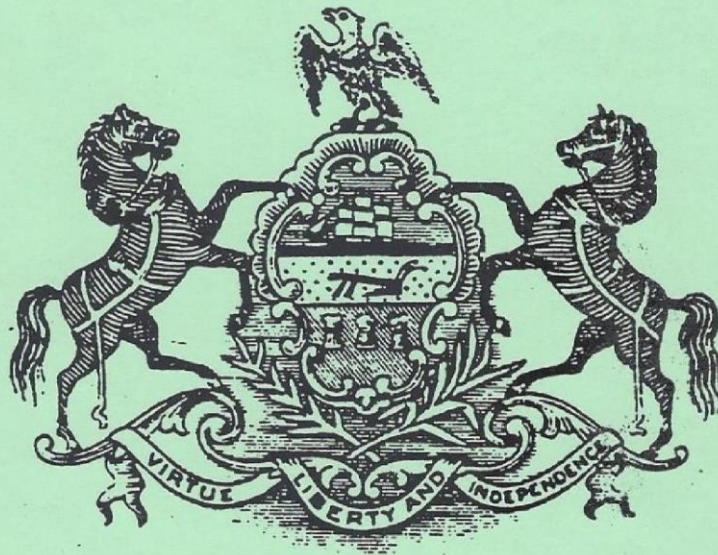


COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION



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TITLE 67

CHAPTER 211

**OFFICIAL
TRAFFIC-CONTROL
DEVICES**

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Title 67 — TRANSPORTATION

CHAPTER 23 — PENNSYLVANIA CODE

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Cross References:

Subchapters A, B, D	5 Pa. Bulletin 749, April 12, 1975
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PART I

- A. GENERAL PROVISIONS**
- B. INSTALLATION AND CLASSIFICATION OF SIGNS**
- C. REGULATORY SIGNS**

DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY SERVICES

TITLE 67. TRANSPORTATION
CHAPTER 211. OFFICIAL TRAFFIC-CONTROL DEVICES

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*All sections are officially designated as part of Chapter 211, but many sections in this publication still are designated as being in Chapter 23 or Chapter 615. If a section is indicated as being in Chapter 23 or Chapter 615, the section number is enclosed in parenthesis.

Subchapter A. GENERAL PROVISIONS

§211.1. Definitions.

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

Acceleration lane — A speed change lane for the purpose of:

- (i) Enabling a vehicle entering a roadway to increase its speed to a rate at which it can safely merge with through traffic.
- (ii) Providing the necessary merging distance.
- (iii) Giving the main roadway traffic the necessary time and distance to make appropriate adjustments.

Alley — A street or highway intended to provide access to the rear or side of lots or buildings in urban districts and not intended for the purpose of through vehicular traffic.

Authorized vehicle — A vehicle or type of vehicle, other than an emergency vehicle, for which special operating or equipment privileges are given by law or regulation of the Department based on design and utility for work within a highway. Reference is made to Chapter 15 (relating to types of authorized vehicles and special operating privileges).

Average daily traffic (ADT) — The total volume of traffic during a number of whole days divided by the number of days in that period.

Bus — A motor vehicle designed for carrying more than ten passengers, exclusive of the driver, and used for the transportation of persons and a motor vehicle, other than a taxicab, designed and used for the transportation of persons for compensation.

Crosswalk — A crosswalk includes the following:

- (i) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway; and, in the absence of a sidewalk on one side of the roadway, that part of a roadway included within the extension of the lateral lines of the existing sidewalk.

- (ii) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

Curb — A vertical or sloping member generally along and defining the edge of a roadway.

Curb line — The boundary between a roadway and a sidewalk, usually marked by a curb.

Department — The Department of Transportation of the Commonwealth.

District engineer — The engineer who is in charge of any one of the 11 Department of Transportation engineering district offices.

Divided highway — A highway divided into two or more roadways and so constructed as to impede vehicular traffic between the roadways by providing an intervening space, physical barrier, or clearly indicated dividing section.

Emergency vehicle — A fire department vehicle, police vehicle, ambulance, blood delivery vehicle, armed forces emergency vehicle, the private vehicle of a fire or police chief or assistant chief, or ambulance corps commander or assistant commander, or of a river rescue commander used for answering emergency calls or other vehicle designated by the State Police under § 6106 of the Vehicle Code (75 Pa.C.S. § 6106), (relating to designation of emergency vehicles by Pennsylvania State Police).

85th percentile speed — The speed which is exceeded by only 15 percent of the drivers. Under normal circumstances, the 85th percentile speed is approximately the same as the regulatory speed limit, but sometimes it may be 5 miles per hour or more higher than the speed limit. However, when the 85th percentile speed is needed for the placement or justification for a warning sign and a speed study is not available, the 85th percentile speed may be assumed to be the speed limit or 5 miles per hour higher than the regulatory speed limit.

Engineering and traffic study — An orderly examination or analysis of physical features and traffic conditions conducted in accordance with regulations of the Department and conforming with generally accepted engineering standards and practices for the purpose of ascertaining the need or lack of need for a particular action by the Department or local authorities. Reference is made to Chapter 201 of this title (relating to engineering and traffic studies).

Entrance ramp — An interconnecting roadway of a traffic interchange, or any connection between highways at different levels, or between parallel highways, on which vehicles may enter a designated roadway.

Expressway — A divided arterial highway for through traffic with partial control of access and generally with grade separations at major intersections.

Freeway — A limited access highway to which the only means of ingress and egress is by interchange ramps.

Gore — The area immediately beyond the bifurcation of two roadways, bounded by the edges of those roadways.

Hazardous grade — A downgrade which creates a particular hazard or safety problem to certain kinds of classes of vehicles, for example, heavy trucks, due to the severity of the grade or the severity of the grade in combination with the length of the grade, the horizontal alignment, or traffic stop control or roadside development along or at the base of the grade.

Highway — The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel. The term includes a roadway open to the use of the public for vehicular travel on grounds of a college or university or public or private school or public or historical park. The term "highway" includes the term "street".

Intersection — An intersection includes the following:

- (i) The area embraced within the prolongation or connection of the lateral curb lines, or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict.

- (ii) When a highway includes two roadways 30 feet or more apart, then every crossing of each roadway of the divided highway by an intersecting highway shall be regarded as a separate intersection. In the event the intersecting highway also includes two roadways 30 feet or more apart, then every crossing of two roadways of the highways shall be regarded as a separate intersection.

Interstate system — The routes comprising the National System of Interstates and Defense Highways which are numbered and marked with a distinctive marker to accommodate major streams of traffic between the major traffic generating areas of the nation.

Island — An area within a roadway from which vehicular traffic is intended to be excluded for the purpose of controlling and directing specific movements of traffic to definite channels.

Jurisdiction — The limits or territory within which authority may be exercised.

Kinds and classes — Specific recognizable categories of traffic. In particular, kinds normally refers to such broad categories as pedestrians, bicycles, motorcycles, cars, trucks, buses, and tractors. Classes refers to categories within kinds such as school children, adults, elderly, handicapped, and so forth, when referring to pedestrians; single-unit, tractor-trailers, truck-trailers, five axles, and so forth, when referring to trucks, and so forth.

Laned roadway — A roadway which is divided into two or more clearly marked lanes for vehicular traffic.

Limited access highway — A highway in respect to which owners or occupants of abutting lands and other persons have no legal right of access except at points and in the manner determined by the authority having jurisdiction over the highway.

Local authorities — County, municipal, and other local boards or bodies having authority to enact laws relating to traffic.

Major arterial highway — A general term denoting a highway primarily for through traffic, usually on a continuous route but not having access control.

May — Indicates that an action is permissible but not required.

Median — The portion of a divided highway separating the traveled ways for traffic in opposite directions.

Minor road — *major road* — The roadway approach or approaches at an intersection normally carrying the major volume of vehicular traffic shall be designated as the major road, whereas, the roadway approach or approaches at an intersection normally carrying the minor volume of vehicular traffic shall be designated as the minor road.

Motorcycle — A motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground.

Motor vehicle — A vehicle which is self-propelled except one which is propelled solely by human power or by electric power obtained from overhead trolley wires, but not operated upon rails.

Multi-way stop — An intersection where three or more intersection approaches are required to stop.

Numbered traffic route — A highway that has been assigned an Interstate, United States, or Pennsylvania route number to aid motorists in their travels.

Official traffic control devices — Signs, signals, markings, and devices not inconsistent with this title placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning, or guiding traffic.

Other official agency — An agency other than the Pennsylvania Depart-

ment of Transportation, county, or municipality which has roads under their control which are opened to the public. These may include, but not necessarily be limited to, Commonwealth parks, county parks, schools, colleges, universities, national parks, and so forth.

Park or parking — Park or parking shall include the following:

- (i) When permitted, means the temporary storing of a vehicle, whether occupied or not, off the roadway.
- (ii) When prohibited, means the halting of a vehicle, whether occupied or not, except momentarily for the purpose of, and while actually engaged in loading or unloading property or passengers.

Pavement — That part of a roadway having a constructed surface for the facilitation of vehicular traffic.

Pavement marking — All lines, patterns, words, colors, or other devices, except signs and power operated traffic control devices, set into the surface of, applied upon, or attached to the pavement or curbing or to objects within or adjacent to the roadway.

Pennsylvania traffic route — A system of main intrastate highways numbered and marked with a distinctive marker for identification and to facilitate travel within the Commonwealth.

Private road or driveway — A way or place in private ownership and used for vehicular travel by the owner and those having express or implied permission from the owner, but not by other persons.

Publication 43 — Regulations published by the Department governing the application, installation, and maintenance of traffic control devices for all highway construction projects. Publication 43 is also known as Bulletin 43.

Publication 90 — A manual entitled "Work Area Traffic Control" published by the Department regulating the application, installation, and maintenance of the various types of traffic control devices required for all highway (street) work areas, specifically, utility and maintenance areas.

Railroad grade crossing — One or more railroad tracks, but not street car tracks, which intersect or cross a highway at the same level or grade.

Rights-of-way — The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian approaching under such circumstances of direction, speed, and proximity as to give rise to danger or collision unless one grants precedence to the other.

Roadway — That portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the sidewalk or shoulder even though such sidewalk or shoulder is used by pedalcycles. In the event a highway includes two or more separate roadways, the term "roadway" refers to each roadway separately but not to all such roadways collectively.

Rural area — An area other than an urban district or a business, commercial, industrial, residential, or public park area.

School bus — A motor vehicle which complies with the color and lighting identification requirements of section 4552 of the Vehicle Code (75 Pa.C.S. § 4552) (relating to general requirements for school buses).

School zone — The section of the highway in the vicinity of a school where school children, school traffic, or their activities are sometimes considered to affect the traffic on the highway. Reference is made to § 201.32 of this title (relating to school zones and school zone speed limits).

Secretary — The Secretary of Transportation of the Commonwealth.

Semitrailer — A trailer so constructed that some part of its weight rests upon or is carried by the towing vehicle.

Shall — Indicates that an action is required or prohibited.

Should — Indicates that an action is advisable but not required.

Shoulder — The portion of the highway contiguous to the roadway for accommodations of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

Sidewalk — That portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for the use of pedestrians.

Stand or standing — When prohibited, means the halting of a vehicle, whether occupied or not, except momentarily for the purpose of and while actually engaged in receiving or discharging passengers.

State-designated highway — A highway or bridge on the system of highways and bridges over which the Department has assumed or has been legislatively given jurisdiction.

Stop or stopping — Stop or stopping includes the following:

- (i) When required, means complete cessation from movement.
- (ii) When prohibited, means any halting, even momentarily, of a vehicle, whether occupied or not, except when necessary to avoid conflict with the other traffic or in compliance with the directions of a police officer or traffic control sign or signal.

Streetcar — A car other than a railroad train for transporting persons or property and operated upon rails.

Through highway — A highway or portion of a highway on which vehicular traffic is given preferential right-of-way, and at the entrances to which vehicular traffic from intersecting highways is required by law to yield the right-

of-way to vehicles on the through highway in obedience to a stop sign, yield sign, or other official traffic control device when the signs or devices are erected as provided in this title.

Traffic — Pedestrians, ridden or herded animals, vehicles, streetcars, and other conveyances, whether singly or together, using any highway for purposes of travel.

Traffic control signal — A device, whether manually, electrically, or mechanically operated, by which traffic is alternately directed to stop and permitted to proceed.

Traffic signal — Any power operated traffic control device, except a sign, barricade warning light, flashing arrow board, or steady burn electric lamps, by which traffic is warned or is directed to take some specific action. These devices include traffic control signals, pedestrian signals, beacons, lane use control signals, drawbridge signals, emergency traffic signals, fire house warning devices, and ramp and highway metering signals.

Travel lane — A strip of roadway intended to accommodate the forward movement of a single line of vehicles.

Truck — A motor vehicle designed, used, or maintained primarily for the transportation of property.

Type of highway — The number of travel lanes and the type of access controls.

Urban district — The territory contiguous to and including any street which is built up with structures devoted to business, industry, or dwelling houses situated at intervals of less than 100 feet for a distance of ¼ mile or more.

U.S. traffic route — A system of main interstate highways, that is separate and apart from the interstate system, numbered and marked with a distinctive marker to facilitate interstate travel.

Vehicle — Every device in, upon, or by which any person or property is or may be transported or drawn upon a highway, except devices used exclusively upon rails or tracks.

Vehicle Code — Act 81 which amended Title 75 of the Pennsylvania Consolidated Statutes and as subsequently amended (75 Pa.C.S. § 101 *et seq.*).

Vehicular traffic conflicts — Conflicts that usually occur between turning vehicles or between a turning vehicle and a straight through vehicle at an intersection.

§211.2. Declaration of official traffic signs, signals, and markings.

(a) **General.** The traffic signs, signals, and markings described in the provisions of this chapter shall be official and, except for traffic signs, signals, and markings approved for experimental installation by the Secretary of Transportation and as authorized by § 211.8 of this title (relating to removal of other than official traffic signs), no other shall be regarded as official, and shall be prohibited.

(b) **Advertising.** No traffic sign or its support shall bear any commercial advertising. However, this section shall not be construed to prohibit the erection or maintenance of signs, markers, or traffic signals bearing thereon the name of an organization authorized to erect such sign by the Secretary or any proper local official.

§211.3. Severability.

The provisions of this chapter shall be considered separately. If any one or more shall be found unlawful or otherwise defective, the rest of the provisions of this chapter shall remain in full force and effect.

§211.4. Legal authority.

(a) **Purpose.** The provisions of this chapter are promulgated by virtue of the authority of, and at the direction of section 6121 of the Vehicle Code (75 Pa.C.S. § 6121) (relating to uniform system of traffic control devices) in order to secure uniformity in the design, location, and operation of all official traffic signs, signals, and markings in this Commonwealth.

(b) **Federal standards.** In compliance with the intent of section 6121 of the Vehicle Code (75 Pa.C.S. § 6121), the provisions of this chapter correlate with and so far as possible conform with 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, United States Department of Transportation.

§211.5. Engineering study required.

The decision to use a particular device at a particular location shall be made on the basis of an engineering and traffic study at the location. Thus, while the

provisions of this chapter shall describe the application of the various devices, they shall not be intended as a substitute for engineering judgment.

§211.6. Application.

(a) *Scope of section.* The provisions of this chapter shall apply to the installation, location, revision, removal, operation, and maintenance of all traffic signs, signals, and markings on all public streets and highways in this Commonwealth.

(b) *State-designated highways.* In accordance with sections 6122 and 6124 of the Vehicle Code (75 Pa.C.S. §§ 6122 and 6124) (relating to authority to erect traffic control devices and erection of traffic control devices at intersections), local authorities shall obtain Department approval prior to installing, revising, or removing any official traffic control device on a State-designated highway or at the intersection of a local highway and a State-designated highway, except as indicated in paragraphs (1) through (3) of this subsection:

(1) First and second class cities may install, revise, or remove official traffic control devices on State-designated highways, except:

- (i) a limited access State-designated highway;
- (ii) at intersections of limited access State-designated highways and other highways; and
- (iii) when an agreement between the city and the Department requires Department approval.

(2) As may be provided in an agreement between a municipality and the Department.

(3) Any municipality may install, revise, remove, maintain, and operate the following official traffic control devices on State-designated highways or at the intersection of local highways and State-designated highways without approval of the Department, except local authorities shall make no change to or remove any traffic control device installed as part of a TOPICS or other Department administrated federally funded program nor install, revise, or remove any traffic control device on a freeway or other limited access highway or within the limits of a Department construction project or Department administrated federally funded project without Department approval:

- (i) One-way signs, R6 Series, for local one-way streets crossing State-designated highways.
- (ii) Stopping, standing, or parking signs, R7 and R8 Series.
- (iii) Parking meters.
- (iv) Street name signs, D3 Series.
- (v) School Crossing Signs, S2-1.
- (vi) Crosswalks, except crosswalks at other than intersections.
- (vii) Stop lines at approved traffic signal and stop sign locations.
- (viii) Curb markings.
- (ix) Parking stall markings, except angle parking.
- (x) Approach to railroad grade crossing markings.

(4) In addition to those signs included in paragraph (3) of this subsection, local authorities or other official agencies or organizations as indicated, shall be responsible for installing and maintaining the following types of signs on State-designated highways after approval to erect the sign has been obtained from the Department:

- (i) Speed limit signs in accordance with § 211.72(c)(1) of this title (relating to speed limits).
- (ii) Pedestrian group signs, R9 Series.
- (iii) Traffic signal group signs, R10 Series.
- (iv) Street Closed () to () Signs, R11-10.
- (v) Snowmobile Road Closed to All Other Vehicles Signs, R11-11.
- (vi) All Trucks Must Enter Weigh Station Sign, R13-1, except for Department owned and operated weigh stations.
- (vii) Railroad signs, R15-1 and R15-2, which shall be installed by the railroad company.
- (viii) Signal Ahead Signs, W3-3.
- (ix) Children group signs, W9 Series.
- (x) Entrance and Crossing signs, W11 Series, except W11-3, W11-11, and W11-21 signs.
- (xi) Parking Area Signs, D4-1.
- (xii) Weigh Station signs, D8 Series, except for Department owned and operated weigh stations.
- (xiii) Telephone signs, D9-1 and D9-1-1, which shall be installed by the telephone company.
- (xiv) Traffic Signal Speed Sign, I1-1.
- (xv) Trail group, I4 Series.
- (xvi) Bicycle Route Sign, I11-1.
- (xvii) Snowmobile group, I12 Series.

(xviii) School signs, S Series.

(c) *Local highways.* In accordance with section 6122 of the Vehicle Code (75 Pa.C.S. § 6122), local authorities may install, revise, remove, operate, and maintain any official traffic control device on highways under their jurisdiction except:

(1) Local authorities shall obtain Department approval prior to installing, revising, or removing any traffic signal on local highways unless the municipality has received municipal traffic engineering certification in accordance with Chapter 205 of this title (relating to municipal traffic engineering certification).

(2) Local authorities shall obtain Department approval prior to installing, revising, or removing any traffic control device which was installed as part of a TOPICS or other Department administrated federally funded program in accordance with any agreement between the municipality and the Department.

§211.7. Local traffic signs.

All signs, signals, and markings erected by local authorities to give notice of legal parking and other local ordinances, rules, and regulations shall conform with the requirements set forth in the provisions of this chapter.

§ 211.8. Removal of other than official traffic signs.

(a) *General.* Existing signs of non-standard design or application shall be replaced by new standard signs as rapidly as is economically feasible, except signs which were official signs at the time of their manufacture but not included in this chapter will be considered official signs for their useful life.

(b) *Variations in the proportion of symbols, stroke width and height of letters, width of borders, or layout of word messages shall be sufficient cause for the Secretary to order the removal of a sign but shall not be a defense in prosecution for violations of the mandatory provisions thereof.*

(c) *Authorization of variations.* When sign messages are required other than those provided for in this chapter, the Secretary through the Chief, Traffic Engineering and Operations Division, Bureau of Highway Services, may authorize new sign designs or variations from existing designs, providing such signs are of the same shape and color as standard signs of the same functional type. These signs shall also be regarded as official signs.

§211.9. Removal of interfering lights.

The Secretary and local officials, in their respective jurisdictions, shall have the authority to cause the removal of all colored or flashing light signs or other lights, signs, or markings so located as to interfere with traffic or to be confused with or to obstruct the view or effectiveness of official traffic control devices.

§211.10. Signs and banners across or within the legal limits of a highway.

(a) *Prohibition.* It shall be unlawful to place any sign, banner, or advertising matter of any kind whatsoever on or across any Commonwealth highway or on or across any structure within the legal limits of any State-designated highway without first having obtained the written consent of the Department.

(b) *Abatement.* Any such sign, banner, or advertising matter placed without the consent of the Department shall be declared to be a public nuisance and may be abated by the Department with or without notice to the persons responsible for the placing of such sign.

§211.11. Use, test, approval, and sale.

(a) Section 6127 of the Vehicle Code (75 Pa.C.S. § 6127) (relating to dealing in nonconforming traffic control devices) makes it unlawful for any person to manufacture, sell, offer for sale, or to lease for use on the highway any traffic control device unless it has been approved and is in accordance with

Department rules and regulations.

(b) Department approval shall be required for the following types of traffic control devices:

- (1) Reflective sheeting materials used for traffic signs, barricades, vertical panels, drums, guide posts, traffic cones, and flexible delineator posts.
- (2) Traffic signs.
- (3) Barricade warning lights.
- (4) Flashing arrow boards.
- (5) Traffic guide posts.
- (6) Flexible delineator posts.
- (7) Traffic cones.
- (8) High level traffic warning devices.
- (9) Safety markers.
- (10) Plastic pavement markings.
- (11) Traffic signal controllers, including masters, except for general purpose computers utilized to supervise or control a traffic control signal system, lane direction control signal system or ramp metering control system.
- (12) Traffic signal controller and flashing beacon flasher units.
- (13) Vehicle and pedestrian detector units.
- (14) Vehicle, pedestrian, and lane direction control signals.
- (15) Electrically powered signs except for guide and information type signs included in Department construction contracts and covered by detailed specifications.
- (16) Traffic control signal preemption equipment controlled from emergency or authorized vehicles.
- (17) Traffic signal dimming devices.
- (18) Local intersection coordinating units.
- (19) Auxiliary or minor phase traffic signal controllers.
- (20) External traffic signal controller timers.

(c) *Approval procedure.* Approval procedures shall be as follows:

- (1) Any manufacturer or person desiring approval for the sale, use, or lease of one or more of the devices listed in subsection (b) of this section shall contact the Chief, Traffic Engineering and Operations Division, Pennsylvania Department of Transportation, Harrisburg, PA 17120.
- (2) When approval of a device has been requested, the applicant shall:
 - (i) Submit specifications, operational and test data, and any other information the applicant deems necessary in evaluating the device.
 - (ii) Upon request of the Department, submit a sample for testing and evaluation.
 - (iii) Submit a Department Product Evaluation Report for any new product.
- (3) Upon receipt of a request for approval of a device, the Department shall:
 - (i) Review and evaluate all submitted data in order to determine if the device meets Department rules and regulations, specifications, and approved operating criteria.
 - (ii) When a sample is required, test and evaluate the sample in relating to current Department rules and regulations and specifications.
 - (iii) When a new product is involved that is not adequately covered by Department rules and regulations and specifications, review and evaluate the Product Evaluation Report of the applicant and all other submitted data in order to determine if the product will provide a useful and cost effective function as a traffic control device. If it is determined that the device would be useful and cost effective, further evaluation, testing, or both, shall be conducted in order to determine if current Department specifications or rules and regulations should be revised to incorporate the device or if new specifications should be developed.
- (4) Upon completion of the review, evaluation, and testing of the device by the Department, the Department will inform the applicant of the results:
 - (i) If the device has met all requirements, a Certificate of Approval or approval letter will be issued to the applicant.
 - (ii) If the device does not meet the requirements, the applicant will be informed of the reasons for rejection.

any factual supporting data showing why the proposed device or procedure is considered to be the solution and study methods to be used for field tests.

(c) *Rulings.* Rulings on requests will be given as:

- (1) *Interpretations* — this may generally be a clarification of intended application.
- (2) *Approved as an alternate* — this will permit the use of an alternate device or procedure for a specific application even though a device or procedure for the same purpose has been provided in this chapter.
- (3) *Approval for experimentation* — this will be permission to use, for test and evaluation, a device or procedure not provided in this chapter. The type of information to be gathered during the test and evaluation will be stated as a part of the request and the gathering of this data will be a conditional part of the approval.

§211.12. Interpretation, alternate or experimental devices or procedures.

(a) *Request for interpretation.* Any person desiring an interpretation of the provisions of this chapter or to use an alternate device or to experiment with a device not provided in this chapter shall submit his request to the Traffic Engineering and Operations Division, Pennsylvania Department of Transportation, Harrisburg, PA 17120.

(b) *Information.* The request to use an alternate or experimental device or procedure shall contain information on why a device procedure provided in this chapter cannot be used; advantages of using the proposed device or procedure;

Subchapter B. INSTALLATION AND CLASSIFICATION OF SIGNS

§211.21. Standardization of application.

(a) *General.* Each standard sign shall be displayed only for the specific purpose prescribed for it in the provisions of this chapter. Before any new highway or any detour or temporary route is opened to traffic all necessary signs should be placed.

(b) *Removal of signs.* Signs required by road conditions or restrictions shall be removed immediately when those conditions cease to exist or the restrictions are withdrawn. Guide signs directing traffic to and on temporary routes or detours shall be removed when no longer applicable.

(c) *Uniformity.* Uniformity of application is as important as standardization with respect to design and placement. Identical conditions should always be marked with the same type of sign, irrespective of where those particular conditions occur.

§211.22. Excessive use of signs.

Care should be taken not to install an excessive number of signs, especially those of the regulatory and warning types which, if used to excess, tend to lose their effectiveness. A conservative use of regulatory and warning signs is recommended. However, a frequent display of route markers and directional signs to keep the driver informed of his location and his course will not lessen their value.

§211.23. Standardization of signs.

(a) *General.* All signs installed on all highways as set forth in § 211.6 of this title (relating to application) shall conform with the standards set forth in this chapter, except signs approved for experimental installation by the Secretary, as set forth in § 211.2 of this title (relating to declaration of official traffic signs, signals, and markings) and signs approved for minor variations from standard word messages or symbols, as set forth in § 211.8 of this title (relating to removal of other than official traffic signs).

(b) *Minor changes.* Standardization of designs set forth in this chapter shall not preclude further improvement by minor changes in the proportion of symbols, stroke width, and height of letters, width of borders, or layout of word messages, but all shapes and colors shall be as indicated, all symbols shall be unmistakably similar to those shown, and when a word message is applicable, the wording shall be as set forth in this chapter, except as provided in §§ 211.2 and 211.8 of this title (relating to declaration of official traffic signs, signals and markings; and removal of other than official traffic signs). Secondary messages shall not be placed on the face or back of any sign.

§211.24. Colors.

(a) *White.* Colors are noted on the standard drawing for each sign in the provisions of this chapter. If white is specified as a sign color, it shall be understood to include silver colored reflecting coatings or elements that reflect white light.

(b) *Variable message and blankout signs.* Variable message and blankout signs shall conform with the standards set forth in this chapter, except the signs provided in Subchapter C with a white background and black legend may have a black background with white legend.

§211.25. Dimensions.

(a) *General.* The sign dimensions set forth in this chapter shall be standard for application on public highways.

(b) *Design purpose.* The standard dimensions have been designed to provide clear legibility of the signs during the time and throughout the distance necessary for approaching traffic to read and comprehend their messages under normal highway conditions.

(c) *Inches.* The dimensions set forth in the table accompanying each sign exhibit shall be measured in inches.

(d) *Larger than specified.* When a standard size or minimum size is specified for a sign, it may be construed to mean that conditions may justify a larger size sign. The conditions provided in § 211.29(a)(1) through (9) of this title (relating to overhead sign installations) may also be considered as conditions that could justify a larger size sign. This list of conditions is not all inclusive and neither does the existence of any one or more of these conditions automatically justify the use of a larger size sign.

(e) *Expressways and freeways.* The maximum size shown for each sign shall be the minimum size for use on expressways and freeways unless indicated otherwise.

§211.26. Lettering.

Detailed drawings of the standard capital and lower case alphabets for highway signs may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402.

§211.27. Illumination and reflectorization.

(a) *General.* Regulatory and warning signs, unless excepted in the standards covering a particular sign or group of signs, shall be reflectorized or illuminated to show the same shape and color both by day and night. All overhead sign installations should be illuminated when an engineering study shows that reflectorization will not perform effectively.

(b) *Means of illumination.* Illumination may be by means of:

(1) a light behind the face of the sign, illuminating the main message or symbol, or the sign background, or both, through a translucent material; or

(2) an attached or independently mounted light source designed to direct essential uniform illumination over the entire face of the sign; or

(3) some other effective device, such as luminous tubing shaped to the lettering or symbol, patterns of incandescent light bulbs, or luminescent panels that will make the sign clearly visible at night. Street or highway lighting will not be regarded as meeting the requirements for sign illumination.

(c) *Means of reflectorization.* Reflectorization may be by means of:

(1) Reflector "buttons" or similar units set into the symbol or message; or

(2) Reflecting coatings, either on the sign background or when a white legend is used on a black or colored background in the symbol or message and border.

§211.28. Standardization of location.

(a) *Right hand side.* Standardization of location cannot always be attained in practice; however, the general rule is to locate signs on the right hand side of the roadway, where the driver is looking for them. On wide expressways or when some degree of lane use control is desirable, or when space is not available at the roadside, overhead signs are often necessary. Signs in any other locations ordinarily should be considered only as supplementary to signs in the normal locations. Under some circumstances, signs may be placed on channelizing islands or, as on sharp curves to the right, on the left hand shoulder of the road, directly in front of approaching vehicles. A supplementary sign located on the left of the roadway is often helpful on a multi-lane road where traffic in the right hand lane may obstruct the view to the right.

(b) *Visibility.* Normally, signs should be individually erected on separate posts or mountings except where one sign supplements another or where route or directional signs must be grouped. In general, signs should be located to optimize nighttime visibility and minimize the effects of mud spatter and in conformance with safety factors related to fixed obstacles near the roadway. Signs should be located so that they do not obscure each other or are hidden from view by other roadside objects. Signs requiring different decisions by the motorist shall be spaced sufficiently far apart for him to make the required decisions. The spacing shall be determined in units of time as determined by the expected vehicle approach speed.

§211.29. Overhead sign installations.

(a) *Justification.* The operational requirements of our present highway system are such that overhead signs will have value at many locations. The factors justifying the use of overhead signs are not definable in specific numerical terms, but the following conditions deserve consideration:

(1) Traffic volume at or near capacity.

(2) Complex interchange design.

(3) Three or more lanes in each direction.

(4) Restricted sight distance.

(5) Closely spaced interchanges.

(6) Multi-lane exits.

(7) Large percentage of trucks.

(8) Background of street lighting.

(9) High speed of traffic.

(10) Consistency of sign message location through a series of interchanges.

(11) Insufficient space for ground signs.

(12) Junction of an interstate route with another expressway.

(b) *Ground signs.* The existence of any one or more of the conditions listed in subsection (a) of this section does not automatically justify the use of signs overhead. Rather, overhead signs have application in lieu of or as an adjunct to ground signs when engineering study indicates that they are needed. Some of the elements listed above can be made less critical by close coordination between design and operation.

§211.30. Installation of signs.

(a) *Height.* Except as authorized elsewhere in this chapter or in Chapter 203 (relating to work zone traffic control), height requirements shall be as follows:

(1) Signs erected at the side of the road in rural districts shall be mounted at a height of at least five feet, measured from the bottom of the sign to the near edge of the pavement. In business, commercial, and residential districts when parking or pedestrian movement is likely to occur or when there are other obstructions to view, the clearance to the bottom of the sign shall be at least seven feet. The height to the bottom of a secondary sign mounted below another sign may be one foot less than the appropriate height specified in this paragraph.

(2) The height requirements for ground installations on expressways vary somewhat from those on conventional streets and highways. Directional signs on expressways shall be erected with a minimum height of seven feet from the level of the near edge of the pavement to the bottom of the sign. If, however, a secondary sign is mounted below another sign, the major sign shall be at least eight feet and the secondary sign at least five feet above the level of the pavement edge. All route markers and warning and regulatory signs on expressways shall be at least six feet above the level of the pavement edge.

(3) A route marking assembly consisting of a route marker with an auxiliary plate shall be treated as a single sign for the purposes of this section.

(4) Overhead signs shall provide a vertical clearance of not less than 17 feet over the entire width of the pavement and shoulders except when a lesser vertical clearance is used for the design of other structures or when specified otherwise for a particular sign or group of signs. The vertical clearance to overhead sign structures or supports need not be greater than one foot in excess of the minimum design clearance of other structures. In special cases it may be necessary to reduce the clearance still further because of substandard dimensions in tunnels and other major structures such as double deck bridges.

(b) *Lateral clearance.* Requirements for lateral clearance shall be as follows:

(1) Signs should have the maximum practical lateral clearance from the edge of the traveled way for the safety of motorists who may leave the roadway and strike the sign supports. Advantage should be taken of existing guardrail overcrossing structures and other conditions to minimize the exposure of sign supports to traffic. Otherwise, breakaway or yielding supports should be used.

(2) Normally, signs should not be closer than six feet from the edge of the shoulder, or if none, 12 feet from the edge of the traveled way. In urban areas a lesser clearance may be used when necessary. A clearance of one foot from the curb face is permissible when sidewalk width is limited or when existing poles are close to the curb.

(3) The minimum clearance outside the usable roadway shoulder for expressway signs mounted at the roadside or for overhead sign supports, either to the right or left side of the roadway, shall be two feet. This minimum clearance of two feet shall also apply outside of an unmountable curb. When practicable, a sign should not be less than ten feet from the edge of the nearest traffic lane. Large guide signs especially should be farther removed, preferably 30 feet or more from the nearest traffic lane. Lesser clearances, but not generally less than six feet, may be used on connecting roadways or ramps at interchanges.

(4) When an expressway median is 12 feet or less in width, consideration should be given to spanning both roadways without a center support. Butterfly type signs and other overhead sign supports should not be erected in gores or other exposed locations. When overhead sign supports cannot be placed a safe distance away from the line of traffic, or in an otherwise protected site, they should either be so designed as to minimize the impact forces, or otherwise protect motorists adequately by a physical barrier or guardrail of suitable design.

(c) *Erection.* Erection requirements shall be as follows:

(1) Normally, signs should be mounted approximately at right angles to the direction of, and facing, the traffic that they are intended to serve.

(2) When mirror reflection from the sign face is encountered in such

degree as to reduce legibility, the sign should be turned slightly away from the road. At curved alignments, the angle or placement should be determined by the course of approaching traffic rather than by the roadway edge at the point where the sign is located. Sign faces normally are vertical, but on grades it may be desirable to tilt a sign forward or back from the vertical to improve the viewing angle.

(d) *Posts and mountings.* Requirements for posts and mountings shall be as follows:

(1) Sign posts and their foundations and sign mountings shall be so constructed as to hold signs in a proper and permanent position, to resist swaying in the wind or displacement by vandalism.

(2) In areas where ground-mounted sign supports cannot be sufficiently offset from the pavement edge, as discussed in subsection (b), sign supports should be of a suitable breakaway or yielding design. Concrete bases for sign supports should be flush with the ground level.

(3) In some cases, especially in urban districts, signs can be correctly placed on existing supports used for other purposes such as traffic signals, street lights, and public utility poles when permitted, thereby saving expense and minimizing sidewalk obstruction.

§211.31. Sign materials.

A variety of materials can be used effectively for sign blanks and the choice among them will depend largely on local experience and the local availability of satisfactory materials. Material for reflectorized sign faces shall, however, be either approved Class I or Class II reflective sheeting material and shall meet current Department specifications. Approved reflective sheeting materials are listed in PennDOT Bulletin 15.

§211.32. Maintenance.

(a) *General.* All traffic signs should be kept in proper position, clean and legible at all times. Damaged signs should be replaced without undue delay. The authority responsible for erection shall be responsible for the proper maintenance or replacement of traffic control devices.

(b) *Schedule.* To insure adequate maintenance, a suitable schedule for inspection, cleaning, and replacement of signs should be established.

(c) *Reports.* All 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.

(d) *Obscured signs.* 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.

(e) *Lighting element replacement.* A regular schedule of replacement of lighting elements for illuminated signs should be maintained.

Subchapter C. REGULATORY SIGNS, R SERIES

§211.41. Purpose.

Regulatory signs shall be used to inform highway users of traffic laws or regulations that apply at given places or on given highways, the disregard of which is punishable as a summary offense. Traffic restrictions shall be established in accordance with Department promulgated engineering and traffic studies, as included in Chapter 201 of this title (relating to engineering and traffic studies).

§211.42. Placement.

Regulatory signs shall normally be erected at those locations where the regulations apply, and shall be mounted so as to be easily visible and legible to the motorist whose actions they will govern. The message on the sign shall clearly indicate the requirements imposed by the regulation.

§211.43. Classification.

The classification of regulatory signs, as numbered and illustrated in the following sections, is further subdivided into the following categories:

- (1) Right-of-Way Group, R1 Series.
- (2) Speed Limit Group, R2 Series.
- (3) Turning and Lane Use Control Group, R3 Series.
- (4) Alignment Group, R4 Series.
- (5) Exclusion Group, R5 Series.
- (6) One-way Group, R6 Series.
- (7) Stopping, Standing, and Parking Group, R7 and R8 Series.
- (8) Pedestrian Group, R9 Series.
- (9) Traffic Signal Group, R10 Series.
- (10) Restrictions Group, R11 Series.
- (11) Truck Group, R12, R13, and R14 Series.
- (12) Railroad Group, R15 Series.
- (13) Miscellaneous Group, R16 Series.

RIGHT-OF-WAY GROUP, R1 SERIES

§211.51. Location of stop sign and yield sign.

(a) *General.* 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, the word STOP, or both, on the pavement. 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. When there is a marked crosswalk on the pavement, the sign should be erected approximately four feet in advance of the crosswalk line nearest to approaching traffic.

(b) *Single or multiple signs.* When only one stop or yield sign is used, it should 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. When 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.

(c) *Overhead signs.* Stop or yield signs mounted overhead are desirable when added emphasis is needed and when a stop or yield sign installed only at the standard near right position is not readily visible. The overhead signs should be considered as supplementary to the near right installation.

(d) *Acute angle intersection.* When 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.

(e) *Restricted visibility.* 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 or a yield ahead sign shall be erected in advance of the stop or yield sign.

§ 211.52. Stop Sign, R1.1.

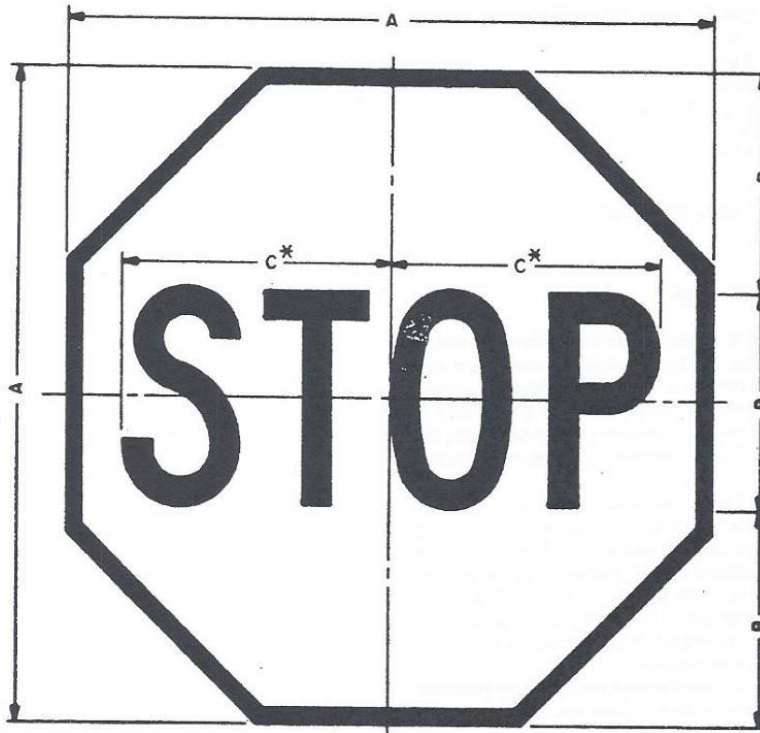
(a) *Justification.* The Stop Sign, R1-1, is authorized for use on those streets or highways which intersect with a through highway or at a stop intersection so designated by the Department with reference to State-designated highways or local authorities with reference to highways under their jurisdiction. The R1-1 sign is also authorized for use in work zones involving one-lane, two-way roadways in accordance with Chapter 203 (relating to work zone traffic control).

(b) *Authorization.* Before local authorities designate any highway as a through highway or stop intersection which will intersect or affect a State-designated highway, approval of such designation shall first be obtained from the Department. Approval to install R1-1 signs in work areas shall not require the approval of the Depart-

ment or local authorities when the conditions stipulated in Chapter 203 (relating to work zone traffic control) are satisfied.

(c) *Placement.* The R1-1 sign shall be placed as provided in § 211.51 (relating to location of stop and yield signs), or in accordance with Chapter 203 (relating to work zone traffic control). When the number of stop approaches to an intersection is three or more, or two or more at an intersection involving two one-way streets, the Multiway Stop Sign, R1-3, shall be placed below each Stop Sign.

(d) *Size.* The standard size R1-1 sign shall be 30 inches by 30 inches; however, at intersections on minor roads and secondary streets, a 24-inch by 24-inch sign may be used. In work zones, the standard size R1-1 sign for controlling one-lane, two-way traffic shall be 30 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
RED (REFLECTORIZED)

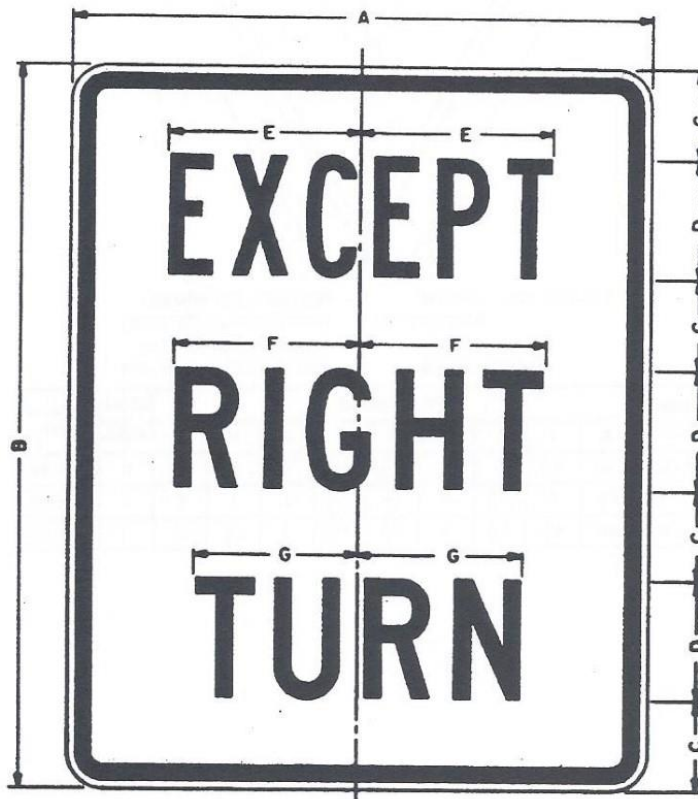
SIGN SIZE	DIMENSIONS			SERIES	BORDER	BLANK STD
	A	B	C			
24 x 24	24	8	10	C	$\frac{5}{8}$	BI-24
30 x 30	30	10	$12\frac{1}{2}$	C	$\frac{3}{4}$	BI-30
36 x 36	36	12	15	C	$\frac{7}{8}$	BI-36
48 x 48	48	16	20	C	$1\frac{1}{4}$	BI-48

* Reduce spacing 40%

§ 211.52a. Except Right Turn Sign, R1-1-1.

(a) *Justification.* The Except Right Turn Sign, R1-1-1, will be authorized for use with a stop sign to allow right-turn movements without stopping at an intersection where the major flow of traffic makes a right-hand turn rather than proceeding straight through. Its use should be limited to those locations where a significant energy saving can be realized by minimizing the number of vehicles required to stop or substantially reduce their speed. Care should be taken to insure that no traffic conflicts exist.

(b) *Placement.* When used, the R1-1-1 sign shall be mounted below the Stop Sign, R1-1, on the approach with the heavy right-turn movement.



COLOR • LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

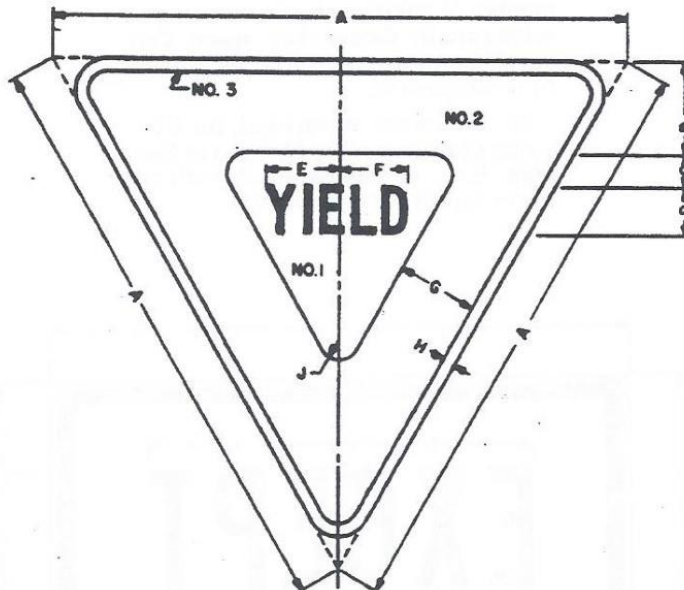
SIGN SIZE	DIMENSIONS							SERIES			MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F	G	1	2	3			
24 x 30	24	30	3 1/2	5	8	7 1/2	6 1/2	B	C	C	1/4	1/4	85-3024

§211.53. Yield Sign, R1-2.

(a) *Justification.* The Yield Sign R1-2 shall be authorized for use when it is necessary to assign the right-of-way but when a full stop is not necessary at all times; however, it should not be used when an adequate acceleration lane is provided.

(b) *Placement.* The R1-2 sign shall be located as provided in § 211.51 of this title (relating to location of stop and yield signs).

(c) *Size.* The standard size of R1-2 shall be 36 inches per side. The minimum size for expressways shall be 48 inches per side.



COLOR · NO. 1 LEGEND RED (REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)
 NO. 2 BORDER RED (REFLECTORIZED)
 NO. 3 MARGIN WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										SERIES LINE	BLANK STD.
	A	B	C	D	E	F	G	H	J			
36x36	36	5 1/2	2	3	4 11/16	4 3/8	5	3/4	1 1/2	C	B2-36	
48x48	48	7	2 3/4	4	6 1/4	5 7/8	6	1	2	C	B2-48	
60x60	60	9 1/2	3 1/2	5	7 7/8	7 1/4	8	1 1/2	2 1/2	C	B2-60	

§211.54. To Oncoming Traffic Sign, R1-2-1.

The To Oncoming Traffic Sign, R1-2-1, shall be authorized for use in conjunction with a Yield Sign, R1-2, and a Stop Line as provided in § 211.1173 of this title (relating to stop lines) when placed prior to a one-lane bridge or a one-lane underpass. It shall be mounted below the Yield Sign, R1-2.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 24	24	3	4	2½	9½	8½

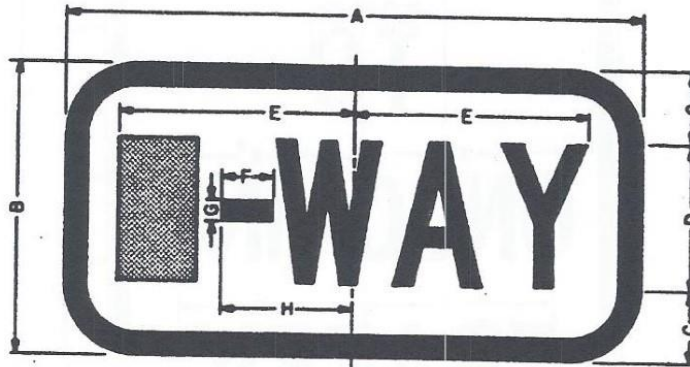
* Reduce spacing 50%

SIGN SIZE	SERIES			MARGIN	BORDER	BLANK STD
	LINES					
	1	2	3			
24 x 24	C	C	C	½	½	B3-24

S 211.55. Multiway Stop Sign, R1-3.

(a) *Justification.* The Multiway Stop Sign, R1-3, will be authorized for use in conjunction with the Stop sign at multiway stop intersections authorized in accordance with S 201.43, proposed at 11 Pa. B. 1176 (April 4, 1981) (relating to multiway stop intersections). This sign shall indicate the number of stop approaches.

(b) *Placement.* At a multiway stop intersection, this sign shall be mounted below each Stop sign.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) RED (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
12 x 6	12	6	1 1/2	3	4 7/8	1 1/8	27/64	2 3/4

SIGN SIZE	SERIES	BOR- DER	BLANK STD
	LINE		
12 x 6	C	1/2	B5-1206

§211.36. Stop Sign Removed from Side Street Sign, R1-4.

(a) *Justification.* Justification shall be as follows:

(1) The Stop Sign Removed from Side Street Sign, R1-4, shall be authorized for use to advise local drivers that the stop sign on the side street has been removed. The R1-4 sign should be removed after six weeks.

(2) In the particular case when stop signs are to be reversed, a temporary multiway stop intersection should normally first be authorized for approximately six weeks for those intersections with a combined average daily traffic volume in excess of 500 vehicles. After the original stop signs are removed, the R1-4 sign shall be authorized for six weeks beneath remaining stop signs.

(b) *Placement.* When used, the R1-4 sign shall be placed beneath appropriate stop signs for educational purposes.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
 RED (REFLECTORIZED)

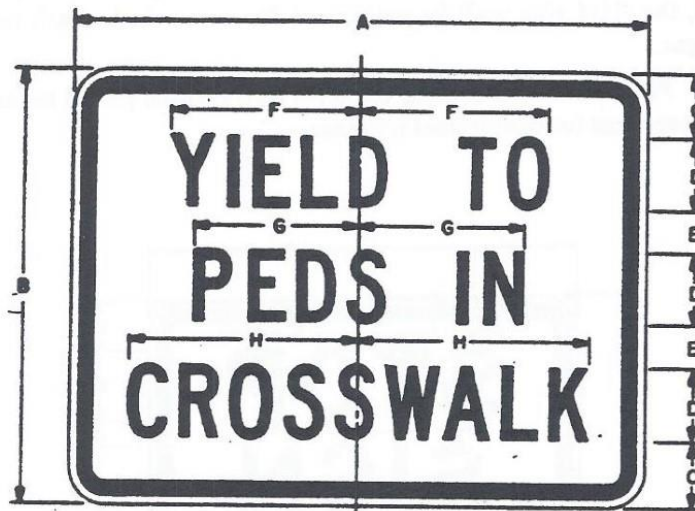
SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
18 x 24	18	24	2	3	1	5 1/2	5	7	4	3 5/8	5 3/8	5 5/8

SIGN SIZE	SERIES LINES						MARGIN	BORDER	BLANK STD
	1	2	3	4	5	6			
18 x 24	E	E	E	E	E	E	3/8	5/8	B5-2418

§211.57. Yield to Peds in Crosswalk Sign, R1-5.

(a) *Justification.* The Yield to Peds in Crosswalk Sign, R1-5, shall be authorized for use immediately in advance of unsignalized midblock pedestrian crosswalks to advise drivers of their legal obligation to stop for pedestrians in the crosswalk.

(b) *Placement.* When used, the R1-5 sign should be installed below the Pedestrian Crossing Sign, W11-2.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
24 x 18	24	18	2 1/4	3	1 1/4	7 1/8	6 7/8	9 7/8

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
24 x 18	C	C	C	3/8	5/8	85-2418

SPEED LIMIT GROUP, R2 SERIES

§211.71. Speed restrictions.

(a) *Lawful limits.* The numerical speed limit displayed on signs in the speed limit group shall not exceed the lawful limits established in the Vehicle Code (75 Pa.C.S. § 101 *et seq.*).

(b) *Study.* An engineering and traffic study must be made in accordance with Chapter 201 of this title (relating to engineering and traffic studies) in order to justify establishment of any proposed speed limit, other than the basic 35 miles per hour limit in an urban district or the maximum 55 miles per hour limit in other areas.

(c) *Approval.* Department approval shall be obtained before any speed limit is established on a State-designated highway, except as follows:

(1) Local authorities may establish the basic 35 miles per hour limit in an urban district without Department approval; however, Department approval shall be required for placement of the signs. In requesting Department approval to erect the signs, local authorities shall provide the Legislative Route number and limiting stations of the speed zone for the records of the Department.

(2) Local authorities which have entered into an agreement with the Department authorizing them to install official traffic control devices on State-designated highways without specific Department approval may establish any speed restriction without Department approval, after the necessary engineering and traffic studies have been completed. However, local authorities shall provide the Department with a copy of the ordinance establishing the speed restriction.

(d) Speed restrictions established under sections 3362 - 3363 of the Vehicle Code, 75 Pa. C.S. §§ 3362 - 3363 (relating to maximum speed limits and alteration of maximum speed limits), shall be referred to as "speed limits"; except that speed restrictions in work areas shall be referred to as "work area speed limits".

(e) Speed restrictions established under § 3365(a) of the "Vehicle Code" shall be referred to as "bridge speed limits".

(f) Speed restrictions established under § 3365(b) of the "Vehicle Code" shall be referred to as "school zone speed limits".

(g) Speed restrictions established under § 3365(c) of the "Vehicle Code" shall be referred to as "hazardous grade speed limits".

S 211.72. Speed limits in other than work areas.

(a) *Study.* Any speed limit other than the 35 mile per hour limit in an urban district or the 55 mile per hour limit in other locations established under sections 3362 and 3363 of the Vehicle Code, 75 Pa. C.S. §§ 3362 and 3363, (relating to maximum speed limits) shall be based on an engineering and traffic study in accordance with § 201.31 (relating to speed restrictions).

(b) *Posting of speed limits.* Requirements for posting shall be as follows:

(1) A maximum speed limit established under section 3362(a)(1) or (3) of the Vehicle Code, 75 Pa. C.S. § 3362(a)(1) or (3) (relating to maximum speed limits), shall be posted on official traffic control devices as follows:

(i) A Speed Limit Sign, R2-1, indicating the maximum speed limit shall be placed on the right side of the highway at the beginning of each numerical change in the speed limit unless:

(A) the end of the previous speed limit was indicated by an End Sign, R2-10; or

(B) the new speed limit begins at an intersection (in which case, the first R2-1 sign should be installed within 200 feet beyond the intersection).

(ii) The end of a speed limit along a highway at the point where the speed limit is being increased or decreased shall be indicated in accordance with clause (A) or (B).

(A) A Speed Limit Sign, R2-1, indicating the speed limit on the following section of highway shall be placed on the right side of the highway. The placement of this sign shall satisfy both the requirement to post the end of the previous speed limit and the requirement to post the beginning of the new speed limit if one of the following conditions is met:

(I) It has been determined through test runs that the following section of highway is safe for travel at 55 miles per hour.

(II) The maximum speed limit for the following section of highway has been established and speed limit signs are installed along that section of highway.

(B) At all other locations, a Speed Limit Sign, R2-1, indicating the maximum speed limit that is ending, and an End Sign, R2-10, mounted above the R2-1 sign, shall be placed on the right side of the highway. The portion of the highway following the reduced speed limit should be adequately signed with official traffic control devices to warn drivers of potential hazards. When the portion of the highway following the speed limit is outside the jurisdiction of the Department or the local authorities which are establishing the speed limit, the other jurisdiction should be informed of the speed limit so it can review that section of highway to determine whether there is a need for a reduced speed limit or warning signs.

(iii) Within a given speed limit, Speed Limit Signs, R2-1, indicating the maximum speed shall be placed on the right side of the highway at intervals not greater than 1/2 mile.

(iv) A Reduced Speed (—) Ahead Sign, R2-5, shall be placed on the right side of the highway 500 to 1,000 feet in advance of the beginning of every speed reduction unless the speed reduction:

(A) is ten miles per hour or less;

(B) begins at the beginning of a sideroad;

(C) begins at an intersection where traffic on the opposite intersection approach is controlled by a Stop Sign, R1-1; or

(D) is a work area speed limit.

(2) Maximum speed limits established under section 3362(a)(2) of the Vehicle Code, 75 Pa. C.S. § 3362 (a)(2) need not be signed except to indicate the end of a speed limit less than 55 miles per hour and the beginning of a 55 miles per hour speed limit when paragraph (1)(ii)(A)(I) is met.

(c) *Signing responsibilities on State-designated highways.* Signing responsibilities shall be as follows:

(1) Any municipality which has entered into an agreement with the Department authorizing them to install official traffic control devices on State-designated highways without Department approval and all cities shall be responsible for the installation of all speed limit signing along State-designated highways within their physical boundaries except on freeways.

(2) All other municipalities shall be responsible for the installation of speed limit signing for speed limits of 35 miles per hour and below along State-

designated highways within their physical boundaries except on freeways and in rural districts.

(3) The Department will be responsible for the installation of all speed limit signing along State-designated highways except the signing indicated in paragraphs (1) and (2).

S 211.73. Work area speed limits.

(a) *Establishment.* A work area speed limit may be established when authorized in accordance with S 201.31 (relating to speed restrictions).

(b) *Posting of work area speed limits.*

(1) A Work Area Speed Limit Sign, R2-2-2, indicating the maximum work area speed limit, shall be placed on the right side of the highway at the beginning of each work area speed limit and at intervals of not more than 1/2 mile throughout the area with the work area speed limit.

(2) The end of a work area speed limit shall be indicated by the posting of one of the following signs on the right side of the highway:

(1) A Speed Limit Sign indicating the following maximum speed limit which shall satisfy both the requirement to post the end of the previous speed limit and the requirement to post the beginning of the new speed limit.

(ii) End Construction Sign, G20-2.

(iii) End Work Area Sign, G20-3.

§211.74. Bridge speed limits.

(a) *Establishment.* A bridge speed limit may be established under section 3365 (a) of the Vehicle Code (75 Pa.C.S. § 3365(a)) providing an engineering and traffic study in accordance with § 201.33 of this title (relating to special speeds on bridges and elevated structures) in order to reduce the vibration and impact of vehicles due to a structural deficiency of the bridge or elevated structure.

(b) *Posting.* An established bridge speed limit shall be posted on official traffic control devices as follows:

(1) A Reduced Speed (—) Ahead Sign, R2-5, advising of the maximum bridge speed limit, with a Bridge Sign, R12-1-2, mounted directly above the R2-5, shall be placed on the right side of the highway on each approach to the bridge or elevated structure at a distance of 500 to 1,000 feet in advance of the bridge or elevated structure, unless the speed reduction:

- (i) begins at the beginning of a sideroad; or
- (ii) begins at an intersection where traffic on the opposite intersection approach is controlled by a Stop Sign, R1-1.

(2) A Speed Limit Sign, R2-1, advising of the maximum bridge speed limit, with a Bridge Sign, R12-1-2, mounted directly above the R2-1 shall be placed on the right side of the highway within 50 feet in advance of each end of the structure.

(3) A Speed Limit Sign, R2-1, advising of the maximum bridge speed limit, with a Bridge Sign, R12-1-2, mounted directly above the R2-1 shall be placed on the right side of the bridge or elevated structure at intervals not exceeding 1/4 mile for each direction of travel.

(c) *End of speed limit.* The end of the bridge or elevated structure shall be the end of the bridge speed limit.

§211.75 School zone speed limits.

(a) *Establishment.* A school zone speed limit may be established in accordance with section 3365(b) of the Vehicle Code (75 Pa.C.S. § 3365(b)) provided an engineering and traffic study, justifying the proposed school zone speed limit, has been conducted in accordance with § 201.32 of this title (relating to school zones and school zone speed limits), and the proposed school zone speed limit has been approved by the Department. The school zone speed limit shall be established only within a school zone established as a result of an engineering and traffic study made in accordance with and approved by the Department. The school zone speed limit shall not extend beyond the school zone.

(b) *Posting.* A school zone speed limit shall be posted on official traffic control devices as follows:

(1) At the beginning of the school zone speed limit on the right side of the roadway, one of the following signs or groups of signs will be posted:

(i) A Speed Limit Sign, R2-1, with the appropriate school zone speed limit, with a School Panel, S4-3, mounted above the R2-1 sign and a When Flashing Sign, S4-4, mounted below the R2-1 sign, with two flashing Speed Limit Sign Beacons as provided in § 211.1072 of this title (relating to speed limit sign beacons).

(ii) A Department approved Variable School Speed Limit Sign as provided in § 211.971 of this title (relating to variable school speed limit sign).

(iii) A Speed Limit sign, R2-1, with the appropriate school zone speed limit, with a School Panel, S4-3, mounted above the R2-1 sign and a Restricted Hours Panel, R3-20, mounted below the R2-1 sign.

(2) An End School Zone Sign, S4-11, shall be posted on the right side of the roadway at the end of the school zone speed limit zone.

§211.76. Hazardous grade speed limits.

(a) *Establishment.* A hazardous grade speed limit may be established under section 3365(c) of the Vehicle Code (75 Pa.C.S. § 3365(c)) for all trucks, or trucks over a designated weight, on downgrades which are determined to be hazardous as a result of an engineering and traffic study made in accordance with § 201.35 of this title (relating to hazardous grade speed limits).

(b) *Posting.* An established hazardous grade speed limit shall be effective if posted on official traffic control devices as follows:

(1) A Reduced Speed () Ahead Sign, R2-5, advising of the maximum hazardous grade speed limit, with a Truck Marker, M4-4, mounted directly above the R2-5, shall be placed on the right side of the highway at a distance 500 to 1,000 feet in advance of the hazardous grade speed limit, except that this advance sign shall not be required if the hazardous grade speed limit begins at a truck pull-off where all trucks restricted by the hazardous grade speed limit are required to stop.

(2) A Trucks Over () Lbs. Speed Sign, R2-2-1, shall be erected at the beginning of the hazardous grade speed zone and at intervals not greater than 1/4 mile throughout the zone.

(3) A Trucks Over () Lbs. Speed Sign, R2-2-1, with an End Sign, R2-9, mounted above the R2-2-1 sign, shall be installed at the end of the hazardous grade speed zone.

§211.77. Speed Limit Sign, R2-1.

(a) *Justification.* The Speed Limit Sign (R2-1) shall be authorized for use as provided in §§ 211.71 — 211.75 of this title (relating to speed limit group, R2 Series).

(b) *Placement.* The R2-1 sign shall be placed as provided in §§ 211.72 — 211.75 of this title (relating to speed limit group, R2 Series).

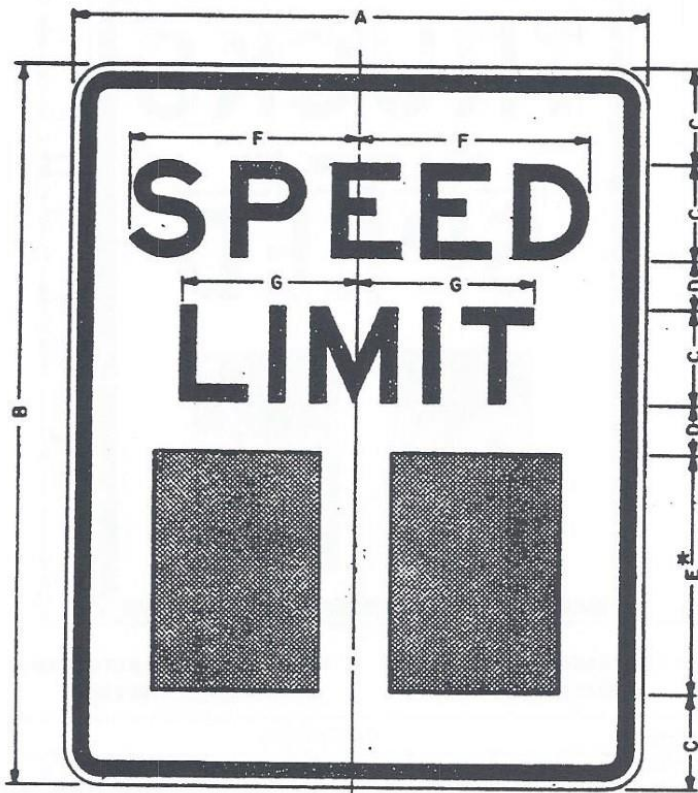
(c) *Size.* The standard size sign shall be as follows:

(1) 24 inches by 30 inches — all two-lane highways having any speed limit and other conventional highways with three or more lanes and a speed limit of 40 miles per hour or below.

(2) 30 inches by 36 inches — conventional highways with three or more lanes and a speed limit of 45 miles per hour or above.

(3) 36 inches by 48 inches — expressways and freeways with a speed limit of 55 miles per hour.

(4) 48 inches by 60 inches — expressways and freeways with a speed limit of 50 miles per hour or below.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							SERIES			MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F	G	LINES					
								1	2	3			
24x30	24	30	4	2	10	9 ⁹ / ₁₆	7 ⁵ / ₁₆	E	E	E	³ / ₈	⁵ / ₈	B5-3024
30x36	30	36	5	2	12	12	9 ³ / ₁₆	E	E	E	¹ / ₂	³ / ₄	B5-3630
36x48	36	48	6	5	14	14 ³ / ₈	11	E	E	E	⁵ / ₈	⁷ / ₈	B5-4836
48x60	48	60	8	6	16	19 ¹ / ₈	14 ⁵ / ₈	E	E	E	³ / ₄	1 ¹ / ₂	B5-6048

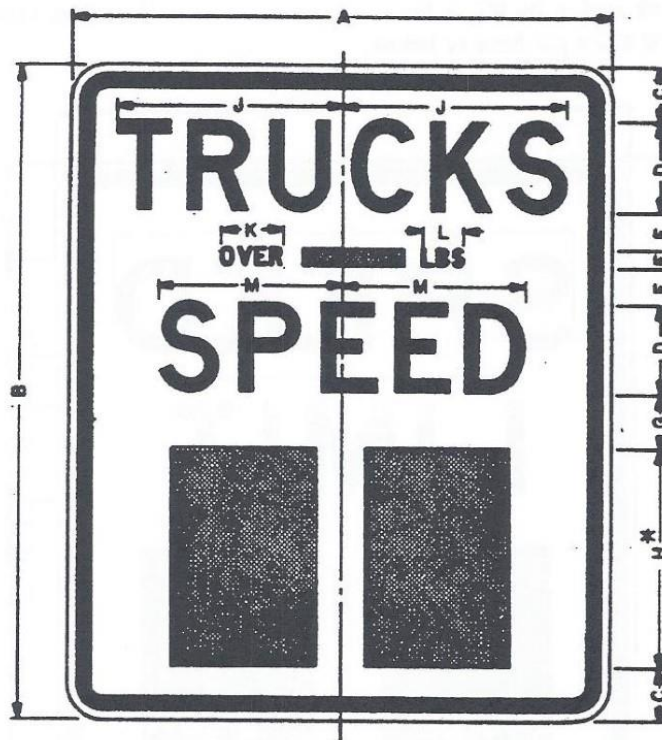
* Optically space numerals about vertical ϵ .

§211.78 Trucks Over () Lbs. Speed Sign, R2-2-1.

(a) *Justification.* The Trucks Over () Lbs. Speed Sign, R2-2-1, shall be authorized for use as provided in § 211.76 of this title (relating to hazardous grade speed limits) to indicate the established hazardous grade speed limit for all trucks, or trucks over a designated weight. The words "Over () Lbs." and the "S" in "Trucks" shall be eliminated and the legend reoriented if the restriction applies to all trucks.

(b) *Placement.* The R2-2-1 sign may be erected alone or in series with the Reduced Gear Zone Sign, R14-12, and shall be placed as provided for in § 211.76 of this title (relating to hazardous grade speed limits).

(c) *Size.* The size of the R2-2-1 sign shall be 36 inches by 48 inches when used at the beginning of the zone. When used within the zone the standard size shall be 30 inches by 36 inches.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
30 x 36	30	36	3	5	2	1	3	12	12 1/2	3 5/16	
36 x 48	36	48	4 1/2	6	3	2	4	15	15	6 3/8	

* Optically space numerals about vertical C

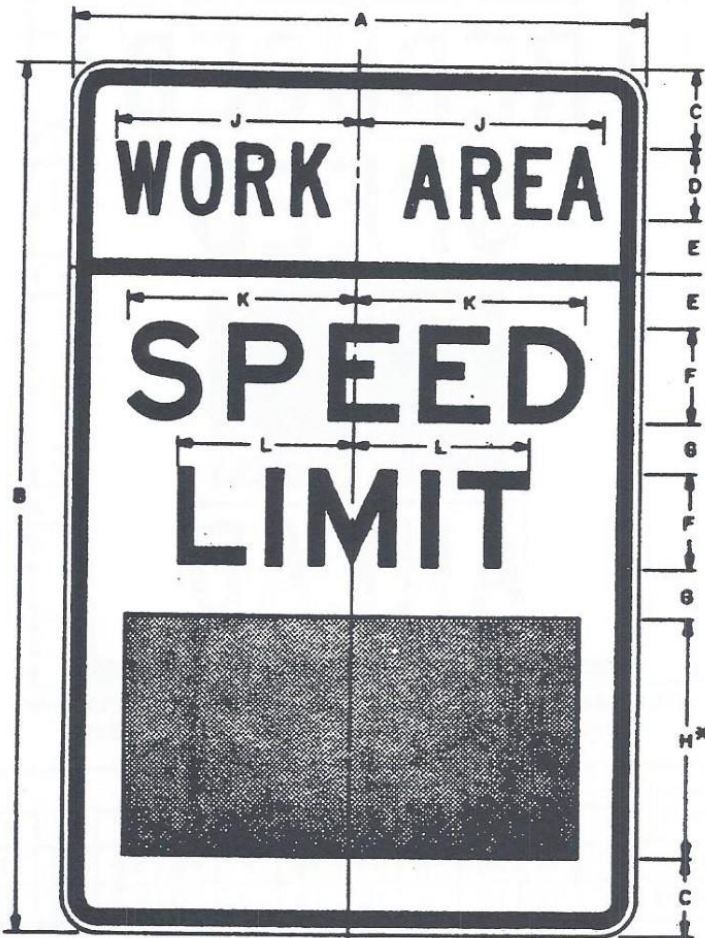
SIGN SIZE	DIMENSIONS		SERIES				MARGIN	BORDER	BLANK STD
	L	M	LINES						
			1	2	3	4			
30 x 36	2 5/16	10 3/16	D	D	D	E	1/2	3/4	B5-3630
36 x 48	4 11/16	12 1/4	D	D	D	E	5/8	7/8	B5-4836

§ 211.79. Work Area Speed Limit Sign, R2-2-2.

(a) *Justification.* The Work Area Speed Limit Sign, R2-2-2, is authorized for use in accordance with Chapter 203 (relating to work zone traffic control).

(b) *Placement.* When used, R2-2-2 signs shall be placed on approaches to the work area and at intervals not greater than 1/2 mile throughout the work area. When used in conjunction with a Flagger Symbol Sign, W20-7a, the R2-2-2 sign should precede the W20-7a sign.

(c) *Size.* The minimum size R2-2-2 sign shall be 36 inches by 54 inches on expressways and freeways, and 24 inches by 36 inches on all other highways.



COLOR: LEGEND AND BORDER
 TOP BACKGROUND
 BOTTOM BACKGROUND

BLACK (NON-REFLECTORIZED)
 ORANGE (REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 36	24	36	3 1/2	3	2 1/2	4	2	10	10 1/2	9 1/2	7 1/2
36 x 54	36	54	4 1/2	4	3 1/2	6	4	14	13 1/2	14 1/2	11

* Optically space numerals about vertical centerline

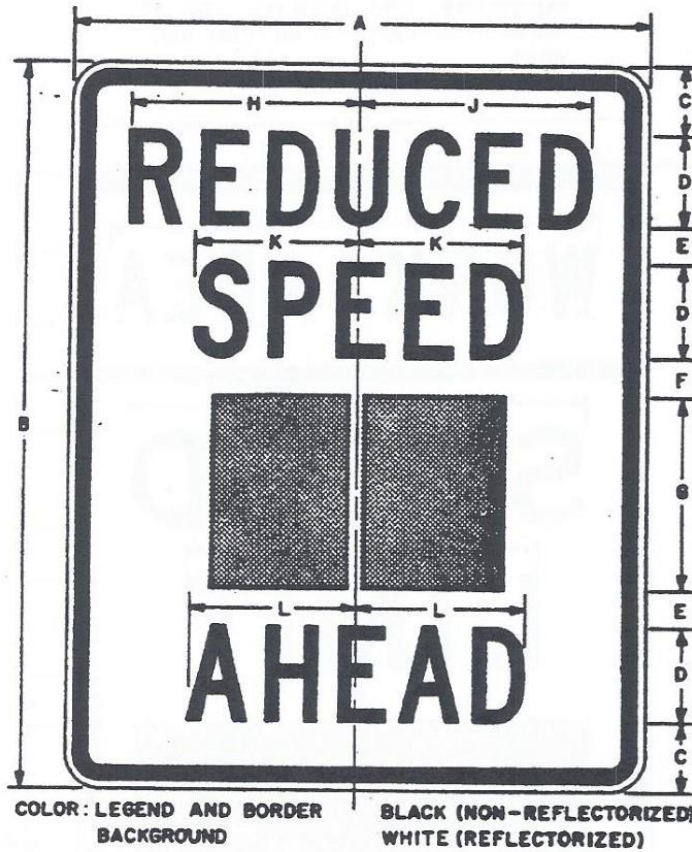
SIGN SIZE	SERIES LINES				MARGIN	BORDER	BLANK STD
	1	2	3	4			
24 x 36	C	E	E	E	1/8	1/8	85-2436
36 x 54	C	E	E	E	5/8	1/4	85-3654

§211.86. Reduced Speed (_) Ahead Sign, R2-5.

(a) *Justification.* The Reduced Speed (_) Ahead Sign R2-5 shall be authorized for use as provided in §§ 211.72, 211.74, and 211.76 of this title (relating to speed limits; bridge speed limits; and hazardous grade speed limits to indicate a reduced speed zone is ahead.

(b) *Placement.* The R2-5 sign shall be placed as provided in §§ 211.72, 211.74, and 211.76 of this title (relating to speed limits; bridge speed limits; and hazardous grade speed limits).

(c) *Size.* The size of R2-5 shall be the same as the size of the R2-1 or R2-2-1 signs utilized along the roadway.



SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 30	24	30	2 ³ / ₈	4	1 ¹ / ₂	1 ¹ / ₂	8	9 ⁵ / ₈	9 ⁷ / ₈	6 ¹³ / ₁₆	7
30 x 36	30	36	2 ¹⁵ / ₁₆	5	1 ¹¹ / ₁₆	1 ³ / ₄	10	11 ¹³ / ₁₆	12 ³ / ₈	8 ¹ / ₂	8 ³ / ₄
36 x 48	36	48	4 ¹ / ₂	6	2	3	12	14 ⁷ / ₁₆	14 ¹¹ / ₁₆	10 ³ / ₁₆	10 ¹ / ₂
48 x 60	48	60	5 ¹ / ₂	8	3 ⁵ / ₈	3 ³ / ₄	14	19 ¹ / ₄	19 ¹ / ₂	13 ³ / ₈	14

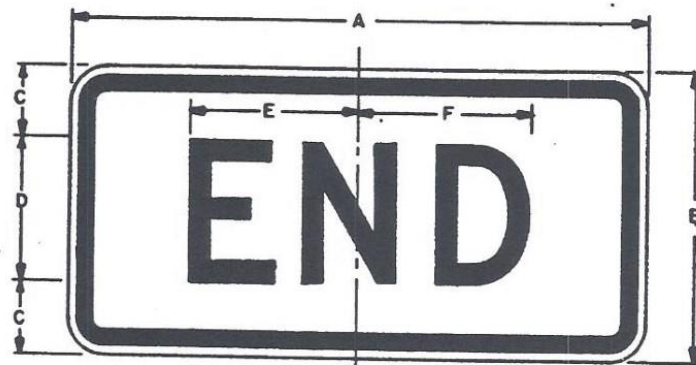
SIGN SIZE	SERIES LINES				MAR-GIN	BOR-DER	BLANK STD
	1	2	3	4			
24 x 30	C	C	D	C	⁵ / ₈	⁵ / ₈	B5-3024
30 x 36	C	C	D	C	¹ / ₂	³ / ₄	B5-3630
36 x 48	C	C	D	C	⁵ / ₈	⁷ / ₈	B5-4836
48 x 60	C	C	D	C	³ / ₄	1 ¹ / ₄	B5-6048

S 211.81. End Sign, R2-10.

(a) Justification. The End Sign, R2-10, shall be authorized for use as a supplemental sign to indicate the end of a hazardous grade speed limit, center lane left turn only restriction, or a left lane must turn left restriction. In addition, the R2-10 sign may be used at the end of a speed limit when a speed limit is not posted on the following section of highway.

(b) Placement. The R2-10 sign shall be placed directly above the last primary sign at the end of the restricted zone.

(c) Size. The width of the R2-10 sign shall be the same as the primary sign.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 12	24	12	3	6	7	7 $\frac{1}{2}$
30 x 15	30	15	3 $\frac{1}{2}$	8	9 $\frac{1}{4}$	9 $\frac{3}{4}$
36 x 18	36	18	4 $\frac{1}{2}$	9	10 $\frac{1}{2}$	10 $\frac{7}{8}$

SIGN SIZE	SER-IES	MAR-GIN	BOR-DER	BLANK STD
24 x 12	D	$\frac{3}{8}$	$\frac{5}{8}$	B5-2412
30 x 15	D	$\frac{3}{8}$	$\frac{5}{8}$	B5-3015
36 x 18	D	$\frac{3}{8}$	$\frac{5}{8}$	B5-3618

Turning and Lane-Use Control Group (R2)

§ 615.81. Scope.

Signs in the turning and lane-use control group shall include turn-prohibition signs, R3-1 to R3-4 inclusive, which shall control mandatory movements; lane-use control signs, R3-5 to R3-9 inclusive, which shall control either mandatory movements or optional movements; and preferential lane-use control signs, R3-10 to R3-15 inclusive, which shall restrict the use of specific lanes to provide preferential treatment for a certain class or classes of vehicles.

§ 615.82. Turn-prohibition signs.

(a) Turn-prohibition signs shall be authorized where an engineering and traffic study in accordance with § 610.44 of this Title (relating to turn restrictions) indicates that a turn restriction is warranted to improve safety or capacity at an intersection. Moreover, approval of the Department shall be obtained before any turns may be prohibited on any State-designated highway.

(b) The requirements set forth in this Chapter for turn-prohibition signs shall be minimum requirements and additional signs should be placed as necessary at or in advance of the intersection. If advance signs are used, care should be taken that no alley or public driveway exists between the signs 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, as provided in §§ 615.191-615.194 of this Title (relating to one-way group R6 series), shall be used and may be supplemented by the turn-prohibition sign. A turn-prohibition sign shall not be 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.

(c) Overhead signs are desirable particularly in congested areas. Signs may be mounted just above, below or alongside of traffic signal faces governing the traffic to which they apply. A turn-prohibition sign mounted on a traffic signal structure directly over the roadway shall have a clearance of at least 15 feet above the roadway.

(d) When the movement restriction applies during certain periods only, the use of turn-prohibition signs shall call for special treatment. The following alternatives shall be 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) Signs incorporating a supplementary legend showing the hours during which the prohibition is applicable.

(3) Movable signs at each corner of the intersection where required, put in place under police supervision only when applicable and removed at other hours.

§ 615.83. Lane-use control signs.

(a) Lane-use control signs shall be authorized for use at intersections to indicate the type of turns that are permitted or required from certain lanes.

(b) Lane-use control signs should not be used at locations where the rules of the road would normally provide guidance for the motorist. Overhead lane-use control signs should not be used at intersections where channelization or roadway construction clearly defines the turning lane.

(c) Lane-use control signs permitting turns from two or more lanes shall be 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.

(d) On two-way roadways where a shift of the center line pavement marking is used to create a special turning lane and a proper transition is provided before separating the turning traffic from the through traffic, overhead lane-use control signs will not normally be required; however, post-mounted lane-use control signs shall be used to supplement the necessary pavement markings. On multiple-lane highways where the motorist may not expect a lane to be used exclusively for turning, over-

head lane-use control signs are desirable to indicate such a restriction.

(e) When used, overhead lane-use control signs should be installed in advance of the intersection near the beginning of the turning lane. Post-mounted lane-use control signs should be installed nearer the intersection as provided in §§ 615.107-615.116 of this Title (relating to lane-use control signs).

(f) At intersections requiring lane-use control signs, overhead guide signs can not be considered sufficient to regulate traffic and shall be supplemented with lane-use control signs either post-mounted or overhead.

(g) Lane-use control signs should not be installed on the support for traffic signals.

§ 615.84. Preferential lane-use control signs.

(a) Preferential lane-use control signs shall be authorized where a specific lane or lanes of a roadway is restricted to provide preferential treatment for a certain class or classes of vehicles, such as buses or carpools. This restriction may apply at all times or only during certain hours.

(b) Preferential lane-use control signs shall only be utilized if an engineering and traffic study has indicated that such preferential assignment of the lane will improve the person-carrying capacity of the roadway, improve the environmental conditions in the area, or provide some other tangible improvement without a concomitant decline in the safety of the roadway. The approval of the Department shall be obtained before establishing any preferential lanes on any State-designated highway.

(c) While the basic format of the preferential lane-use control signs, as provided in §§ 615.117-615.122 of this Title (relating to preferential lane-use control signs), should be retained, other messages or symbols may be used to fit a specific preferential lane-use operation. For example, the right lane may be reserved for buses and right-turning vehicles.

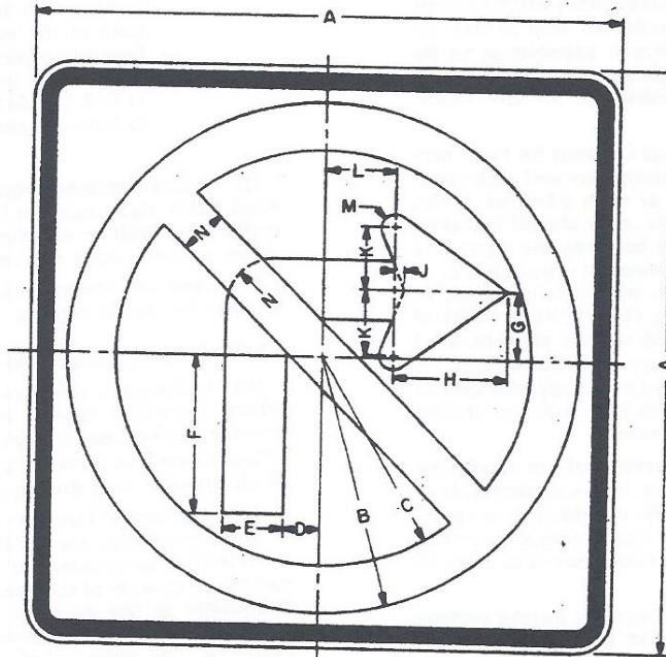
(d) Appropriate lane striping, word messages or symbol-ogy, shall be used for marking preferential lanes, serving as additional notice to the motorist of these unusual regulations.

§ 615.85. No Right Turn Sign (R3-1).

(a) *Justification.* The No Right Turn Sign (R3-1) shall be authorized for use as provided in § 615.82 of this Title (relating to turn prohibition signs).

(b) *Placement.* The R3-1 shall be placed at the near right-hand corner of the intersection. An auxiliary sign with the same message may be used in advance of the intersection.

(c) *Size.* The standard size of R3-1 shall be 24 inches by 24 inches for post-mounted signs and 30 inches by 30 inches for overhead installations. The standard size for expressways shall be 36 inches by 36 inches.



COLOR: ARROW AND BORDER BLACK (NON-REFLECTORIZED)
 CIRCLE AND DIAGONAL RED (REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
24 x 24	24	10 1/2	8 1/2	1 1/2	2 1/2	6 1/2	2 3/4	5 1/16	3/8	2 7/8	2 7/16	1 1/2	2
30 x 30	30	13 1/8	10 5/8	1 7/8	3 1/8	8 1/8	3 7/16	6 3/8	1/2	3 5/8	3 1/8	5/8	2 1/2
36 x 36	36	15 3/4	12 3/4	2 1/4	3 3/4	9 3/4	4 1/8	7 5/8	9/16	4 5/16	3 5/8	3/4	3
48 x 48	48	21	17	3	5	13	5 1/2	10 1/8	3/4	5 3/4	4 7/8	1	4

SIGN SIZE	MARGIN	BORDER	BLANK STD
24 x 24	3/8	5/8	B3-24
30 x 30	1/2	3/4	B3-30
36 x 36	5/8	7/8	B3-36
48 x 48	3/4	1 1/4	B3-48

§ 615.86. No Left Turn Sign (R3-2).

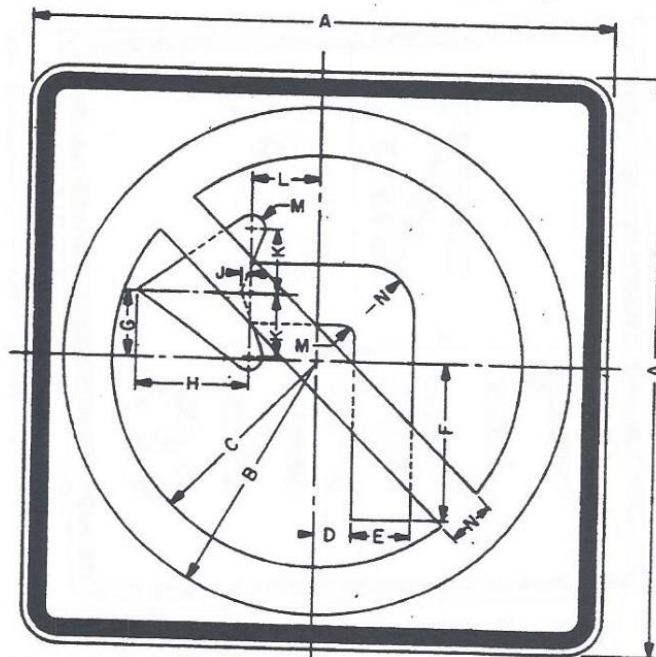
(a) *Justification.* The No Left Turn Sign (R3-2) shall be authorized for use as provided in § 615.82 of this Title (relating to turn prohibition signs).

(b) *Placement.*

(1) When the No Left Turn Sign (R3-2) is used on undivided streets one sign should be placed at the near right-hand corner and one at the far left-hand corner. An exception is made when there are overhead traffic signals, in that case the sign on the near right-hand corner shall be eliminated and a sign shall be installed over the roadway near the traffic signal.

(2) On divided streets or highways this sign should be placed on both the near side and the far side ends of the medians unless the median width is insufficient to permit the installation of the signs; the signs should then be installed as indicated for undivided streets. When there are overhead traffic signals the sign on the far side median should be eliminated and a R3-2 placed over the roadway near the traffic signal. An auxiliary sign with the same message may be used in advance of the intersection.

(c) *Size.* The standard size of R3-2 shall be 24 inches by 24 inches for post-mounted signs and 30 inches by 30 inches for overhead installations. The standard size for expressways shall be 36 inches by 36 inches.



COLOR : ARROW AND BORDER BLACK (NON-REFLECTORIZED)
 CIRCLE AND DIAGONAL RED (REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
24 x 24	24	10 1/2	8 1/2	1 1/2	2 1/2	6 1/2	2 3/4	5 1/16	3 3/8	2 7/8	2 7/16	1/2	2
30 x 30	30	13 1/8	10 5/8	1 7/8	3 1/8	8 1/8	3 7/16	6 3/8	1 1/2	3 5/8	3 1/8	5/8	2 1/2
36 x 36	36	15 3/4	12 3/4	2 1/4	3 3/4	9 3/4	4 1/8	7 5/8	3 1/16	4 5/16	3 5/8	3/4	3
48 x 48	48	21	17	3	5	13	5 1/2	10 1/8	3 1/4	5 3/4	4 7/8	1	4

SIGN SIZE	MARGIN	BORDER	BLANK STD
24 x 24	3/8	5/8	B3-24
30 x 30	1/2	3/4	B3-30
36 x 36	5/8	7/8	B3-36
48 x 48	3/4	1 1/4	B3-48

§ 615.87. No Turns Sign (R3-3).

(a) *Justification.* The No Turns Sign (R3-3) shall be authorized for use as provided in § 615.82 of this Title (relating to turn prohibition signs).

(b) *Placement.*

(1) When the No Turns Sign (R3-3) is used on undivided streets one sign should be placed at the near right-hand corner and one at the far left-hand corner. When there are overhead traffic signals, an additional sign should be placed over the roadway near the traffic signal.

(2) On divided streets or highways this sign should be placed at the near right-hand corner and near side and far side on the ends of the medians unless the median width is insufficient to permit the installation of the signs; the signs should then be installed as indicated for undivided streets. When there are overhead traffic signals the sign on the far side median should be placed over the roadway near the traffic signal. An auxiliary sign with the same message may be used in advance of the intersection.

(c) *Size.* The standard size of R3-3 shall be 24 inches by 24 inches. The standard size for expressways and overhead installations shall be 36 inches by 36 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
24 x 24	24	4 1/2	6	4	5	4 11/16	5	9 13/16	9 9/16
36 x 36	36	6	10	6	8	7 3/4	8 5/16	15 11/16	15 5/16
48 x 48	48	9	12	8	10	9 5/16	10	19 4/8	19 1/8

* Reduce spacing 35%

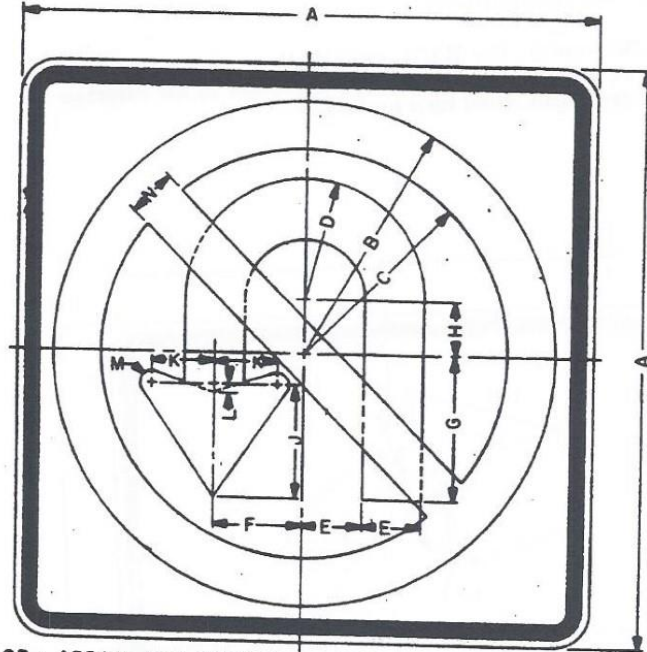
SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
24 x 24	D	D	3/8	5/8	B3-24
36 x 36	D	D	5/8	7/8	B3-36
48 x 48	D	D	3/4	1 1/4	B3-48

§ 615.88. No-U-Turn Sign (R3-4).

(a) *Justification.* The No-U-Turn Sign (R3-4) shall be authorized for use as provided in § 615.82 of this Title (relating to turn prohibition signs).

(b) *Placement.* The No-U-Turn Sign (R3-4) is placed at or between intersections to indicate that U-Turns at the specific intersection or on the roadway so posted are prohibited.

(c) *Size:* The standard size of R3-4 shall be 24 inches by 24 inches. The standard size for expressways shall be 36 inches by 36 inches.



COLOR : ARROW AND BORDER BLACK (NON-REFLECTORIZED)
 CIRCLE AND DIAGONAL RED (REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

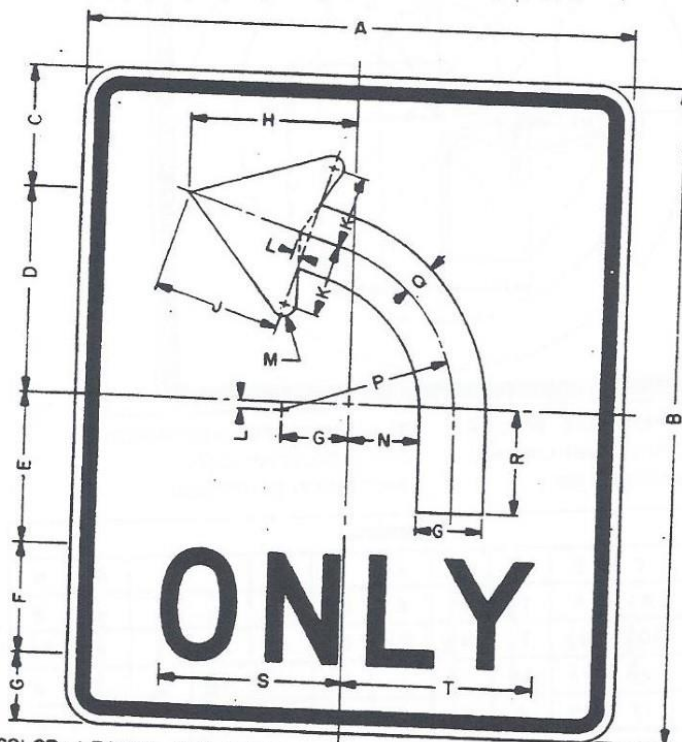
SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
24x24	24	10 1/2	8 1/2	5	2 1/2	3 3/4	6	2 1/4	5 1/16	2 7/8	3 3/8	1 1/2	2
30x30	30	13 1/8	10 5/8	6 1/4	3 1/8	4 11/16	7 1/2	2 3/8	6 3/8	3 5/8	1 1/2	5/8	2 1/2
36x36	36	15 3/4	12 3/4	7 1/2	3 3/4	5 5/8	9	3 3/8	7 3/8	4 5/16	9/16	3/4	3
48x48	48	21	17	10	5	7 1/2	12	4 1/2	10 1/8	5 3/4	3/4	1	4

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
24x24	3/8	5/8	B3-24
30x30	1/2	3/4	B3-30
36x36	5/8	7/8	B3-36
48x48	3/4	1 1/4	B3-48

§ 615.101. Left Turn Sign (R3-5L).

(a) *Justification.* The Left Turn Sign (R3-5L) shall be authorized for use as provided in § 615.83 of this Title relating to lane-use control signs).

(b) *Placement.* The R3-5L sign shall be placed overhead above the left lane or lanes of an approach to an intersection where traffic must turn to the left.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

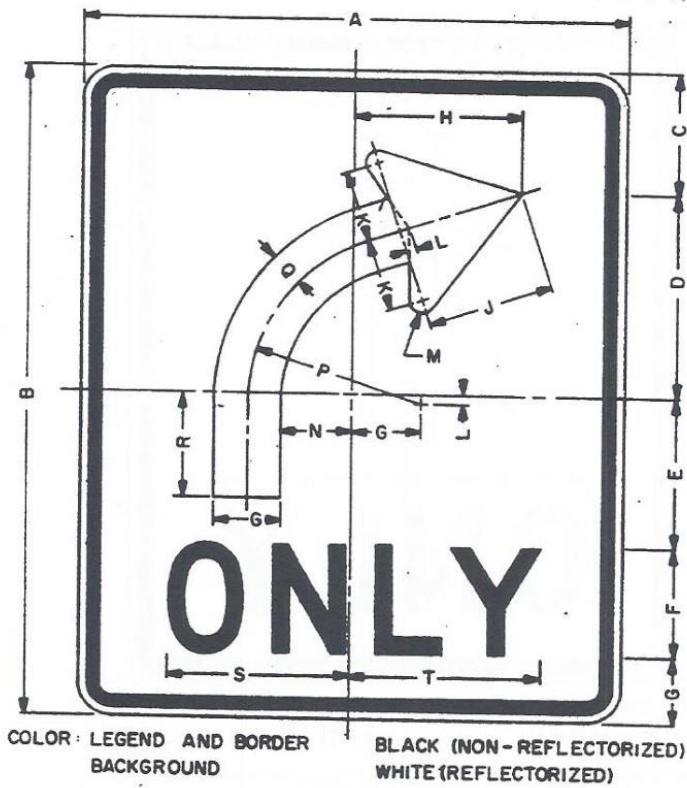
SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
30x36	30	36	6 $\frac{3}{4}$	11 $\frac{1}{4}$	8 $\frac{1}{4}$	6	3 $\frac{3}{4}$	9 $\frac{1}{4}$	7 $\frac{5}{8}$	4 $\frac{5}{16}$	9 $\frac{9}{16}$	5 $\frac{7}{8}$

SIGN SIZE	DIMENSIONS						SERIES LINE I	MAR- GIN	BOR- DER	BLANK STD
	N	P	Q	R	S	T				
30x36	3 $\frac{7}{8}$	9 $\frac{1}{2}$	1 $\frac{7}{8}$	5 $\frac{3}{4}$	10 $\frac{1}{16}$	10 $\frac{9}{16}$	D	$\frac{1}{2}$	$\frac{3}{4}$	B5-3630

§ 615.102. Right Turn Sign (R3-5R).

(a) *Justification.* The Right Turn Sign (R3-5R) shall be authorized for use as provided in § 615.83 of this Title (relating to lane-use control signs).

(b) *Placement.* The R3-5R sign shall be placed overhead above the right lane or lanes of an approach to an intersection where traffic must turn to the right.



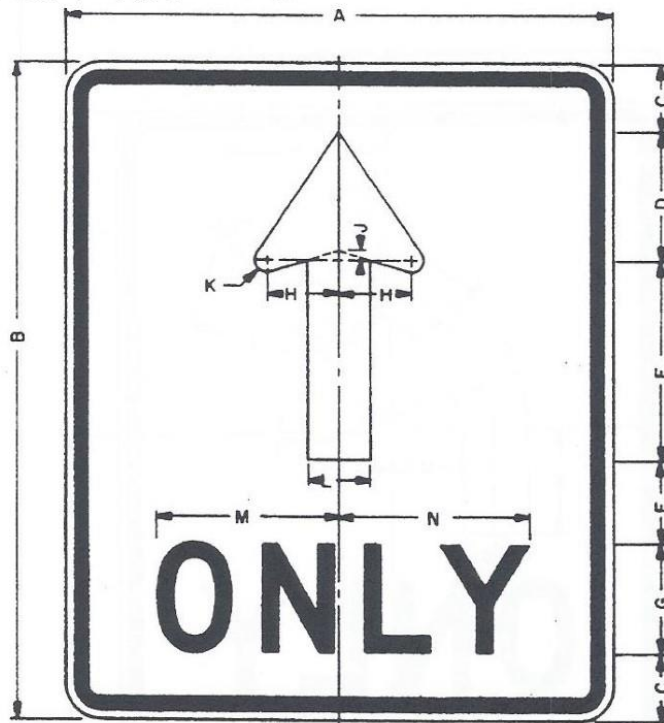
SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
30 x 36	30	36	6 $\frac{3}{4}$	11 $\frac{1}{4}$	8 $\frac{1}{4}$	6	3 $\frac{3}{4}$	9 $\frac{1}{4}$	7 $\frac{5}{8}$	4 $\frac{5}{16}$	2 $\frac{9}{16}$	5 $\frac{5}{8}$

SIGN SIZE	DIMENSIONS						SERIES LINE	MARGIN	BORDER	BLANK STD
	N	P	Q	R	S	T				
30 x 36	3 $\frac{7}{8}$	9 $\frac{1}{2}$	1 $\frac{7}{8}$	5 $\frac{3}{4}$	10 $\frac{1}{16}$	10 $\frac{9}{16}$	D	1 $\frac{1}{2}$	3 $\frac{3}{4}$	85-3630

§ 615.103. Straight-Through Sign (R3-5S).

(a) *Justification.* The Straight-Through Sign (R3-5S) shall be authorized for use as provided in § 615.83 of this Title (relating to lane-use control signs).

(b) *Placement.* The R3-5S sign shall be placed overhead above any lane of an approach to an intersection where traffic must proceed through the intersection without turning in any direction.



COLOR : LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

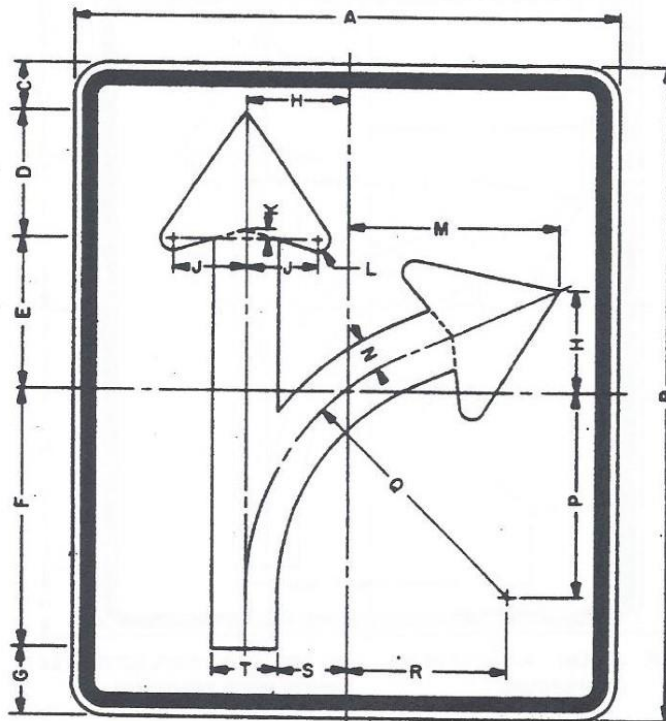
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
30 x 36	30	36	3 3/4	7	11	4 1/2	6	4	1/2	

SIGN SIZE	DIMENSIONS				SERIES LINE I	MARGIN	BORDER	BLANK STD
	K	L	M	N				
30 x 36	5/8	3 1/2	10 1/16	10 9/16	D	1/2	3/4	B5-3630

§ 615.105. Optional Right Turn Sign (R3-6SR).

(a) *Justification.* The Optional Right Turn Sign (R3-6SR) shall be authorized for use as provided in § 615.83 of this Title (relating to lane-use control signs).

(b) *Placement.* The R3-6SR sign shall be placed overhead above any lane of an approach to an intersection where traffic must either proceed straight through or turn right.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

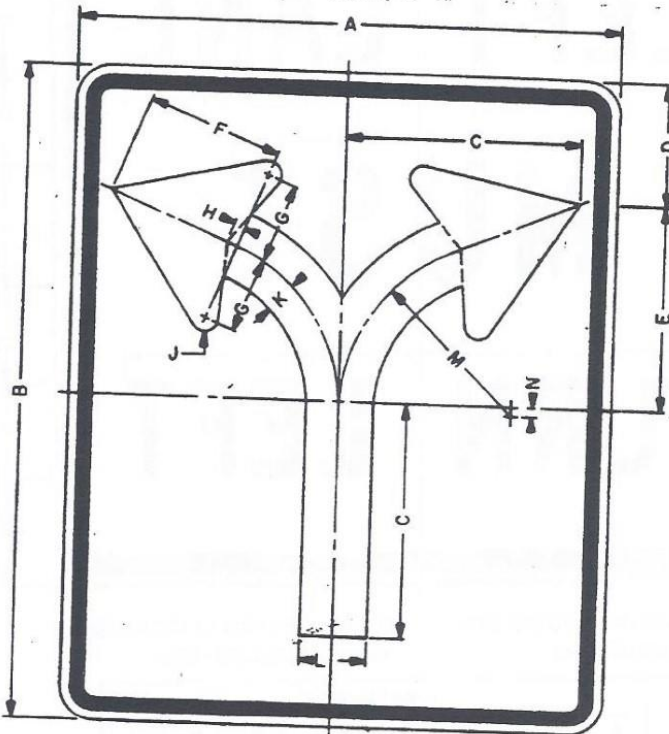
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
30 x 36	30	36	2 ⁵ / ₈	7 ¹ / ₈	8 ¹ / ₄	14 ¹ / ₄	3 ³ / ₄	5 ⁵ / ₈	4	9 ² / ₁₆	11 ¹ / ₁₆

SIGN SIZE	DIMENSIONS							MAR- GIN	BOR- DER	BLANK STD
	M	N	P	Q	R	S	T			
30 x 36	11 ³ / ₄	1 ³ / ₄	11 ¹ / ₄	14 ¹ / ₂	8 ⁷ / ₈	3 ⁷ / ₈	3 ¹ / ₂	1/2	3/4	85-3630

§ 615.106. Optional Left or Right Turn Sign (R3-6LR).

(a) *Justification.* The Optional Left or Right Turn Sign (R3-6LR) shall be authorized for use as provided in § 615.83 of this Title (relating to lane-use control signs).

(b) *Placement.* The R3-6LR sign shall be placed overhead above any lane of an approach to an intersection where traffic must either turn left or right.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
30 x 36	30	36	13	6 ³ / ₄	11 ¹ / ₄	7 ⁵ / ₈	4 ⁵ / ₁₆	9 ⁹ / ₁₆	3 ³ / ₄

SIGN SIZE	DIMENSIONS				MARGIN	BORDER	BLANK STD
	K	L	M	N			
30 x 36	1 ⁷ / ₈	3 ³ / ₄	9 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂	3 ³ / ₄	B5-3630

§ 615.107. Left Lane Must Turn Left Sign (R3-7L).

(a) *Justification.* The Left Lane Must Turn Left Sign (R3-7L) shall be authorized for use as provided in § 615.83 of this Title (relating to lane-use control signs).

(b) *Placement.* The R3-7L sign shall be placed an adequate distance in advance of the intersection when traffic in the left lane of an approach to an intersection must turn left. The sign may also be placed at the intersection or as a supplement to the Left Turn Sign (R3-5L).

(c) *Size.* The standard size of R3-7L shall be 30 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
30 x 30	30	4 1/2	4	5	11 9/16	12 1/8	7 1/4	7 11/16	12 1/4
48 x 48	48	8 1/2	6	7	18 3/16	17 1/2	9 11/16	10 1/8	18 11/16

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30 x 30	C	C	C	1/2	3/4	B3-30
48 x 48	C	C	C	3/4	1 1/4	B3-48

§ 615.108. Right Lane Must Turn Right Sign (R3-7R).

(a) *Justification.* The Right Lane Must Turn Right Sign (R3-7R) shall be authorized for use as provided in § 615.83 of this Title (relating to lane-use control signs).

(b) *Placement.* The R3-7R sign shall be placed an adequate distance in advance of the intersection when traffic in the right lane of an approach to an intersection must turn right. The sign may also be placed at the intersection or as a supplement to the Right Turn Sign (R3-5R).

(c) *Size.* The standard size of R3-7R shall be 30 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
30 x 30	30	4 1/2	4	5	12 5/16	12 1/2	7 1/4	7 11/16	12 3/4	12 13/16	
48 x 48	48	8 1/2	6	7	18 3/8	19 1/8	9 1/16	10 1/8	19 1/4	20	

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30 x 30	C	C	C	1/2	3/4	B3-30
48 x 48	C	C	C	3/4	1 1/4	B3-48

6615.109.

All Traffic Must Turn Right Sign (R3-7-1R).

(a) *Justification.* The All Traffic Must Turn Right Sign (R3-7-1R) shall be authorized for use when traffic in all lanes of an approach to an intersection must turn right and may also be used as a supplement to the overhead Right Turn Sign (R3-5R).

(b) *Placement.* The R3-7-1R sign shall be placed at the intersection with a second sign an adequate distance in advance of the intersection. When used as a supplement to the R3-5R sign it shall be placed an adequate distance in advance of the intersection.

(c) *Size.* The standard size of R3-7-1R shall be 30 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
30x30	30	4 1/2	4	5	11 3/8	7 1/4	7 11/16	12 3/4	12 15/16	
48x48	48	8 1/2	6	7	17 1/16	9 11/16	10 1/8	19 1/4	20	

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30x30	B	C	C	1/2	3/4	B3-30
48x48	B	C	C	3/4	1 1/4	B3-48

615.110.

All Traffic Must Turn Left Sign (R3-7-1L).

(a) *Justification.* The All Traffic Must Turn Left Sign (R3-7-1L) shall be authorized for use when traffic in all lanes of an approach to an intersection must turn left and may also be used as a supplement to the overhead Left Turn Sign (R3-5L).

(b) *Placement.* The R3-7-1L sign shall be placed at the intersection with a second sign an adequate distance in advance of the intersection. When used as a supplement to the R3-5L sign it shall be placed an adequate distance in advance of the intersection.

(c) *Size.* The standard size of R3-7-1L shall be 30 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	4 1/2	4	5	11 3/8	7 1/4	7 11/16	11 3/4
48 x 48	48	8 1/2	6	7	17 1/16	9 11/16	10 1/8	17 1/2

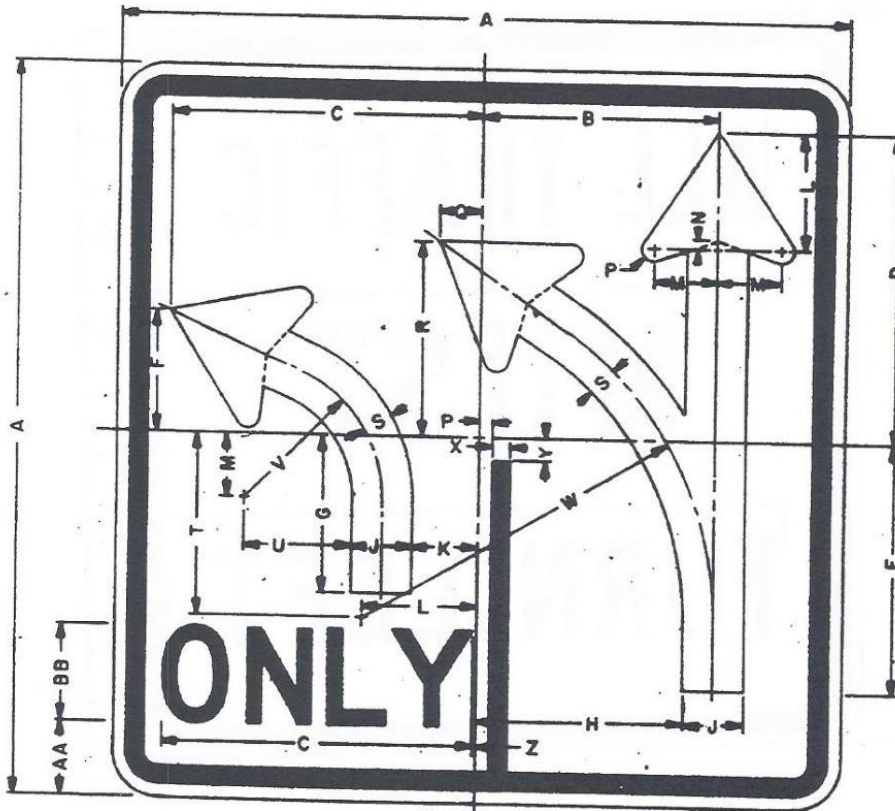
SIGN SIZE	SERIES LINES			MAR- GIN	BOR- DER	BLANK STD
	1	2	3			
30 x 30	B	C	C	1/2	3/4	B3-30
48 x 48	B	C	C	3/4	1 1/4	B3-48

6615.111.

Lane-Use Control Sign (R3-8LLS).

(a) *Justification.* The Lane-Use Control Sign (R3-8LLS) shall be authorized for use to supplement the Left Turn Sign (R3-5L) and the Optional Left Turn Sign (R3-6LS).

(b) *Placement.* The R3-8LLS sign shall be placed an adequate distance in advance of the intersection to allow the motorist time to select the appropriate lane before reaching the intersection.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
30x30	30	9 3/4	12 7/8	12 5/8	10 1/4	5	6 1/2	8 1/2	2 1/2	2 3/4	4 3/4	2 5/8	3/8	1/2	1 3/4	8

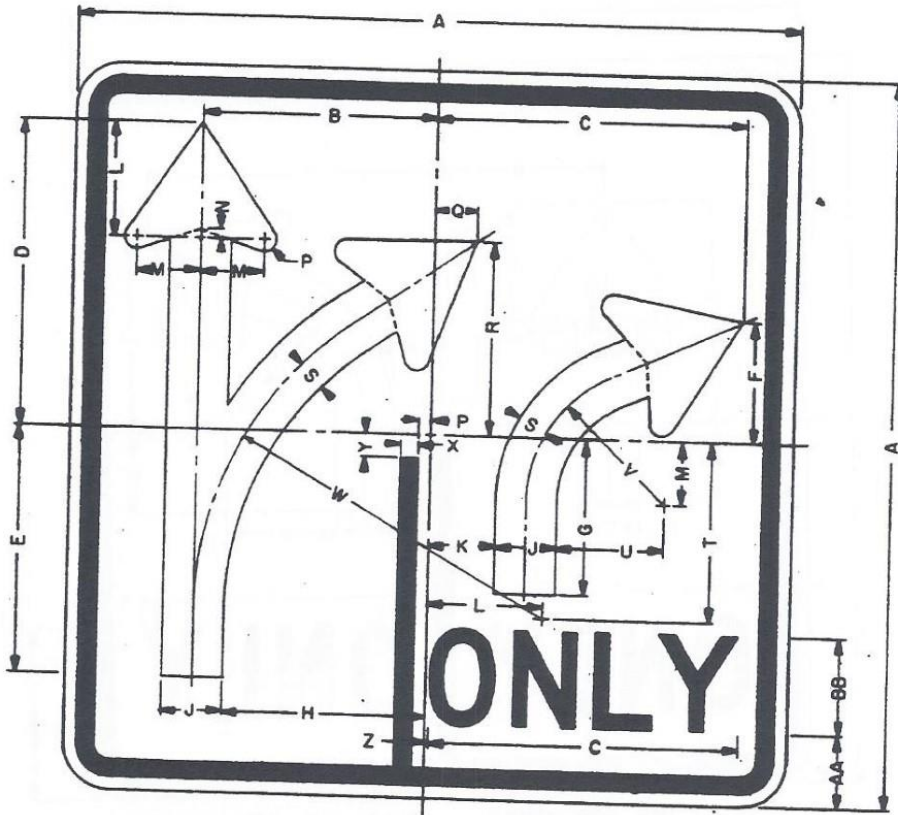
SIGN SIZE	DIMENSIONS											SERIES LINE	MAR-GIN	BOR-DER	BLANK STD
	S	T	U	V	W	X	Y	Z	AA	BB	I				
30x30	1 1/4	7 1/2	4 1/2	5 3/4	14 1/2	3 3/4	1	1/8	3	4	D	1/2	3/4	B3-30	

§615.112.

§615.112. Lane-Use Control Sign (R3-8SRR).

(a) *Justification.* The Lane-Use Control Sign (R3-8SRR) shall be authorized for use to supplement the Right Turn Sign (R3-5R) and the Optional Right Turn Sign (R3-6SR).

(b) *Placement.* The R3-8SRR sign shall be placed an adequate distance in advance of the intersection to allow the motorist time to select the appropriate lane before reaching the intersection.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
30x30	30	9 3/4	12 7/8	12 5/8	10 1/4	5	6 1/2	8 1/2	2 1/2	2 3/4	4 3/4	2 5/8	3/8	1/2	1 3/4	8

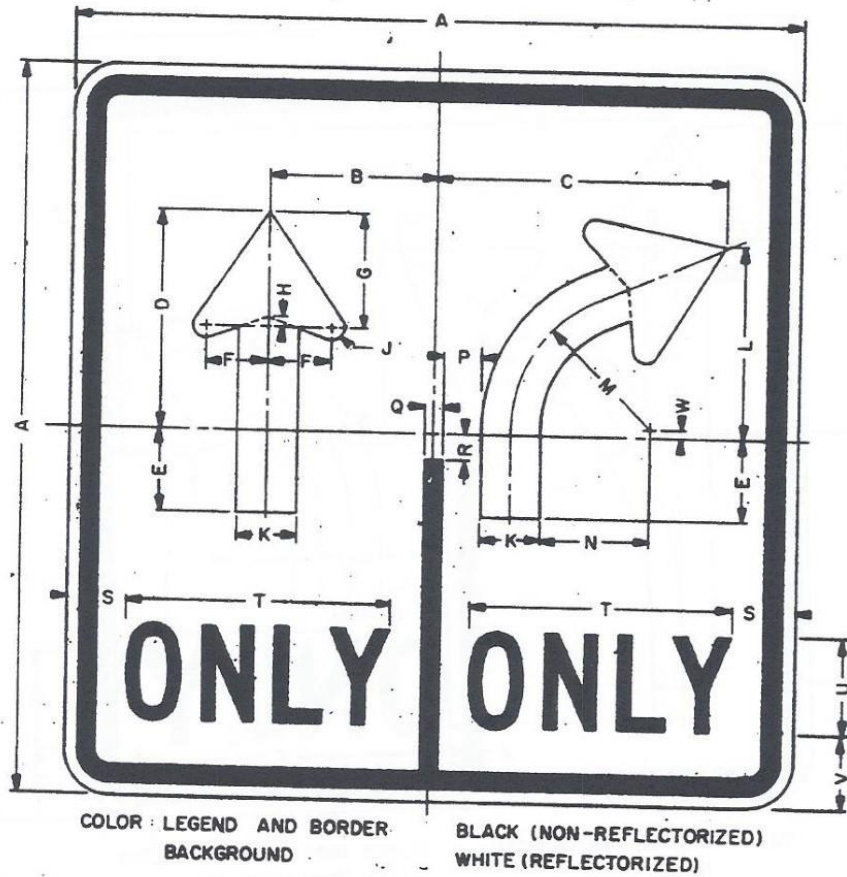
SIGN SIZE	DIMENSIONS										SERIES LINE	MARGIN	BORDER	BLANK STD
	S	T	U	V	W	X	Y	Z	AA	BB				
30x30	1 1/4	7 1/2	4 1/2	5 3/4	14 1/2	3/4	1	1/8	3	4	D	1/2	3/4	B3-30

§615.113.

~~R3-5R~~ Lane Use Control Sign (R3-8SR).

(a) *Justification.* The Lane-Use Control Sign (R3-8SR) shall be authorized for use to supplement the Right Turn Sign (R3-5R) and the Straight Through Sign (R3-5S).

(b) *Placement.* The R3-8SR sign shall be placed an adequate distance in advance of the intersection to allow the motorist time to select the appropriate lane before reaching the intersection.



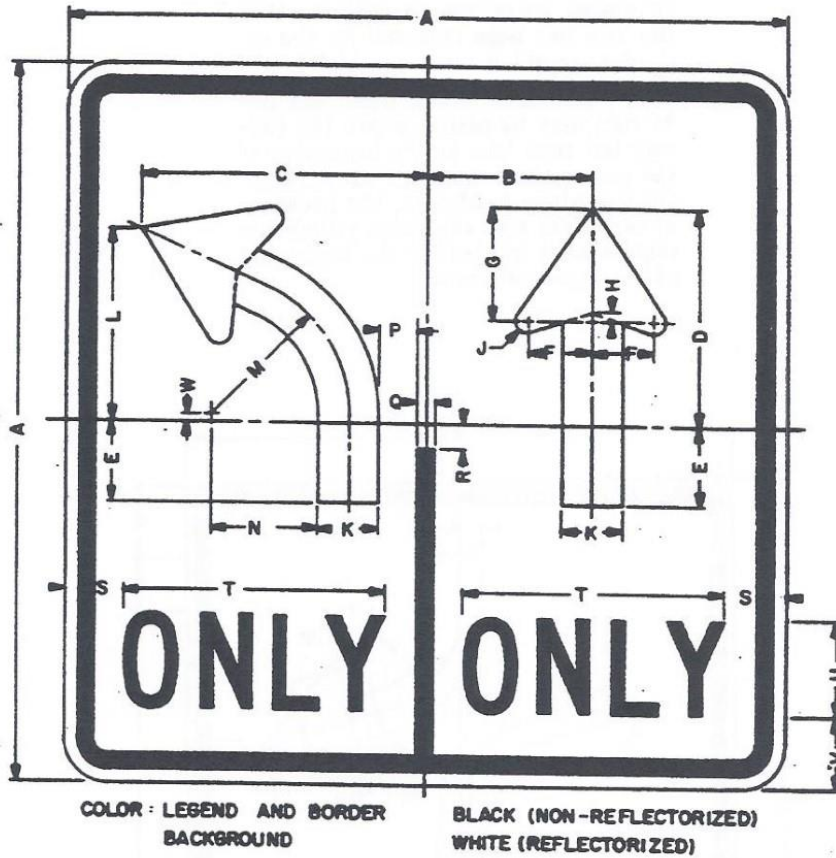
SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
30 x 30	30	6 $\frac{7}{8}$	11 $\frac{15}{16}$	9 $\frac{1}{16}$	3 $\frac{5}{16}$	2 $\frac{5}{8}$	4 $\frac{3}{4}$	3 $\frac{3}{8}$	$\frac{1}{2}$	2 $\frac{1}{2}$	8	5 $\frac{3}{4}$	4 $\frac{1}{2}$

SIGN SIZE	DIMENSIONS									SERIES LINE	MARGIN	BORDER	BLANK STD
	P	Q	R	S	T	U	V	W					
30 x 30	1 $\frac{9}{16}$	3 $\frac{3}{4}$	1	2 $\frac{1}{2}$	10 $\frac{7}{8}$	4	3	5 $\frac{5}{16}$	C	$\frac{1}{2}$	3 $\frac{3}{4}$	B3-30	

§211.124. Lane Use Control Sign, R3-8LS.

(a) *Justification.* The Lane Use Control Sign, R3-8LS, shall be authorized for use to supplement the Left Turn Sign, R3-5L, and the Straight Through Sign, R3-5S.

(b) *Placement.* The R3-8LS sign shall be placed an adequate distance in advance of the intersection to allow the motorist time to select the appropriate lane before reaching the intersection.



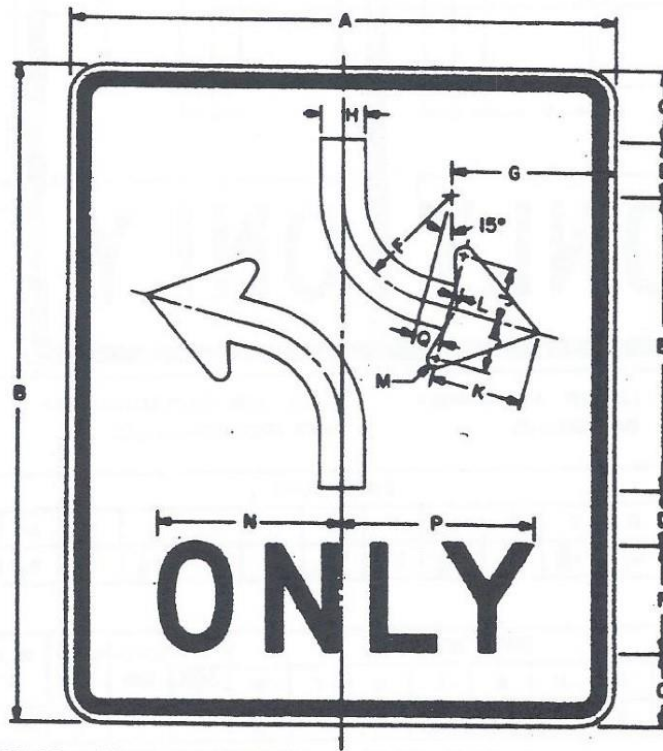
SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
30x30	30	6 $\frac{7}{8}$	11 $\frac{11}{16}$	9 $\frac{1}{16}$	3 $\frac{5}{16}$	2 $\frac{7}{8}$	5 $\frac{1}{16}$	3 $\frac{3}{8}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	8	5 $\frac{3}{8}$	4 $\frac{1}{2}$

SIGN SIZE	DIMENSIONS									SERIES LINE I	MARGIN	BORDER	BLANK STD
	P	Q	R	S	T	U	V	W					
30x30	1 $\frac{3}{16}$	1 $\frac{1}{4}$	1	2 $\frac{1}{2}$	10 $\frac{1}{8}$	4	3	1 $\frac{1}{16}$	C	1 $\frac{1}{2}$	1 $\frac{3}{4}$	B3-30	

§ 211.125. Two-Way Left Turn Only Sign, R3-9a.

(a) *Justification.* The Two-way Left Turn Only Sign, R3-9a, is authorized for use as provided in § 211.93 (relating to lane use control signs) for overhead installations in conjunction with pavement markings to indicate that the lane has been reserved for the exclusive use of left turning vehicles.

(b) *Placement.* When used, the R3-9a sign may be placed above the two-way left turn lane at the beginning of the zone and at intervals throughout. On three-lane roadways, the presence of the R3-9a sign shall also satisfy the requirement to identify the beginning of the no-passing zone.



COLOR: LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

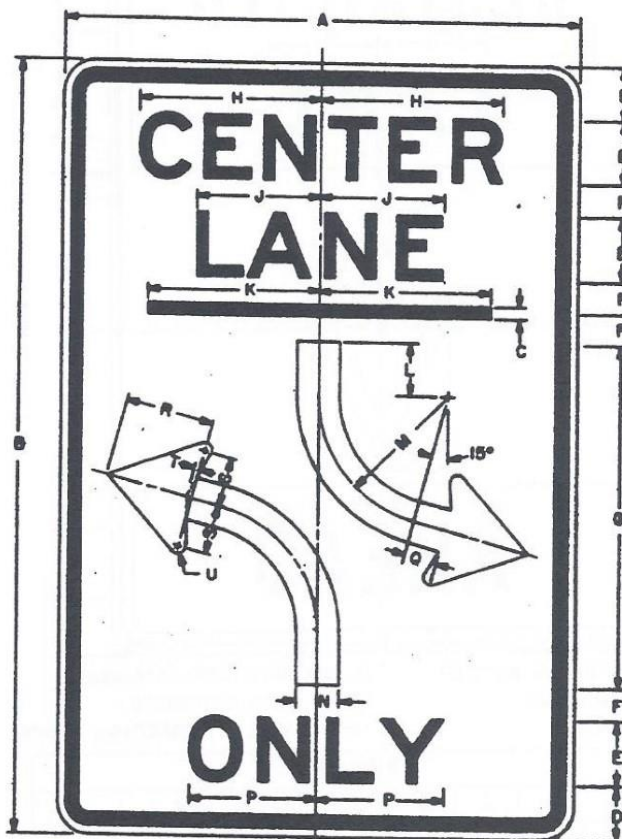
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
30x36	30	36	4	3	16	6	9	2 1/2	2 1/2	5 1/8

SIGN SIZE	DIMENSIONS					SERIES LINE	MARGIN	BORDER	BLANK STD
	L	M	N	P	Q				
30x36	1/8	1/2	10 1/8	10 1/8	1 1/2	D	1/2	1/2	BS-3630

§ 211.126. Center Lane -- Left Turn Only Sign, R3-9b.

(a) *Justification.* The Center Lane -- Left Turn Only Sign, R3-9b, is authorized for use as provided in § 211.93 (relating to lane use control signs) as a post mounted sign in conjunction with pavement markings to indicate that the center lane of a three-lane or five-lane highway has been reserved for the exclusive use of left-turning vehicles. When overhead signs are not installed, a post mounted R3-9b sign shall be used at the beginning of the center lane left turn only restriction. The R3-9b sign may also be used at intervals throughout the restricted section of highway. On three-lane highways, the presence of the R3-9b sign shall also satisfy the requirement to identify the beginning of the no-passing zone.

(b) *Size.* When used on a five-lane highway, the standard size shall be 36 inches by 48 inches.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
24x36	24	36	5/8	2 1/2	3	1 1/2	16	8 1/2	5 1/2	8	2 1/2	6	2
36x48	36	48	5/8	3 1/2	5	1 1/2	20	14 1/2	9 1/2	12	3	8	3

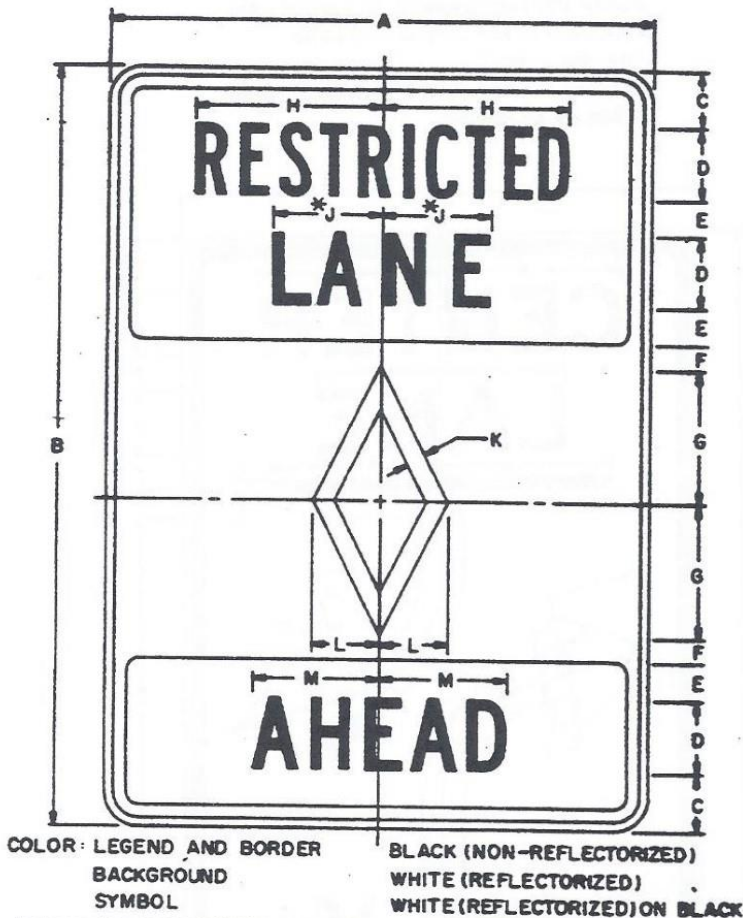
SIGN SIZE	DIMENSIONS						SERIES			MARGIN	BORDER	BLANK STD
	P	Q	R	S	T	U	1	2	3			
24x36	5 1/2	1 1/2	4 1/2	2 1/2	3	1 1/2	E	E	E	1/2	1/2	85-3624
36x48	9 1/2	2	6 1/2	3 1/2	5	1 1/2	E	E	E	1/2	1/2	85-4836

§211.127. Restricted Lane Ahead Sign, R3-10.

(a) *Justification.* The Restricted Lane Ahead Sign, R3-10, shall be authorized for use in advance of a section of roadway wherein travel over a specific lane of the roadway is restricted to provide preferential treatment for a certain class or classes of vehicles as provided in § 211.94 of this title (relating to preferential lane use control signs).

(b) *Placement.* The R3-10 sign shall be post mounted an adequate distance in advance of the restricted lane to allow provision for safe movement to and from the restricted lane prior to the actual restriction.

(c) *Size.* The standard size of the R3-10 sign shall be 30 inches by 42 inches. The standard size shall be 36 inches by 60 inches for expressways and 48 inches by 84 inches for freeways.



SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
30x42	30	42	3 1/4	4	2	1 1/2	7 1/2	10 3/4	6	1 1/2
36x60	36	60	4 1/2	6	3	2	10	15 1/2	9	1 1/2
48x84	48	84	6	8	4	3	15	20 1/2	12	2 1/2

* Increase spacing 100%

SIGN SIZE	DIMENSIONS		SERIES			MAR- GIN	BOR- DER	BLANK STD
	L	M	LINES					
30x42	3 3/4	7	B	C	C	1/2	3/4	
36x60	5	10 1/2	B	C	C	3/8	7/8	
48x84	7 1/2	14	B	C	C	1/2	1 1/2	

§ 615.118. Preferential Lane Sign (R3-11).

(a) *Justification.* The Preferential Lane Sign (R3-11) shall be authorized for use at the beginning of, and at frequent intervals within, a section of roadway where travel over a specific lane of the roadway is restricted to a specific class or classes of vehicles as provided in § 615.84 of this Title (relating to preferential lane-use control signs).

(b) *Format.* The message of Sign R3-11 should have the following sequence:

TOP LINES

= lane(s) applicable (e.g., CENTER LANE, CURB LANE, RIGHT 2 LANES, THIS LANE).

MIDDLE LINES

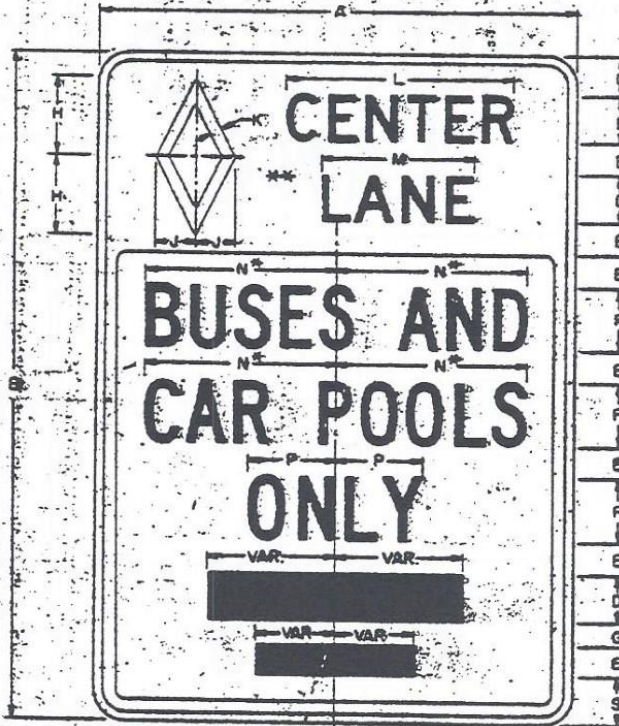
= applicable vehicles (e.g., BUSES ONLY, BUSES AND CARPOOLS, BUSES AND RIGHT TURNS ONLY).

BOTTOM LINES

= applicable time and day (e.g., 7 AM - 9 AM, 4 PM - 6 PM, MON-FRI).

(c) *Placement.* The R3-11 sign shall be post-mounted adjacent to the preferential lane at frequent intervals. The spacing of such signs shall be based on engineering judgment taking into account prevailing speeds, block lengths, distance from intersections or interchanges, and other considerations necessary to adequately communicate with the driver.

(d) *Size.* The standard size of the R3-11 sign shall be 30 inches by 42 inches. The standard size shall be 42 inches by 60 inches for expressways and 54 inches by 84 inches for free-



COLORS: TOP - SYMBOL & LEGEND - WHITE (REFL.) BOTTOM - LEGEND - BLACK (NON-REFL.)
 BACKGROUND - BLACK (NON-REFL.) BACKGROUND - WHITE (REFL.)

SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
30x42	30	42	2 1/2	3	2	4	1 1/2	5	2 1/2	1 1/2	14 1/2	9 1/2	12	5 1/2
42x60	42	60	4	4	3	6	2	7 1/2	3 1/2	1 1/2	19 1/2	12 1/2	18	8 1/2
54x84	54	84	6	6	4	8	3	10	5	1 1/2	25 1/2	19 1/2	24	11

* Reduce spacing 25% ** Optically locate symbol and top legend.

SIGN SIZE	DIMENSIONS			SERIES LINES							MARGIN	ORDER	BLANK STD
	G	R	S	1	2	3	4	5	6	7			
30x42	10	8 1/2	3	D	D	C	C	C	D	D	1/2	2	
42x60	13 1/2	11 1/2	3	D	D	C	C	C	D	D	3/4	3	
54x84	20	17 1/2	6	D	D	C	C	C	D	D	1	4	

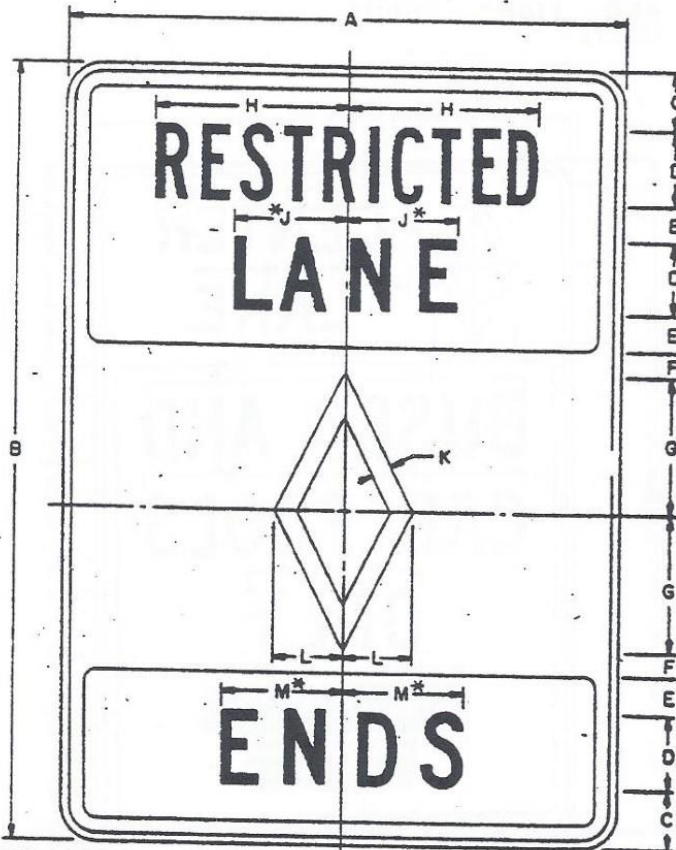


§ 615.119. Restricted Lane Ends Sign (R3-12).

(a) *Justification.* The Restricted Lane Ends Sign (R3-12) shall be authorized for use to indicate the end of a section of roadway over which a lane has been restricted to provide preferential treatment for a certain class or classes of vehicles as provided in § 615.84 of this Title (relating to preferential lane-use control signs).

(b) *Placement.* The R3-12 sign shall be post-mounted to mark the end of a section of roadway which has a lane restricted for the preferential use of a certain class or classes of vehicles.

(c) *Size.* The standard size of the R3-12 sign shall be 30 inches by 42 inches. The standard size shall be 36 inches by 60 inches for expressways and 48 inches by 84 inches for free-ways.



COLOR: LEGEND AND BORDER
BACKGROUND
SYMBOL

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)
WHITE (REFLECTORIZED) ON BLACK

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
30x42	30	42	3 1/4	4	2	1 1/4	7 1/2	10 3/8	6	1 1/8
36x60	36	60	4 1/2	6	3	2	10	15 1/2	9	1 1/2
48x84	48	84	6	8	4	3	15	20 3/4	12	2 1/4

* Increase spacing 100%

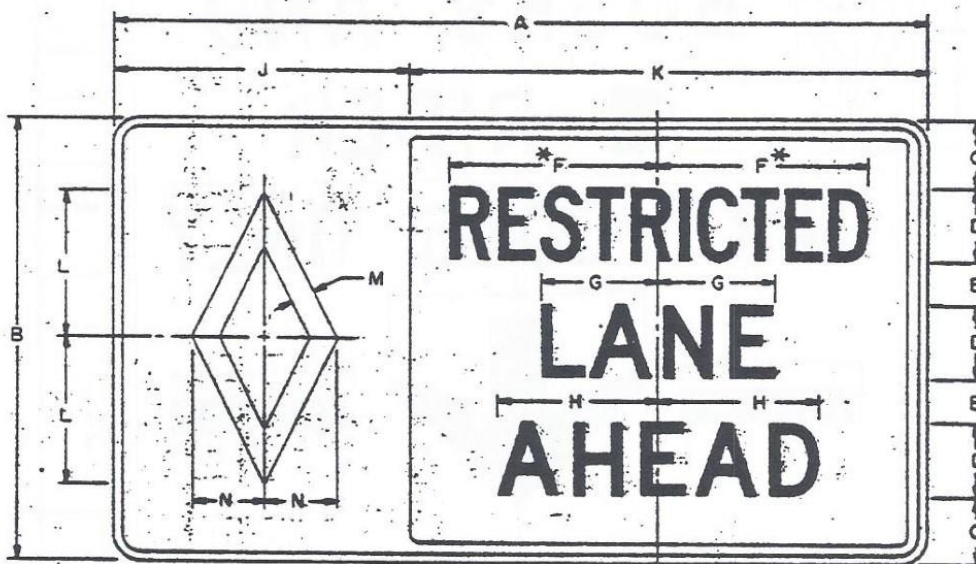
SIGN SIZE	DIMENSIONS		SERIES LINES			MARGIN	BORDER	BLANK STD
	L	M	1	2	3			
	30x42	3 3/4	7 1/2	B	C			
36x60	5	9 3/4	B	C	C	3/8	7/8	
48x84	7 1/2	12 15/16	B	C	C	1/2	1 1/4	

§ 615.120. Restricted Lane Ahead Sign (R3-13).

(a) *Justification.* The Restricted Lane Ahead Sign (R3-13) shall be authorized for use in advance of a section of roadway wherein travel over a specific lane of the roadway is restricted to a specified class or classes of vehicles as provided in § 615.84 of this Title (relating to preferential lane-use control signs).

(b) *Placement.* The R3-13 sign shall be mounted overhead an adequate distance in advance of the restricted lane to allow provision for safe movement to and from the restricted lane prior to the actual restriction.

(c) *Size.* The standard size for the R3-13 sign shall be 66 inches by 36 inches. The standard size shall be 84 inches by 48 inches for expressways and 102 inches by 60 inches for free-ways.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND: WHITE (REFLECTORIZED)
 SYMBOL: WHITE (REFLECTORIZED) ON BLACK

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
66 x 36	66	36	5½	6	3½	17	9⅝	13⅝	24	42
84 x 48	84	48	7	8	5	22½	12¾	17⅞	30	54
102 x 60	102	60	9	10	6	28	16	21¼	36	66

* Reduce spacing 50%

SIGN SIZE	DIMENSIONS			SERIES			MAR-GIN	BOR-DER	BLANK STD
	L	M	N	LINES					
				1	2	3			
66 x 36	12	2	6	C	D	D	⅝	⅞	
84 x 48	16	2½	8	C	D	D	¾	1¼	
102 x 60	20	3	10	C	D	D	1	1½	

§ 615.121. Preferential Lane Sign (R3-14).

(a) *Justification.* The Preferential Lane Sign R3-14 shall be authorized for use at the beginning of, and at frequent intervals within, a section of roadway where travel over a specific lane of the roadway is restricted to a specific class or classes of vehicles as provided in § 615.84 of this Title (relating to preferential lane-use control signs).

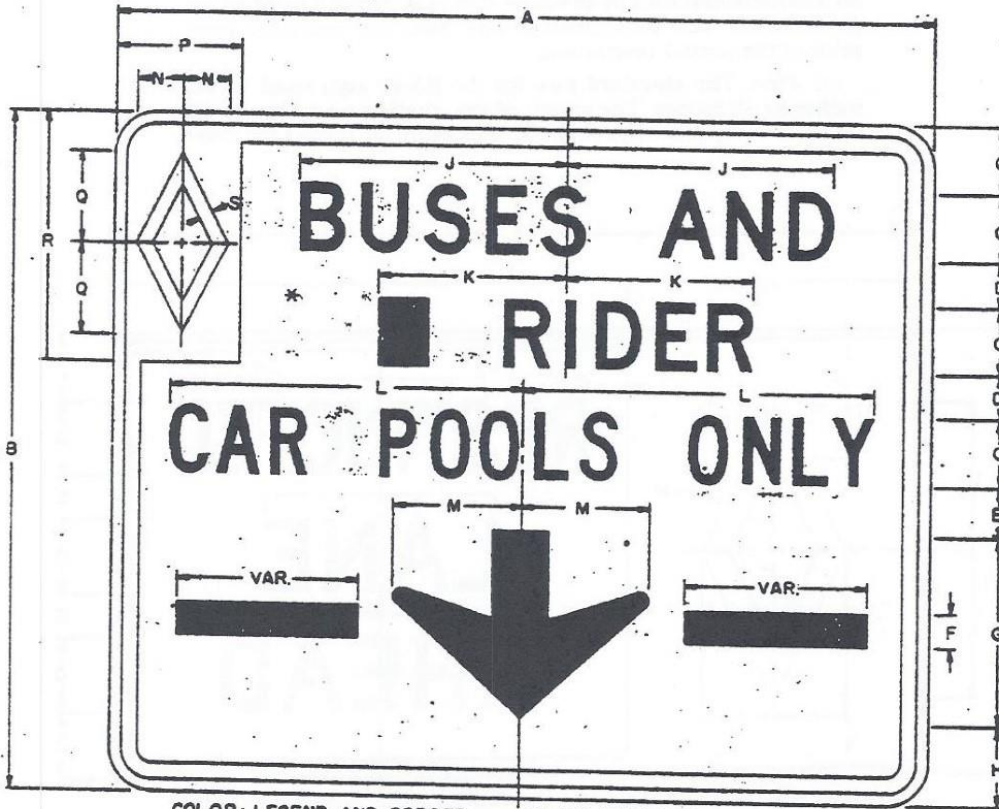
(b) *Format.* The message of Sign R3-14 should have the following sequence.

TOP LINES = applicable vehicles (e.g., BUSES ONLY, BUSES AND CARPOOLS, BUSES AND RIGHT TURNS ONLY).

BOTTOM LINE = applicable time and day (e.g., 7 AM — 9 AM, 4 PM — 6 PM, MON-FRI). The time and day are separated by a downward arrow.

(c) *Placement.* The R3-14 sign shall be mounted overhead directly over a preferential lane at frequent intervals. The spacing of such signs shall be based on engineering judgment taking into account prevailing speeds, block lengths, distance from intersections or interchanges, and other considerations necessary to adequately communicate with the driver.

(d) *Size.* The standard size of the R3-14 sign shall be 72 inches by 60 inches. The standard size shall be 96 inches by 72 inches for expressways and 108 inches by 84 inches for free-ways.



COLOR: LEGEND AND BORDER
BACKGROUND
SYMBOL

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)
WHITE (REFLECTORIZED) ON BLACK

SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
72 x 60	72	60	6	4	4 1/2	3	16 1/2	7	23 1/2	16 1/2	31	11 1/4	4
96 x 72	96	72	8	6	4 1/2	4	16 1/2	7	31 1/2	21 1/2	41	11 1/4	5
108 x 84	108	84	10	6	4	5	22	8	39	27	51	16	6

* Optically locate symbol and top two (2) lines of legend

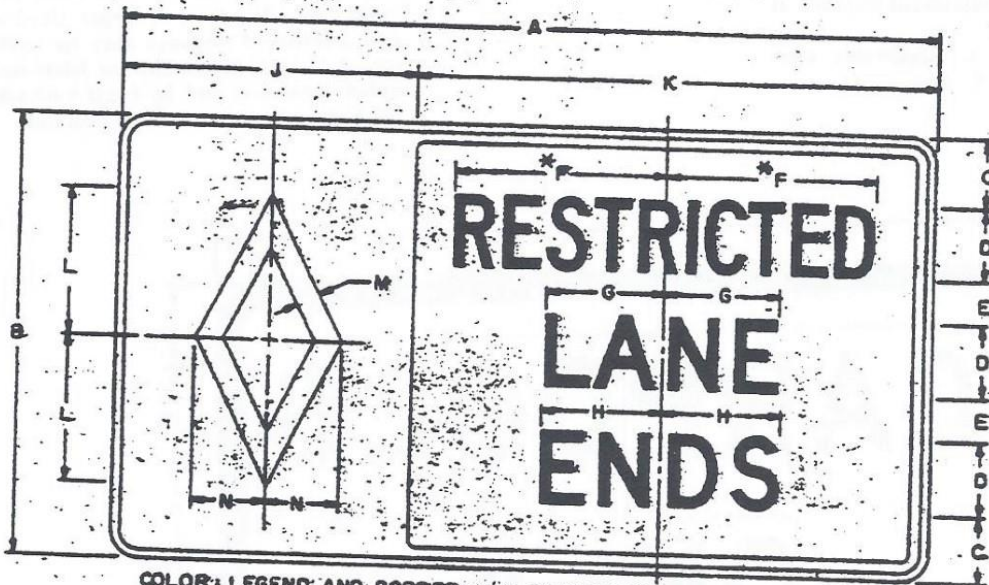
SIGN SIZE	DIMENSIONS				SERIES LINES				MARGIN	BORDER	BLANK STD
	P	Q	R	S	1	2	3	4			
72 x 60	11	8	22	1 1/4	D	D	C	C	1	1 1/2	
96 x 72	15	10	30	1 1/2	D	D	C	C	1 1/4	1 3/4	
108 x 84	18	12	36	2	D	D	C	C	1 1/2	2	

§ 615.122. Restricted Lane Ends Sign (R3-15).

(a) *Justification.* The Restricted Lane Ends Sign (R3-15) shall be authorized for use to indicate the end of a section of roadway over which a lane has been restricted to provide preferential treatment for a certain class or classes of vehicles as provided in § 615.84 of this Title (relating to preferential lane-use control signs).

(b) *Placement.* The R3-15 sign shall be mounted overhead to mark the end of a section of roadway which has a lane restricted for the preferential use of a certain class or classes of vehicles.

(c) *Size.* The standard size of the R3-15 sign shall be 66 inches by 36 inches. The standard size shall be 84 inches by 48 inches for expressways and 102 inches by 60 inches for free-ways.



COLOR: LEGEND AND BORDER: BLACK (NON-REFLECTORIZED)
 BACKGROUND: WHITE (REFLECTORIZED)
 SYMBOL: WHITE (REFLECTORIZED) ON BLACK

SIGN SIZE	DIMENSIONS:									
	A	B	C	D	E	F	G	H	J	K
66x36	66	36	5 $\frac{1}{2}$	6	3 $\frac{1}{2}$	17	9 $\frac{1}{2}$	9 $\frac{1}{2}$	24	42
84x48	84	48	7	8	5	22 $\frac{1}{2}$	12 $\frac{1}{2}$	13	30	54
102x60	102	60	9	10	6	28	16	16 $\frac{1}{4}$	36	66

* Reduce spacing 50%

SIGN SIZE	DIMENSIONS:			SERIES			MARGIN	BORDER	BLANK STD.
	L	M	N	LINES					
				1	2	3			
66x36	12	2	6	C	D	D	$\frac{1}{8}$	$\frac{1}{8}$	
84x48	16	2 $\frac{1}{2}$	8	C	D	D	$\frac{1}{4}$	1 $\frac{1}{2}$	
102x60	20	3	10	C	D	D	1	1 $\frac{1}{2}$	

RULES AND REGULATIONS

§ 615.123. Preferential Highway Sign (R3-16).

(a) *Justification.* The Preferential Highway Sign (R3-16) shall be authorized for use in advance of a section of highway or a ramp to an expressway or freeway where travel on the specified highway is restricted to a specific class or classes of vehicles and/or to vehicles having a minimum number of occupants.

(b) *Format.* The message of Sign R3-16 should have the following sequence.

TOP LINES = applicable vehicles (such as BUSES ONLY, BUSES AND CARPOOLS, CARPOOLS ONLY)

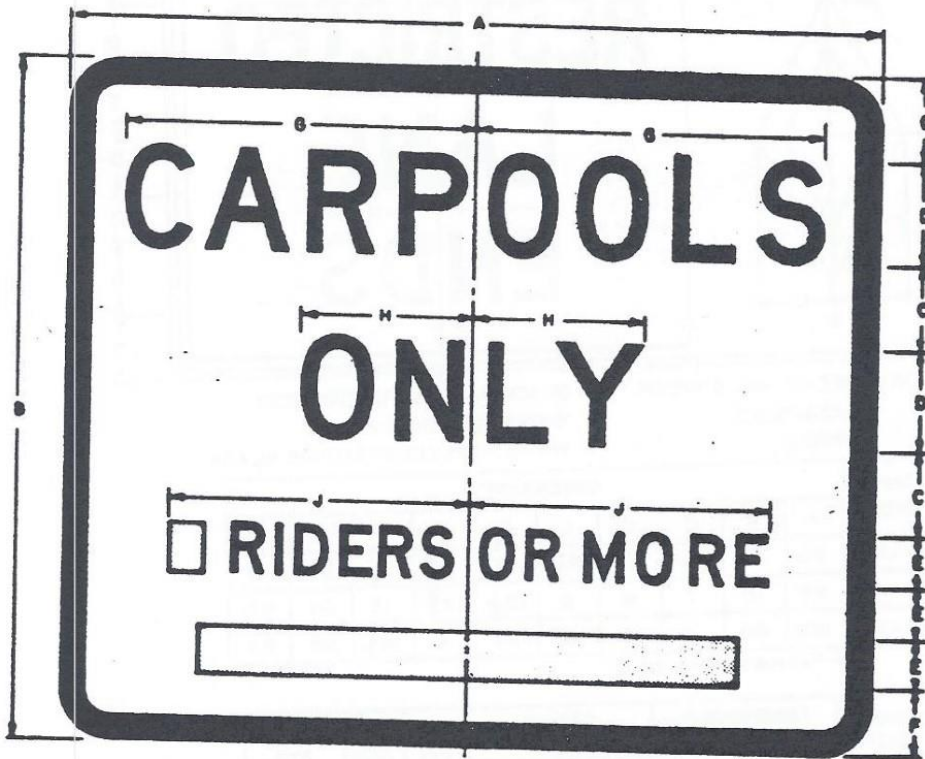
THIRD LINE = Minimum number of persons in the vehicle

BOTTOM LINE = applicable time and day (such as 6 a.m. — 10 p.m. MON-FRI)

An additional message may be added to the top of the sign to identify the preferential highway or ramp and the distance to the restriction.

(c) *Placement.* The R3-16 sign may be post mounted at the side of the road or overhead in advance of the restricted highway or ramp to the restricted highway.

(d) *Size.* The standard size of the R3-16 sign shall be 48 inches by 40 inches. The standard size for any additional message at the top of the sign shall be 48 inches by 20 inches. A larger sized sign and additional message may be authorized by the Department for State-designated highways and by local authorities for highways under their jurisdiction.



COLOR - LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48x40	48	40	3	6	3	4	20	10	17

SIGN SIZE	SERIES				BORDER	BLANK STD
	1	2	3	4		
48x40	D	D	D	VAR	1	SS-4840

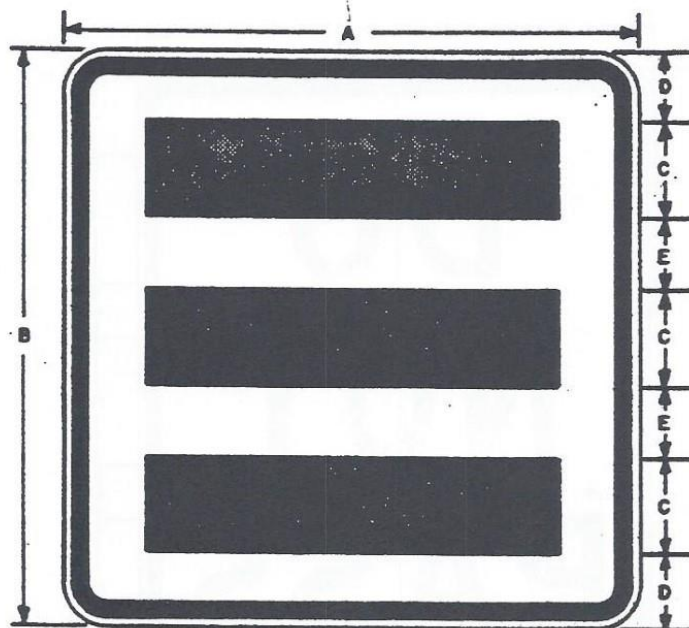
SS 211.134. - 211.140. (Reserved)

§211.141. Restricted Hours Panel, R3-20.

(a) *Justification.* The Restricted Hours Panel, R3-20, may be used as a supplemental sign with any of the turn prohibition signs, as provided in § 211.92(c)(2) of this title (relating to turn prohibition signs), the No Turn on Red Sign, R10-11, or the Speed Limit Sign, R2-1, when used to identify a school zone speed limit, to designate the hours of the restriction. The message on the R3-20 Panel may be one, two, or three lines, but a maximum of two lines may be used to indicate the hours of effectiveness. The last line may be used to designate effective days of the week if required.

(b) *Placement.* The R3-20 Panel, when used, shall be mounted below the primary sign.

(c) *Size.* The R3-20 Panel shall have the same width as the primary sign.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES			MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	1	2	3			
24 x 12	24	12	4	4	—	VAR.	—	—	$\frac{3}{8}$	$\frac{5}{8}$	B5-24 12
24 x 18	24	18	4	$3\frac{1}{2}$	3	VAR.	VAR.	—			B5-24 18
24 x 24	24	24	4	3	3	VAR.	VAR.	VAR.			B5-24
30 x 15	30	15	5	5	—	VAR.	—	—	$\frac{1}{2}$	$\frac{3}{4}$	B5-30 15
30 x 24	30	24	5	5	4	VAR.	VAR.	—			B5-30 24
30 x 30	30	30	5	$3\frac{3}{4}$	$3\frac{3}{4}$	VAR.	VAR.	VAR.			B5-30
36 x 18	36	18	6	6	—	VAR.	—	—	$\frac{5}{8}$	$\frac{7}{8}$	B5-36 18
36 x 30	36	30	6	6	6	VAR.	VAR.	—			B5-36 30
36 x 36	36	36	6	$4\frac{1}{2}$	$4\frac{1}{2}$	VAR.	VAR.	VAR.			B5-36

SS 211.142. - 211.150. (Reserved)

§ 211.151. Do Not Pass Sign, R4-1.

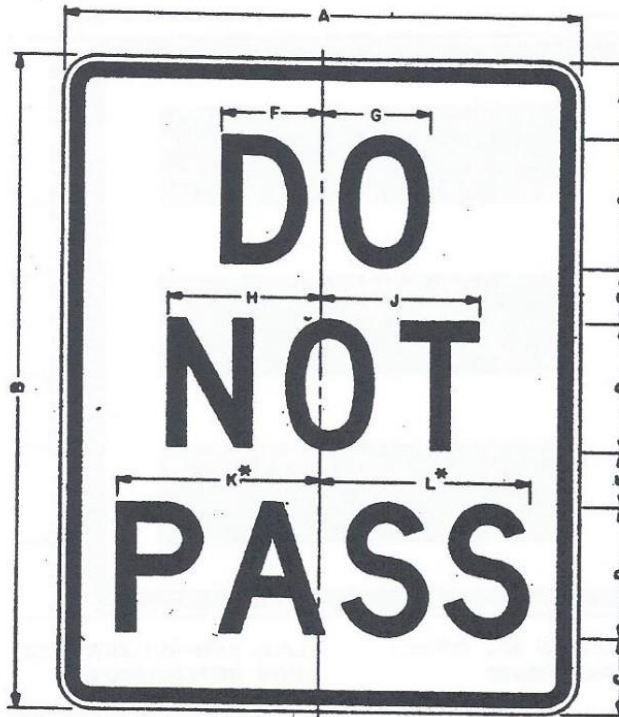
(a) *Justification.* The Do Not Pass Sign, R4-1 is authorized for use at the beginning of and at intervals within a no-passing zone established in accordance with § 201.53 (relating to no-passing zones). However, when a no-passing zone on a two-lane roadway begins at other than an intersection, the No Passing Zone Pennant, W14-3, should be installed at the beginning of the zone when space exists instead of the R4-1 sign.

(b) *Placement.* Requirements for placement shall be as follows:

(1) When a no-passing zone begins at an intersection, the R4-1 sign should be installed within 500 feet after the intersection.

(2) On three-lane highways the R4-1 sign may be installed within no-passing zones, except that the R4-1 sign should not be installed if the Two-Way Left Turn Only Sign, R3-9a, or the Center Lane - Left Turn Only Sign, R3-9b, is installed. The R4-1 sign is not required on two-lane two-way highways with a truck climbing lane.

(c) *Size.* The standard size R4-1 sign shall be 24 inches by 30 inches. The standard size for expressways shall be 36 inches by 48 inches.



COLOR - LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24x30	24	30	3 1/2	6	2 1/2	4 1/8	5	7 1/2	7 1/2	9 1/2	9 1/2
36x48	36	48	7	8	5	6 1/2	6 1/2	9 1/2	9 1/2	12 1/2	13
48x60	48	60	8	10	7	7 1/2	8 1/2	11 1/2	12 1/2	15 1/2	16 1/2

* Reduce spacing 40%

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
24x30	D	D	D	3/8	5/8	85-3024
36x48	D	D	D	3/8	7/8	85-4836
48x60	D	D	D	3/2	1 1/2	85-6048

§ 211.152. No Passing Zone Ahead Sign, R4-1-2.

(a) *Justification.* The No Passing Zone Ahead Sign, R4-1-2, is authorized for use on multilane, two-way highways in advance of the initial Do Not Pass Sign, R4-1, in each no passing zone when it is not possible to install a No Passing Zone Pennant, W14-3, in the median.

(b) *Placement.* The R4-1-2 sign, when used, should be placed approximately 500 to 1000 feet in advance of the R4-1 sign.



COLOR : LEGEND AND BORDER
BACKGROUND

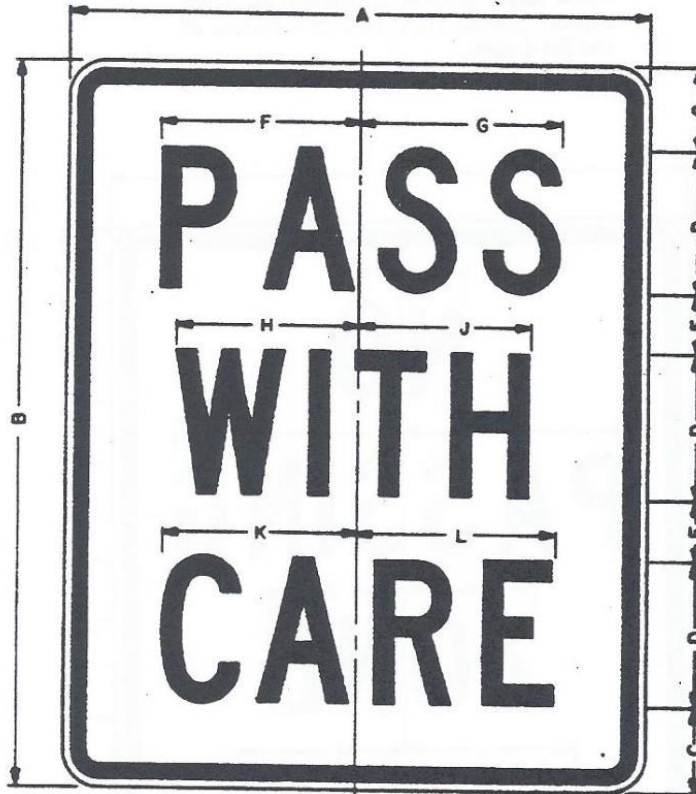
BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
36x48	36	48	5 1/2	6	4 1/2	3 1/8	4 1/8	13 1/8	14 1/8	8 1/2

SIGN SIZE	DIMENSIONS		SERIES				MARGIN	BORDER	BLANK STD
	L	M	LINES						
36x48	10 1/8	10 1/8	C	C	C	C	1/2	1/2	85-4836

§211.153. Pass With Care Sign, R4-2.

- (a) *Justification.* The Pass With Care Sign, R4-2, shall be authorized for use at the end of a no passing zone to indicate that passing is permitted.
- (b) *Placement.* The R4-2 sign should normally be installed on the right side of the road at the location where the no passing zone ends and the passing zone begins. When the passing zone begins at an intersection, the R4-2 sign shall be installed within 500 feet after the intersection.
- (c) *Size.* The standard size of R4-2 shall be 24 inches by 30 inches. The standard size for expressways shall be 36 inches by 48 inches.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24x30	24	30	3 1/2	6	2 1/2	8 3/16	8 7/16	7 1/2	7 3/8	8	8 1/2
36x48	36	48	7	8	5	10 7/8	11 1/4	10	9 1/2	10 1/8	11
48x60	48	60	8	10	7	13 3/8	14 1/8	12 1/2	11 15/16	13 3/8	13 1/2

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
24x30	C	C	C	3/8	5/8	85-3024
36x48	C	C	C	5/8	7/8	85-4836
48x60	C	C	C	3/4	1 1/4	85-6048

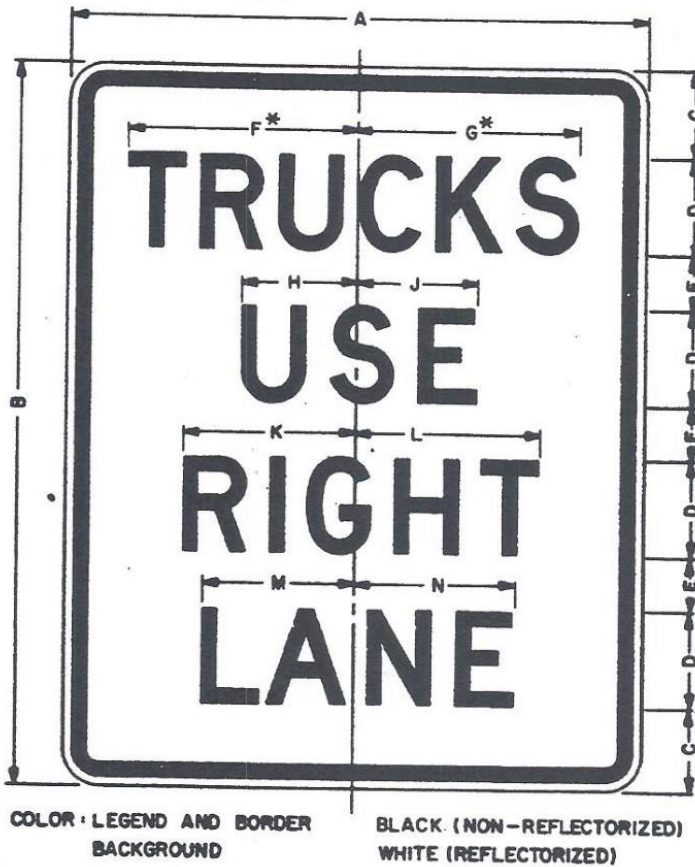
S 211.154. (Reserved)

§211.155. Trucks Use Right Lane Sign, R4-5.

(a) *Justification.* The Trucks Use Right Lane Sign, R4-5, shall be authorized for use on multilane roadways when an extra, or "climbing" lane has been provided on an upgrade for commercial motor vehicles or truck tractors and trailers or semitrailers. When used, a Truck Lane () Feet sign, R4-6, should be erected in advance of the climbing lane and a series of Pavement Width Transition signs should be erected in advance of the termination of the extra lane.

(b) *Placement.* The R4-5 sign may be erected alone or in a series with other signs, and shall be placed at reasonable intervals.

(c) *Size.* The standard size of R4-5 shall be 24 inches by 30 inches. The standard size for expressways shall be 36 inches by 48 inches.



SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
24x30	24	30	3 5/8	4	2 1/2	9 9/16	9 3/16	4 3/4	5	7 1/8	7 1/8	6 1/4	6 1/4
36x48	36	48	6	6	4	14 1/4	13 1/4	7 1/8	7 1/2	10 1/8	11 1/8	9 1/4	9 1/4
48x60	48	60	7 1/2	8	4 1/2	19 1/8	18 1/8	9 1/2	10	14 1/2	15 1/2	12 1/2	13 1/2

* Reduce spacing 32%

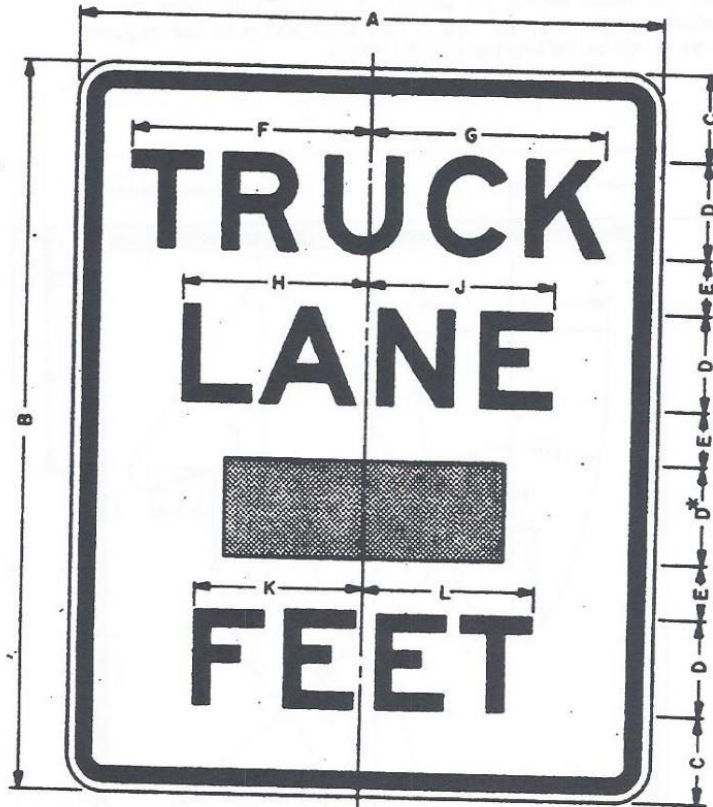
SIGN SIZE	SERIES LINES				MAR-GIN	BOR-DER	BLANK STD
	1	2	3	4			
24x30	D	D	D	D	3/8	5/8	B5-3024
36x48	D	D	D	D	5/8	7/8	B5-4836
48x60	D	D	D	D	3/4	1 1/2	B5-6048

6615-146.

§ 6069. Truck Lane (—) Feet Sign (R4-6).

(a) *Justification.* The Truck Lane (—) Feet Sign (R4-6) shall be authorized for use in advance of the beginning of the extra or "climbing" lane which has been provided for commercial vehicles or truck tractors and trailers or semi-trailers.

(b) *Size.* The standard size of R4-6 shall be 24 inches by 30 inches. The standard size for expressways shall be 36 inches by 48 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24x30	24	30	3 $\frac{5}{8}$	4	2 $\frac{1}{4}$	9 $\frac{13}{16}$	9 $\frac{11}{16}$	7 $\frac{9}{16}$	7 $\frac{11}{16}$	6 $\frac{7}{8}$	7 $\frac{1}{16}$
36x48	36	48	6	6	4	14 $\frac{3}{4}$	14 $\frac{1}{2}$	11 $\frac{5}{16}$	11 $\frac{1}{2}$	10 $\frac{5}{16}$	10 $\frac{3}{8}$
48x60	48	60	7 $\frac{1}{4}$	8	4 $\frac{1}{2}$	19 $\frac{3}{8}$	19 $\frac{3}{8}$	15 $\frac{1}{8}$	15 $\frac{3}{8}$	13 $\frac{3}{4}$	14 $\frac{1}{8}$

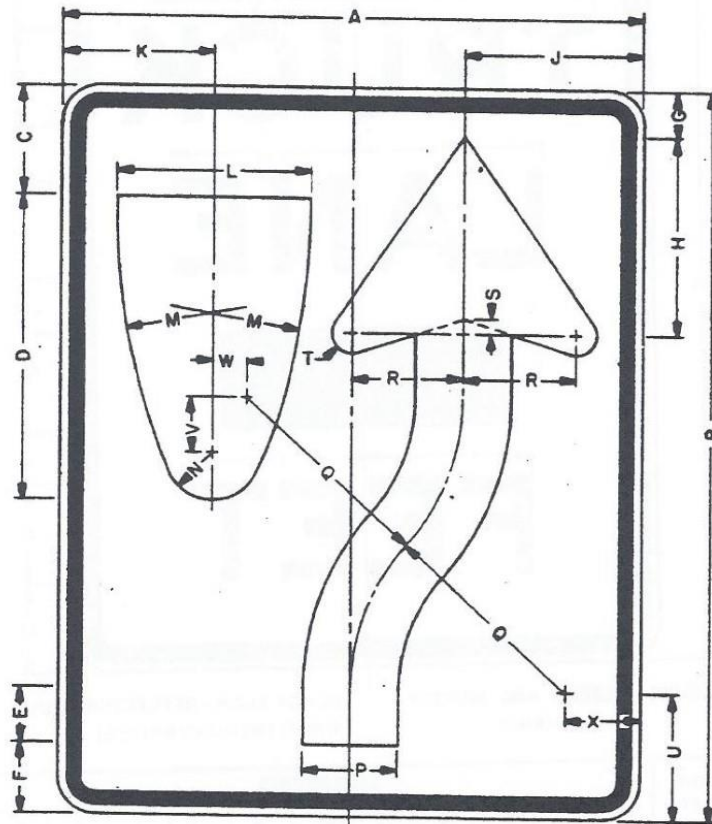
* Optically space numerals about vertical \downarrow

SIGN SIZE	SERIES LINES				MAR-GIN	BOR-DER	BLANK STD
	1	2	3	4			
24x30	E	E	E	E	$\frac{3}{8}$	$\frac{5}{8}$	B5-3024
36x48	E	E	E	E	$\frac{5}{8}$	$\frac{7}{8}$	B5-4836
48x60	E	E	E	E	$\frac{3}{4}$	1 $\frac{1}{4}$	B5-6048

§ 615.147. Keep Right Sign (R4-7).

(a) *Justification.* The Keep Right Sign (R4-7) shall be authorized for use within and at the ends of medians, parkways, loading islands, and refuge islands, at traffic islands and at underpass piers, where all traffic is required to keep to the right of such obstructions. This sign shall not be authorized for use where left-turns are permitted immediately in advance of the end of the obstruction. In these instances, an Object Marker (W16-1D) should be used instead of the R4-7 sign.

(b) *Size.* The standard size of R4-7 shall be 24 inches by 30 inches, but a smaller size of 18 inches by 24 inches may be used when an island is not of sufficient size to accommodate a larger size. The standard size for expressways shall be 36 inches by 48 inches.



COLOR LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

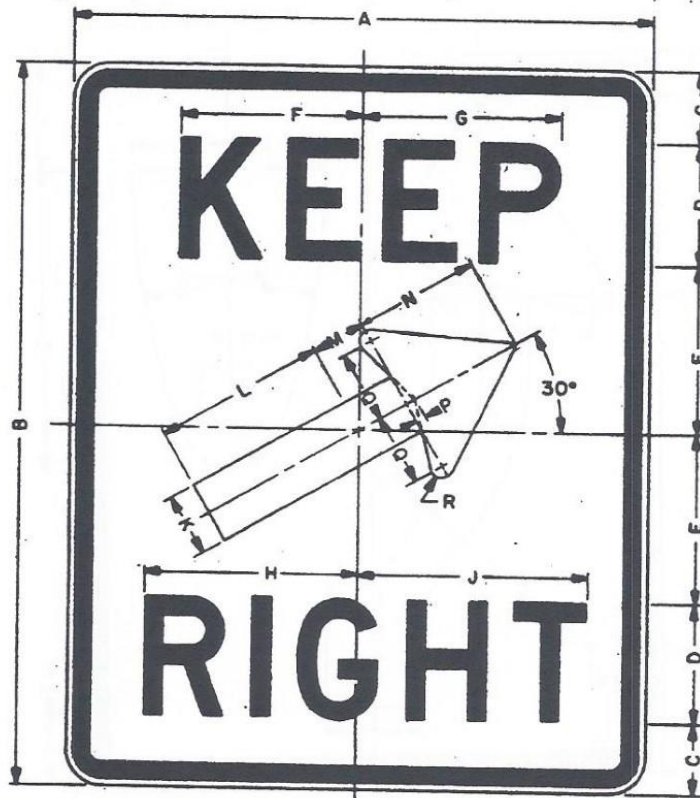
SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	
18x24	18	24	3 ³ / ₈	9 ³ / ₈	2 ¹ / ₂	2 ¹ / ₄	1 ³ / ₈	6 ¹ / ₈	5 ¹ / ₂	4 ¹¹ / ₁₆	6	22 ¹ / ₂	1 ¹ / ₂	
24x30	24	30	4 ¹ / ₂	12 ¹ / ₂	2 ⁵ / ₁₆	3	1 ⁷ / ₈	8 ¹ / ₈	7 ³ / ₈	6 ¹ / ₄	8	30	2	
36x48	36	48	6 ³ / ₄	18 ³ / ₄	5	4 ¹ / ₂	2 ¹³ / ₁₆	12 ³ / ₁₆	11 ¹ / ₈	9 ³ / ₈	12	45	3	
48x60	48	60	9	25	4 ⁵ / ₈	6	3 ³ / ₄	16 ¹ / ₄	14 ¹³ / ₁₆	12 ¹ / ₂	16	60	4	

SIGN SIZE	DIMENSIONS										MAR- GIN	BOR- DER	BLANK STD
	P	Q	R	S	T	U	V	W	X				
18x24	3	6 ³ / ₄	3 ¹ / ₂	7 ⁷ / ₁₆	9 ⁹ / ₁₆	4 ³ / ₄	1	1 ¹ / ₁₆	2 ¹ / ₄	3 ³ / ₈	5 ⁵ / ₈	85-2418	
24x30	4	9	4 ⁵ / ₈	5 ⁵ / ₈	13 ¹³ / ₁₆	5 ⁵ / ₁₆	2 ⁵ / ₁₆	1 ⁷ / ₈	3	3 ³ / ₈	5 ⁵ / ₈	85-3024	
36x48	6	13 ¹ / ₂	6 ⁷ / ₈	15 ¹⁵ / ₁₆	1 ¹³ / ₁₆	9 ¹ / ₂	2	1 ⁷ / ₈	4 ¹ / ₂	5 ⁵ / ₈	7 ⁷ / ₈	85-4836	
48x60	8	18	9 ³ / ₁₆	1 ¹ / ₄	1 ⁵ / ₈	10 ⁵ / ₈	4 ⁵ / ₈	2 ¹¹ / ₁₆	6	3 ³ / ₄	1 ¹ / ₄	85-6048	

§ 615.148. Keep Right With 30° Arrow Sign (R4-7-3).

(a) *Justification.* The Keep Right With 30° Arrow Sign (R4-7-3) shall be authorized for use 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 of such obstructions. This sign shall not be authorized for use where left-turns are permitted immediately in advance of the end of the obstruction. In these instances, an Object Marker (W16-1D) should be used instead of the R4-7-3 sign.

(b) *Size.* The standard size of R4-7-3 shall be 24 inches by 30 inches, but a smaller size of 18 inches by 24 inches may be used when an island is not of sufficient size to accommodate a larger size. The standard size for expressways shall be 36 inches by 48 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

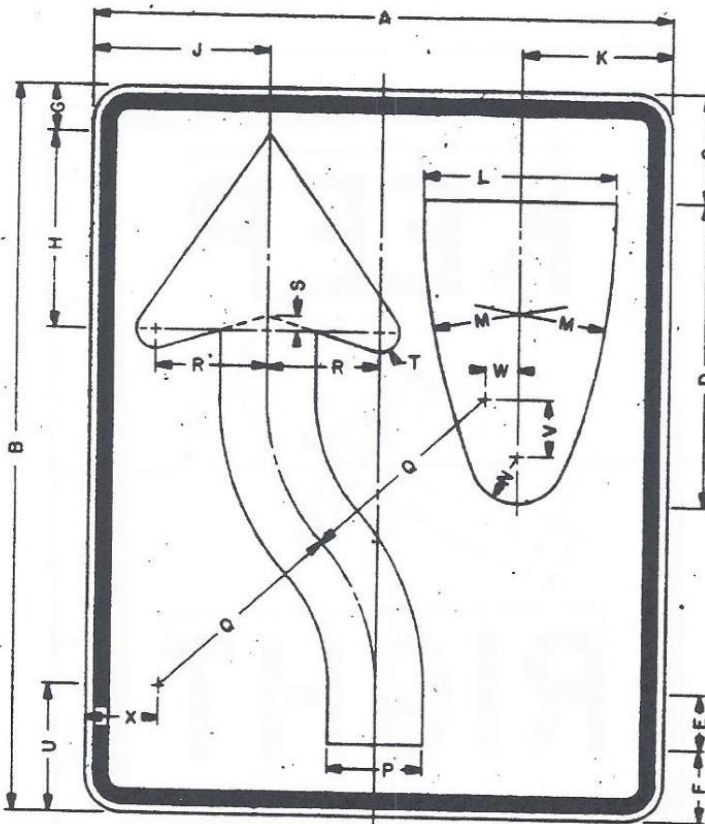
SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
18x24	18	24	2½	4	5½	6	6⅞	7⅞	7⅞	2¼	6	1½
24x30	24	30	3	5	7	7½	8¼	8⅞	9⅞	2⅝	7⅞	2¼
36x48	36	48	5	8	11	12	13⅞	14¼	15¼	4½	11⅞	2⅞
48x60	48	60	6	10	14	15	16½	17⅞	19⅞	5¼	14¼	4⅞

SIGN SIZE	DIMENSIONS				SERIES		MARGIN	BORDER	BLANK STD
	N	P	Q	R	LINES				
					1	2			
18x24	4½	3⅞	2⅝	7⅞	D	D	⅜	⅝	B3-2418
24x30	5½	3⅞	3	½	D	D	⅜	⅝	B3-3024
36x48	9⅞	11⅞	5⅞	7⅞	D	D	⅜	⅝	B3-4836
48x60	10⅞	13⅞	6	1⅞	D	D	⅜	⅝	B3-6048

§ 615.149. Keep Left Sign (R4-8).

(a) *Justification.* The Keep Left Sign (R4-8) shall be authorized for use within and at the ends of medians, parkways, loading islands, and refuge islands, at traffic islands, and at underpass piers, where all traffic is required to keep to the left of such obstructions. This sign shall not be authorized for use where right-turns are permitted immediately in advance of the obstruction.

(b) *Size.* The standard size of R4-8 shall be 24 inches by 30 inches, but a smaller size of 18 inches by 24 inches may be used when an island is not of sufficient size to accommodate a larger size. The standard size for expressways shall be 36 inches by 48 inches.



COLOR: LEGEND AND BORDER: BLACK (NON-REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
18 x 24	18	24	3 ³ / ₈	9 ³ / ₈	2 ¹ / ₂	2 ¹ / ₄	1 ³ / ₈	6 ¹ / ₈	5 ¹ / ₂	4 ¹¹ / ₁₆	6	22 ¹ / ₂	1 ¹ / ₂
24 x 30	24	30	4 ¹ / ₂	12 ¹ / ₂	2 ⁵ / ₁₆	3	1 ⁷ / ₈	8 ¹ / ₈	7 ³ / ₈	6 ¹ / ₄	8	30	2
36 x 48	36	48	6 ³ / ₄	18 ³ / ₄	5	4 ¹ / ₂	2 ¹³ / ₁₆	12 ³ / ₁₆	11 ¹ / ₈	9 ³ / ₈	12	45	3
48 x 60	48	60	9	25	4 ⁵ / ₈	6	3 ³ / ₄	16 ¹ / ₄	14 ¹³ / ₁₆	12 ¹ / ₂	16	60	4

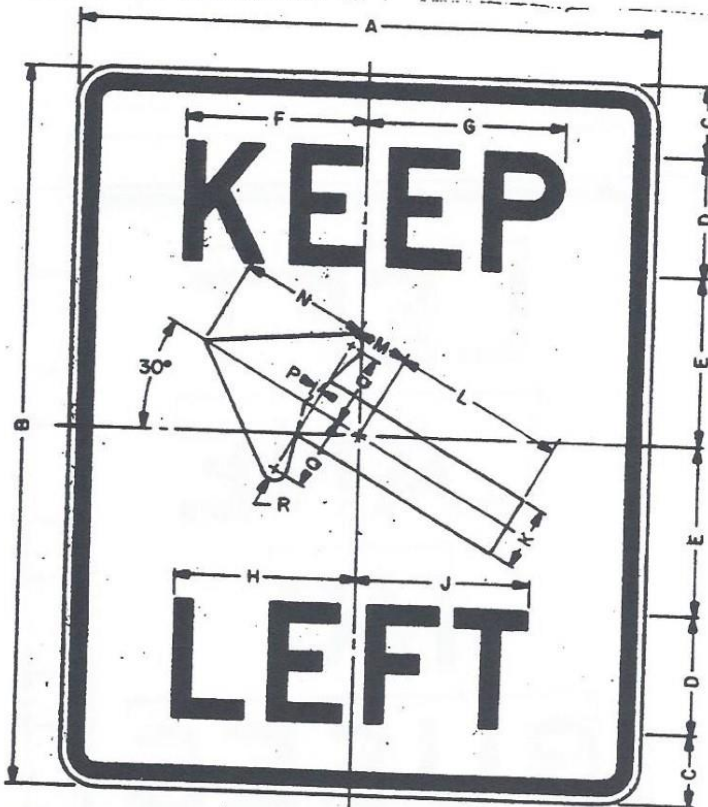
SIGN SIZE	DIMENSIONS										MARGIN	BORDER	BLANK STD
	P	Q	R	S	T	U	V	W	X				
18 x 24	3	6 ³ / ₄	3 ¹ / ₂	7 ⁷ / ₁₆	9 ⁹ / ₁₆	4 ³ / ₄	1	1 ⁷ / ₁₆	2 ¹ / ₄	3 ³ / ₈	5 ⁵ / ₈	B5-2418	
24 x 30	4	9	4 ⁵ / ₈	5 ⁵ / ₈	13 ¹³ / ₁₆	5 ⁵ / ₁₆	2 ⁵ / ₁₆	1 ⁷ / ₈	3	3 ³ / ₈	5 ⁵ / ₈	B5-3024	
36 x 48	6	13 ¹ / ₂	6 ⁷ / ₈	16 ¹⁶ / ₁₆	13 ¹³ / ₁₆	9 ¹ / ₂	2	1 ⁷ / ₈	4 ¹ / ₂	5 ⁵ / ₈	7 ⁷ / ₈	B5-4836	
48 x 60	8	18	9 ³ / ₁₆	12	15 ⁵ / ₈	10 ⁵ / ₈	4 ⁵ / ₈	2 ¹¹ / ₁₆	6	3 ³ / ₄	1 ¹ / ₄	B5-6048	

§ 615.150. Keep Left With 30° Arrow Sign (R4-8-3).

(a) *Justification.* The Keep Left With 30° Arrow Sign (R4-8-3) shall be authorized for use 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 left of such obstructions. This sign shall not be authorized for use where right-turns are permitted immediately in advance of the obstruction.

(b) *Size.* The standard size of R4-8-3 shall be 24 inches by 30 inches, but a smaller size of 18 inches by 24 inches may be used when an island is not of sufficient size to accommodate a larger size. The standard size for expressways shall be 36 inches by 48 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
18 x 24	18	24	2½	4	5½	6	6⅞	5¾	6	2¼	6	1½
24 x 30	24	30	3	5	7	7½	8¼	7½	7⅜	2⅝	7⅞	2¼
36 x 48	36	48	5	8	11	12	13⅞	11½	12	4½	11⅞	2⅞
48 x 60	48	60	6	10	14	15	16½	15	14⅞	5¼	14¼	4⅞

SIGN SIZE	DIMENSIONS				SERIES		MARGIN	BORDER	BLANK STD
	N	P	Q	R	LINES				
					1	2			
18 x 24	4½	⅝	2⅝	⅞	D	D	⅝	⅝	B3-2418
24 x 30	5¼	⅝	3	½	D	D	⅝	⅝	B3-3024
36 x 48	9⅞	⅞	5⅞	⅞	D	D	⅝	⅝	B3-4836
48 x 60	10⅞	⅞	6	1⅞	D	D	⅝	1¼	B3-6048

§ 615.151. Left Lane No Buses Sign (R4-11).

(a) *Justification.* The Left Lane No Buses Sign (R4-11) shall be authorized in accordance with Chapter 610 of this Title (relating to engineering and traffic studies), on multilane roadways to exclude buses from certain travelable lanes.

(b) *Placement.* The R4-11 sign may be erected alone or in a series with other signs and shall be placed at reasonable intervals.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48x60	48	60	7 $\frac{1}{4}$	8	4 $\frac{1}{2}$	14	15 $\frac{3}{16}$	7 $\frac{9}{16}$	19 $\frac{5}{8}$

SIGN SIZE	SERIES LINES				MARGIN	BORDER	BLANK STD
	1	2	3	4			
48x60	E	E	E	E	$\frac{3}{4}$	$\frac{7}{8}$	85-6048

§ 615.152. Left Lane No Trucks Sign (R4-11-1).

(a) *Justification.* The Left Lane No Trucks Sign (R4-11-1) shall be authorized in accordance with Chapter 610 of this Title (relating to engineering and traffic studies), on multilane roadways to exclude trucks from certain travelable lanes.

(b) *Placement.* The R4-11-1 sign may be erected along or in a series with other signs and shall be placed at reasonable intervals.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

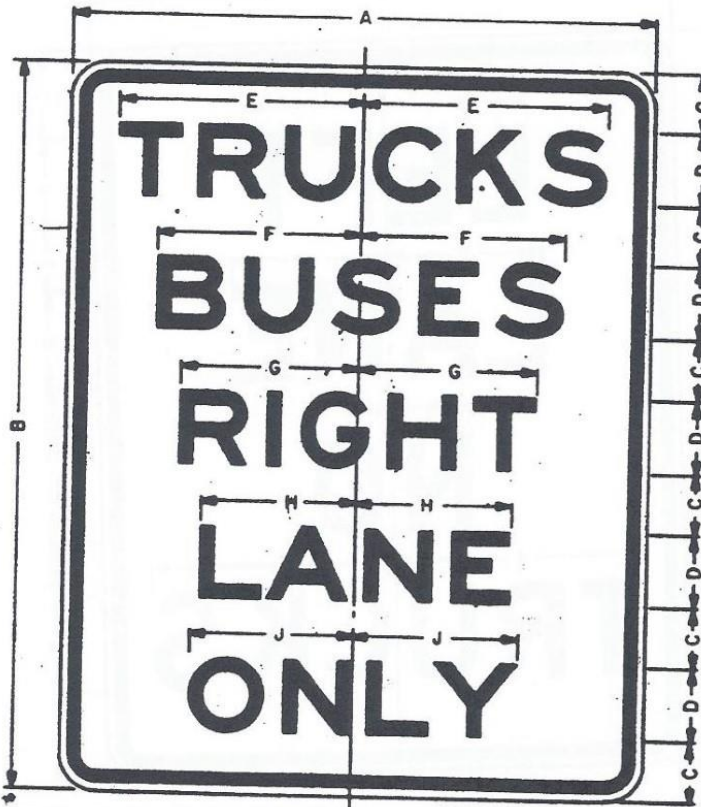
SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48 x 60	48	60	7 ¹ / ₄	8	4 ¹ / ₂	11 ³ / ₄	12 ⁷ / ₈	6 ⁷ / ₁₆	20 ¹ / ₈

SIGN SIZE	SERIES				MAR- GIN	BOR- DER	BLANK STD
	LINES						
	1	2	3	4			
48 x 60	D	D	D	D	³ / ₄	⁷ / ₈	85-6048

§ 615.153. Trucks Buses Right Lane Only Sign (R4-12).

(a) *Justification.* The Trucks Buses Right Lane Only Sign (R4-12) shall be authorized in accordance with Chapter 610 of this Title (relating to engineering and traffic studies), on multilane roadways to exclude trucks and buses from certain travelable lanes.

(b) *Placement.* The R4-12 sign, when used, may be erected alone or in a series with other signs, and shall be placed at reasonable intervals.



COLOR : LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
48x60	48	60	5	6	20 $\frac{1}{8}$	16 $\frac{1}{8}$	14 $\frac{5}{8}$	12 $\frac{13}{16}$	13 $\frac{11}{16}$	

SIGN SIZE	SERIES LINES					MAR-GIN	BOR-DER	BLANK STD
	1	2	3	4	5			
48x60	F	F	F	F	F	$\frac{3}{4}$	$\frac{7}{8}$	85-6048

§ 615.154. Stay In Lane Sign (R4-13).

Justification. The Stay In Lane Sign (R4-13) shall be authorized for use on a multilane, one-way roadway to prohibit lane changing.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
36 x 48	36	48	6 $\frac{3}{4}$	8	5 $\frac{1}{4}$	13 $\frac{1}{4}$	13	4 $\frac{1}{4}$	12 $\frac{7}{8}$
48 x 60	48	60	8 $\frac{1}{2}$	10	6 $\frac{1}{2}$	16 $\frac{3}{4}$	16	5 $\frac{5}{16}$	16 $\frac{1}{16}$

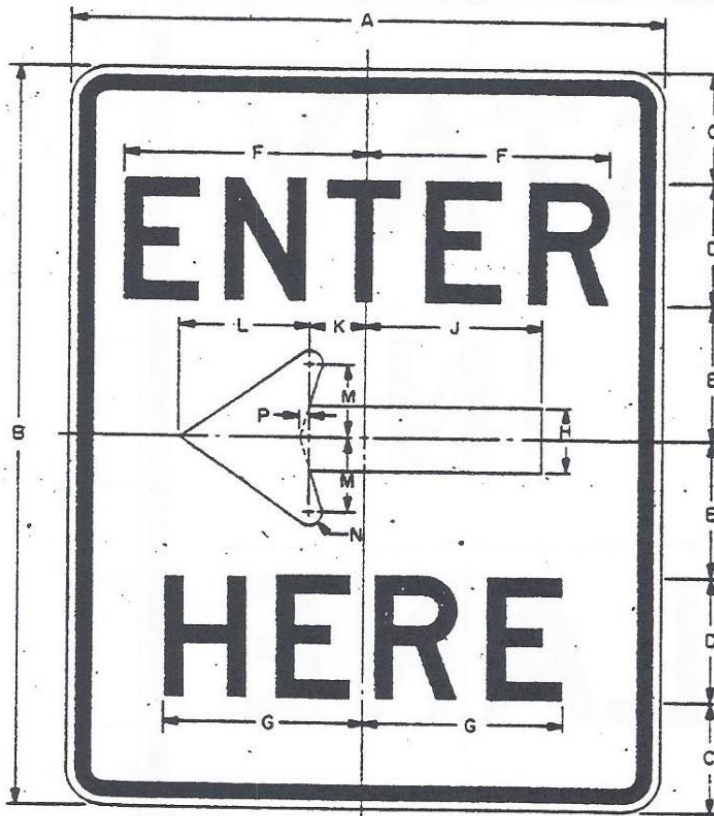
SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
36 x 48	D	D	D	$\frac{5}{8}$	$\frac{7}{8}$	B5-4836
48 x 60	D	D	D	$\frac{3}{4}$	$\frac{1}{4}$	B5-6048

§ 615.155. Enter Here Sign (R4-14).

(a) *Justification.* The Enter Here Sign (R4-14) is authorized for use at ramp entrances at intersections, channeled intersections and driveways where the entrance and exit roadways are adjacent to each other and left-turning traffic may enter the exit lane by mistake. The R4-14 sign shall not, however, be installed at Interstate highway interchanges.

(b) *Placement.* This sign shall be erected on the far side of the ramp, intersection or driveway.

(c) *Size.* The standard size R4-14 sign is 24 inches by 30 inches. The 36-inch by 48-inch size may be used where emphasis is needed.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24x30	24	30	4½	5	5½	9 ¹³ / ₁₆	8 ¹ / ₁₆	2 ⁵ / ₈	7 ¹ / ₈	2¼
36x48	36	48	6¾	7	10¼	13¾	11 ⁵ / ₁₆	4½	12	3

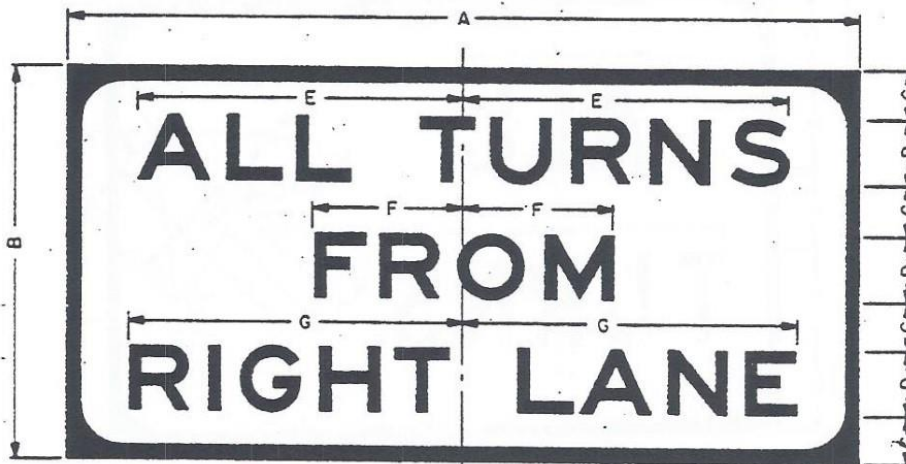
SIGN SIZE	DIMENSIONS				SERIES		MAR- GIN	BOR- DER	BLANK STD
	L	M	N	P					
24x30	5¼	3	½	¾	D	D	¾	5/8	B5-3024
36x48	9	5¼	¾	½	D	D	½	¾	B5-4836

§ 615.156. All Turns From Right Lane Sign (R4-15).

(a) *Justification.* The All Turns From Right Lane Sign (R4-15) shall be authorized for use on those multilane highways where left turns and U-turns are prohibited but where these movements can be indirectly accomplished by making a right turn.

(b) *Placement.* The R4-15 sign shall be placed at intervals throughout the section of highway where left turns and U-turns are prohibited and in advance of all right-hand off-ramps where left turns and U-turns can be indirectly accomplished by making a right turn.

(c) *Size.* The standard size R4-15 sign shall be 96 inches by 48 inches. The 48-inch by 60-inch size may be used where there is insufficient lateral space to erect the larger size.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

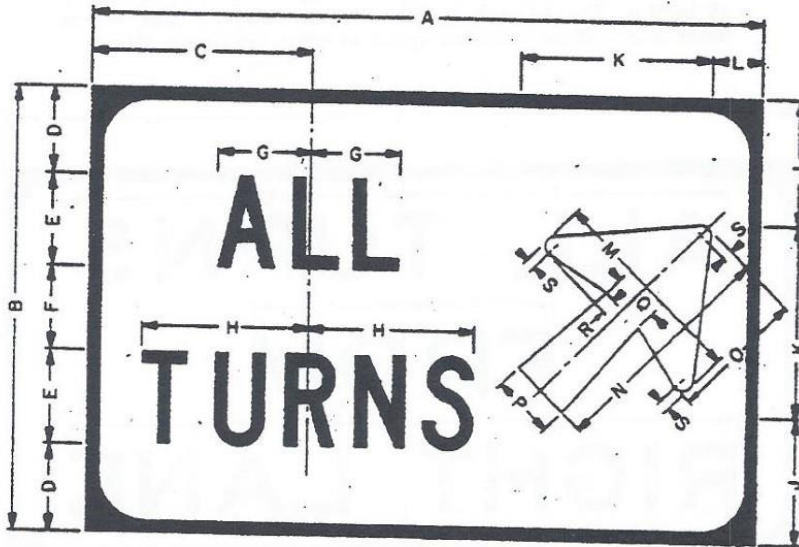
SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
96 x 48	96	48	6	8	$39\frac{1}{2}$	$18\frac{3}{16}$	$40\frac{9}{16}$	*	*
48 x 60	48	60	5	6	$9\frac{13}{16}$	$16\frac{13}{16}$	$13\frac{5}{8}$	$14\frac{5}{8}$	$12\frac{13}{16}$

SIGN SIZE	SERIES					MAR- GIN	BOR- DER	BLANK STD
	LINES							
	1	2	3	4	5			
96 x 48	F	F	F	*	*	*	$1\frac{3}{4}$	85-9648(P)
48 x 60	F	F	F	F	F	$\frac{3}{4}$	$\frac{7}{8}$	85-6048

§ 615.157. All Turns Sign (R4-16).

(a) *Justification.* The All Turns Sign (R4-16) shall be authorized to indicate the location of a right-hand off-ramp where left turns and U-turns are prohibited but may be indirectly accomplished by making a right-turn. Street or road names, or traffic route numbers may be included directly above this sign message.

(b) *Placement.* The R4-16 sign shall be placed in the gore of the off-ramp.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON- REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
72x48	72	48	23 ⁹ / ₁₆	9 ¹ / ₂	10	9	9 ¹³ / ₁₆	17 ⁷ / ₁₆	14 ³ / ₄	20 ¹ / ₂	5 ¹ / ₂	21 ⁷ / ₈

SIGN SIZE	DIMENSIONS						SERIES		BOR- DER	BLANK STD
	N	O	P	Q	R	S	LINES			
	1	2								
72x48	25	14 ¹ / ₄	6 ³ / ₄	5	1 ³ / ₄	1	C	C	1 ¹ / ₄	85-7248(P)

15.158-615.160.

Reserved.

§615.161

Exclusion Group (R5 Series)

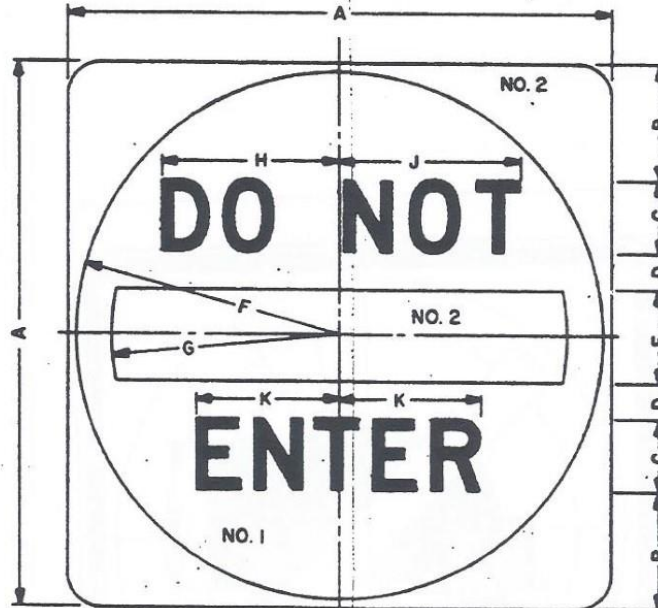
Do Not Enter Sign (R5-1).

(a) *Justification.* The Do Not Enter Sign (R5-1) shall be authorized for use to prohibit traffic from entering a restricted road section.

(b) *Placement.* The R5-1 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.

(c) *Size.* The standard size of R5-1 shall be 30 inches by 30 inches. The standard size for expressways shall be 36 inches by 36 inches.



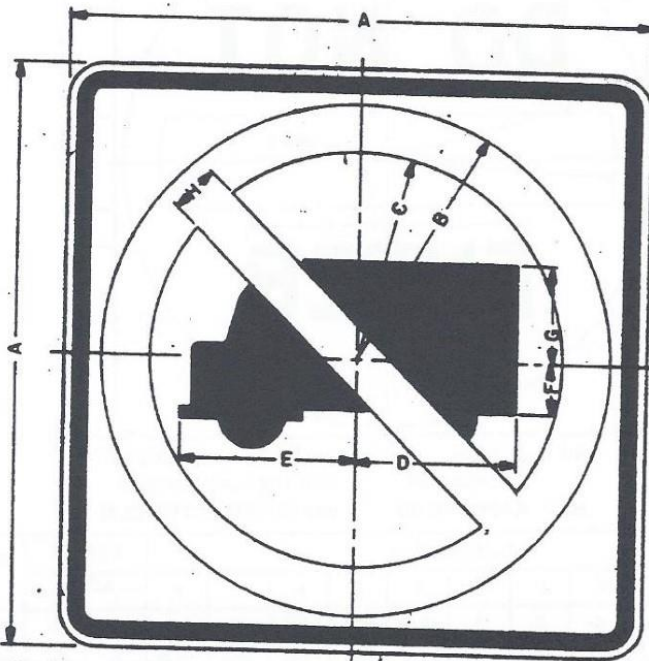
COLOR : NO.1 LEGEND
 BACKGROUND WHITE (REFLECTORIZED)
 NO.2 BACKGROUND RED (REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										SERIES		BLANK STD
	A	B	C	D	E	F	G	H	J	K	LINES		
											1	2	
30x30	30	6½	4	2	5	14½	12½	9¾	10	7⅞	D	D	B3-30
36x36	36	7½	5	2½	6	17½	15	12	12⅜	9⅜	D	D	B3-36
48x48	48	11	6	3	8	23½	20	14½	15	11¾	D	D	B3-48

§ 615.162. No Truck Sign (R5-2).

(a) *Justification.* The No Trucks Sign (R5-2) shall be authorized for use where it has been determined by the Department or local authorities, by ordinance or resolution or ruling to prohibit trucks in accordance with Chapter 610 of this Title (relating to engineering and traffic studies), except that such vehicles may be operated thereon for the purpose of delivering or picking up materials or merchandise. When local truck deliveries are permitted, the Except Local Deliveries Sign (R5-2-3) shall be mounted beneath the R5-2 sign.

(b) *Size.* The standard size of R5-2 shall be 24 inches by 24 inches.



COLOR: SYMBOL AND BORDER BLACK (NON-REFLECTORIZED)
 CIRCLE AND SLASH RED (REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								MARGIN	BORDER	BLANK STD
	A	B	C	D	E	F	G	H			
24x24	24	10 $\frac{1}{2}$	8 $\frac{1}{2}$	6 $\frac{1}{2}$	7 $\frac{1}{2}$	3 $\frac{3}{4}$	4 $\frac{1}{4}$	2	$\frac{3}{8}$	$\frac{5}{8}$	B3-24
30x30	30	13 $\frac{1}{8}$	10 $\frac{1}{8}$	8 $\frac{1}{8}$	9 $\frac{3}{8}$	4 $\frac{3}{4}$	5 $\frac{1}{4}$	2 $\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
36x36	36	15 $\frac{3}{4}$	12 $\frac{3}{4}$	9 $\frac{3}{4}$	11 $\frac{1}{4}$	5 $\frac{5}{8}$	6 $\frac{3}{4}$	3	$\frac{5}{8}$	$\frac{7}{8}$	B3-36
48x48	48	21	17	13	15	7 $\frac{1}{2}$	8 $\frac{1}{2}$	4	$\frac{3}{4}$	1 $\frac{1}{4}$	B3-48

S 211.183. Except Local Deliveries Sign, R5-2-3.

(a) Justification. The Except Local Deliveries Sign, R5-2-3, shall be authorized for use below the No Trucks Sign, R5-2, Weight Limit () Tons Sign, R12-1, and the Except Combinations () Tons Sign, R12-4, when kinds or classes of vehicles are prohibited except for local deliveries. The R5-2-3 sign shall not, however, be used when a bridge or other structure is not capable of supporting the legal weight limit. The term "RESIDENTIAL" may be substituted for "LOCAL" if there is a commercial development in the area and satisfactory alternate access roadways exists for the commercial development.

(b) Placement. When used the R5-2-3 sign shall be mounted below the R5-2, R12-1, or R12-4 sign.

(c) Size. The R5-2-3 sign shall be the same width as the sign it supplements.



COLOR : LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

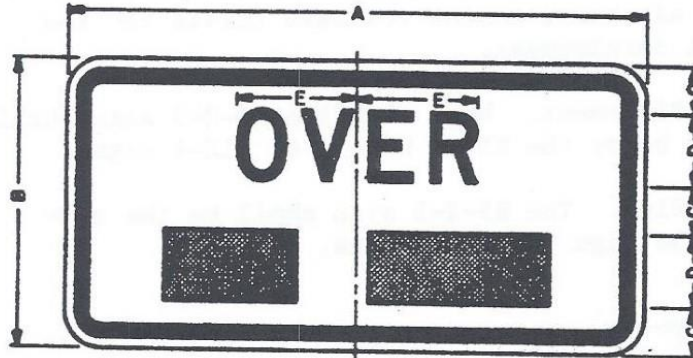
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24x18	24	18	2 1/2	3	2	5 3/8	6 3/8	5 3/8	4 3/8	9 1/2
36x30	36	30	4 1/8	5	3 1/8	9 1/8	10 1/8	8 1/8	8 1/8	15 1/8
48x36	48	36	5	6	4	11 1/2	12 1/2	10 1/2	9 1/2	18 1/2

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
24x18	C	C	C	1/2	1/2	B5-2418
36x30	C	C	C	1/2	1/2	B5-3630
48x36	C	C	C	1/2	1/2	B5-4836

§211.184. Truck Weight (Length) Restriction Panel, R5-2-4.

(a) *Justification.* The Truck Weight (Length) Restriction Panel, R5-2-4, shall be authorized for use in conjunction with the No Trucks Sign, R5-2, when it has been determined in accordance with Chapter 201 of this title (relating to engineering and traffic studies), that the length or weight of trucks prohibited should be defined.

(b) *Placement.* The R5-2-4 sign, when used, shall be mounted below the No Trucks Sign, R5-2.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES		MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E	LINE	VAR.			
24 x 12	24	12	2	3	5	D	VAR.	$\frac{3}{8}$	$\frac{5}{8}$	B5-2412

§ 615.165.

~~§ 23.167~~ Pedestrians Prohibited Sign (R5-3).

(a) *Justification.* The Pedestrian Prohibited Sign (R5-3) shall be authorized for use where pedestrians are prohibited from using the highway.

(b) *Placement.* The R5-3 sign should be placed at the entrance points to the highway.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
24 x 12	24	12	2 1/4	3	1 1/2	10 1/16	10 3/16	9 1/4	9 3/4

SIGN SIZE	SERIES		MAR-GIN	BOR-DER	BLANK / STD
	1	2			
24 x 12	C	C	3/8	5/8	B5-2412

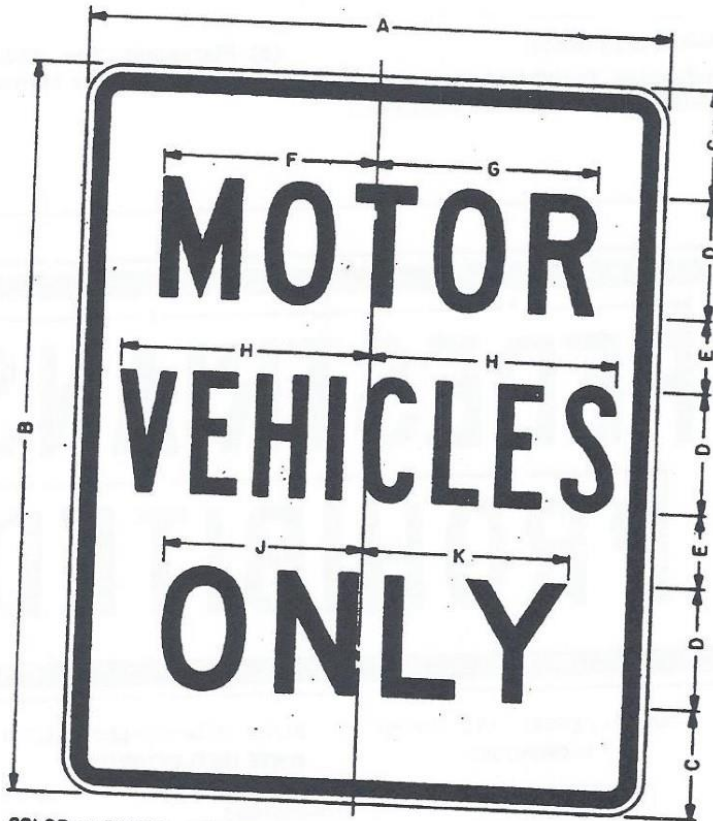
§ 615.106.

§ 615.106. Motor Vehicles Only Sign (R5-3-1).

(a) *Justification.* The Motor Vehicles Only Sign (R5-3-1) shall be authorized for use where the Secretary, by resolution or ruling or State Law prohibits pedestrians, bicycles

and all other than motorized vehicular traffic from controlled access highways.

(b) *Placement.* The R5-3-1 sign should be placed on entrance ramps or elsewhere where access is available.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24 x 30	24	30	4 1/2	5	3	8 13/16	9 3/16	10 1/4	8 3/16	8 9/16

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
24 x 30	C	B	D	3/8	3/8	85-3024

§ 615.167. Emergency and Authorized Vehicles Only Sign (R5-4).

Justification. The Emergency and Authorized Vehicles Only Sign (R5-4) shall be authorized for use to mark median crossovers for the use indicated on limited access highways. This sign should be placed on the far side of the crossover.



COLOR : LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24 x 30	24	30	3	2½	2	9 ³ / ₁₆	2 ³ / ₃₂	10 ¹ / ₁₆	7 ²³ / ₃₂	4 ³ / ₁₆

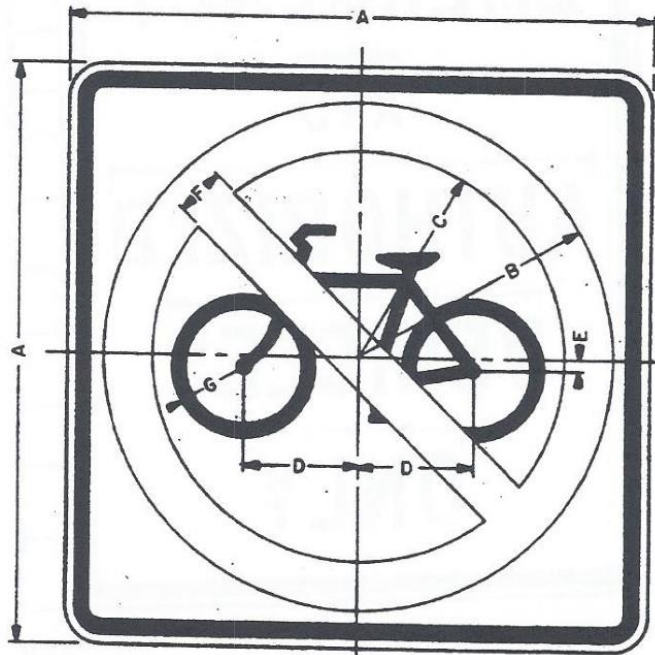
SIGN SIZE	SERIES					MAR-GIN	BOR-DER	BLANK STD
	LINES							
	1	2	3	4	5			
24 x 30	C	C	C	C	C	³ / ₈	⁵ / ₈	B5-3024

§ 615.168. No Bicycles Sign (R5-6).

(a) *Justification.* The No Bicycles Sign (R5-6) shall be authorized for use where it has been determined by the Department or local authorities by ordinance, resolution or ruling that bicycles shall be prohibited.

(b) *Placement.* The R5-6 sign shall be placed at each end of the restricted section of highway and at all intersections within the restricted section.

(c) *Size.* The standard size of R5-6 shall be 24 inches by 24 inches.



COLOR: SYMBOL AND BORDER BLACK (NON-REFLECTORIZED)
 CIRCLE AND SLASH RED (REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							MARGIN	BORDER	BLANK STD
	A	B	C	D	E	F	G			
24x24	24	10 1/2	8 1/2	4 3/4	3 3/4	2	3	3/8	5/8	B3-24
30x30	30	13 1/8	10 5/8	5 7/8	7/8	2 1/2	3 3/4	1/2	3/4	B3-30

§ 615.169. Semitrailer Minimum Underclearance Sign (R5-7).

(a) *Justification.* The Semitrailer Minimum Underclearance Sign (R5-7) shall be authorized when it has been determined that it is necessary to prohibit semitrailers with an underclearance less than a specified dimension. This restriction would be applicable on crest vertical curves, especially over a railroad grade crossing.

(b) *Placement.* The R5-7 sign should be located immediately in advance of the section of highway to which it applies. In the case of an extended distance between the restriction and the nearest intersection, a second sign should be placed not more than 25 feet beyond the intersection so as to be clearly visible from all vehicles about to enter the highway with the restriction.



COLOR · LEGEND AND BORDER
· BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
60x60	60	6 $\frac{1}{2}$	6	4 $\frac{3}{8}$	4 $\frac{7}{8}$	23 $\frac{3}{16}$	27	14	26 $\frac{1}{16}$	

* Reduce spacing 50%

SIGN SIZE	DIMENSIONS					BOR- DER	BLANK STD
	LINES						
	1	2	3	4	5		
60x60	D	C	C	C	C	1 $\frac{3}{4}$	B3-60

§ 615.170. Runaway Vehicles Only Sign (R5-8).

(a) *Justification.* The Runaway Vehicles Only Sign (R5-8) is authorized for use on runaway truck ramps to prohibit vehicles other than runaway vehicles from using the ramp. The Advance Runaway Truck Ramp Sign (W7-3) and the Runaway Truck Ramp Sign (W7-3-1) should also be used to provide advance warning of the ramp.

(b) *Placement.* The R5-8 sign shall be placed near the entrance of the ramp. The sign should be placed on the right side of the ramp and set at an angle of approximately 45 degrees with a line parallel to the edge of the ramp.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30x24	30	24	3½	4	2½	10	10 ⁵ / ₁₆	9 ⁷ / ₁₆

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30x24	C	C	C	³ / ₈	⁵ / ₈	B5-3024

§211.191. Wrong Way Sign, R5-9.

(a) *Justification.* The Wrong Way Sign, R5-9, shall be authorized for use as a supplement to the Do Not Enter sign, R5-1, when an exit ramp intersects a crossroad or a crossroad intersects a divided highway in a manner that may invite wrong-way entry.

(b) *Placement.* The R5-9 sign should be placed at a location along the exit ramp or the divided roadway farther from the intersection than the Do Not Enter sign.

(c) *Size.* The standard size of R5-9 shall be 36 inches by 24 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
RED (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							SERIES	BOR- DER	BLANK STD
	A	B	C	D	E	F	G			
36 x 24	36	24	4½	6	3	13½	8½	D	¾	85-3624
48 x 36	48	36	7	8	6	17½	10½	D	1	85-4836

S 211.191a. Snow Emergency Route Sign, R5-11.

The Snow Emergency Route Sign, R5-11, shall be authorized for use at the entrance to limited access highways which have officially been designated as snow emergency routes in accordance with Chapter 213 (relating to snow emergency routes).



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	
36x48	36	48	5 1/2	5	4	3	9	15	10 1/2	12	13	14 1/2	

* Reduce spacing 25%

SIGN SIZE	SERIES					MAR- GIN	BOR- DER	BLANK STD
	1	2	3	4	5			
36x48	D	C	D	C	C	1/8	7/8	96-4836

§211.192. Flammable Liquid and Explosive Loads Prohibited in Tunnel Sign, R5-20.

(a) *Justification.* The Flammable Liquid and Explosive Loads Prohibited in Tunnel Sign, R5-20, shall be authorized for use when vehicles carrying flammable liquid or explosive loads are prohibited within a tunnel.

(b) *Placement.* The R5-20 sign shall be placed in advance of the tunnel entrance.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
48 x 72	48	72	5 1/2	6	5	19 1/4	18 11/16	17 13/16	10 7/16	18 15/16	17

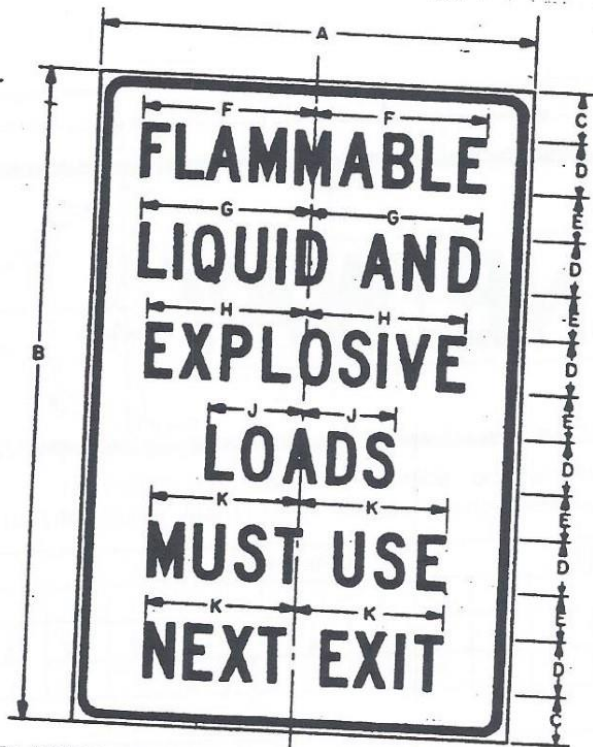
SIGN SIZE	SERIES LINES						MARGIN	BORDER	BLANK STD
	1	2	3	4	5	6			
48 x 72	C	C	C	C	C	C	3/4	7/8	85-72480P

§ 615.173. Flammable Liquid and Explosive Loads Must Use Next Exit Sign (R5-20-1).

(a) *Justification.* The Flammable Liquid and Explosive Loads Must Use Next Exit Sign (R5-20-1) shall be authorized

for use in advance of a designated section of limited access highway where vehicles carrying flammable liquid or explosive loads are prohibited. It shall be used in conjunction with Flammable Liquid and Explosive Loads Prohibited in Tunnel Sign (R5-20).

(b) *Placement.* The R5-20-1 sign shall be placed in advance of the last exit prior to entering the section of highway where said vehicles are prohibited. Care should be taken in selecting the exit to assure there are no restrictions affecting the vehicles that must use it.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
48 x 72	48	72	5½	6	5	19¼	18⅞	17⅓	10⅞	16½

SIGN SIZE	SERIES						MAR- GIN	BOR- DER	BLANK STD
	1	2	3	4	5	6			
48 x 72	C	C	C	C	C	C	¾	⅞	B5-7248(P)

One-Way Group (R6 Series)

615.191.

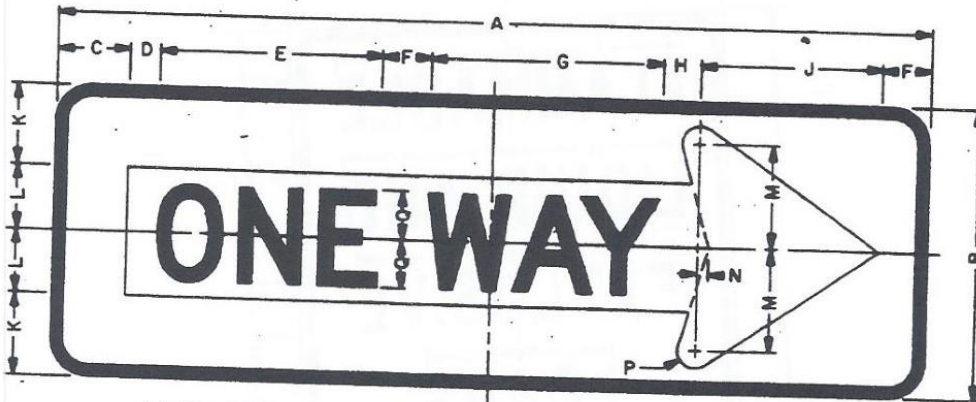
~~§ 615.192.~~ Horizontal Right One-Way Sign (R6-1R).

(a) *Justification.* The Horizontal Right One-Way Sign (R6-1R) shall be authorized for use to indicate a street or roadway upon which vehicular traffic is permitted to travel in only one direction.

(b) *Placement.* The R6-1R sign 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.

(c) *Size.* The standard size of R6-1R shall be 36 inches by 12 inches. The standard size for expressways shall be 48 inches by 18 inches.



COLOR: ARROW AND BORDER WHITE (REFLECTORIZED)
BACKGROUND AND LEGEND BLACK (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
36 x 12	36	12	3	1 1/4	9 1/8	2	9 5/8	1 1/2	7 1/2	3 3/8
48 x 18	48	18	4	1 11/16	12	2 3/4	12 13/16	2	10	5

SIGN SIZE	DIMENSIONS					SERIES LINE I	BOR-DER	BLANK STD
	L	M	N	P	Q			
36 x 12	2 5/8	4 1/4	1/2	11/16	2	D	1/2	B5-3612
48 x 18	2 1/2	6	3/4	7/8	2 1/2	D	7/8	B5-4818

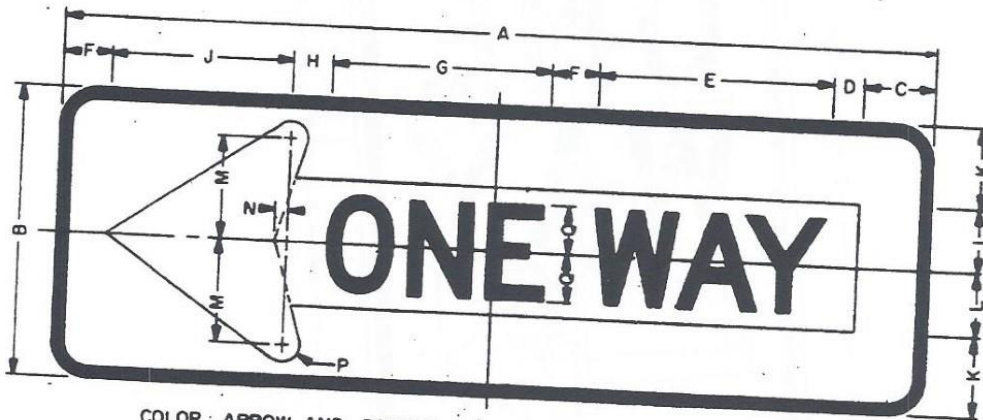
§615.192.

Horizontal Left One-Way Sign (R6-1L).

(a) *Justification.* The Horizontal Left One-Way Sign (R6-1L) shall be authorized for use to indicate a street or roadway upon which vehicular traffic is permitted to travel in only one direction.

(b) *Placement.* The R6-1L sign 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.

(c) *Size.* The standard size of R6-1L shall be 36 inches by 12 inches. The standard size for expressways shall be 48 inches by 18 inches.



COLOR: ARROW AND BORDER WHITE (REFLECTORIZED)
 BACKGROUND AND LEGEND BLACK (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
36 x 12	36	12	3	1 1/4	9 1/8	2	9 5/8	1 1/2	7 1/2	3 3/8
48 x 18	48	18	4	1 11/16	12	2 3/4	12 13/16	2	10	5

SIGN SIZE	DIMENSIONS					SERIES LINE	BOR-DER	BLANK STD
	L	M	N	P	O			
36 x 12	2 5/8	4 1/4	1/2	11/16	2	D	1/2	B5-3612
48 x 18	2 1/2	6	3/4	7/8	2 1/2	D	7/8	B5-4818

6615.193.

~~§ 66.193.~~ Vertical Right One-Way Sign (R6-2R).

(a) Justification. The Vertical Right One-Way Sign (R6-2R) shall be authorized for use only when lateral space is limited, in lieu of the Horizontal Right One-Way sign (R6-1R) and for overhead installations.

(b) Size. The size of (R6-2R) shall be governed by the minimum lateral space available, but the minimum size shall be 30 inches by 36 inches when mounted overhead.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
18 x 24	18	24	2 1/2	5	1 1/2	4 1/2	5 1/2	6 1/4	6 5/16	6 9/16	6 7/8	5 7/8
24 x 30	24	30	3	6	1 7/8	6 1/16	7 1/16	7 1/4	7 1/2	7 7/8	8 1/4	7 3/4
30 x 36	30	36	4	7	2 5/16	7 1/4	8 1/2	8 7/16	8 3/4	9	9 3/4	9 11/16

SIGN SIZE	DIMENSIONS					SERIES		MAR- GIN	BOR- DER	BLANK STD
	N	P	Q	R	S	LINES				
						1	2			
18 x 24	4 1/2	2 5/8	2 1/4	3/8	7/16	D	D	3/8	5/8	B5-2418
24 x 30	6 1/8	3 1/2	3	7/16	9/16	D	D	3/8	5/8	B5-3024
30 x 36	7 5/8	4 3/16	3 3/4	9/16	3/4	D	D	1/2	3/4	B5-3630

§211.204. Vertical Left One-Way Sign, R6-2L.

(a) *Justification.* The Vertical Left One-Way Sign, R6-2L, shall be authorized for use only when lateral space is limited, in lieu of the Horizontal Left One-Way Sign, R6-1L.

(b) *Size.* The size of R6-2L shall be governed by the minimum lateral space available, but the minimum size shall be 30 inches by 36 inches when mounted overhead.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
18 x 24	18	24	2 1/2	5	1 1/2	4 1/2	5 1/2	6 1/2	6 1/2	6 1/2	6 1/2	5 1/2
24 x 30	24	30	3	6	1 1/2	6 1/2	7 1/2	7 1/2	7 1/2	7 1/2	8 1/2	7 1/2
30 x 36	30	36	4	7	2 1/2	7 1/2	8 1/2	8 1/2	8 1/2	9	9 1/2	9 1/2

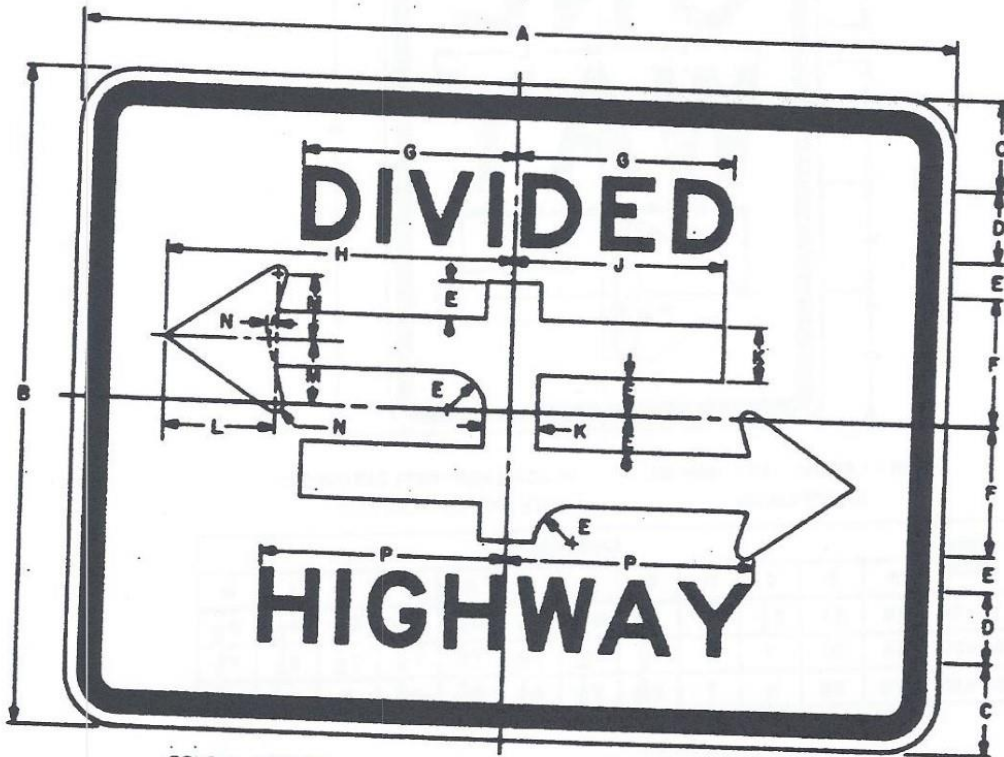
SIGN SIZE	DIMENSIONS					SERIES		MARGIN	BORDER	BLANK STD
	N	P	Q	R	S	1	2			
18 x 24	4 1/2	2 1/2	2 1/2	1 1/2	1 1/2	D	D	1/2	1/2	85-2418
24 x 30	6 1/2	3 1/2	3	1 1/2	1 1/2	D	D	1/2	1/2	85-3024
30 x 36	7 1/2	4 1/2	3 1/2	2 1/2	1 1/2	D	D	1/2	1/2	85-3630

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§ 211.205. Divided Highway Crossing Sign, R6-3.

(a) *Justification.* The Divided Highway Crossing Sign, R6-3, is authorized for use on the approaching legs of intersections where it is not readily apparent that the highway crosses a divided highway.

(b) *Placement.* When used, the R6-3 sign should be placed below the existing nearside stop or yield sign, or should be mounted separately where traffic control signals are present.



COLOR : LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

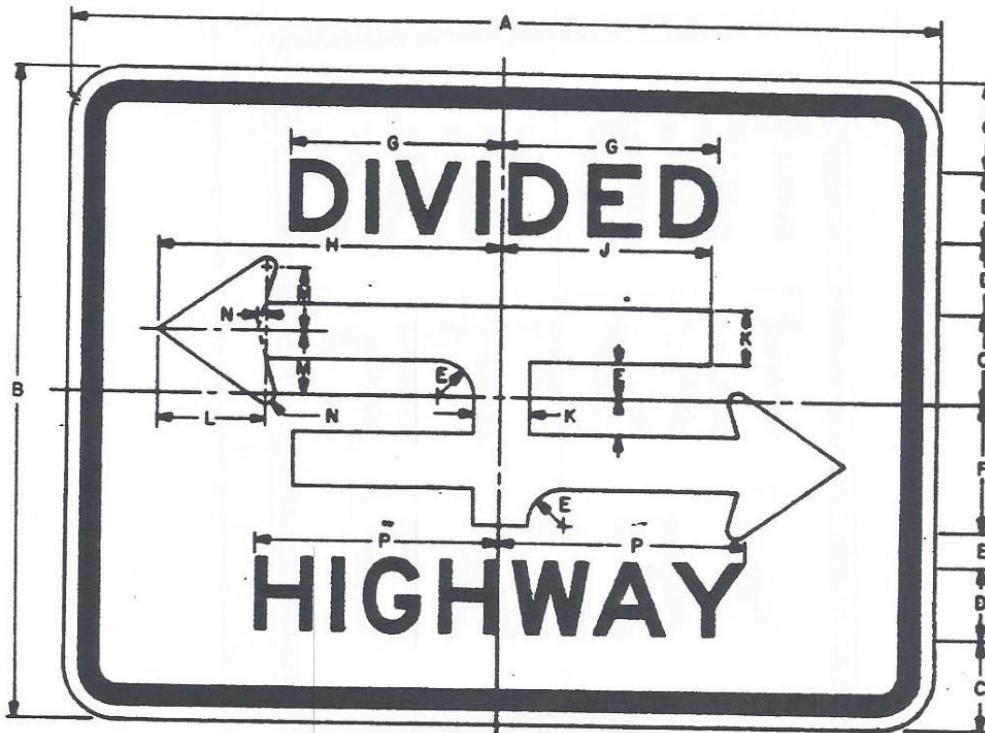
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24 x 18	24	18	2 1/2	2	1	3 1/2	5 1/2	9 1/2	8	1 1/2

SIGN SIZE	DIMENSIONS				SERIES LINES	MAR- GIN	BOR- DER	BLANK STD
	L	M	N	P				
24 x 18	3	1 1/2	1/2	6 1/2	E	E	1/2	85-2418

§ 211.206. Divided Highway Sideroad Crossing Sign, R6-3a.

(a) *Justification.* The Divided Highway Sideroad Crossing Sign, R6-3a, is authorized for use on the approaching legs of an intersection where it is not readily apparent that the highway intersects a divided highway.

(b) *Placement.* When used, the R6-3a sign should be placed below the existing nearside stop or yield sign, or should be mounted separately where traffic control signals are present.



COLOR : LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24x18	24	18	2 1/2	2	1	3 1/2	5 1/2	9 1/2	5	1 1/2

SIGN SIZE	DIMENSIONS				SERIES LINE	MARGIN	BORDER	BLANK STD
	L	M	N	P				
24x18	3	1 1/2	1/2	6 1/2	E	E	1/2	B5-2418

SS 211.207. - 211.220. (Reserved)

§211.221. Two-Way Traffic Ahead Sign, R6-10.

(a) *Justification.* The Two-Way Traffic Ahead Sign, R6-10, shall be authorized for use on one-way streets or roadways in advance of an intersection or the end of a divided highway beyond which the one-way traffic regulation does not apply.

(b) *Placement.* The R6-10 should be placed on both the right and left sides of the street or roadway at an appropriate distance, depending on approach speeds and type of facility, in advance of the intersection where two-way traffic is resumed.

(c) *Size.* The standard size of R6-10 shall be 24 inches by 30 inches.



COLOR : LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
24 x 30	24	30	4 $\frac{3}{8}$	5	3 $\frac{1}{2}$	10 $\frac{5}{8}$	10	8 $\frac{13}{16}$	8 $\frac{11}{16}$	
36 x 48	36	48	6 $\frac{2}{16}$	7	6 $\frac{12}{16}$	14 $\frac{7}{8}$	14	12 $\frac{5}{16}$	12 $\frac{3}{16}$	

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	LINES					
	1	2	3			
24 x 30	C	C	C	$\frac{3}{8}$	$\frac{5}{8}$	B5-3024
36 x 48	C	C	C	$\frac{1}{2}$	$\frac{3}{4}$	B5-4836

6615.212

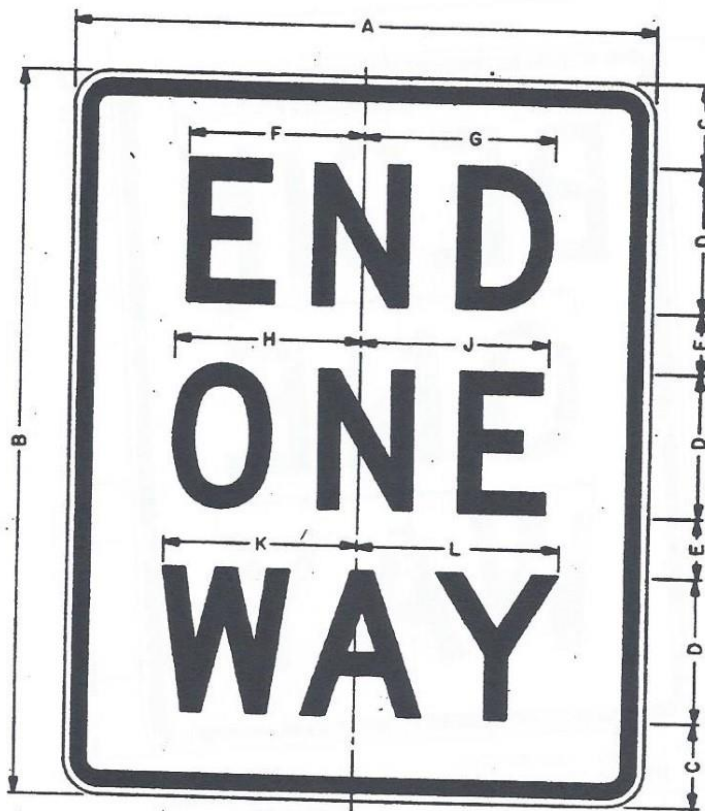
§ 2000. End One Way Sign (R6-11).

(a) *Justification.* The End One Way Sign (R6-11) shall be authorized for use when a one-way street or roadway changes to a two-way street or roadway.

(b) *Placement.* The R6-11 sign should be placed on both the right and left sides of the street or roadway at the

approximate point of change to a two-way operation. It should be preceded with a Two Way Traffic Ahead sign (R6-10).

(c) *Size.* The standard size of R6-11 shall be 24 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 30	24	30	3 1/2	6	2 1/2	7 1/4	7 7/8	7 11/16	7 3/4	8	8 3/8
36 x 48	36	48	5 1/2	10	3 1/2	11 5/8	12 1/8	12	12 1/2	13 1/8	13 5/8

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK-STD
	LINES					
	1	2	3			
24 x 30	D	D	D	3/8	5/8	B5-3024
36 x 48	D	D	D	1/2	3/4	B5-4836

§ 615.213. Begin One Way Sign (R6-12).

(a) *Justification.* The Begin One-Way Sign (R6-12) shall be authorized for use when a two-way roadway changes to a one-way roadway. As such, the R6-12 sign advises drivers that they can use the left side of the roadway.

(b) *Placement.* The R6-12 sign should be placed on the right side of the one-way roadway near the beginning of the one-way roadway.

(c) *Size.* The standard size R6-12 sign shall be 24 inches by 30 inches.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24 x 30	24	30	3 1/2	6	2 1/2	9 1/4	7 11/16	7 3/4	8	8 3/8
36 x 48	36	48	5 1/2	10	3 1/2	15 7/16	12	12 1/2	13 1/8	13 3/8

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD.
	1	2	3			
24 x 30	C	D	D	3/8	3/8	B3-3024
36 x 48	C	D	D	1/2	3/4	B3-4836

STOPPING, STANDING, AND PARKING GROUP, R7 AND R8 SERIES**§211.231. Justification and description.**

(a) *Authorization.* The Vehicle Code (75 Pa.C.S. § 101 *et seq.*) authorizes local authorities and the Department to regulate or prohibit stopping, standing, and parking of vehicles in accordance with Department promulgated engineering and traffic studies. Reference is made to §§ 201.21 and 201.22 of this title (relating to stopping, standing, and parking restrictions; and angle parking).

(b) *Information.* The legend on stopping, standing, and parking signs shall, in the interest of uniformity, state whatever regulations may apply, but the signs shall conform with the standards of shape, color, location, minimum sizes, and use as set forth in this chapter. Generally, stopping, standing, and parking signs should display such of the following information as is appropriate, from top to bottom of the sign in the following order:

(1) Restriction, which should be the no parking symbol for signs prohibiting parking or a legend message for limited time parking or for stopping or standing restrictions.

(2) Time of day the restriction is applicable, if not at all hours.

(3) Days of week applicable, if not every day.

(4) On all 12 inch wide signs, a single-headed arrow pointing in the direction of the regulation in effect if the sign is at the end of a zone, or a double-headed arrow pointing both ways if the sign is located at an intermediate point in the zone.

(c) *Color; meters.* When stopping, standing or parking is prohibited at all times or at specific times, the prohibition signs shall utilize either the no parking symbol or red legend and borders on a white background. When the restriction is a limited time restriction or when stopping, standing or parking is permitted only in a particular manner, the sign shall have green legend and borders on a white background. Parking meters with the limited time parking restriction shown on a card in the dome of the meter or affixed to the outside of the parking meter may be used in lieu of limited time parking restriction signs; however, any stopping, standing or parking prohibition within a parking metered area shall be displayed on official signs.

(d) *Use of two signs.* When stopping, standing, or parking is prohibited during certain hours and permitted under a time limit at other times, two signs should ordinarily be used, the no parking symbol or red legend sign above the green legend sign. As an alternative, both messages, in different colors, may be used on a single sign.

(e) *Reflectorization.* Stopping, standing, or parking signs should be reflectorized if they have nighttime significance and there is insufficient street lighting to make them readable.

§211.232. Placement.

(a) *Mounting.* Stopping, standing, and parking signs shall be post mounted in accordance with § 211.30 of this title (relating to installation of signs). If space is limited, a lesser lateral clearance shall be permitted.

(b) *Angle.* The signs should be set at an angle of not less than 30° nor more than 45° with a line parallel to the flow of traffic so as 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.

(c) *Interval.* The signs shall be placed at the beginning of and at reasonable intervals throughout the restriction.

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§211.233. Size.

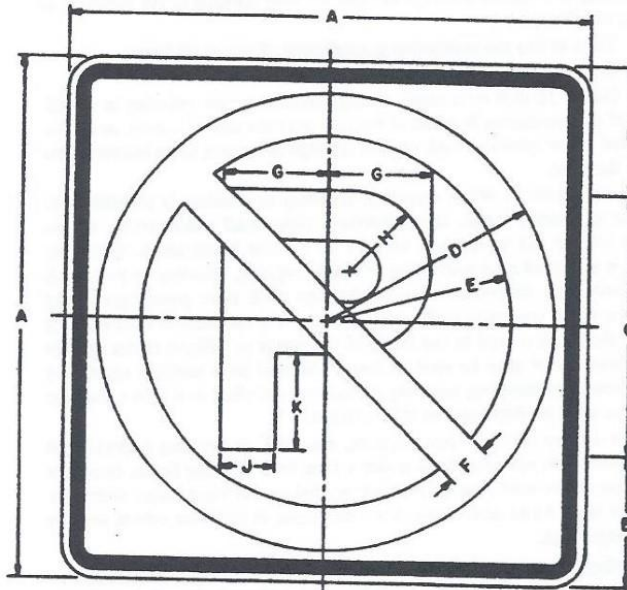
(a) *Business, residential, or park areas.* In business, residential or park areas, stopping, standing, and parking signs shall have a minimum width of 12 inches. At the transition point between two parking zones not physically separated by an intersection, it may be advantageous to use a single sign 24 inches wide which in effect would be two standard signs mounted side by side. Such a sign should display a right and a left arrow pointing in the direction that the respective restriction applies.

(b) *Rural areas.* In rural areas, the stopping, standing, or parking signs shall have a minimum width of 24 inches.

§211.234. No Parking Symbol Sign, R7-1.

(a) *Justification.* The No Parking Symbol Sign, R7-1, shall be authorized for use as provided in §§ 211.231 — 211.233 of this title (relating to justification and description; placement; and size) to prohibit parking along a given highway. If the restriction applies to a limited area or zone, supplemental signs or messages shall be authorized to show the limits of the restriction. Authorized supplemental signs include, but are not limited to the No Parking Restricted Hours Sign, R7-2, No Parking Loading Zone Sign, R7-6, No Parking Arrow Sign, R7-7, Tow-Away Zone Sign, R7-20, and No Parking on Pavement Sign, R8-1. As an alternate to the use of supplemental signs, the appropriate supplemental message and the no parking symbol may be incorporated into a single sign.

(b) *Size.* The standard size R7-1 sign shall be 12 inches by 12 inches in business, residential, or park areas and 24 inches by 24 inches in rural areas. The standard size for expressways shall be 36 inches by 36 inches.



COLOR: SYMBOL AND BORDER BLACK (NON-REFLECTORIZED)
 CIRCLE AND DIAGONAL RED (REFLECTORIZED) *
 BACKGROUND WHITE (REFLECTORIZED) *

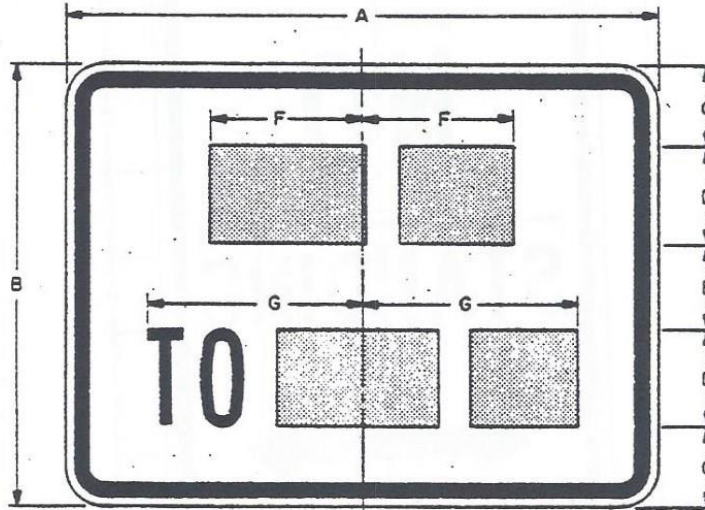
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
12 x 12	12	3	6	4 1/2	3 1/2	1	2 1/2	1 1/2
24 x 24	24	6	12	10 1/2	8 1/2	2	4 1/2	3 1/2
36 x 36	36	9	18	15 1/2	12 1/2	3	7 1/2	5 1/2

SIGN SIZE	DIMENSIONS		SERIES LINE	MARGIN	BORDER	BLANK STD
	J	K				
12 x 12	1 1/2	2 1/2	E(m)	3/8	3/8	83-12
24 x 24	2 1/2	4 1/2	E(m)	3/8	3/8	83-24
36 x 36	3 1/2	6 1/2	E(m)	3/8	3/8	83-36

§ 615.225. No Parking Restricted Hours Sign (R7-2).

(a) *Justification.* The No Parking Restricted Hours Sign (R7-2) shall be authorized for use as a supplemental sign as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when parking is prohibited at certain times within a given area. The restricted hours and either "AM" or "PM" should be indicated on the R7-2 Sign. When used, the R7-2 sign shall be mounted directly below the No Parking Symbol Sign (R7-1).

(b) *Size.* R7-2 sign shall be the same width as the R7-1 sign it supplements.



COLOR: LEGEND AND BORDER
BACKGROUND

RED (REFLECTORIZED)*
WHITE (REFLECTORIZED)*

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
12 x 12	12	12	2 ³ / ₄	2	2 ¹ / ₂	VAR	VAR
24 x 18	24	18	3 ¹ / ₄	4	3 ¹ / ₂	VAR	VAR

SIGN SIZE	SERIES		MAR- GIN	BOR- DER	BLANK STD
	1	2			
12 x 12	B	B	¹ / ₈	¹ / ₈	83-12
24 x 18	B	B	¹ / ₈	¹ / ₈	85-2418

* SEE § 615.221(e)

§ 615.226. No Standing Sign (R7-3).

Justification. The No Standing Sign (R7-3) shall be authorized for use as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when the halting of a vehicle is prohibited, except momentarily for the purpose of and while actually engaged in receiving or discharging passengers.



COLOR: LEGEND AND BORDER RED (NON-REFLECTORIZED)
 BACKGROUND WHITE (NON-REFLECTORIZED)

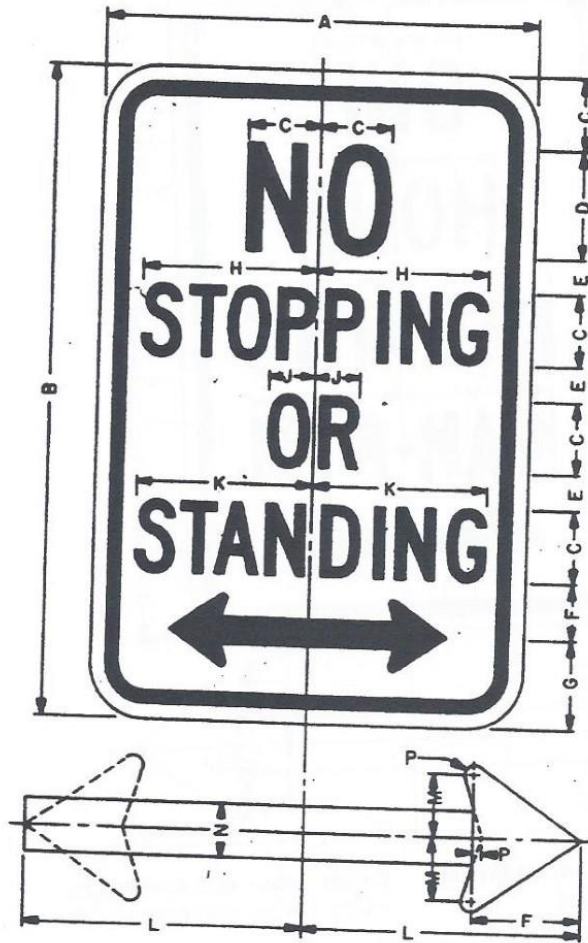
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
12 x 18	12	18	3 1/8	3	2 3/8	2	3 3/8	4 1/8	4 7/8	3 7/8

SIGN SIZE	DIMENSIONS				SERIES	MAR- GIN	BOR- DER	BLANK STD
	L	M	N	P				
	LINES							
12 x 18	7/8	1/8	1 1/2	3/4	1	C	C	3/8
					2			
								B5-1812

§ 615.227. No Stopping or Standing Sign (R7-4).

Justification. The No Stopping or Standing Sign (R7-4) shall be authorized for use as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when even the momentarily halting of a vehicle is prohib-

ited, except when necessary to avoid conflict with other traffic or in compliance with the directions of a police officer or traffic-control device.



COLOR: LEGEND AND BORDER
BACKGROUND

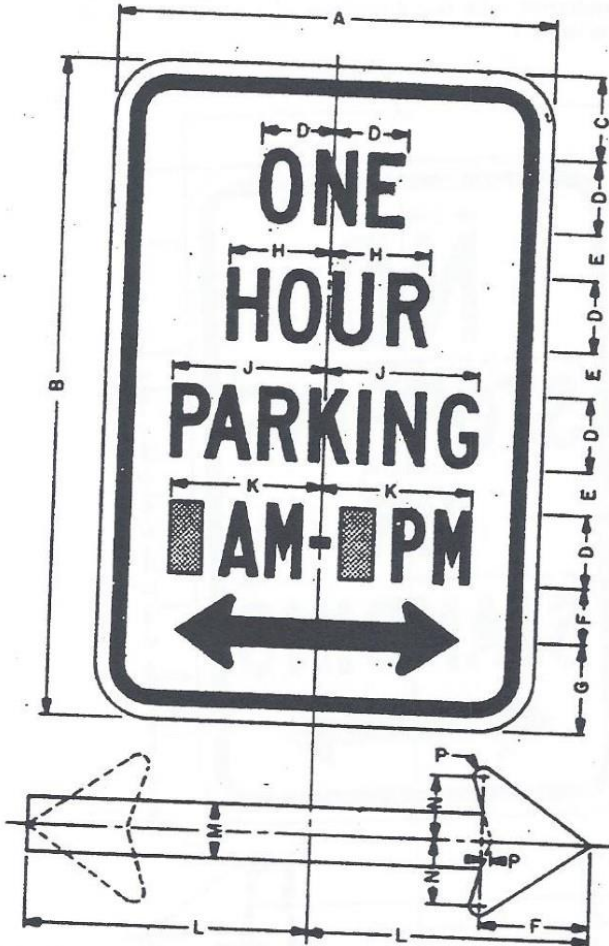
RED (NON-REFLECTORIZED)
WHITE (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
12 x 18	12	18	2	3	1	1 1/2	2 1/2	4 13/16	1 1/4	4 7/8	3 7/8

SIGN SIZE	DIMENSIONS			SERIES				MAR- GIN	BOR- DER	BLANK STD
	M	N	P	LINES						
				1	2	3	4			
12 x 18	7/8	3/4	1/8	C	C	C	C	3/8	3/8	B5-1812

§ 615.228. Limited Time Parking Sign (R7-5).

Justification. The Limited Time Parking Sign (R7-5) shall be authorized for use as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when there is a necessity for limiting the duration of parking. It may be used frequently in conjunction with meter parking. The format of the sign shall include the time limit and hours of effectiveness of the limited time parking.



COLOR: LEGEND AND BORDER
BACKGROUND

GREEN (NON-REFLECTORIZED)
WHITE (NON-REFLECTORIZED)

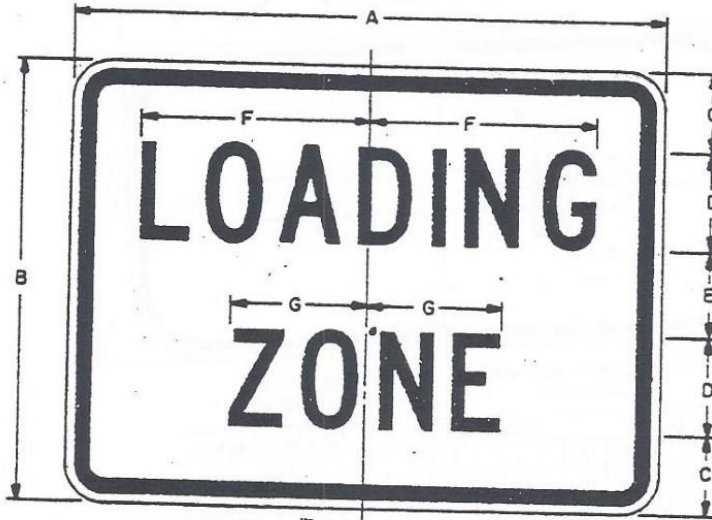
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
12 x 18	12	18	2 1/4	2	1 1/4	1 1/2	2 1/2	2 3/4	4 3/16	4 1/8	3 7/8

SIGN SIZE	DIMENSIONS			SERIES				MARGIN	BORDER	BLANK STD
	M	N	P	LINES						
				1	2	3	4			
12 x 18	3/4	7/8	1/8	C	C	C	B	3/8	3/8	B5-1012

§ 615.229. No Parking Loading Zone Sign (R7-6).

(a) *Justification.* The No Parking Loading Zone Sign (R7-6) shall be authorized for use as a supplemental sign as provided in §§ 615.221-615.223 (relating to stopping, standing and parking signs) when it is necessary to reserve curb space for loading and unloading of commercial vehicles. When used, the R7-6 sign shall be mounted directly below the No Parking Symbol Sign (R7-1).

(b) *Size:* The R7-6 sign shall be the same width as the R7-1 sign it supplements.



COLOR: LEGEND AND BORDER
BACKGROUND

RED (REFLECTORIZED) *
WHITE (REFLECTORIZED) *

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
12 x 12	12	12	2 ³ / ₄	2	2 ¹ / ₂	4 ⁵ / ₈	2 ³ / ₄
24 x 18	24	18	3 ¹ / ₄	4	3 ¹ / ₂	9 ¹ / ₄	5 ¹ / ₂

SIGN SIZE	SERIES		MAR- GIN	BOR- DER	BLANK STD
	1	2			
12 x 12	C	C	³ / ₈	³ / ₈	B3-12
24 x 18	C	C	³ / ₈	³ / ₈	B5-2418

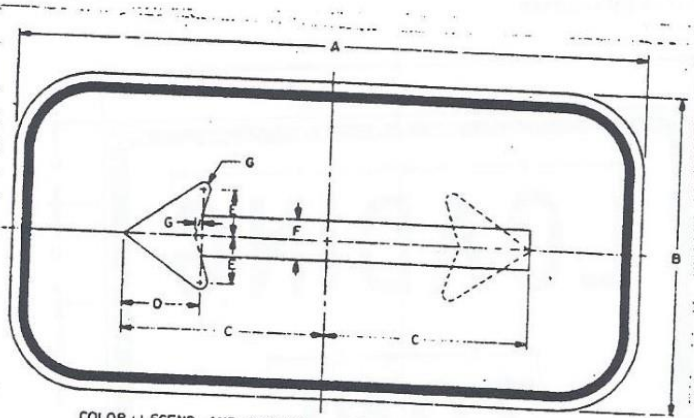
* SEE § 615 221 (e)

§ 615.230. No Parking Arrow Sign (R7-7).

(a) *Justification.* The No Parking Arrow Sign (R7-7) shall be authorized as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) to supplement the No Parking Symbol Sign (R7-1) when it is necessary or desirable to indicate which direction the restriction applies.

(b) *Placement.* The R7-7 sign, when used, shall be mounted below the R7-1 sign and any other supplemental signs.

(c) *Size.* The width of the R7-7 sign shall be the same as the No Parking Symbol Sign (R7-1).



COLOR: LEGEND AND BORDER BACKGROUND
 RED (REFLECTORIZED)*
 WHITE (REFLECTORIZED)*

SIGN SIZE	DIMENSIONS							MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F	G			
12 x 6	12	6	3 1/8	1 1/2	7/8	3/4	1/8	3/8	3/8	B5-1206
24 x 12	24	12	7 3/8	3	1 3/4	1 1/2	1/4	5/8	3/4	B5-2412

* SEE § 615.221(e)

§ 211.241. Reserved Parking Sign, R7-8.

(a) *Justification.* The Reserved Parking Sign, R7-8, is authorized for use as provided in §§ 211.231 – 211.233 (relating to justification and description, placement and size) to mark the location of a parking space which is reserved for handicapped persons or disabled veterans. The R7-8 sign is frequently used in rest areas and private parking lots.

(b) *Placement.* When used, the R7-8 sign should generally be installed at

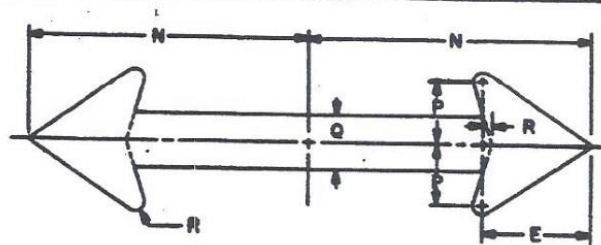
the front of each reserved parking stall or, in the case of parallel parking, at intervals not exceeding 100 feet along the side of the stalls. When installed at the front of the parking stalls, the single or double-headed arrow may be deleted from the R7-8 sign and the message may be spaced accordingly. In addition, when installed at the front of the stall, the bottom of the R7-8 sign may be installed at a substandard height of about 3½ feet above the elevation of the parking stall in order to improve the visibility of the sign.



SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
12 x 18	12	18	2	1	1½	2½	6	4½	5	4½	3	½

* Reduce spacing 50%

SIGN SIZE	DIMENSIONS					SERIES	MAR- GIN	BOR- DER	BLANK STD
	N	P	Q	R	S				
12 x 18	3½	7	2	1	4	C	C	3	B5-1812



§211.242. Temporary No Parking Sign, R7-10.

(a) *Justification.* The Temporary No Parking Sign, R7-10, shall be authorized for use as provided in §§ 211.231 — 211.233 of this title (relating to justification and description; placement; and size) when local authorities deem it necessary to prohibit parking for a short time on any street or highway. Care shall be taken to see that the signs are removed when their need no longer exists.

(b) *Placement.* Since the use of this sign is temporary it may be made of cardboard and attached to poles, trees, or other existing supports at convenient heights, angles, and locations.



COLOR: LEGEND AND BORDER RED (NON-REFLECTORIZED)
 BACKGROUND WHITE (NON-REFLECTORIZED)

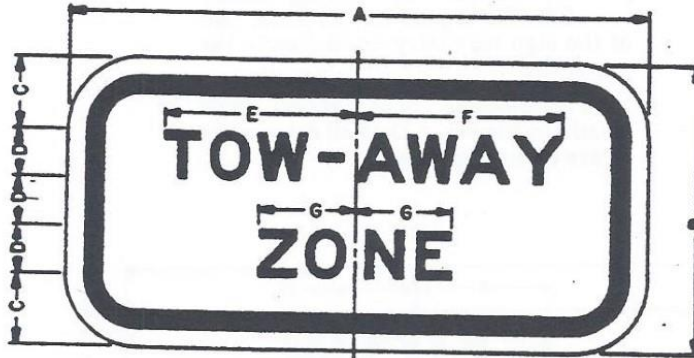
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
12 x 18	12	18	1 $\frac{3}{4}$	3	2	$\frac{7}{8}$	2 $\frac{7}{16}$	4 $\frac{5}{8}$	5	2 $\frac{13}{16}$

SIGN SIZE	SERIES					MAR- GIN	BOR- DER	BLANK STD
	LINES							
	1	2	3	4	5			
12 x 18	D	C	B	B	B	$\frac{3}{8}$	$\frac{3}{8}$	85-1812

§211.243. Tow-Away Zone Sign, R7-20.

(a) *Justification.* The Tow-Away Zone Sign, R7-20, shall be authorized as a supplemental sign to indicate that local authorities tow away vehicles parked within the restricted zone. The R7-20 sign shall not, however, be used in conjunction with the Limited Time Parking Sign, R7-5.

(b) *Placement.* When used, the R7-20 sign shall be mounted below the sign it supplements.



COLOR: LEGEND AND BORDER RED (NON-REFLECTORIZED)
 BACKGROUND WHITE (NON-REFLECTORIZED)

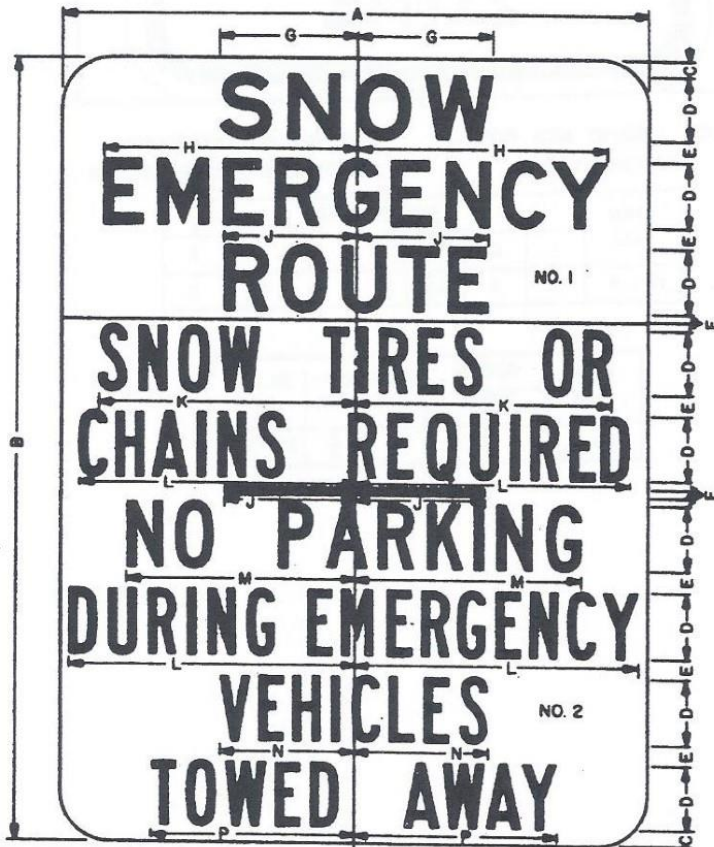
SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
12 x 6	12	6	1 1/2	1	4	4 1/2	2

SIGN SIZE	SERIES		MAR- GIN	BOR- DER	BLANK STD
	LINES				
	1	2			
12 x 6	E	E	3/8	3/8	85-1206

§ 211.244. Snow Emergency Route No Parking Sign, R7-22.

(a) *Justification.* The Snow Emergency Route No Parking Sign, R7-22, is authorized for use as provided in §§ 211.231 – 211.233 (relating to justification and description, placement, and size) when the Department or local authorities, by ordinance or resolution or ruling, require special parking restrictions during heavy snowfall. The legend on the lower half of the sign may vary according to the regulation.

(b) *Placement.* The R7-22 sign should be placed so that all drivers are aware of the regulation.



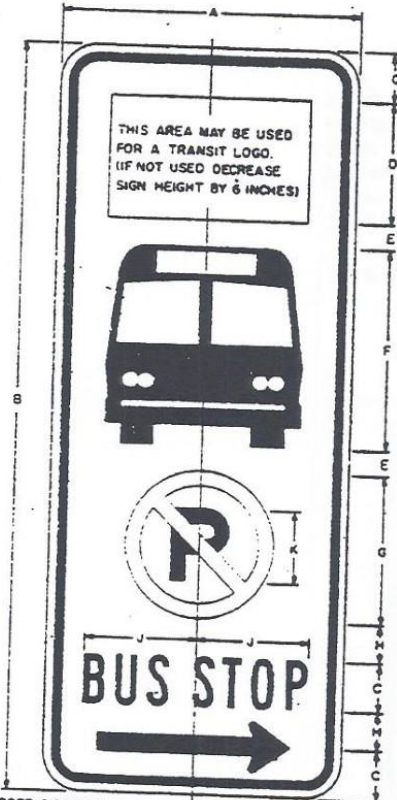
COLOR: NO. 1 LEGEND BACKGROUND WHITE (REFLECTORIZED)
 RED (REFLECTORIZED)
 NO. 2 LEGEND BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
18 x 24	18	24	1/2	2	5/8	1/4	4 1/16	7 1/2	4	7 7/8	8 5/8	7 3/16	4 1/16	6 1/4

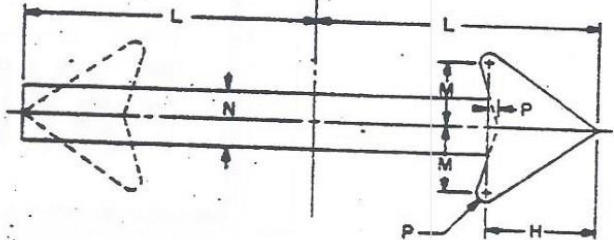
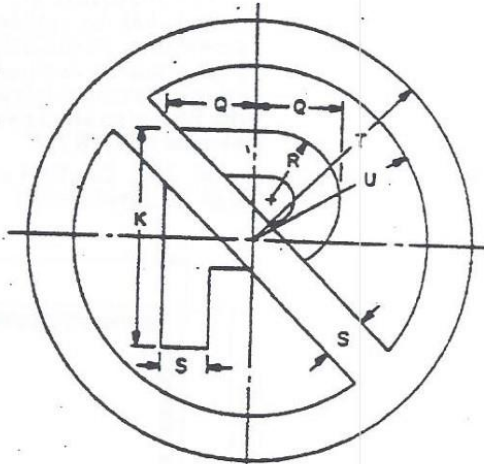
SIGN SIZE	SERIES LINES									BLANK STD
	1	2	3	4	5	6	7	8	9	
18 x 24	E	D	D	B	B	C	B	B	B	B5-2418

§ 615.235. No Parking Bus Stop Sign (R7-107).

Justification. The No Parking Bus Stop Sign (R7-107) shall be authorized for use at all official bus stops as designated by a transit authority or the local authorities. The no-parking symbol and the arrow may be eliminated if parking is already officially restricted within the bus stop area.



LEGEND: BORDER, CIRCLE, DIAGONAL AND ARROW
BACKGROUND
TRANSIT LOGO, BUS SYMBOL AND LETTER "P"
RED (NON-REFLECTORIZED)
WHITE (NON-REFLECTORIZED)
BLACK (NON-REFLECTORIZED)



SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
12 x 30	12	30	2	5(m)	1	8	6	1 1/2	4 1/2	3(m)	3 7/8	7/8	3/4

SIGN SIZE	DIMENSIONS						SERIES			MAR-GIN	BOR-DER	BLANK STD
	P	Q	R	S	T	U	LINES					
							1	2	3			
12 x 30	1/8	1 3/16	15/16	5/8	3	2 3/8	E (m)	E (m)	8	3/8	5/8	B5-3012

§ 615.241. No Parking on Pavement Sign (R8-1).

(a) *Justification.* The No Parking on Pavement Sign (R8-1) shall be authorized for use as a supplemental sign as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when parking is permissible off the pavement but prohibited on the pavement. When used, the R8-1 sign shall be mounted directly below the No Parking Symbol Sign (R7-1).

(b) *Size.* The R8-1 sign shall be the same width as the R7-1 sign it supplements.



COLOR: LEGEND AND BORDER
BACKGROUND

RED (REFLECTORIZED) *
WHITE (REFLECTORIZED) *

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
12 x 12	12	12	2 $\frac{3}{4}$	2	2 $\frac{1}{2}$	1 $\frac{3}{8}$	4 $\frac{7}{16}$
24 x 18	24	18	3 $\frac{1}{4}$	4	3 $\frac{1}{2}$	2 $\frac{11}{16}$	8 $\frac{7}{8}$

SIGN SIZE	SERIES		MAR- GIN	BOR- DER	BLANK
	LINES				
	1	2			
12 x 12	C	B	$\frac{3}{8}$	$\frac{3}{8}$	B3-12
24 x 18	C	B	$\frac{3}{8}$	$\frac{5}{8}$	B5-2418

* SEE § 615.221(e)

§ 615.242. Emergency Parking Only Sign (R8-4).

(a) *Justification.* The Emergency Parking Only Sign (R8-4) shall be authorized for use in rural areas as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when it is necessary to prohibit all parking except when vehicles must park because of mechanical breakdown, tire trouble, lack of fuel or other emergencies involving vehicles or their occupants.

(b) *Size.* The standard size of R8-4 for expressways shall be 30 inches by 24 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
30x24	30	24	3½	4	2½	12½	13	11¾	11¾	6⅞	7
* 48x36	48	36	5	6	4	20⅞	21⅞	16¾	17	10⅞	10⅞

* Reduce spacing 50%

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30x24	C	D	D	¾	⅝	B5-3024
48x36	D	D	D	¾	⅞	B5-4836

§ 615.243. No Stopping on Pavement Sign (R8-5).

(a) *Justification.* The No Stopping on Pavement Sign (R8-5) shall be authorized for use in rural areas as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when stopping is permissible off the pavement but prohibited on the pavement.

(b) *Placement.* The R8-5 sign should be placed immediately in advance of and at intervals throughout the restricted area.

(c) *Size.* The standard size of R8-5 shall be 24 inches by 30 inches. The standard size for expressways shall be 36 inches by 48 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

RED (REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
18 x 24	18	24	3½	3	2½	2	2	2 9/16	6	1 5/8	6 11/16	6 7/8
24 x 30	24	30	3 5/8	5	2 1/4	3	2 1/4	4 5/16	10	2 7/16	10	10 1/4
36 x 48	36	48	6	7	5	4	4	6 1/16	14	3 1/4	13 3/8	13 3/4
48 x 60	48	60	7 1/2	9	6	5	5	7 3/4	18	4 1/16	16 11/16	17 1/8

* Reduce spacing 25%

SIGN SIZE	SERIES LINES				MARGIN	BORDER	BLANK STD
	1	2	3	4			
18 x 24	D	B	D	D	3/8	5/8	B5-2418
24 x 30	D	B	D	D	3/8	5/8	B5-3024
36 x 48	D	B	D	D	5/8	7/8	B5-4836
48 x 60	D	B	D	D	3/4	1 1/4	B5-6048

§ 615.244. Emergency Stopping Only Sign (R8-7).

(a) *Justification.* The Emergency Stopping Only Sign (R8-7) shall be authorized for use in rural areas as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when it is necessary to prohibit all stopping except when vehicles must stop because of mechanical breakdown, tire trouble, lack of fuel or other emergencies involving their vehicles or their occupants.

(b) *Size.* The standard size R8-7 for expressways shall be 30 inches by 24 inches.

(NOTE: SPECIFICATIONS FOR THE R8-7 SIGN ARE THE SAME AS IN 5 PA. B. 851)



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
30 x 24	30	24	3½	4	2½	12½	13	12¾	6⅞	7
* 48 x 36	48	36	5	6	4	20⅞	21⅞	19⅞	10⅞	10⅞

* Reduce spacing 50%

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
30 x 24	C	D	D	⅜	⅝	B5-3024
48 x 36	D	D	D	⅝	⅞	B5-4836

§ 615.245. Do Not Stop on Tracks Sign (R8-8).

(a) *Justification.* The Do Not Stop on Tracks Sign (R8-8) shall be authorized for use as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking) at those railroad crossings where it has been determined there is extremely high potential that vehicles may stop on the tracks.

(b) *Placement.* The R8-8 sign should normally be placed on the far right side of the grade crossing. On multilane or one-way highways a second sign should be placed on the far left side of the grade crossing.



COLOR: LEGEND AND BORDER
BACKGROUND

RED (REFLECTORIZED)
WHITE (REFLECTORIZED)

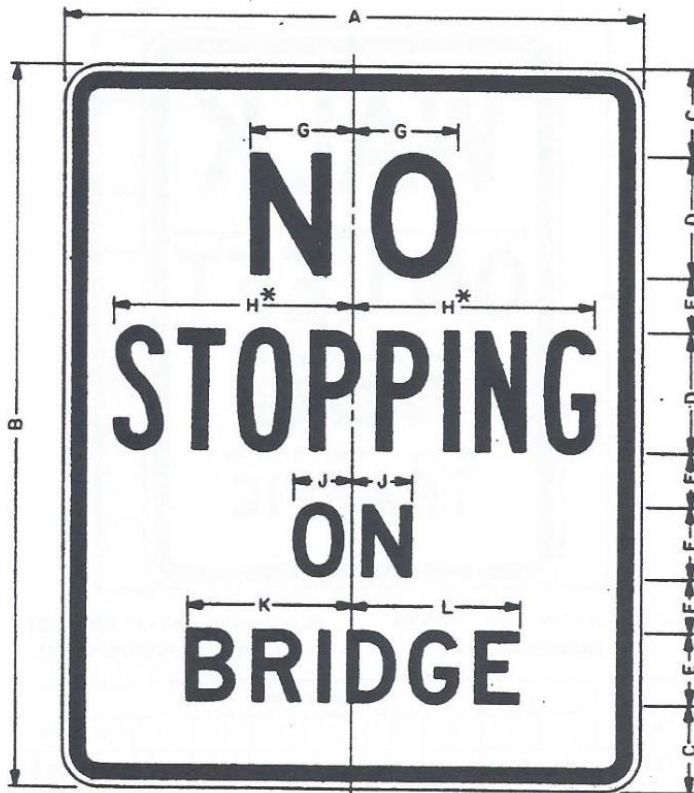
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
24 x 30	24	30	3 1/4	4	2 1/2	9 1/4	9 5/8	6 1/2	10	

SIGN SIZE	SERIES				MAR- GIN	BOR- DER	BLANK STD
	LINES						
	1	2	3	4			
24 x 30	D	D	D	D	3/8	5/8	85-3024

§ 615.246. No Stopping on Bridge Sign (R8-20).

(a) *Justification.* The No Stopping on Bridge Sign (R8-20) shall be authorized for use in rural areas as provided in §§ 615.221-615.223 of this Title (relating to stopping, standing and parking signs) when motorists have a tendency to stop or park on the bridge for purposes other than emergencies.

(b) *Size.* The standard size for expressways shall be 30 inches by 24 inches.



COLOR : LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
18 x 24	18	24	3 ¹ / ₁₆	3	2	2 ⁵ / ₈	2 ⁹ / ₁₆	6	1 ⁵ / ₈	4 ¹ / ₂	4 ⁵ / ₈
24 x 30	24	30	3 ⁵ / ₈	5	3	2 ¹ / ₄	4 ⁵ / ₁₆	10	2 ⁷ / ₁₆	6 ¹³ / ₁₆	6 ¹⁵ / ₁₆

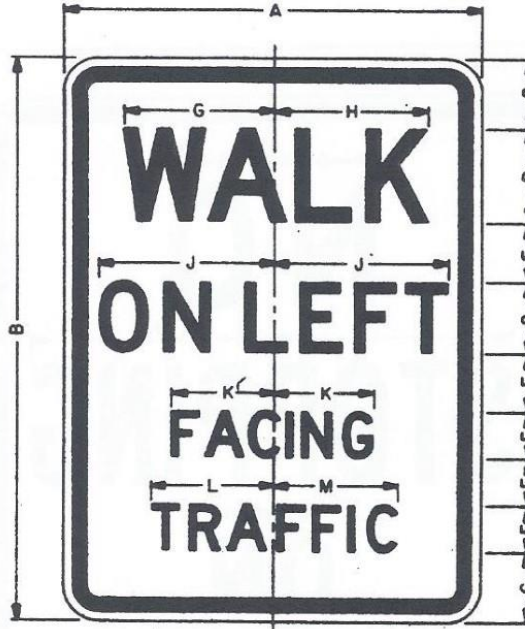
* Reduce spacing 25%

SIGN SIZE	SERIES LINES				MAR-GIN	BOR-DER	BLANK STD
	1	2	3	4			
18 x 24	D	B	D	D	³ / ₈	⁵ / ₈	B5-2418
24 x 30	D	B	D	D	³ / ₈	⁵ / ₈	B5-3024

§615.261. Pedestrian Group (R9 Series)
Walk on Left Facing Traffic Sign (R9-1).

(a) *Justification.* The Walk on Left Facing Traffic Sign (R9-1) shall be authorized for use to encourage safer pedestrian habits along highways where no sidewalks are provided.

(b) *Placement.* The R9-1 sign should be erected on the right-hand side of the road where pedestrians may walk on the pavement or shoulder in the absence of pedestrian pathways or sidewalks.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
18 x 24	18	24	3	4	2 1/2	2	6 7/16	6 11/16	7 1/2	4 3/8

SIGN SIZE	DIMENSIONS		SERIES				MAR-GIN	BOR-DER	BLANK STD
	L	M	LINES						
			1	2	3	4			
18 x 24	5 1/4	5 3/8	D	D	D	D	3/8	5/8	B5-2418

S 211.272. No Pedestrian Crossing Sign, R9-3.

(a) Justification. The No Pedestrian Crossing Sign, R9-3, shall be authorized for use to prohibit pedestrians from crossing a roadway at a point which is considered to be hazardous, or when provisions for a pedestrian crossing at a signalized intersection have not been provided. The Use Crosswalk Plaques, R9-3-1R or R9-3-1L, may be used below the R9-3 sign, to direct the pedestrians to a suitable crosswalk.

(b) Placement. This sign shall be erected on the far side of the roadway or in medians or islands, as applicable.



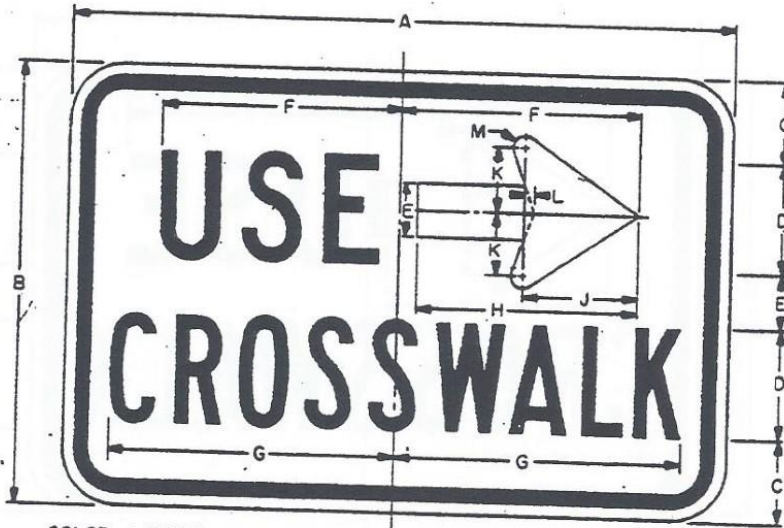
COLOR: SYMBOL AND BORDER BLACK (NON-REFLECTORIZED)
 CIRCLE AND DIAGONAL RED (REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F			
18 x 18	18	3 1/2	5 1/2	7 1/2	6 1/2	1 1/2	1/8	1/8	B3-18

S 211.273. (Reserved).

§ 613.264. Use Crosswalk Plaque, Right (R9-3-1R).

Justification. The Use Crosswalk Plaque, Right (R9-3-1R), shall be authorized beneath the No Pedestrian Crossing Sign (R9-3) to direct pedestrians to a crosswalk.



COLOR: LEGEND AND BORDER
BACKGROUND

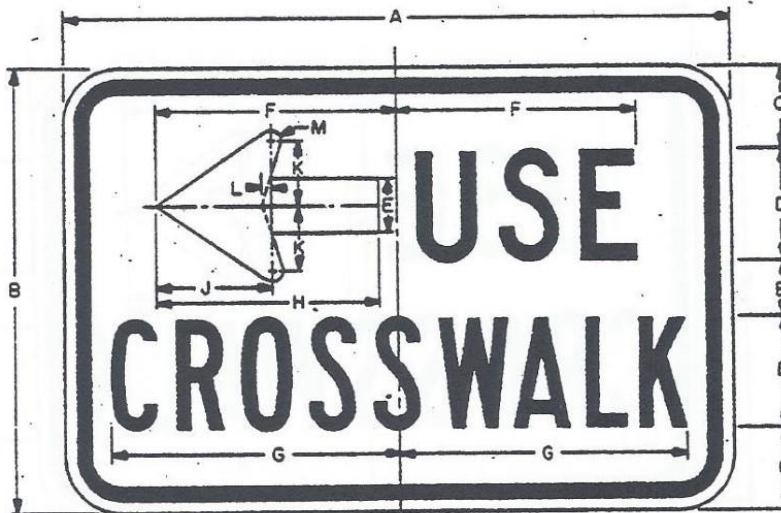
BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
18x12	18	12	$2\frac{1}{4}$	3	$1\frac{1}{2}$	$6\frac{1}{2}$	$7\frac{3}{4}$	6	$3\frac{1}{8}$	$1\frac{3}{4}$

SIGN SIZE	DIMENSIONS		SERIES		MARGIN	BORDER	BLANK STD
	L	M	LINES				
			1	2			
18 x 12	$\frac{1}{4}$	$\frac{5}{16}$	C	B	$\frac{3}{8}$	$\frac{3}{8}$	B5-1812

§ 615.265. Use Crosswalk Plaque, Left (R9-3-1L).

Justification. The Use Crosswalk Plaque, Left (R9-3-1L) shall be authorized beneath the No Pedestrian Crossing Sign (R9-3) to direct pedestrians to a crosswalk.



COLOR LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
18 x 12	18	12	2 ¹ / ₄	3	1 ¹ / ₂	6 ¹ / ₂	7 ³ / ₄	6	3 ¹ / ₈	1 ³ / ₄

SIGN SIZE	DIMENSIONS		SERIES		MAR- GIN	BOR- DER	BLANK STD
	L	M	LINES				
			1	2			
18 x 12	1 ¹ / ₄	5 ⁵ / ₁₆	C	B	3 ³ / ₈	3 ³ / ₈	85-1812

§§ 615.266-615.270. Reserved.

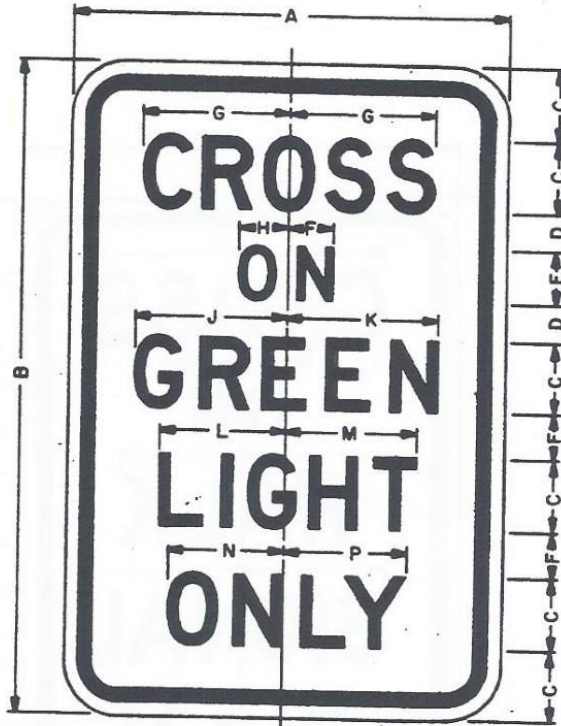
§615.271. Traffic Signal Group (R10 Series)

615.271. Cross on Green Light Only Sign (R10-1).

(a) *Justification.* The Cross on Green Light Only Sign (R10-1) shall be authorized for use to supplement traffic

signal control or to aid in limiting pedestrian crossing to safe locations.

(b) *Placement.* The R10-1 sign shall be placed only at signalized intersections and shall be erected to face pedestrians about to cross the roadway.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (NON-REFLECTORIZED)

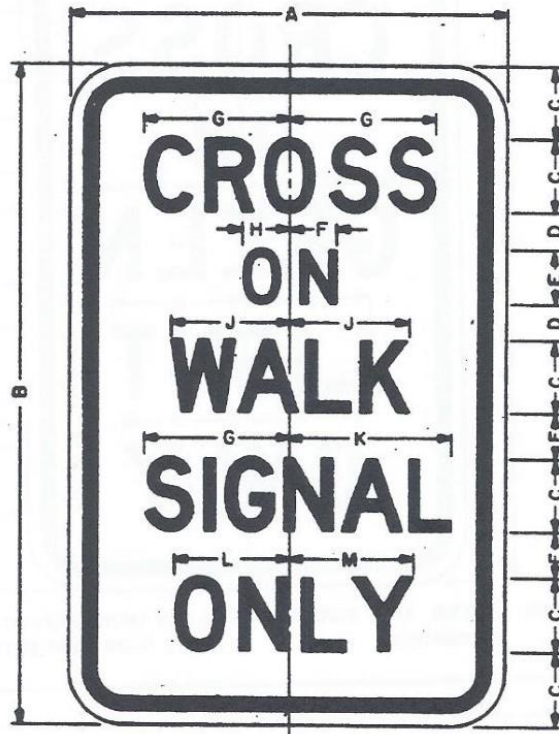
SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
12 x 18	12	18	2	1	1 1/2	1 1/4	4	5 1/16	4 3/16	4 1/16	3 7/16	3 5/8

SIGN SIZE	DIMENSIONS		SERIES					MAR- GIN	BOR- DER	BLANK STD
	N	P	LINES							
			1	2	3	4	5			
12 x 18	3 1/8	3 3/8	D	D	D	D	D	3/8	3/8	B5-1812

§615.272. Cross on Walk Signal Only Sign (R10-2).

(a) *Justification.* The Cross on Walk Signal Only Sign (R10-2) shall be authorized for use to supplement pedestrian signals or to aid in limiting pedestrian crossing to safe locations.

(b) *Placement.* The R10-2 sign shall be placed only at intersections having pedestrian signals and shall be erected to face pedestrians about to cross the roadway.



COLOR : LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND WHITE (NON-REFLECTORIZED)

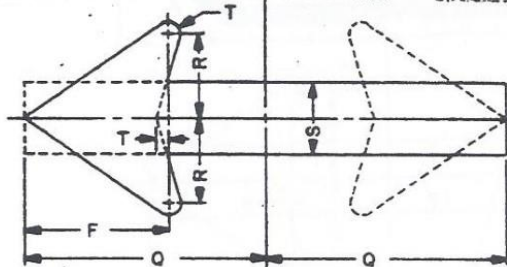
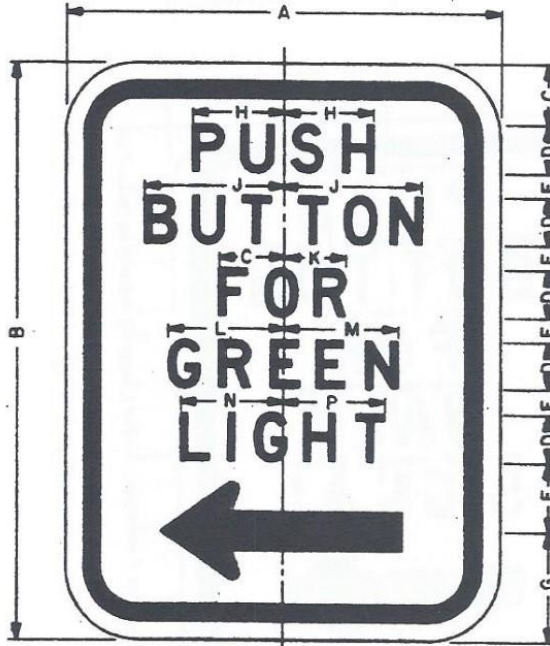
SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
12 x 18	12	18	2	1	1 1/2	1 1/4	4	5/16	3 1/4	4 7/16	3 1/8	3 3/8

SIGN SIZE	SERIES LINES					MARGIN	BORDER	BLANK STD
	1	2	3	4	5			
12 x 18	D	D	D	D	D	3/8	3/8	85-1812

§ 615.273. Push Button for Green Light Sign (R10-3).

(a) *Justification.* The Push Button for Green Light Sign (R10-3) shall be authorized for use where it is desired to permit pedestrians to register a demand for the green signal as provided in § 615.947 of this Title (relating to detectors).

(b) *Placement.* The R10-3 sign should be mounted parallel to the desired crossing, immediately above the push button. The arrow shall point in the direction of the crossing.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (NON-REFLECTORIZED)

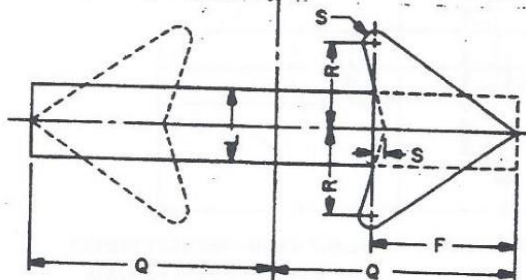
SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
9 x 12	9	12	1/4	1	1/2	1 1/2	2 1/4	7/8	2 13/16	1 3/8	2 3/8	2 5/16	2 1/16	2 1/8

SIGN SIZE	DIMENSIONS				SERIES					MAR-GIN	BOR-DER	BLANK STD
	Q	R	S	T	LINES							
					1	2	3	4	5			
9 x 12	2 1/2	7/8	3/4	1/8	D	D	D	D	D	3/8	3/8	B5-1209

§ 615.274. Push Button for Walk Signal Sign (R10-4).

(a) *Justification.* The Push Button for Walk Signal Sign (R10-4) shall be authorized for use where it is desired to permit pedestrians to register a demand for the WALK signal as provided in § 615.947 of this Title (relating to detectors.)

(b) *Placement.* The R10-4 sign should be mounted parallel to the desired crossing, immediately above the push button. The arrow shall point in the direction of the crossing.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (NON-REFLECTORIZED)

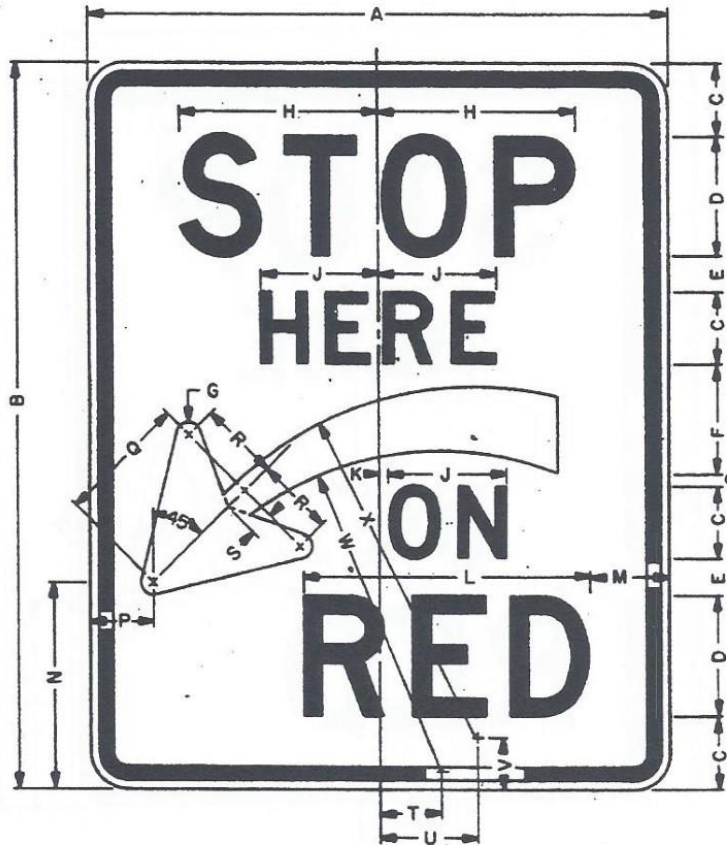
SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
9 x 12	9	12	1 1/4	1	1/2	1 1/2	2 1/4	7/8	2 5/16	1 3/8	3/4	1 5/16	2 9/16	2 5/8

SIGN SIZE	DIMENSIONS				SERIES					MARGIN	BORDER	BLANK STD
	Q	R	S	-	LINES							
					1	2	3	4	5			
9 x 12	2 1/2	7/8	1/8	X	D	D	D	D	D	3/8	3/8	85-1209

§ 615.275. Stop Here on Red Sign (R10-6L).

(a) *Justification.* The Stop Here on Red Sign (R10-6L) shall be authorized for use at signalized intersections to indicate the stopping point for vehicles when the stopping locations must be placed further than normal from the intersection.

(b) *Placement.* The R10-6L sign should be placed on the right and must be supplemented by a stop line as provided in § 615.1054 of this Title (relating to stop lines).



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 30	24	30	3	5	1 1/2	4 1/2	1/2	8 3/16	4 7/8	3/8	11 7/8

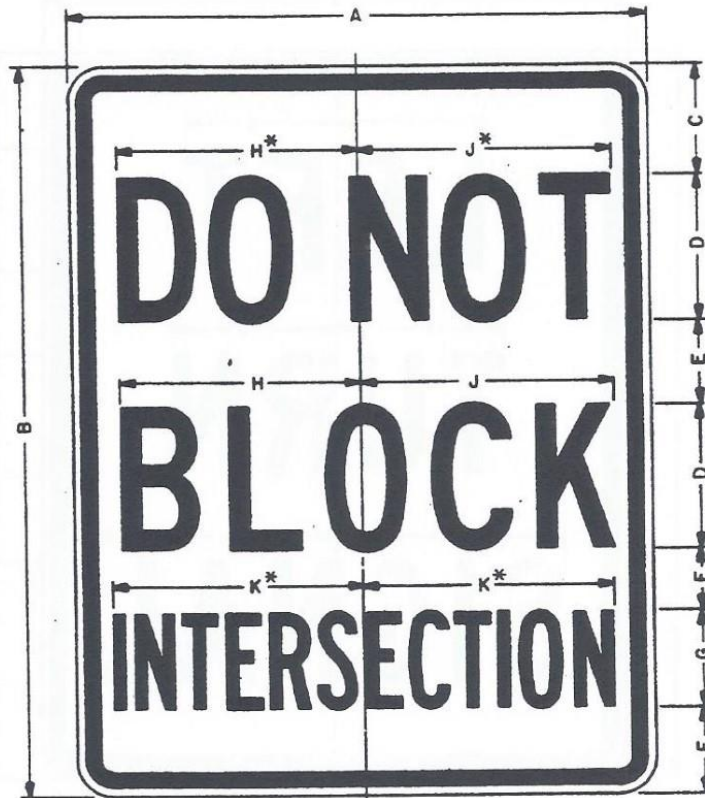
SIGN SIZE	DIMENSIONS										
	M	N	P	Q	R	S	T	U	V	W	X
24 x 30	3 1/4	8 1/2	2 5/8	5 3/8	3 3/16	1	2 1/2	4	2 1/8	13 1/8	14 7/16

SIGN SIZE	SERIES LINES				MARGIN	BORDER	BLANK STD
	1	2	3	4			
24 x 30	D	D	D	-D	3/8	5/8	85-3024

§ 615.277. Do Not Block Intersection Sign (R10-7).

(a) *Justification.* The Do Not Block Intersection Sign (R10-7) shall be authorized for use where stopped traffic frequently blocks an intersection. When the condition is other than an intersection, the specific condition, such as driveway, may be used in place of the word INTERSECTION.

(b) *Placement.* The R10-7 sign shall be placed immediately in advance of the street or other crossing which must be kept open.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24 x 30	24	30	4½	6	3½	2½	4	10	10½	10¾

* Reduce letter spacing 50%

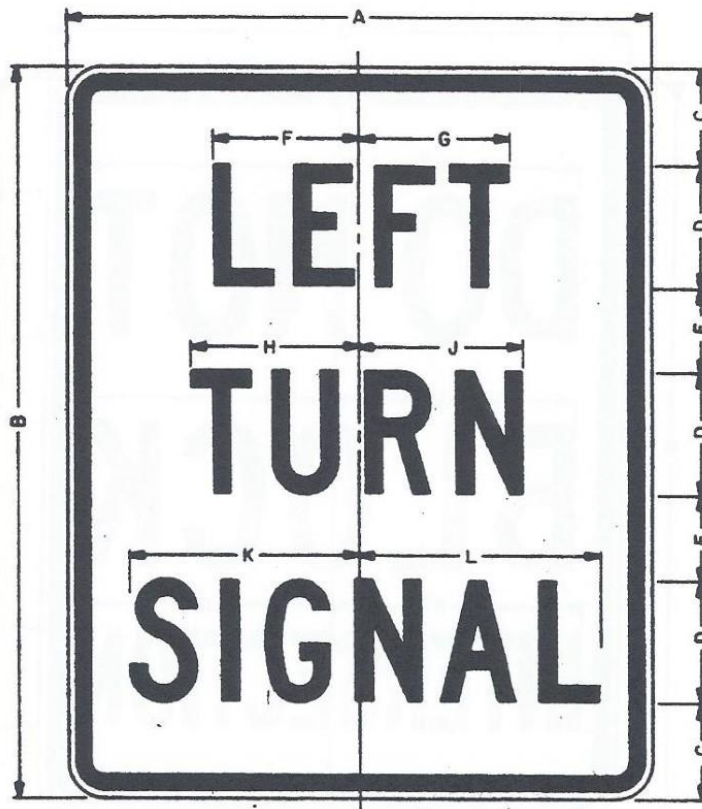
SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
	24 x 30	C	C	B	¾	⅝

§§ 615.278-615.280. Reserved.

§ 615.281. Left Turn Signal Sign (R10-10L).

(a) *Justification.* The Left Turn Signal Sign (R10-10L) shall be authorized for use with and is to be located close to a specific signal controlling a left-turning movement.

(b) *Size.* The standard size of R10-10L shall be 24 inches by 30 inches. The standard size for overhead installations shall be 30 inches by 36 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 30	24	30	4	5	3½	6	6¼	6 ⁵ / ₁₆	6 ¹¹ / ₁₆	9½	9 ⁷ / ₈
30 x 36	30	36	5	6	4	7 ³ / ₁₆	7½	8 ³ / ₈	8	11	11 ³ / ₈

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
24 x 30	C	C	C	³ / ₈	⁵ / ₈	B5-3024
30 x 36	C	C	C	¹ / ₂	³ / ₄	B5-3630

§ 615.282. Right Turn Signal Sign (R10-10R).

(a) *Justification.* The Right Turn Signal Sign (R10-10R) shall be authorized for use with and is to be located close to a specific signal controlling a right-turning movement.

(b) *Size.* The standard size of R10-10R shall be 24 inches by 30 inches. The standard size for overhead installations shall be 30 inches by 36 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

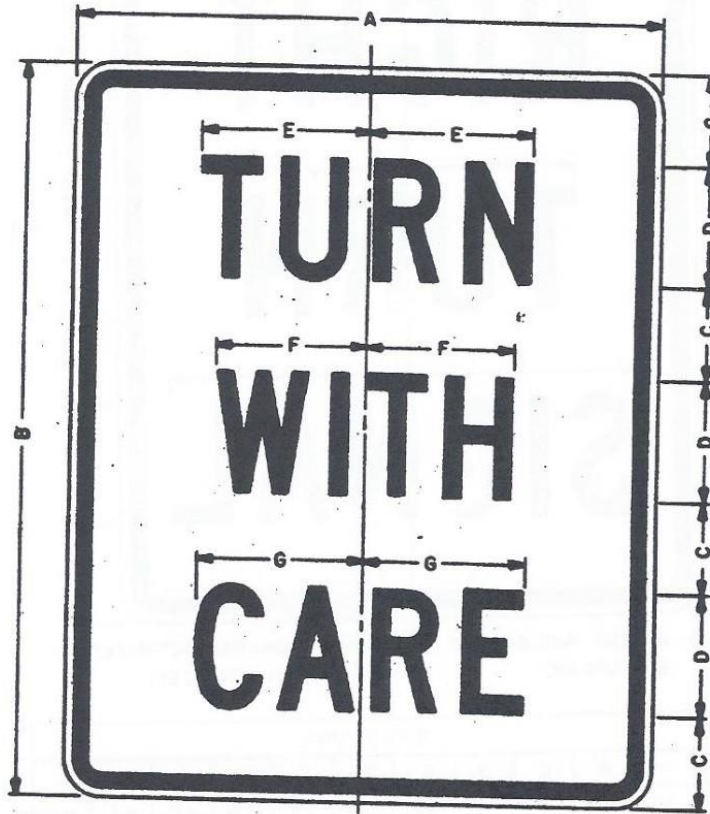
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 30	24	30	4	5	3 1/2	7 9/16	7 13/16	6 15/16	6 11/16	9 1/2	9 7/8
30 x 36	30	36	5	6	4	9 1/16	9 7/16	8 3/8	8	11	11 1/8

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
24 x 30	C	C	C	3/8	5/8	B5-3024
30 x 36	C	C	C	1/2	3/4	B5-3630

§ 615.283. Turn With Care Sign (R10-10-2).

(a) *Justification.* The Turn With Care Sign (R10-10-2) shall be authorized for use in combination with a Left Turn Signal Sign (R10-10) as the second message in an internally illuminated, changeable message sign, and is to be located close to a specific signal controlling a left-turning movement when the left-turning movement is exclusive during one phase but not denied in another phase of the traffic-control signal operation.

(b) *Size.* The standard size of R10-10-2 shall be 24 inches by 30 inches. The standard size for overhead installations shall be 30 inches by 36 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
24 x 30	24	30	3 ³ / ₄	5	6 ¹³ / ₁₆	6 ¹ / ₈	6 ³ / ₄
30 x 36	30	36	4 ¹ / ₂	6	8 ⁷ / ₁₆	7 ⁵ / ₁₆	8 ¹ / ₈

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
24 x 30	C	C	C	³ / ₈	⁴ / ₈	B5-3024
30 x 36	C	C	C	¹ / ₂	³ / ₄	B5-3630

RULES AND REGULATIONS

Subchapter C. REGULATORY SIGNS

§ 615.284. No Turn on Red (R10-11).

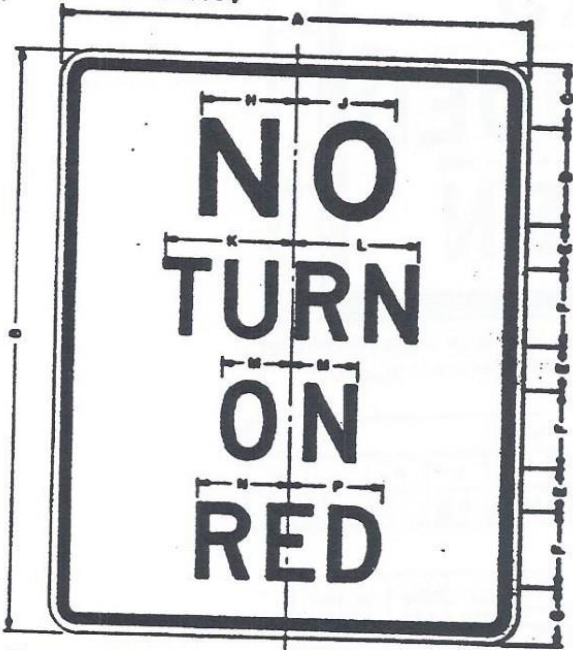
(a) *Justification.* The No Turn on Red Sign (R10-11) shall be authorized for use as provided in § 610.52 of this title (relating to no-turn-on-red restrictions) when it is necessary to restrict turning movements on red signal indications because of potentially hazardous conflicts with vehicles or pedestrians.

(b) *Design.* The standard R10-11 sign shall have only the message NO TURN ON RED as indicated below, but an alternate design as also indicated may be used when the no-turn-on-red restriction only applies during certain hours in lieu of using a Restricted Hours Panel (R3-20) with the standard R10-11 sign. When the alternate design is used, a one-line, two-line or three-line message may be added, but a maximum of two lines may be used to indicate the hours of effectiveness. The last line may be used to designate effective days of the week if required.

(c) *Placement.* The No Turn on Red Sign (R10-11) should be erected on the traffic signal support near the appropriate signal head. If a sign can not be erected within ten feet of the appropriate signal head, two signs shall be installed. These two signs shall be installed on the appropriate side of the roadway with one sign installed on the far side of the intersection and one sign post mounted near the stop line or in advance of a marked or unmarked crosswalk.

(d) *Size.* The standard size of R10-11 shall be 24 inches by 30 inches, except for overhead installations the standard size shall be 30 inches by 36 inches. However, the sign may be elongated if a two-line or three-line message is used to indicate the hours of the restriction.

STANDARD R10-11 SIGN
(TO REMAIN)

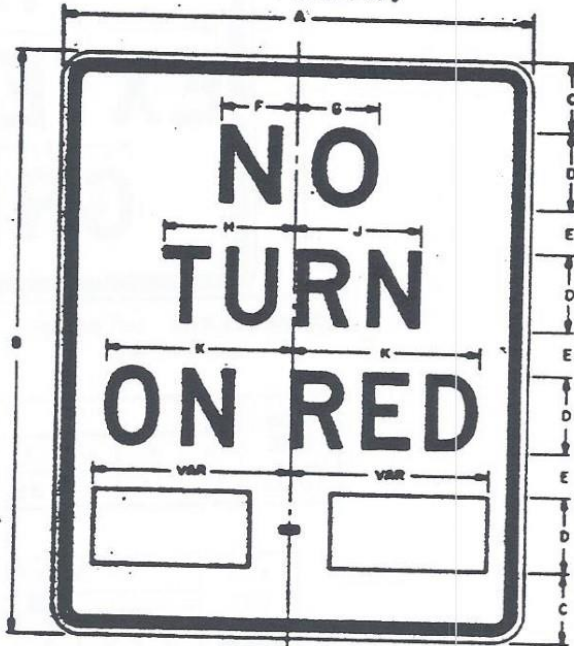


COLOR - LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24x30	24	30	3 1/2	5	2 1/2	4	3	4	5	6	6
30x36	30	36	4	7	2 1/2	5	3 1/2	6	7	8	8
36x48	36	48	6	8	3 1/2	6	5 1/2	7	8	10	9

SIGN SIZE	DIMENSIONS			SERIES				MAR-GN	BOR-DER	BLANK STD
	M	N	P	1	2	3	4			
24x30	3 1/2	4	4	E	D	D	D			85-3024
30x36	4	5	6	E	D	D	D			85-3630
36x48	5 1/2	6	7	E	D	D	D			85-4836

OPTIONAL R10-11 SIGN
(NEW)



COLOR - LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24x30	24	30	3 1/2	4	2 1/2	3	4	6	6 1/2	9 1/2
30x36	30	36	3 1/2	5	2 1/2	4	5	8	8 1/2	11 1/2
36x48	36	48	5 1/2	6	4 1/2	5	6	10	9 1/2	14 1/2

SIGN SIZE	SERIES				MAR-GN	BOR-DER	BLANK STD
	1	2	3	4			
24x30	E	D	D	VAR			85-3024
30x36	E	D	D	VAR			85-3630
36x48	E	D	D	VAR			85-4836

§ 615.285. Opposing Traffic Has Extended Green Sign (R10-20).

(a) *Justification.* The Opposing Traffic Has Extended Green Sign (R10-20) shall be authorized for use with a traffic-control signal installation where opposing traffic has a lagging green. It shall be used to advise the motorist facing the sign that the opposing traffic will continue to move although he has a red signal indication.

(b) *Placement.* The R10-20 sign should be near and facing the approach lanes of traffic, which might presumably conflict with traffic entering the intersection on a lagging green signal indication, on a signal post or pedestal beneath the signal. It may also be placed in an overhead position on a signal mast arm or span wire.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
30x36	30	36	4	3 $\frac{1}{4}$	2 $\frac{3}{8}$	12 $\frac{5}{16}$	10 $\frac{11}{16}$	5 $\frac{1}{8}$	12 $\frac{15}{16}$	8 $\frac{3}{16}$

SIGN SIZE	SERIES					MARGIN	BORDER	BLANK STD
	LINES							
	1	2	3	4	5			
30x36	D	D	D	D	D	$\frac{1}{2}$	$\frac{3}{4}$	85-3630

§ 615.286. Wait for Green Sign (R10-21).

(a) *Justification.* The Wait for Green Sign (R10-21) shall be authorized for use at traffic-control signal installations where a tendency is noted on the part of the motorist to start his vehicle moving before his green indication is lighted. This occurs where opposing traffic has a leading green, and thus is allowed to move before the motorist in question.

(b) *Placement.* The R10-21 sign should be placed on the signal post or pedestal supporting the signals to which it applies. It may also be placed in an overhead position on a signal mast arm or span wire.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
24 x 30	24	30	4 ³ / ₈	5	3 ¹ / ₈	7 ³ / ₁₆	7 ⁷ / ₁₆	5 ⁷ / ₈	6 ¹ / ₈	

SIGN SIZE	DIMENSIONS		SERIES			MAR-GIN	BOR-DER	BLANK STD
	K	L	LINES					
			1	2	3			
24 x 30	10 ³ / ₈	10	D	D	D	³ / ₈	⁵ / ₈	B5-3024

§ 615.287. Emergency Signal Sign (R10-22).

(a) *Justification.* The Emergency Signal Sign (R10-22) shall be authorized for use at locations where a traffic-control signal is installed to obtain the right-of-way for an emergency vehicle.

(b) *Placement.* The R10-22 sign shall be located adjacent to the overhead signal for each street approach.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
36 x 24	36	24	5	4	14 $\frac{3}{16}$	9 $\frac{11}{16}$

* Reduce spacing 50%

SIGN SIZE	SERIES LINES		MAR- GIN	BOR- DER	BLANK STD
	1	2			
	36 x 24	C			

RESTRICTIONS GROUP, R11 SERIES

S 211.321. (Reserved).

§211.322. Road Closed Sign, R11-2.

(a) *Justification.* The Road Closed Sign, R11-2, shall be authorized for use to mark highways that have been closed to all traffic, except equipment of contractors and other authorized vehicles, either because of construction or maintenance operations or because of a temporary emergency.

(b) *Placement.* The R11-2 sign should be mounted on a Type III Barricade.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
48x30	48	30	5	8	4	13½	13½	19

SIGN SIZE	SERIES LINES		MARGIN	BORDER	BLANK STD
	1	2			
48x30	D	D	½	¾	B5-4830

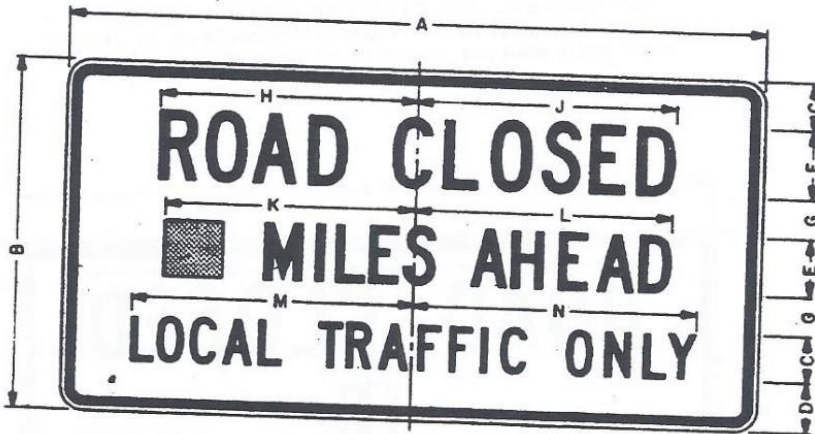
6615.293.

Road Closed-Local Traffic Only Sign (R11-3).

(a) *Justification.* The Road Closed-Local Traffic Only Sign (R11-3) shall be authorized for use where through traffic must detour to avoid a closed highway some distance

beyond, but where the road is open for traffic up to the point of closure.

(b) *Placement.* The R11-3 sign should be erected on a narrow barricade in the center of the roadway, or, if pavement width does not permit, at the right of the roadway.



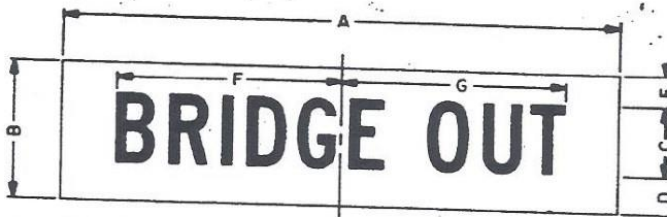
COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
60 x 30	60	30	4	4 1/4	5	6	3 3/8	21 15/16	22 3/8	21 3/8

SIGN SIZE	DIMENSIONS			SERIES			MAR-GIN	BOR-DER	BLANK STD
	L	M	N	LINES					
				1	2	3			
60 x 30	22 1/4	24 1/8	24 1/2	C	C	C	1/2	3/4	B5-6030

§ 615.294. **Bridge Out—Local Traffic Only Sign (R11-3-1).**

Justification. The Bridge Out—Local Traffic Only Sign (R11-3-1) shall be authorized for use where through traffic must detour to avoid a closed highway. An appropriate legend describing the circumstances of the closing, such as "Bridge Out", "High Water" or "Slides" shall be placed over the words "Road Closed" on the Road Closed—Local Traffic Only Sign (R11-3).



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
48 x 12	48	12	6	3 1/4	2 3/4	19 1/4	19 5/8

SIGN SIZE	SERIES	BLANK STD
	LINE	
48 x 12	C	B5-4812

§615.295

§615.295: Road Closed to Thru Traffic Sign (R11-4).

(a) *Justification.* The Road Closed to Thru Traffic Sign (R11-4) shall be authorized for use in urban areas where a highway is closed due to construction, maintenance or other temporary emergency. Street may be used in place of Road.

(b) *Placement.* The R11-4 sign should be erected on a narrow barricade in the center of the roadway, or, if pavement width does not permit, at the right of the roadway.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
60 x 30	60	30	4	6	2½	5	23 ⁹ / ₁₆	24	3¼	3	24½

SIGN SIZE	SERIES LINES			MAR- GIN	BOR- DER	BLANK STD
	1	2	3			
	60 x 30	C	C			

§ 615.296. Closed for the Season Sign (R11-6).

(a) *Justification.* The Closed for the Season Sign (R11-6) shall be authorized for use on non-Interstate Rest Areas which have been closed for the season.

(b) *Placement.* The R11-6 sign should be placed on a reflectorized red and white striped barricade closing the area.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
36 x 30	36	30	5 ¹ / ₈	4	3 ⁷ / ₈	11 ¹ / ₂	13 ¹ / ₈	12

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	LINES					
	1	2	3			
36 x 30	E	E	E	¹ / ₂	³ / ₄	85-3630

§ 615.297. Trucks Keep Off Shoulder Sign (R11-7).

(a) *Justification.* The Trucks Keep Off Shoulder Sign (R11-7) shall be authorized at locations where trucks frequently travel on the shoulder but the shoulder is not capable of supporting truck traffic.

(b) *Placement.* The R11-7 sign shall be erected immediately in advance of and at intervals throughout the restricted area.



COLOR : LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
30x30	30	4 1/2	4	10	13	12 5/8

* Reduce spacing 33%

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30x30	D	D	D	1/2	3/4	B3-30

§ 615.298. Street Closed (—) to (—) Sign (R11-10).

(a) *Justification.* The Street Closed (—) to (—) Sign (R11-10) shall be authorized for use where the street is closed by local authorities for special activities. Road may be used in place of Street.

(b) *Placement.* The R11-10 sign shall be placed on a Type III barricade in the center of the street.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (NON-REFLECTORIZED)

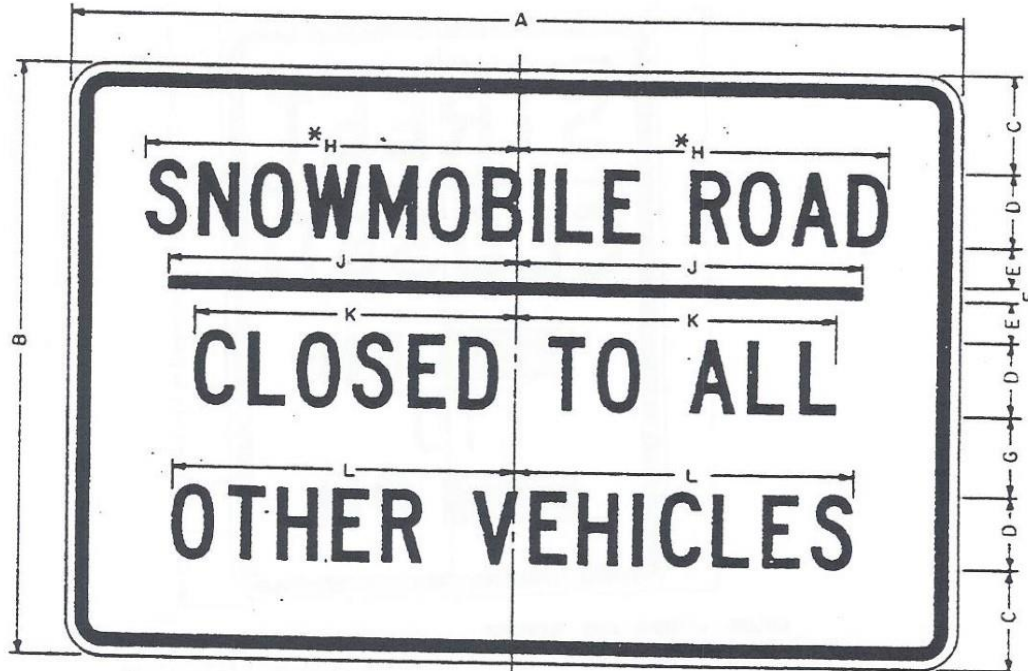
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
18x24	18	24	3	2	1	7	7 ³ / ₈	1 ¹ / ₂

SIGN SIZE	SERIES					MAR- GIN	BOR- DER	BLANK STD
	LINES							
	1	2	3	4	5			
18x24	D	D	D	D	D	³ / ₈	⁵ / ₈	B5-2418

§ 615.299. Snowmobile Road-Closed To All Other Vehicles Sign (R11-11).

(a) *Justification.* The Snowmobile Road-Closed to All Other Vehicles Sign (R11-11) shall be authorized for use when a street or highway has been closed to all vehicular traffic other than snowmobiles and designated as a snowmobile road by the governmental agency having jurisdiction over the street or road.

(b) *Placement.* The R11-11 sign should be mounted on a Type III, red and white reflectorized barricade in the center of the roadway, or if pavement width does not permit, at the right side of the roadway.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
36x24	36	24	4	3	1 $\frac{5}{8}$	$\frac{1}{2}$	3 $\frac{1}{4}$	15	14	13	13 $\frac{3}{4}$

* Reduce spacing 25%

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD.
	1	2	3			
36x24	C	C	C	$\frac{3}{8}$	$\frac{5}{8}$	85-3624

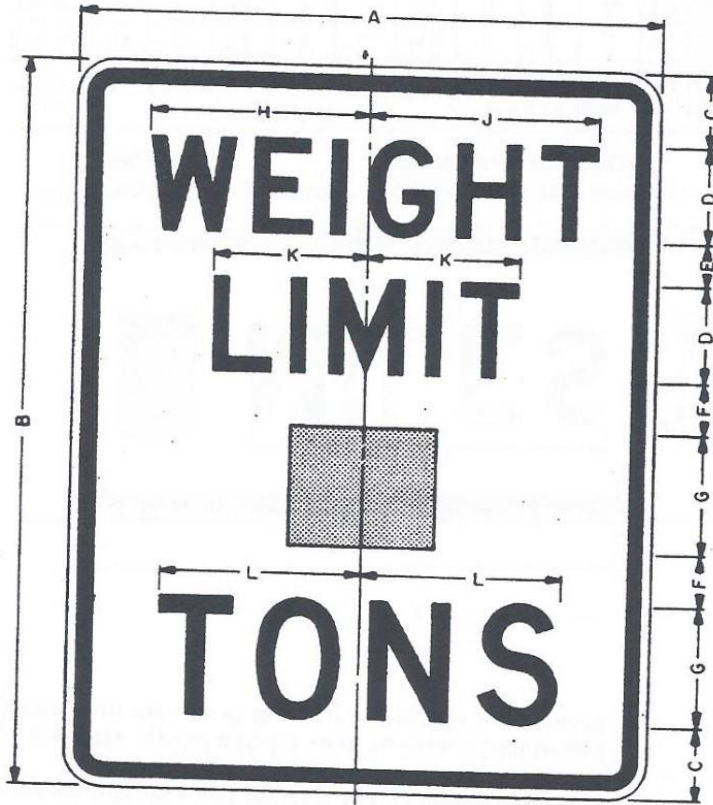
Truck Group (R12, R13 and R14 Series)

§ 615.301. Weight Limit (—) Tons Sign (R12-1).

(a) *Justification.* The Weight Limit (—) Tons Sign (R12-1) shall be authorized in accordance with §§ 610.71 of this Title (relating to restricting the use of highways by kinds and classes of vehicles), to restrict the weight permitted on a highway or bridge. When the R12-1 sign is used to advise of a weight restriction on a bridge, the Bridge Sign (R12-1-2) shall be mounted directly above it.

(b) *Placement.* The R12-1 sign should be located immediately in advance of the section of highway or the structure to which it applies. In the case of an extended length, it should be placed on the right-hand side of the restricted highway not more than 25 feet beyond any intersection so as to be clearly visible from all vehicles about to enter the restricted highway. A supplementary sign may be necessary on the left-hand side of the highway.

(c) *Size.* The standard size of R12-1 shall be 24 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 30	24	30	3	4	1 3/4	2 1/8	5	9	9 1/2	6 5/16	8 1/4
36 x 48	36	48	4 3/4	6	3	3 3/4	8	13 1/2	14 1/4	9 7/16	13 1/4

* Optically space numerals about vertical C.

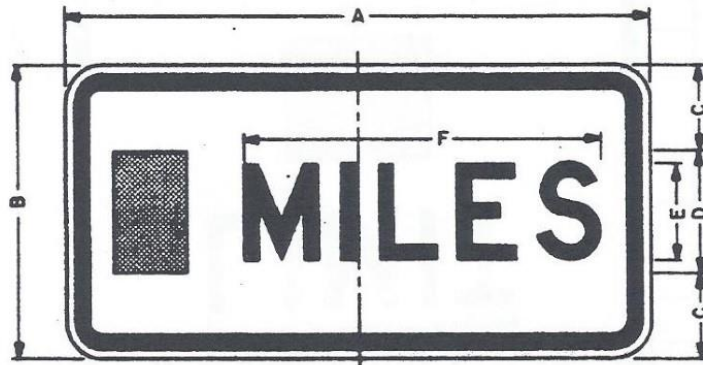
SIGN SIZE	SERIES				MAR- GIN	BOR- DER	BLANK STD
	LINES						
	1	2	3	4			
24 x 30	D	D	E	D	3/8	5/8	B5-3024
36 x 48	D	D	E	D	5/8	7/8	B5-4836

§ 615.302. (—) Mile(s) Sign (R12-1-1).

(a) *Justification.* The (—) Mile(s) Sign (R12-1-1) shall be mounted below the Weight Limit Sign (R12-1) when the sign is used as an advance warning of a weight limitation. As an advance warning of a bridge limitation it shall be used in further conjunction with the Bridge Sign (R12-1-2).

(b) *Placement.* The R12-1-1 sign shall be placed at the last intersected highway and indicate the distance to the restriction.

(c) *Size.* The size of R12-1-1 shall be determined by and be in accord with the size of the sign to which it is appended.



COLOR · LEGEND AND BORDER
BACKGROUND

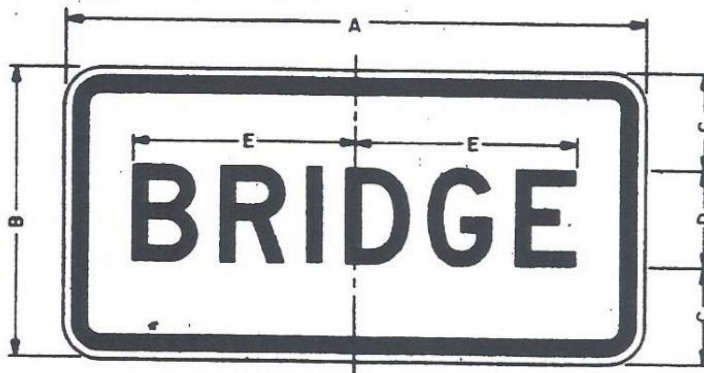
BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES LINE	MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E	F				
24 x 12	24	12	3 1/2	5	4	14 11/16	D	3/8	5/8	B5-2412
36 x 12	36	12	2 1/2	7	6	22	D	5/8	7/8	B5-3612

§ 615.303. Bridge Sign (R12-1-2).

(a) *Justification.* The Bridge Sign (R12-1-2) shall be mounted above the Weight Limit Sign (R12-1) and posted in a conspicuous place at the entrance to the bridge. As an advance warning it shall also be used in conjunction with the Mile Sign (R12-1-1).

(b) *Size.* The size shall be determined by and be in accord with the size of the sign to which it is appended.



COLOR : LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

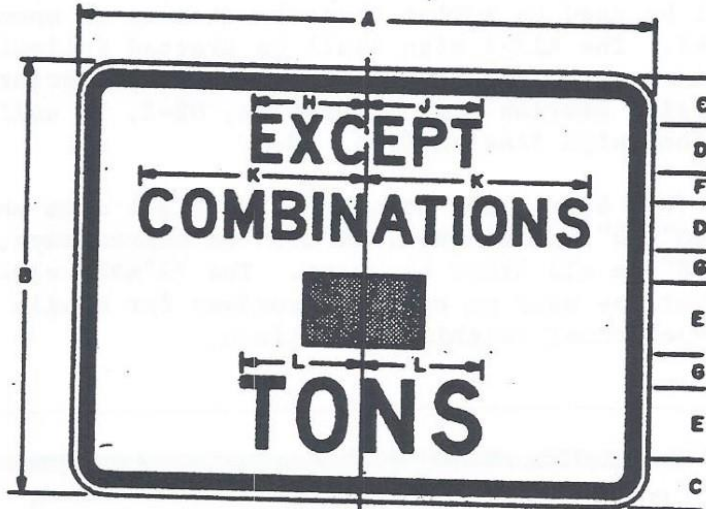
SIGN SIZE	DIMENSIONS					SERIES LINE	MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E				
24 x 12	24	12	4	4	$9\frac{3}{16}$	D	$\frac{3}{8}$	$\frac{5}{8}$	B5-2412
36 x 12	36	12	3	6	$13\frac{3}{4}$	D	$\frac{5}{8}$	$\frac{7}{8}$	B5-3612

§211.344. Except Combinations () Tons Sign, R12-4.

(a) *Justification.* The Except Combinations () Tons Sign, R12-4, shall be authorized for use in accordance with § 201.81 of this title (relating to restricting the use of highways by kinds and classes of vehicles) to permit the weight of vehicle combinations on a highway or bridge to exceed the weight limit for single-unit vehicles.

(b) *Placement.* When used, the R12-4 sign shall be placed beneath the Weight Limit () Tons Sign, R12-1.

(c) *Size.* The R12-4 sign shall be the same width as the R12-1 sign it supplements.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 18	24	18	2	2	3	1 1/2	1 1/2	4 1/2	4 1/2	9 1/2	5
36 x 24	36	24	2 1/2	3	4	1 1/2	1 1/2	7 1/8	7 1/8	14 1/2	6 1/2

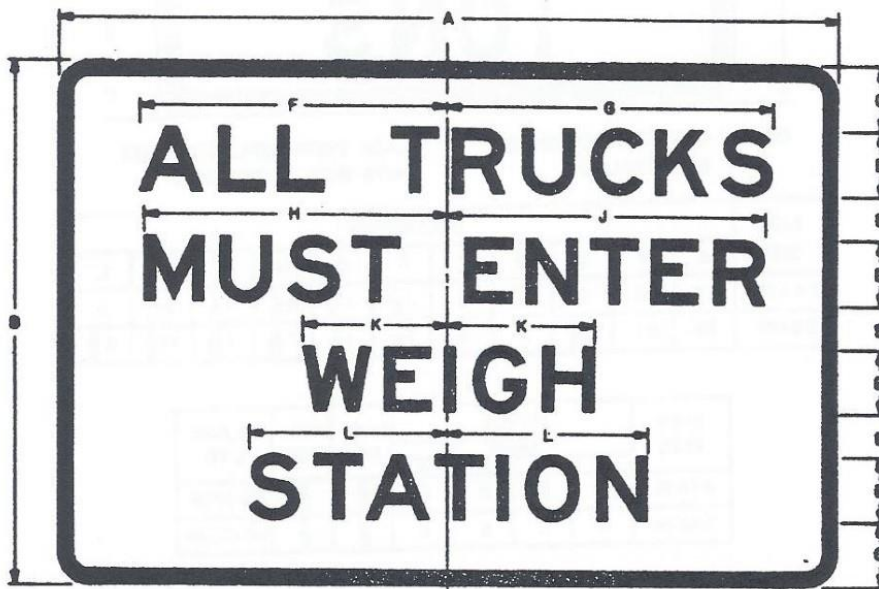
SIGN SIZE	SERIES				MAR- GIN	BOR- DER	BLANK STD
	1	2	3	4			
24 x 18	D	D	E	D	1/2	1/2	BS-2418
36 x 24	D	D	E	D	1/2	1/2	BS-3624

TRUCK GROUP, R12, R13
AND R14 SERIES

S 211.345. All Trucks Must Enter Weigh Station Sign, R13-1.

(a) Justification. The All Trucks Must Enter Weigh Station Sign, R13-1, is authorized for use in advance of a weigh station to inform the operators of the trucks that they must enter the weigh station. When the weigh station is not in operation, this sign shall be folded or covered or a subsequent sign shall be used to advise that the station is open or closed. The R13-1 sign shall be erected following the Advance Weight Station Sign, D8-1, and prior to the Weigh Station next Right Sign, D8-2, if utilized, and the Weigh Station Sign, D8-3.

(b) Size. The standard size R13-1 sign shall be 120"x84" on freeways, 96"x66" on expressways, and 72"x48" on all other highways. The 72"x48" size may, however, be used on any type roadway for mobile or semi-permanent weighing operations.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
BLACK (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
72x48	72	48	6	6	4	26 1/2	29 1/2	28 1/2	29 1/2	13 1/2	18 1/2
96x66	96	66	8	8	6	38	39 1/2	37 1/2	39	17	24 1/2
120x84	120	84	10	10	8	47 1/2	49 1/2	46 1/2	48 1/2	22	30 1/2

SIGN SIZE	SERIES LINES				BOR- DER	BLANK STD
	1	2	3	4		
72x48	E	E	E	E	1 1/2	85-7248
96x66	E	E	E	E	2	85-9666
120x84	E	E	E	E	2	85-12084

§§ 615.306-615.310. Reserved.

§ 615.311. Truck Route Sign (R14-1).

(a) *Justification.*

(1) The Truck Route Sign (R14-1) shall be authorized for use to mark an unnumbered highway which has been designated by proper authority as a truck route where height or weight limitations or other truck exclusions have been imposed on alternate routes.

(2) The black on white turn markers provided in §§ 615.681-615.696 of this Title (relating to route markers and auxiliary markers) may be used with the R14-1 sign to indicate turns in the truck route.

(3) On a numbered highway Truck Marker (M4-4) will be applicable.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
24 x 18	24	18	3	5	2	10 ¹ / ₄	9 ³ / ₄	9 ³ / ₈	10

* Reduce spacing 20 %

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
24 x 18	D	D	³ / ₈	⁵ / ₈	B5-2418

§615.312.

Trucks Reduce Gear Sign (R14-10).

(a) *Justification.* The Trucks Reduce Gear Sign (R14-10) shall be authorized for use on those downgrades where commercial motor vehicles or truck tractors and trailers

or semi-trailers shall be required to use a reduced gear before descending the downgrade.

(b) *Placement.* The R14-10 sign shall be placed so that any truck passing it will have time to slow down and reduce gear before entering the downgrade.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
48 x 36	48	36	5	6	4	20 1/2	19 5/8	19 5/16	20 1/8	

SIGN SIZE	DIM K	SERIES LINES			MARGIN	BORDER	BLANK STD
		1	2	3			
48 x 36	13 1/4	F	F	F	1/2	3/4	B5-4836

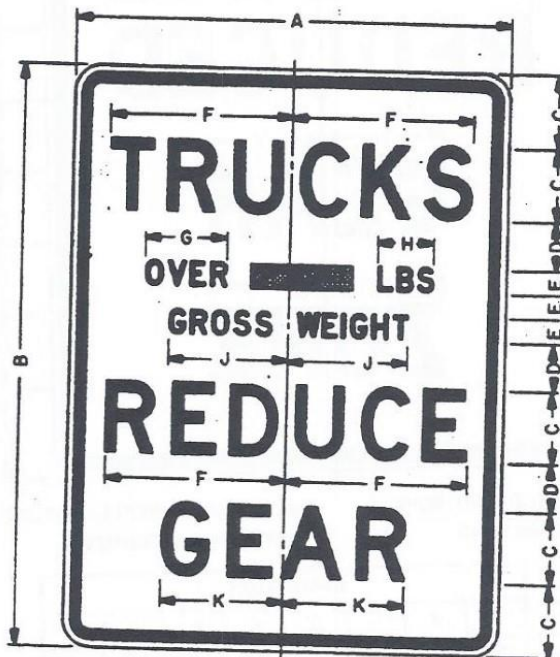
§615.313.

§615.313. Trucks Over (—) Lbs. Gross Weight Reduce Gear Sign (R14-11).

(a) *Justification.* The Trucks Over (—) Lbs. Gross Weight Reduce Gear Sign (R14-11) shall be authorized for use on those grades where certain classes of commercial vehicles or truck tractors and trailers or semi-trailers shall

be required by this sign to use a reduced gear.

(b) *Placement.* The R14-11 sign shall be placed so that any truck passing it will have time to slow down and reduce gear before entering the downgrade. This sign may be placed above the Trucks Over (—) Lbs. Speed Sign (R2-2-1).



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
36 x 48	36	48	6	4	2	15	6 ⁵ / ₈	4 ¹¹ / ₁₆	9 ⁷ / ₈	10

SIZE SIZE	SERIES					MAR- GIN	BOR- DER	BLANK STD
	LINES							
	1	2	3	4	5			
36 x 48	D	D	D	D	D	⁵ / ₈	⁷ / ₈	B5-4836

§ 615.314.

§ 615.314, Reduced Gear Zone Sign (R14-12).

(a) *Justification.* The Reduced Gear Zone Sign (R14-12) shall be authorized for use within the limits of a reduced gear zone in conjunction with the Trucks Over (—) Lbs. Gross Weight Reduce Gear sign (R14-11).

(b) *Placement.* The R14-12 sign may be erected alone, or in a series with other signs, and shall be placed at reasonable intervals.

(c) *Size.* The standard size of the R14-12 sign shall be 30 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30x30	30	30	5 1/8	4	3 7/8	11 11/16	6 11/16	6 1/2
48x48	48	48	8 1/2	6	6 1/2	17 1/2	10	9 3/4

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
30x30	D	D	D	1/2	3/4	83-30
48x48	D	D	D	3/4	1 1/4	83-48

S 211.354a. Stay in Reduced Gear Sign, R14-12-1.

(a) Justification. The Stay in Reduced Gear Sign, R14-12-1, shall be authorized for use on those grades where a reduced gear zone is necessary for safety reasons.

(b) Placement. The R14-12-1 sign may be erected alone or it may be erected beneath the Trucks Over () Lbs. Speed Sign, R2-2-1.

(c) Size. When used beneath the R2-2-1 sign, the R14-12-1 sign shall have the same width as the R2-2-1 sign which it supplements.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30x30	30	4 1/2	8	3 1/2	11	11	6 1/2
36x36	36	4 1/2	7	3	16	15	9

SIGN SIZE	SERIES			MAR- GN	BOR- DER	BLANK STD
	1	2	3			
30x30	C	C	C	1	2	B3-30
36x36	C	C	C	1	2	B3-36

§615.315.

§615.315. End Reduced Gear Zone Sign (R14-13).

(a) *Justification.* The End Reduced Gear Zone Sign (R14-13) shall be authorized for use to mark the ending of a reduced gear zone.

(b) *Placement.* The R14-13 sign shall be placed at the

end of all zones which have a Trucks Over (—) Lbs. Gross Weight Reduce Gear Sign (R14-11) placed at the beginning.

(c) *Size.* The standard size of the R14-13 shall be 30 inches by 30 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
30x30	30	4	2	6 $\frac{3}{16}$	6 $\frac{7}{16}$	14	13 $\frac{3}{8}$	9	8 $\frac{11}{16}$	8 $\frac{3}{4}$	9 $\frac{1}{8}$
48x48	48	6	4	9 $\frac{1}{4}$	9 $\frac{5}{8}$	21	20 $\frac{1}{8}$	13 $\frac{1}{2}$	13	13 $\frac{1}{8}$	13 $\frac{3}{8}$

SIGN SIZE	SERIES				MARGIN	BORDER	BLANK STD
	LINES						
	1	2	3	4			
30x30	F	E	F	F	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48x48	F	E	F	F	$\frac{3}{4}$	1 $\frac{1}{4}$	B3-48

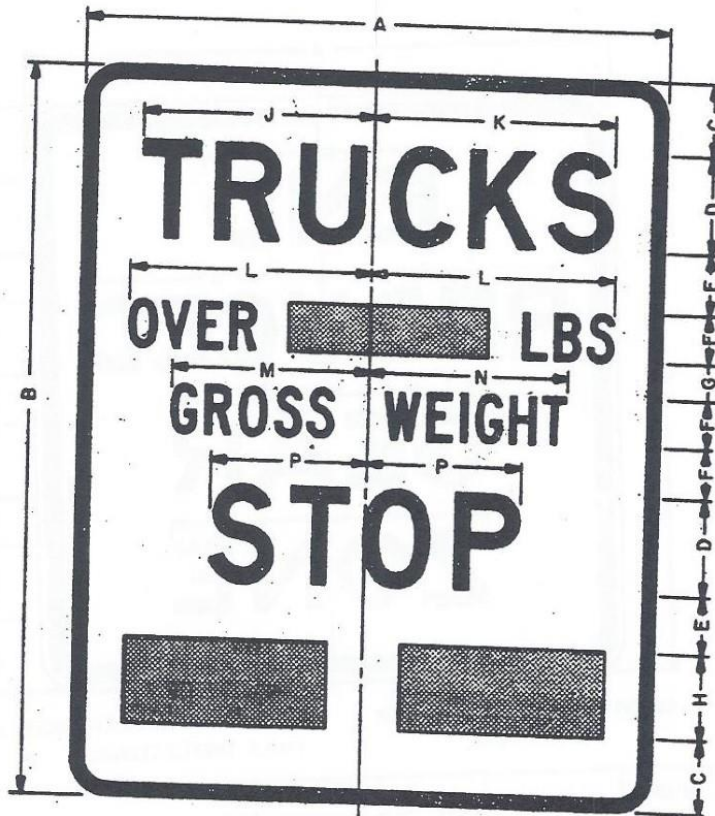
§ 615.316.

§ 615.316. Trucks Over (—) Lbs. Stop (—) Feet Sign (R14-14).

(a) Justification. The Trucks Over (—) Lbs. Stop (—) Feet Sign (R14-14) shall be authorized for use on

those downgrades where certain classes of commercial motor vehicles or truck tractors and trailers or semi-trailers shall be required to stop before descending the downgrade.

(b) Placement. The R14-14 sign shall be placed in advance of the point where said vehicle must stop.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) BLACK (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
48x60	48	60	6	8	5	4	3	7	20	20 1/8	19 7/8

SIGN SIZE	DIMENSIONS			SERIES				BOR- DER	BLANK STD
	M	N	P	LINES					
				1	2	3	4		
48x60	16 3/8	16 1/8	13 1/8	D	C	C	D	I	85-6048

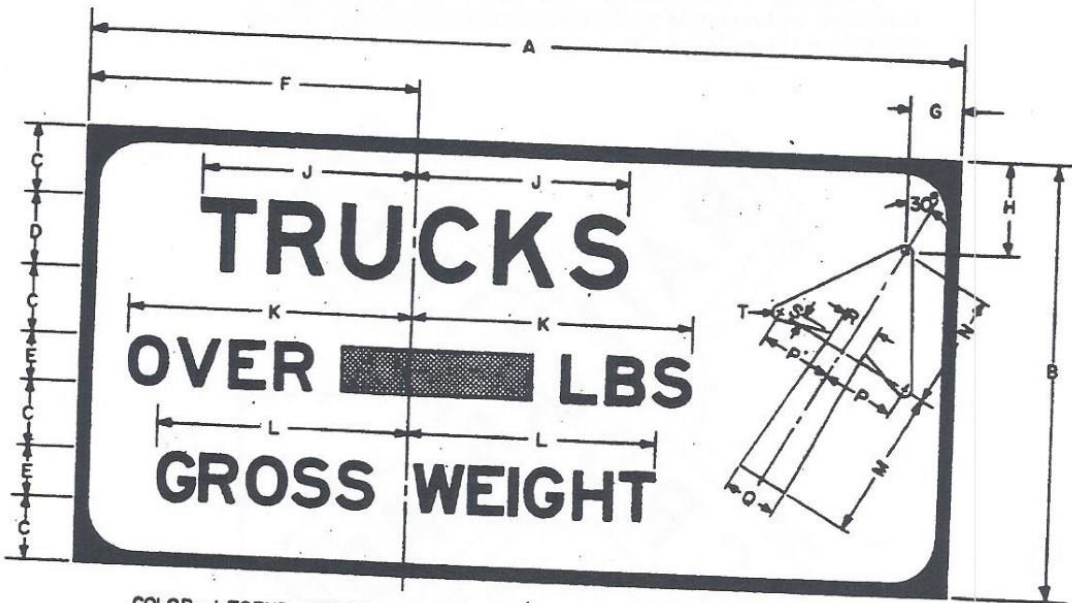
§615.317.

Trucks Over (—) Lbs. With Arrow Sign (R14-15).

(a) Justification. The Trucks Over (—) Lbs. With Arrow Sign (R14-15) shall be authorized for use at the point where certain classes of commercial motor vehicles or truck tractors and trailers or semi-trailers are required

to leave the main traveled portion of the highway in conjunction with Trucks Over (—) Lbs. Stop (—) Feet Sign (R14-14).

(b) Size. The standard size of the R14-15 shall be 72 inches by 36 inches.



COLOR · LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
BLACK (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
72 x 36	72	36	5½	6	4	26⅜	8⅞	4¾	15	19⅜	16⅞	16
96 x 48	96	48	7½	8	5	38⅜	9⅞	11¾	23½	31⅞	27⅞	16

SIGN SIZE	DIMENSIONS						SERIES			BOR- DER	BLANK STD
	N	P	Q	R	S	T	LINES				
							1	2	3		
72 x 36	12½	8⅜	6	4½	¾	¾	D	C	C	1¼	B5-7236(P)
96 x 48	12½	8⅜	6	4½	¾	¾	E	E	E	1¼	B5-9648(P)

§§ 615.318-615.330. Reserved.

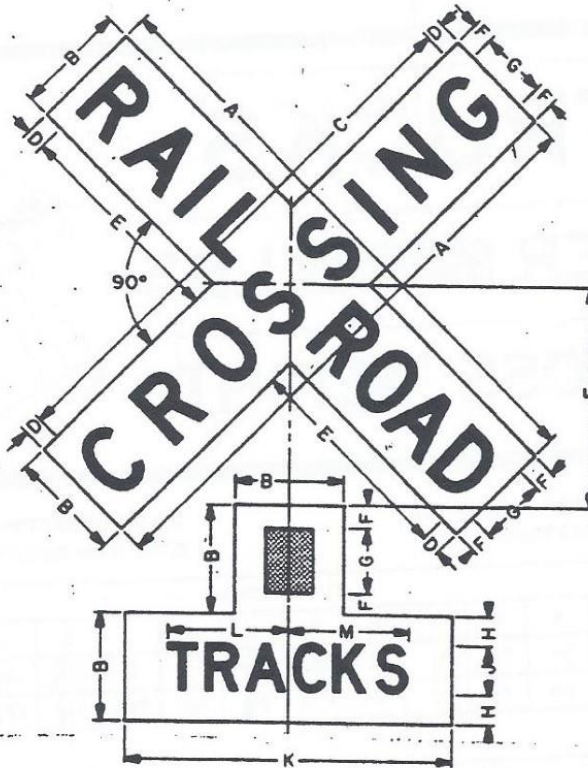
Railroad Group (R15 Series)

§ 615.331. Railroad Crossbuck Sign (R15-1) and Tracks Sign (R15-2).

(a) *Justification.* The Railroad Crossbuck Sign (R15-1) shall be authorized for use on the right-hand side of the roadway on each approach to the railroad crossing. An additional R15-1 sign may also be installed on the left-hand side of each approach.

(b) *Placement.* The R15-1 sign shall be installed not more than 15 feet from the centerline of the nearest track. It shall not be less than six feet or more than 12 feet from the edge of the pavement, or less than two feet outside a paved shoulder or curb. The Tracks Sign (R15-2) indicating the number of tracks shall be mounted below the R15-1 when there are two or more tracks, including sidings.

(c) *Posting responsibility.* The R15-1 and R15-2 sign is furnished and installed by the railroad company and is usually located on the railroad right-of-way.



COLOR* LEGEND
 BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
48x9	48	9	45	1 1/2	18	1 3/4	5 1/2

SIGN SIZE	DIMENSIONS					SERIES
	H	J	K	L	M	LINES
48x9	2 1/2	4	27	10	9 7/8	D

* Colors may be reversed for R15-2

§211.372. Exempt Railroad Crossing Sign, R15-3.

(a) *Justification.* The Exempt Railroad Crossing Sign, R15-3, shall be authorized for use at those railroad grade crossings having exempt status as determined by the Public Utility Commission.

(b) *Placement.* The R15-3 sign, when used, shall be mounted below the Railroad Crossbuck Sign, R15-1, or the Tracks Sign, R15-2, on each highway approach to the railroad grade crossing. The R15-3 sign should be installed by the Pennsylvania Department of Transportation or local officials after the crossing is declared exempt by the Public Utility Commission.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINE	MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E				
24 x 12	24	12	4	9 1/2	10	D	3/8	3/8	85-2418

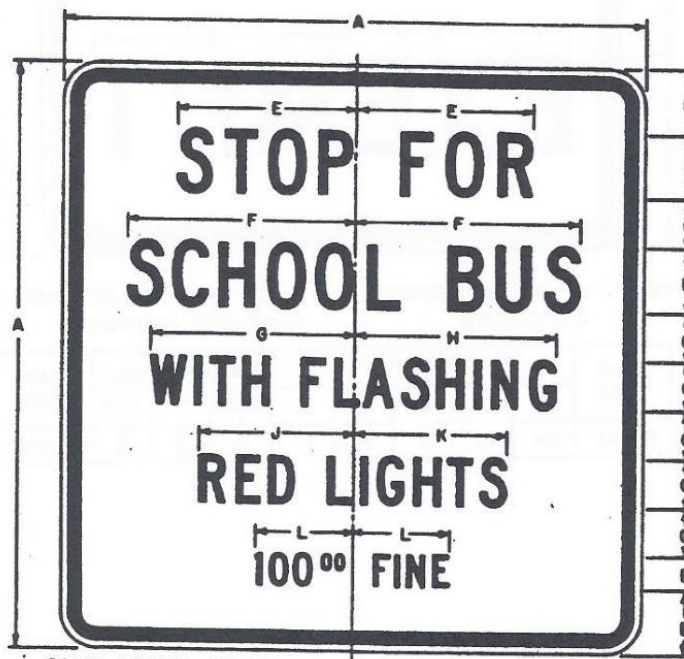
4

MISCELLANEOUS GROUP,
R16 SERIES

S 211.381. School Bus Law Sign, R16-1.

(a) Justification. The School Bus Law Sign, R16-1, shall be authorized for use to advise the motorist of the legal requirement to stop for school buses with flashing red signal lights.

(b) Placement. The R16-1 sign may be placed at all major vehicular entrance points into the Commonwealth and at other locations where obedience is unsatisfactory.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
36x36	36	4	3	2	10	14	12	12	9	9	5

SIGN SIZE	SERIES					MAR-GIN	BOR-DER	BLANK STD
	1	2	3	4	5			
36x36	C	C	C	C	C	1/2	1/2	83-36

S 211.382. (Reserved).

S 211.383. (Reserved).

6615.344

Wet Paint Sign (R16-5).

(a) *Justification.* The Wet Paint Sign (R16-5) shall be authorized for use by pavement marking crews to inform motorists that pavement markings are wet and that they may not drive over them.

(b) *Placement.* The R16-5 should be placed beyond intersections along the route being marked.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
24 x 24	24	3	4	2	1 3/4	1/2	9 5/16	6 1/8	6 5/16	10	10 1/4

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
24 x 24	B	B	B	3/8	5/8	B3-24

Subchapter D. WARNING SIGNS, W SERIES

PRELIMINARY PROVISIONS

§211.391. Purpose.

Warning signs are used when it is deemed necessary to warn the motorist 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 require a reduction in 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 motorist and are valuable in safeguarding 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.

§211.392. Placement.

(a) *General.* Warning signs shall be erected in accordance with the general requirements for sign position as provided in Subchapter B of this title (relating to installation and classification of signs).

(b) *Criteria.* The determination of the sign or signs to be erected shall be on the basis of an engineering study using the criteria set forth in the provisions of this subchapter.

(c) *Factors.* Care should be given to the location of warning signs, since they are primarily for the protection of the motorist who is unacquainted with the road. In rural areas, warning signs should normally be placed about 750 feet in advance of the hazardous condition. On high speed roads, advance warning distances may have to be as great as 1,500 feet or more. When speeds are relatively low in urban areas, the advance distance should be about 250 feet.

The actual advance warning distance shall be determined by two factors, the prevailing speed and the prevailing condition. These bear respectively on the time available to the motorist to comprehend and react to the message, and the time needed by him to perform any necessary maneuver.

§211.393. Color.

(a) *General.* The color for signs in this subchapter shall be as provided on the standard drawing for each sign, except those signs which are used for construction, maintenance, or utility operations shall have an orange background instead of a yellow background.

(b) *Exceptions.* The orange color requirement provided in subsection (a) excludes those signs provided in S 211.451 (relating to the Stop Ahead Sign), S 211.452 (relating to the Yield Ahead Sign), S 211.571 (relating to Railroad Crossing Group, W10 Series) and SS 211.651 — 211.656 (relating to Hazard and Clearance Marker Group, W16 Series) which shall be the color specified on the standard drawing for each sign.

§211.394. Size.

The standard size for warning signs, except when specified otherwise, shall be 30 inches by 30 inches. If a 30 inch by 30 inch size has not been provided for a specific sign, then the minimum size provided for that sign shall be the standard size. On expressways and on the interstate system the standard size shall be 48 inches by 48 inches.

§211.395. Classification.

The classification of warning signs, as numbered and illustrated in this subchapter, shall be further subdivided into the following groups:

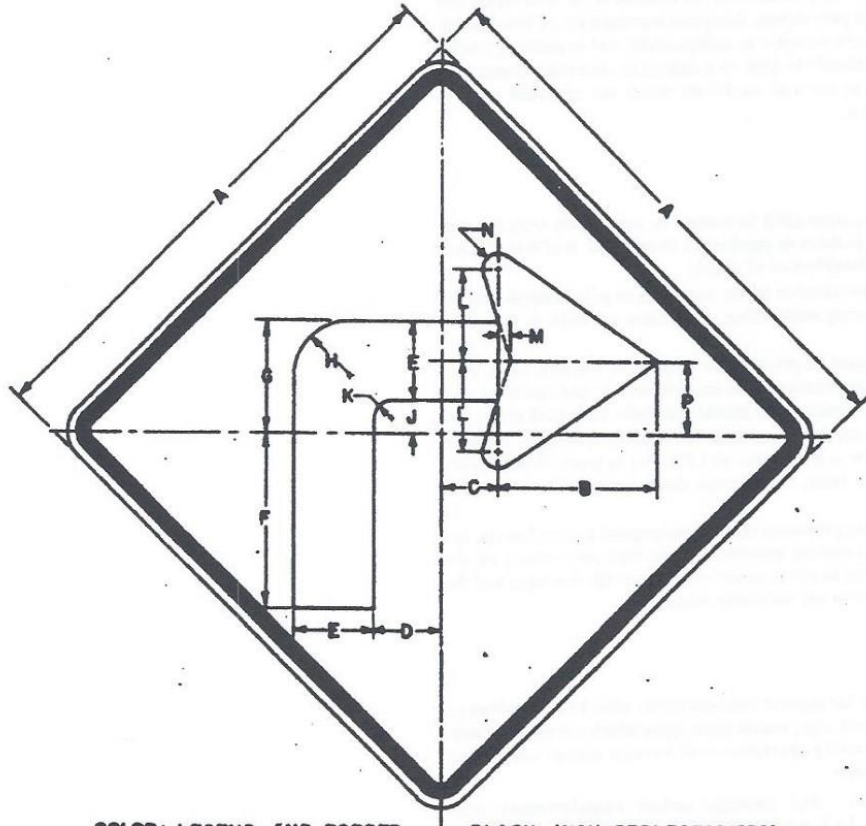
- (1) Changes in horizontal alignment.
- (2) Intersections.
- (3) Advance warning of control devices.
- (4) Converging traffic lanes.
- (5) Narrow roadways.
- (6) Changes in highway design.
- (7) Changes in vertical alignment.

- (8) Roadway surface conditions.
- (9) Children.
- (10) Railroad crossings.
- (11) Entrances and crossings.
- (12) Obstructions.
- (13) Advisory speed.
- (14) Miscellaneous.
- (15) Hazard and clearance marker.
- (16) Construction and maintenance warning.

SS 211.396. - 211.410 (Reserved).

§211.411. Right Turn Sign, W1-1R.

The Right Turn Sign, W1-1R, shall be authorized for use to mark curves bearing to the right on which a ball-bank indicator shows banks of ten degrees or more at any speed up to 30 miles per hour. When a W1-1R sign is warranted, a Large Single Arrow sign, W1-6, may be used on the outside of a turn.



COLOR LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

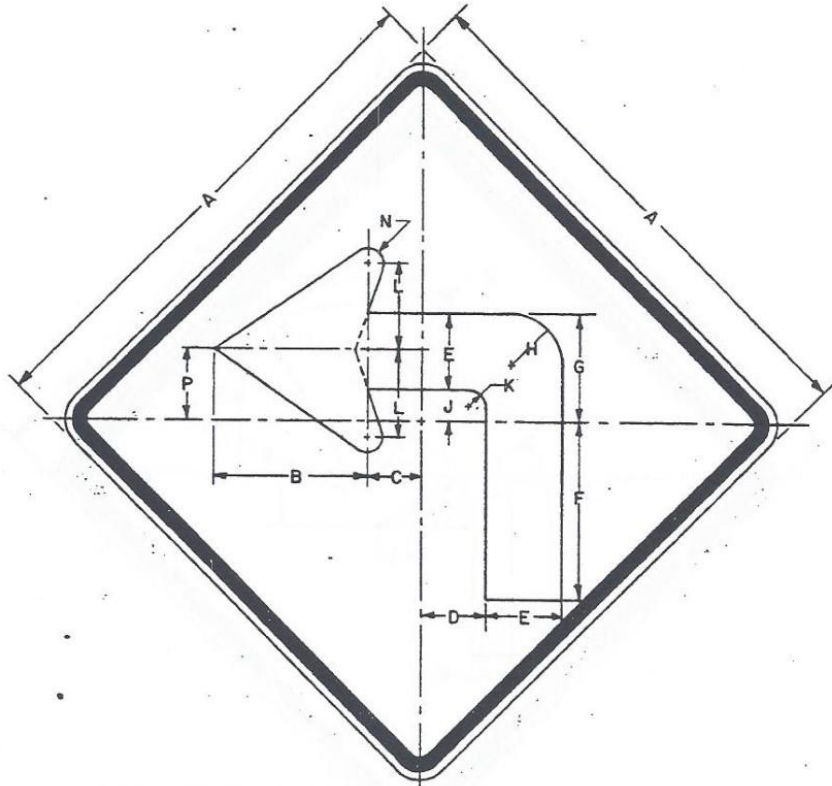
SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
30 x 30	30	8 1/2	3 1/2	3 1/2	4 1/2	9 1/2	6 1/2	3	1 1/2	1	5	1 1/2	1 1/2	4 1/2
48 x 48	48	14 1/2	5	6	7	15 1/2	10	4 1/2	3	1 1/2	8	1 1/2	1 1/2	6 1/2

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1/2	3/4	B3-30
48 x 48	3/4	1 1/4	B3-48

§ 23.357. Left Turn Sign (W1-1L).

(a) *Justification.* The Left Turn Sign (W1-1L) shall be authorized for use to mark curves bearing to the left on which a ball-bank indicator shows banks of 10 degrees or

more at any speed up to 30 miles per hour. Where a W1-1L sign is warranted, a Large Single Arrow Sign (W1-6) may be used on the outside of the turn.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

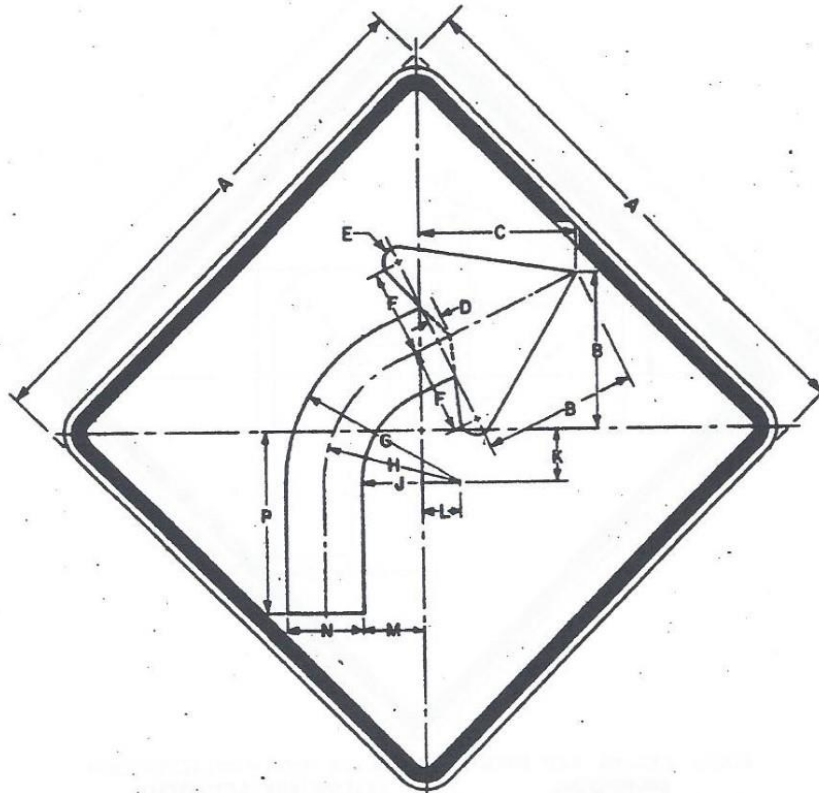
SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
30 x 30	30	8 ⁷ / ₈	3 ¹ / ₈	3 ³ / ₄	4 ³ / ₈	9 ¹¹ / ₁₆	6 ¹ / ₄	3	1 ⁷ / ₈	1	5	1 ¹¹ / ₁₆	7 ⁷ / ₈	4 ¹ / ₁₆
48 x 48	48	14 ³ / ₁₆	5	6	7	15 ¹ / ₂	10	4 ⁷ / ₈	3	3 ³ / ₈	8	1 ¹ / ₁₆	1 ³ / ₈	6 ¹ / ₂

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1/2	3/4	B3-30
48 x 48	3/4	1 1/4	B3-48

RULES AND REGULATIONS

§ 23.358. Right Curve Sign (W1-2R).

(a) *Justification.* The Right Curve Sign (W1-2R) shall be authorized for use to mark a curve to the right where a test with a ball-bank indicator gives readings of 10 degrees or more at speeds between 30 and 60 miles per hour.



COLOR LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

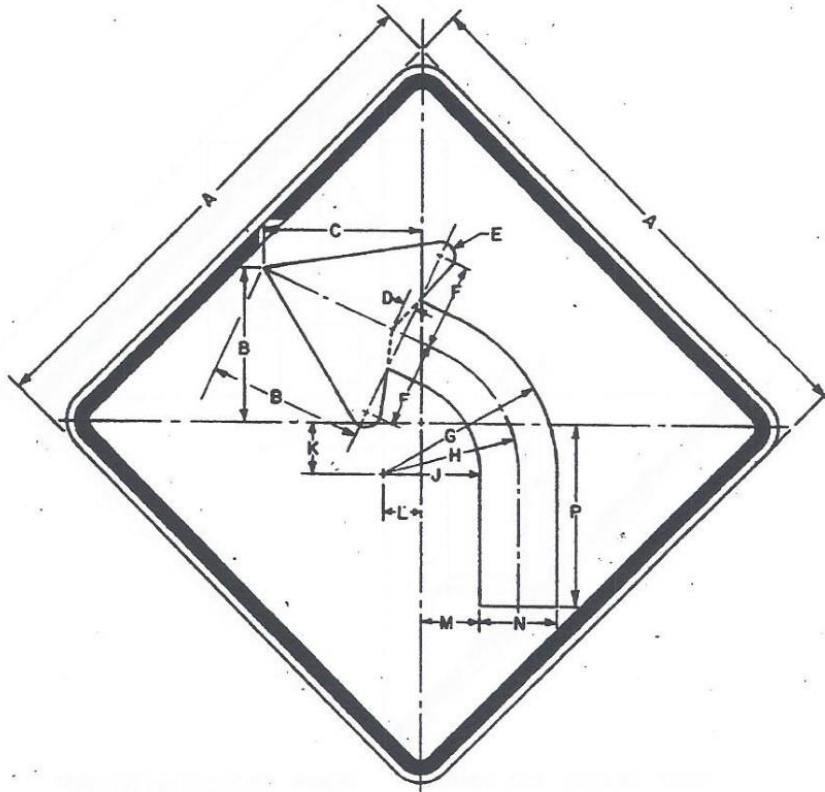
SIGN SIZE	DIMENSIONS														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
30 x 30	30	8 ⁷ / ₈	9 ¹ / ₈	11 ¹ / ₈	7 ⁷ / ₈	5	10	7 ¹³ / ₁₆	5 ³ / ₈	2 ¹⁵ / ₁₆	2 ³ / ₁₆	3 ⁷ / ₁₆	4 ³ / ₈	10 ⁵ / ₁₆	
48 x 48	48	14 ³ / ₁₆	14 ¹ / ₂	17 ¹ / ₈	12 ⁷ / ₈	8	16	12 ¹ / ₂	9	4 ¹¹ / ₁₆	3 ¹ / ₂	5 ¹ / ₂	7	16 ¹ / ₂	

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1 ¹ / ₂	3 ³ / ₄	83-30
48 x 48	3 ³ / ₄	1 ¹ / ₄	83-48

RULES AND REGULATIONS

§ 23.359. Left Curve Sign (W1-2L).

(a) *Justification.* The Left Curve Sign (W1-2L) shall be authorized for use to mark a curve to the left where a test with a ball-bank indicator gives readings of 10 degrees or more at speeds between 30 and 60 miles per hour.



COLOR LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
30 x 30	30	8 ⁷ / ₈	9 ¹ / ₈	11 ¹ / ₈	7 ⁷ / ₈	5	10	7 ¹³ / ₁₆	5 ⁵ / ₈	2 ¹⁵ / ₁₆	2 ³ / ₁₆	3 ⁷ / ₁₆	4 ³ / ₈	10 ⁵ / ₁₆
48 x 48	48	14 ³ / ₈	14 ¹ / ₂	11 ¹ / ₈	13 ³ / ₈	8	16	12 ¹ / ₂	9	4 ¹¹ / ₁₆	3 ¹ / ₂	5 ¹ / ₂	7	16 ¹ / ₂

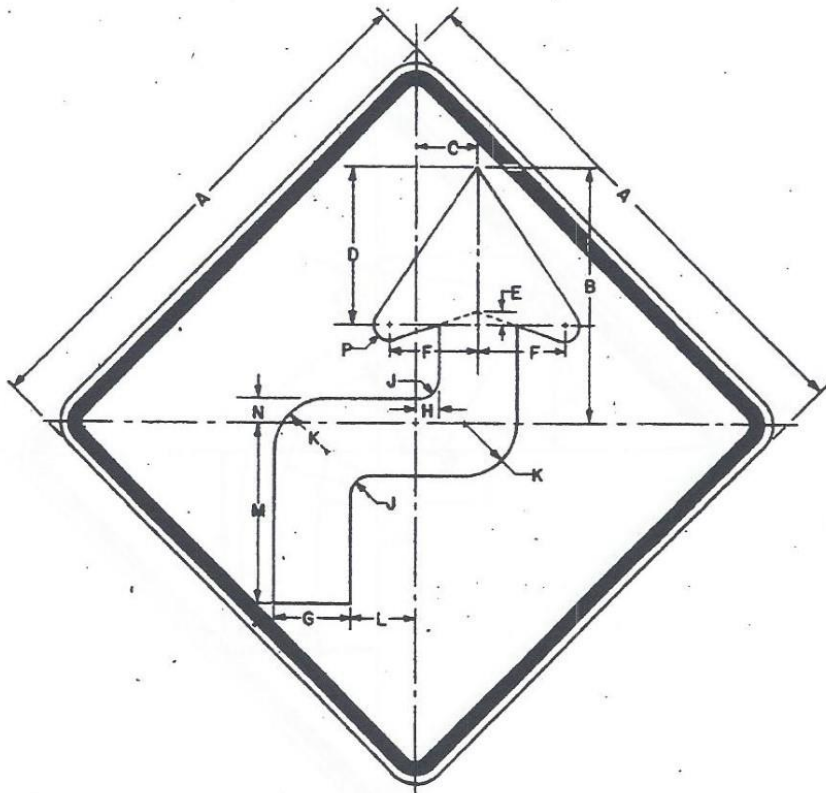
SIGN SIZE	MARGIN	BORDER	BLANK STD
30 x 30	1 ¹ / ₂	3 ³ / ₄	B3-30
48 x 48	3 ³ / ₄	1 ¹ / ₄	B3-48

RULES AND REGULATIONS

§ 23.360. Right Reverse Turn Sign (W1-3R).

(a) *Justification.* The Right Reverse Turn Sign (W1-3R) shall be authorized for use where two turns or a curve and a turn in opposite directions as defined in the warrants for

Turn (W1-1R) and Curve (W1-2R) signs are separated by a tangent of less than 600 feet. It shall be used when the first turn or curve is to the right.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND: YELLOW (REFLECTORIZED)

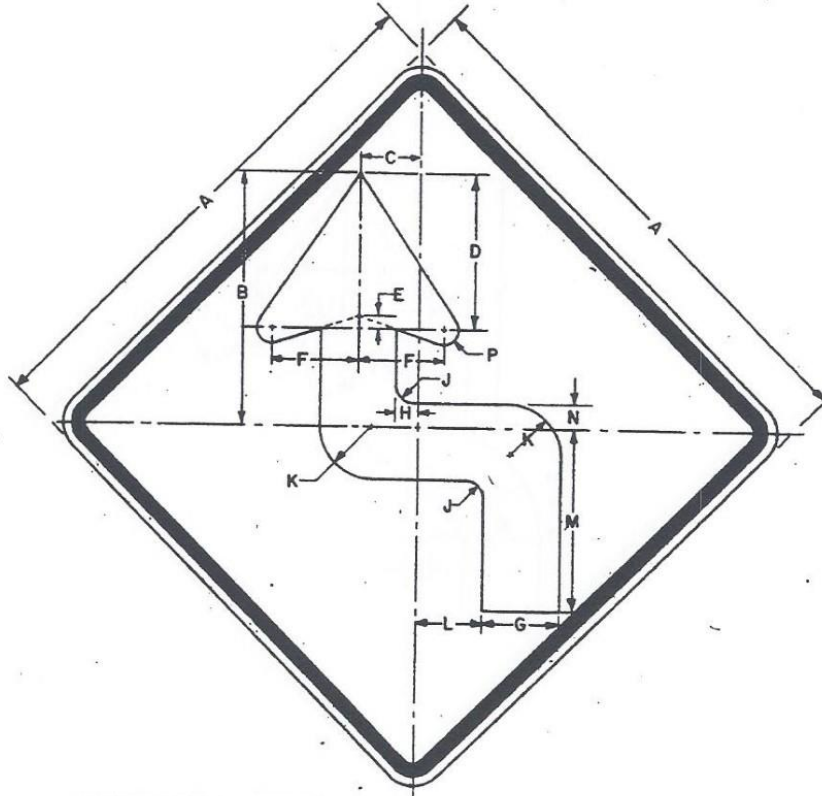
SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
30 x 30	30	14 $\frac{1}{2}$	3 $\frac{1}{2}$	8 $\frac{7}{8}$	1 $\frac{11}{16}$	5	4 $\frac{3}{8}$	1 $\frac{5}{16}$	1	3	3 $\frac{3}{4}$	10 $\frac{3}{8}$	1 $\frac{3}{8}$	7 $\frac{7}{8}$
48 x 48	48	23 $\frac{3}{16}$	5 $\frac{5}{8}$	14 $\frac{3}{16}$	1 $\frac{11}{16}$	8	7	2 $\frac{1}{8}$	1 $\frac{5}{8}$	4 $\frac{7}{8}$	6	16 $\frac{5}{8}$	2 $\frac{3}{16}$	1 $\frac{7}{8}$

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48 x 48	$\frac{3}{4}$	1 $\frac{1}{4}$	B3-48

§ 23.361. Left Reverse Turn Sign (W1-3L).

(a) *Justification.* The Left Reverse Turn Sign (W1-3L) shall be authorized for use where two turns or a curve and a turn in opposite directions as defined in the warrants for

Turn (W1-1R) and Curve (W1-2R) signs are separated by a tangent of less than 600 feet. It shall be used when the first turn or curve is to the left.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
30 x 30	30	14 ¹ / ₂	3 ¹ / ₂	8 ⁷ / ₈	11 ¹¹ / ₁₆	5	4 ³ / ₈	1 ³ / ₁₆	1	3	3 ³ / ₄	10 ³ / ₈	1 ³ / ₈	7 ⁷ / ₈
48 x 48	48	23 ³ / ₁₆	5 ⁵ / ₈	14 ³ / ₁₆	1 ¹ / ₁₆	8	7	2 ¹ / ₈	1 ⁵ / ₈	4 ⁷ / ₈	6	16 ⁵ / ₈	2 ³ / ₁₆	1 ³ / ₈

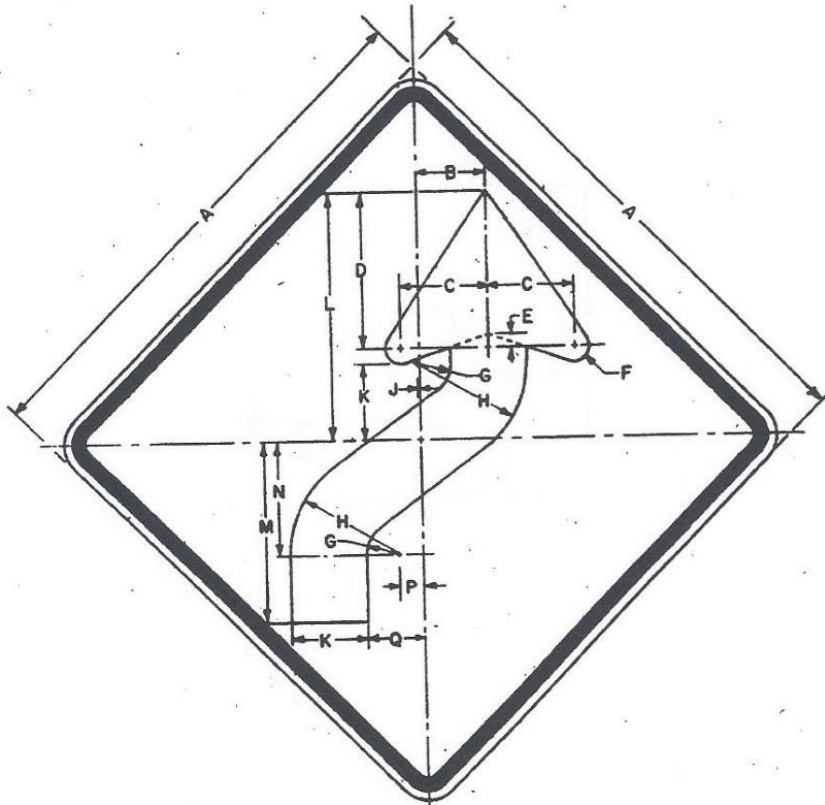
SIGN SIZE	MARGIN	BORDER	BLANK STD
30 x 30	1 ¹ / ₂	3 ³ / ₄	B3-30
48 x 48	1 ³ / ₄	1 ¹ / ₄	B3-48

RULES AND REGULATIONS

§ 23.362. Right Reverse Curve Sign (W1-4R).

(a) *Justification.* The Right Reverse Curve Sign (W1-4R) shall be authorized for use where two curves in opposite

directions, as defined in the warrants for Curve signs (W1-2R) are separated by a tangent of less than 600 feet. It shall be used when the first curve is to the right.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
30 x 30	30	3 ⁵ / ₁₆	5	8 ⁷ / ₈	11 ¹ / ₁₆	7 ⁷ / ₈	17 ⁷ / ₈	6 ¹ / ₂	1 ¹ / ₈	4 ³ / ₈	14 ¹ / ₁₆	10 ⁵ / ₁₆	6 ⁹ / ₁₆	18 ¹ / ₂	3 ⁹ / ₃₂
48 x 48	48	6 ⁵ / ₁₆	8	14 ³ / ₁₆	1 ¹ / ₁₆	12 ³ / ₈	3	10	3 ³ / ₁₆	7	22 ¹ / ₂	16 ¹ / ₂	10 ¹ / ₂	2 ¹ / ₄	5 ¹ / ₄

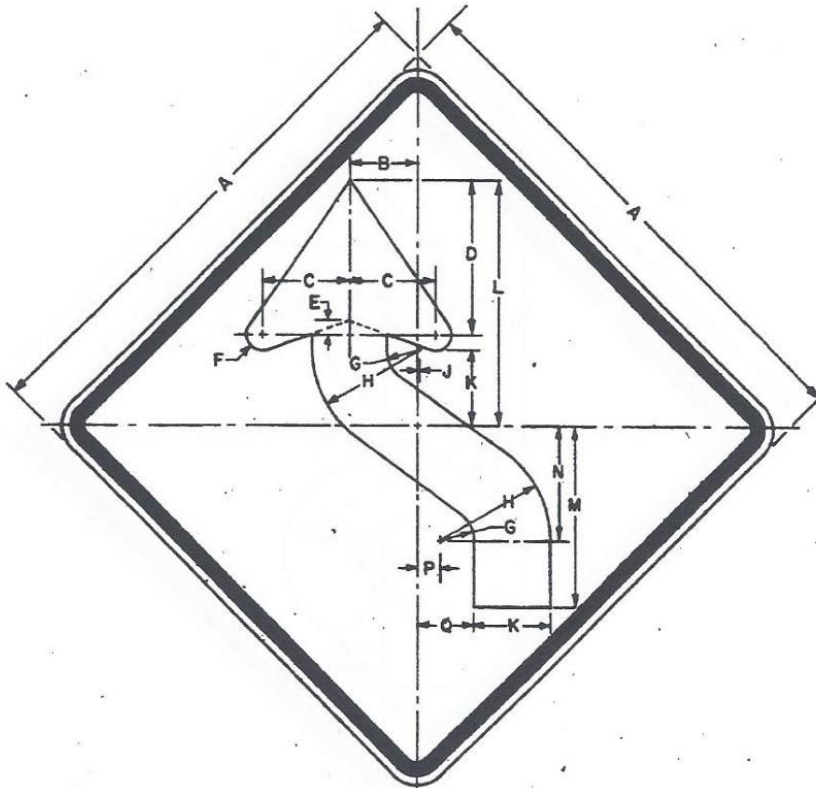
SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1 ¹ / ₂	3 ³ / ₄	B3-30
48 x 48	2 ¹ / ₄	1 ¹ / ₄	B3-48

RULES AND REGULATIONS

§ 23.363. Left Reverse Curve Sign (W1-4L).

(a) *Justification.* The Left Reverse Curve Sign (W1-4L) shall be authorized for use where two curves in opposite

directions, as defined in the warrants for Curve signs (W1-2R) are separated by a tangent of less than 600 feet. It shall be used when the first curve is to the left.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
30 x 30	30	3 ¹⁵ / ₁₆	5	8 ⁷ / ₈	1 ¹¹ / ₁₆	7 ⁷ / ₈	1 ⁷ / ₈	6 ¹ / ₄	1 ¹ / ₈	4 ³ / ₈	14 ¹ / ₁₆	10 ⁵ / ₁₆	6 ⁹ / ₁₆	1 ¹³ / ₃₂	3 ³ / ₃₂
48 x 48	48	6 ⁵ / ₈	8	14 ³ / ₈	1 ¹¹ / ₁₆	1 ³ / ₈	3	10	3 ³ / ₁₆	7	22 ¹ / ₂	16 ¹ / ₂	10 ¹ / ₂	2 ¹ / ₄	5 ¹ / ₄

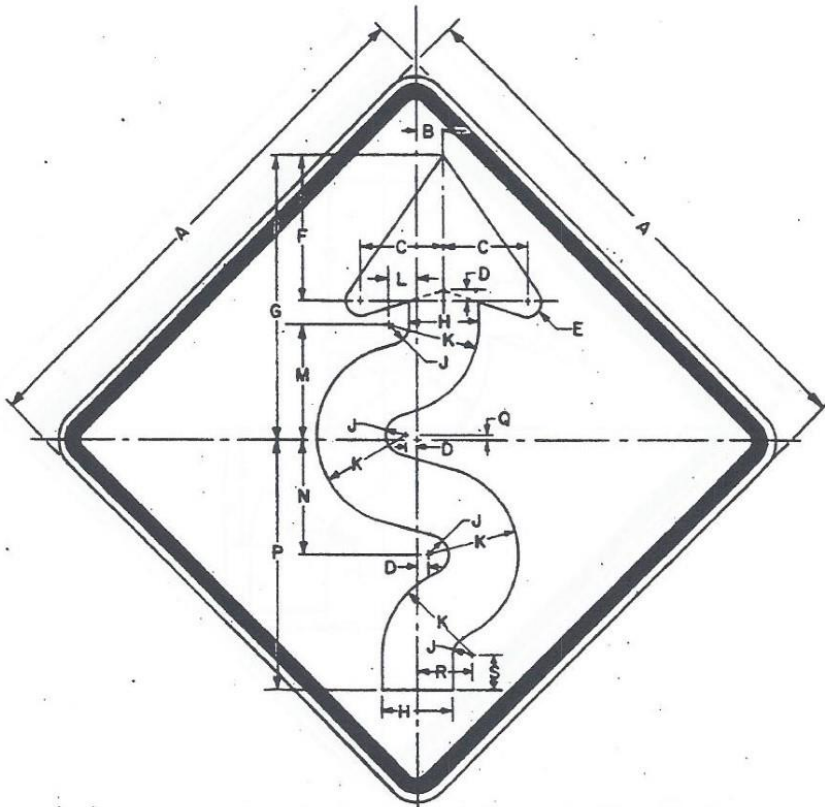
SIGN SIZE	MAR- GIN	BOR- DER	BLANK STD
30 x 30	1/2	3/4	B3-30
48 x 48	3/4	1 1/4	B3-48

RULES AND REGULATIONS

§ 23.364. Right Winding Road Sign (W1-5R).

(a) *Justification.* The Right Winding Road Sign (W1-5R) shall be authorized for use where there is a series of turns

or curves as defined in the warrants for Turn (W1-1R) and Curve (W1-2R) signs when the first turn or curve is to the right.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
30 x 30	30	$1\frac{9}{16}$	$4\frac{3}{4}$	$\frac{5}{8}$	$1\frac{13}{16}$	$8\frac{1}{4}$	$15\frac{15}{16}$	$4\frac{1}{16}$	$1\frac{3}{32}$	$5\frac{5}{32}$	$1\frac{9}{16}$
48 x 48	48	$2\frac{1}{2}$	$7\frac{1}{2}$	1	$1\frac{5}{16}$	$13\frac{3}{16}$	$25\frac{1}{2}$	$6\frac{1}{2}$	$1\frac{3}{4}$	$8\frac{1}{4}$	$2\frac{1}{2}$

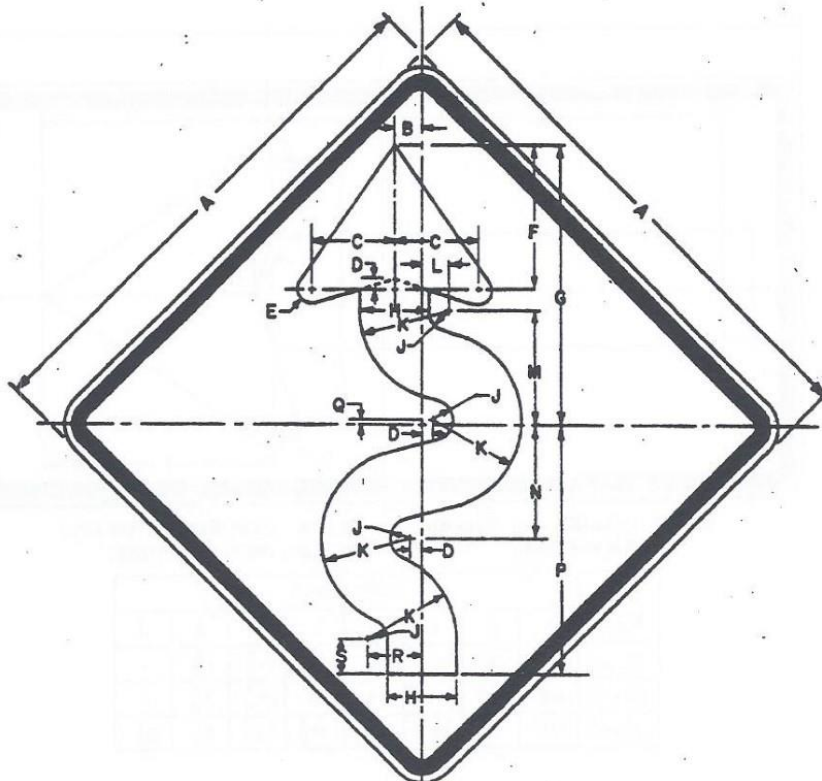
SIGN SIZE	DIMENSIONS						MAR- GIN	BOR- DER	BLANK STD
	M	N	P	Q	R	S			
30 x 30	$6\frac{31}{64}$	$6\frac{9}{16}$	$14\frac{7}{32}$	$\frac{5}{16}$	$3\frac{1}{8}$	2	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48 x 48	$10\frac{3}{8}$	$10\frac{1}{2}$	$22\frac{3}{4}$	$\frac{1}{2}$	5	$3\frac{3}{16}$	$\frac{3}{4}$	$1\frac{1}{4}$	B3-48

RULES AND REGULATIONS

§ 23.365. Left Winding Road Sign (W1-5L).

(a) *Justification.* The Left Winding Road Sign (W1-5L) shall be authorized for use where there is a series of turns

or curves as defined in the warrants for Turn (W1-1R) and Curve (W1-2R) signs when the first turn or curve is to the left.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
30 x 30	30	10 ¹ / ₁₆	4 ³ / ₄	5 ⁵ / ₈	13 ¹ / ₁₆	8 ¹ / ₂	15 ¹⁵ / ₁₆	4 ¹ / ₁₆	13 ¹ / ₁₆	5 ⁵ / ₁₆	1 ¹ / ₁₆
48 x 48	48	2 ¹ / ₂	7 ¹ / ₂	1	1 ⁵ / ₁₆	13 ³ / ₁₆	25 ¹ / ₂	6 ¹ / ₂	1 ³ / ₄	8 ¹ / ₄	2 ¹ / ₂

SIGN SIZE	DIMENSIONS						MAR- GIN	BOR- DER	BLANK STD
	M	N	P	Q	R	S			
30 x 30	6 ³ / ₁₆	6 ⁹ / ₁₆	14 ⁷ / ₁₆	5 ⁵ / ₁₆	3 ¹ / ₈	2	1 ¹ / ₂	3 ³ / ₄	B3-30
48 x 48	10 ³ / ₈	10 ¹ / ₂	22 ³ / ₄	1 ¹ / ₂	5	3 ³ / ₁₆	3 ³ / ₄	1 ¹ / ₄	B3-48

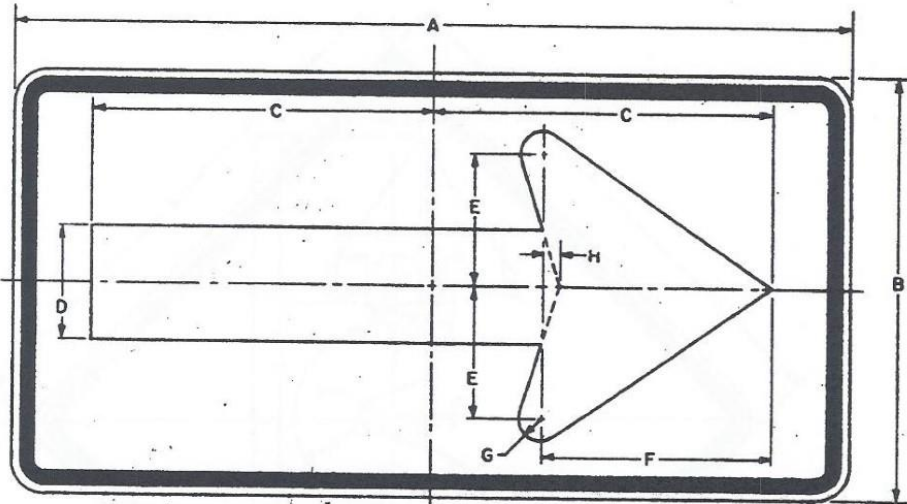
RULES AND REGULATIONS

§ 23.366. Large Single Arrow Sign (W1-6).

(a) *Justification.* The Large Single Arrow Sign (W1-6) shall be authorized for use on the outside of a curve or on a turn, in line with, and at right angles to, approaching traffic.

This sign shall not be used to mark the ends of median strips, center piers, etc., where there is no change in the direction of traffic.

(b) *Size.* The standard size of W1-6 shall be 48 inches by 24 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

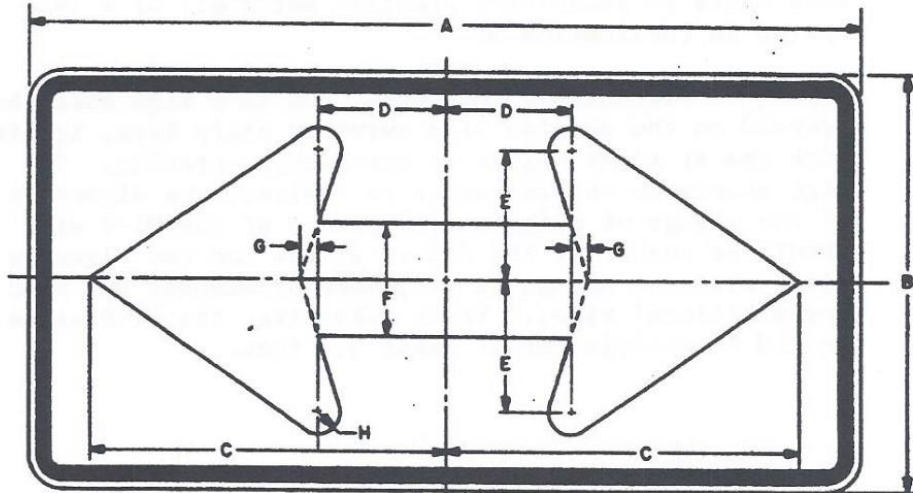
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
48 x 24	48	24	19 1/2	6 1/2	7 1/2	13 3/8	1 5/8	1
96 x 48	96	48	39	13	15	26 3/8	2 5/8	2
120 x 60	120	60	48 3/4	16	18 3/8	32 1/2	3 1/4	2 1/2

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
48 x 24	1/2	3/4	B5-4824
96 x 48	3/4	1 1/4	B5-9648(P)
120 x 60	1	1 1/4	B5-12060

§211.422. Large Double Arrow Sign, W1-7.

(a) *Justification.* The Large Double Arrow Sign, W1-7, shall be authorized for use on the far side of a "T" intersection, in line with, and at right angles to, approaching traffic. This sign shall not be used to mark the ends of median strips, center piers, and so forth, when there is no change in the direction of traffic.

(b) *Size.* The standard size of W1-7 shall be 48 inches by 24 inches.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
48 x 24	48	24	20 1/2	7 1/2	7 1/2	6 1/2	1	1 1/2
96 x 48	96	48	41	14 1/2	15	13	2	2 1/2
120 x 60	120	60	50 1/2	18 1/2	18 1/2	16	2 1/2	3 1/2

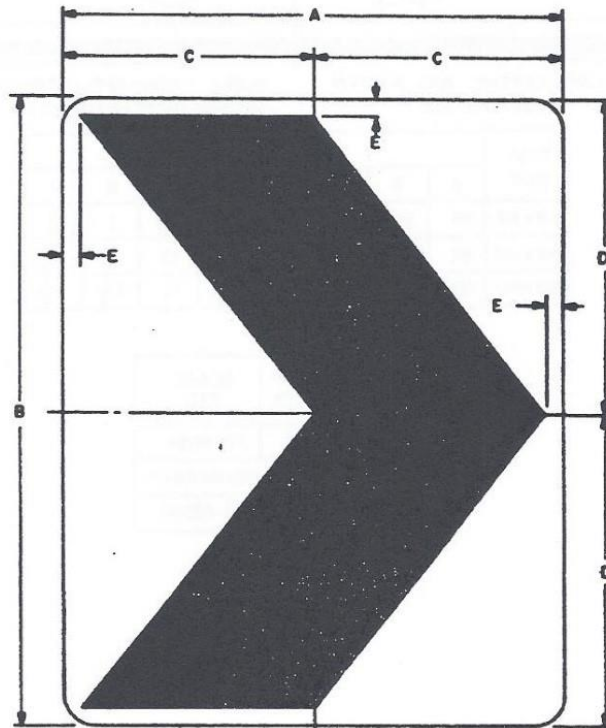
SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
48 x 24	1/2	3/4	B5-4824
96 x 48	3/4	1 1/4	B5-9648(P)
120 x 60	1	1 1/2	B5-12060

S 211.422a. Chevron Alignment Sign, W1-8.

(a) **Justification.** The Chevron Alignment Sign, W1-8, will be authorized to emphasize changes in the horizontal alignment of the roadway at locations where standard delineation practices have proven to be inadequate. The W1-8 sign may be used as an alternate or as a supplement to the Large Single Arrow Sign, W1-6.

(b) **Material.** The W1-8 sign shall be fabricated from Class II reflective sheeting material, of a type listed in Publication 35.

(c) **Placement.** When used, the W1-8 sign shall be erected on the outside of a curve or sharp turn, in line with and at right angles to approaching traffic. The sign should be rotated so as to indicate the direction of the change of alignment. Spacing of the W1-8 sign should be such that the driver always has two signs in view until the change in alignment eliminates the need for additional signs. To be effective, the W1-8 signs should be visible for at least 500 feet.



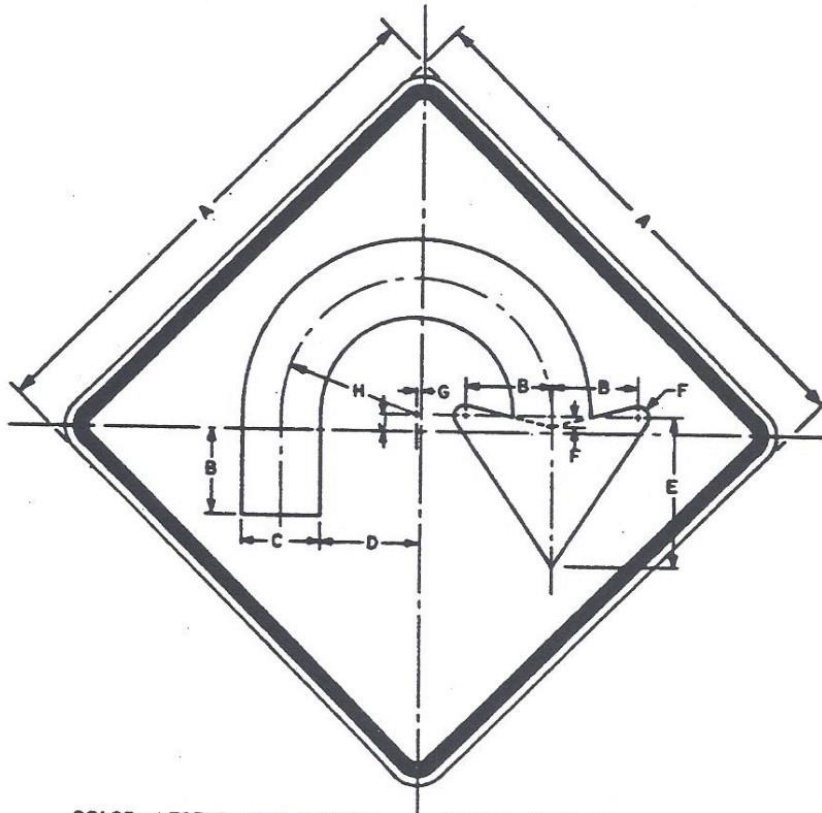
COLOR: CHEVRON BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					BLANK STD
	A	B	C	D	E	
18x24	18	24	9	12	$\frac{3}{4}$	BS-2418
24x30	24	30	12	15	$\frac{7}{8}$	BS-3024

130

§211.423. Right Horseshoe Curve Sign, W1-20R.

The Right Horseshoe Curve Sign, W1-20R, shall be authorized for use to mark a curve bearing to the right which produces a central angle of 135° or more. This sign may also be used when a combination of curves separated by tangents of less than 600 feet produce a total central angle of 135° or more. If the horseshoe curve can be negotiated safely at a speed over 30 miles per hour, the Right Curve Sign, W1-2R, should be used. The Large Arrow Sign, W1-6, may be used on the outside of the curve.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
30 x 30	30	5	4 1/2	5 3/4	8 3/4	5/8	1/4	7 3/4	1
48 x 48	48	8	7 3/8	9 3/16	14	1	3/8	12 3/8	1 5/8

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1/2	3/4	B3-30
48 x 48	3/4	1 1/4	B3-48

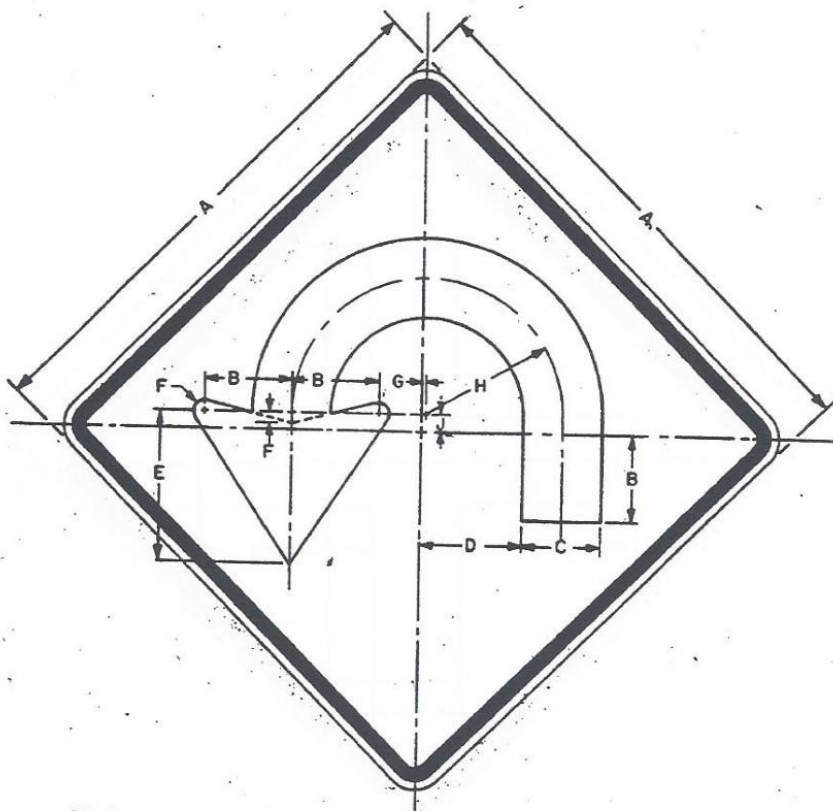
RULES AND REGULATIONS

1035

§ 23.369. Left Horseshoe Curve Sign (W1-20L).

(a) *Justification.* The Left Horseshoe Curve Sign (W1-20L) shall be authorized for use to mark a curve bearing to the left which produces a central angle of 135° or more. This sign may also be used where a combination of curves

separated by tangents of less than 600 feet produce a total central angle of 135° or more. If the horseshoe curve can be negotiated safely at a speed over 30 miles per hour, the Left Curve Sign (W1-2L) should be used. The Large Arrow Sign (W1-6) may be used on the outside of the curve.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
30 x 30	30	5	4 1/2	5 3/4	8 3/4	5 5/8	1/4	7 3/4	1	
48 x 48	48	8	7 3/16	9 3/16	14	1	3/8	12 3/8	1 3/8	

SIGN SIZE	MAR- GIN	BOR- DER	BLANK STD
30 x 30	1/2	3/4	B3-30
48 x 48	3/4	1 1/4	B3-48

RULES AND REGULATIONS

§ 23.370.-§ 23.380. Reserved.

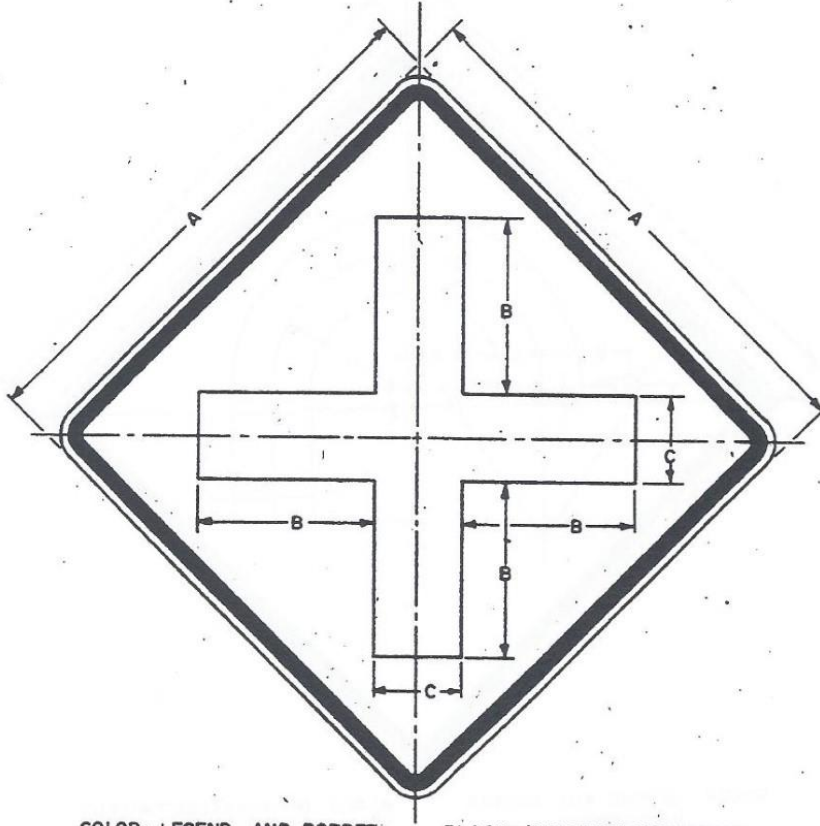
Intersection Group (W2 Series)

§ 23.381. Cross Road Sign (W2-1).

(a) *Justification.* The Cross Road Sign (W2-1) shall be authorized for use on a through highway to indicate the presence of a cross road. Its use should be restricted to intersections with roads that are improved to such an

extent that there is likely to be a fairly large volume of traffic entering or crossing the through route and where poor sight distance or obscured entrances make it advisable that the intersection be called to the motorists attention.

Too frequent use should be avoided. This sign may be used as advance warning of two side roads which are offset from each other by not more than 50 feet.



COLOR LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS			MARGIN	BORDER	BLANK STD
	A	B	C			
30 x 30	30	10	5	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48 x 48	48	16	8	$\frac{3}{4}$	$1\frac{1}{4}$	B3-48

RULES AND REGULATIONS

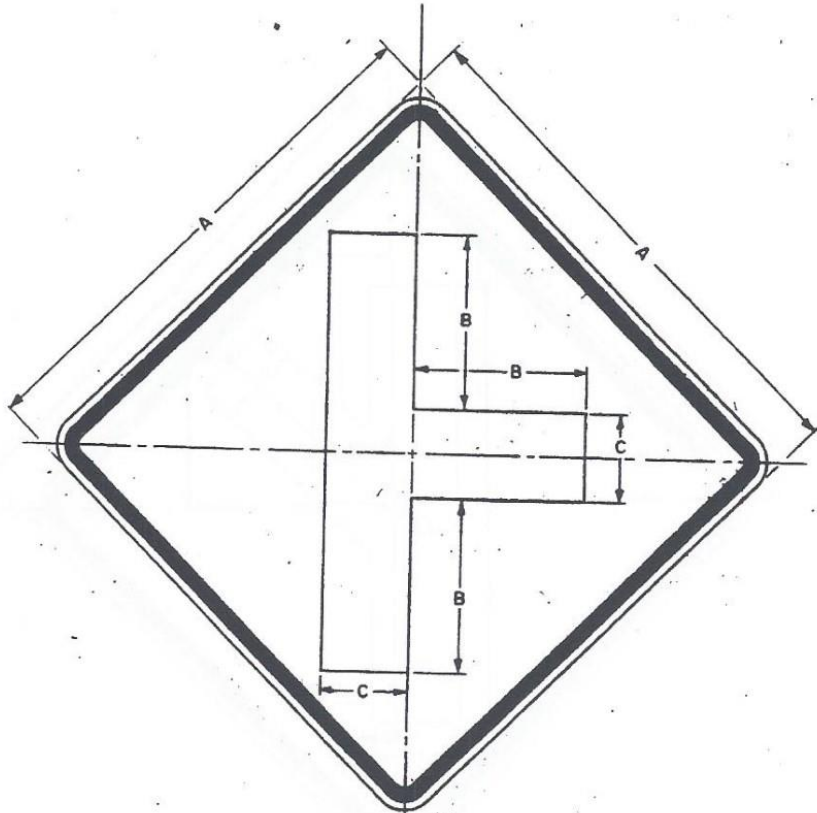
1037

§ 23.382. Side Road Sign (W2-2).

(a) *Justification.* The Side Road Sign (W2-2) shall be authorized for use in advance of a side road intersection. Its use should be restricted to intersections with roads that are improved to such an extent that there is likely to be a fairly large volume of traffic entering the through route and

where poor sight distance or obscured entrances make it advisable that the intersection be called to the motorists attention.

Too frequent use should be avoided. When an offset of two intersecting roads is more than 50 feet, two side road signs should be used.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS			MAR- GIN	BOR- DER	BLANK STD
	A	B	C			
30 x 30	30	10	5	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48 x 48	48	16	8	$\frac{3}{4}$	$1\frac{1}{4}$	B3-48

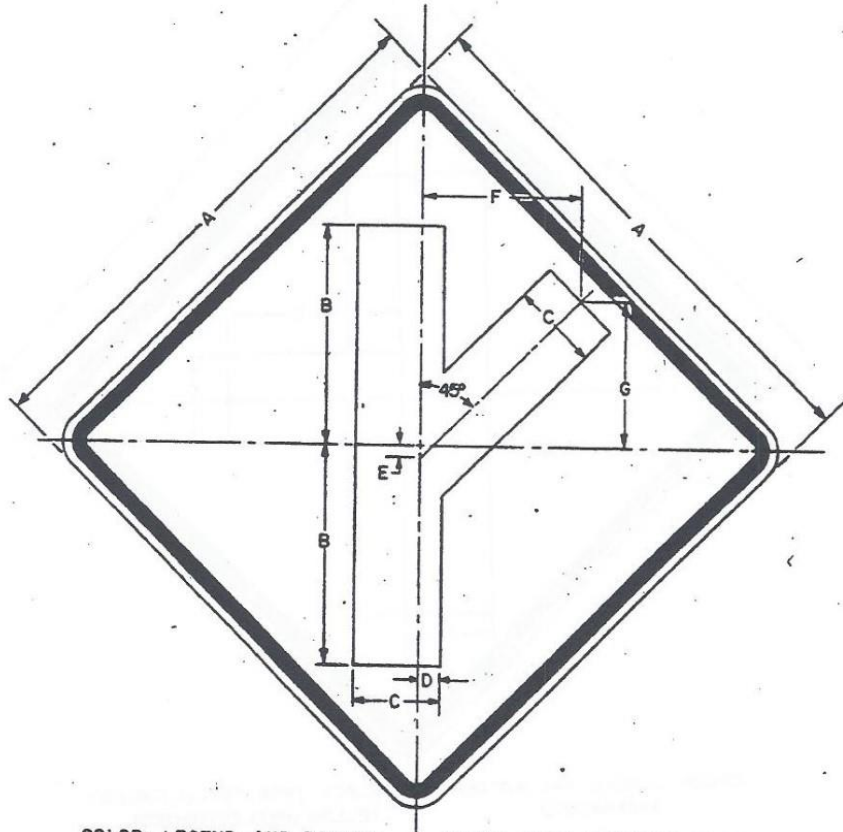
RULES AND REGULATIONS

§ 23.383. 45° Side Road Right Sign (W2-3R).

(a) *Justification.* The 45° Side Road Right Sign (W2-3R) shall be authorized for use in advance of a side road intersecting at an acute angle on the right. Its use should be restricted to intersections with roads that are improved to such an extent that there is likely to be a fairly large

volume of traffic entering or crossing the through route and where poor sight distance or obscured entrances make it advisable that the intersection be called to the motorists attention.

The sign may be inverted to denote a sideroad intersecting at an obtuse angle on the left.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30.	12 $\frac{1}{2}$	5	1 $\frac{1}{4}$	1 $\frac{11}{16}$	9	8 $\frac{5}{16}$
48 x 48	48	20	8	2	1 $\frac{1}{8}$	14 $\frac{7}{16}$	13 $\frac{3}{8}$

SIGN SIZE	MAR-GIN	BOR-DER	BLANK. STD
30x30	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48x48	$\frac{3}{4}$	1 $\frac{1}{4}$	B3-48

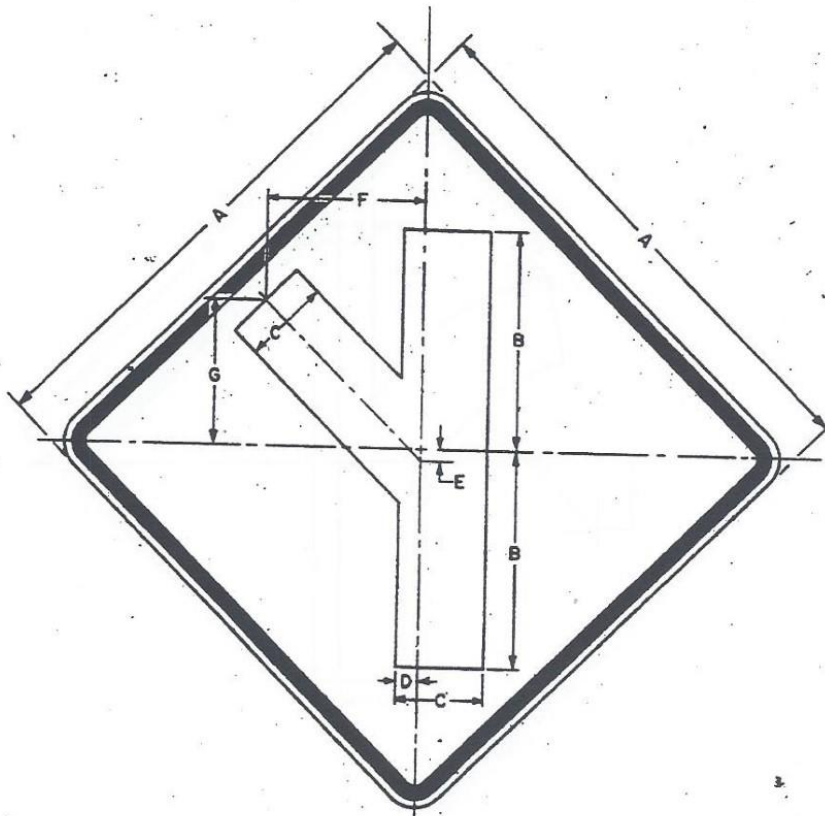
RULES AND REGULATIONS

§ 23.384. 45° Side Road Left Sign (W2-3L).

(a) *Justification.* The 45° Side Road Left Sign (W2-3L) shall be authorized for use in advance of a side road intersecting at an acute angle on the left. Its use should be restricted to intersections with roads that are improved to such an extent that there is likely to be a fairly large vol-

ume of traffic entering the through route and where poor sight distance or obscured entrances make it advisable that the intersection be called to the motorists attention.

The sign may be inverted to denote a side road intersecting at an obtuse angle on the right.



COLOR LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	12½	5	1¼	11/16	9	8 5/16
48 x 48	48	20	8	2	1 7/8	14 7/16	13 5/16

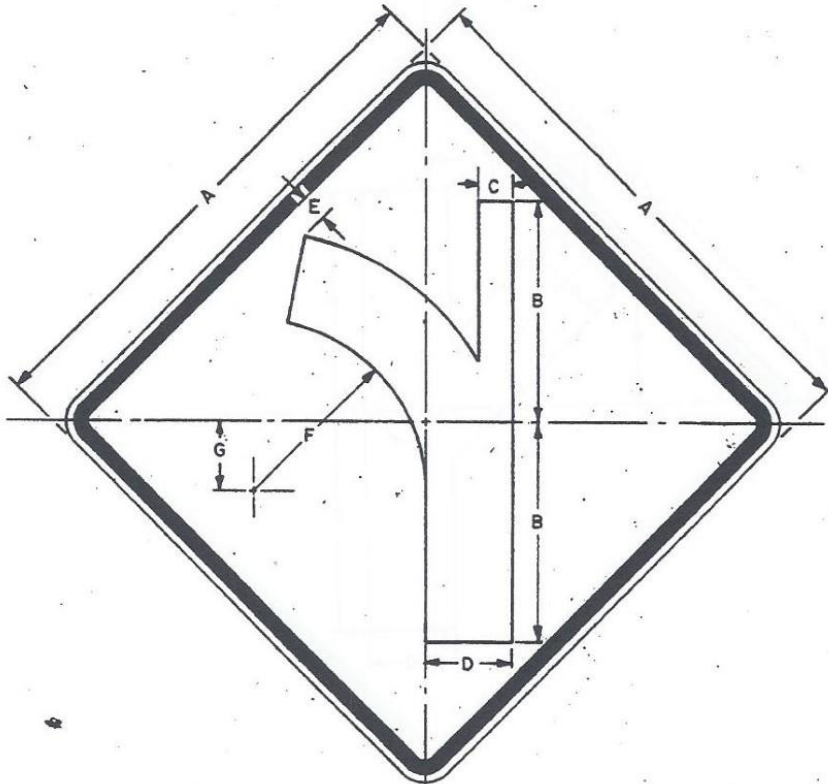
SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1/2	3/4	B3-30
48 x 48	3/4	1 1/4	B3-48

RULES AND REGULATIONS

§ 23.385. Curve-Side Road Right Sign (W2-3-1R).

(a) *Justification.* The Curve-Side Road Right Sign (W2-3-1R) shall be authorized for use in advance of an intersection where the major highway curves to the left and the minor highway is straight ahead.

It may be used on any of the three legs of the depicted intersection by rotating it 90 or 180 degrees.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	12 $\frac{1}{2}$	2	5	1 $\frac{1}{2}$	9 $\frac{3}{4}$	4
48 x 48	48	20	3 $\frac{3}{16}$	8	2 $\frac{3}{8}$	15 $\frac{5}{8}$	6 $\frac{3}{8}$

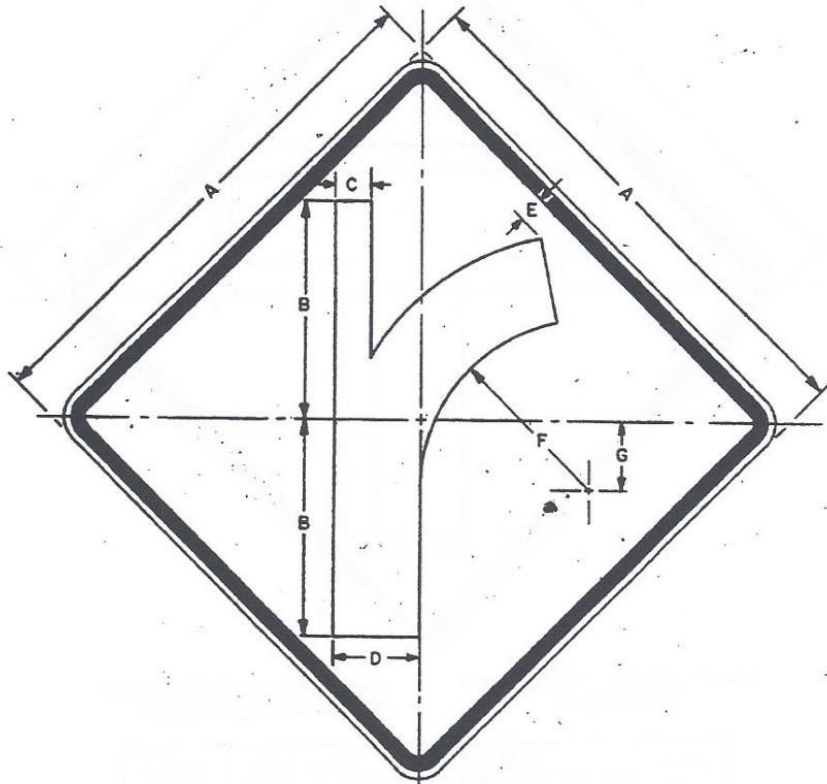
SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48 x 48	$\frac{3}{4}$	1 $\frac{1}{4}$	B3-48

RULES AND REGULATIONS

§ 23.386. Curve-Side Road Left Sign (W2-3-1L).

(a) *Justification.* The Curve-Side Road Left Sign (W2-3-1L) shall be authorized for use in advance of an intersection where the major highway curves to the right and the minor highway is straight ahead.

It may be used on any of the three legs of the depicted intersection by rotating it 90 or 180 degrees.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	12½	2	5	1½	9¾	4
48 x 48	48	20	3¾	8	2¾	15¾	6¾

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	½	¾	B3-30
48 x 48	¾	1¼	B3-48

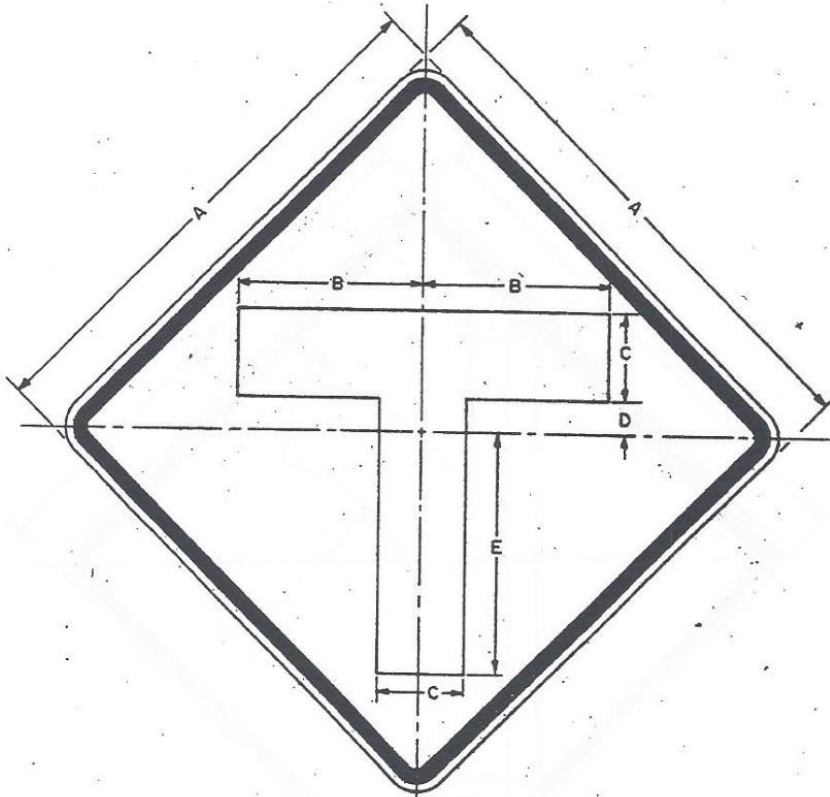
RULES AND REGULATIONS

§ 23.387. "T" Symbol Sign (W2-4).

(a) *Justification.* The "T" Symbol Sign (W2-4) shall be authorized for use to warn traffic approaching a "T" intersection on the highway that forms the stem of the "T", such

as where traffic must make a turn either to the right or to the left.

A Large Double Arrow Sign (W1-7) may be used at the head of the "T" directly in line with approaching traffic.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E			
30 x 30	30	10 ⁵ / ₈	5	1 ⁷ / ₈	13 ³ / ₄	1/2	3/4	B3-30
48 x 48	48	17	8	3	22	3/4	1 ¹ / ₄	B3-48

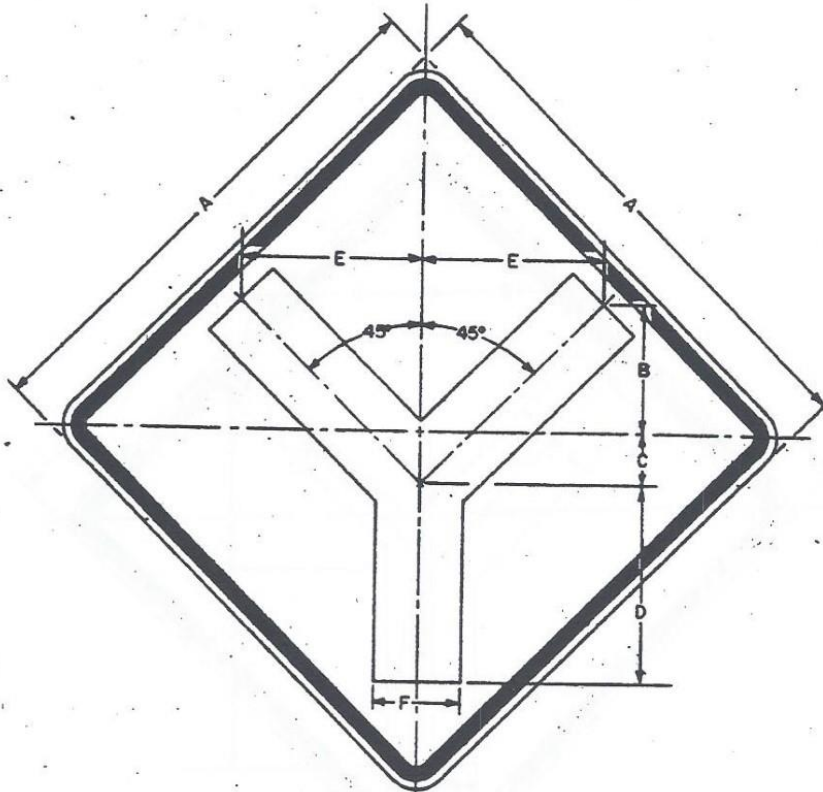
RULES AND REGULATIONS

§ 23.388. "Y" Symbol Sign (W2-5).

(a) *Justification.* The "Y" Symbol Sign (W2-5) shall be authorized for use to warn motorists approaching a "Y" intersection on the highway that forms the stem of the "Y".

It should not be used at a "Y" intersection that is channelized by a traffic island.

A Large Double Arrow Sign (W1-7) may be used at the fork of the "Y" directly in line with approaching traffic.



COLOR LEGEND AND BORDER BACKGROUND

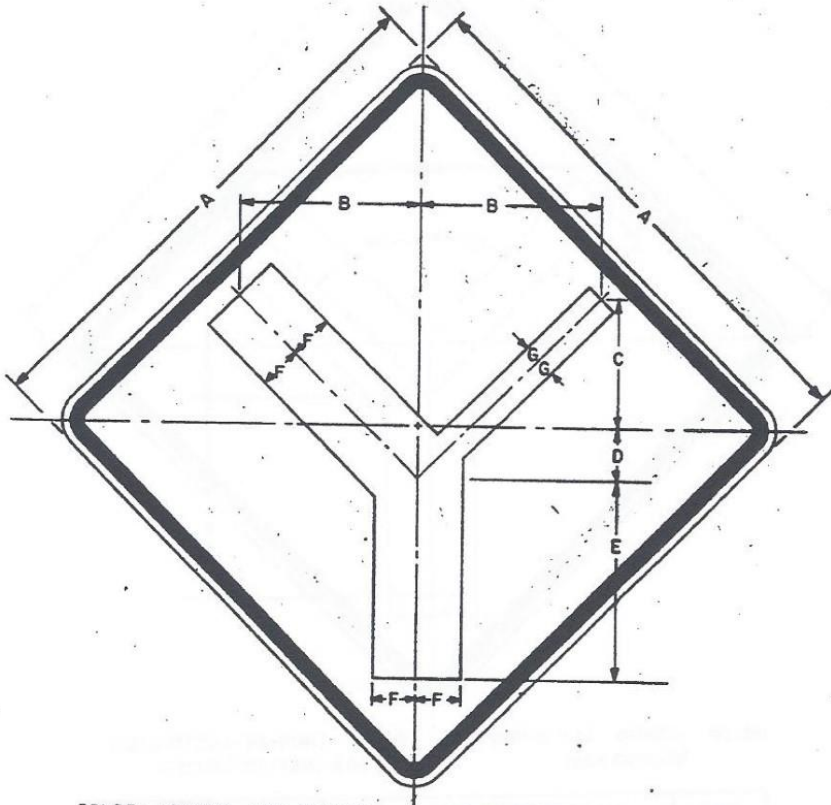
BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						MARGIN	BORDER	BLANK STD
	A	B	C	D	E	F			
30 x 30	30	7 ³ / ₈	3	11 ³ / ₈	10 ⁵ / ₁₆	5	¹ / ₂	³ / ₄	B3-30
48 x 48	48	11 ⁵ / ₁₆	4 ⁵ / ₁₆	18 ³ / ₁₆	16 ¹ / ₂	8	³ / ₄	1 ¹ / ₄	B3-48

RULES AND REGULATIONS

§ 23.389. "Y" Symbol Secondary Right Sign (W2-5-1R).

(a) *Justification.* The "Y" Symbol Secondary Right Sign (W2-5-1R) shall be authorized for use to warn motorists approaching a "Y" intersection where the major highway bears to the left and the intersecting branch, bearing to the right, is a minor highway. It should not be used if there is any channelization present.



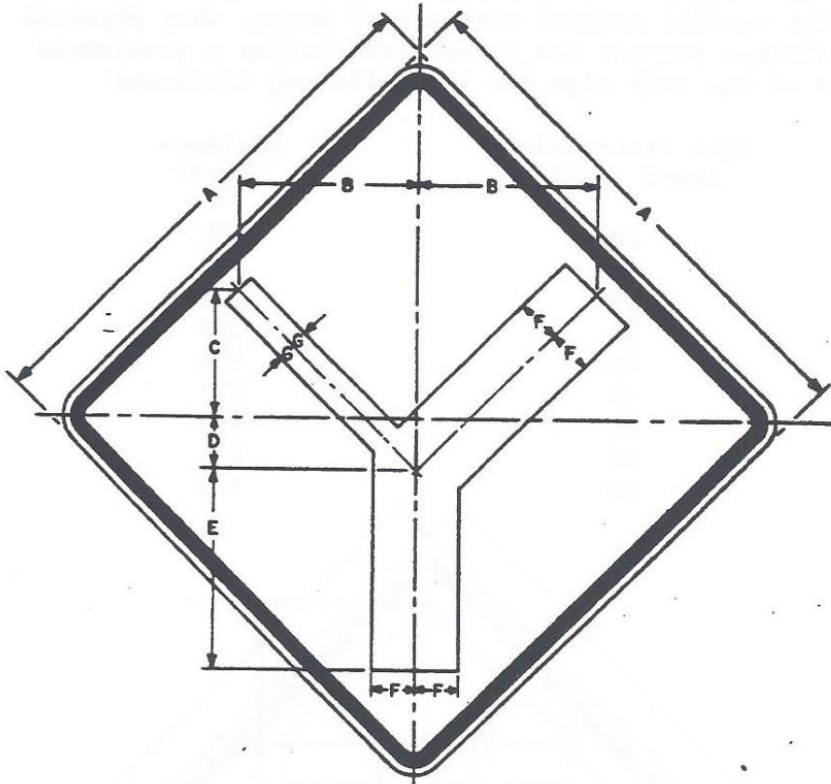
COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30°	30°	10 ⁵ / ₁₆	7 ³ / ₈	3	11 ³ / ₈	2 ¹ / ₂	1
48 x 48	48	16 ¹ / ₂	11 ¹³ / ₁₆	4 ¹³ / ₁₆	8 ³ / ₁₆	4	1 ⁵ / ₈

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD.
30 x 30	¹ / ₂	³ / ₄	B3-30
48 x 48	³ / ₄	1 ¹ / ₄	B3-48

§211.440. "Y" Symbol Secondary Left Sign, W2-5-1L.

The "Y" Symbol Secondary Left Sign, W2-5-1L, shall be authorized for use to warn motorists approaching a "Y" intersection when the major highway bears to the right and the intersecting branch, bearing to the left, is a minor highway. It should not be used if there is any channelization present.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	10 ⁵ / ₁₆	7 ³ / ₈	3	11 ³ / ₈	2 ¹ / ₂	1
48 x 48	48	16 ¹ / ₂	11 ³ / ₈	4 ¹³ / ₁₆	8 ³ / ₈	4	1 ¹ / ₈

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD.
30 x 30	¹ / ₂	³ / ₄	B3-30
48 x 48	³ / ₄	1 ¹ / ₈	B3-48

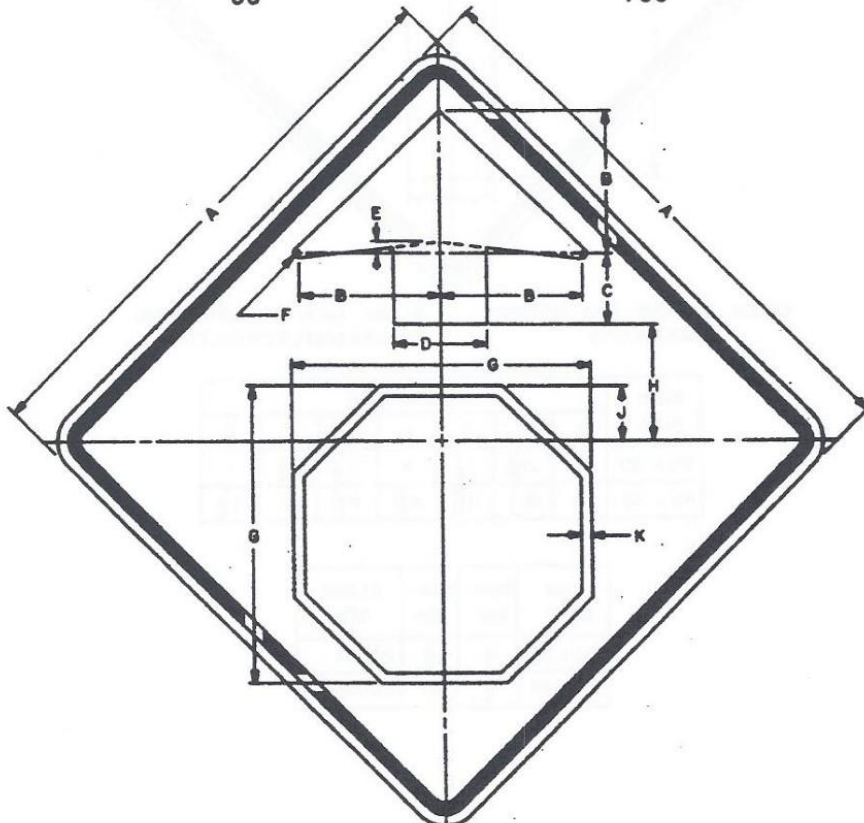
SS 211.441. - 211.450. (Reserved)

ADVANCE WARNING OF
CONTROL DEVICES GROUP,
W3 SERIES

S 211.451. Stop Ahead Sign, W3-1.

The Stop Ahead Sign, W3-1, will be authorized for use in advance of a stop sign, except a stop sign installed for traffic control within work areas, when physical conditions prevent the driver from having a continuous view of the stop sign for the following distances:

85th Percentile Speed (mph)	Distance (feet)
20	100
25	175
30	250
35	325
40	400
45	475
50	550
55	625
60	700



BORDER AND ARROW
BACKGROUND
SYMBOL BORDER
SYMBOL BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)
WHITE (REFLECTORIZED)
RED (REFLECTORIZED)

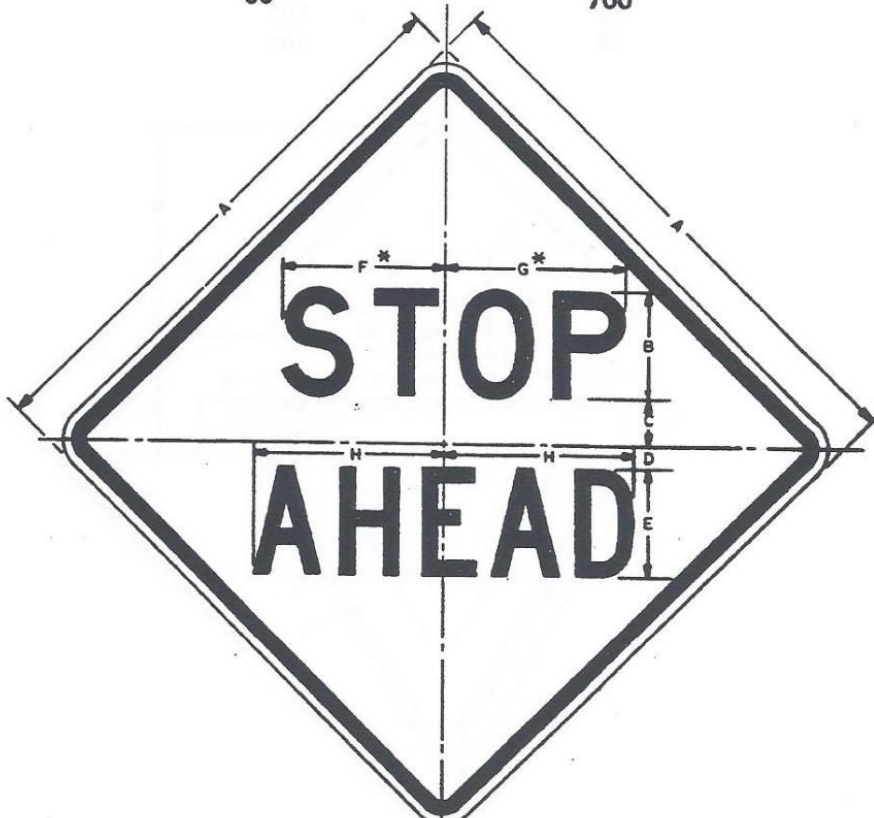
SIGN SIZE	DIMENSIONS											MAR-GIN	BOR-DER	BLANK STD	
	A	B	C	D	E	F	G	H	J	K					
36x36	36	9	4 1/2	6	3 1/2	1 1/2	19	7 1/2	3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	83-36
48x48	48	12	6	8	5	2	25 1/2	10	4 1/2	2	2	2	2	2	83-48

47

S 211.451a. Work Area Stop Ahead Sign, W3-1-1.

The Work Area Stop Ahead Sign, W3-1-1, will be authorized for use in advance of a stop sign which is installed for traffic control within a work area, especially when physical conditions prevent the driver from having a continuous view of the stop sign for the following distances:

85th Percentile Speed (mph)	Distance (feet)
20	100
25	175
30	250
35	325
40	400
45	475
50	550
55	625
60	700



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
36 x 36	36	7	3	1 1/2	7	10 1/2	11 1/2	12 1/2
48 x 48	48	9	4	2	9	13 1/2	14 1/2	15 1/2

* Reduce spacing 20%

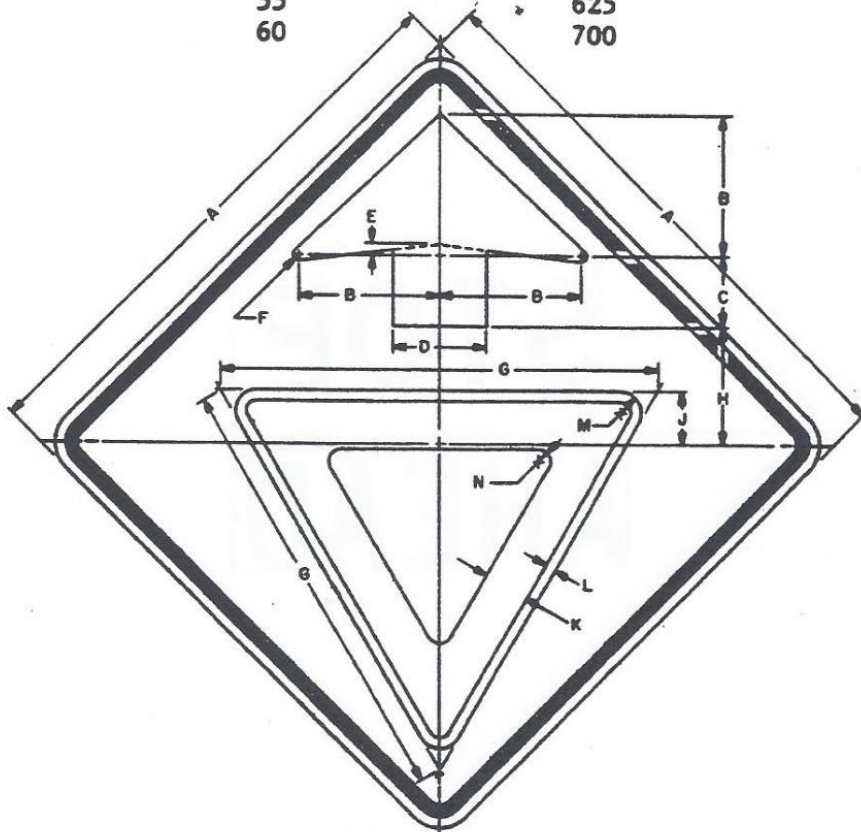
SIGN SIZE	SERIES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
36 x 36	D	C	5/8	7/8	B3-36
48 x 48	D	C	3/4	1 1/4	B3-48

14

S 211.452. Yield Ahead Sign, W3-2.

The Yield Ahead Sign, W3-2, will be authorized for use in advance of a yield sign, except a yield sign installed for traffic control within a work area, when physical conditions prevent the driver from having a continuous view of the yield sign for the following distances:

85th Percentile Speed (mph)	Distance (feet)
20	100
25	175
30	250
35	325
40	400
45	475
50	550
55	625
60	700



BORDER AND ARROW BLACK (NON-REFLECTORIZED)
 BACKGROUND YELLOW (REFLECTORIZED)
 SYMBOL BACKGROUND WHITE (REFLECTORIZED)
 SYMBOL BORDER RED (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
36x36	36	9	4 1/2	6	3 1/2	3 1/2	28	7 1/2	3 1/2	
48x48	48	12	6	8	5	5	38	10	4 1/2	

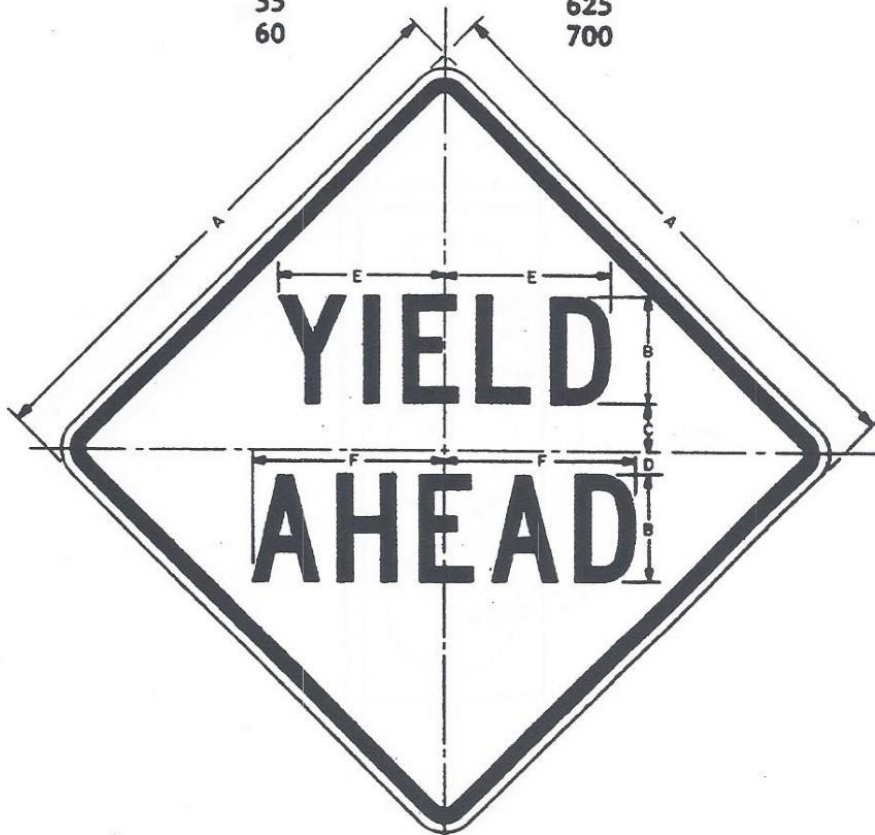
SIGN SIZE	DIMENSIONS				MARGIN	BORDER	BLANK STD
	K	L	M	N			
36x36	3 1/2	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8	83-36
48x48	5	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	83-48

175

S 211.452a. Work Area Yield Ahead Sign, W3-2-1.

The Work Area Yield Ahead Sign, W3-2-1, will be authorized for use in advance of a yield sign which is installed for traffic control within a work area, especially when physical conditions prevent the driver from having a continuous view of the yield sign for the following distances:

85th Percentile Speed (mph)	Distance (feet)
20	100
25	175
30	250
35	325
40	400
45	475
50	550
55	625
60	700



COLOR: LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
36 x 36	36	7	3	1/2	10	12
48 x 48	48	9	4	2	13	15

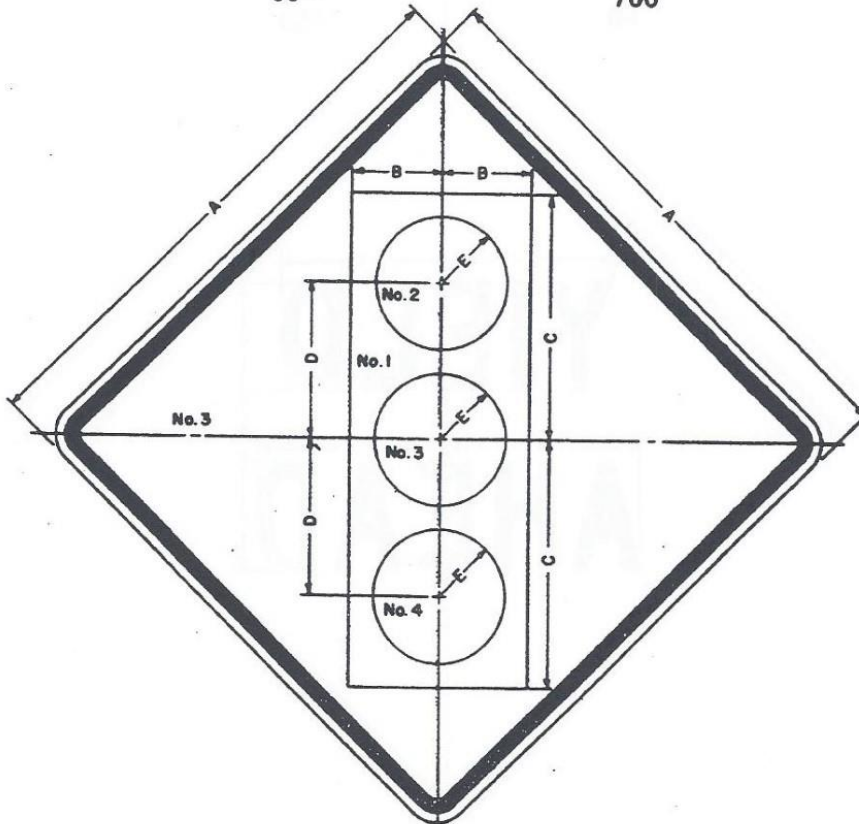
SIGN SIZE	SERIES		MARGIN	BORDER	BLANK STD
	LINE	LINE			
36 x 36	C	C	1/4	1/2	B3-36
48 x 48	C	C	3/8	1 1/2	B3-48

116

S 211.453. Signal Ahead Sign, W3-3.

The Signal Ahead Sign, W3-3, shall be authorized for use in advance of any signalized location when physical conditions prevent the motorist from having a continuous view of at least two signal indications for the following distances:

85th Percentile Speed (mph)	Distance (feet)
20	100
25	175
30	250
35	325
40	400
45	475
50	550
55	625
60	700



COLOR:	No. 1 AND BORDER	BLACK (NON-REFLECTORIZED)
	TOP CIRCLE (No. 2)	RED (REFLECTORIZED)
	CENTER CIRCLE (No. 3)	YELLOW (REFLECTORIZED)
	BOTTOM CIRCLE (No. 4)	GREEN (REFLECTORIZED)
	BACKGROUND (No. 3)	YELLOW (REFLECTORIZED)

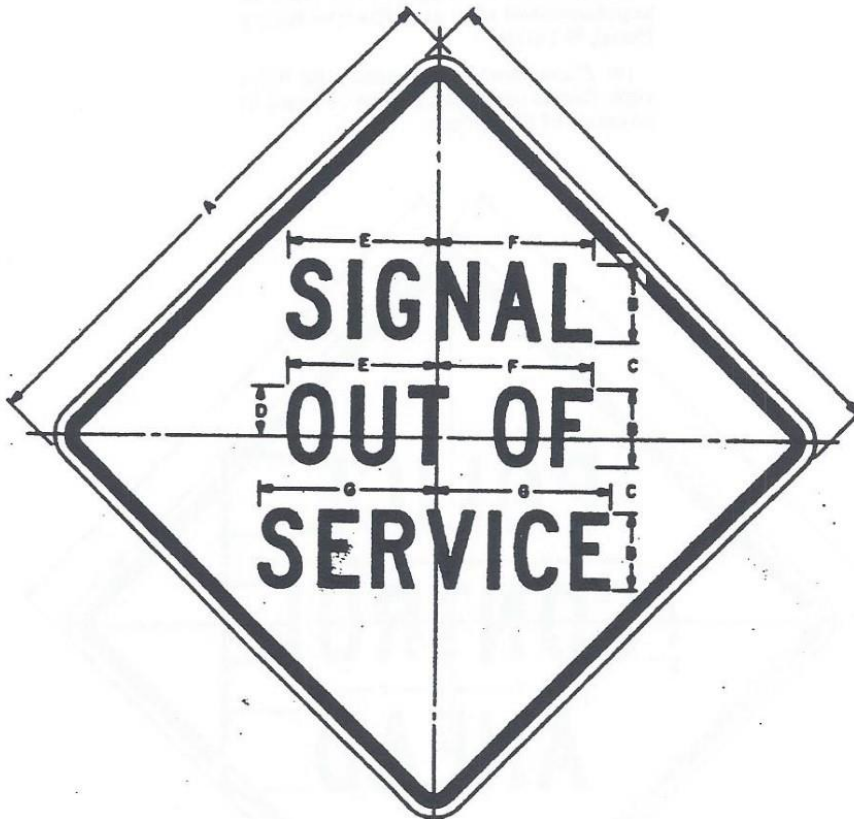
SIZE SIGN	DIMENSIONS					MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E			
36x36	36	5 1/2	15 1/2	10	4 1/2	1/8	1/8	83-36
48x48	48	7 1/2	20	12 1/2	5	1/4	1/4	83-48

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SS 211.454 to 211.456. (Reserved).

§ 211.457. Signal Out Of Service Sign, W3-3-3.

The Signal Out Of Service Sign, W3-3-3, may be used in advance of a traffic signal which is temporarily out of service.



COLOR - LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36x36	36	8	3	3 1/2	9 1/2	10	11 1/2
48x48	48	7	4	4 1/8	13 1/2	13 1/2	15 1/2

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
36x36	C	C	C	1/2	1/2	83-36
48x48	C	C	C	1/2	1 1/2	83-48

§ 211.458. Police Control Ahead Sign, W3-4.

(a) *Justification.* The Police Control Ahead Sign, W3-4, may be used in advance of a location where traffic is controlled by a uniformed police officer. Its use should be limited to locations where drivers do not have good sight distance to the officer or would not expect police control. The W3-4 sign shall be removed or covered when its message does not apply, or it shall be supplemented with an Effective Hours Panel, W14-20.

(b) *Placement.* When used, the W3-4 sign should be placed 250 to 750 feet in advance of the officer.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36x36	36	5	3 1/2	9 1/2	12 1/2	8 1/2	2 1/2
48x48	48	6	4	11 1/2	14 1/2	10 1/2	3

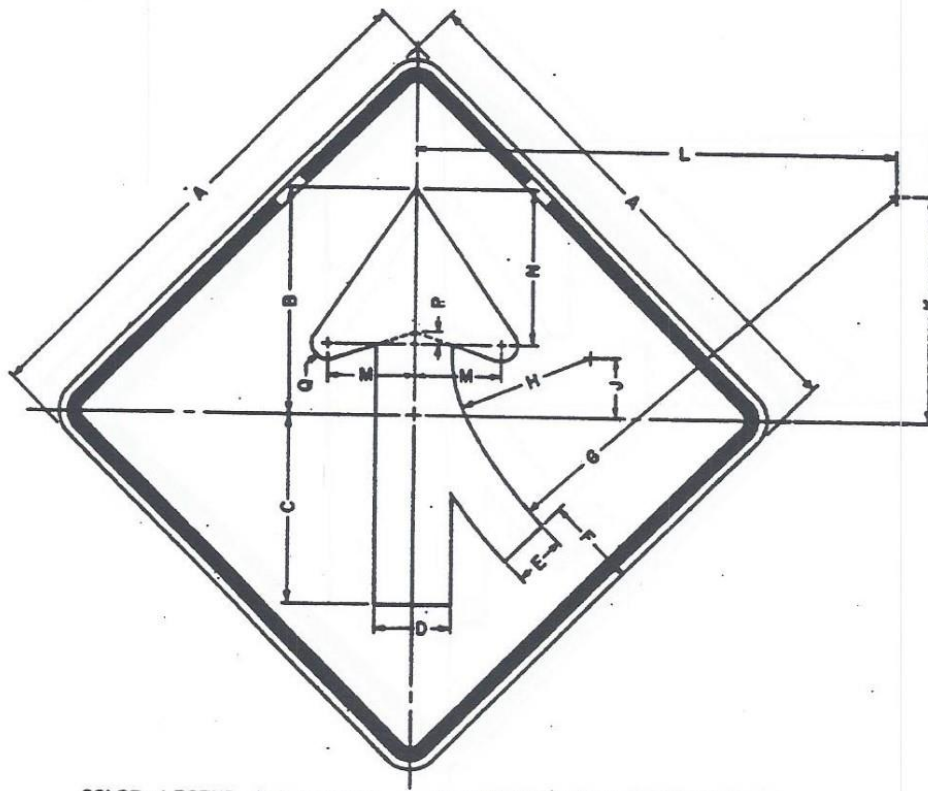
SIGN SIZE	SERIES			MARGIN	BORDER	BLANK STD
	LINE 1	LINE 2	LINE 3			
36x36	C	C	C	1/2	1/2	B3-36
48x48	C	C	C	1/2	1 1/2	B3-48

179

§ 211.471. Merge Right Sign, W4-1R.

(a) *Justification.* The Merge Right Sign, W4-1R, may be used to warn drivers that merging movements may be encountered from the right when two roadways converge and no turning conflicts occur.

(b) *Placement.* The, W4-1R, sign should be erected on the side of the major roadway on which merging traffic will be encountered and in such position as not to obstruct the driver's view of vehicles on the entering roadway. An additional sign may be placed on the entering roadway when needed.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

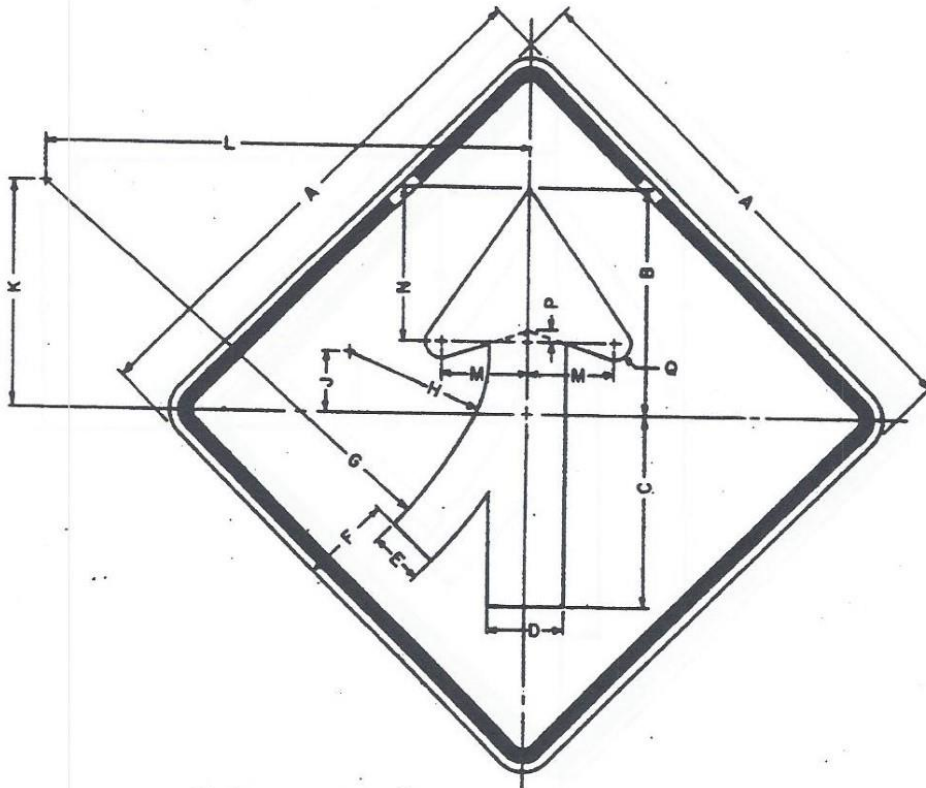
SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
30x30	30	13	11	4 3/8	3	5 1/2	28	8	3 1/2	13	27 1/2	5
36x36	36	15 1/2	13 1/2	5 1/2	3 3/8	6 3/8	33 1/2	9 1/2	4	15 1/2	33 1/2	6
48x48	48	20 1/2	17 1/2	7	4 3/4	8 3/4	45	12 1/2	5 1/2	20 1/2	44 1/2	8

SIGN SIZE	SERIES			MARGIN	BORDER	BLANK STD
	N	P	Q			
30x30	8 7/8	11 1/8	7 1/8	1/2	3/4	B3-30
36x36	10 3/8	12 3/8	1 1/8	3/8	7/8	B3-36
48x48	14 3/8	1 1/8	1 3/8	3/2	1 1/2	B3-48

§ 211.472. Merge Left Sign, W4-1L.

(a) *Justification.* The Merge Left Sign, W4-1L, may be used to warn drivers that merging movements may be encountered from the left when two roadways converge and no turning conflicts occur.

(b) *Placement.* The W4-1L sign should be erected on the side of the major roadway on which merging traffic will be encountered and in such a position as not to obstruct the driver's view of vehicles on the entering roadway. An additional sign may be placed on the entering roadway when needed.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
30x30	30	13	11	4 ³ / ₈	3	5 ¹ / ₂	28	8	3 ¹ / ₂	13	27 ³ / ₈	5
36x36	36	15 ¹ / ₂	13 ¹ / ₂	5 ¹ / ₂	3 ⁵ / ₈	6 ⁵ / ₁₆	33 ⁵ / ₁₆	9 ⁵ / ₁₆	4	15 ⁵ / ₈	33 ⁵ / ₁₆	6
48x48	48	20 ¹ / ₂	17 ¹ / ₂	7	4 ³ / ₄	8 ³ / ₈	45	12 ³ / ₈	6 ¹ / ₂	20 ¹ / ₂	44 ³ / ₈	8

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	N	P	Q			
30x30	8 ⁷ / ₁₆	1 ¹¹ / ₁₆	7 ⁷ / ₁₆	1 ¹ / ₂	3 ³ / ₈	B3-30
36x36	10 ⁵ / ₁₆	1 ¹³ / ₁₆	1 ¹¹ / ₁₆	1 ¹ / ₂	7 ⁷ / ₁₆	B3-36
48x48	14 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₈	2	1 ¹ / ₂	B3-48

§ 211.473. (Reserved).

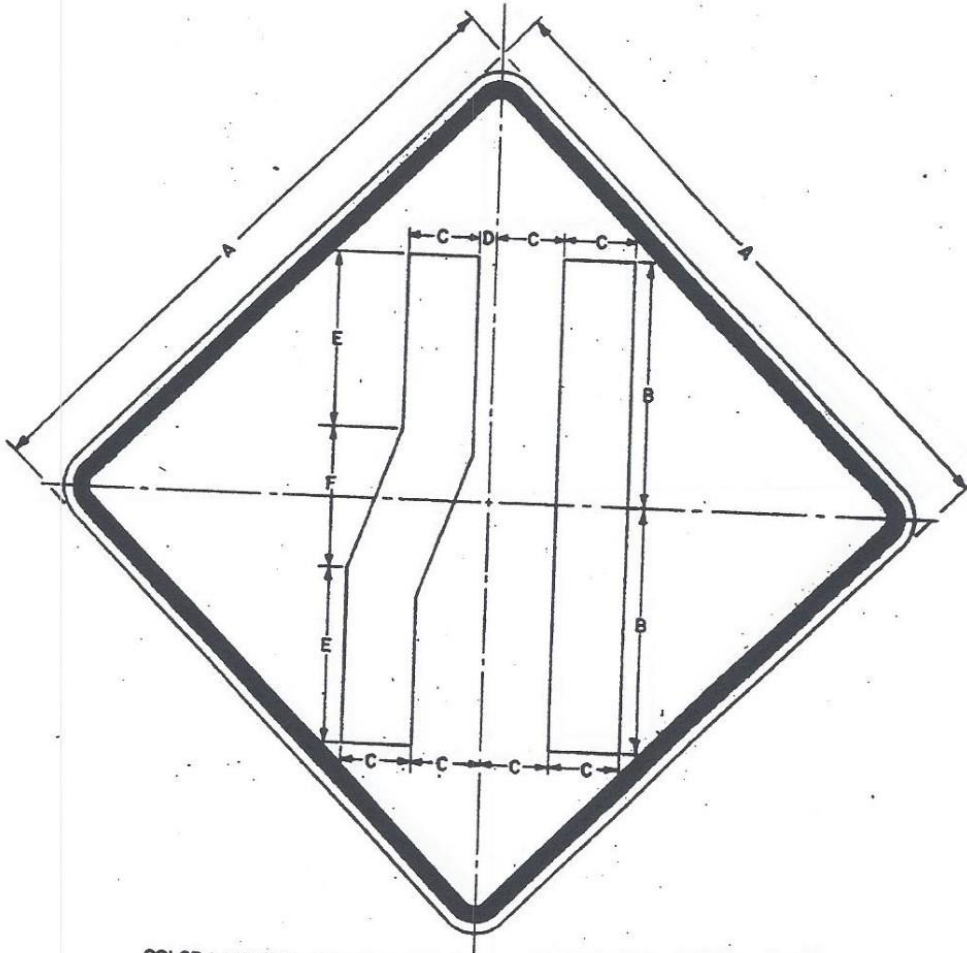
501

RULES AND REGULATIONS

§ 23.415. Pavement Width Transition—Left Lane Ends Sign (W4-2L).

(a) *Justification.* The Pavement Width Transition-Left Lane Ends Sign (W4-2L) shall be authorized for use to give advance warning of the termination of the left lane of pavement.

(b) *Placement.* On one-way roadways, where the width of the median will permit, two W4-2L signs should be used, one on the right side and one in the median. It shall not be used in advance of the end of an acceleration lane.



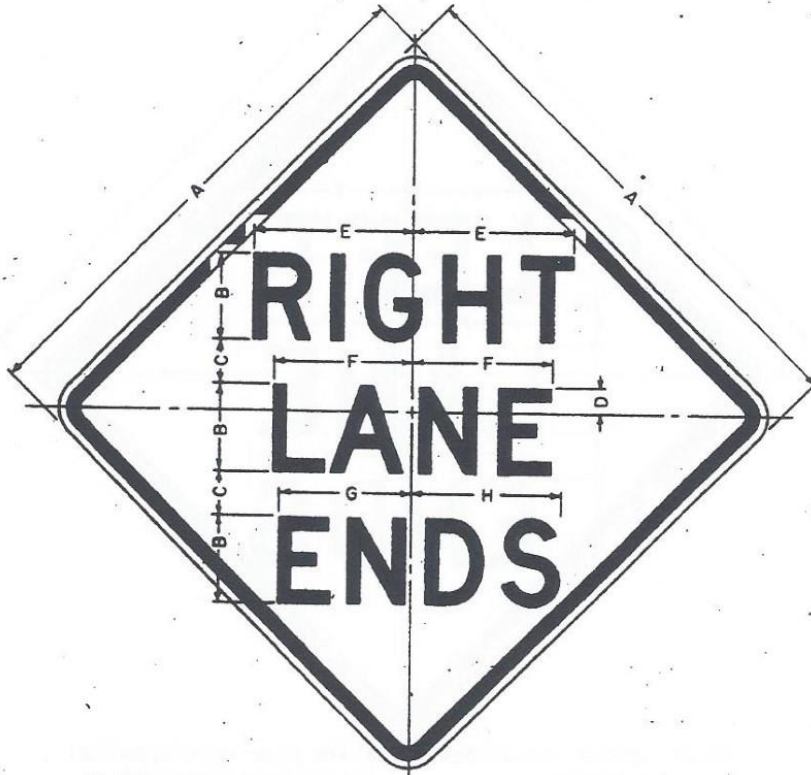
COLOR : LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F			
36 x 36	36	14	4	1	10	8	$\frac{5}{8}$	$\frac{7}{8}$	B3-36
48 x 48	48	$18\frac{5}{8}$	$5\frac{5}{8}$	$1\frac{3}{8}$	$13\frac{5}{8}$	$10\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{4}$	B3-48

RULES AND REGULATIONS

§ 23.416. Right Lane Ends Sign (W4-10R).

(a) *Justification.* The Right Lane Ends Sign (W4-10R) shall be authorized for use in advance of the Pavement Width Transition-Right Lane Ends Sign (W4-2R) or the Lane Ends Merge Left Sign (W4-11L).



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

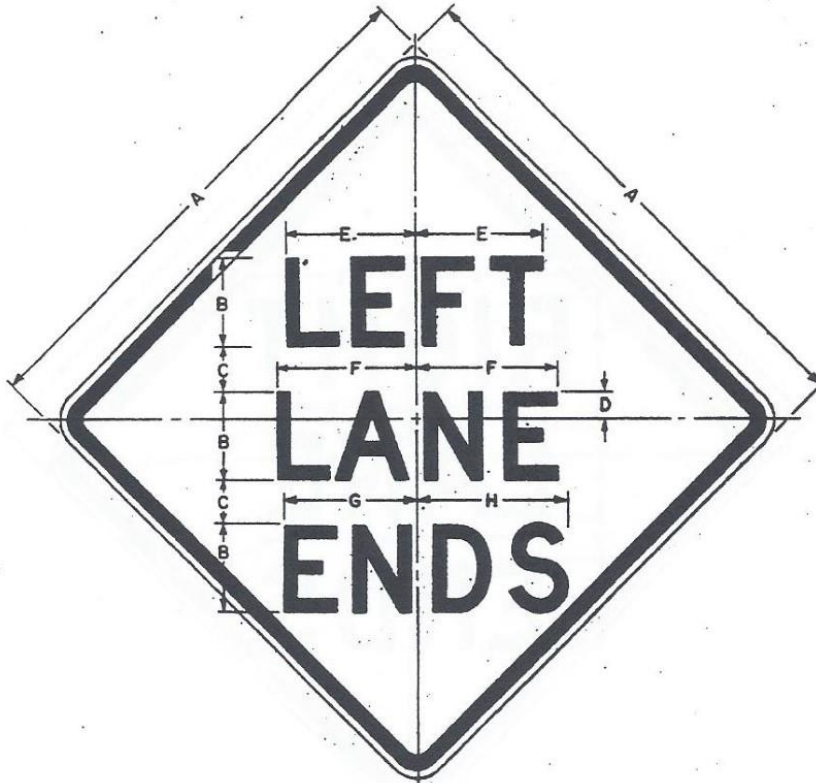
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30x30	30	5	2½	1½	9 ³ / ₁₆	8 ¹ / ₁₆	7 ⁵ / ₈	8 ⁹ / ₁₆
36x36	36	6	3	2	11	9 ¹¹ / ₁₆	9	10 ³ / ₈
48x48	48	8	4	3	14 ³ / ₄	12 ⁷ / ₈	12 ¹ / ₄	13 ⁵ / ₈

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	LINES					
	1	2	3			
30x30	D	D	D	½	¾	B3-30
36x36	D	D	D	5/8	7/8	B3-36
48x48	D	D	D	¾	1¼	B3-48

RULES AND REGULATIONS

§ 23.417. Left Lane Ends Sign (W4-10L).

(a) *Justification.* The Left Lane Ends Sign (W4-10L) shall be authorized for use in advance of the Pavement Width Transition-Left Lane Ends Sign (W4-2L) or the Lane Ends Merge Right Sign (W4-11R).



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND YELLOW (REFLECTORIZED)

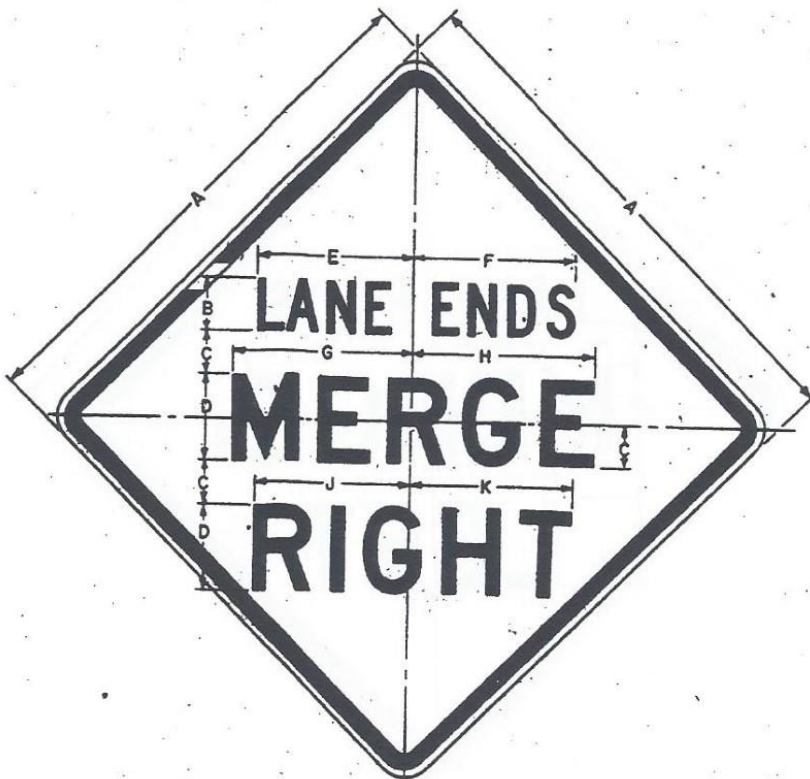
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	5	2 1/2	1 1/2	7 11/32	8 1/16	7 5/8	8 9/16
36 x 36	36	6	3	2	8 5/16	9 11/16	9	10 7/16
48 x 48	48	8	4	3	11 1/4	12 7/8	12 1/4	13 3/8

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
30 x 30	D	D	D	1/2	3/4	B3-30
36 x 36	D	D	D	3/8	7/8	B3-36
48 x 48	D	D	D	3/4	1 1/4	B3-48

RULES AND REGULATIONS

§ 23.418. Lane Ends Merge Right Sign (W4-11R).

(a) *Justification.* The Lane Ends Merge Right Sign (W4-11R) shall be authorized for use as a supplement to the Pavement Width Transition-Left Lane Ends Sign (W4-2L).



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

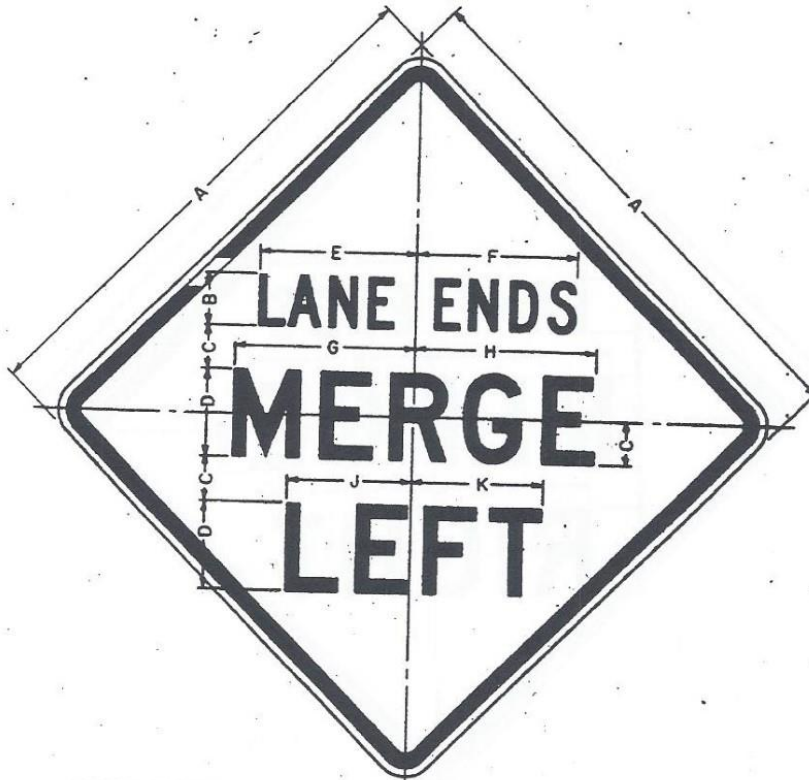
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
30x30	30	3	2½	5	8½	9½	10¾	10¾	8½	9½	
36x36	36	4	3	6	12	12½	12¾	12¾	10¼	11¾	
48x48	48	6	4	8	17½	18½	16¾	17¾	13¾	15¾	

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
30x30	C	D	D	½	¾	B3-30
36x36	C	D	D	5/8	7/8	B3-36
48x48	C	D	D	¾	1½	B3-48

RULES AND REGULATIONS

§ 23.419. Lane Ends Merge Left Sign (W4-11L).

(a) *Justification.* The Lane Ends Merge Left Sign (W4-11L) shall be authorized for use as a supplement to the Pavement Width Transition-Right Lane Ends Sign (W4-2R).



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
30x30	30	3	2 1/2	5	8 15/16	9 5/16	10 3/8	10 9/16	7 1/8	7 9/16
36x36	36	4	3	6	12	12 1/2	12 3/8	12 3/4	8 1/2	9 1/8
48x48	48	6	4	8	17 7/8	18 5/8	16 3/8	17 1/8	11 1/4	12 1/4

SIGN SIZE	SERIES			MARGIN	BORDER	BLANK STD
	LINES					
	1	2	3			
30x30	C	D	D	1/2	3/4	B3-30
36x36	C	D	D	5/8	7/8	B3-36
48x48	C	D	D	3/4	1 1/4	B3-48

NARROW ROADWAY GROUP, W5 SERIES

§211.491. Road Narrows Sign, W5-1.

The Road Narrows Sign, W5-1, shall be authorized for use in advance of a transition on two-lane roads when the pavement width is reduced abruptly to a width such that two vehicles cannot pass safely without reducing speed.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	5	3	1 3/4	7 7/8	8 3/8	14 3/4	15 1/8
36 x 36	36	6	3 1/2	2	9 1/2	10 3/8	17 5/8	18 1/4

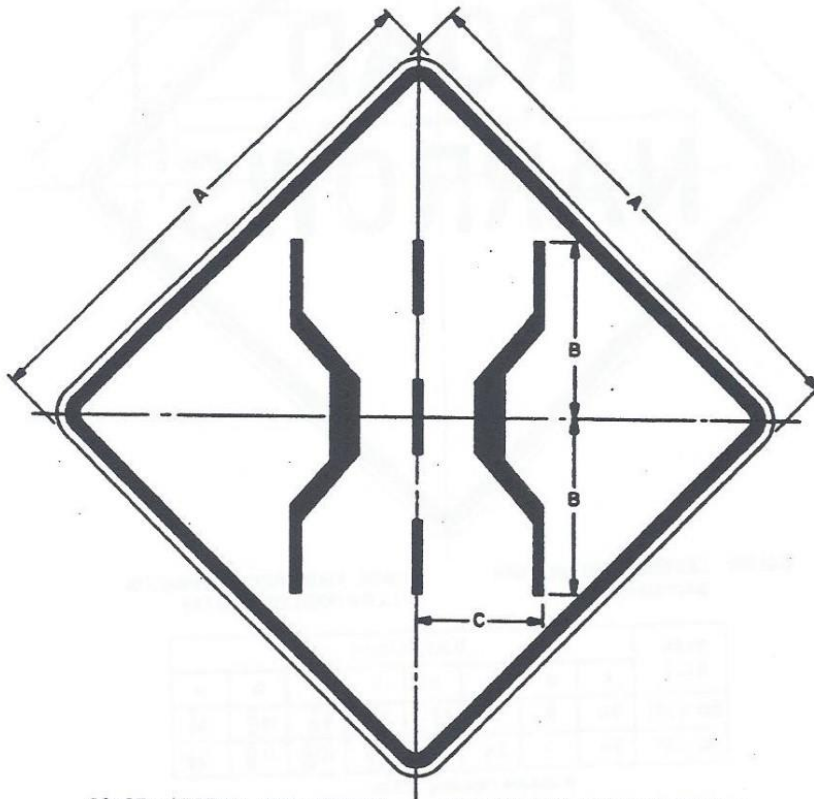
* Reduce spacing 25%

SIGN SIZE	SERIES		MARGIN	BORDER	BLANK STD
	1	2			
30 x 30	D	D	1/2	3/4	B3-30
36 x 36	D	D	5/8	7/8	B3-36

§ 211.492. Narrow Bridge or Underpass Sign, W5-2.

The Narrow Bridge or Underpass Sign, W5-2, may be used to warn of a two-lane bridge or underpass having a clear two-way roadway width of 18 feet or greater, but less than the width of the approach pavement. The W5-2 sign may also be used at any bridge or underpass which has a clear roadway width of 18 to 30 feet when:

- (1) the width between curbs is less than 4 feet wider than the approach roadway width; or
- (2) the width between parapets, bridge railings, guide rail, trusses, piers, or underpass walls is less than 6 feet wider than the approach roadway width.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS			MAR-GIN	BOR-DER	BLANK STD
	A	B	C			
30x30	30	10	7 $\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
36x36	36	12	8 $\frac{5}{8}$	$\frac{5}{8}$	$\frac{7}{8}$	B3-36

§ 211.493. One Lane Bridge Sign, W5-3.

The One Lane Bridge Sign, W5-3, may be used to identify two-way bridges having a clear roadway width of less than 18 feet. In addition, the W5-3 sign may be used to identify two-way bridges having a clear roadway width of 18 feet or more if the approach roadway geometrics create an effective width so that vehicles can not pass each other.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
36 x 36	36	6	4	16	16 1/2	11 1/2
48 x 48	48	8	5	21 1/2	20 1/2	15 1/2

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
36 x 36	C	C	1/8	1/8	B3-36
48 x 48	C	C	1/4	1 1/4	B3-48

S 211.494. (Reserved.)

§ 211.495. One Lane Underpass Sign, W5-11.

The One Lane Underpass Sign, W5-11, may be used to identify two-way underpasses having a clear roadway width of less than 18 feet. In addition, the W5-11 sign may be used to identify two-way underpasses having a clear roadway width of 18 feet or more if the approach roadway geometrics create an effective width so that vehicles can not safely pass each other.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW(REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36 x 36	36	5	2 1/2	1 1/2	13 1/2	13	16 1/2
48 x 48	48	6	3	1 1/2	16 1/2	15 1/2	19 1/2

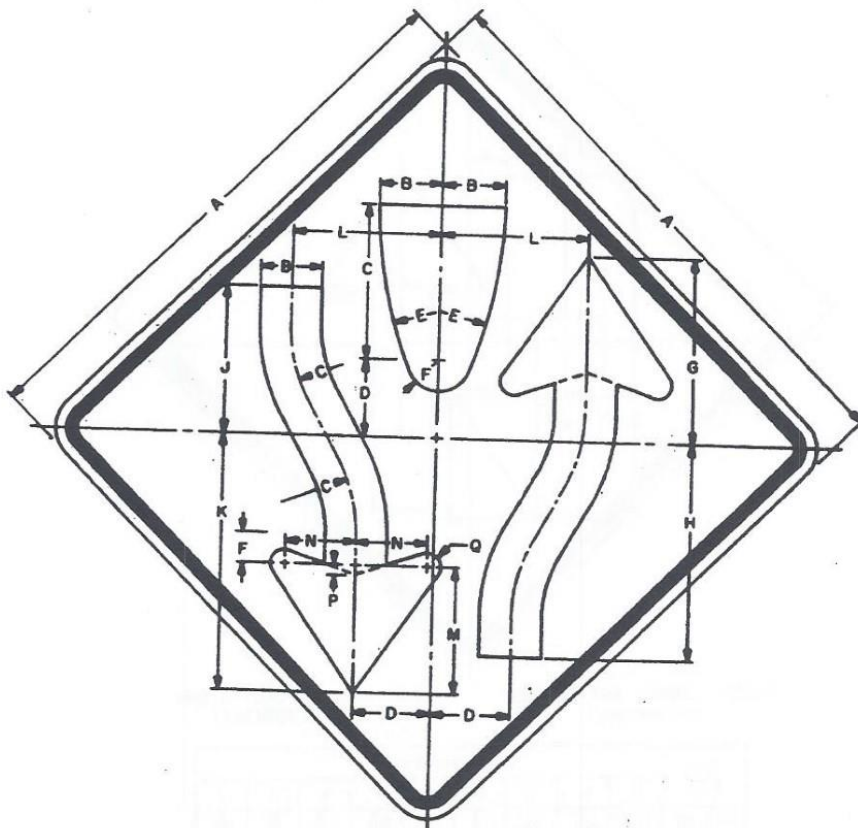
SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
36 x 36	C	C	1/8	1/8	83-36
48 x 48	C	C	1/8	1/8	83-48

SS 211.496. - 211.510. (Reserved)

CHANGES IN HIGHWAY DESIGN
GROUP, W6 SERIES

S 211.511. Divided Highway -- Divided Highway Ends Sign, W6-1.

The Divided Highway -- Divided Highway Ends Sign, W6-1, will be authorized for use on the approaches to a section of highway when the opposing flows of traffic are separated by a physical barrier. The W6-1 sign will also be authorized for use prior to the end of a divided highway section when rotated 180 degrees.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

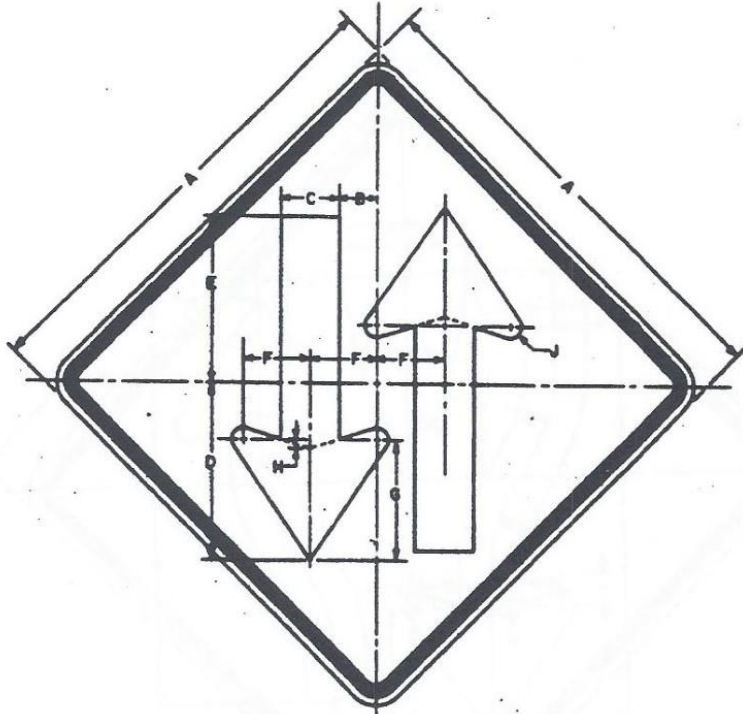
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
36x36	36	4	10	5	30	2	12	14	9 1/2	16 1/2
48x48	48	5 1/2	13 1/2	6 3/8	39 3/8	2 3/8	16	18 1/8	12 1/8	22

SIGN SIZE	DIMENSIONS					MARGIN	BORDER	BLANK STD
	L	M	N	P	Q			
36x36	9 1/2	8 1/2	4 1/2	5 1/2	15 1/2	1/2	7/8	83-36
48x48	12 1/2	10 1/2	6	7 1/2	17 1/2	3/4	1 1/4	83-48

SS 211.512. to 211.516. (Reserved).

§ 211.517. Two-Way Traffic Sign, W6-3.

The Two-Way Traffic Sign, W6-3, may be used to warn of a transition from a separated one-way roadway to a two-way roadway. This sign may be used at intervals to remind drivers that they are on a two-way roadway.



COLOR LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
30 x 30	30	2 1/2	3 1/2	11 1/2	10 1/2	4 1/2	7 1/2	1 1/2	1/2
48 x 48	48	3 1/2	6	18	17	6 1/2	12 1/2	2 1/2	1 1/2

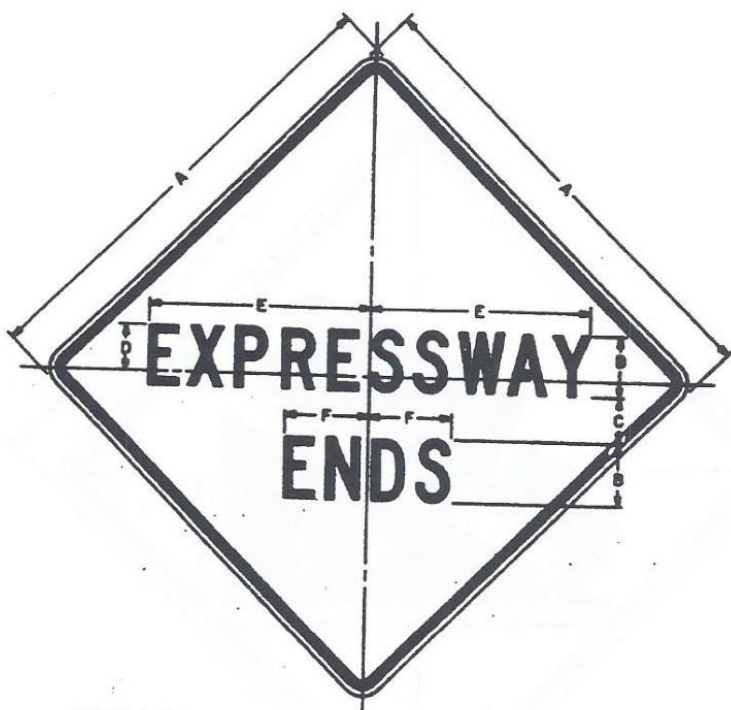
SIGN SIZE	MAR- GN	BOR- DER	BLANK STD
30 x 30	1/2	1/2	B3-30
48 x 48	1/2	1 1/2	B5-48

S 211.518. (Reserved).

S 211.519. Expressway Ends Sign, W6-5.

(a) Justification. The Expressway Ends Sign, W6-5, will be authorized for use to warn of the end of an extended length of an expressway and the beginning of a conventional highway. The W6-5 sign should not normally be used for expressways less than 5 miles in length. The term FREEWAY may be substituted for EXPRESSWAY.

(b) Placement. When used, one or two W6-5 signs should be installed within the area approximately 1500 feet to 1 mile in advance of the end of the expressway. The () Feet Sign, W12-2-1, or the () Mile(s) Sign, W12-2-2, should normally be used beneath the W6-5 sign.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
48x48	48	7	5	42	25	9 1/2
60x60	60	8	6	54	28	10 1/2

SIGN SIZE	SERIES		MARGIN	BORDER	BLANK STD
	1	2			
48x48	C	C	1/2	1 1/2	B3-48
60x60	C	C	1	1 1/2	B3-60

SS 211.520 - 211.530. (Reserved).

§ 211.531. Hill Sign, W7-1.

(a) *Justification.* The Hill Sign, W7-1, will be authorized for use in advance of a downgrade when the length, percent of grade, horizontal curvature, or combination thereof require special precaution on the part of the driver.

(b) *Supplemental plaques.*

(1) The Grade Plaque, W7-3, or the () Grade/() Mile Plaque, W7-3b, should be used beneath the W7-1 sign in advance of downgrades longer than the lengths indicated below, and at locations where accident experience or field observations indicate a need:

Percent Grade	Length (feet)
4	6,000
5	3,000
6	2,000
7	1,000
8	750
9	500

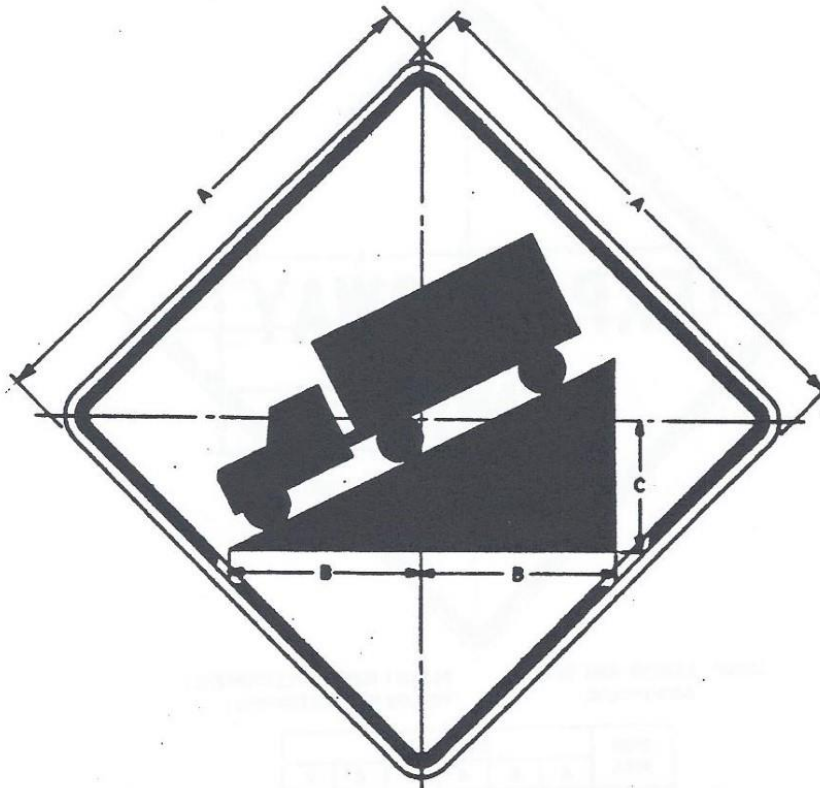
(2) On long grades, the Next () Mile Plaque, W7-3a, or the () Grade/() Mile Plaque, W7-3b, may be used beneath the W7-1 sign at periodic intervals.

(c) *Related signs.* When potentially hazardous conditions exist, a special diagrammatic sign may be used at a truck turnout or along the roadway where trucks are travelling at a speed at which the driver can read the sign. In addition, other related signs that may be authorized include the following:

- Trucks Over () Lbs. Speed Sign, R2-2-1
- Runaway Vehicles Only Sign, R5-8
- Trucks Reduce Gear Sign, R14-10
- Trucks Over () Lbs. Gross Weight Reduce Gear Sign, R14-11

- Reduced Gear Zone Sign, R14-12
- Stay In Reduced Gear Sign, R14-12-1
- End Reduced Gear Zone Sign, R14-13
- Trucks Over () Lbs. Stop () Feet Sign, R14-14
- Trucks Over () Lbs. With Arrow Sign, R14-15
- Advance Runaway Truck Ramp Sign, W7-4
- Runaway Truck Ramp Exit Sign, W7-4a

(The sign for § 211.531 can be found at 67 Pa. Code page 961 (57474).)



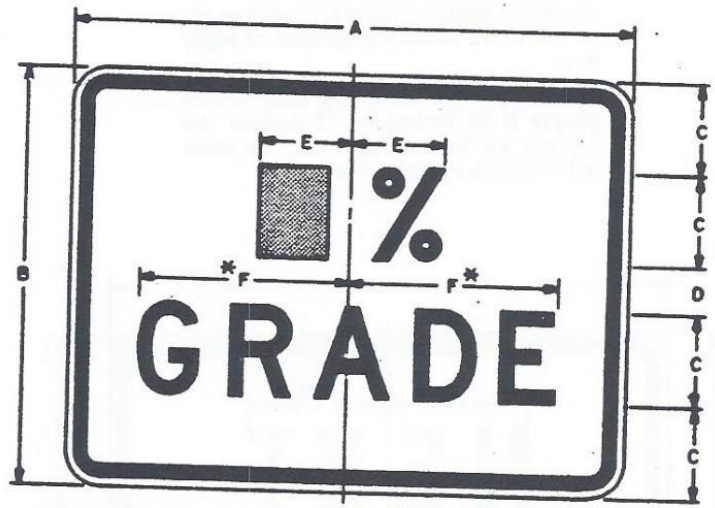
COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS			MAR-GIN	BOR-DER	BLANK STD
	A	B	C			
30x30	30	11	7 1/2	1/2	1/2	83-30
48x48	48	17 1/2	12	1/2	1 1/2	83-48

§ 211.534. Grade Plaque, W7-3.

(a) *Justification.* The Grade Plaque, may be used beneath the Hill Sign, W7-1, in accordance with § 211.531 (relating to Hill Sign W7-1).

(b) *Size.* The standard size W7-3 plaque is 24 inches by 18 inches; the 30-inch by 24-inch size may be used with the 48-inch by 48-inch Hill Sign, W7-1.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 18	24	18	4	2	VAR.	9
30 x 24	30	24	5	4	VAR.	11 1/2

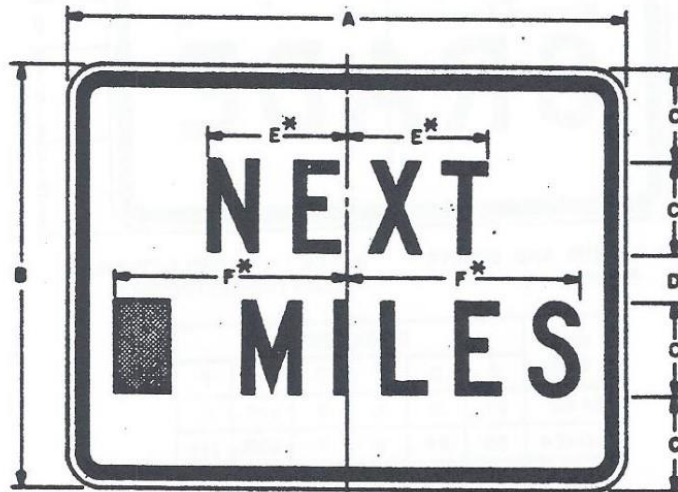
* Increase spacing 22%

SIGN SIZE	SERIES		MARGIN	BORDER	BLANK STD
	LINE	LINE			
24 x 18	D	D	1/8"	1/8"	B5-2418
30 x 24	D	D	1/8"	1/8"	B5-3024

§ 211.535. Next () Mile Plaque, W7-3a.

(a) *Justification.* The Next () Mile Plaque, W7-3a, may be used beneath the Hill Sign, W7-1, in accordance with § 211.531 (relating to Hill Sign, W7-1) or beneath any standard warning sign to indicate that the condition cited by the warning sign exists over an extended section of highway.

(b) *Size.* The standard size W7-3a plaque is 24 inches by 18 inches; the 30-inch by 24-inch size may be used with 48-inch by 48-inch signs.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

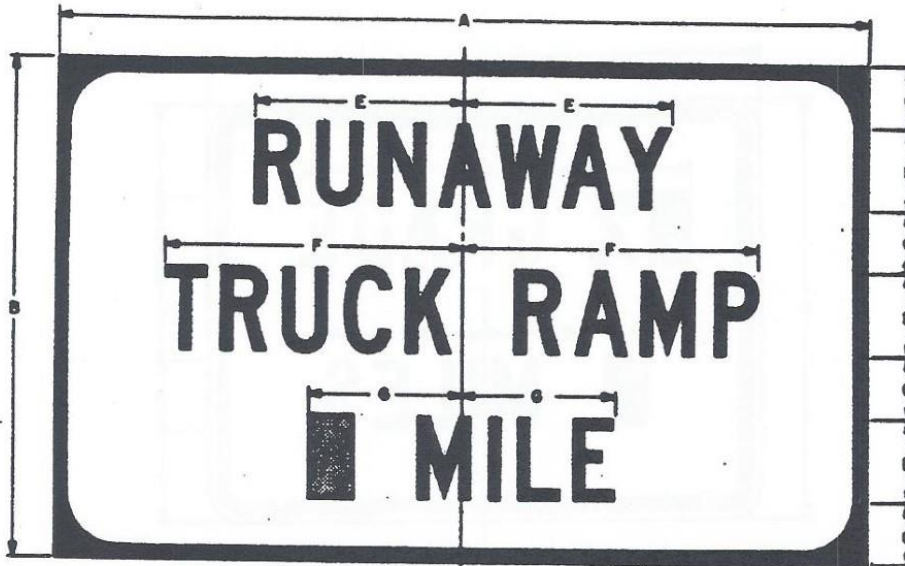
SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24x18	24	18	4	2	6	10
30x24	30	24	5	4	7½	12½

* Increase spacing 75%

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	C	C			
24x18	C	C	½	½	B5-2418
30x24	C	C	½	½	B5-3024

§ 211.537. Advance Runaway Truck Ramp Sign, W7-4.

The Advance Runaway Truck Ramp Sign, W7-4, may be used in advance of a runaway truck ramp. This sign should normally be installed at locations approximately 1 mile and ½ mile in advance of the gore. The Runaway Truck Ramp Exit Sign, W7-4a, shall be used in conjunction with the W7-4 sign.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

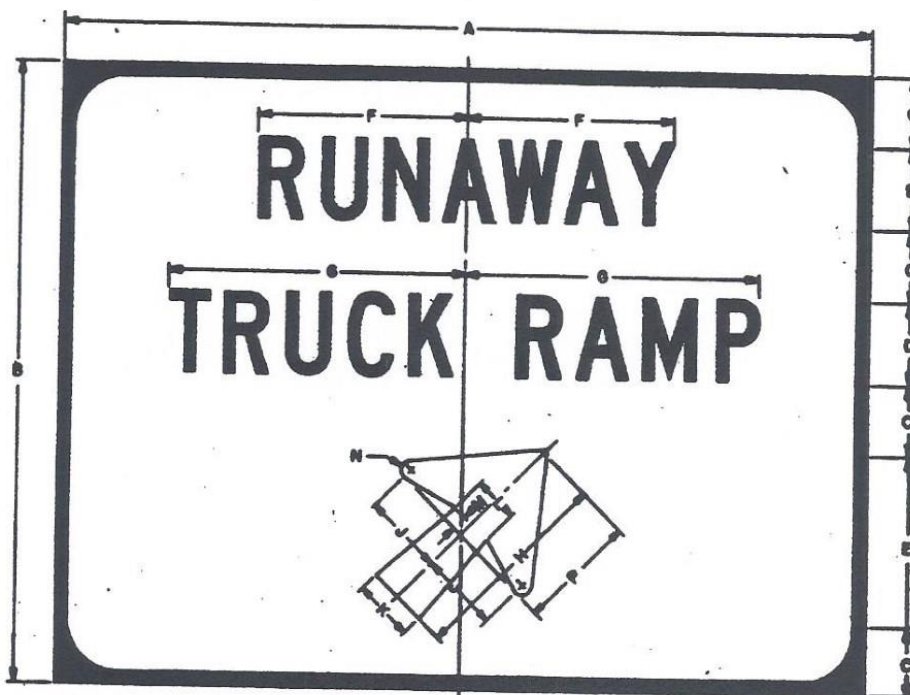
SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
78x48	78	48	6	8	20	28	VAR
144x72	144	72	6	12	44	56	VAR

SIGN SIZE	SERIES			BOR- DER	BLANK STD.
	C	C	C		
78x48	C	C	C	1 1/2	85-7848
144x72	E	E	E	1 1/2	

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§ 211.538. Runaway Truck Ramp Exit Sign, W7-4a.

The Runaway Truck Ramp Exit Sign, W7-4a, may be used within the gore of a runaway truck ramp. When the ramp exits from the left side of the highway, the arrow should be rotated 90 degrees to the left.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
78x60	78	60	8 1/2	8	16 1/2	20 1/2	28 1/2	20 1/2	7 1/2	6
144x78	144	78	8 1/2	12	20 1/2	44 1/2	58 1/2	25	9 1/2	6 1/2

SIGN SIZE	DIMENSIONS				SERIES		BORDER	BLANK STD
	L	M	N	P	LINE	TYPE		
78x60	4 1/2	1 1/2	1 1/2	11 1/2	C	C	1 1/2	85-7860
144x78	5	1 1/2	1	14 1/2	E	E	1 1/2	

RULES AND REGULATIONS

§ 23.444. - § 23.450. Reserved.

Roadway Surface Condition Group (W8 Series)

§ 23.451 Bump Sign (W8-1).

(a) *Justification.* The Bump Sign (W8-1) shall be authorized for use to give warning of a sharp rise in the profile

of the road that is sufficiently abrupt to create a hazardous condition, to cause considerable discomfort to passengers, to cause a shifting of the cargo, or to deflect a vehicle from its true course.

The sign shall be removed when the condition has been corrected.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

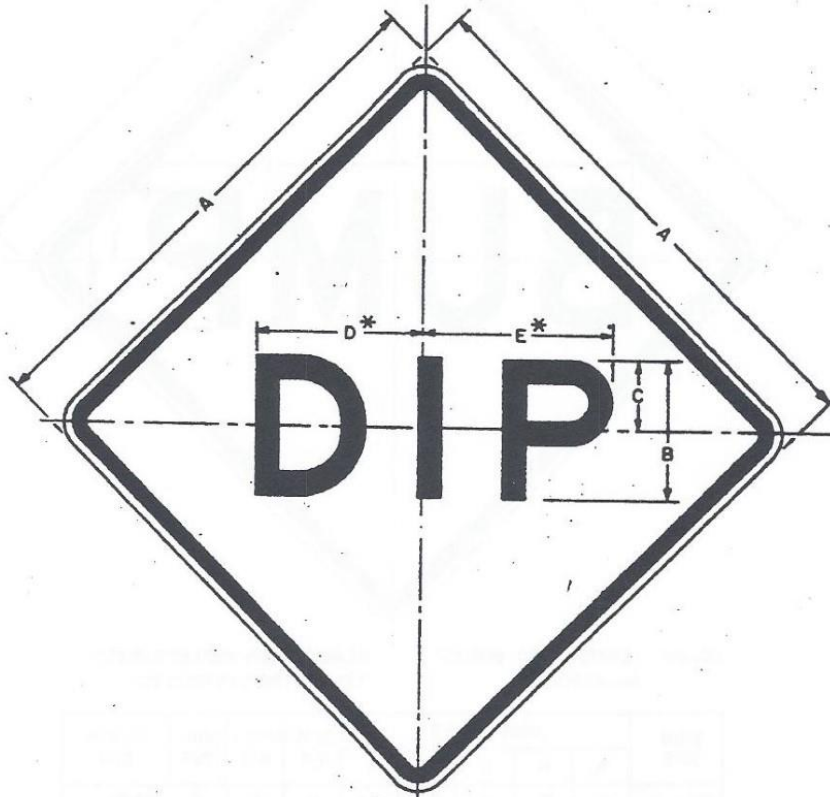
SIGN SIZE	DIMENSIONS					SERIES	MARGIN	BORDER	BLANK STD
	A	B	C	D	E				
30 x 30	30	8	4	13 ⁵ / ₈	14 ⁷ / ₈	D	1/2	3/4	83-30

RULES AND REGULATIONS

§ 23.452. Dip Sign (W8-2).

(a) *Justification.* The Dip Sign (W8-2) shall be authorized for use to give warning of a depression in the profile of the road that is sufficiently abrupt to create a hazardous condition, to cause considerable discomfort to passengers, to cause a shifting of the cargo, or to deflect a vehicle from its true course.

This sign shall be removed when the condition has been corrected.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES	MARGIN	BORDER	BLANK STD
	A	B	C	D	E				
30 x 30	30	8	4	9 1/2	10 7/8	E	1/2	3/4	B3-30

* Increase spacing 50%

RULES AND REGULATIONS

§ 23.453. Pavement Ends Sign (W8-3).

(a) *Justification.* The Pavement Ends Sign (W8-3) shall be authorized for use where a pavement surface changes from a hard surfaced pavement to a lower type surface or an earth road.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	5	3	$\frac{3}{4}$	$13\frac{15}{16}$	$6\frac{5}{8}$	$6\frac{7}{8}$

SIGN SIZE	SERIES LINE		MAR-GIN	BOR-DER	BLANK STD
	1	2			
30 x 30	C	C	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

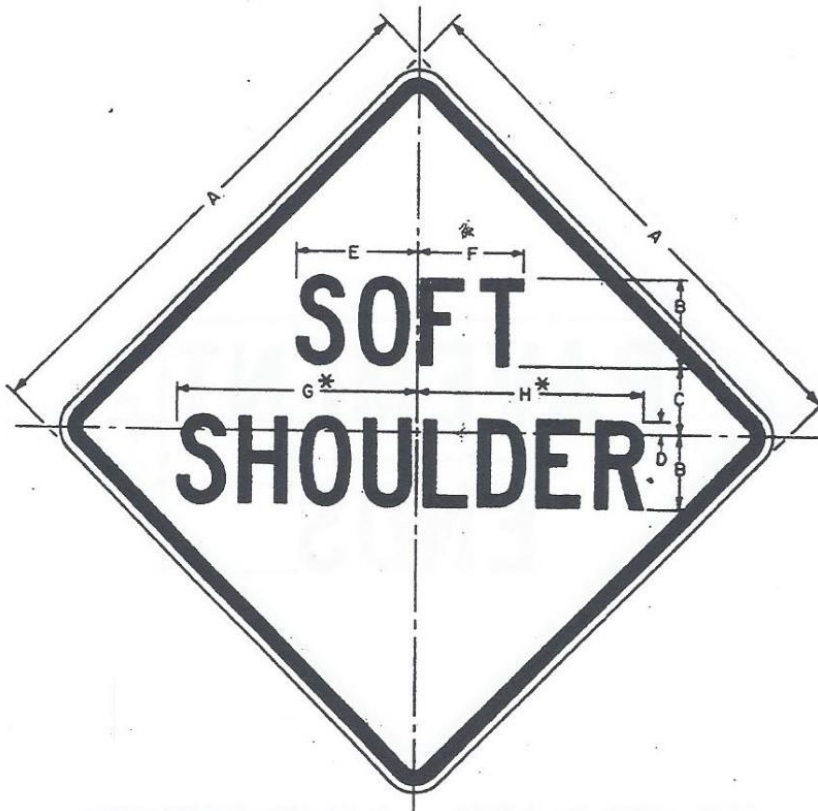
RULES AND REGULATIONS

§ 23.454. Soft Shoulder Sign (W8-4).

(a) *Justification.* The Soft Shoulder Sign (W8-4) shall be authorized for use where a soft shoulder presents a hazard to vehicles that may get off the pavement. This sign may be warranted on new shoulders or on roadways where

shoulders are soft due to weather conditions. The sign shall be removed when the hazard no longer exists.

(b) *Placement.* One W8-4 sign should be placed at or near the beginning of the soft shoulder condition, and other signs should be placed at intervals throughout the length of the road where the condition exists.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	5	3	$\frac{3}{4}$	7	$6\frac{1}{8}$	$13\frac{11}{16}$	$13\frac{1}{16}$

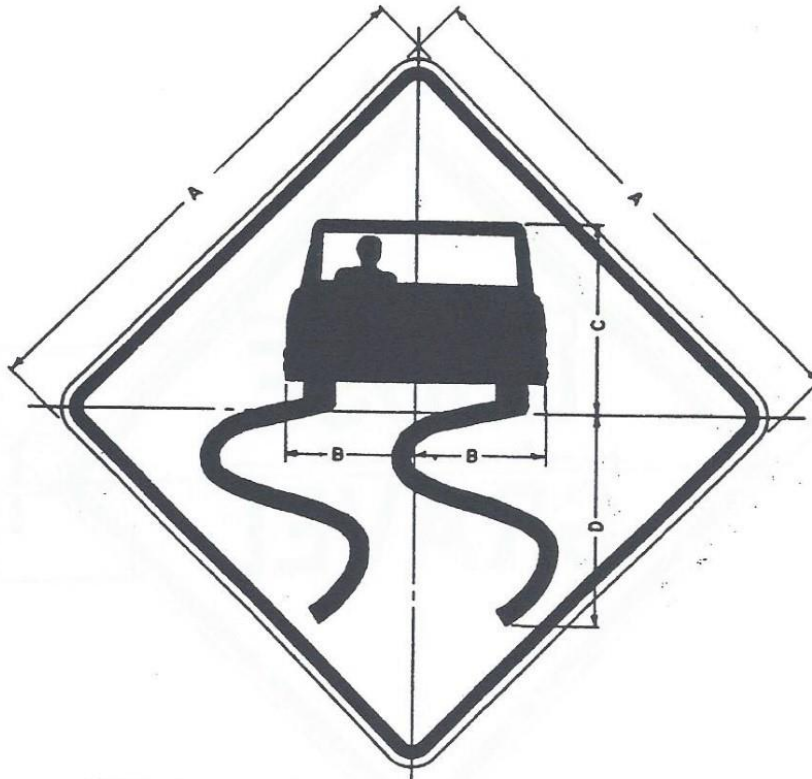
* Reduce spacing 25%

SIGN SIZE	SERIES LINE		MAR-GIN	BOR-DER	BLANK STD
	1	2			
30 x 30	C	C	$\frac{1}{4}$	$\frac{3}{4}$	B3-30

S 211.545. Slippery When Wet Sign, W8-5.

(a) Justification. The Slippery When Wet Sign, W8-5, shall be authorized for use to warn of a condition when the roadway surface is extraordinarily slippery when wet.

(b) Placement. The W8-5 sign should be placed in advance of the slippery section and at intervals on long sections of such highway. Upon correction of the slippery condition, the sign shall be removed.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

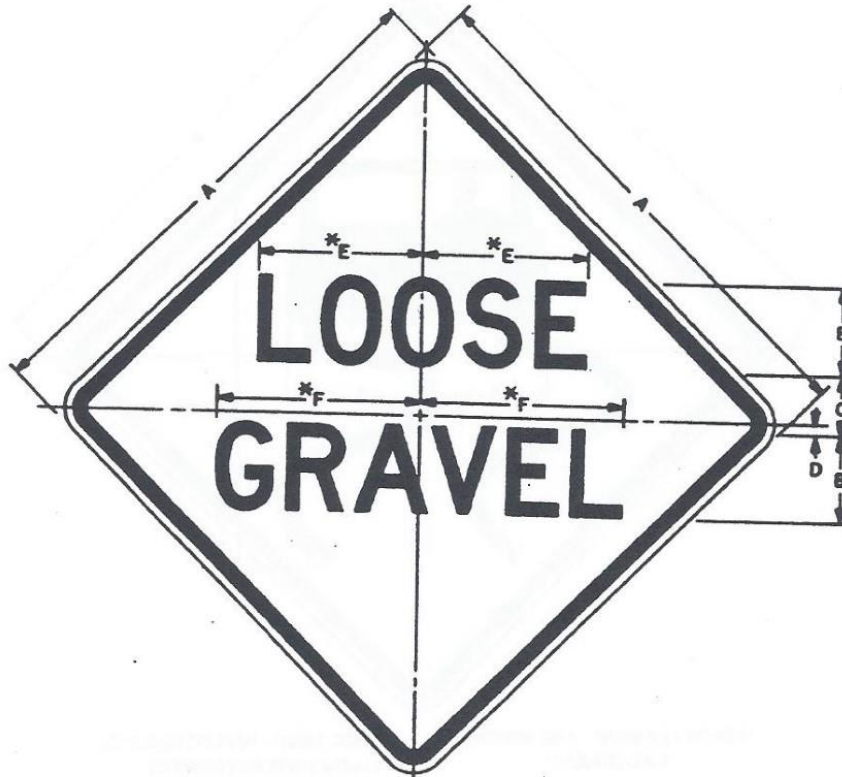
SIGN SIZE	DIMENSIONS				MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D			
30x30	30	8	11	12½	½	¾	B3-30
36x36	36	9½	13	14½	¾	7/8	B3-36
48x48	48	12½	17½	19½	¾	1½	B3-48

S 211.546. (Reserved).

§ 211.546a. Loose Gravel Sign, W8-7.

(a) *Justification.* The Loose Gravel Sign, W8-7, may be used to warn of loose gravel on the roadway.

(b) *Placement.* When used, the W8-7 sign should be installed at the beginning of the applicable section of roadway and after every major intersection.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
30x30	30	5	3 7/8	5 1/8	9 7/8	11 1/8

* Reduce spacing 40%

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
30x30	D	D	1/2	3/4	B3-30

RULES AND REGULATIONS

§ 23.457. Rough Road Sign (W8-10).

(a) *Justification.* The Rough Road Sign (W8-10) shall be authorized for use when weather or other conditions have caused a breakup of the road surface. It shall be removed as soon as the surface has been restored.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	5	$\frac{7}{8}$	$\frac{3}{8}$	$\frac{10\frac{11}{16}}$	$\frac{8\frac{3}{8}}$	$\frac{7}{8}$

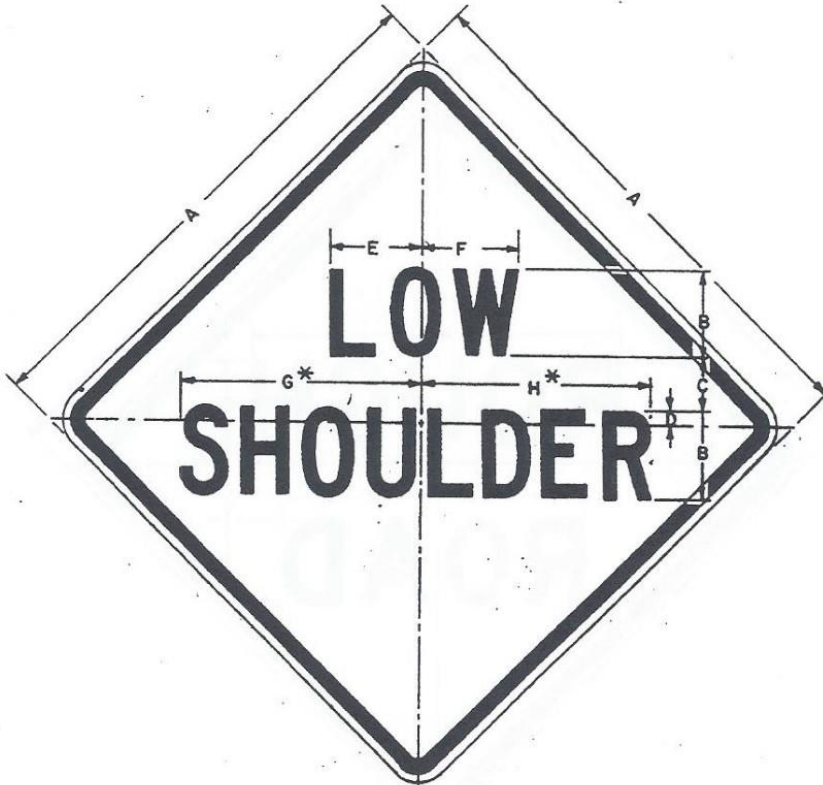
SIGN SIZE	SERIES		MARGIN	BORDER	BLANK STD
	1	2			
30 x 30	D	D	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

RULES AND REGULATIONS

§23.458. Low Shoulder Sign (W8-11).

(a) *Justification.* The Low Shoulder Sign (W8-11) shall be authorized for use to denote sections of shoulder which are depressed from the pavement surface and present a hazard to vehicles that may get off the pavement. The sign should be removed when the condition no longer exists.

(b) *Placement.* One W8-11 sign should be placed at or near the beginning of the low shoulder condition, and other signs should be placed at intervals throughout the length of the highway where the condition exists.



COLOR · LEGEND AND BORDER BACKGROUND BLACK (NON - REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30x30	30	5	3	$\frac{3}{4}$	$5\frac{3}{16}$	$5\frac{3}{8}$	$13\frac{1}{16}$	$13\frac{1}{16}$

Reduce spacing 25%

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
30x30	C	C	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

§ 211.549. Bridge May Be Icy Sign, W8-12-1.

The Bridge May Be Icy Sign, W8-12-1, may be used at those bridges where icing is prevalent by actual experience. The W8-12-1 sign should not normally be used in advance of a bridge less than 100 feet in length unless the bridge is over 40 feet in length and is on a curve or traffic is frequently required to reduce their speed while on the bridge. The W8-12-1 sign may be folded during the summer months.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36x36	36	5	3	$\frac{1}{2}$	11 $\frac{7}{8}$	12 $\frac{1}{8}$	5 $\frac{3}{4}$
48x48	48	6	4	2	12 $\frac{1}{2}$	15 $\frac{1}{8}$	6 $\frac{1}{4}$

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
36x36	D	D	D	$\frac{3}{8}$	$\frac{7}{8}$	B3-36
48x48	D	D	D	$\frac{3}{4}$	1 $\frac{1}{2}$	B3-48

§211.550. Falling Rock Sign, W8-13.

The Falling Rock Sign, W8-13, shall be authorized for use to denote those areas where rocks repeatedly fall on the roadway.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
* 30 x 30	30	11 $\frac{1}{2}$	12 $\frac{1}{2}$	8	8 $\frac{1}{2}$	5	2 $\frac{1}{2}$	$\frac{3}{8}$
** 48 x 48	48	18 $\frac{3}{8}$	20	12 $\frac{17}{16}$	13 $\frac{5}{8}$	8	4	$\frac{5}{8}$

* Reduce spacing 45% ** Reduce spacing 33%

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
30 x 30	D	D	$\frac{1}{2}$	$\frac{3}{4}$	83-30
48 x 48	D	D	$\frac{3}{4}$	1 $\frac{1}{4}$	83-48

RULES AND REGULATIONS

§ 23.461. Grooved Pavement Ahead Sign (W8-14).

(a) *Justification.* The Grooved Pavement Ahead Sign (W8-14) shall be authorized for use where the pavement has been grooved to lessen slippery roadway conditions.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

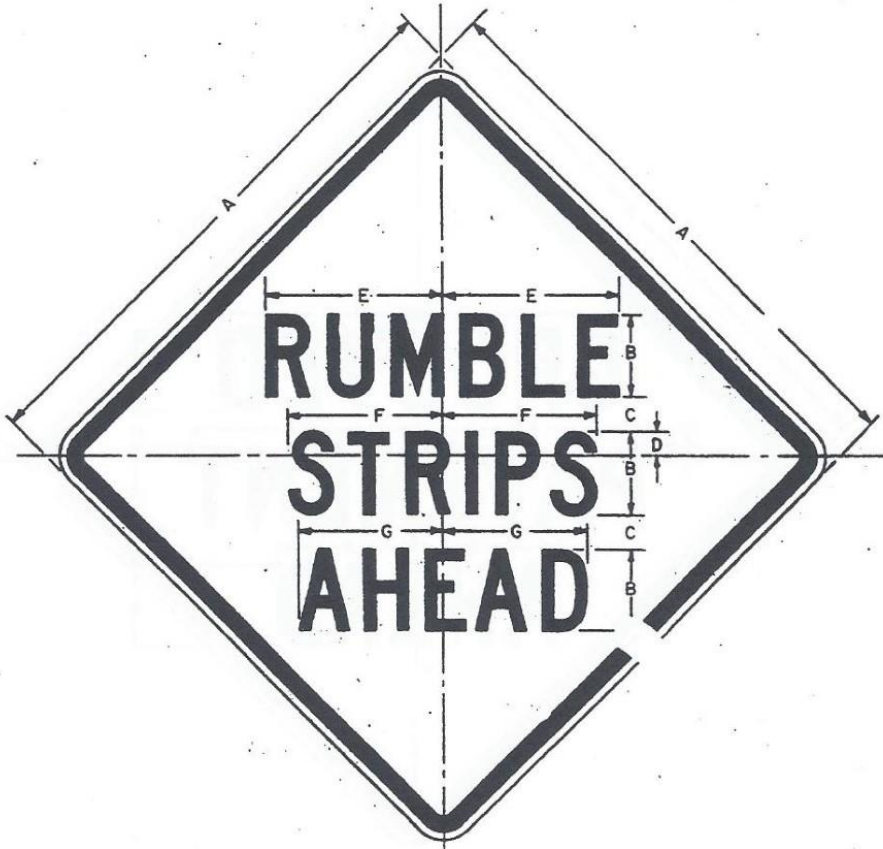
SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36 x 36	36	5	2½	2	12½	14	8½
48 x 48	48	7	3	1	17½	19½	11½

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	LINES					
	1	2	3			
36 x 36	C	C	C	5/8	7/8	B3-36
48 x 48	C	C	C	3/4	1¼	B3-48

RULES AND REGULATIONS

§ 23.462. Rumble Strips Ahead Sign (W8-15).

(a) *Justification.* The Rumble Strips Ahead Sign (W8-15) shall be authorized for use in advance of transverse rumble strips.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36 x 36	36	5	2½	2	10¾	9¾	8⅝
48 x 48	48	7	3	2	15⅛	13⅛	11⅞

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
36 x 36	C	C	C	⅝	⅞	B3-36
48 x 48	C	C	C	¾	1¼	B3-48

§ 211.553. Open Grate Bridge Sign, W8-16.

The Open Grate Bridge Sign, W8-16, may be used in advance of open grate bridges to warn pedestrians and cyclists to be cautious.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

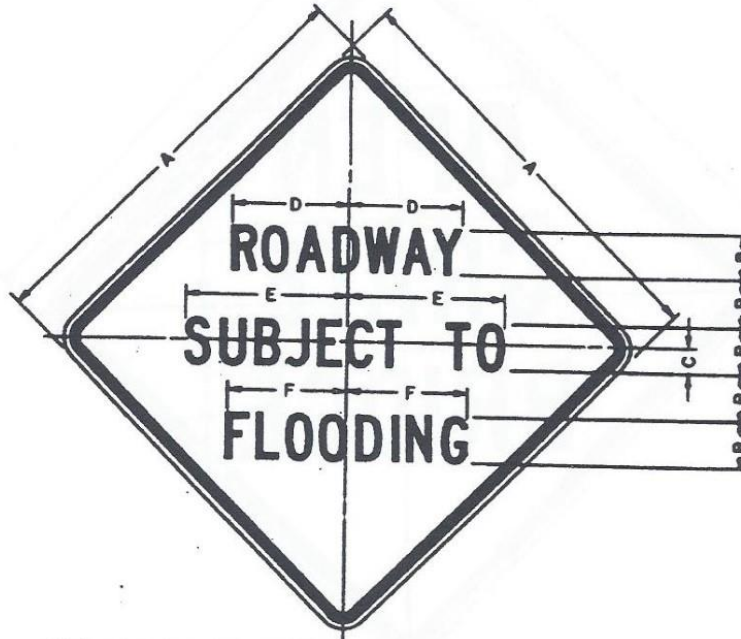
SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
30 x 30	30	5	2½	1½	7	6¾	8½	8½	9¾

SIGN SIZE	DIMENSIONS			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30 x 30	C	C	C	½	¾	83-30

§ 211.554. Roadway Subject to Flooding Sign, W8-18.

(a) *Justification.* The Roadway Subject to Flooding Sign, W8-18, will be authorized to warn drivers that the roadway may periodically be flooded and become nonpassable. The W8-18 sign should not be used as a substitute for closing the roadway when the proper authorities are aware that the roadway is flooded or may flood at any time.

(b) *Placement.* The W8-18 sign should be placed in advance of the area to which it applies. It may also be placed at the last intersection prior to the area with either the () Feet Sign, W12-2-1, or the () Mile(s) Sign, W12-2-2, placed beneath the W8-18 sign.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
36 X 36	36	4	2	10 ³ / ₈	14	10 ³ / ₁₆

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD.
	1	2	3			
36 X 36	C	C	C	⁵ / ₈	⁷ / ₈	B3-36(D)

S 211.555. Watch For Ice Sign, W8-19.

(a) Justification. The Watch For Ice sign, W8-19, will be authorized for temporary use until the condition is corrected where ice occasionally forms on the roadway during the winter months due to surface or subsurface drainage or condensation problems.

(b) Placement. The W8-19 sign shall be placed in advance of the occasionally icy condition. This sign shall be removed, covered, or folded during the summer months.



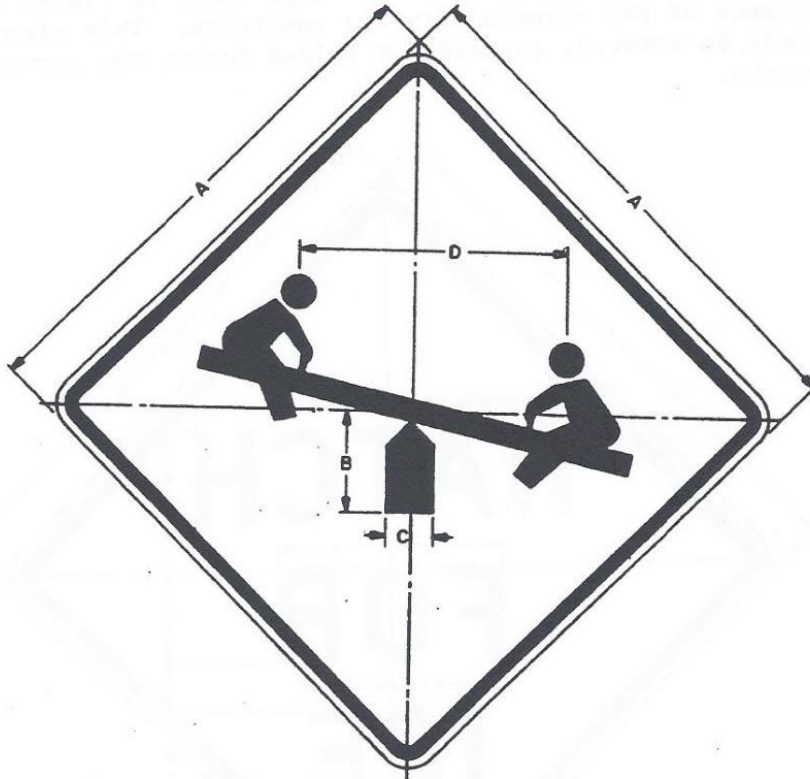
COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES LINES			MARGIN	BORDER	BLANK STD
	A	B	C	D	E	F	1	2	3			
36x36	36	6	3	12 1/2	7 1/2	5 3/8	D	D	D	3/8	7/8	B3-36
48x48	48	8	4 1/2	16 11/16	9 5/8	7 7/16	D	D	D	3/4	1 1/4	B3-48

CHILDREN GROUP, W9 SERIES

S 211.561. Playground Sign, W9-1.

The Playground Sign, W9-1, shall be authorized for use to mark playgrounds which are located adjacent to highways.



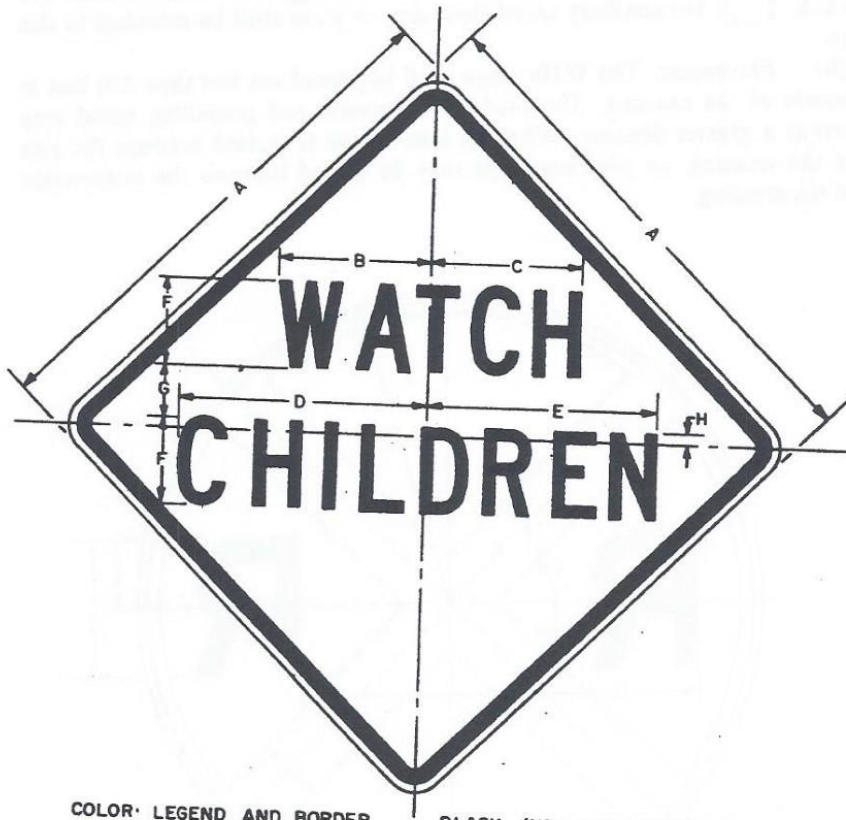
COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D			
30x30	30	5 $\frac{3}{4}$	2 $\frac{1}{2}$	15 $\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

§211.562. Watch Children Sign, W9-2.

The Watch Children Sign, W9-2, shall be authorized for use along roads where there are no sidewalks and where a number of children normally play or walk beside the highway.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	$8\frac{11}{16}$	$8\frac{3}{8}$	$12\frac{3}{4}$	$13\frac{5}{16}$	5	3	$\frac{5}{8}$

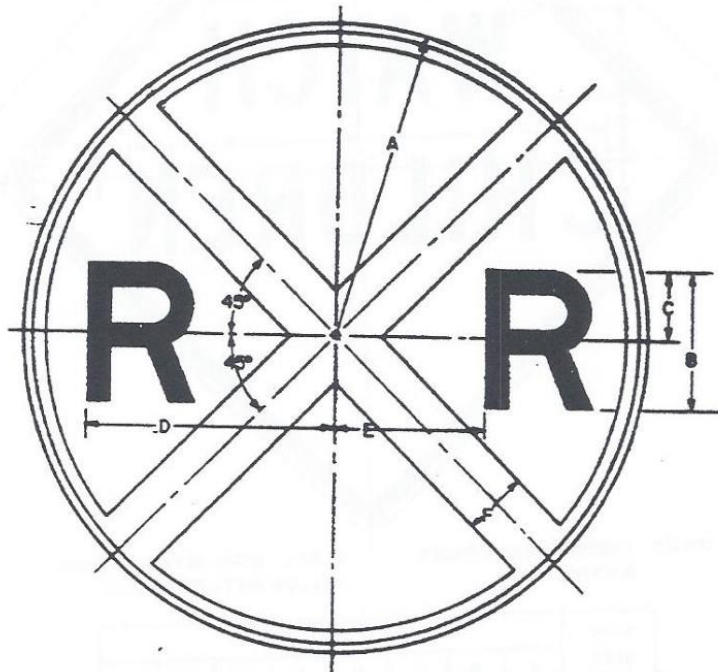
SIGN SIZE	SERIES LINES		MAR- GIN	BOR- DER	BLANK STD
	C	C			
30 x 30	C	C	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

RAILROAD CROSSING GROUP, W10 SERIES

§211.571. Railroad Warning Sign, W10-1.

(a) *Justification.* The Railroad Warning Sign, W10-1, shall be authorized for use in advance of railroad crossings. This sign gives notice of the 20 miles per hour speed limit established by section ___ of the Vehicle Code (75 Pa.C.S. § ___). No auxiliary speed limit sign or plate shall be attached to this sign.

(b) *Placement.* The W10-1 sign shall be placed not less than 200 feet in advance of the crossing. The roadway alignment and prevailing speed may warrant a greater distance. When an intersection is located between the sign and the crossing, an additional sign may be placed between the intersection and the crossing.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SER- IES	MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E	F				
36 DIA.	18	8	4	14 ¹ / ₈	8 ¹ / ₈	4	E	¹ / ₂	³ / ₄	B4-36

SS 211.572. - 211.580. (Reserved)

ENTRANCES AND CROSSINGS
GROUP, W11 SERIES

S 211.581. Bicycle Crossing Sign, W11-1.

The Bicycle Crossing Sign, W11-1, shall be authorized for use in advance of a point where an officially designated bicycle trail crosses a roadway.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D			
30x30	30	8½	1	5½	½	¾	B3-30

S 211.582. (Reserved).

§ 211.583. Pedestrian Crossing Sign, W11-2.

The Pedestrian Crossing Sign, W11-2, may be used to warn of recurring unexpected crossing of pedestrians. Crosswalk lines shall be painted on the pavement to indicate the crosswalk.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F	G			
30x30	30	$\frac{3}{4}$	14	8	$1\frac{1}{2}$	4	6	$\frac{1}{8}$	$\frac{3}{8}$	B3-30
36x36	36	$\frac{7}{8}$	$16\frac{1}{2}$	$9\frac{1}{8}$	$1\frac{3}{8}$	$4\frac{1}{4}$	$7\frac{1}{4}$	$\frac{1}{8}$	$\frac{7}{8}$	B3-36

S 211.584. (Reserved).

S 211.585. Deer Crossing Sign, W11-3.

The Deer Crossing Sign, W11-3, will be authorized to warn of the unexpected hazard of deer crossing the roadway. The area frequently crossed by deer will be designated by the Game Commission.



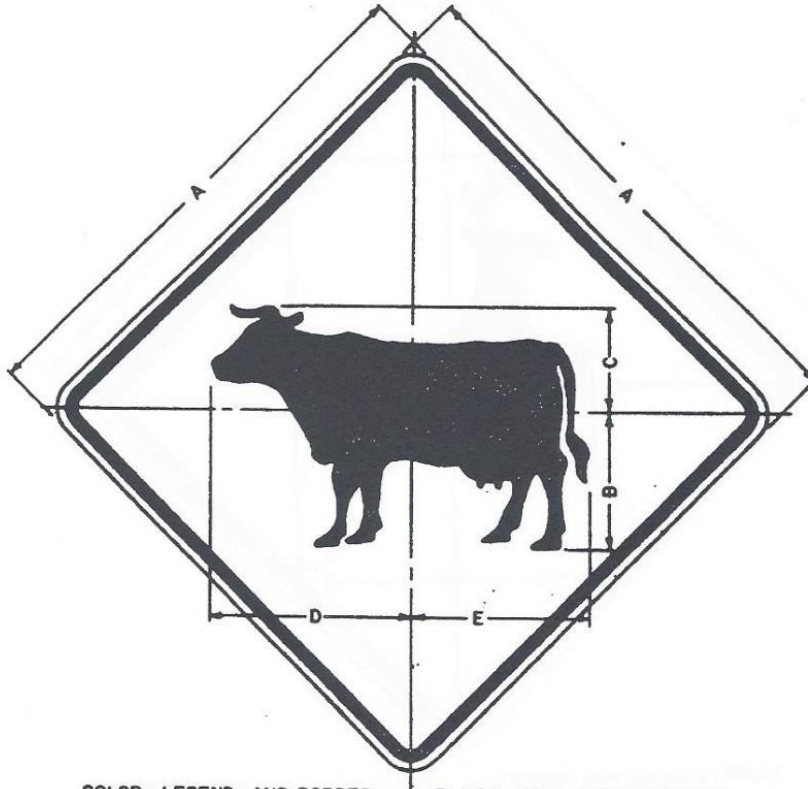
COLOR · LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					MARGIN	BORDER	BLANK STD
	A	B	C	D	E			
30x30	30	13 $\frac{1}{2}$	10	8 $\frac{1}{2}$	7 $\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	B3-30
48x48	48	21 $\frac{1}{2}$	15 $\frac{3}{4}$	13	11 $\frac{3}{4}$	$\frac{3}{4}$	1 $\frac{1}{2}$	B3-48

S 211.586. (Reserved).

S 211.587. Cattle Crossing Sign, W11-4.

The Cattle Crossing Sign, W11-4, will be authorized to warn of locations where cattle regularly cross the roadway. Its use should be kept to a minimum, indicating only those crossings which are definitely hazardous by reason of poor sight distance.



COLOR: LEGEND AND BORDER
BACKGROUND

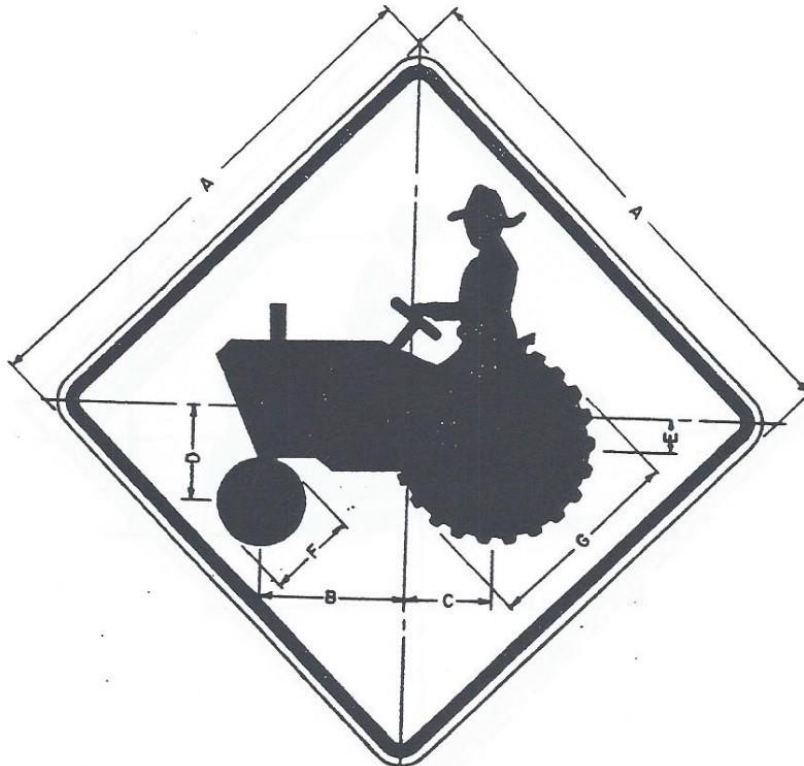
BLACK (NON-REFLECTORIZED)
YELLOW (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS					MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E			
30x30	30	6	8	11 $\frac{3}{4}$	10 $\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	83-30

S 211.588. (Reserved).

S 211.589. Farm Machinery Sign, W11-5.

The Farm Machinery Sign, W11-5, will be authorized to warn of the unexpected hazard of farm machinery regularly crossing or using the roadway.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (NON-REFLECTORIZED)

SIGN SIZE	DIMENSIONS							MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F	G			
30x30	30	8 $\frac{3}{4}$	4 $\frac{3}{4}$	5 $\frac{1}{2}$	12 $\frac{3}{4}$	5	12	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

S 211.590. (Reserved).

S 211.591. Snowmobile Crossing Sign, W11-6.

The Snowmobile Crossing Sign, W11-6, will be authorized for use when an official snowmobile crossing intersects a street or highway.



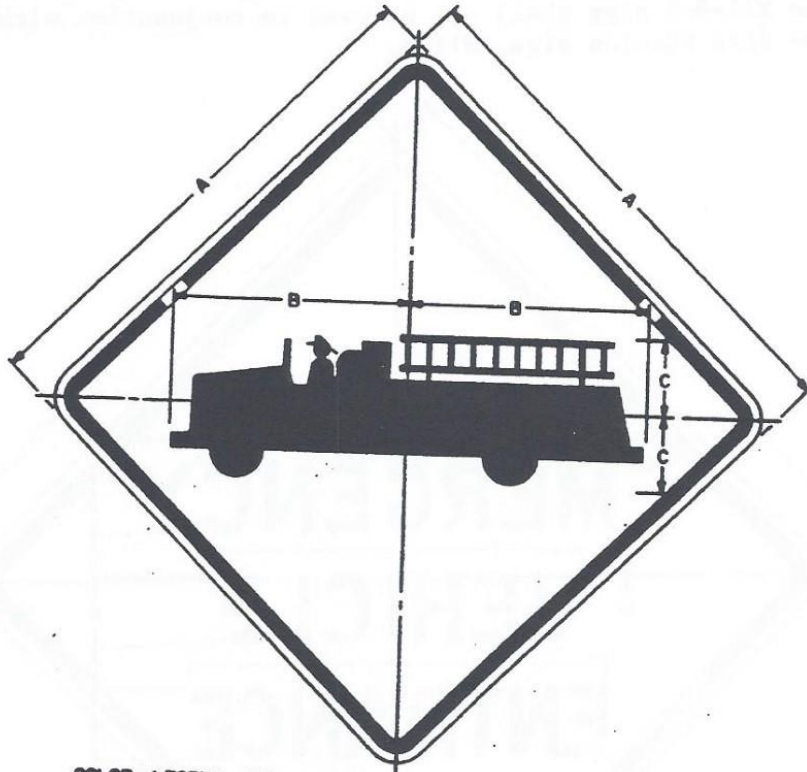
COLOR - LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D			
30x30	30	11 $\frac{1}{8}$	6 $\frac{3}{8}$	12 $\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	83-30

S 211.592. (Reserved).

S 211.592a. Fire Station Sign, W11-8.

The Fire Station Sign, W11-8, will be authorized for use to indicate the presence of a fire station which is adjacent to the highway or located on an intersecting street and the fire apparatus frequently enter or cross the highway. Its use shall be limited to locations where traffic conditions such as approach speed, visibility, and possible conflicts are such that special warning is desirable.

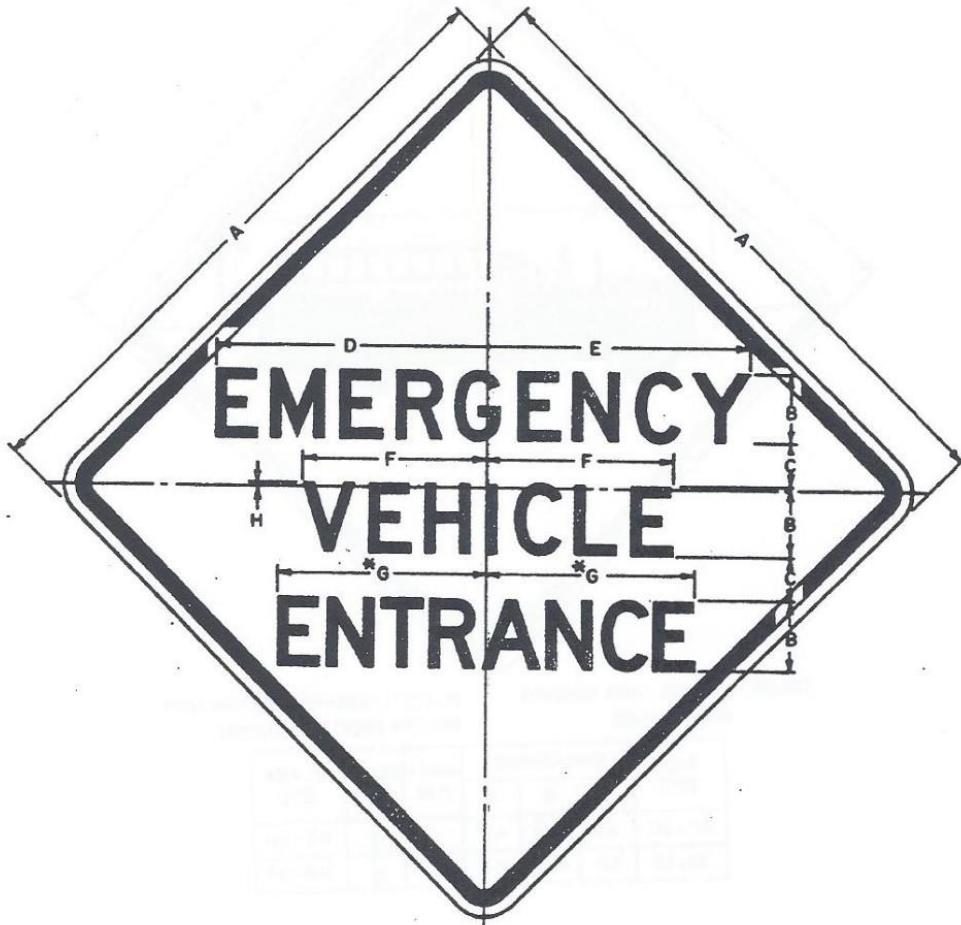


COLOR - LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS			MAR-GIN	BOR-DER	BLANK STD
	A	B	C			
30x30	30	13 $\frac{3}{4}$	4 $\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	B3-30
36x36	36	16 $\frac{1}{2}$	5 $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{8}$	B3-36

S 211.592b. Emergency Vehicle Entrance Sign, W11-8-2.

The Emergency Vehicle Entrance Sign, W11-8-2, will be authorized for use to indicate the presence of one or more facilities for emergency vehicles -- such as fire, police, or ambulance vehicles -- which are located adjacent to the highway or on an intersecting street where emergency vehicles frequently enter or cross the highway. Its use shall be limited to locations where traffic conditions such as approach speed, visibility, and possible conflicts are such that special warning is desirable. The W11-8-2 sign shall not be used in conjunction with the Fire Station sign, W11-8.



COLOR - LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
36 x 36	36	4	2½	15½	15½	10½	12½	½

* Reduce spacing 50 %

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	D	D	D			
36 x 36	D	D	D	¼	⅜	B3-36

S 211.592c. Handicapped Crossing Symbol Sign, W11-9.

(a) Justification. The Handicapped Crossing Sign, W11-9, will be authorized for use at locations where blind persons, persons in wheelchairs, or other handicapped persons cross or move on the street.

(b) Placement. If used on an intersection approach on which an intersection sign is also used, the W11-9 sign should be installed to follow the intersection sign. A W11-9 sign and a Pedestrian Crossing Sign, W11-2, shall not be used at the same crossing.



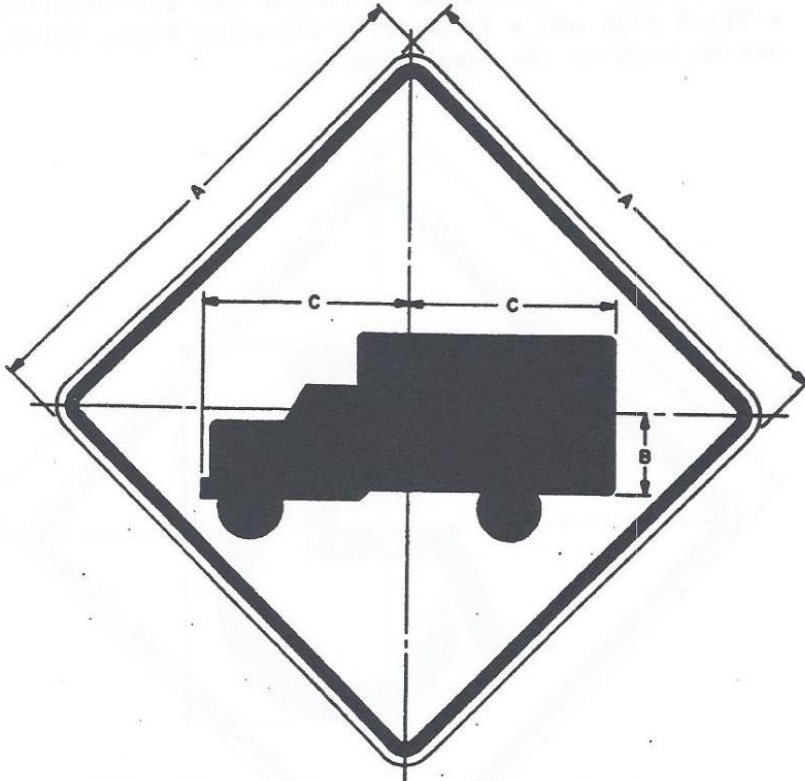
COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS		MAR- GIN	BOR- DER	BLANK STD
	A	B			
30x30	30	11½	½	¾	B3-30
36x36	36	13½	¾	7/8	B3-36

S 211.593. Trucking Crossing Sign, W11-10.

The Truck Crossing Sign, W11-10, shall be authorized for use to warn motorists of hazardous crossings caused by heavy truck traffic in connection with mining, construction, or similar operations. This sign shall be removed when the operation is terminated.



COLOR: LEGEND AND BORDER
BACKGROUND

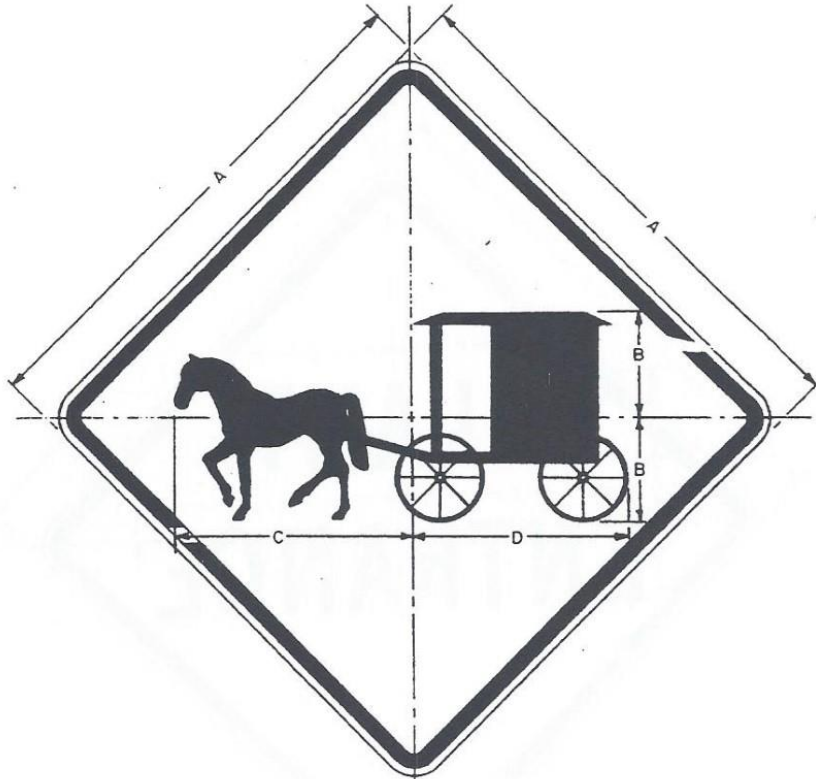
BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS			MAR- GIN	BOR- DER	BLANK STD
	A	B	C			
30x30	30	4½	12	½	¾	83-30
48x48	48	7	19	¾	1½	83-48

RULES AND REGULATIONS

§ 23.504. Horsedrawn Vehicle Sign (W11-11).

(a) *Justification.* The Horsedrawn Vehicle Sign (W11-11) shall be authorized for use to warn of the unexpected hazard of horsedrawn vehicles regularly crossing or using the roadway.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW(REFLECTORIZED)

SIGN SIZE	DIMENSIONS				MAR- GIN	BOR- DER	BLANK STD.
	A	B	C	D			
30 x 30	30	6	13 $\frac{3}{4}$	12 $\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

RULES AND REGULATIONS

§ 23.505. Plant Entrance Sign (W11-12).

(a) *Justification.* The Plant Entrance Sign (W11-12) shall be authorized for use to denote a factory which is adjacent to the highway, but only outside of built-up industrial areas.

Its use shall be limited to locations where traffic conditions such as approach speeds, visibility and conflicts are such that a special warning is desirable.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
30 x 30	30	5	3	$8\frac{5}{16}$	$13\frac{13}{16}$	$\frac{1}{2}$

SIGN SIZE	SERIES LINES		MAR- GIN	BOR- DER	BLANK STD
	1	2			
30 x 30	C	C	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

RULES AND REGULATIONS

1107

§ 23.506. Park Entrance Sign (W11-13).

(a) *Justification.* The Park Entrance Sign (W11-13) shall be authorized for use to denote a driveway to a park which is adjacent to the highway.

Its use shall be limited to locations where traffic conditions such as approach speeds, visibility and conflicts are such that special warning is desirable.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
30 x 30	30	8½	8⅞	13⅓ 16	5	3

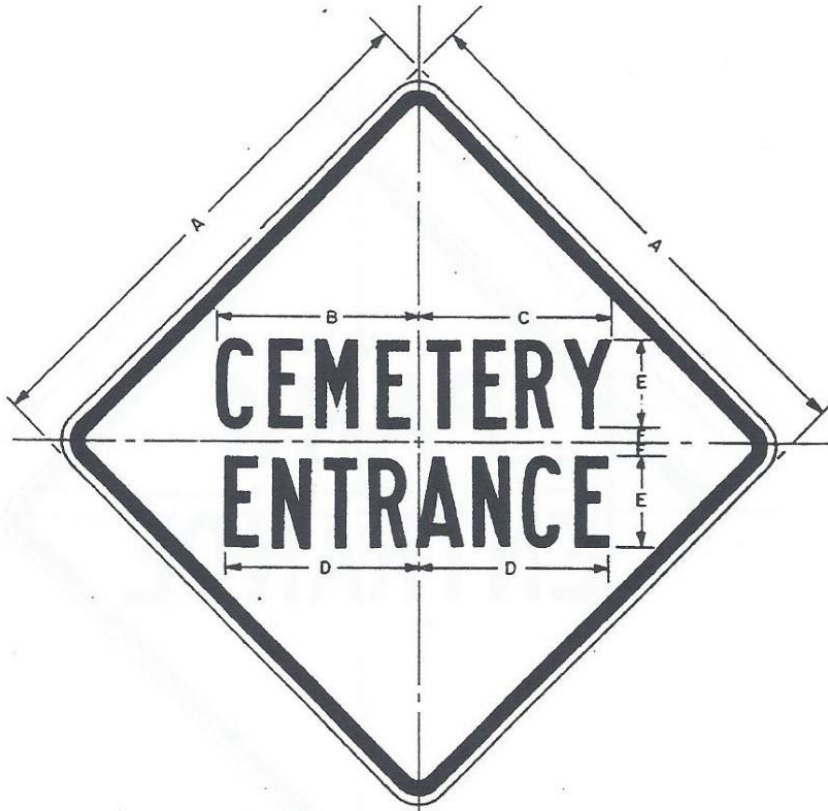
SIGN SIZE	SERIES LINES		MAR- GIN	BOR- DER	BLANK STD
	1	2			
30 x 30	D	C	½	¾	B3-30

RULES AND REGULATIONS

§ 23.507. Cemetery Entrance Sign (W11-14).

(a) *Justification.* The Cemetery Entrance Sign (W11-14) shall be authorized for use to warn motorists of entrances to cemeteries which are located adjacent to the highway.

Its use shall be limited to locations where traffic conditions such as approach speeds, visibility and conflicts are such that special warning is desirable.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
30 x 30	30	10 $\frac{3}{4}$	11 $\frac{1}{4}$	11 $\frac{1}{8}$	5	$\frac{3}{4}$

SIGN SIZE	SERIES LINES		MARGIN	BORDER	BLANK STD
	1	2			
30 x 30	B	B	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

RULES AND REGULATIONS

1109

§ 23.508. County Home Sign (W11-15).

(a) *Justification.* The County Home Sign (W11-15) shall be authorized for use at locations where the county home, or grounds are adjacent to the highway.

Its use shall be limited to locations where traffic conditions such as approach speeds, visibility and conflicts are such that special warning is desirable.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	12 $\frac{15}{16}$	12 $\frac{7}{16}$	8 $\frac{13}{16}$	5	2	$\frac{7}{8}$

SIGN SIZE	SERIES		MAR- GIN	BOR- DER	BLANK STC
	LINES				
	1	2			
30 x 30	D	D	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

RULES AND REGULATIONS

§ 23.509. Hospital Sign (W11-16).

(a) *Justification.* The Hospital Sign (W11-16) shall be authorized for use to indicate an access point to a hospital.

Its use shall be limited to locations where traffic conditions such as approach speeds, visibility and conflicts are such that special warning is desirable.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				
	A	B	C	D	E
30 x 30	30	16	15 ⁵ / ₁₆	5	2 ¹ / ₂

SIGN SIZE	SER- IES	MAR- GIN	BOR- DER	BLANK STD
30 x 30	D	¹ / ₂	³ / ₄	B3-30

S 211.600. Church Sign, W11-17.

The Church Sign, W11-17, shall be authorized for use to indicate an access point to a church. Its use shall be limited to locations where traffic conditions such as approach speeds, visibility, and conflicts are such that special warning is desirable.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				
	A	B	C	D	E
30 x 30	30	15 $\frac{1}{2}$	14 $\frac{7}{8}$	3	6

SIGN SIZE	SER- IES	MAR- GIN	BOR- DER	BLANK STD
30 x 30	D	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

S 211.601. (Reserved).

§211.602. Driveway Sign, W11-19.

The Driveway Sign, W11-19, shall be authorized for use to denote the presence of a driveway or alley at which the sight distance is severely restricted.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				
	A	B	C	D	E
30 x 30	30	5	13 ¹ / ₁₆	13 ² / ₁₆	2 ¹ / ₂

SIGN SIZE	SER- IES	MAR- GIN	BOR- DER	BLANK STD
30 x 30	C	¹ / ₂	³ / ₄	B3-30

§211.603. Bridle Path Sign, W11-20.

The Bridle Path Sign, W11-20, shall be authorized for use along roads where a number of horses normally walk beside or cross the roadway.



COLOR: LEGEND AND BORDER
BACKGROUND

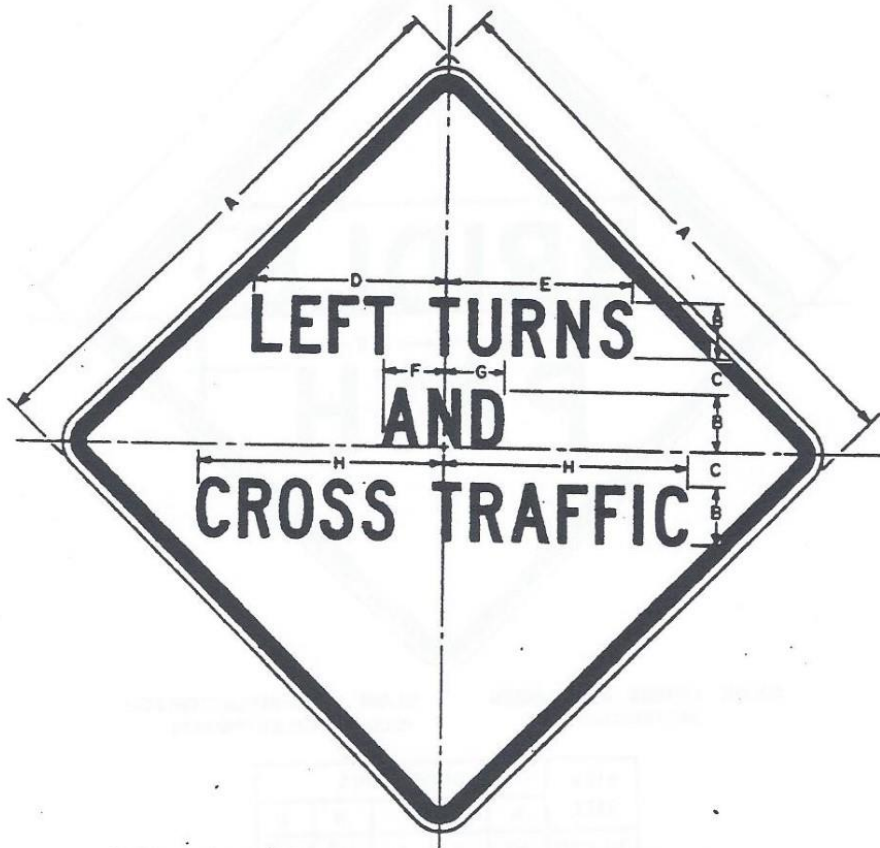
BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				
	A	B	C	D	E
30 x 30	30	5	3	$11\frac{5}{8}$	$8\frac{1}{8}$

SIGN SIZE	SERIES LINES		MAR- GIN	BOR- DER	BLANK STD
	1	2			
30 x 30	D	D	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

§211.604. Left Turns and Cross Traffic Sign, W11-21.

The Left Turns and Cross Traffic Sign, W11-21, shall be authorized for use in advance of or within areas on limited or noncontrolled multiple-lane roadways, which are contiguous to full controlled roadways. Generally these roadways will have — at grade intersections, nonsignalized with an appreciable number of left turning and cross traffic movements. The Advisory Mile Plate Sign, W14-1, should be mounted below this sign.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
48 x 48	48	5	3	16 ³ / ₁₆	16 ⁵ / ₁₆	5 ³ / ₈	5 ¹ / ₈	21 ¹ / ₄
60 x 60	60	6	4 ¹ / ₂	19 ⁷ / ₁₆	20 ³ / ₁₆	6 ³ / ₁₆	6 ³ / ₈	25 ¹ / ₂

SIGN SIZE	SERIES			MARGIN	BORDER	BLANK STD
	LINES					
	1	2	3			
48 x 48	C	C	C	³ / ₄	1 ¹ / ₄	B3-48
60 x 60	C	C	C	—	1 ³ / ₄	B3-60

§ 211.605. Deaf Child Area Sign, W11-22.

(a) *Justification.* The Deaf Child Area Sign, W11-22, may be used to warn drivers of the possible presence of a deaf child in the vicinity of the roadway adjacent to the deaf child's residence. The sign should normally be used only when the child is less than 16 years of age and the parents or legal guardians have requested the sign. The word BLIND may be substituted for DEAF if applicable. The word PERSON may also be substituted for CHILD if special circumstances exist.

(b) *Placement.* In urban districts, the W11-22 sign should be placed at the beginning of the applicable block or not more than 300 feet in advance of the child's residence. In rural districts, the W11-22 sign should be placed no more than 750 feet in advance of the child's residence.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

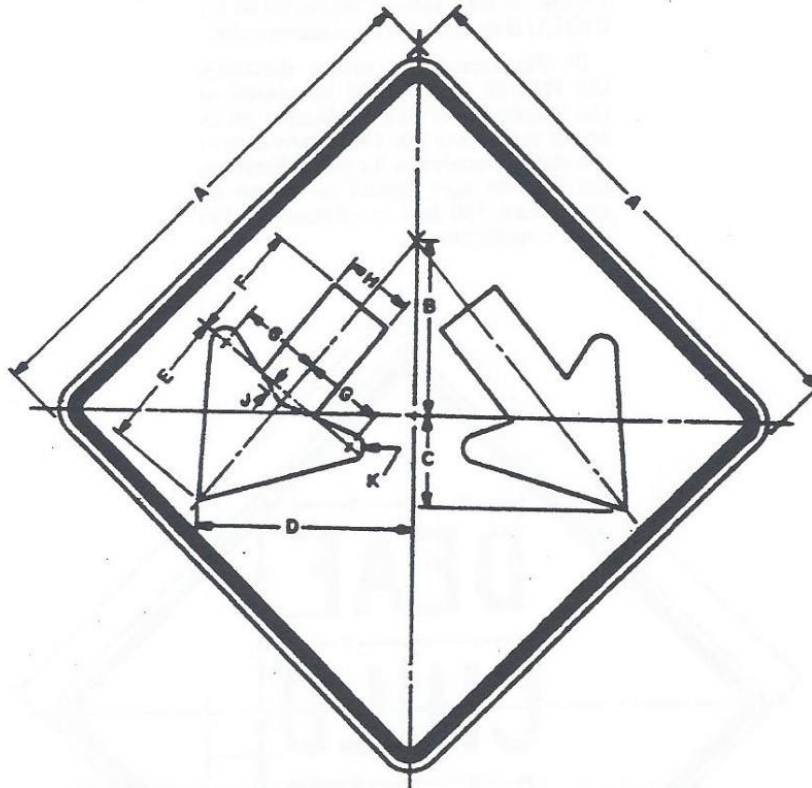
SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30x30	30	5	3	2½	6¾	7½	7

SIGN SIZE	SERIES LINKS			MARGIN	BORDER	BLANK STD
	1	2	3			
30x30	C	C	C	½	¾	B3-30

OBSTRUCTIONS GROUP, W12 SERIES

§211.611. Double Arrow Sign, W12-1.

The Double Arrow Sign, W12-1, shall be authorized for use at loading and refuge islands, traffic islands, and other obstructions in the roadway, when traffic is permitted to pass on either side of the island or obstruction. It should normally be mounted at a height of seven feet to the bottom of the sign in order that it will be visible over preceding vehicles.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

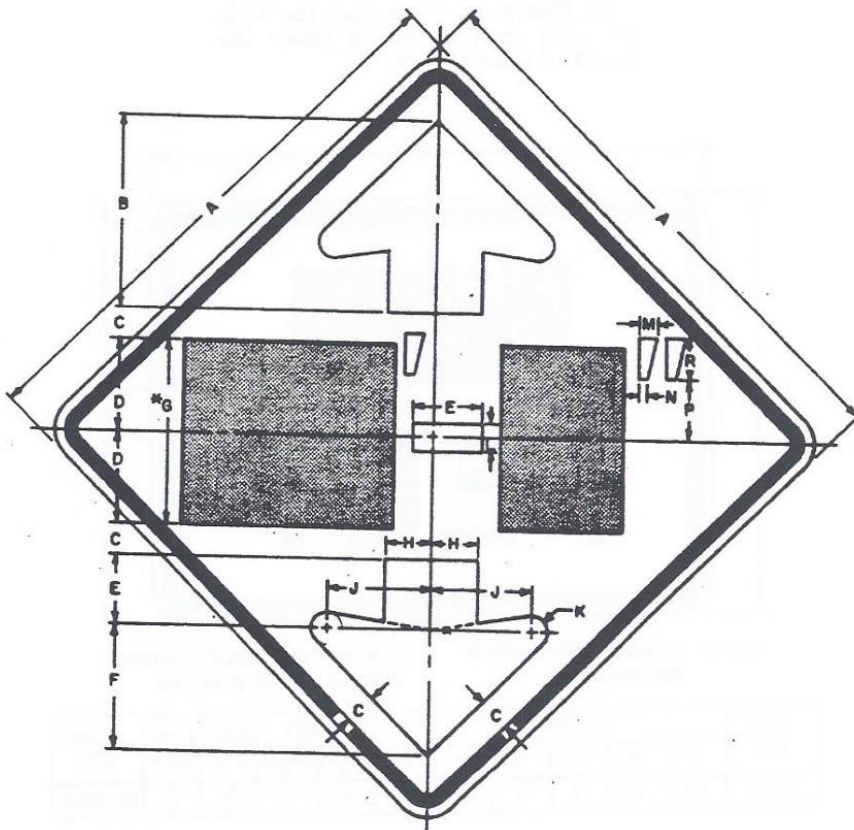
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24x24	24	8	4 ¹ / ₈	9 ³ / ₄	6 ³ / ₈	5 ¹ / ₂	3 ³ / ₈	3 ¹ / ₈	1 ¹ / ₂	1 ¹ / ₈
30x30	30	10	5 ¹ / ₂	12 ³ / ₈	8 ¹ / ₈	6 ³ / ₈	4 ¹ / ₈	4	2 ¹ / ₈	1 ³ / ₈
36x36	36	12	6 ¹ / ₈	14 ⁵ / ₈	9 ³ / ₈	7 ⁷ / ₈	5 ⁷ / ₈	4 ³ / ₄	2 ³ / ₄	1

SIGN SIZE	MAR- GIN	BOR- DER	BLANK STD
24x24	1 ¹ / ₈	5 ³ / ₈	B3-24
30x30	1 ¹ / ₂	3 ³ / ₄	B3-30
36x36	2 ⁵ / ₈	7 ⁷ / ₈	B3-36

§ 211.612. Low Clearance Sign, W12-2.

(a) *Justification.* The Low Clearance Sign, W12-2, is authorized for use in advance of bridges, underpasses, and other overhead structures when the vertical clearance is less than 14 feet 6 inches. The clearance shown on the sign shall be to the nearest inch lesser than the clearance. Whenever possible, additional protection should be provided by using the W12-3 sign on the structure.

(b) *Placement.* The W12-2 sign should be placed in advance of the restriction in accordance with § 211.392 (relating to placement of warning signs). However, when this sign is not readily visible to traffic at the last intersection in advance of the restriction, an additional sign should be installed immediately after the intersection to allow drivers an opportunity to avoid the restriction. In these cases, the () Feet Sign, W12-2-1, or the () Mile(s) Sign, W12-2-2, may be placed below this sign.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
36x36	36	12 1/2	2	6	4 1/2	8	12	3	6 1/2	1
48x48	48	18 1/2	2 1/2	8	5 1/2	10 1/2	16	4	9 1/2	1 1/2

* Optically space vertical clearance numerals about vertical C (Where 10" is used in vertical clearance, use series C numerals.)

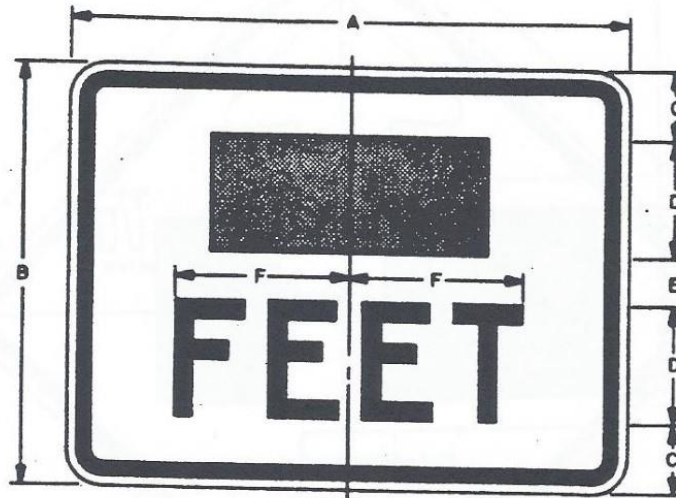
SIGN SIZE	DIMENSIONS					SERIES LINE	MAR- GIN	BOR- DER	BLANK STD
	L	M	N	P	R				
36x36	1 1/2	1 1/2	1/2	4	2 1/2	D	1/2	1/2	B3-36
48x48	2 1/2	1 1/2	1/2	5 1/2	3 1/2	D	1/2	1 1/2	B3-48

S. 211.613. (Reserved).

§ 211.613a. () Feet Sign, W12-2-1.

(a) *Justification.* The () Feet Sign, W12-2-1, may be used in conjunction with a standard warning sign when it is necessary to indicate the distance to the situation cited by the warning sign. If two identical warning signs are used in advance of the condition, this sign should only be used with the first sign. It shall not be used if any other sign or plaque is being used in the same installation to supplement the warning sign. Normally distances used should be an increment of 500 feet.

(b) *Placement.* When used, the W12-2-1 sign shall be placed below the standard warning sign.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

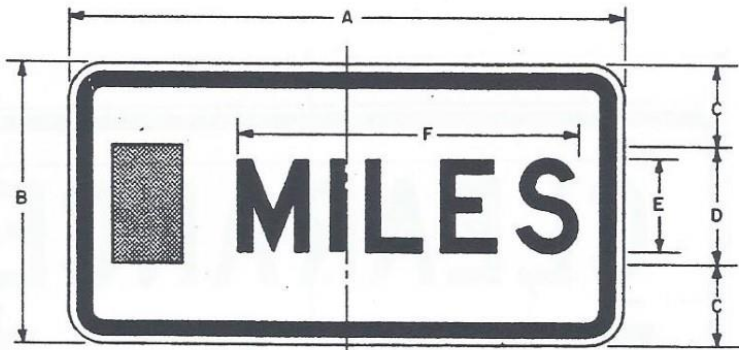
SIGN SIZE	DIMENSIONS						SERIES LINE	MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E	F				
24x18	24	18	3	5	2	7½	D	D	½	85-2418

RULES AND REGULATIONS

§ 23.524. (—) Mile(s) Sign (W12-2-2).

(a) *Justification.* The (—) Mile(s) Sign (W12-2-2) shall be authorized for use in conjunction with the Low Clearance Sign (W12-2) when used as an advance warning of a clearance restriction.

(b) *Placement.* The W12-2-2 sign may be placed below the W12-2 sign at the last intersected highway and indicate the distance to the restriction.



COLOR · LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED), YELLOW(REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SER-IES	MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F				
24 x 12	24	12	3 1/2	5	4	14 11/16	D	3/8	5/8	B5-2412

RULES AND REGULATIONS

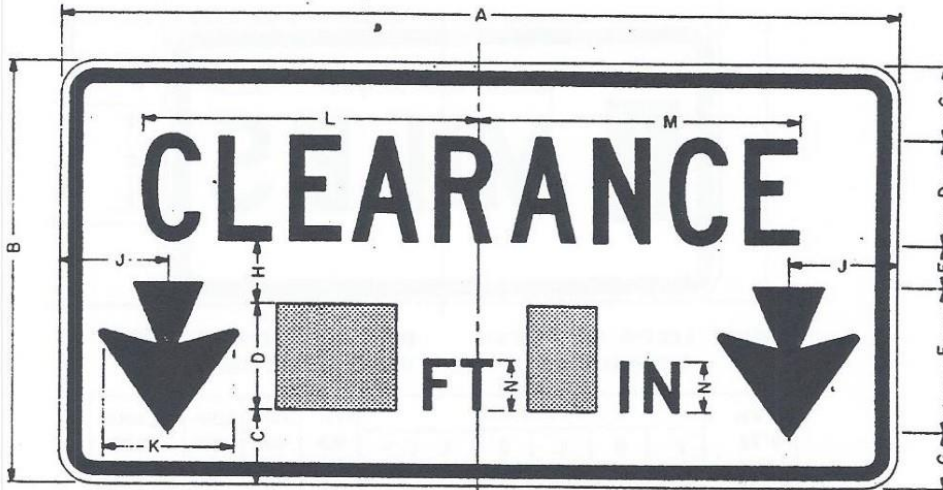
§ 23.525. Clearance Sign (W12-3).

(a) *Justification.* The Clearance Sign (W12-3) shall be authorized for use on bridges, underpasses and other overhead structures where the vertical clearance is less than 14 feet 6 inches.

The clearance shown on the sign shall be to the nearest inch lesser than the clearance.

(b) *Placement.* The W12-3 sign shall be mounted overhead, directly above the roadway.

This sign should be used in conjunction with the Low Clearance Sign (W12-2).



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
48x24	48	24	4 ¹ / ₄	6	2 ³ / ₈	8 ¹ / ₈	3 ¹ / ₄	3 ¹ / ₂	6 ¹ / ₄	7 ¹ / ₂	19 ³ / ₁₆	18 ⁷ / ₁₆	3
96x48	96	48	8 ¹ / ₂	12	4 ³ / ₄	16 ¹ / ₄	6 ¹ / ₂	7	12 ¹ / ₂	15	38 ³ / ₈	36 ⁷ / ₈	6

SIGN SIZE	SERIES		MAR- GIN	BOR- DER	BLANK STD
	LINES				
	1	2			
48x24	C	D	¹ / ₂	³ / ₄	B5-4824
96x48	C	D	³ / ₄	1 ¹ / ₄	B5-9648

RULES AND REGULATIONS

1121

§ 23.526. - § 23.530. Reserved.

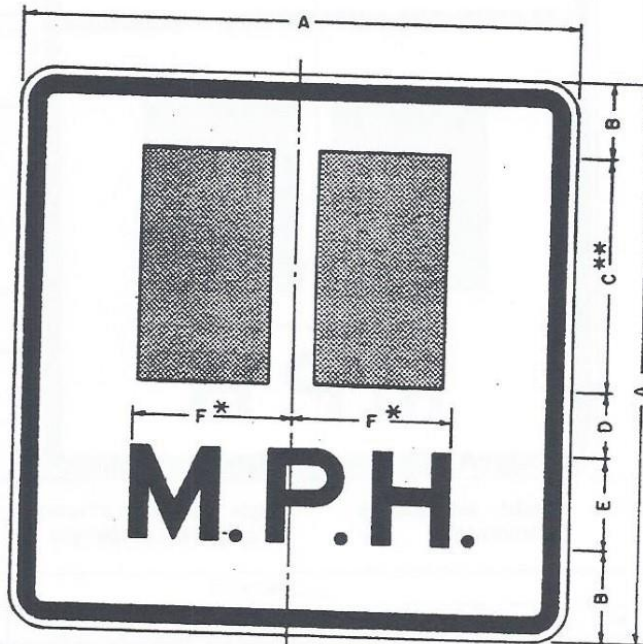
Advisory Speed Group (W13 Series)

§ 23.531. Advisory Speed Sign (W13-1).

(a) *Justification.* The Advisory Speed Sign (W13-1) shall be authorized for use in conjunction with any standard warning sign to indicate the maximum safe speed. It shall not be used in conjunction with any sign other than a warning sign, nor shall it be used alone. It shall be mounted below the warning sign.

The speed shown shall be a multiple of five miles per hours, to be determined by accepted traffic engineering procedures.

(b) *Size.* The 18-inch by 18-inch size should be used with a warning sign of 30 inches by 30 inches, the 24-inch by 24-inch size with 36-inch by 36-inch sign, the 30-inch by 30-inch size with 48-inch by 48-inch signs.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
18 x 18	18	2 $\frac{1}{2}$	8	2	3	5 $\frac{5}{16}$
24 x 24	24	3 $\frac{5}{8}$	10	2 $\frac{3}{4}$	4	7 $\frac{1}{16}$
30 x 30	30	4 $\frac{1}{4}$	12	3 $\frac{1}{2}$	6	10 $\frac{3}{8}$

* Increase spacing 100%
 ** Optically space numerals about vertical C

SIGN SIZE	SERIES LINES		MARGIN	BORDER	BLANK STD
	1	2			
18 x 18	E	E	$\frac{3}{8}$	$\frac{3}{8}$	B3-18
24 x 24	E	E	$\frac{3}{8}$	$\frac{5}{8}$	B3-24
30 x 30	E	E	$\frac{1}{2}$	$\frac{3}{4}$	B3-30(S)

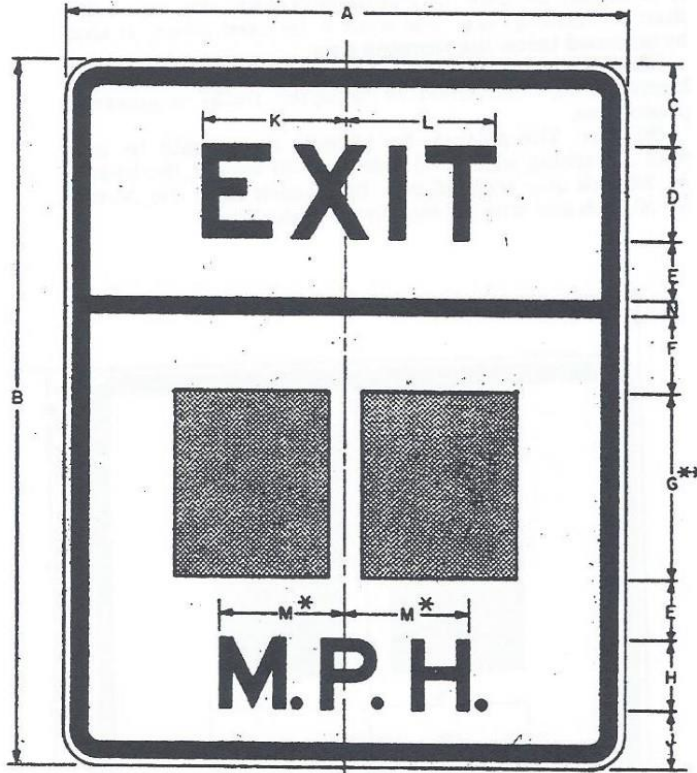
RULES AND REGULATIONS

§ 23.532. Advisory Exit Speed Sign (W13-2).

(a) *Justification.* The Advisory Exit Speed Sign (W13-2) shall be authorized for use where it is necessary to indicate a lower speed on an exit ramp.

(b) *Placement.* The W13-2 sign shall be placed on the

right side of the ramp at a point which allows the motorist adequate time to adjust his speed. It is normally located just beyond the gore or if this location does not follow adequate viewing distance for any reason it may be placed on the left slightly in advance of the gore.



COLOR: LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	
48 x 60	48	60	7	8	5	5 3/4	16	6	6	12 1/4	12 3/4	10 5/8	1 1/4	

* Increase spacing 100%
** Optically space numerals about vertical C.

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
48 x 60	E	E	E	3/4	1 1/4	B5-6048

RULES AND REGULATIONS

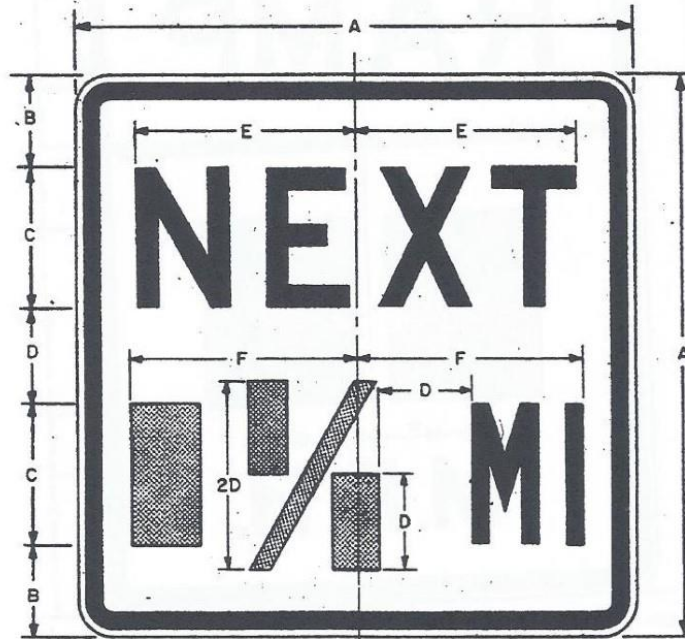
§ 23.534. - § 23.540. Reserved.

Miscellaneous Group (W14 Series)

§ 23.541. Advisory Mile Sign (W14-1).

(a) *Justification.* The Advisory Mile Sign (W14-1) shall be authorized for use in conjunction with any standard warning sign to indicate that the condition cited by the warning sign exists over an extended section of highway. It shall not be used with any sign other than a warning sign, nor shall it be used alone. It shall be mounted below the standard warning sign. Normally mileage shall be given in whole miles, fraction of miles or limited to 1/2.

(b) *Size.* The 18-inch by 18-inch size should be used with warning signs up to and including 36 inches by 36 inches. The 24-inch by 24-inch size shall be used with 48-inch by 48-inch and larger warning signs.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW(REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
18 x 18	18	3 1/2	4	3	6 1/4	VAR.
24 x 24	24	4	6	4	9 5/16	VAR.

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
18 x 18	D	B	3/8	3/8	B3-18
24 x 24	D	B	3/8	3/8	B3-24

§211.642. No Outlet Sign, W14-2.

The No Outlet Sign, W14-2, shall be authorized for use just beyond the last intersected street, facing traffic entering a street which has no connection with any other street beyond that point.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	6	4	$\frac{15}{16}$	5	$5\frac{3}{8}$	$13\frac{1}{16}$	$14\frac{1}{2}$

SIGN SIZE	SERIES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
30 x 30	D	D	$\frac{1}{2}$	$\frac{3}{4}$	B3-30

§ 211.642a. No Passing Zone Pennant, W14-3.

The No Passing Zone Pennant, W14-3, may be used to warn of the beginning of a no-passing zone identified by conventional pavement markings on two-lane roadways. When used it shall be erected on the left side of the roadway at the beginning of the no-passing zone.



COLOR: LEGEND AND BORDER BACKGROUND BLACK(NON-REFLECTORIZED)
 YELLOW(REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48x36	48	36	8 1/2	5	2	3	8	26 1/2	12 1/4

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
48x36	D	D	C	1/8	7/8	82-4836

* Reduce spacing 20% ** Reduce spacing 35%

§ 211.642b. (Reserved.)

§ 211.642c. No Winter Maintenance Sign, W14-5.

(a) *Justification.* The No Winter Maintenance Sign, W14-5, may be used on a roadway where winter snow plowing, salting or cindering activities are not performed. The W14-5 sign may be removed, covered, or folded during seasons when these activities would not normally be applicable.

(b) *Placement.* The sign should be installed at the beginning of the roadway where applicable.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
30x30	30	4	3	2 1/4	7 1/2	13 1/4

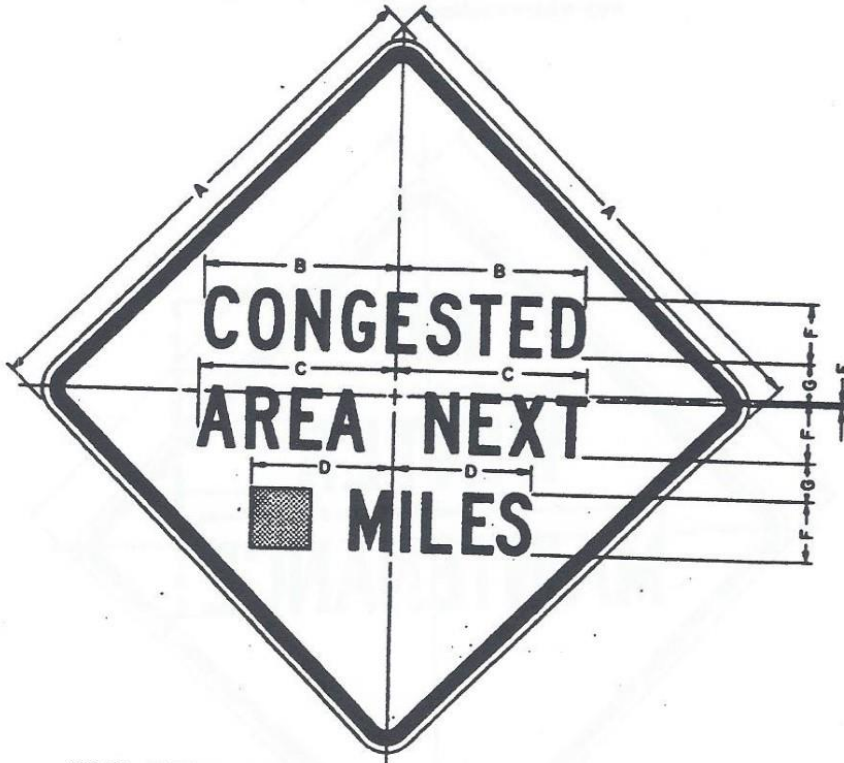
* Reduce spacing 50%

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
30x30	C	C	C	1/4	1/4	B3-30

§ 211.642d. Congested Area Next () Mile(s) Sign, W14-6.

(a) *Justification.* The Congested Area Next () Mile(s) Sign, W14-6, will be authorized for use on expressways and freeways to warn of unusually heavy traffic, particularly when interchanges are very closely spaced.

(b) *Placement.* The W14-6 sign may be placed in advance of and at intervals throughout the congested area.



COLOR : LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
60 x 60	60	22	22 ⁷ / ₁₆	VAR.	¹ / ₂	7	4 ¹ / ₂

SIGN SIZE	SERIES	MAR- GIN	BOR- DER	BLANK STD.
	ALL LINES			
60 x 60	C	1	¹ / ₂	B3-60

§ 211.642e. Watch for Stopped Vehicles Sign, W14-7.

The Watch for Stopped Vehicles Sign, W14-7, will be authorized for use in advance of locations where traffic queues frequently occur but are not anticipated by many drivers, especially unfamiliar drivers.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36x36	36	5	3	2	8 1/2	18 1/2	12 7/8
* 48x48	48	7	4	2	12	23	15 1/8
60x60	60	8	5	2	13 1/8	30 1/8	20 1/8

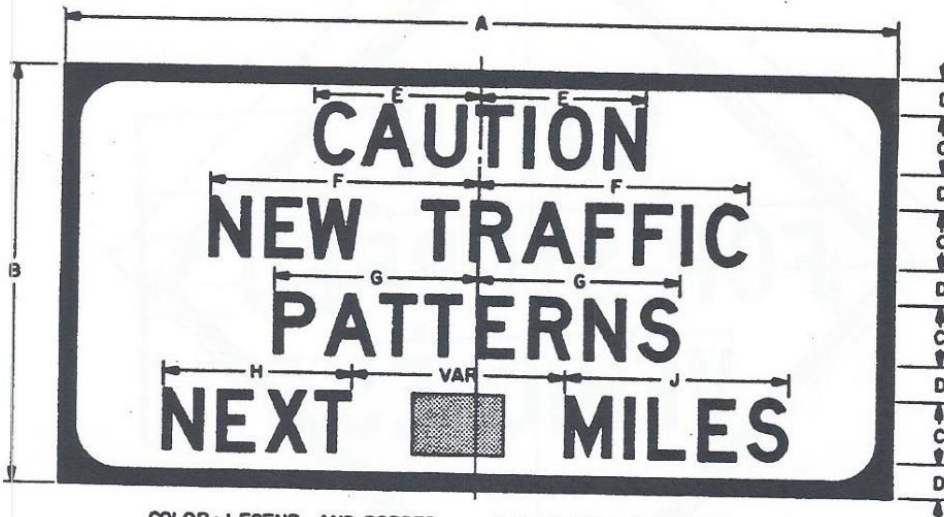
* Reduce spacing 50%

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
36x36	C	C	C	5/8	7/8	83-36
48x48	C	C	C	3/4	1 1/2	83-48
60x60	C	C	C	1	1 1/2	83-60

§ 211.642f. New Traffic Patterns Sign, W14-8.

(a) *Justification.* The New Traffic Patterns Sign, W14-8 will be authorized for use as a temporary sign on expressways and freeways to warn drivers that the travel lanes have been revised. When the revision covers only a short distance, the last line on the W14-8 sign may be revised to state "AHEAD".

(b) *Placement.* When used, the W14-8 Sign should be placed a minimum of 775 feet in advance of the beginning of the section with revised travel lanes.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
96x48	96	48	7	4	19 ³ / ₁₆	31	22 ¹³ / ₁₆	21 ¹ / ₄	25 ¹¹ / ₁₆	

SIGN SIZE	SERIES				BOR- DER	BLANK STD
	LINES					
	1	2	3	4		
96x48	D	D	D	D	1 ³ / ₄	B-9648(P)

§ 211.642g. Truck Weighing Ahead Sign, W14-9.

(a) *Justification.* The Truck Weighing Ahead Sign, W14-9 will be authorized for use in advance of a mobile or semipermanent weighing operation. When used, the W14-9 sign shall be mounted at a minimum height of one foot above the road surface.

(b) *Size.* The standard size W14-9 sign shall be 36-inch by 36-inch on two-lane, two-way roadways and 48-inch by 48-inch on all other roadways.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
36x36	36	5	3 ¹ / ₈	2 ¹ / ₂	10 ³ / ₈	15 ¹ / ₈	10 ⁷ / ₈	10 ⁷ / ₈
48x48	48	7	4	3 ¹ / ₂	14 ⁹ / ₁₆	21 ¹ / ₈	14 ¹⁵ / ₁₆	15 ⁷ / ₁₆

SIGN SIZE	SERIES			MAR- G IN	BOR- DER	BLANK STD
	1	2	3			
36x36	D	D	D	⁵ / ₈	⁷ / ₈	B3-36
48x48	D	D	D	³ / ₄	1 ¹ / ₄	B3-48

S 211.643. Fog Area Sign, W14-10.

The Fog Area Sign, W14-10, will be authorized to warn drivers of the areas where small "pockets" of fog frequently present a hazard. It may also be used to warn of areas where smog, steam, or smoke frequently present a hazard.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
48x48	48	10 $\frac{7}{8}$	11 $\frac{3}{16}$	16 $\frac{1}{2}$	8	5	7 $\frac{7}{16}$

SIGN SIZE	SERIES		MARGIN	BORDER	BLANK STD
	1	2			
48x48	E	E	$\frac{3}{4}$	1 $\frac{1}{4}$	B3-48

§ 211.644. Traffic Survey Sign, W14-15.

The Traffic Survey Sign, W14-15, may be used in advance of a location where traffic is being diverted or stopped for a transportation-related survey.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
48x48	48	6	3 1/2	3	13 1/2	12 1/2	10 1/2

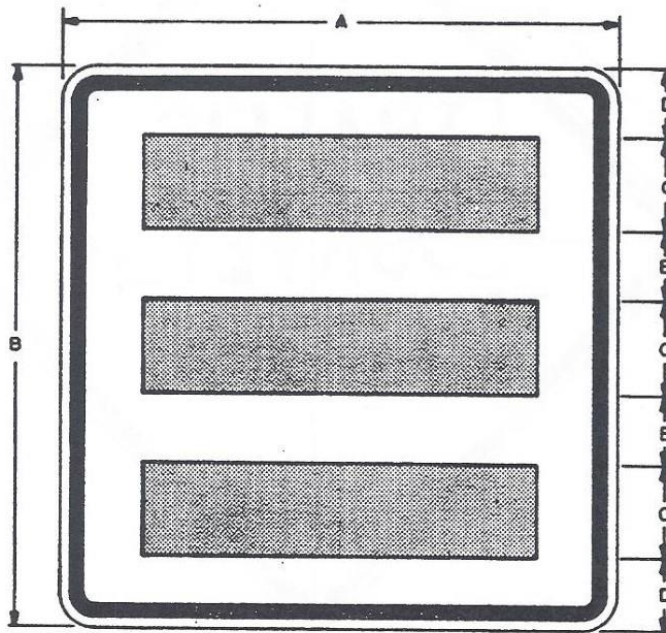
SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
48x48	C	C	C	1/2	1 1/2	B3-48

S 211.645. Effective Hours Panel, W14-20.

(a) Justification. The Effective Hours Panel, W14-20, may be used as a supplemental sign with any of the warning signs when the message applies only during certain hours on a regular basis. The message on the W14-20 panel may be one, two, or three lines; but a maximum of two lines may be used to indicate the hours of effectiveness. The last line may be used to designate effective days of the week if required.

(b) Placement. When used, the W14-20 panel shall be mounted below the primary sign.

(c) Size. Panels 24 inches wide should be used with 36-inch by 36-inch warning signs, whereas panels 30 inches wide should be used with 48-inch by 48-inch warning signs.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINES			MAR- GIN	BOR- DER	BLANK STD
	A	B	C	D	E	1	2	3			
	24 x 12	24	12	4	4	—	VAR.	—			
24 x 18	24	18	4	$3\frac{1}{2}$	3	VAR.	VAR.	—	B5-2418		
24 x 24	24	24	4	3	3	VAR.	VAR.	VAR.	B3-24		
30 x 15	30	15	5	5	—	VAR.	—	—	$\frac{1}{2}$	$\frac{3}{4}$	B5-3015
30 x 24	30	24	5	5	4	VAR.	VAR.	—			B5-3024
30 x 30	30	30	5	$3\frac{3}{4}$	$3\frac{3}{4}$	VAR.	VAR.	VAR.			B3-30

SS 211.646. - 211.650. (Reserved).

§ 23.544.-§ 23.550. Reserved.

Hazard and Clearance Marker Group (W16 Series)

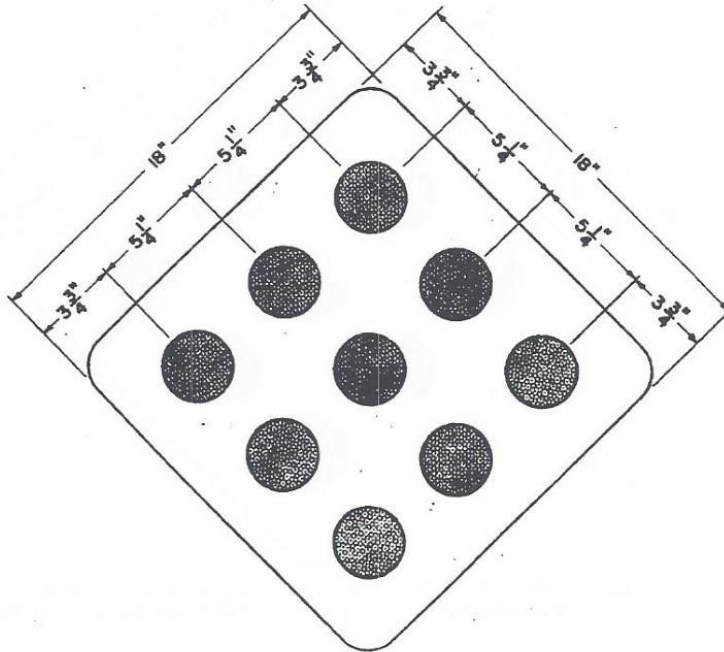
§ 23.551. Hazard Marker (W16-1) and (W16-1D).

(a) *Justification.* The Hazard Marker (W16-1) and (W16-1D) shall be authorized for use to mark obstructions located within the roadway such as bridge piers, and the

approach end of islands. This marker may be posted with other signs where appropriate.

The W16-1 marker is an 18 inch by 18 inch yellow reflectorized blank.

The W16-1D marker is an 18 inch by 18 inch yellow blank on which nine Yellow Delineators (W16-3Y) are attached.



COLOR: BACKGROUND (W16-1) YELLOW (REFLECTORIZED)
 BACKGROUND (W16-1D) YELLOW(NON-REFLECTORIZED)

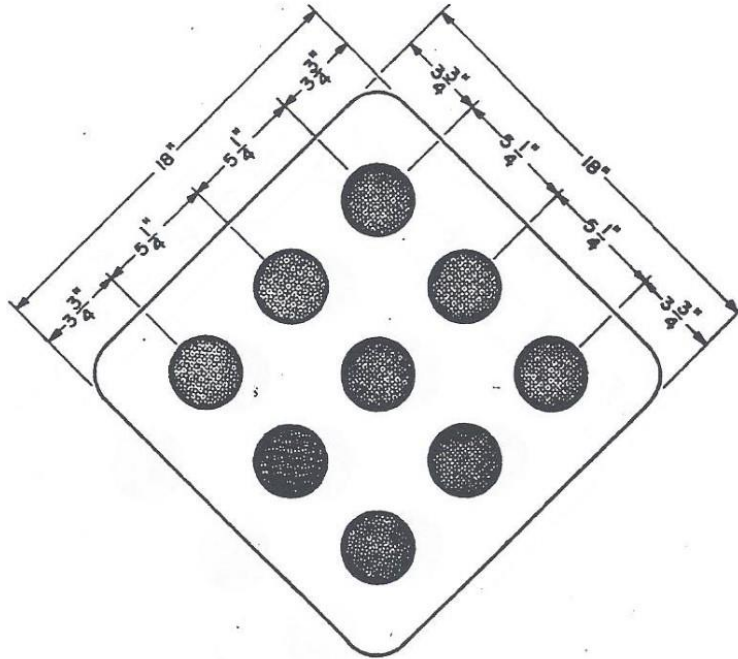
RULES AND REGULATIONS

§ 23.552. End of Roadway Marker (W16-1-1) and (W16-1-1D).

(a) *Justification.* The End of Roadway Marker (W16-1-1) and (W16-1-1D) shall be authorized for use to mark the end of a roadway at the point where there is no alternate vehicular path.

The W16-1-1 is an 18 inch by 18 inch red reflectorized blank.

The W16-1-1D is an 18 inch by 18 inch red blank on which nine Red Delineators (W16-3R) are attached.



COLOR:	BACKGROUND (W16-1-1)	RED (REFLECTORIZED)
	BACKGROUND (W16-1-1-D)	RED (NON-REFLECTORIZED)

§ 211.653. Right Clearance Marker, W16-2R and W16-2-2R.

(a) *Justification.* The Right Clearance Marker, W16-2R and W16-2-2R, may be used to delineate obstructions and objects within or adjacent to the roadway where traffic is required to pass to the left of the obstruction or object.

(1) The W16-2R marker is used to delineate bridge abutments, parapets, handrails, underpass piers, and culvert headwalls.

(2) The W16-2-2R marker is used to close a lane or a roadway for a permanent closure.

(b) *Placement.* The left edge of the W16-2R or W16-2-2R marker shall be in line with the left edge of the obstruction or object. When used at bridges

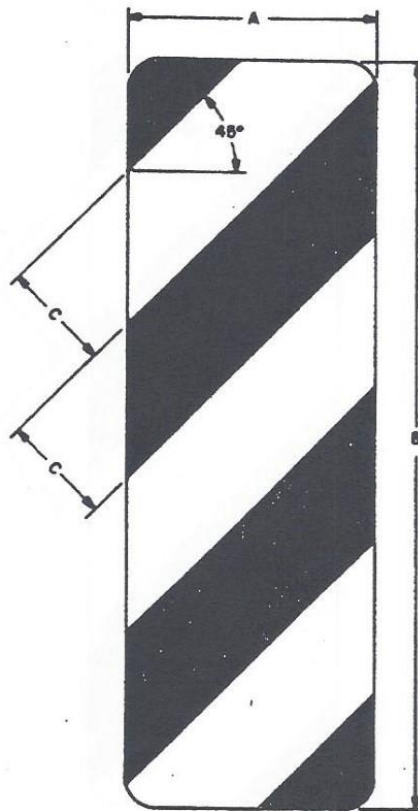
with a wheel guard, the left edge of the marker should be in line with the left edge of the wheel guard. The bottom of the W16-2R marker should be at a height of 3 to 5 feet above the near edge of the pavement, whereas the top of the W16-2-2R marker should always be at least 3 feet above the pavement.

(c) *Color and size.*

(1) W16-2R markers have black stripes on a yellow reflectorized background. The standard size shall be 12 inches by 36 inches.

(2) W16-2-2R markers are reflectorized red and white, and should be 18 inches by 36 inches.

(d) *Material.* The W16-2R marker shall be fabricated from Class II reflective sheeting material, of a type approved by the Department and listed in Publication No. 35.



SIGN SIZE	DIMENSIONS		
	A	B	C
12 x 36	12	36	4 TO 6 1/2
18 x 36	18	36	

§ 211.654. Left Clearance Marker, W16-2L and W16-2-2L.

(a) *Justification.* The Left Clearance Marker, W16-2L and W16-2-2L, may be used to delineate obstructions and objects within or adjacent to the roadway where traffic is required to pass to the right of the obstruction or object.

(1) The W16-2L marker is used to delineate bridge abutments, parapets, handrails, underpass piers, and culvert headwalls.

(2) The W16-2-2L marker is used to close a lane or a roadway for a permanent closure.

(b) *Placement.* The right edge of the W16-2L or W16-2-2L marker shall be in line with the right edge of the obstruction or object. When used at bridges with a wheel guard, the right

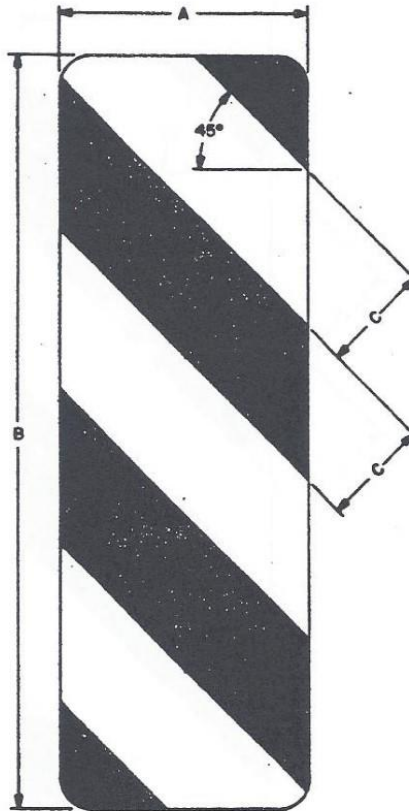
edge of the marker should be in line with the right edge of the wheel guard. The bottom of the W16-2L marker should be at a height of 3 to 5 feet above the near edge of the pavement, whereas the top of the W16-2-2L marker should always be at least 3 feet above the pavement.

(c) *Size and color.*

(1) W16-2L markers have black stripes on a yellow reflectorized background. The standard size shall be 12 inches by 36 inches.

(2) W16-2-2L markers are reflectorized red and white and should be 18 inches by 36 inches.

(d) *Material.* The W16-2L marker shall be fabricated from Class II reflective sheeting material, of a type approved by the Department and listed in Publication No. 35.



SIGN SIZE	DIMENSIONS		
	A	B	C
12x36	12	36	4 TO 6½
18x36	18	36	

§ 23.555. Delineators (W16-3W), (W16-3Y) and (W16-3R).

(a) *Justification.* Delineators shall be authorized for use to guide the motorist as to the alignment of the roadway.

(b) *Description.* Delineators shall be reflectorized units having a minimum dimension of approximately three inches (seven square inches minimum area). Elongated units of appropriate size may be used in place of two or three delineators to be used as a unit.

(c) *Color.* The color of delineators shall conform to the color of the edge line pavement marking along the adjacent edge of roadway as provided in Subchapter K. of this Title (relating to markings). White Delineators (W16-3W) shall be used where the adjacent edge line is white, Yellow Delineators (W16-3Y) shall be used where the adjacent edge line is yellow.

Red Delineators (W16-3R) may be used where they would be viewed by a motorist traveling in the wrong direction on that particular roadway.

(d) *Placement.* Delineators shall be mounted on suitable supports so that the top of the reflective unit is four feet above the near edge of roadway. They should be placed two feet outside the outer edge of the shoulder, or if appropriate, in line with the guardrail. They should not be more than

twelve feet nor less than two feet outside the edge of roadway.

Delineators should be placed a constant distance from the edge of roadway except that, where a guardrail or other obstruction intrudes into the space between the edge of the roadway and the extension of the line of delineators, the delineators should be in line with or inside the innermost edge of the obstruction.

Normally, the longitudinal space between delineators along tangent roadways should be 200 to 528 feet. Where delineators are used on curves, their spacing should be adjusted on the approaches and throughout the curve in accordance with the suggested spacing as provided in § 23.556 of this title (relating to spacing for delineators on horizontal curves).

Single delineators should be provided on the right side of expressway roadways and may be used on other classes of roadways.

Single delineators may also be provided on the left side of roadways and should be provided on the outside of curves on interchange ramps.

Double or vertically elongated delineators should be installed at 100-foot intervals along acceleration and deceleration lanes.

§ 23.556. Spacing for Delineators on Horizontal Curves.

(Distance in Feet Rounded to the Nearest 5 Feet)

Radius of Curve (in feet)	Spacing On Curve (in feet)	Spacing in advance & Beyond Curve (in feet)		
		1st	2nd	3rd
50	20	40	65	125
150	30	60	90	180
200	35	70	110	215
250	40	85	125	250
300	50	95	145	290
400	55	110	170	300
500	65	125	190	300
600	70	140	210	300
700	75	150	230	300
800	80	165	245	300
900	85	175	260	300
1,000	90	185	275	300

Spacing for specific radii not shown may be interpolated from table or computed from the formula $S = 3\sqrt{R-50}$. The minimum spacing should be 20 feet. The spacing on curves should not exceed 300 feet. The spacing of the first delineator approaching a curve is 2 S, the second 3 S, and the third 6 S but not to exceed 300 feet. If a spacing less than 300 feet is used approaching the curve, the distance shown above should be adjusted accordingly.

§ 23.557.-§ 23.570. Reserved.

**Construction and Maintenance Warning Group
(W20-W30 Series)**

§ 23.571. Scope.

Signs in this group shall be authorized for application as provided in the following:

(a) Publication 43—Specifications which supplement Department Form 408 for Control and Protection of Traffic on Construction and Maintenance Projects.

(b) Publication 90 — A handbook, implementing the provisions of this Chapter, which sets forth basic policies

regarding the application, installation and maintenance of traffic control devices required for work being done within the legal limits of the highway.

§ 23.572. Road Construction Sign (W20-1).

(a) *Justification.* The Road Construction Sign (W20-1) shall be authorized for use in advance of road construction projects.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used as a final alternative.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
36 x 36	36	5	3 ⁵ / ₈	2 ¹ / ₂	6 ⁷ / ₈	7 ¹ / ₈	20 ⁵ / ₈	20 ¹ / ₂	5
* 48 x 48	48	7	4 ³ / ₄	3 ¹ / ₂	9 ¹ / ₂	9 ¹³ / ₁₆	26	25 ¹ / ₂	7
60 x 60	60	8	5 ¹ / ₂	4	11	11 ³ / ₈	33	32 ³ / ₈	7

* Reduce spacing 40%

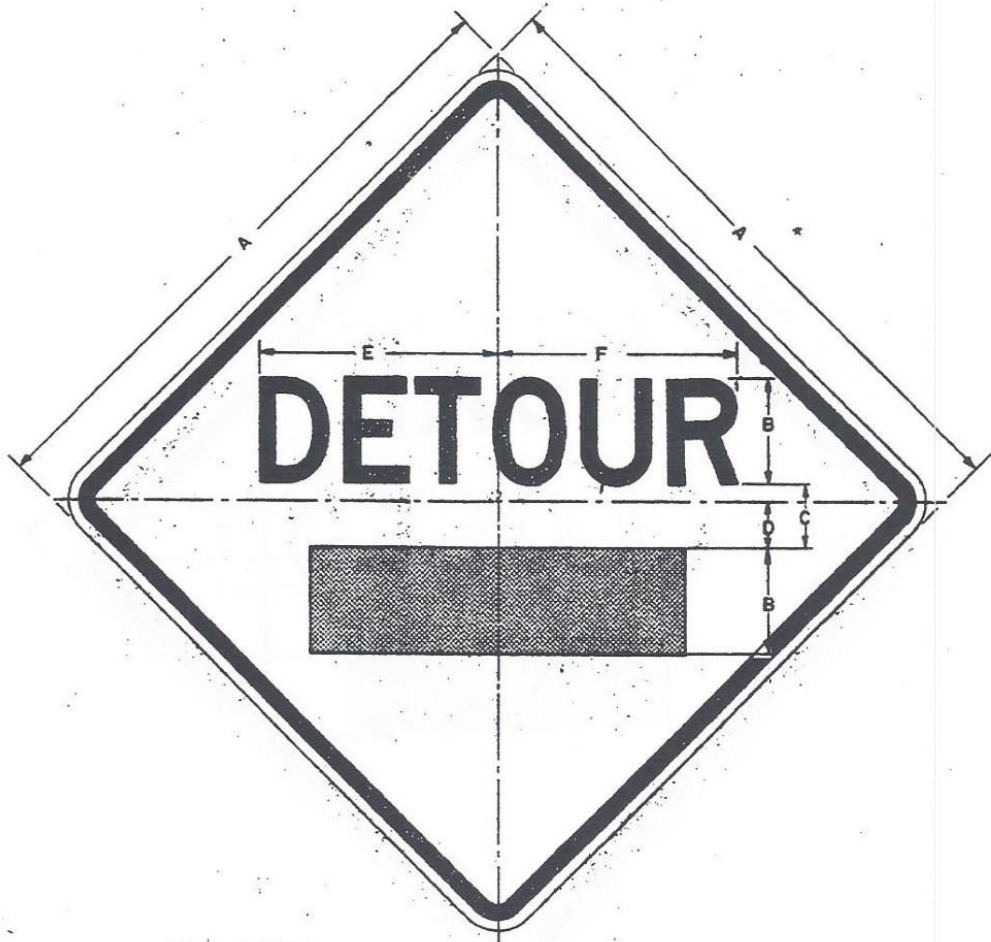
SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
36 x 36	C	C	C	5 ⁵ / ₈	7 ⁷ / ₈	B3-36
48 x 48	C	C	C	3 ³ / ₄	1 ¹ / ₂	B3-48
60 x 60	C	C	C	1	1 ¹ / ₂	B3-60

RULES AND REGULATIONS

§ 23.573. Advance Detour Signs (W20-2).

(a) *Justification.* The Advance Detour Signs (W20-2) shall be authorized for use in advance of a point at which traffic is diverted over a temporary roadway or route.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used as a final alternative.



COLOR LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
36 x 36	36	5	3 1/2	2 5/8	12 1/4	12 1/2
48 x 48	48	7	4 3/4	3 1/2	14 1/8	14 3/8

SIGN SIZE	SERIES LINES		MARGIN	BORDER	BLANK STD
	1	2			
36 x 36	D	C	5/8	7/8	B3-36
48 x 48	D	C	7/8	1 1/4	B3-48

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RULES AND REGULATIONS

§ 23.574. Road Closed Sign (W20-3).

(a) *Justification.* The Road Closed Sign (W20-3) shall be authorized for use in advance of a point at which a roadway is closed to all traffic, or to all but local traffic.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used as a final alternative.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
36 x 36	36	5	3 1/2	3 3/4	3 1/4	8 3/8	8 7/8	12 5/8
48 x 48	48	7	4 3/4	5 1/4	4 1/2	11 1/8	12 7/8	17 1/4

SIGN SIZE	SERIES LINES			MAR-GN	BOR- DER	BLANK STD
	1	2	3			
36 x 36	D	D	C	3/8	7/8	B3-36
48 x 48	D	D	C	3/4	1 1/2	B3-48

9.19

RULES AND REGULATIONS

§ 23.575. One Lane Road Sign (W20-4).

(a) *Justification.* The One Lane Road Sign (W20-4) shall be authorized for use only in advance of a point where traffic in both directions must use a single lane.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used as a final alternative.



COLOR · LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36 x 36	36	5	2 $\frac{1}{4}$	1 $\frac{1}{4}$	13 $\frac{1}{8}$	12 $\frac{5}{8}$	7
48 x 48	48	7	3 $\frac{1}{8}$	1 $\frac{3}{4}$	18 $\frac{1}{2}$	17 $\frac{3}{4}$	9 $\frac{11}{16}$

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
36 x 36	C	C	C	5/8	7/8	B3-36
48 x 48	C	C	C	3/4	1 $\frac{1}{4}$	B3-48

RULES AND REGULATIONS

§ 23.576. Right Lane Closed (W20-5).

(a) *Justification.* The Right Lane Closed Sign (W20-5) shall be authorized for use in advance of a point where the right lane of a multiple-lane roadway is closed.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used as a final alternative.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36 x 36	36	5	2 ³ / ₄	3 ³ / ₈	15 ³ / ₄	10 ¹ / ₄	5
48 x 48	48	6	3 ³ / ₈	1 ¹ / ₂	19	12 ⁵ / ₁₆	5

SIGN SIZE	SERIES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
36 x 36	C	C	C	⁵ / ₈	⁷ / ₈	B3-36
48 x 48	C	C	C	³ / ₄	1 ¹ / ₄	B3-48

RULES AND REGULATIONS

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§ 23.577. Left Lane Closed Sign (W20-5-1).

(a) *Justification.* The Left Lane Closed Sign (W20-5-1) shall be authorized for use in advance of a point where the left lane of a multiple-lane roadway is closed.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36 x 36	36	5	2 $\frac{3}{4}$	3 $\frac{3}{8}$	14 $\frac{1}{2}$	10 $\frac{1}{2}$	5
48 x 48	48	6	3 $\frac{3}{8}$	1 $\frac{1}{2}$	17 $\frac{7}{16}$	12 $\frac{5}{16}$	5

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
36 x 36	C	C	C	5 $\frac{1}{8}$	7 $\frac{7}{8}$	B3-36
48 x 48	C	C	C	3 $\frac{3}{4}$	11 $\frac{1}{4}$	B3-48

RULES AND REGULATIONS

§ 23.578. Center Lane Closed Sign (W20-5-2).

(a) *Justification.* The Center Lane Closed Sign (W20-5-2) shall be authorized for use in advance of a point where the center lane of a multiple-lane roadway is closed.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used as a final alternative.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS:							
	A	B	C	D	E	F	G	H
36x36	36	5	2 $\frac{3}{4}$	$\frac{3}{8}$	16 $\frac{1}{4}$	15 $\frac{3}{4}$	10 $\frac{1}{4}$	5
48x48	48	6	3 $\frac{3}{8}$	$\frac{1}{2}$	20 $\frac{3}{8}$	19 $\frac{3}{8}$	12 $\frac{5}{16}$	5

* Reduce spacing 50%

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
36x36	C	C	C	$\frac{5}{8}$	$\frac{7}{8}$	B3-36
48x48	C	C	C	$\frac{3}{4}$	1 $\frac{1}{4}$	B3-48

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§ 211.679. Flagger Symbol Sign, W20-7a.

The Flagger Symbol Sign, W20-7a, may be used in advance of a flagger that has been stationed to control traffic through a construction, maintenance or utility project. An appropriate distance message may be displayed on a () Feet Sign, W12-2-1, below the W20-7a sign. The W20-7a sign shall be promptly removed, covered or turned to face away from the roadway whenever the flagger is not present.



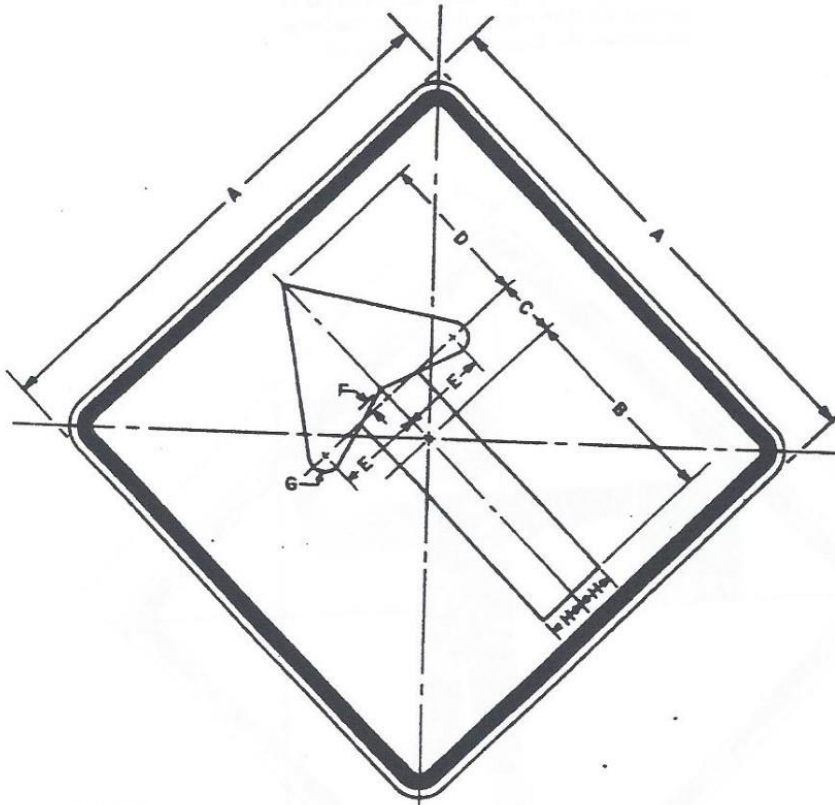
COLOR · LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				MARGIN	BORDER	BLANK STD
	A	B	C	D			
36x36	36	2 1/2	13 1/2	14 1/2	1/2	1	B3-36
48x48	48	3 1/2	18	19 1/2	1/2	1 1/2	B3-48

§211.680. Arrow Sign, W20-8.

(a) *Justification.* The Arrow Sign, W20-8, shall be authorized for use to channelize traffic at locations where the lateral displacement of vehicular traffic is required, such as temporary road endings and within construction or maintenance areas.

(b) *Placement.* When this sign is used on a transition, the arrow shall point upward at a 45° angle.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	12	3 1/4	8 7/8	5	11 1/8	7 7/8	2 3/8

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1/2	3/4	83-30

RULES AND REGULATIONS

1141

§ 23.581 Temporary Roadway Sign (W20-9).

(a) *Justification.* The Temporary Roadway Sign (W20-9) shall be authorized for use when a temporary roadway around the construction site has been provided.

Overlay panels may be used to indicate the distance. Details of alternate distances are provided in § 23.611 of this Title (relating to distance panels). In lieu of exact distances the legend "ahead" may be used as a final alternative.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES			MAR-GIN	BOR-DER	BLANK STD.
	A	B	C	D	E	F	LINES					
48x48	48	6	3 ⁵ / ₁₆	7 ⁷ / ₁₆	19 ⁵ / ₈	15 ¹ / ₄	C	C	C	3/4	1 ¹ / ₄	B3-48

RULES AND REGULATIONS

§ 23.582. Be Prepared To Stop Sign (W20-10).

(a) *Justification.* The Be Prepared To Stop Sign (W20-10) shall be authorized for use in construction or maintenance areas to advise motorists that operations are in progress that may cause intermittent stoppage of traffic.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES LINES			MARGIN	BORDER	BLANK STD
	A	B	C	D	E	F	1	2	3			
36 x 36	36	5	4	$3\frac{3}{16}$	$14\frac{1}{8}$	$12\frac{3}{4}$	C	C	C	$\frac{5}{8}$	$\frac{7}{8}$	B3-36
48 x 48	48	7	$5\frac{5}{16}$	$4\frac{3}{8}$	$19\frac{13}{16}$	$16\frac{3}{8}$	C	C	C	$\frac{3}{4}$	$1\frac{1}{4}$	B3-48

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SS 211.683 - 211.690. (Reserved).

S 211.691. Fresh Oil Sign, W21-2.

The Fresh Oil Sign, W21-2, shall be authorized for use to warn motorists that resurfacing operations have rendered the surface of the highway temporarily hazardous, and that objectionable splashing on vehicles may occur.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES		MARGIN	BORDER	BLANK STD
	A	B	C	D	E	1	2			
30x30	30	6	4	11 3/4	6 3/8	D	D	1/2	3/4	B3-30
36x36	36	7	5	13 1/8	7 3/8	D	D	3/8	7/8	B3-36

* Reduce spacing 20% ** Increase spacing 50%

S 211.692. Work Area Ahead Sign, W21-7.

The Work Area Ahead Sign, W21-7, shall be authorized for use in advance of obstructions or restrictions that a motorist may encounter at construction, maintenance, or utility work areas. The 48 inches by 48 inches size may indicate the actual distance in lieu of the legend "AHEAD".



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36 x 36	36	6	2 ³ / ₈	9	8 ³ / ₈	10 ¹ / ₂	2 ¹ / ₈
48 x 48	48	8	3 ¹ / ₈	12 ¹ / ₈	11 ³ / ₈	14	2 ³ / ₈

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
36 x 36	C	C	C	³ / ₈	⁷ / ₈	B3-36
48 x 48	C	C	C	³ / ₄	1 ¹ / ₂	B3-48

S 211.693. (Reserved).

S 211.694. No Guard Rail Sign, W21-9.

(a) Justification. The No Guard Rail Sign, W21-9, shall be authorized for use on new construction where guard rails are scheduled for installation, but have not been installed prior to opening the highway for traffic. It shall also be used where existing guard rail has been removed for maintenance and is scheduled for replacement.

(b) Placement. When used, this sign shall be placed in advance of the condition and at intervals throughout the area. Signs shall be removed when the new guard rails are installed.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	5	3	2½	4	10 11/16	7 1/4

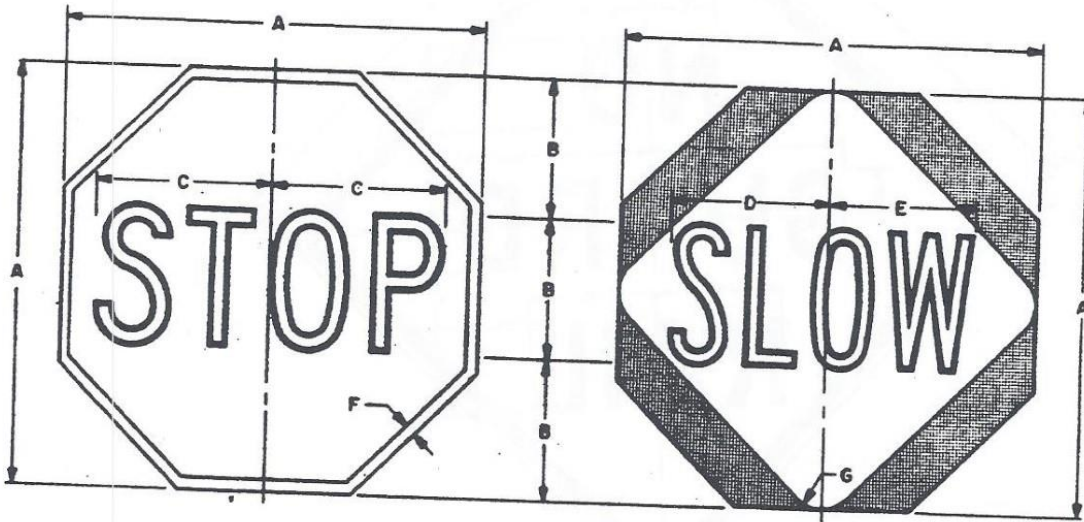
SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
30 x 30	D	D	D	1/2	3/4	83-30

§ 211.695. Stop and Slow Paddle, W21-10.

(a) *Justification.* The Stop and Slow Paddle, W21-10, is authorized for use as a hand signaling device by a flagger. The paddle shall be attached to a staff of sufficient length so that the bottom of the sign is 72 inches above the road surface. The Flagger Symbol Sign, W20-7a, should normally be used in conjunction with this paddle.

(b) *Use.* The Stop and Slow Paddle shall be used as indicated in Chapter 203 (relating to work zone traffic control).

(c) *Design.* Either the octagon shaped or the circular shaped faces indicated below may be utilized.

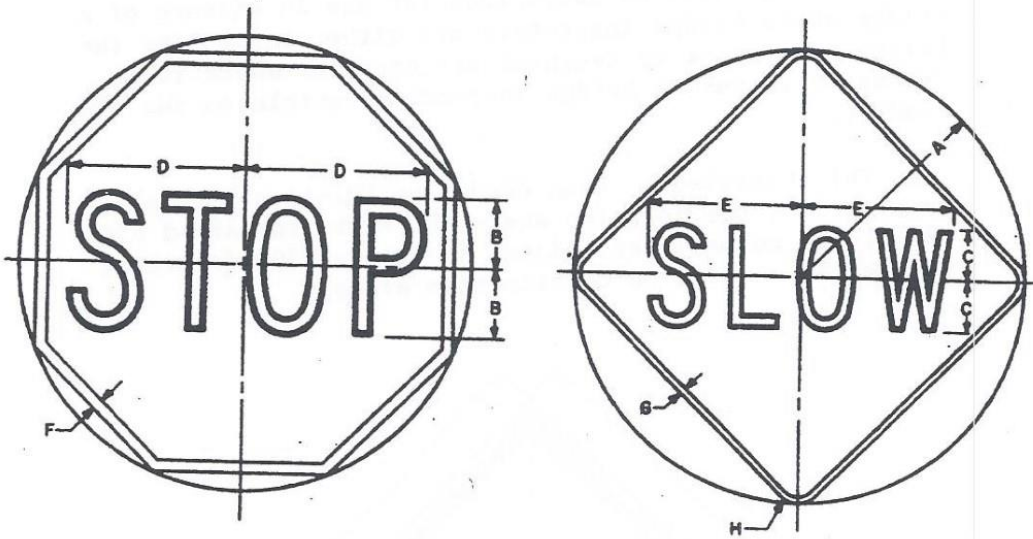


STOP FACE
 COLOR: LEGEND AND BORDER WHITE (REFLECTORIZED)
 BACKGROUND RED (REFLECTORIZED)

SLOW FACE
 COLOR: LEGEND BLACK (NON-REFLECTORIZED)
 BACKGROUND ORANGE (REFLECTORIZED)

AREA OUTSIDE DIAMOND SHALL BE BLACK

SIGN SIZE	DIMENSIONS							SERIES		BLANK STD
	A	B	C	D	E	F	G	STOP	SLOW	
18x18	18	6	7 1/2	6 3/4	6 1/4	1/2	1 1/2	C	B	BI-18
24x24	24	8	10	9	8 1/8	3/8	1 1/2	C	B	BI-24



STOP FACE
COLOR: LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
RED (REFLECTORIZED)

SLOW FACE
COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

AREAS OUTSIDE SIGN BORDERS SHALL BE LIGHT BLUE.

SIGN SIZE	DIMENSIONS								SERIES		BLANK STD
	A	B	C	D	E	F	G	H	STOP	SLOW	
19 1/2	9 3/4	3	3	7 5/8	6 1/2	7 7/8	3 3/8	1 1/8	C	B	B4-19 1/2
26	13	4	3 1/2	10 3/8	8 3/4	5 3/8	1 1/2	1 1/2	C	B	B4-26

S 211.696. Bridge Inspection Ahead Sign, W21-11.

(a) Justification. The Bridge Inspection Ahead Sign, W21-11, will be authorized for use in advance of a bridge where bridge inspectors are either inspecting the bridge roadway or an overhead structure or where it is necessary to park a bridge inspection vehicle on the roadway.

(b) Placement. When used, the W21-11 sign shall be placed at the location where the Work Area Ahead Sign W21-11, is normally stipulated in Chapter 203 (relating to traffic control in construction areas).



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
36x36	36	5	3	2 1/2	11 1/2	18 1/2	10 1/2
48x48	48	7	4	3 1/2	16	26 1/2	15 1/2

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
36x36	D	D	D	5/8	7/8	B3-36
48x48	D	D	D	3/4	1 1/4	B3-48

S 211.697. - 211.700. (Reserved).

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RULES AND REGULATIONS

§ 23.601. **Blasting Zone Ahead Sign (W22-1).**

(a) *Justification.* The Blasting Zone Ahead Sign (W21-1) shall be authorized for use in advance of any area where there are explosives being used. This sign shall be used in sequence with the Turn Off 2-Way Radio Sign (W22-2) and the End Blasting Zone Sign (W22-3). The sign shall be covered or removed when there are no explosives in the area or the area is otherwise secure.

(b) *Placement.* This sign should be located approximately 1,000 feet in advance of the Turn Off 2-Way Radio Sign.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
 BACKGROUND ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48x48	48	7	4	1 1/2	15 1/4	15 3/4	9 11/16	12 1/8	12 3/8

* Reduce spacing 40%

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
48x48	C	C	C	3/4	1 1/4	B3-48

RULES AND REGULATIONS

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§ 23.602. Turn Off 2-Way Radio Sign (W22-2).

(a) *Justification.* The Turn Off 2-Way Radio Sign (W22-2) shall be authorized for use and shall be located at least 1,000 feet in advance of the beginning of a blasting area. It shall be used in sequence with the Blasting Zone Ahead Sign (W22-1) and the End Blasting Zone Sign (W22-3) and shall be covered or removed when there are no explosives in the area or the area is otherwise secure.



COLOR LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
42 x 36	42	36	4 1/2	7	3	18 5/8	12 3/16	2 3/4	1/2	6 7/8	11	11 1/4

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
42 x 36	C	C	C	5/8	7/8	B5-4236

RULES AND REGULATIONS

§ 23.603. End Blasting Zone Sign (W22-3).

(a) *Justification.* The End Blasting Zone Sign (W22-3) shall be authorized for use to denote the end of a blasting zone and shall be located at least 1,000 feet from the blasting area, either with or preceding the End Construction Sign (G20-2). It shall be used in sequence with the Blasting Zone Ahead Sign (W22-1) and the Turn Off 2-Way Radio Sign (W22-2). The sign shall be covered or removed when there are no explosives in the area or the area is otherwise secure.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
42 x 36	42	36	5	6	4	5 ⁵ / ₈	6 ³ / ₁₆	15	15 ⁷ / ₈	8 ¹ / ₄

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK .STD
	1	2	3			
	42 x 36	C	C			

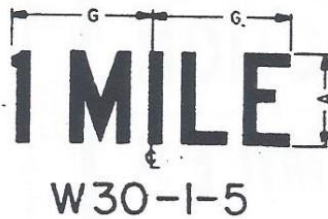
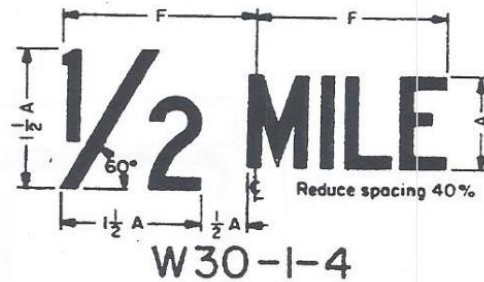
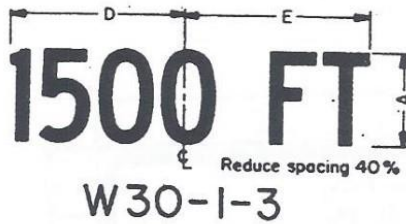
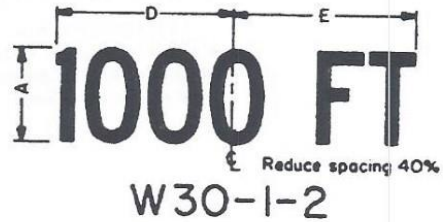
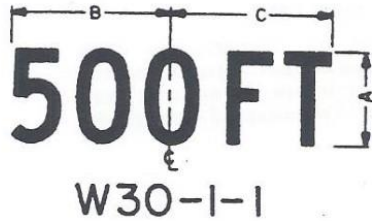
RULES AND REGULATIONS

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§ 23.604. - § 23.610. Reserved.

§ 23.611. Distance Panels (W30-1).

(a) *Justification.* The Distance Panels (W30-1) shall be authorized for use to indicate distances to conditions warned of on those signs provided in § 23.571 - 23.580 and § 23.582 of this Title (relating to construction warning signs).



A	B	C	D	E	F	G	H
4C	6 ⁷ / ₈	7	7 ¹ / ₂	8	8 ⁵ / ₁₆	6 ¹ / ₁₆	6 ³ / ₄
5C	8 ³ / ₄	8 ¹³ / ₁₆	9 ³ / ₈	10	10 ⁷ / ₁₆	7 ⁵ / ₈	8 ⁵ / ₈
6C	10 ³ / ₈	10 ¹ / ₂	11 ¹ / ₄	12	12 ¹ / ₂	9 ¹ / ₈	10 ¹ / ₄
7C	12	12 ³ / ₁₆	13 ¹ / ₈	14	14 ⁹ / ₁₆	10 ⁵ / ₈	11 ⁷ / ₈
8C	13 ³ / ₄	14	15	16	16 ⁵ / ₈	12 ¹ / ₈	13 ¹ / ₂
4D	8 ¹ / ₈	8 ⁵ / ₈	8 ¹ / ₂	9	9	7 ³ / ₁₆	8 ¹¹ / ₁₆
5D	10 ³ / ₁₆	10 ¹³ / ₁₆	10 ⁵ / ₈	11 ¹ / ₄	11 ¹ / ₄	9 ¹ / ₄	10 ⁷ / ₈
6D	12 ³ / ₁₆	12 ¹³ / ₁₆	12 ³ / ₄	13 ¹ / ₂	13 ¹ / ₂	11 ¹³ / ₁₆	13 ¹ / ₈
7D	14 ¹ / ₄	15 ¹ / ₈	14 ⁷ / ₈	15 ³ / ₄	15 ³ / ₄	13 ¹ / ₁₆	15 ¹ / ₂
8D	16 ¹ / ₄	17 ¹ / ₄	17	18	18	14 ³ / ₈	17 ⁷ / ₁₆

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RULES AND REGULATIONS

§ 23.612. - § 23.620. Reserved.

Subchapter E. CONSTRUCTION AND MAINTENANCE GUIDE SIGNS (G SERIES)

§ 23.621. Purpose.

Construction and maintenance guide signs are required at construction and maintenance sites to supply special information relating to the work being done and to direct the motorist where temporary route changes are necessary.

§ 23.622. Length of Construction Sign (G20-1).

(a) *Justification.* The Length of Construction Sign (G20-1) shall be authorized for use at the beginning of any major road construction or maintenance job or more than two miles in extent, where traffic is maintained through the job.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
60 x 36	60	36	4 ⁵ / ₈	6	4 ³ / ₈	8 ⁵ / ₁₆	24 ¹³ / ₁₆	24 ⁹ / ₁₆
72 x 48	72	48	7 ³ / ₄	7	5 ³ / ₄	9 ¹³ / ₁₆	28 ⁵ / ₈	29 ¹ / ₈

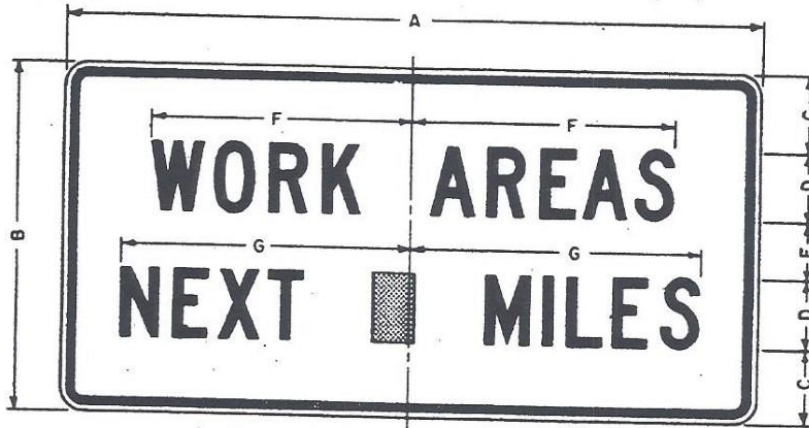
SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
60 x 36	C	C	C	¹ / ₂	³ / ₄	
72 x 48	C	C	C	³ / ₄	¹ / ₄	B-7248(P)

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§ 23.623. Length of Work Areas Sign (G20-1-1).

(a) *Justification.* The Length of Work Areas Sign (G20-1-1) shall be authorized for use at the beginning of construction, maintenance or utility work areas that extend for more than two miles.



COLOR: LEGEND AND BORDER
BACKGROUND

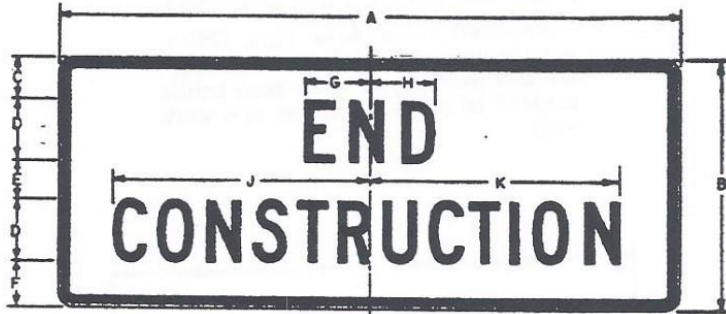
BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							SERIES LINES		MARGIN	BORDER	BLANK STD
	A	B	C	D	E	F	G	1	2			
60x30	60	30	6½	6	5	22 ⁹ / ₁₆	25	C	C	½	¾	B5-6030

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§211.724. End Construction Sign, G20-2.

The End Construction Sign, G20-2, shall be authorized for use approximately 500 feet beyond the end of a major construction or maintenance job to indicate the limit of any restrictions or special precautions that have been imposed.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) ORANGE(REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
60 x 24	60	24	3 1/2	6	3 1/2	4 1/2	6 1/4	6 3/8	25	24 1/2

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
60 x 24	C	C	3/8	5/8	85-802-8P

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§ 211.725. End Work Area Sign, G20-3.

The End Work Area Sign, G20-3, may be used in accordance with Chapter 203 (relating to work zone traffic control) to indicate the end of a work area.



COLOR · LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE(REFLECTORIZED)

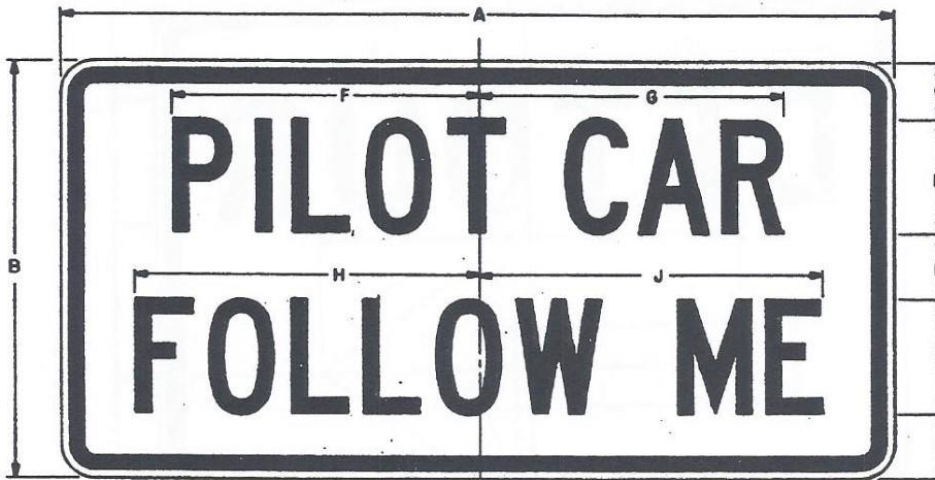
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
30 x 30	30	4½	5	3	5⅞	6⅞	9	8¾

SIGN SIZE	SERIES			MAR- GIN	BOR- DER	BLANK STD
	LINES					
	1	2	3			
30 x 30	D	D	D	½	¾	B3-30

S 211.725a. Pilot Car Sign, G20-4.

(a) Justification. The Pilot Car Sign, G20-4, will be authorized for use on the back of a vehicle used for guiding one-way traffic through or around a road construction or maintenance project. It shall be used in conjunction with at least two flagmen.

(b) Placement. The G20-4 sign shall be mounted in a conspicuous position on the rear of pilot vehicle.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
36 x 18	36	18	2 1/2	5	2 3/4	13 5/8	13 1/4	14 7/8	15	

SIGN SIZE	SERIES		MARGIN	BORDER	BLANK STD
	LINE	LINE			
36 x 18	C	C	1/4	3/8	85-3618

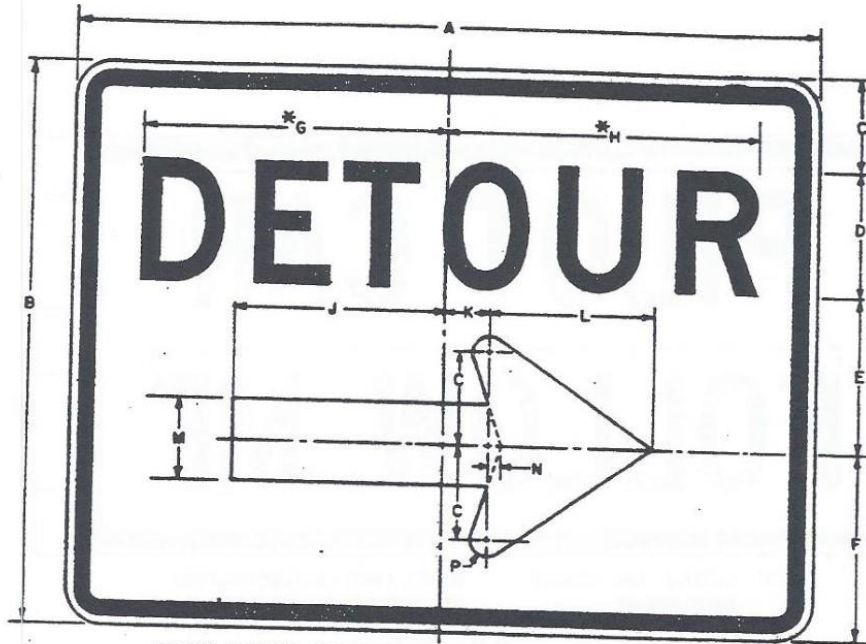
451

§211.726. Detour Sign, Right, G20-5R.

(a) *Justification.* The Detour Sign, Right, G20-5R, shall be authorized for use to mark a detoured, unnumbered route. If two unnumbered routes are detoured over the same highway, then the Detour Arrow Signs, G20-6R, and G20-6L, may be used to mark the other detoured route.

(b) *Placement.* The G20-5R sign shall be placed where the detour changes direction.

(c) *Size.* The standard size of G20-5R shall be 30 inches by 24 inches.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) ORANGE(REFLECTORIZED)

SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
* 30x24	30	24	4	5	7	8	11½	12	9	1½	7½	3½	2	11
* 48x36	48	36	6	8	10	12	19½	20½	13½	2½	10½	5½	3	17½

* Reduce spacing 25%

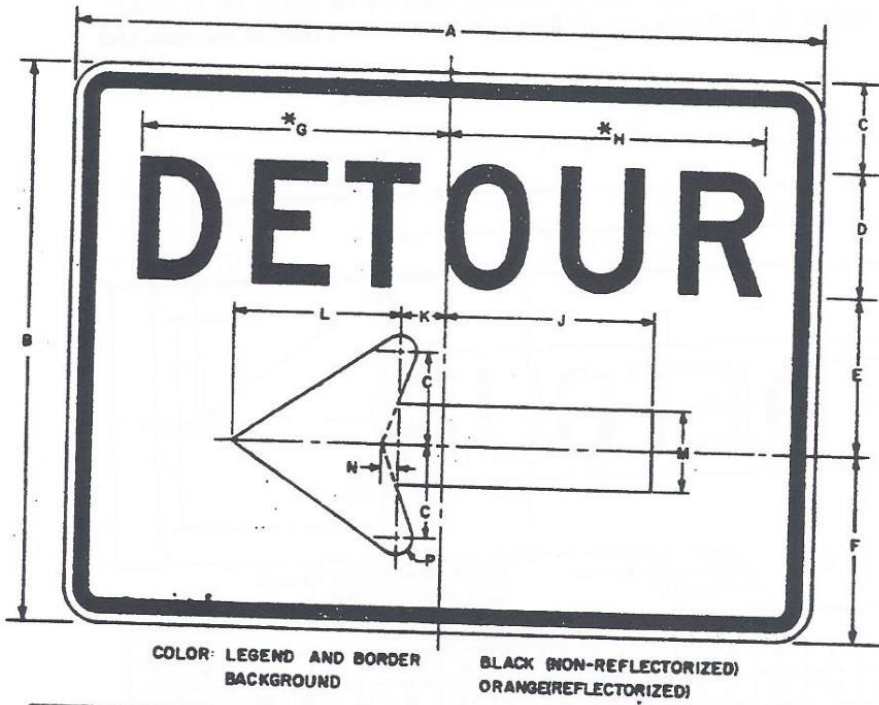
SIGN SIZE	SERIES	MARGIN	BORDER	BLANK STD
30x24	D	½	½	85-3084
48x36	D	½	½	85-4836

§211.727. Detour Sign, Left, G20-5L.

(a) *Justification.* The Detour Sign, Left, G20-5L, shall be authorized for use to mark a detoured, unnumbered route. If two unnumbered routes are detoured over the same highway, then the Detour Arrow Signs, G20-6R, and G20-6L, may be used to mark the other detoured route.

(b) *Placement.* The G20-5L sign shall be placed where the detour changes direction.

(c) *Size.* The standard size of G20-5L shall be 30 inches by 24 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE(REFLECTORIZED)

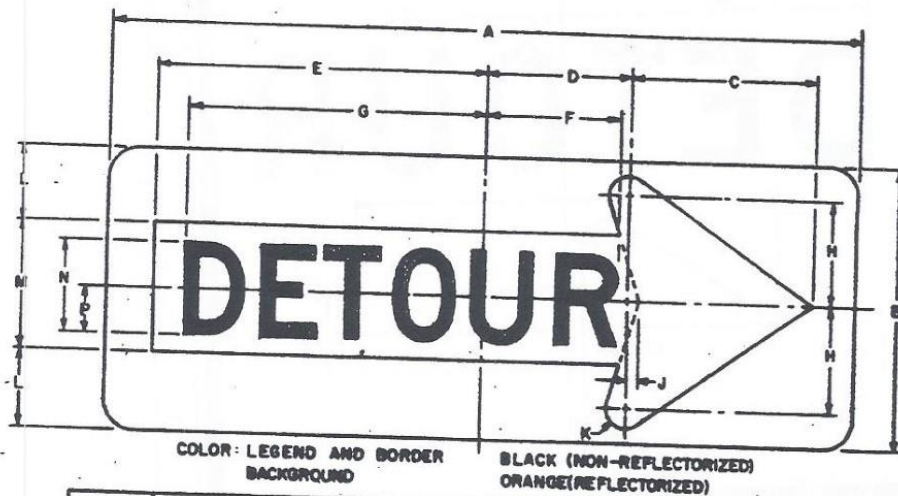
SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
* 30 x 24	30	24	4	5	7	8	11 $\frac{1}{2}$	12	9	1 $\frac{7}{8}$	7 $\frac{1}{8}$	3 $\frac{1}{2}$	2 $\frac{1}{8}$	1 $\frac{1}{8}$
48 x 36	48	36	6	8	10	12	19 $\frac{1}{2}$	20 $\frac{1}{2}$	13 $\frac{1}{2}$	2 $\frac{3}{8}$	10 $\frac{1}{8}$	5 $\frac{1}{4}$	3 $\frac{1}{8}$	1 $\frac{1}{8}$

* Reduce spacing 25%

SIGN SIZE	SER-IES	MAR-GIN	BOR-DER	BLANK STD
30x24	D	$\frac{3}{8}$	$\frac{5}{8}$	85-3024
48 x 36	D	$\frac{3}{8}$	$\frac{7}{8}$	85-4836

§211.728. Detour Arrow Sign, Right, G20-6R.

- (a) *Justification.* The Detour Arrow Sign, Right, G20-6R, shall be authorized for use when a detour route has been established due to the closure of a highway to through traffic. It may also be used to mark one of two unnumbered routes being detoured over the same highway when the other route is marked with the standard Detour Signs, G20-5R, and G20-5L.
- (b) *Placement.* The G20-6R sign should normally be mounted just below the Road Closed Sign, R11-2, or the Road Closed-Local Traffic Only Sign, R11-4. When used to mark a detoured unnumbered route, it shall be placed where the detour changes direction.
- (c) *Size.* The standard size of G20-6R shall be 48 inches by 18 inches. The 36 inches by 12 inches size shall be used to mark a detoured unnumbered route.



SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
36 x 12	36	12	9	6	15 1/2	6 1/2	14 1/2	4 1/2	2	1 1/2	3 1/2	5 1/2	4	2
48 x 18	48	18	12	9 1/2	21	8 1/2	19	6 1/2	3 1/4	1 1/4	4 1/8	6 1/2	6	3

SIGN SIZE	SER-IES	BLANK STD
36 x 12	D	85-3612
48 x 18	D	85-4818

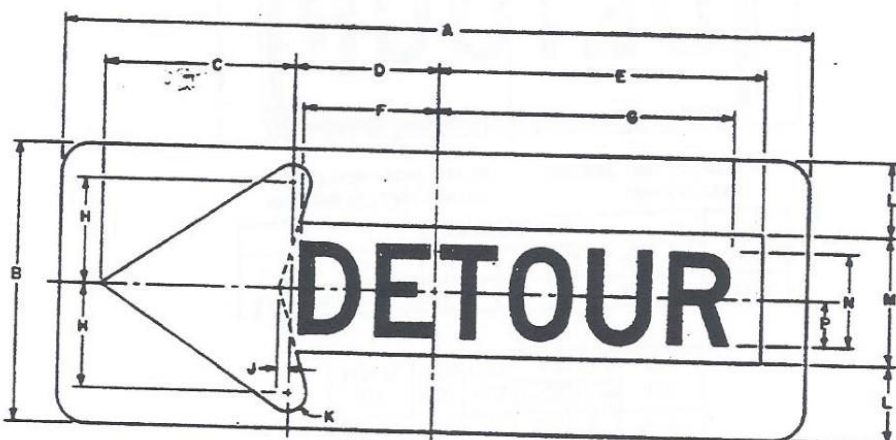
412

§211.729. Detour Arrow Sign, Left, G20-6L.

(a) *Justification.* The Detour Arrow Sign, Left, G20-6L, shall be authorized for use when a detour route has been established due to the closure of a highway to through traffic. It may also be used to mark one of two unnumbered routes being detoured over the same highway when the other route is marked with the standard Detour Signs, G20-5R, and G20-5L.

(b) *Placement.* The G20-6L sign should normally be mounted just below the Road Closed Sign, R11-2, or the Road Closed-Local Traffic Only Sign, R11-4. When used to mark a detoured unnumbered route, it shall be placed where the detour changes direction.

(c) *Size.* The standard size of G20-6L shall be 48 inches by 18 inches. The 36 inches by 12 inches size shall be used to mark a detoured unnumbered route.



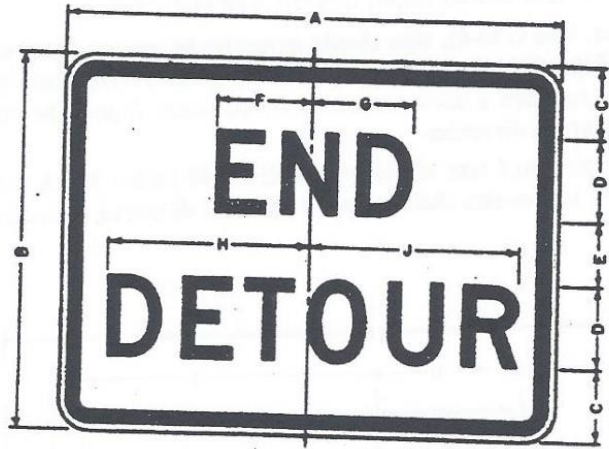
COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
ORANGE(REFLECTORIZED)

SIGN SIZE	DIMENSIONS													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
36 x 12	36	12	9	6 1/2	15 1/2	6 1/2	14 1/2	4 1/2	2 1/2	11 1/2	3 1/2	5 1/2	4	2
48 x 18	48	18	12	9 1/2	21	8 1/2	19	6 1/2	2 1/2	12 1/2	4 1/2	8 1/2	6	3

SIGN SIZE	SERIES	BLANK STD
36 x 12	D	85-3612
48 x 18	D	85-4818

§211.730. End Detour Sign, G20-7.

The End Detour Sign, G20-7, shall be authorized for use at the end of a signed detour. If route markers are used, this sign may be placed above the last route marker of the detour.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
24 x 18	24	18	3 $\frac{1}{2}$	4	3	4 $\frac{1}{2}$	4 $\frac{1}{2}$	9 $\frac{1}{2}$	10 $\frac{1}{2}$	

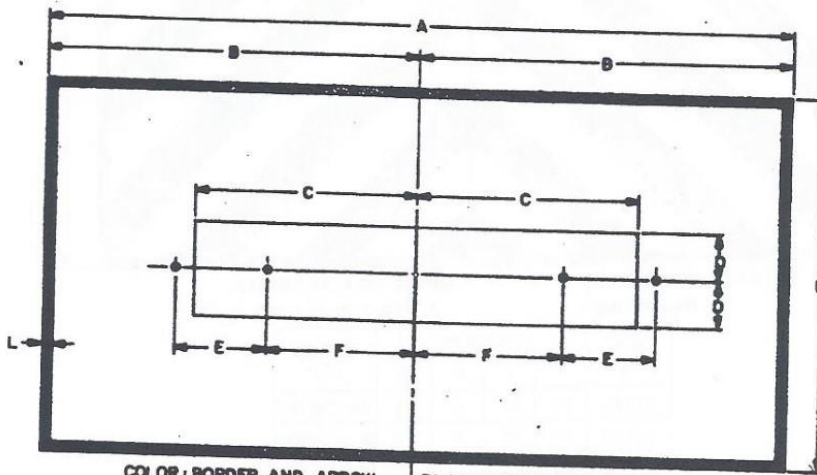
SIGN SIZE	SERIES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
24 x 18	D	D	$\frac{3}{8}$	$\frac{3}{8}$	85-2418

§ 211.731. Temporary Arrow Sign, G40-1.

(a) *Justification.* The Temporary Arrow Sign, G40-1, may be used at construction, maintenance, and utility work areas on multilane highways to direct traffic around work areas within the roadway.

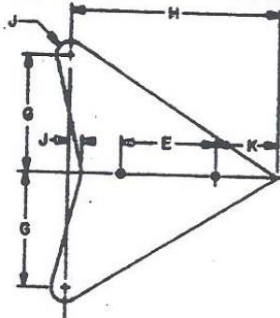
(b) *Placement.* The G40-1 sign may be erected on a Type III Barricade or, when used with the Striped Panel Sign, G40-2, may be mounted on a vehicle. The demountable arrowhead can be positioned to indicate the direction of traffic flow. The entire sign face shall be removed or covered while in transit.

(c) *Size.* The standard size G40-1 sign shall be 96 inches by 48 inches, except the 72-inch by 36-inch size may be used when the sign is mounted on a pickup truck or similar size vehicle, or on a Type III barricade.



COLOR: BORDER AND ARROW BACKGROUND BLACK (NON-REFLECTORIZED) ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											BLANK STD
	A	B	C	D	E	F	G	H	J	K	L	
72x36	72	36	21 1/2	4 1/2	9	14 1/2	11 1/2	18 1/2	1 1/2	6	1 1/2	85-7236(P)
96x48	96	48	28 1/2	6 1/2	12	19	15	25	1 1/2	8	1 1/2	85-9648(P)

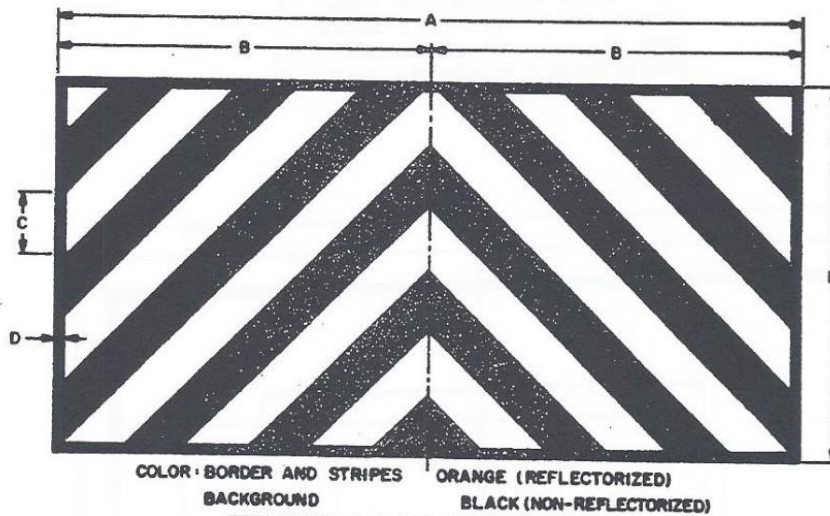


S 211.732. Striped Panel Sign, G40-2.

(a) Justification. The Striped Panel Sign, G40-2, will be authorized for use on a vehicle when used in conjunction with the Temporary Arrow Sign, G40-1.

(b) Placement. The G40-2 sign shall be placed beneath the Temporary Arrow Sign G40-1 when mounted on a vehicle.

(c) Size. The G40-2 Sign shall be the same size as the G40-1 with which it is being used.



SIGN SIZE	DIMENSIONS				BLANK STD
	A	B	C	D	
72x36	72	36	6	1 1/4	85-7236(P)
96x48	96	48	8	1 1/4	85-9648(P)

SS 211.733. - 211.740. (Reserved).

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Title 67—TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

[67 PA. CODE CH. 23]

Design, Location and Operation of All Official Traffic Signs, Signals and Markings on and Along Highways Within the Commonwealth of Pennsylvania, Subchapters F, G, H and I.

May 19, 1975

The Department of Transportation, by this order, adopts amendments to the regulations governing the design, location and operation of all official traffic signs, signals and markings on and along highways within the Commonwealth of Pennsylvania.

These regulations are amended so that the amendments conform with the current Manual on Uniform Traffic Control Devices as provided in § 1105 of The Vehicle Code, Act of April 29, 1959, P. L. 58 (No. 32) (75 P. S. § 1105). The Manual has been approved on November 13, 1970, by the Federal Highway Administrator, as the national standard for all highways open to public travel in accordance with Title 23, U.S. Code §§ 109(b), 109(d) and 402(a).

Notice of proposed rule making was published in 3 Pa. B. 2453, November 3, 1973, with a request for written comments within 30 days of publication. As a result of comments received concerning the proposed amendments to the aforesaid Regulations, modifications and corrections were made to the said proposed Regulations, but do not enlarge the original purpose of the amended Regulations. The changes are embodied in the final text as adopted. Changes were made in the following sections:

§§ 23.653; 23.681 to and including 23.688; 23.691 to and including 23.697; 23.711 was added; 23.721 to and including 23.724; 23.731; 23.732 was added; 23.741 to and including 23.743; 23.761 to and including 23.763; 23.771; 23.772; 23.781; 23.782; 23.786; 23.787; 23.801; 23.831; 23.832; 23.835; 23.841 to and including 23.847; and 23.862 to and including 23.871.

The regulations hereby amended are amended pursuant to the authority contained in § 420 of the Act of June 1, 1945, P. L. 1242 (No. 428) (36 P. S. § 670-420); § 9 of the Act of May 29, 1945, P. L. 1108 (No. 402), as amended (36 P. S. § 1291.9); and § 1105 of the Act of April 29, 1959, P. L. 58 (No. 32) (75 P. S. § 1105).

The Department of Transportation finds:

(1) That public notice of intention to amend the administrative regulations amended by this order has been duly given pursuant to §§ 201 and 202 of the CDL (45 P. S. §§ 1201 and 1202) and the regulations thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) That the amendment of the regulations of the Department of Transportation in the manner provided in this order is necessary and appropriate for the administration and enforcement of the authorizing statutes.

The Department of Transportation, acting pursuant to the authorizing statutes, orders:

(A) The regulations of the Department of Transportation, 67 Pa. Code, are amended by deleting § 706 to and including § 708-5 of Chapter 7 of the aforesaid regulations and adopting Chapter 23 Pennsylvania Code, Subchapter F (route markers and auxiliary markers); Subchapter G (destination and distance signs); Subchapter H (information signs); and Subchapter I (school signs), as set forth in Annex A to this order.

(B) The Secretary of the Department of Transportation shall submit this order and Annex A hereto to the Depart-

ment of Justice for approval as to legality as required by law.

(C) The Secretary of the Department of Transportation shall duly certify this order and Annex A hereto and deposit the same with the Legislative Reference Bureau as required by law.

(D) This order shall take effect immediately.
By the Department of Transportation.

JACOB G. KASSAB,
Secretary of Transportation

Annex A

[67 Pa. Code Ch. 23]

Regulations Governing the Design, Location and Operation of All Official Traffic Signs, Signals and Markings on and Along Highways Within the Commonwealth of Pennsylvania.

Subchapter F. ROUTE MARKERS AND AUXILIARY MARKERS

Subchapter G. DESTINATION AND DISTANCE SIGNS

Subchapter H. INFORMATION SIGNS

Subchapter I. SCHOOL SIGNS

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Rest Area Group (D5 Series)

- 23.761. Rest Area Mile Sign (D5-1).
- 23.762. Rest Area Entrance Sign (D5-1-1).
- 23.763. Roadside Table Sign (D5-5).
- 23.764. Feet Sign (D5-5-1).
- 23.765-23.770. Reserved.

Scenic Area Group (D6 Series)

- 23.771. Advance Scenic Overlook Sign (D6-2).
- 23.772. Scenic Overlook Entrance Sign (D6-3).
- 23.773-23.780. Reserved.

Services Group (D9 Series)

- 23.781. Telephone With Arrow Sign (D9-1).
- 23.782. Telephone Mile Sign (D9-1-1).
- 23.783. Hospital Sign (D9-2).
- 23.784. Hospital Plaque (D9-2-1).
- 23.785. Services Arrow (D9-2-2).
- 23.786. Camping Sign (D9-3).
- 23.787. Camping Plaque (D9-3-1).
- 23.788. Ski Area Sign (D9-5).
- 23.789. Ski Area Plaque (D9-5-1).
- 23.790-23.800. Reserved.

Mileage Marker Group (D10 Series)

- 23.801. Mileage Marker (D10-1).
- 23.802. Interstate Mileage Marker (D10-4).
- 23.803-23.830. Reserved.

Subchapter H. INFORMATION SIGNS

Traffic Signal Group (I1 Series)

- 23.831. Traffic Signal Speed Sign (I1-1).

Sec.

Trail Group (I4 Series)

- 23.832. Trail Sign (I4-1).
- 23.833. Trail Plaque (I4-1-1).
- 23.834. Information Arrow (I4-1-2).
- 23.835. Airport Sign (I5-1).
- 23.836. Airport Plaque (I5-1-1).
- 23.837-23.840. Reserved.

Name Group (I10 Series)

- 23.841. City Name Sign (I10-1).
- 23.842. Borough Name Sign (I10-2).
- 23.843. Village Name Sign (I10-3).
- 23.844. Township Name Sign (I10-4).
- 23.845. County Name Sign (I10-5).
- 23.846. River Name Sign (I10-6).
- 23.847. Bicycle Route Sign (I11-1).
- 23.848-23.860. Reserved.

Subchapter I. SCHOOL SIGNS (S SERIES)

- 23.861. Purpose.
- 23.862. School Sign (S1-1).
- 23.863. School Crossing Sign (S2-1).
- 23.864. School Bus Stop Ahead Sign (S3-1).
- 23.865. School Children Bus Stop Ahead Sign (S3-2).
- 23.866. School Bus Crossing Sign (S3-3).
- 23.867. School Panel (S4-3).
- 23.868. When Flashing Sign (S4-4).
- 23.869. During Restricted Hours Sign (S4-10).
- 23.870. End School Zone Sign (S4-11).
- 23.871. Variable School Speed Limit Sign.

Subchapter F. ROUTE MARKERS AND AUXILIARY MARKERS (M SERIES)

§ 23.641. Purpose.

Route markers are used to identify and mark numbered highways, including Interstate, U.S. and Pennsylvania traffic routes. The markers for each system of numbered traffic routes, which are distinctive in shape and color, shall be used only on that respective system and the approaches thereto.

To accomplish their purpose, route markers are mounted in assemblies which are formed when the route markers are accompanied by any of the various types of auxiliary markers. Assemblies for two or more routes, or for different directions on the same route, should be mounted in groups on a common support.

Route marker assemblies shall be erected on all approaches to the intersection of numbered routes, and may be erected on the approaches to numbered routes on unnumbered highways which carry an appreciable amount of traffic destined for the numbered route.

Within groups of assemblies, information for routes intersecting from the left shall be mounted at the left in horizontal arrangements and at the center of vertical arrangements. Similarly, information for routes intersecting from the right shall be at the right or bottom, and for straight through routes at the center or top.

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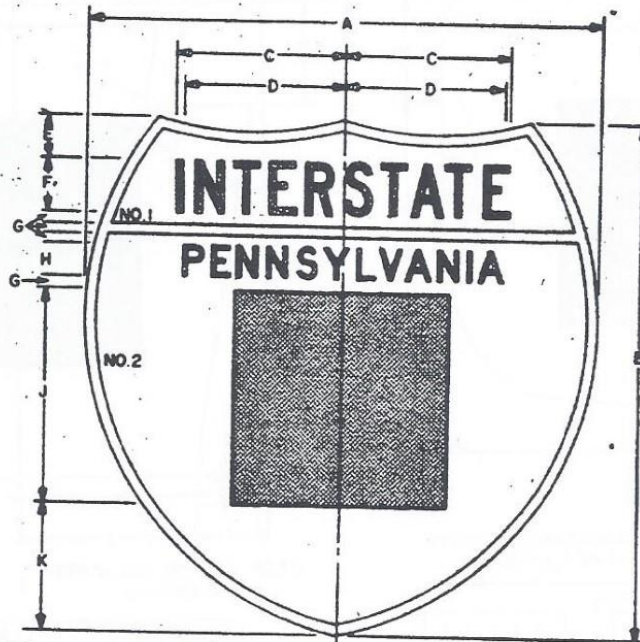
RULES AND REGULATIONS

1459

§ 23.642. Interstate Route Marker (M1-1).

(a) *Justification.* The Interstate Route Marker (M1-1) shall be authorized for use to mark interstate routes and intersecting highways approaching an interchange with an interstate route.

(b) *Size.* The 36-inch by 36-inch size for one and two digit route numbers and the 45-inch by 36-inch size for three digit route numbers shall be used on the interstate route. The 24-inch by 24-inch size for one and two digit route numbers and the 30-inch by 24-inch size for three digit route numbers shall be reserved for use on intersecting highways.



- NO. 1 SHALL HAVE WHITE REFLECTIVE LETTERS AND BORDER WITH RED REFLECTIVE BACKGROUND.
- NO. 2 SHALL HAVE WHITE REFLECTIVE LETTERS, NUMERALS AND BORDER WITH BLUE REFLECTIVE BACKGROUND.

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
24 x 24	24	24	7 $\frac{1}{2}$	7 $\frac{1}{2}$	2	2 $\frac{1}{2}$	$\frac{1}{2}$	1 $\frac{1}{2}$	10	6
30 x 24	30	24	7 $\frac{1}{2}$	7 $\frac{1}{2}$	2	2 $\frac{1}{2}$	$\frac{1}{2}$	1 $\frac{1}{2}$	10	6
36 x 36	36	36	11 $\frac{1}{2}$	11 $\frac{1}{2}$	3	3 $\frac{3}{4}$	$\frac{3}{4}$	2 $\frac{1}{2}$	15	9
45 x 36	45	36	11 $\frac{1}{2}$	11 $\frac{1}{2}$	3	3 $\frac{3}{4}$	$\frac{3}{4}$	2 $\frac{1}{2}$	15	9

SIGN SIZE	SERIES			BOR- DER	BLANK STD.
	1	2	3		
24 x 24	C	D	D	$\frac{1}{2}$	B6-24
30 x 24	C	D	D	$\frac{1}{2}$	B6-3024
36 x 36	C	D	D	$\frac{3}{4}$	B6-36
45 x 36	C	D	D	$\frac{3}{4}$	B6-4536

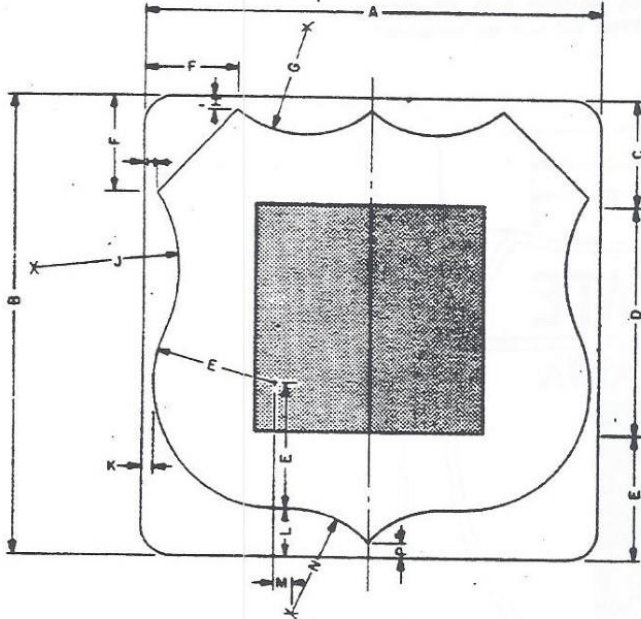
411
5

RULES AND REGULATIONS

§ 23.643. U.S. Route Marker (M1-4).

(a) *Justification.* The U.S. Route Marker (M1-4) shall be authorized for use to mark U.S. traffic routes.

(b) *Size.* The standard size of M1-4 shall be 24 inches by 24 inches for one and two digit route numbers and 30 inches by 24 inches for three digit route numbers. The 36-inch by 36-inch size for one and two digit route numbers and the 45-inch by 36-inch size for three digit route numbers may be used on expressways.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

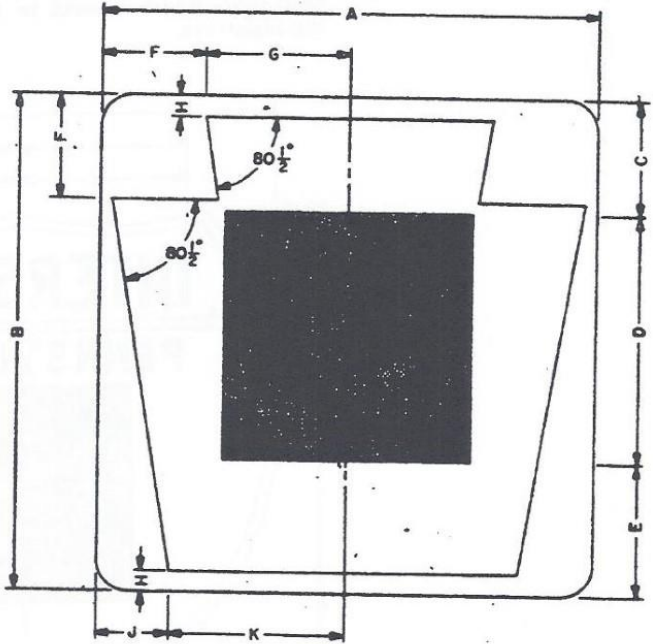
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
24 x 24	24	24	5 1/2	12	6 1/2	5	5 1/2	3 3/8	7 1/2	
30 x 24	30	24	5 1/2	12	6 1/2	5	9 1/2	3 3/8	7 1/2	
36 x 36	36	36	8 1/2	18	9 3/4	7 1/2	8 1/4	10 1/8	11 1/4	
45 x 36	45	36	8 1/2	18	9 3/4	7 1/2	14 1/4	10 1/8	11 1/4	

SIGN SIZE	DIMENSIONS					SERIES	BLANK STD
	K	L	M	N	P		
24 x 24	1 1/2	2 1/2	1	5 1/2	3 3/8	D	83-24
30 x 24	1 1/2	2 1/2	4	5 1/2	3 3/8	D	85-3024
36 x 36	1 1/2	3 3/4	1 1/2	8 1/4	1 1/8	D	83-36
45 x 36	1 1/2	3 3/4	5 1/2	8 1/4	1 1/8	D	85-4536

§ 23.644. Pennsylvania Route Marker (M1-6).

(a) *Justification.* The Pennsylvania Route Marker (M1-6) shall be authorized for use to mark Pennsylvania traffic routes.

(b) *Size.* The standard size of M1-6 shall be 24 inches by 24 inches for one and two digit route numbers and 30 inches by 24 inches for three digit route numbers. The 36-inch by 36-inch size for one and two digit route numbers and the 45-inch by 36-inch size for three digit route numbers may be used on expressways.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
24 x 24	24	24	5 1/2	12	6 1/2	5	7
30 x 24	30	24	5 1/2	12	6 1/2	5	10
36 x 36	36	36	8 1/2	18	9 3/4	7 1/2	10 1/2
45 x 36	45	36	8 1/2	18	9 3/4	7 1/2	15

SIGN SIZE	DIMENSIONS			SERIES	BLANK STD
	H	J	K		
24 x 24	1	3 1/2	8 1/2	D	83-24
30 x 24	1	3 1/2	11 1/2	D	85-3024
36 x 36	1 1/2	5 1/4	12 1/2	D	83-36
45 x 36	1 1/2	5 1/4	17 1/2	D	85-4536

4200

RULES AND REGULATIONS

§ 23.645-§ 23.650. Reserved.

§ 23.651. Junction Marker (M2-1).

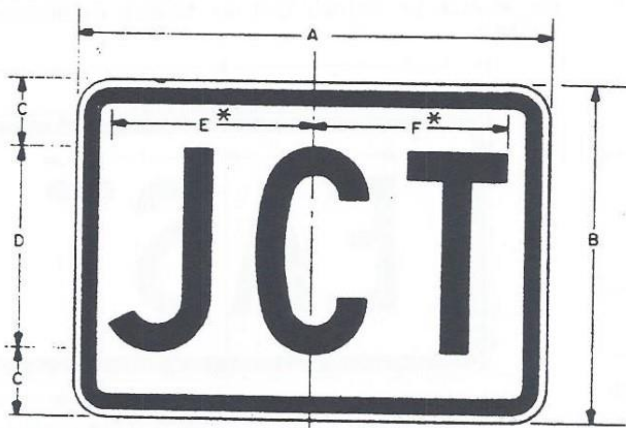
(a) *Justification.* The Junction Marker (M2-1) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) in advance of an intersection with the U.S. or Pennsylvania traffic route.

(b) *Placement.* The M2-1 shall be placed above the route marker.

§ 23.652. Interstate Junction Marker (M2-1-1).

(a) *Justification.* The Interstate Junction Marker (M2-1-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) in advance of an intersection with an Interstate traffic route.

(b) *Placement.* The M2-1-1 shall be placed above the route marker.

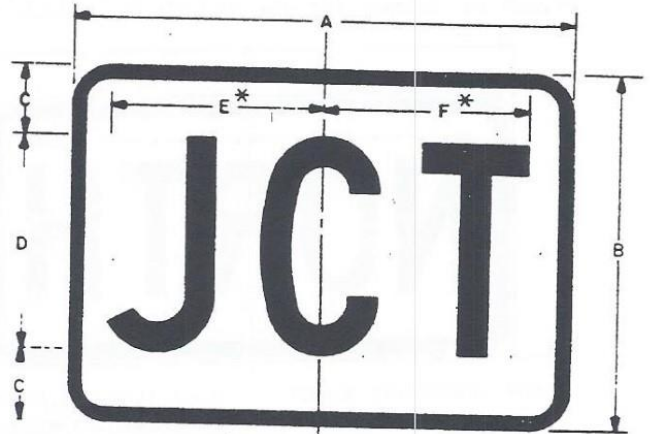


COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
21 x 15	21	15	3	9	$8\frac{15}{16}$	$8\frac{5}{8}$

* Increase space 25%

SIGN SIZE	SER-IES	MAR-GIN	BOR-DER	BLANK STD
21 x 15	C	$\frac{3}{8}$	$\frac{5}{8}$	B5-2115



COLOR LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
21 x 15	21	15	3	9	$8\frac{15}{16}$	$8\frac{5}{8}$

* Increase spacing 25%

SIGN SIZE	SER-IES	BOR-DER	BLANK STD
21 x 15	C	$\frac{1}{2}$	B5-2115

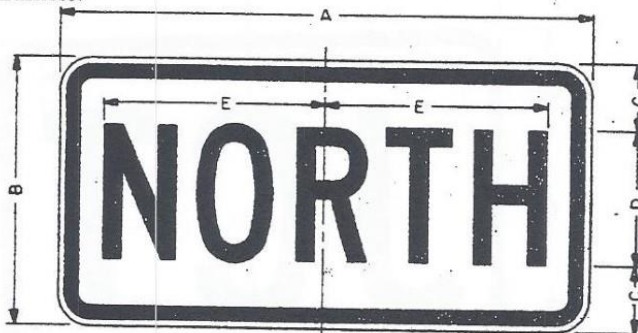
RULES AND REGULATIONS

§ 23.653. North Marker (M3-1).

(a) *Justification.* The North Marker (M3-1) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) to indicate the general direction of the entire route.

(b) *Placement.* The M3-1 shall be placed directly above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINE	MARGIN	BORDER	BLANK STD
	A	B	C	D	E				
24 x 12	24	12	3	6	10	C	$\frac{3}{8}$	$\frac{5}{8}$	B5-2412
30 x 15	30	15	$3\frac{1}{2}$	8	$12\frac{3}{8}$	C	$\frac{3}{8}$	$\frac{5}{8}$	B5-3015

* Reduce spacing 20%

** Reduce spacing 50%

§ 23.655. East Marker (M3-2).

(a) *Justification.* The East Marker (M3-2) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) to indicate the general direction of the entire route.

(b) *Placement.* The M3-2 shall be placed directly above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES LINE	MARGIN	BORDER	BLANK STD
	A	B	C	D	E	F				
24 x 12	24	12	3	6	$7\frac{5}{8}$	$8\frac{1}{8}$	C	$\frac{3}{8}$	$\frac{5}{8}$	B5-2412
30 x 15	30	15	$3\frac{1}{2}$	8	$10\frac{1}{8}$	$10\frac{7}{8}$	C	$\frac{3}{8}$	$\frac{5}{8}$	B5-3015

§ 23.654. Interstate North Marker (M3-1-1).

(a) *Justification.* The Interstate North Marker (M3-1-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) to indicate the general direction of the entire route.

(b) *Placement.* The M3-1-1 shall be placed directly above the route marker.

(c) *Size.* The size of M3-1-1 shall be as provided in § 23.653(c) of this Title (relating to size of north marker).



COLOR LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINE	BORDER	BLANK STD
	A	B	C	D	E			
24 x 12	24	12	3	6	$10\frac{7}{16}$	C	$\frac{1}{2}$	B5-2412
30 x 15	30	15	$3\frac{1}{2}$	8	$13\frac{1}{8}$	C	$\frac{1}{2}$	B5-3015

* Reduce spacing 25%

§ 23.656. Interstate East Marker (M3-2-1).

(a) *Justification.* The Interstate East Marker (M3-2-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) to indicate the general direction of the entire route.

(b) *Placement.* The M3-2-1 shall be placed directly above the route marker.

(c) *Size.* The size of M3-2-1 shall be as provided in § 23.655(c) of this Title (relating to size of east marker).



COLOR LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES LINE	BORDER	BLANK STD
	A	B	C	D	E	F			
24 x 12	24	12	3	6	$7\frac{5}{8}$	$8\frac{1}{8}$	C	$\frac{1}{2}$	B5-2412
30 x 15	30	15	$3\frac{1}{2}$	8	$10\frac{1}{8}$	$10\frac{7}{8}$	C	$\frac{1}{2}$	B5-3015

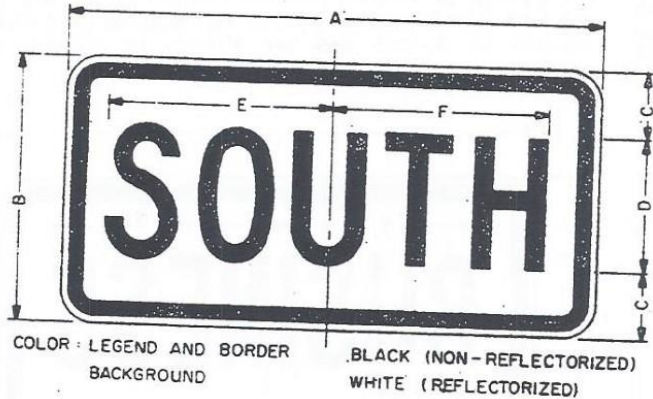
RULES AND REGULATIONS

§ 23.657. South Marker (M3-3).

(a) *Justification.* The South Marker (M3-3) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) to indicate the general direction of the entire route.

(b) *Placement.* The M3-3 shall be placed directly above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



SIGN SIZE	DIMENSIONS						SERIES LINE I	MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	F				
24x12	24	12	3	6	10 1/8	9 5/8	C	3/8	5/8	B5-2412
30x15	30	15	3 1/2	8	12 11/16	11 15/16	C	3/8	5/8	B5-3015

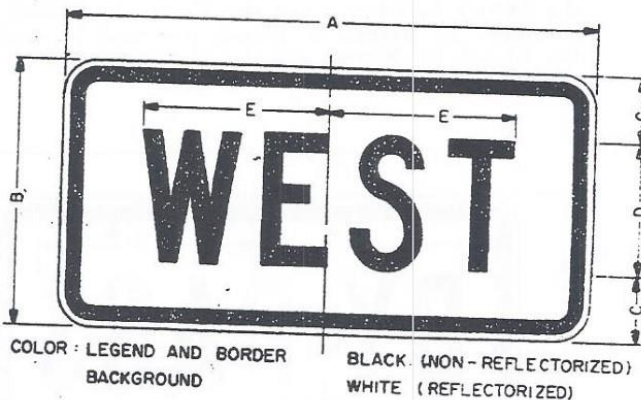
* Reduce spacing 20% ** Reduce spacing 50%

§ 23.659. West Marker (M3-4).

(a) *Justification.* The West Marker (M3-4) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) to indicate the general direction of the entire route.

(b) *Placement.* The M3-4 shall be placed directly above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



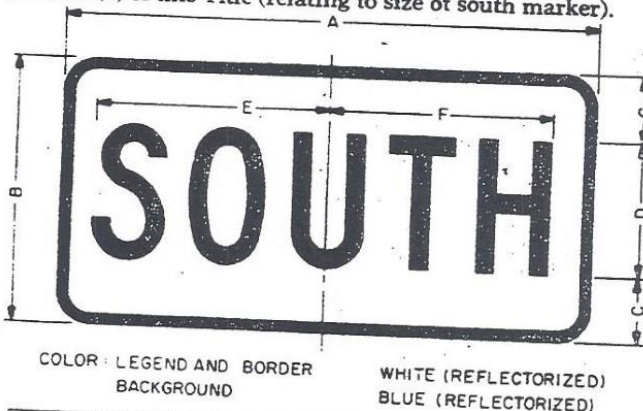
SIGN SIZE	DIMENSIONS					SERIES LINE I	MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E				
24x12	24	12	3	6	8 3/8	C	3/8	5/8	B5-2412
30x15	30	15	3 1/2	8	11 1/4	C	3/8	5/8	B5-3015

§ 23.658. Interstate South Marker (M3-3-1).

(a) *Justification.* The Interstate South Marker (M3-3-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) to indicate the general direction of the entire route.

(b) *Placement.* The M3-3-1 shall be placed directly above the route marker.

(c) *Size.* The size of M3-3-1 shall be as provided in § 23.657(c) of this Title (relating to size of south marker).



SIGN SIZE	DIMENSIONS						SERIES LINE I	BOR-DER	BLANK STD
	A	B	C	D	E	F			
24x12	24	12	3	6	10 9/16	10 1/16	C	1/2	B5-2412
30x15	30	15	3 1/2	8	13 3/8	12 5/8	C	1/2	B5-3015

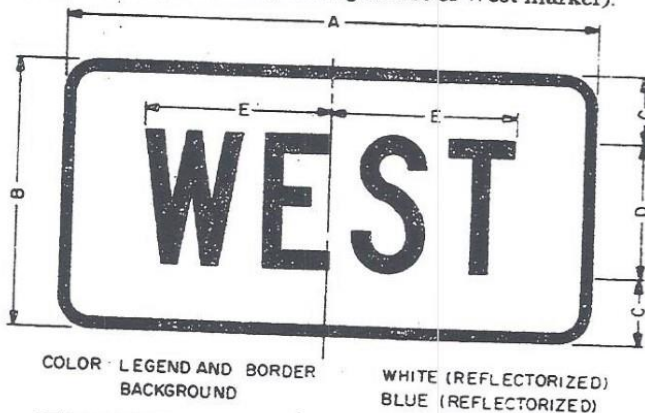
* Reduce spacing 25%

§ 23.660. Interstate West Marker (M3-4-1).

(a) *Justification.* The Interstate West Marker (M3-4-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) to indicate the general direction of the entire route.

(b) *Placement.* The M3-4-1 shall be placed directly above the route marker.

(c) *Size.* The size of M3-4-1 shall be as provided in § 23.659(c) of this Title (relating to size of West marker).



SIGN SIZE	DIMENSIONS					SERIES LINE I	BOR-DER	BLANK STD
	A	B	C	D	E			
24x12	24	12	3	6	8 3/8	C	1/2	B5-2412
30x15	30	15	3 1/2	8	11 1/4	C	1/2	B5-3015

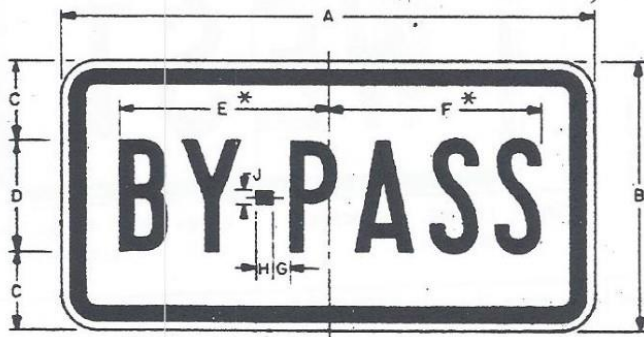
§ 23.661-§ 23.670. Reserved.

§ 23.671. By-Pass Marker (M4-2).

(a) *Justification.* The By-Pass Marker (M4-2) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) and the Pennsylvania Route Marker (M1-6) to designate an alternate route that branches from the regular numbered route through a city, bypasses a part of the city or congested area, and rejoins the regular numbered route beyond the city.

(b) *Placement.* The M4-2 shall be placed above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED) BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	I	J
24 x 12	24	12	3 1/2	5	9 3/8	9 5/8	13 1/16	3 3/4	5 5/8	
* 30 x 15	30	15	4	7	12 1/4	12 5/8	1 1/16	1	7 7/8	

* Reduce spacing 40%

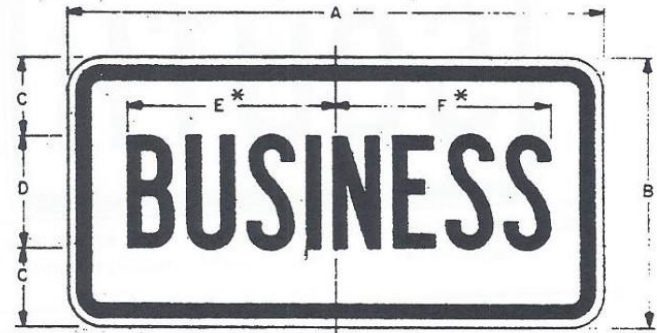
SIGN SIZE	SERIES	MARGIN	BORDER	BLANK STD
24 x 12	B	3/8	5/8	B5-2412
30 x 15	B	3/8	5/8	B5-3015

§ 23.672. Business Marker (M4-3).

(a) *Justification.* The Business Marker (M4-3) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) and the Pennsylvania Route Marker (M1-6) to designate an alternate route that branches from the regular numbered route, passes through the business portion of a city, and rejoins the regular numbered route beyond the city.

(b) *Placement.* The M4-3 shall be placed above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED) BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 12	24	12	3 1/2	5	9 5/16	9 9/16
30 x 15	30	15	4	7	13	13 1/2

* Reduce spacing 40%

SIGN SIZE	SERIES	MARGIN	BORDER	BLANK STD
24 x 12	B	3/8	5/8	B5-2412
30 x 15	B	3/8	5/8	B5-3015

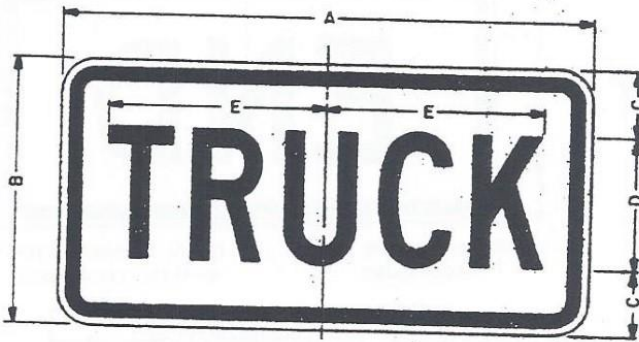
RULES AND REGULATIONS

§ 23.673. Truck Marker (M4-4).

(a) *Justification.* The Truck Marker (M4-4) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) and the Pennsylvania Route Marker (M1-6) to designate an alternate route that branches from the regular numbered route, bypasses an area which is congested or where height or weight limitations have been officially established, and rejoins the regular numbered route beyond that area.

(b) *Placement.* The M4-4 shall be placed above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS				
	A	B	C	D	E
* 24 x 12	24	12	3	6	9 ⁷ / ₈
** 30 x 15	30	15	3 ¹ / ₂	8	12 ¹ / ₄

SIGN SIZE	SERIES LINE	MARGIN	BORDER	BLANK STD
24 x 12	C	$\frac{3}{8}$	$\frac{5}{8}$	85-2412
30 x 15	C	$\frac{3}{8}$	$\frac{5}{8}$	85-3015

* Reduce spacing 20 %

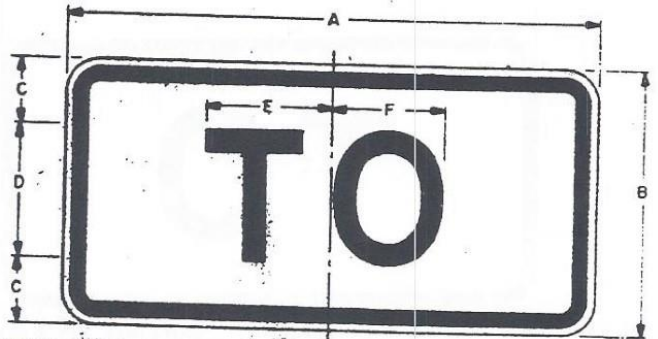
** Reduce spacing 50 %

§ 23.674. To Marker (M4-5).

(a) *Justification.* The To Marker (M4-5) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) and the Pennsylvania Route Marker (M1-6) to provide directional guidance to a particular road facility from other highways in the vicinity. The use of the M4-5 indicates that the road or street where the marker is placed is not a part of the indicated route but merely indicates the direction to the nearest or most convenient point of access to the route.

(b) *Placement:* The M4-5 shall be placed above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 12	24	12	3	6	5 ⁵ / ₈	5
30 x 15	30	15	3 ¹ / ₂	8	7 ¹ / ₂	6 ⁵ / ₈

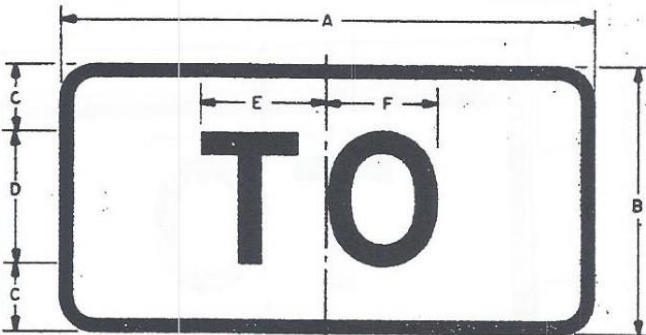
SIGN SIZE	SERIES	MARGIN	BORDER	BLANK STD
24 x 12	E	$\frac{3}{8}$	$\frac{5}{8}$	85-2412
30 x 15	E	$\frac{3}{8}$	$\frac{5}{8}$	85-3015

§ 23.675. Interstate To Marker (M4-5-1).

(a) *Justification.* The Interstate To Marker (M4-5-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) to provide directional guidance to a particular road facility from other highways in the vicinity. The use of the M4-5-1 indicates that the road or street where the marker is placed is not a part of the indicated route but merely indicates the direction to the nearest or most convenient point of access to the route.

(b) *Placement.* The M4-5-1 shall be placed above the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER WHITE (REFLECTORIZED)
BACKGROUND BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 12	24	12	3	6	5 ⁵ / ₈	5
30 x 15	30	15	3 ¹ / ₂	8	7 ¹ / ₂	6 ⁵ / ₈

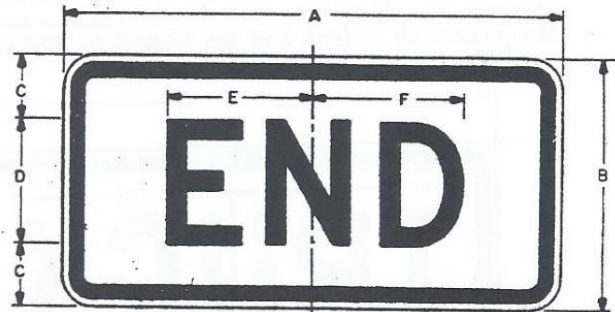
SIGN SIZE	SER-IES	BOR-DER	BLANK STD
24 x 12	E	¹ / ₂	B5-2412
30 x 15	E	¹ / ₂	B5-3015

§ 23.676. End Marker (M4-6).

(a) *Justification.* The End Marker (M4-6) shall be authorized for use in conjunction with a route marker where the route being traveled ends at a junction with another route.

(b) *Placement.* The M4-6 shall be placed above the route marker designating the route being terminated.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 12	24	12	3	6	7	7 ¹ / ₄
30 x 15	30	15	3 ¹ / ₂	8	9 ¹ / ₄	9 ³ / ₄

SIGN SIZE	SER-IES	MAR-GIN	BOR-DER	BLANK STD
24 x 12	D	³ / ₈	⁵ / ₈	B5-2412
30 x 15	D	³ / ₈	⁵ / ₈	B5-3015

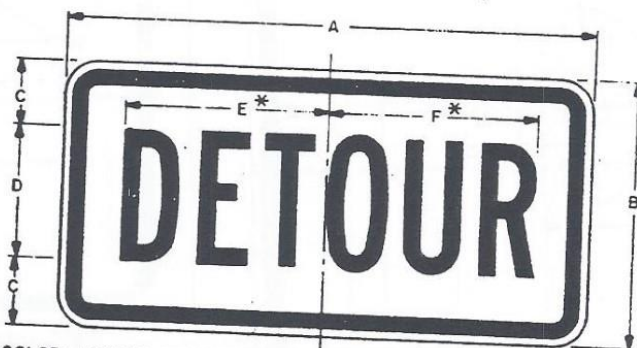
RULES AND REGULATIONS

§ 23.677. Detour Marker (M4-8).

(a) *Justification.* The Detour Marker (M4-8) shall be authorized for use in conjunction with a route marker to mark a temporary route that branches from a regular numbered route, bypasses a section of that route which is closed for construction or traffic emergency and rejoins the regular numbered route beyond that section.

(b) *Placement.* The M4-8 shall be placed above the route marker designating the route being detoured.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER
BACKGROUND

BLACK (NON-REFLECTORIZED)
ORANGE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 12	24	12	3	6	9 ³ / ₁₆	9 ⁹ / ₁₆
30 x 15	30	15	3 ¹ / ₂	8	12 ¹ / ₄	12 ³ / ₄

* Reduce spacing 20%

SIGN SIZE	SERIES	MARGIN	BORDER	BLANK STD
24 x 12	B	³ / ₈	⁵ / ₈	B5-2412
30 x 15	B	³ / ₈	⁵ / ₈	B5-3015

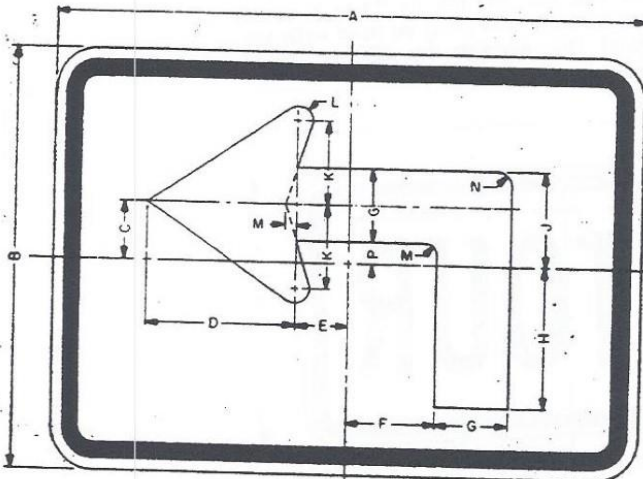
RULES AND REGULATIONS

§ 23.678-23.680. Reserved.

§ 23.681. Advance 90° Left Turn Marker (M5-1L).

(a) *Justification.* The Advance 90° Left Turn Marker M5-1L shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-1L shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

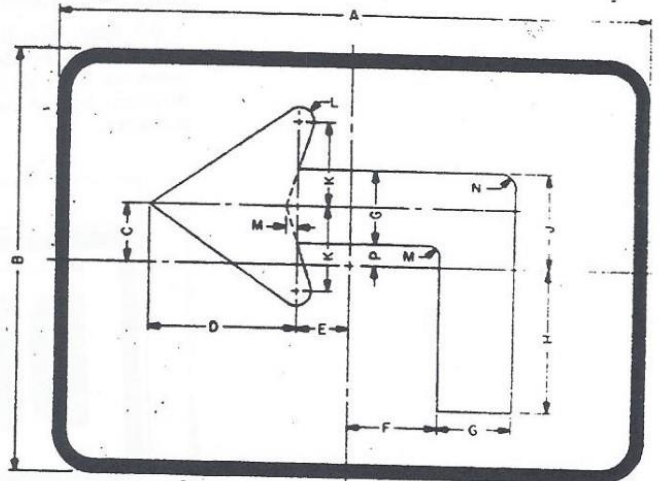
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
21 x 15	21	15	2 1/16	5 1/4	1 7/8	3 3/16	2 5/8	5 1/16	3 3/8	

SIGN SIZE	DIMENSIONS					MARGIN	BORDER	BLANK STD
	K	L	M	N	P			
21 x 15	3	1 1/2	3/8	9/16	3/4	3/8	5/8	B5-2115

§ 23.682. Interstate Advance 90° Left Turn Marker (M1-1L).

(a) *Justification.* The Interstate Advance 90° Left Turn Marker M5-1-1L shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-1-1L shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
 BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
21 x 15	21	15	2 1/16	5 1/4	1 7/8	3 3/16	2 5/8	5 1/16	3 3/8	

SIGN SIZE	DIMENSIONS					BORDER	BLANK STD
	K	L	M	N	P		
21 x 15	3	1 1/2	3/8	9/16	3/4	3/8	B5-2115

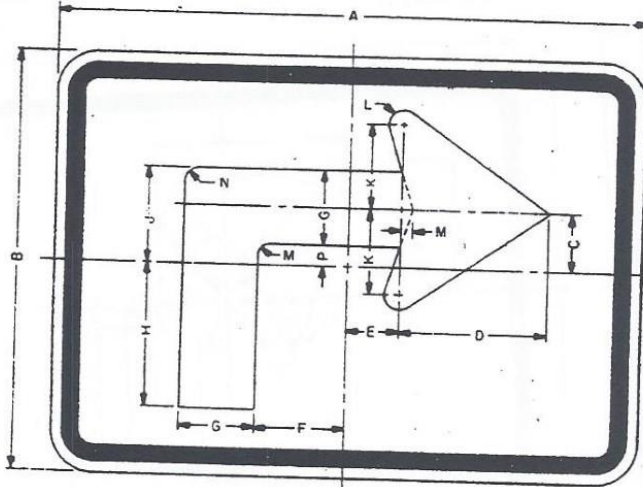
RULES AND REGULATIONS

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§ 23.683 Advance 90° Right Turn Marker (M5-1R).

(a) *Justification.* The advance 90° Right Turn Marker M5-1R shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-1R shall be placed directly below the route marker.



COLOR LEGEND AND BORDER BACKGROUND

BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

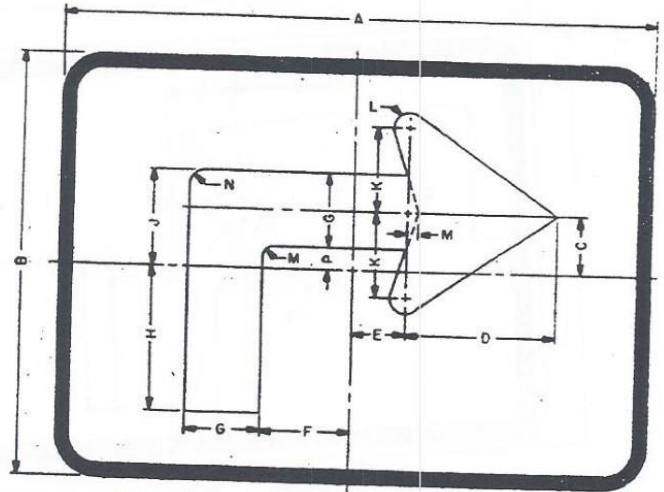
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
21 x 15	21	15	2 $\frac{1}{16}$	5 $\frac{1}{4}$	1 $\frac{7}{8}$	3 $\frac{3}{16}$	2 $\frac{5}{8}$	5 $\frac{1}{16}$	3 $\frac{3}{8}$	

SIGN SIZE	DIMENSIONS					MAR-GIN	BOR-DER	BLANK STD.
	K	L	M	N	P			
21 x 15	3	1 $\frac{1}{2}$	3 $\frac{3}{8}$	9 $\frac{9}{16}$	3 $\frac{3}{4}$	3 $\frac{3}{8}$	3 $\frac{3}{8}$	85-2115

§ 23.684. Interstate Advance 90° Right Turn Marker (M5-1-1R).

(a) *Justification.* The Interstate Advance 90° Right Turn Marker M5-1-1R shall be authorized for use in conjunction with the Interstate Route Marker (M-1-1) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-1-1R shall be placed directly below the route marker.



COLOR LEGEND AND BORDER BACKGROUND

WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
21 x 15	21	15	2 $\frac{1}{16}$	5 $\frac{1}{4}$	1 $\frac{7}{8}$	3 $\frac{3}{16}$	2 $\frac{3}{8}$	5 $\frac{1}{16}$	3 $\frac{3}{8}$	

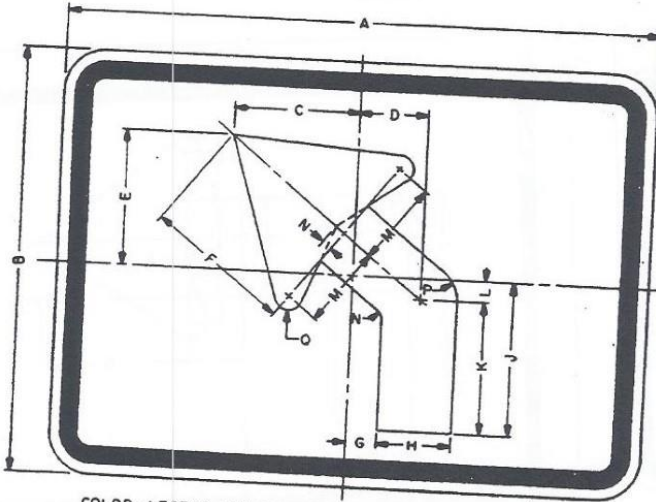
SIGN SIZE	DIMENSIONS					BOR-DER	BLANK STD.
	K	L	M	N	P		
21 x 15	3	1 $\frac{1}{2}$	3 $\frac{3}{8}$	9 $\frac{9}{16}$	3 $\frac{3}{8}$	1 $\frac{1}{2}$	85-2115

RULES AND REGULATIONS

§ 23.685. Advance 45° Left Turn Marker (M5-2L).

(a) *Justification.* The Advance 45° Left Turn Marker M5-2L shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-2L shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND
BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

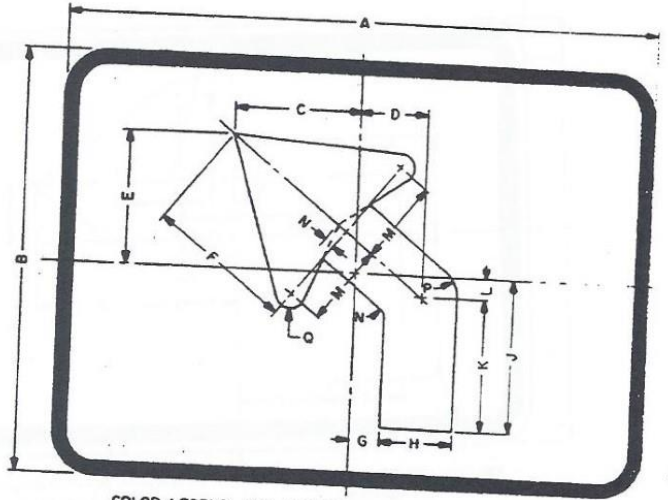
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
21 x 15	21	15	4 1/2	2 7/16	4 3/4	5 1/4	1 1/8	2 3/8	5 7/16	4 11/16	

SIGN SIZE	DIMENSIONS					MARGIN	BORDER	BLANK STD
	L	M	N	P	Q			
21 x 15	3/4	3	3/8	9/16	1/2	3/16	5/8	85-2115

§ 23.686. Interstate Advance 45° Left Turn Marker (M5-2-1L).

(a) *Justification.* The Interstate Advance 45° Left Turn Marker M5-2-1L shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-2-1L shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND
WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
21 x 15	21	15	4 1/2	2 7/16	4 3/4	5 1/4	1 1/8	2 3/8	5 7/16	4 11/16	

SIGN SIZE	DIMENSIONS					BORDER	BLANK STD
	L	M	N	P	Q		
21 x 15	3/4	3	3/8	9/16	1/2	1/2	85-2115

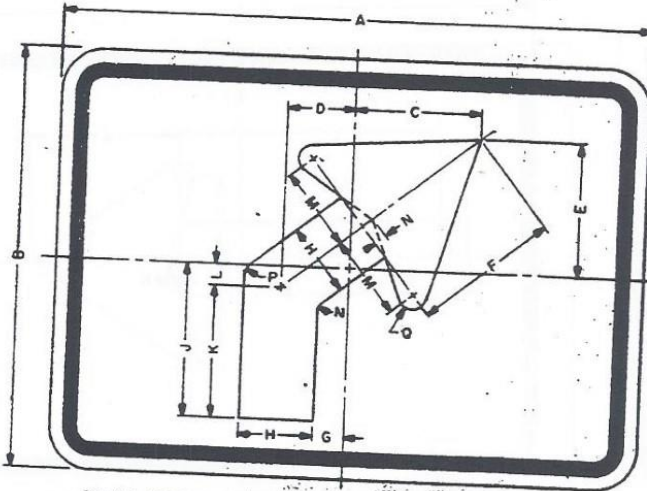
RULES AND REGULATIONS

1471

§ 23.687. Advance 45° Right Turn Marker (M5-2R).

(a) *Justification.* The Advance 45° Right Turn Marker M5-2R shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-2R shall be placed directly below the route marker.



COLOR · LEGEND AND BORDER
BACKGROUND BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

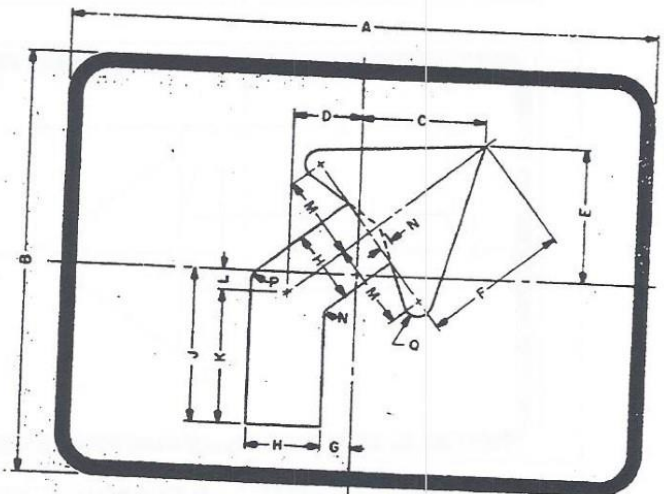
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
21 x 15	21	15	4 1/2	2 7/16	4 3/8	5 1/4	1 1/8	2 3/8	5 7/16	4 11/16	

SIGN SIZE	DIMENSIONS					MAR-GIN	BOR-DER	BLANK STD
	L	M	N	P	Q			
21 x 15	3/4	3	3/8	9/16	1/2	3/8	5/8	85-2115

§ 23.688. Interstate Advance 45° Right Turn Marker (M5-2-1R).

(a) *Justification.* The Interstate Advance 45° Right Turn Marker M5-2-1R shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) in advance of a turn which must be made to follow the indicated route.

(b) *Placement.* The M5-2-1R shall be placed directly below the route marker.



COLOR · LEGEND AND BORDER
BACKGROUND WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

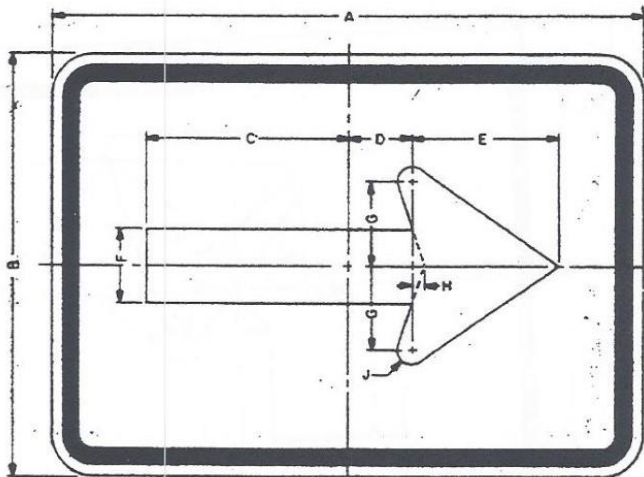
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
21 x 15	21	15	4 1/2	2 7/16	4 3/8	5 1/4	1 1/8	2 3/8	5 7/16	4 11/16	

SIGN SIZE	DIMENSIONS					BOR-DER	BLANK STD
	L	M	N	P	Q		
21 x 15	3/4	3	3/8	9/16	1/2	1/2	85-2115

§ 23.689. 90° Turn Marker (M6-1).

(a) *Justification.* The 90° Turn Marker (M6-1) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) at an intersection where a turn must be made to follow the indicated route.

(b) *Placement.* The M6-1 shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND
 BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

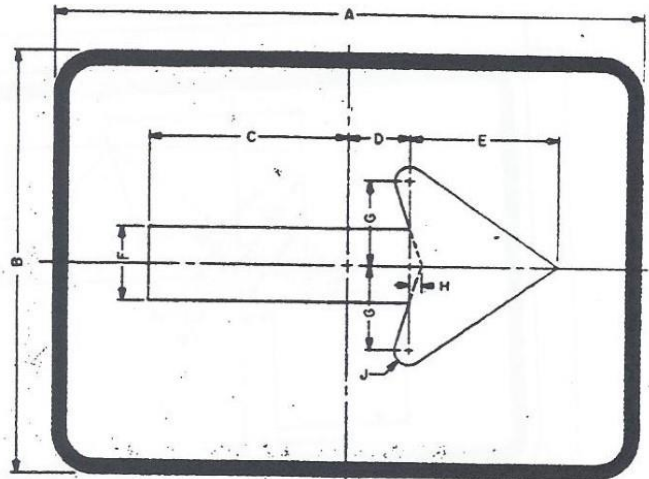
SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
21 x 15	21	15	7 1/8	2 1/4	5 1/4	2 3/8	3	3/8	1/2

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
21 x 15	3/8	1/8	B5-2115

§ 23.690. Interstate 90° Turn Marker (M6-1-1).

(a) *Justification.* The Interstate 90° Turn Marker (M6-1-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) at an intersection where a turn must be made to follow the indicated route.

(b) *Placement.* The M6-1-1 shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND
 WHITE (REFLECTORIZED)
 BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
21 x 15	21	15	7 1/8	2 1/4	5 1/4	2 3/8	3	3/8	1/2

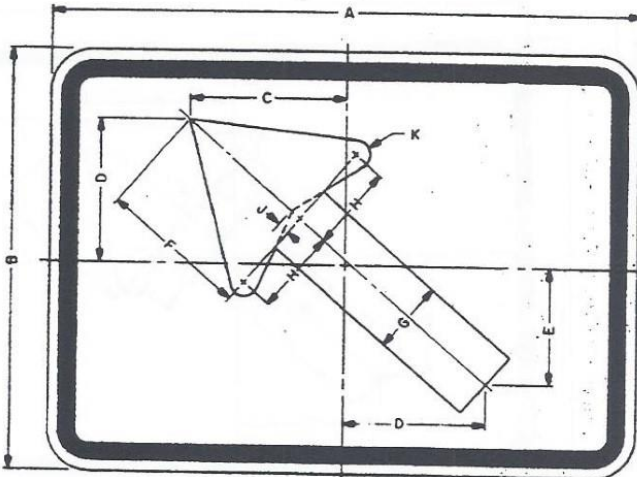
SIGN SIZE	BOR-DER	BLANK STD
21 x 15	1/2	B5-2115

RULES AND REGULATIONS

§ 23.691.45° Left Turn Marker (M6-2L).

(a) *Justification.* The 45° Left Turn Marker M6-2L shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) at an intersection where a turn must be made to follow the indicated route.

(b) *Placement.* The M6-2L shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

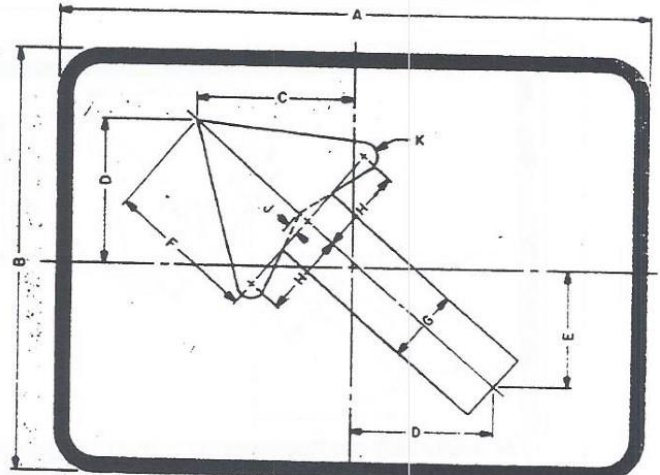
SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
21 x 15	21	15	5 ⁵ / ₈	5 ¹ / ₈	4 ⁵ / ₁₆	5 ¹ / ₄	2 ⁵ / ₈	3	3 ³ / ₈	1 ¹ / ₂	

SIGN SIZE	MARGIN	BORDER	BLANK STD
21 x 15	3 ³ / ₈	3 ³ / ₈	B5-2115

§ 23.692. Interstate 45° Left Turn Marker (M6-2-1L).

(a) *Justification.* The Interstate 45° Left Turn Marker M6-2-1L shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) at an intersection where a turn must be made to follow the indicated route.

(b) *Placement.* The M6-2-1L shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
21 x 15	21	15	5 ⁵ / ₈	5 ¹ / ₈	4 ⁵ / ₁₆	5 ¹ / ₄	2 ⁵ / ₈	3	3 ³ / ₈	1 ¹ / ₂	

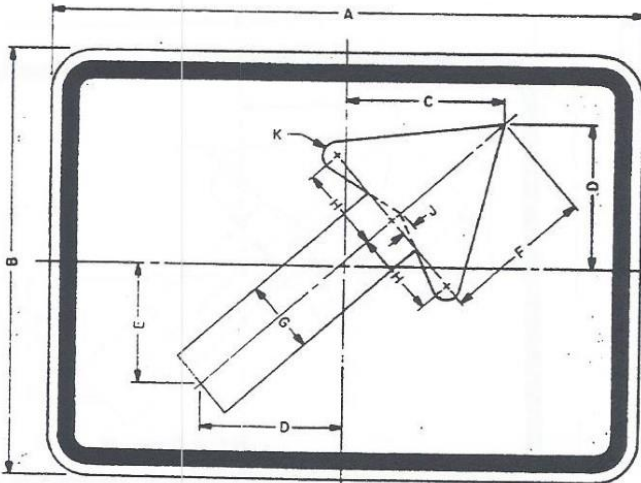
SIGN SIZE	BORDER	BLANK STD
21 x 15	1 ¹ / ₂	B5-2115

RULES AND REGULATIONS

§ 23.693. 45° Right Turn Marker (M6-2R).

(a) *Justification.* The 45° Right Turn Marker M6-2R shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) at an intersection where a turn must be made to follow the indicated route.

(b) *Placement.* The M6-2R shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

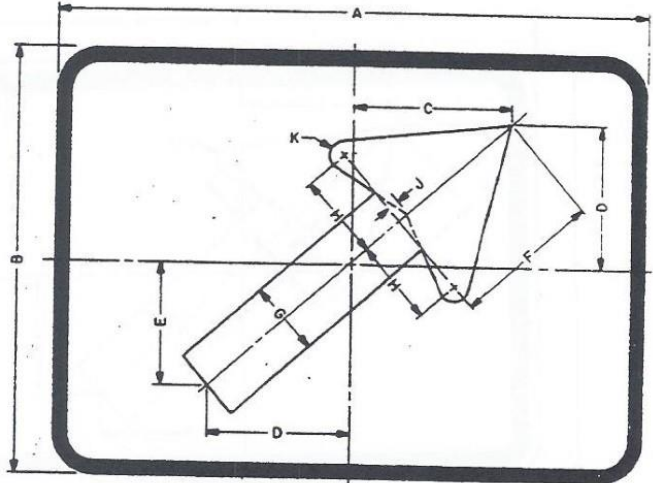
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
21 x 15	21	15	5 7/8	5 1/16	4 3/16	5 1/4	2 3/8	3	3/8	1/2

SIGN SIZE	MARGIN	BORDER	BLANK STD
21 x 15	3/8	3/8	B5-2115

§ 23.694. Interstate 45° Right Turn Marker (M6-2-1R).

(a) *Justification.* The Interstate 45° Right Turn Marker M6-2-1R shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) at an intersection where a turn must be made to follow the indicated route.

(b) *Placement.* The M6-2-1R shall be placed directly below the route marker.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
 BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
21 x 15	21	15	5 7/8	5 1/16	4 3/16	5 1/4	2 3/8	3	3/8	1/2

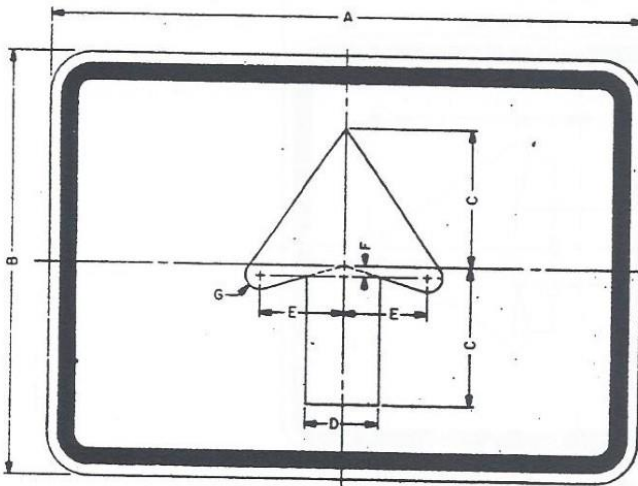
SIGN SIZE	BORDER	BLANK STD
21 x 15	1/2	B5-2115

RULES AND REGULATIONS

§ 23.695. Straight Through Marker (M6-3).

(a) *Justification.* The Straight Through Marker (M6-3) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) at an intersection where a straight through movement must be made to follow the indicated route but not in the absence of other assemblies indicating right or left turns.

(b) *Placement.* The M6-3 shall be placed directly below the route marker.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
WHITE (REFLECTORIZED)

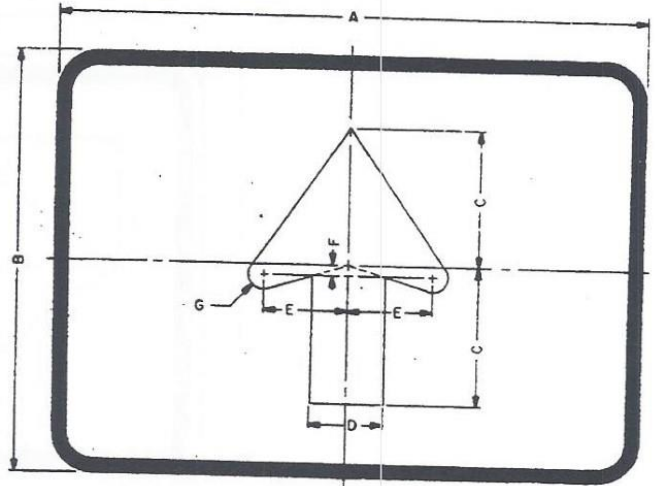
SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
21 x 15	21	15	$4\frac{7}{8}$	$2\frac{5}{8}$	3	$\frac{3}{8}$	$\frac{1}{2}$

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD.
21 x 15	$\frac{3}{8}$	$\frac{5}{8}$	B5-2115

§ 23.696. Interstate Straight Through Marker (M6-3-1).

(a) *Justification.* The Interstate Straight Through Marker (M6-3-1) shall be authorized for use in conjunction with the Interstate Route Marker (M1-1) at an intersection where a straight through movement must be made to follow the indicated route but not in the absence of other assemblies indicating right or left turns.

(b) *Placement.* The M6-3-1 shall be placed directly below the route marker.



COLOR LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

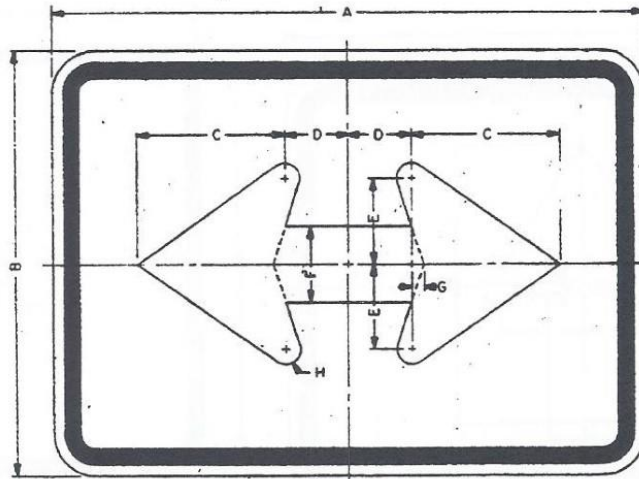
SIGN SIZE	DIMENSIONS							BOR-DER	BLANK STD.
	A	B	C	D	E	F	G		
21 x 15	21	15	$4\frac{7}{8}$	$2\frac{5}{8}$	3	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	B5-2115

RULES AND REGULATIONS

§ 23.697. 90° Right and Left Turn Marker (M6-4).

(a) *Justification.* The 90° Right and Left Turn Marker (M6-4) shall be authorized for use in conjunction with the U.S. Route Marker (M1-4) or the Pennsylvania Route Marker (M1-6) at an intersection where a turn must be made to the right or left to follow the indicated route.

(b) *Placement.* The M6-4 shall be placed directly below the route marker.



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
21 x 15	21	15	5 1/2	2 1/4	3	2 3/8	3/8	1 1/2

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
21 x 15	3/8	5/8	B5-2115

§§ 23.698.-23.710. Reserved.

§ 23.711. Memorial Marker.

(a) *Justification.* On highways designated by the legislature of this Commonwealth as commemorative of an historical event or personage, the Secretary shall authorize the design and location of appropriate markers for State highways and local authorities shall authorize the design and location of appropriate markers for highways under their jurisdiction. In no case shall markers, visible to the motorist, be placed along a numbered traffic route or along routes on the interstate system.

§§ 23.712.-23.720. Reserved.

RULES AND REGULATIONS

Subchapter G. DESTINATION AND DISTANCE SIGNS (D SERIES)

Destination Group (D1 Series)

§ 23.721. General provisions.

(a) Destination signs shall be authorized for use at intersections to direct the motorist to cities, boroughs, villages or other important destinations.

(b) Preferably not more than two names should be used on each sign, one name indicating the destination to the left and one indicating the destination to the right, in that order. Exceptions may be made when the intersecting highway carries more than one numbered route, where one destination may be shown for each route.

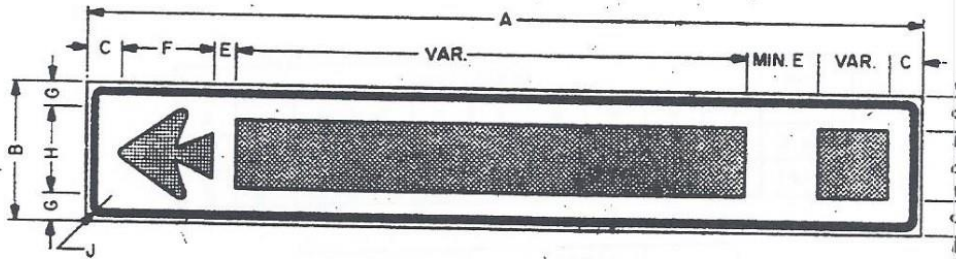
§ 23.722. Single Line Destination Sign (D 1-1).

(a) *Justification.* The Single Line Destination Sign (D1-1) shall be authorized for use as provided in § 23.721 of this Title (relating to general provisions).

(b) *Placement.* The D1-1 sign should generally be placed in advance of the intersection.

(c) *Size.* The standard size of D1-1 shall be 72 inches by 12 inches. The 48-inch by 8-inch size may be used on minor highways and urban streets.

(d) *Color.* The D1-1 sign should have a reflectorized white legend and border on a reflectorized green background or a black legend and border on a reflectorized white background.



SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48 x 8	48	8	2	4	1 1/4	5 3/8	1 1/2	5	7/16
72 x 12	72	12	3	6	1 7/8	8 1/16	2 1/2	7 1/2	3/4

SIGN SIZE	SERIES LINE	MARGIN	BORDER	BLANK STD
48 x 8	VAR.	3/8	3/8	B5-4808 (P)
72 x 12	VAR.	3/8	1/2	B5-7212 (P)

RULES AND REGULATIONS

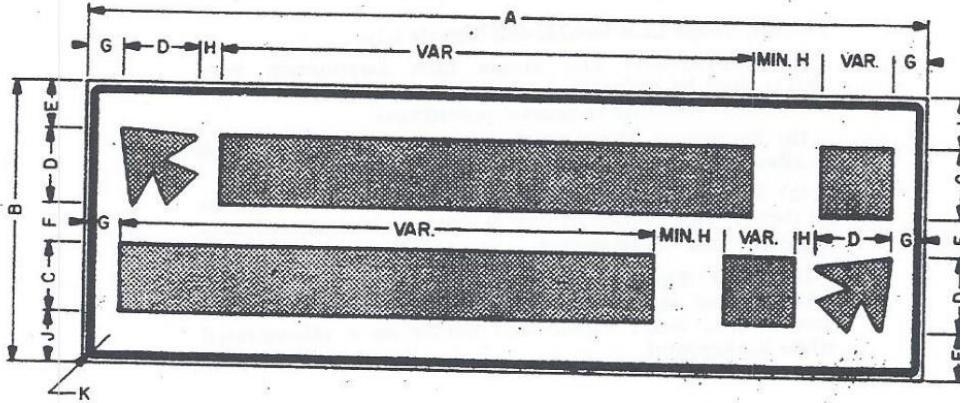
§ 23.723. Double Line Destination Sign (D1-2).

(a) *Justification.* The Double Line Destination Sign (D1-2) shall be authorized for use as provided in § 23.721 of this Title (relating to general provisions).

(b) *Placement.* The D1-2 sign should generally be placed in advance of the intersection.

(c) *Size.* The standard size of D1-2 shall be 72 inches by 24 inches. The 48-inch by 16-inch size may be used on minor highways and urban streets.

(d) *Color.* The D1-2 sign should have a reflectorized white legend and border on a reflectorized green background or a black legend and border on a reflectorized white background.



SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
48 x 16	48	16	4	4 1/4	2 3/4	2 1/8	2	1 1/4	2 7/8	7/16
72 x 24	72	24	6	6 3/8	4 1/8	3 3/16	3	1 7/8	4 5/16	3/4

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
48 x 16	VAR	VAR	3/8	3/8	B5-4816(P)
72 x 24	VAR	VAR	3/8	1/2	B5-7224(P)

RULES AND REGULATIONS

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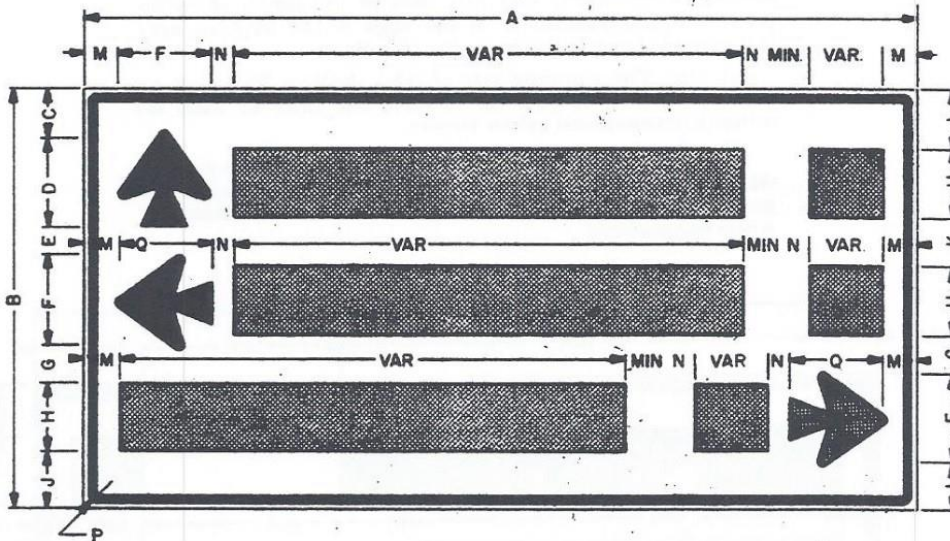
§ 23.724. Triple Line Destination Sign (D1-3).

(a) *Justification.* The Triple Line Destination Sign (D1-3) shall be authorized for use as provided in § 23.721 of this Title (relating to general provisions).

(b) *Placement.* The D1-3 sign should generally be placed in advance of the intersection.

(c) *Size.* The standard size of D1-3 shall be 72 inches by 36 inches. The 48-inch by 24-inch size may be used on minor highways and urban streets.

(d) *Color.* The D1-3 sign should have a reflectorized white legend and border on a reflectorized green background or a black legend and border on a reflectorized white background.



SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
48 x 24	48	24	3 ¹ / ₁₆	4 ⁵ / ₈	1 ¹³ / ₁₆	5	2 ¹ / ₈	4	3 ³ / ₈	2 ⁵ / ₈	2 ⁷ / ₈	2
72 x 36	72	36	4 ⁵ / ₈	6 ¹⁵ / ₁₆	2 ¹¹ / ₁₆	7 ¹ / ₂	3 ³ / ₁₆	6	5 ¹ / ₁₆	3 ¹⁵ / ₁₆	4 ⁵ / ₁₆	3

SIGN SIZE	DIMENSIONS			SERIES LINES			MARGIN	BORDER	BLANK STD
	N	P	Q	1	2	3			
	48 x 24	1 ¹ / ₄	7 ⁷ / ₁₆	5 ³ / ₈	VAR	VAR	VAR	³ / ₈	³ / ₈
72 x 36	1 ⁷ / ₈	2	8 ¹⁵ / ₁₆	VAR	VAR	VAR	³ / ₈	¹ / ₂	B5-7236(P)

RULES AND REGULATIONS

§ 23.725-§ 23.730. Reserved.

Distance Group (D2 Series)

§ 23.731. **Double Line Distance Sign (D2-1).**

(a) *Justification.* The Double Line Distance Sign (D2-1) shall be authorized for use to indicate the names of the next two significant destination points on that route and the distance to those points. Destination points should be selected and arranged as follows:

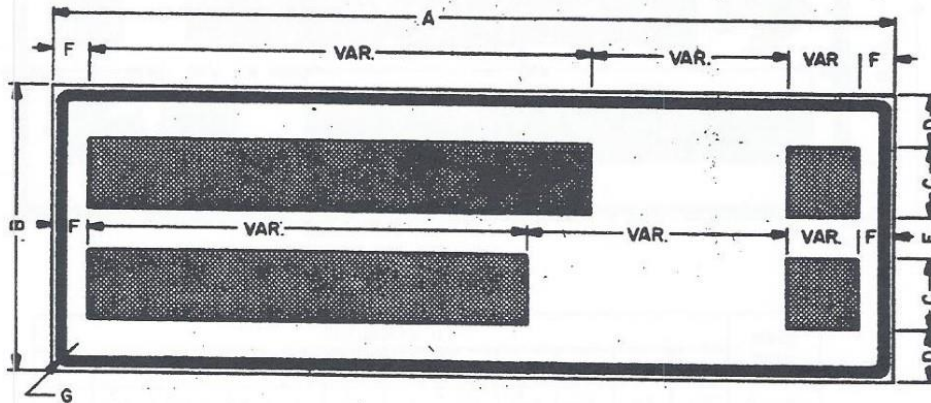
(1) The top line should indicate the nearest minor terminal or the next major terminal if it is closer.

(2) The bottom line should indicate the nearest major terminal when the top line is a minor terminal. When the top line is the nearest major terminal the bottom line will be the next nearest major terminal.

(b) *Placement.* The D2-1 sign should be placed just beyond intersections and just beyond the limits of incorporated municipalities or at the edge of the built-up area if it extends beyond the municipal limits.

(c) *Size.* The standard size of D2-1 shall be 72 inches by 24 inches. The 48-inch by 16-inch size may be used on minor highways and urban streets.

(d) *Color.* The D2-1 sign should have a reflectorized white legend and border on a reflectorized green background or a black legend and border on a reflectorized white background.



SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
48 x 16	48	16	4	2 ⁷ / ₈	2 ¹ / ₄	2	7 ⁷ / ₁₆
72 x 24	72	24	6	4 ⁵ / ₁₆	3 ³ / ₈	3	3 ³ / ₄

SIGN SIZE	SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	1	2			
48 x 16	VAR	VAR	⁵ / ₈	³ / ₈	B5-4816 (P)
72 x 24	VAR	VAR	³ / ₈	¹ / ₂	B5-7224 (P)

RULES AND REGULATIONS

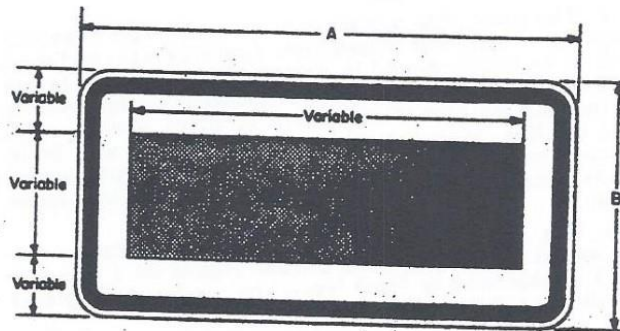
§ 23.732. Confirmation Marker (D2-2).

(a) *Justification.* The Confirmation Marker (D2-2) shall be authorized for use in conjunction with either a U.S. Route Marker (M1-4) or a Pennsylvania Route Marker (M1-6) and a cardinal marker M3-1, M3-2, M3-3 or M3-4 to indicate the name of the next significant destination along the numbered traffic route. It may also be used with the Route Marker, Cardinal Direction Marker and the Turn Marker (M6-Series).

(b) *Placement.* When used along a numbered traffic route, the D2-2 should be placed just beyond intersections, interchanges, the built-up area of any incorporated municipality and other locations where the lack of space would not permit the installation of Distance Sign (D2-1) to provide reassurance to the motorists that they are traveling in the proper direction. When used with the Turn Marker (M6-series), the D2-2 should be placed along an unnumbered highway just prior to the intersection of a numbered traffic route and at other locations where a Destination Sign (D1-series) is not in place to inform the motorist of the next significant destinations along the intersected traffic route.

The D2-2 shall be erected directly below the route marker.

(c) *Size.* The 24-inch by 12-inch size shall be used with the 24-inch by 24-inch and the 30-inch by 24-inch route markers. The 30-inch by 15-inch size shall be used with the 36-inch by 36-inch and the 45-inch by 36-inch route markers.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED)
 WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS		SERIES	MARGIN	BORDER	BLANK STD
	A	B				
24 x 12	24	12	Var.	$\frac{3}{8}$	$\frac{3}{8}$	B5-2412
30 x 15	30	15	Var.	$\frac{3}{8}$	$\frac{3}{8}$	B5-3015

RULES AND REGULATIONS

§ 23.733-§ 23.740. Reserved.

Street Name Group (D3 Series)

§ 23.741. Street Name Sign (D3-1).

(a) *Justification.* The Street Name Sign (D3-1) shall be authorized for use to identify names of streets for motorists and pedestrians. They should be placed at all street intersections regardless of other route marking that may be present.

(b) *Placement.*

1. In business districts, street name signs should be placed at least on diagonally opposite corners so that they will be on the far right-hand side of the intersection for traffic on the more important street. Signs naming both streets should be erected at each location. They should be mounted with their faces parallel to the streets they name, as close to the corner as practicable with the nearest part of each sign not less than one foot, and preferably two feet, back from both curb lines. They should be not less than seven feet above the top of the curb, either at the same height or with one immediately above the other in a crossed position.

2. In residence districts, street name signs should be mounted as in business districts, but a single location on each intersection shall ordinarily suffice on all but the more important thoroughfares.

(c) *Lettering and color.*

1. The name shall appear on street name signs in capital lettering at least four inches high. Lettering eight inches or greater in height should be composed of lower-case letters with an initial upper-case letter. Supplementary lettering to indicate the type of street such as street, avenue, road, and the like, or section of city, such as N.W., may be in smaller lettering, at least two inches high. Conventional abbreviations shall be acceptable except for the street name itself.

2. The street name sign should be reflectorized or illuminated and should have a white legend on a green or black background or black legend on a white background or other contrasting colors.



SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
24x8	24	8	4	2	3	1½	¾	¾

RULES AND REGULATIONS

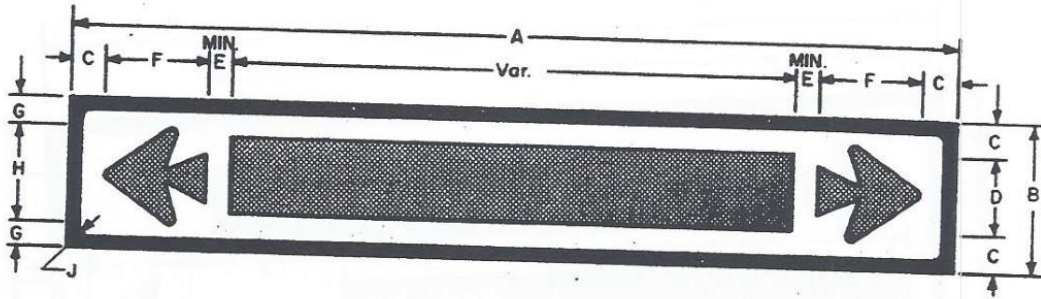
1483

§ 23.742. Single Line Advance Street Name Sign (D3-2).

(a) *Justification.* The Single Line Advance Street Name Sign (D3-2) shall be authorized for use in advance of an intersection to identify the name of the intersecting street. It may be placed below an intersection warning sign.

(b) *Size.* The standard size of D3-2 shall be 48 inches by 8 inches.

(c) *Color.* The D3-2 shall have a black legend and border on a yellow background when placed below a warning sign. When used alone it should have white reflectorized legend and border on a reflectorized green background.



SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
48 x 8	48	8	2	4	1 $\frac{1}{4}$	5 $\frac{3}{8}$	1 $\frac{1}{2}$	5	1
72 x 12	72	12	3	6	1 $\frac{7}{8}$	8 $\frac{1}{16}$	2 $\frac{1}{4}$	7 $\frac{1}{2}$	1 $\frac{1}{4}$

SIGN SIZE	SER-IES	BOR-DER	BLANK STD
48 x 8	Var.	$\frac{1}{2}$	B5-4808(F)
72 x 12	Var.	$\frac{3}{4}$	B5-7212(P)

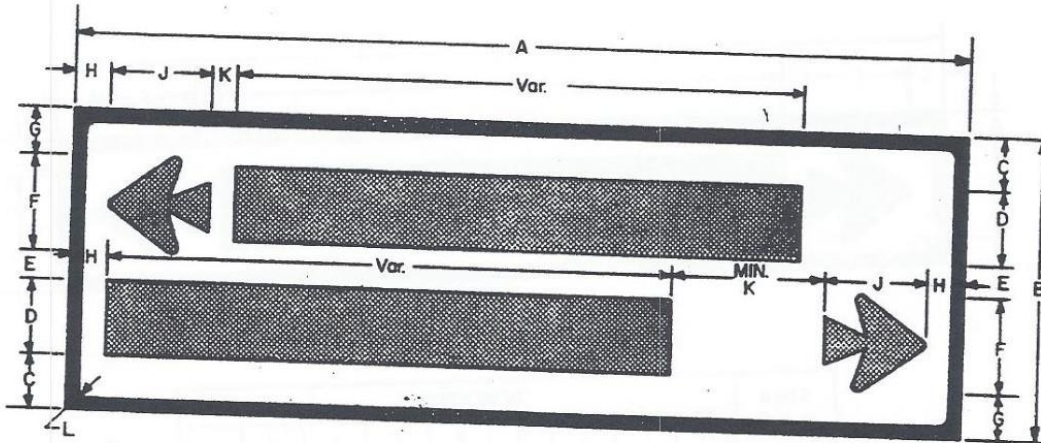
RULES AND REGULATIONS

§ 23.743. Double Line Advance Street Name Sign (D3-3).

(a) *Justification.* The Double Line Advance Street Name Sign (D3-3) shall be authorized for use in advance of an intersection to identify the names of the intersecting streets. It may be placed below an intersection warning sign.

(b) *Size.* The standard size of D3-3 shall be 48 inches by 16 inches.

(c) *Color.* The D3-3 shall have a black legend and border on a yellow background when placed below a warning sign. When used alone it should have white reflectorized legend and border on a reflectorized green background.



SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
48 x 16	48	16	$2\frac{7}{8}$	4	$1\frac{7}{8}$	5	$2\frac{1}{4}$	2	$5\frac{3}{8}$	$1\frac{1}{4}$	1
72 x 24	72	24	$4\frac{5}{16}$	6	$2\frac{3}{8}$	$7\frac{1}{2}$	$3\frac{9}{16}$	3	$8\frac{1}{16}$	$1\frac{7}{8}$	$1\frac{1}{4}$

SIGN SIZE	SERIES		BOR- DER	BLANK STD
	1	2		
48 x 16	Var.	Var.	$\frac{5}{8}$	B5-4816(P)
72 x 24	Var.	Var.	$\frac{3}{4}$	B5-7224(P)

RULES AND REGULATIONS

§ 23.744-§ 23.750. Reserved.

Parking Area Group (D4 Series)

§ 23.751. Parking Area Sign (D4-1).

(a) *Justification.* The Parking Area Sign (D4-1) shall be authorized for use in an urban area to guide traffic to a nearby public parking area, thus minimizing aimless travel on the part of drivers unacquainted with the area. Under some circumstances the sign may be useful in rural areas where crowds congregate for special events. It may also be used in rest areas, to direct traffic to desired parking locations.

(b) *Placement.* The D4-1 sign should be placed on major thoroughfares at the nearest point of access to the parking facility and elsewhere where it can help relieve the local streets of traffic seeking a place to park. Generally, it should not be used more than three or four blocks from the parking area.

(c) *Size.* The standard size of D4-1 shall be 30 inches by 24 inches. The 18-inch by 15-inch size may be used on minor highways in urban areas.



COLOR LEGEND AND BORDER BACKGROUNDGREEN (REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
18 x 15	18	15	5 3/8	2	4 1/2	10	2 1/2	3 3/8	6 3/16	3
30 x 24	30	24	9	3	7 1/2	15	4 1/2	5 7/8	10 15/16	5

SIGN SIZE	DIMENSIONS				SERIES LINE I	MARGIN	BORDER	BLANK STD
	L	M	N	P				
18 x 15	1 5/8	1 1/2	1 1/4	3/16	D	3/8	3/8	85-1815
30 x 24	2 3/4	2 1/2	2 1/4	1/2	E	3/8	3/8	85-3024

§ 23.752-§ 23.760. Reserved.

Rest Area Group (D5 Series)

§ 23.761. Rest Area () Mile Sign (D5-1).

(a) *Justification.* The Rest Area () Mile Sign (D5-1) shall be authorized for use in advance of a rest area where there are provided facilities for a number of vehicles to park, picnic tables, water and toilets.

(b) *Placement.* The D5-1 sign shall be placed in advance of the rest area a distance which will permit the motorist to reduce speed and leave the highway safely if he desires to stop.



COLOR LEGEND AND BORDER BACKGROUNDWHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
24 x 30	24	30	3 1/2	6	6	2 1/2	4	2
36 x 48	36	48	6 1/2	8	9	5	6	3

SIGN SIZE	DIMENSIONS		SERIES LINES			BORDER	BLANK STD
	K	L	1	2	3		
	24 x 30	8 3/8	8 5/16	C	C		
36 x 48	11 1/8	12 1/2	C	C	C	1	85-4836

RULES AND REGULATIONS

§ 23.762. Rest Area Entrance Sign (D5-1-1).

(a) *Justification.* The Rest Area Entrance Sign (D5-1-1) shall be authorized for use at the entrance to the rest area

as provided in § 23.761 of this Title (relating to rest area () mile sign).



COLOR: LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
60x24	60	24	4	6	13 ⁵ / ₈	4 ³ / ₈	20 ⁵ / ₈	8 ¹ / ₄	11 ³ / ₁₆	12 ⁷ / ₁₆	14 ⁹ / ₁₆

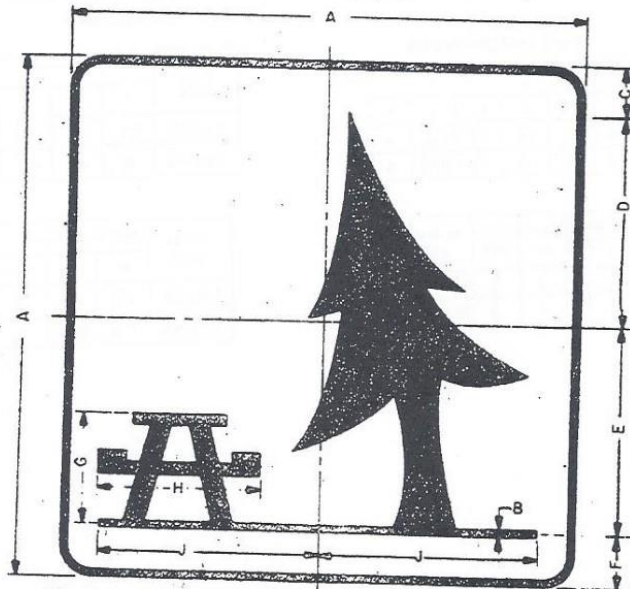
SIGN SIZE	DIMENSIONS					SERIES LINES		BOR- DER	BLANK STD
	M	N	P	R	S	1	2		
60x24	7 ⁹ / ₁₆	1 ¹ / ₂	3 ¹ / ₄	4 ¹ / ₄	5 ⁵ / ₈	E	E	I	B5-6024

§ 23.763. Roadside Table Sign (D5-5).

(a) *Justification.* The Roadside Table Sign (D5-5) shall be authorized for use in advance of a roadside area at which a picnic table has been placed to accommodate travelers. It should not be used in advance of a roadside rest.

The D5-5-1 sign shall be mounted below this sign indicating the distance to the roadside table.

(b) *Placement.* The D5-5 sign should be placed only on the same side of the highway as the roadside table. It should not be used to direct the motorist to a roadside table on the left of the highway where he must cross opposing traffic.



COLOR: SYMBOL AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS										BOR- DER	BLANK STD
	A	B	C	D	E	F	G	H	J			
24 x 24	24	1 ¹ / ₂	1 ¹ / ₂	10 ¹ / ₂	9 ¹ / ₂	2 ¹ / ₂	5 ¹ / ₄	.8	10	1 ¹ / ₂	B3-24(S)	

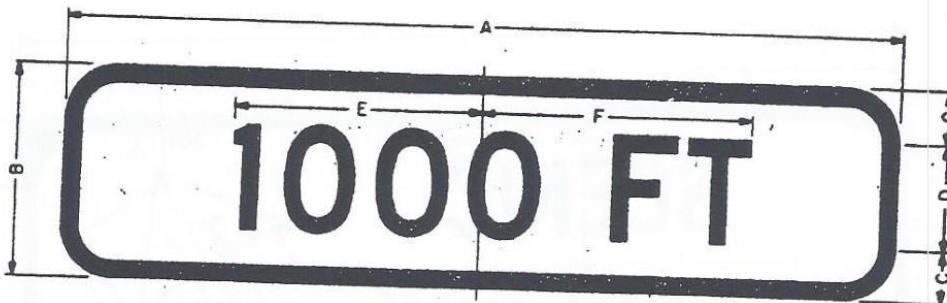
RULES AND REGULATIONS

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§ 23.764. () Feet Sign (D5-5-1).

(a) *Justification.* The () Feet Sign (D5-5-1) shall be authorized for use below the Roadside Table Sign (D5-5) to

indicate the distance to the roadside table. The distance shall be limited to either 500 feet or 1,000 feet.



COLOR: LEGEND AND BORDER BACKGROUND
 WHITE (REFLECTORIZED)
 BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES LINE I	BOR-DER	BLANK STD
	A	B	C	D	E	F			
24 x 6	24	6	1 1/2	3	7 1/8	7 3/4	D	1/2	B5-2406

§ 23.765-§ 23.770. Reserved.

Scenic Area Group (D6 Series)

§ 23.771. Advance Scenic Overlook Sign (D6-2).

(a) *Justification.* The Advance Scenic Overlook Sign (D6-2) shall be authorized for use in advance of an area designated by the proper authorities as a scenic overlook.



COLOR: LEGEND AND BORDER BACKGROUND
 WHITE (REFLECTORIZED)
 BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
48 x 36	48	36	5	6	4	11 3/16	17 1/8

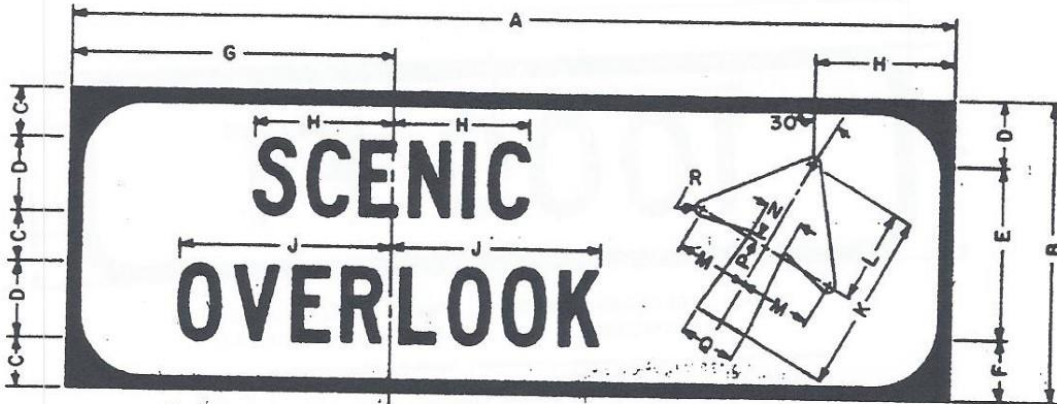
SIGN SIZE	DIM H	SERIES LINES			BOR-DER	BLANK STD
		1	2	3		
48 x 36	13 7/8	C	C	C	I	B5-4836

RULES AND REGULATIONS

§ 23.772. Scenic Overlook Entrance Sign (D6-3).

scenic overlook as provided in § 23.771 of this Title (relating to advance scenic overlook sign).

(a) *Justification.* The Scenic Overlook Entrance Sign (D6-3) shall be authorized for use at the entrance to a



COLOR LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
BLUE REFLECTORIZED

SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
72 x 24	72	24	4	6	13 ⁵ / ₈	4 ³ / ₈	26 ¹ / ₈	11 ³ / ₁₆	17 ¹ / ₈	14 ⁹ / ₁₆	7 ⁹ / ₁₆

SIGN SIZE	DIMENSIONS					SERIES		BOR- DER	BLANK STD
	M	N	P	Q	R	LINES 1	2		
72 x 24	6	3 ¹ / ₄	1 ¹ / ₂	4 ¹ / ₄	5 ⁵ / ₈	C	C	I	B5-7224(P)

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**WEIGH STATION GROUP,
D8 SERIES**

S 211.873. Advance Weigh Station Sign, D8-1.

(a) Justification. The Advance Weigh Station Sign, D8-1, will be authorized for use in advance of a weigh station to alert the operators of trucks that a weigh station is ahead. When the weigh station is not in operation, this sign shall be folded or covered, or a subsequent sign shall be used to advise that the station is open or closed. The distance portion of the sign shall be adjusted accordingly. The maximum distance should generally be 1 mile.

(b) Size. The standard size D8-1 sign shall be 96-inch by 72-inch on freeways, 78-inch by 60-inch on expressways, and 60-inch by 48-inch on all other roadways. The 60-inch by 48-inch size may, however, be used on any type roadway for mobile or semi-permanent weighing operations.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) GREEN (REFLECTORIZED)

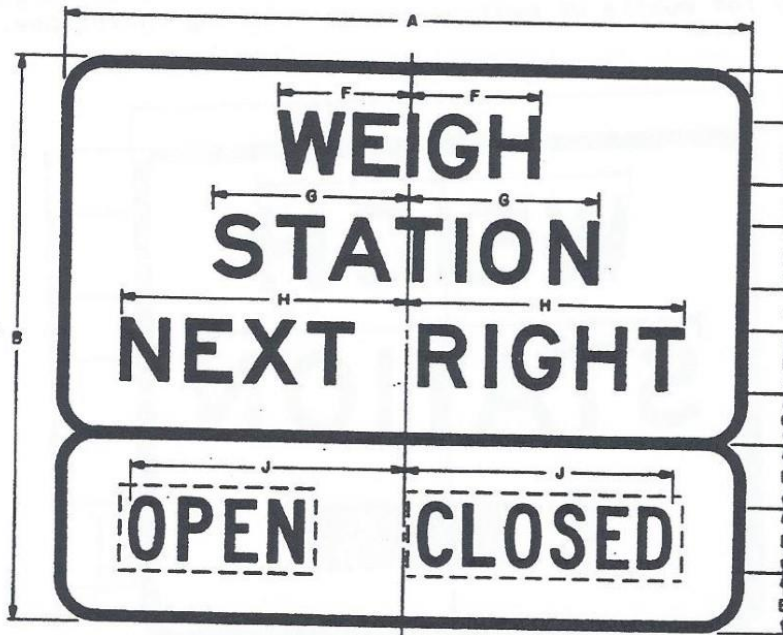
SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
60x48	60	48	6	8	6	18	24
78x60	78	60	8	10	8	22	30
96x72	96	72	9	12	10	26	36

SIGN SIZE	SERIES LINES			BOR- DER	BLANK STD
	1	2	3		
60x48	E	E	E	1 1/2	85-6048
78x60	E	E	E	2	85-7860
96x72	E	E	E	2	85-9672

S 211.874. Weigh Station Next Right Sign, D8-2.

(a) Justification. The Weigh Station Next Right Sign, D8-2, will be authorized for use in advance of the Weigh Station Sign, D8-3. The appropriate word message OPEN or CLOSED shall be displayed by use of a changeable sign or panel. The word LEFT may be used in lieu of the word RIGHT if appropriate. When used, the D8-2 sign shall be located between the All Trucks Must Enter Station Sign, R13-1, and the Weigh Station Sign, R8-3.

(b) Size. The standard size D8-2 sign shall be 108-inch by 90-inch for freeways, 84-inch by 72-inch for expressways, and 66-inch by 54-inch for all other roadways. The 66-inch by 54-inch size may, however, be used on any type roadway for mobile or semipermanent weighing operations.



COLOR: LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
GREEN (NON-REFLECTORIZED)

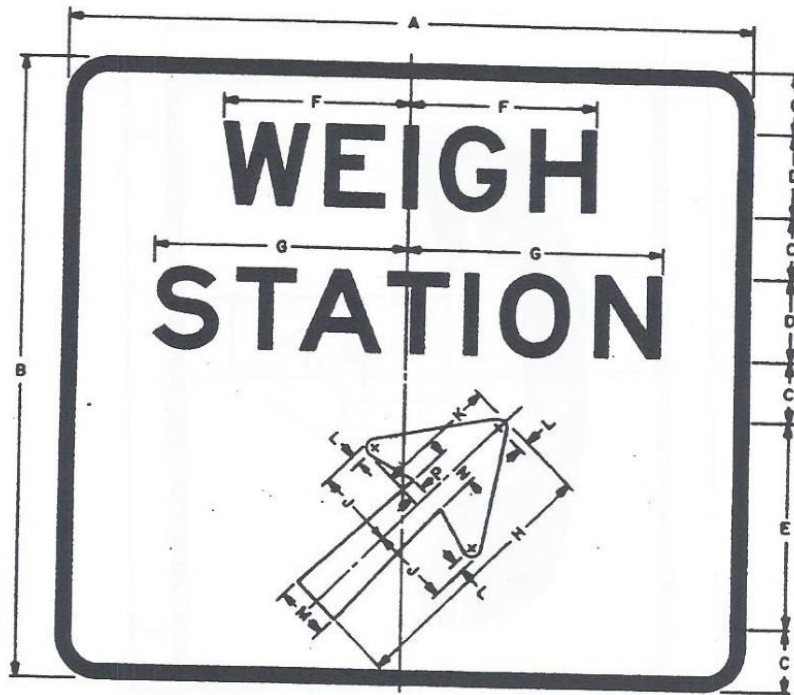
SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
66x54	66	54	5	4	6	12½	18½	27	26
84x72	84	72	6	6	6	18	24½	36	35
108x90	108	90	8	7	10	22½	30½	45	44

SIGN SIZE	SERIES LINES				BOR- DER	BLANK STD
	1	2	3	4		
66x54	E	E	E	C	1	85-6854
84x72	E	E	E	C	1½	85-8492
108x90	E	E	E	C	2	85-10890

S 211.875. Weigh Station Sign, D8-3.

(a) Justification. The Weigh Station Sign, D8-3, will be authorized for use at the entrance to a weigh station. When the weigh station is not in operation and a Weigh Station Next Right Sign, D8-2, is not used; this sign shall be folded and covered; or the word CLOSED shall be displayed over the arrow.

(b) Size. The standard size D8-3 sign shall be 84-inch by 78-inch on freeways, 66-inch by 60-inch on expressways and 48-inch by 42-inch on all other roadways. The 48-inch by 42-inch size may, however, be used on any type roadway for mobile or semipermanent weighing operations.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) GREEN (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K
48x42	48	42	4	6	14	13 1/2	16 1/2	18	5 1/2	8 1/2
66x60	66	60	6	8	20	18	24 1/2	24 1/2	7 1/2	11 1/2
84x78	84	78	8	10	26	22 1/2	30 1/2	29 1/2	9 1/2	14

SIGN SIZE	DIMENSIONS				SERIES	BOR- DER	BLANK STD
	L	M	N	P			
48x42	3 1/2	3 1/2	3 1/2	7 1/2	E E	1	85-4842
66x60	5 1/2	5	3 1/2	11 1/2	E E	1 1/2	85-6660
84x78	7 1/2	6	4 1/2	15 1/2	E E	2	85-8478

SS 211.876. - 211.880. (Reserved)

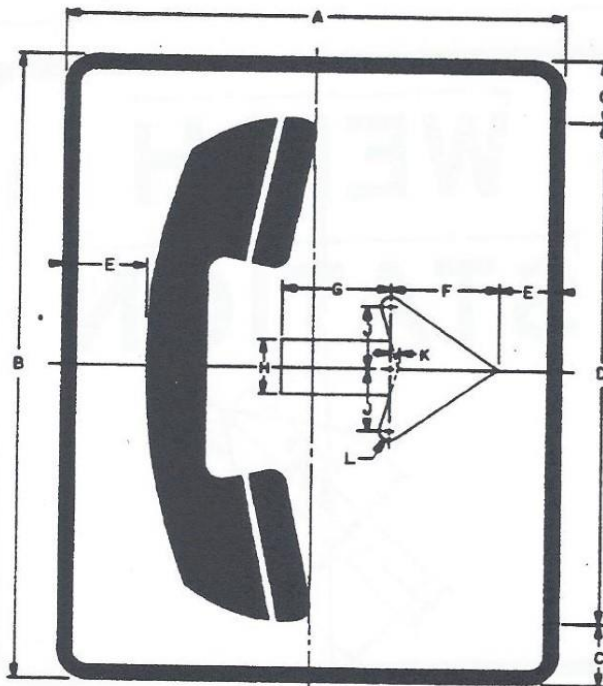
51

SERVICES GROUP, D9 SERIES

§211.881. Telephone With Arrow Sign, D9-1.

(a) *Justification.* The Telephone With Arrow Sign, D9-1, shall be authorized for use to indicate the location of public telephone facilities. Telephone company officials shall obtain approval from the proper authorities before placing this sign on any highway. The left arrow shall be used only on two-lane highways, unless the multiple lane highway has a left turn standby lane or protected left turning movement.

(b) *Size.* The standard size of sign D9-1 shall be 24 inches by 30 inches. The 18 inch by 24 inch size may be used on urban streets.



COLOR: SYMBOL, ARROW AND BORDER WHITE (REFLECTORIZED)
BACKGROUND BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
18x24	18	24	1½	21	1½	3½	4½
24x30	24	30	2	26	2½	5½	5½
30x36	30	36	2½	31	3	6½	6½

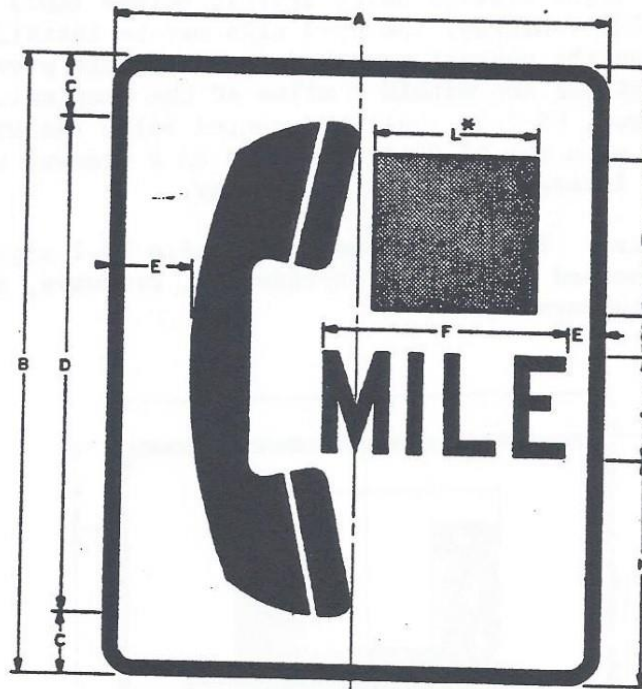
SIGN SIZE	SERIES				BOR- DER	BLANK STD
	H	J	K	L		
18x24	2	2¼	5/16	3/8	1/2	85-2418
24x30	2½	3	5/8	1/2	3/8	85-3024
30x36	3¼	3¾	1/2	5/8	3/4	85-3630

§211.882. Telephone Mile Sign, D9-1-1.

(a) *Justification.* The Telephone () Mile Sign, D9-1-1, shall be authorized for use in advance of public telephone facilities. Telephone company officials shall obtain approval from the proper authorities before placing this sign on any highway.

(b) *Placement.* The D9-1-1 sign shall be placed in advance of the telephone a distance which will permit the motorist to reduce speed and leave the highway safely if he desires to stop.

(c) *Size.* The standard size of D9-1-1 shall be 24 inches by 30 inches. The 18 inch by 24 inch size may be used on urban streets.



COLOR: SYMBOL AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
18x24	18	24	1 1/2	21	1	9 1/2	3 1/2	6
24x30	24	30	2	26	1 1/2	11 1/2	4 1/2	7 1/2
30x36	30	36	2 1/2	31	2	14 1/2	5	9

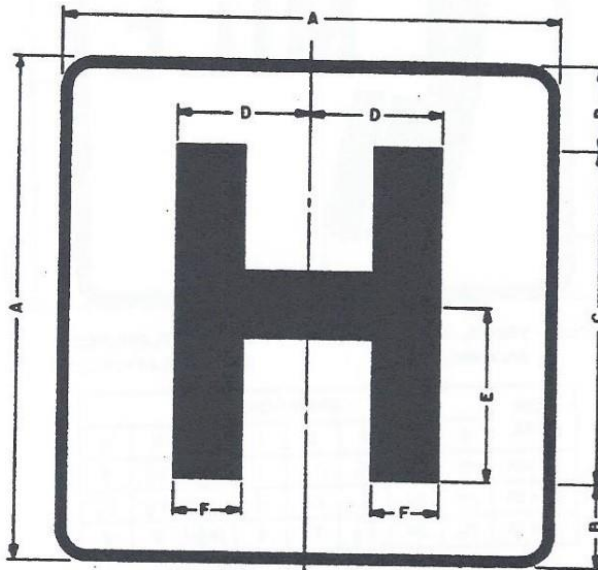
* Optically space numeral (s) above MILE

SIGN SIZE	DIMENSIONS			SERIES	BOR- DER	BLANK STD
	J	K	L			
18x24	4	8 1/2	8	C	C	BS-2418
24x30	5	11	10	C	C	BS-3024
30x36	6	13 1/2	12	C	C	BS-3630

S 211.883. Hospital Sign, D9-2.

(a) Justification. The Hospital Sign, D9-2, will be authorized for use to direct motorists to hospitals and other types of facilities which offer continuous emergency care with a doctor on duty 24 hours a day, seven days a week. The use of the D9-2 sign should be limited to locations in the vicinity of the hospital, trailblazing traffic from the nearest numbered traffic route or other major arterial highway. If the nearest numbered traffic route has a light average daily traffic volume (ADT) of less than 1500 vehicles, the D9-2 sign may be installed on other than the nearest numbered traffic route providing the locations are within 3 miles of the hospital. The Services Arrow, D9-2-2, shall be mounted below the D9-2 Sign except when the D9-2 sign is used on a freeway or prior to an interchange on an expressway.

(b) Size. The use of the larger size D9-2 sign shall be reserved for use on expressways, freeways, and multilane highways.



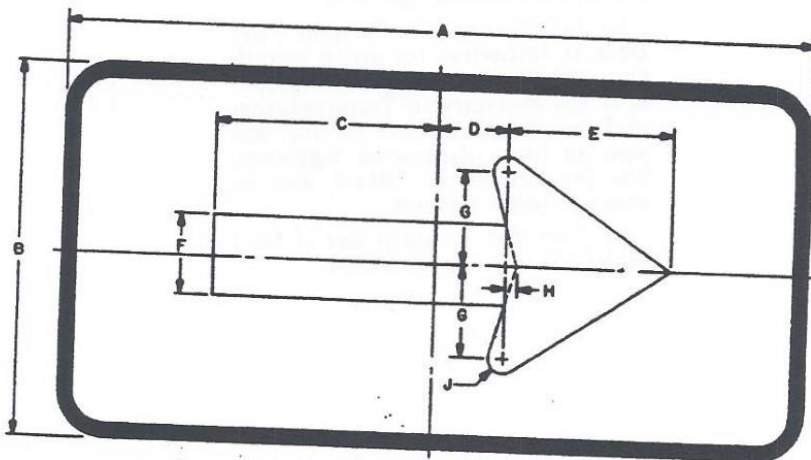
COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
 BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						BOR- DER	BLANK STD
	A	B	C	D	E	F		
24x24	24	4	16	6 $\frac{3}{8}$	8 $\frac{3}{8}$	3 $\frac{1}{2}$	$\frac{1}{2}$	B3-24(S)
30x30	30	5	20	8	10 $\frac{3}{8}$	4	$\frac{3}{4}$	B3-30(S)

S 211.884. (Reserved).

S 211.885. Services Arrow D9-2-2.

The Services Arrow, D9-2-2, shall be authorized for use below services signs to direct the motorist to the service indicated.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) BLUE (REFLECTORIZED)

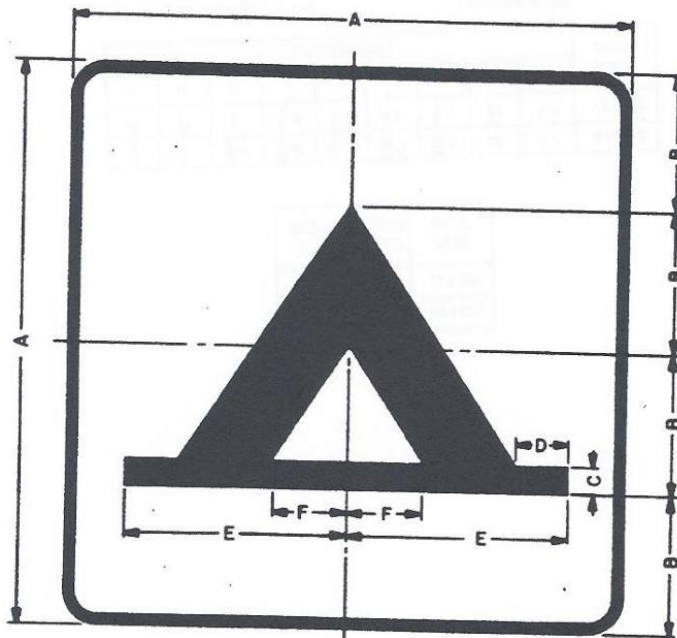
SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
24x12	24	12	7 1/2	2 1/2	5 1/2	2 1/2	3	1 1/2	1 1/2	
30x15	30	15	8 1/2	2 1/2	6 1/2	3 1/2	3 1/2	1 1/2	1 1/2	

SIGN SIZE	BOR- DER	BLANK STD
24x12	1/2	85-2412
30x15	1/2	85-3015

§ 211.886. Camping Sign, D9-3.

(a) *Justification.* The Camping Sign, D9-3, is authorized for use in accordance with Department policy. Approval of the Secretary of Transportation shall be obtained before placing this sign on State designated highways. The Services Arrow, D9-2-2, may be mounted below this sign.

(b) *Size.* The standard size of D9-3 shall be 24 inches by 24 inches.



COLOR · LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
 BLUE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						BOR- DER	BLANK STD
	A	B	C	D	E	F		
24 x 24	24	6	1 1/8	2 1/2	9 1/2	3 1/2	1/2	B3-24(S)
30 x 30	30	7 1/2	1 7/8	2 13/16	11 1/8	4 1/8	3/4	B3-30(S)

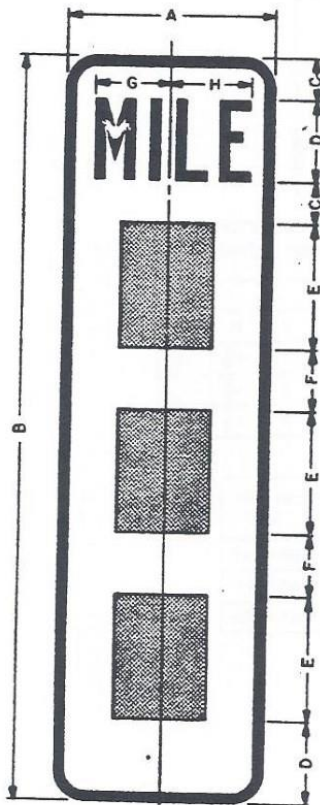
MILEAGE MARKER GROUP, D10 SERIES

§211.901. Mileage Marker, D10-1.

(a) *Justification.* The Mileage Marker, D10-1, shall be authorized for use on a highway to assist the motorist in estimating his progress, to provide a means for identifying the location of emergency incidents and to aid in highway maintenance and servicing. Zero mileage shall begin at the south and west state lines and at junctions where routes begin.

The mileage numbering shall be continuous for each route, except when overlaps occur. With overlapped routes, continuity shall be established for only one of the routes. On the route without mileage marker continuity, the first mileage marker beyond the overlap shall indicate the total distance traveled on that route.

(b) *Placement.* For divided highways, mileage measurements shall be made on northbound and eastbound roadways. The mileage marker for southbound and westbound roadways shall be placed directly opposite. When a mileage marker cannot be placed in its correct location, it may be moved in either direction as much as 50 feet. If it cannot be placed within 50 feet of its correct location, it should be omitted. Mileage markers shall be placed so that the bottom of the marker is four feet above the near roadway edge. They shall be placed not less than two feet or more than six feet outside the outer edge of the shoulder. They should be placed in the same line as delineators.



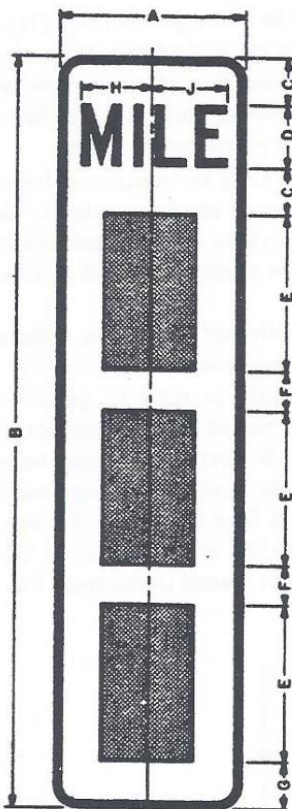
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
10 x 18	10	18	2	4	6	—	3 ⁵ / ₈	3 ⁷ / ₈
10 x 27	10	27	2	4	6	3	3 ⁵ / ₈	3 ⁷ / ₈
10 x 36	10	36	2	4	6	3	3 ⁵ / ₈	3 ⁷ / ₈

SIGN SIZE	SERIES LINES				BOR- DER	BLANK STD
	1	2	3	4		
10 x 18	B	C	—	—	1/2	B5-1810
10 x 27	B	C	C	—	1/2	B5-2710
10 x 36	B	C	C	C	1/2	B5-3610

COLOR : LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
GREEN (REFLECTORIZED)

§211.902. Interstate Mileage Marker, D10-4.

The Interstate Mileage Marker, D10-4, shall be authorized for use on an interstate highway and be placed as provided in § 211.901 of this title (relating to Mileage Marker, D10-1).



COLOR LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) GREEN(REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
12x24	12	24	3	4	10	-	4	4 ⁷ / ₈	4 ⁷ / ₈
12x36	12	36	3	4	10	3	3	4 ⁷ / ₈	4 ⁷ / ₈
12x48	12	48	3	4	10	2 ¹ / ₂	3	4 ⁷ / ₈	4 ⁷ / ₈

SIGN SIZE	SERIES LINES				BOR- DER	BLANK STD
	1	2	3	4		
12x24	C	C	-	-	¹ / ₂	B5-24I2
12x36	C	C	C	-	¹ / ₂	B5-36I2
12x48	C	C	C	C	¹ / ₂	B5-48I2

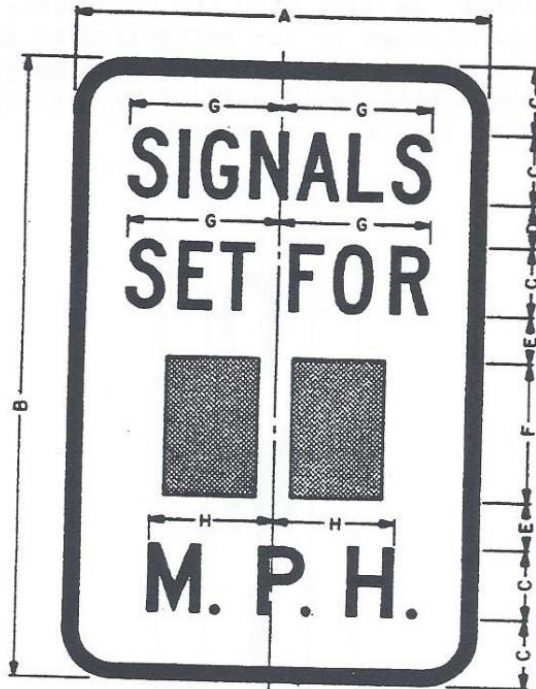
SS 211.903 - 211.910. (Reserved)

TRAFFIC SIGNAL GROUP, 11 SERIES

S 211.911. Traffic Signal Speed Sign, 11-1.

(a) Justification. The Traffic Signal Speed Sign, 11-1, shall be authorized for use to indicate the beginning of a section of highway on which the traffic control signals are coordinated into a progressive system and timed for a specific speed. The legend should show the speed to the nearest whole mile.

(b) Placement. The 11-1 should be mounted as near as possible to the signals where timed speed changes, and at intervals of several blocks throughout any section where the timed speed remains constant.



COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) GREEN (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
12 x 18	12	18	2	1 1/4	1 3/8	4	4 3/8	3 9/16

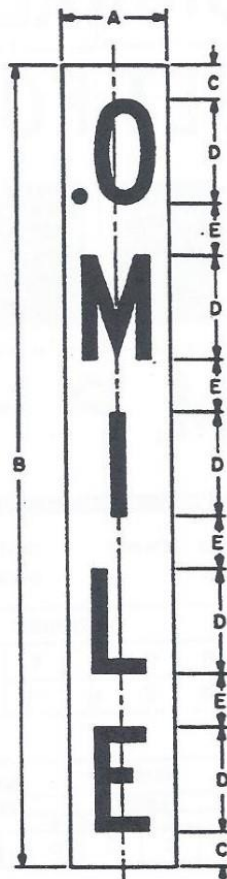
SIGN SIZE	SERIES				BOR- DER	BLANK STD
	LINES					
	1	2	3	4		
12 x 18	C	C	D	D	3/8	B5-1812

SPEED CHECK GROUP, I2 SERIES

S 211.914. Speed Check Marker Sign, I2-1.

(a) Justification. The Speed Check Marker Sign, I2-1, shall be authorized for use to indicate the beginning of, intermediate check points, and ending of a section of highway where police officers measure the speed of vehicles by helicopter or other aircraft over a marked distance for enforcement purposes. The legend on the beginning marker shall show the distance .0 MILE and the legend on each succeeding marker, including the end marker, shall show the exact surveyed or measured distance in tenths of miles the marker is from the beginning marker.

(b) Placement. The marker shall be placed not less than six feet outside the outer edge of the right shoulder, or if appropriate, in line with the guardrail. They shall be placed perpendicular to the centerline of the roadway and directly in line with the surveyed or measured speed check point which will be identified by a transverse white pavement marking line on the roadway.



COLOR: LEGEND BLACK (NON-REFLECTORIZED)
 BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES	BLANK STD
	A	B	C	D	E		
3 x 24	3	24	1 1/2	3	1 1/2	C	B5-0324

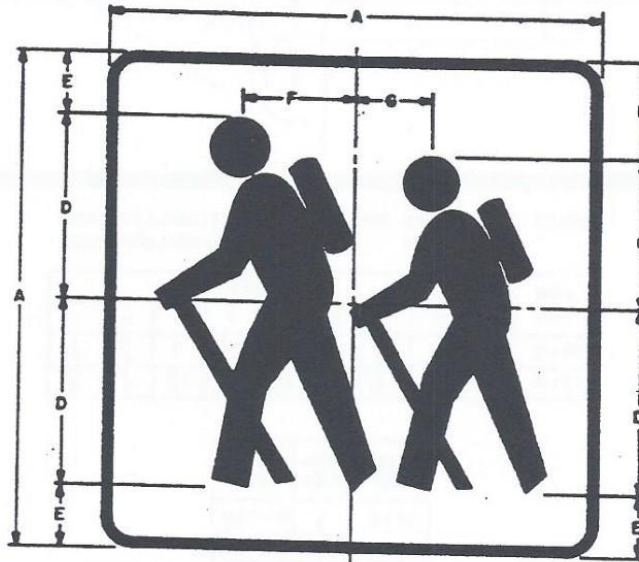
SS 211.915. - 211.920. (Reserved)

TRAIL GROUP, I4 SERIES

§211.921. Trail Sign, I4-1.

(a) *Justification.* The Trail Sign, I4-1, shall be authorized for use when an official hiking trail intersects a street or highway. The Trail Plaque, I4-1-1, and the Information Arrow, I4-1-2, shall be mounted below this sign in that order.

(b) *Size.* The standard size of I4-1 shall be 24 inches by 24 inches.



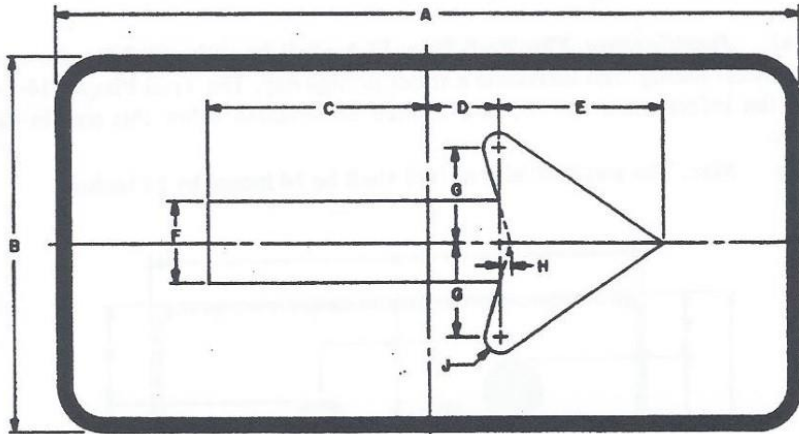
COLOR: LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED) GREEN (REFLECTORIZED)

SIGN SIZE	DIMENSIONS							BOR- DER	BLANK STD
	A	B	C	D	E	F	G		
24x24	24	4 1/2	7 1/2	9	3	5 1/2	3 1/2	1/2	83-24
30x30	30	5 1/2	9 1/2	11 1/2	3 1/2	6 1/2	4 1/2	1/2	83-30

S 211.922. (Reserved)

S 211.923. Information Arrow, I4-1-2.

(a) Justification. The Information Arrow, I4-1-2, shall be authorized for use below information signs to direct the motorists to the facility indicated.



COLOR: LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
GREEN (REFLECTORIZED)

SIGN SIZE	DIMENSIONS									
	A	B	C	D	E	F	G	H	J	
24 x 12	24	12	7 $\frac{1}{2}$	2 $\frac{1}{2}$	5 $\frac{1}{2}$	2 $\frac{1}{2}$	3	$\frac{1}{2}$	$\frac{1}{2}$	
30 x 15	30	15	8 $\frac{1}{2}$	2 $\frac{1}{2}$	6 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	

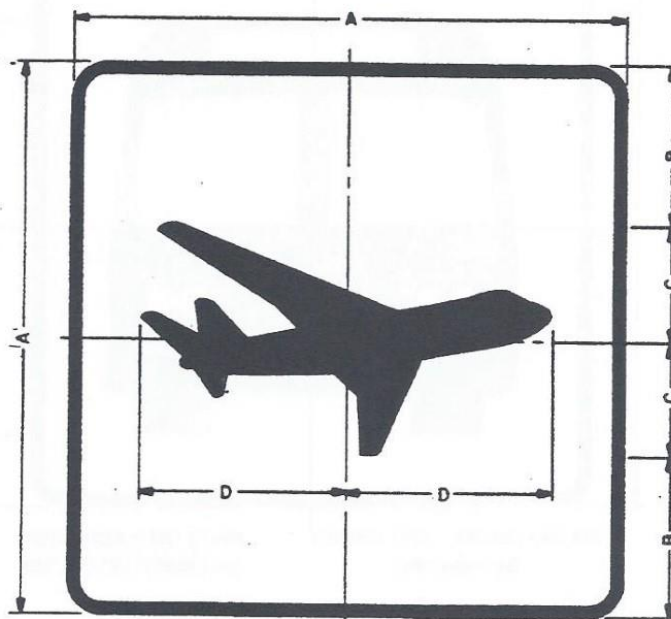
SIGN SIZE	BOR- DER	BLANK STD
24 x 12	$\frac{1}{2}$	B5-2412
30 x 15	$\frac{1}{2}$	B5-3015

GENERAL INFORMATION GROUP,
I5-7 SERIES

S 211.924. Airport Sign, I5-1.

(a) Justification. The Airport Sign, I5-1, shall be authorized for use to direct motorists to airports. The use of the I5-1 sign shall be limited to locations in the vicinity of the airport, trailblazing traffic from the nearest numbered traffic route or other major arterial highway; except that the I5-1 sign shall not be installed on any expressway or highway unless the airport is a commercial airport. If the nearest numbered traffic route has a light average daily traffic volume (ADT) of less than 1500 vehicles, the I5-1 sign may be installed on other than the nearest numbered traffic route if the locations are within 5 miles of the airport. The Airport Plaque, I5-1-1, and the Information Arrow, I4-1-2 may be mounted below this sign. When an area is served by more than one airport, a plaque with the name of the airport may be used in conjunction with the I5-1 sign.

(b) Size. The use of the larger size I5-1 sign shall be reserved for use on multilane highways.



COLOR : LEGEND AND BORDER BACKGROUND WHITE (REFLECTORIZED)
GREEN (REFLECTORIZED)

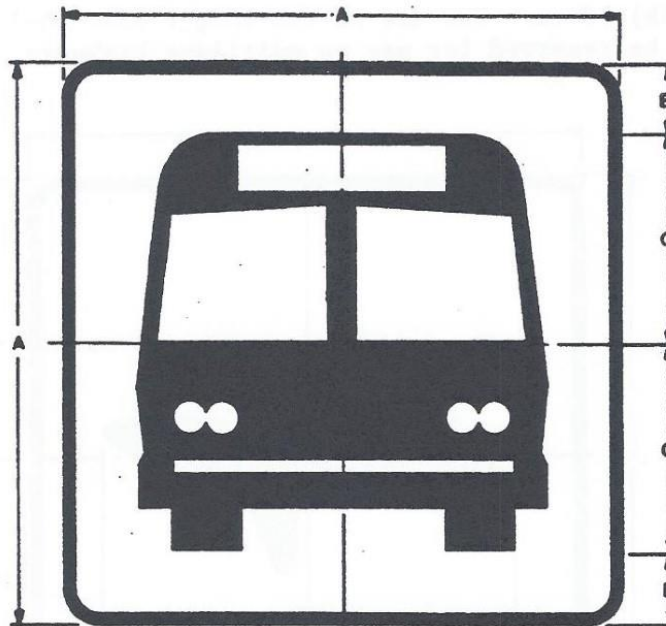
SIGN SIZE	DIMENSIONS				BOR- DER	BLANK STD
	A	B	C	D		
24 x 24	24	7	5	9	$\frac{1}{2}$	B3-24
30 x 30	30	$8\frac{3}{8}$	$6\frac{3}{8}$	$11\frac{1}{4}$	$\frac{3}{4}$	B3-30

S 211.925. (Reserved).

§ 211.926. Bus Station Sign, 16-1.

(a) *Justification.* The Bus Station Sign, 16-1, will be authorized for use to direct motorists to bus stations. The use of the 16-1 sign should be limited to locations in the vicinity of the bus station, trailblazing traffic from the nearest numbered traffic route or other major arterial highway. If the nearest numbered traffic route has a light average daily traffic volume (ADT) of less than 1500 vehicles, the 16-1 sign may be installed on other than the nearest numbered traffic route if the locations are within 5 miles of the bus station. When an area is served by more than one intercity bus station, a plaque with the name of the bus station may be used in conjunction with the 16-1 sign. The Information Arrow, 14-1-2, should be mounted below the 16-1 sign.

(b) *Size.* The use of the larger size 16-1 sign shall be reserved for use on multilane highways.



COLOR · SYMBOL AND BORDER
BACKGROUND

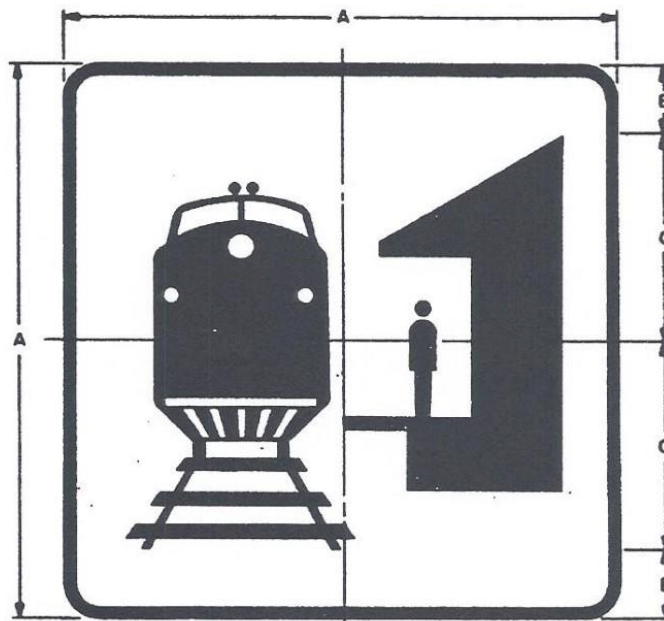
WHITE (REFLECTORIZED)
GREEN (REFLECTORIZED)

SIGN SIZE	DIMENSIONS			BORDER	BLANK STD
	A	B	C		
24x24	24	3	9	$\frac{1}{2}$	83-24(S)
30x30	30	$3\frac{1}{2}$	$11\frac{1}{2}$	$\frac{3}{8}$	83-30(S)

S 211.927. Railroad Station Sign. I7-1.

(a) Justification. The Railroad Station Sign, I7-1, will be authorized for use to direct motorists to railroad stations. The use of the I7-1 sign should be limited to locations in the vicinity of the railroad station, trailblazing traffic from the nearest numbered traffic route or other major arterial highway. If the nearest numbered traffic route has a light average daily traffic volume (ADT) of less than 1500 vehicles, the I7-1 sign may be installed on other than the nearest numbered traffic route if the locations are within 5 miles of the railroad station. When an area is served by more than one railroad station, a plaque with the name of the railroad station may be used in conjunction with the I7-1 sign. The Information Arrow, I4-1-2, may be mounted below the I7-1 sign.

(b) Size. The use of the larger size I7-1 sign shall be reserved for use on multilane highways.



COLOR: SYMBOL AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
GREEN (REFLECTORIZED)

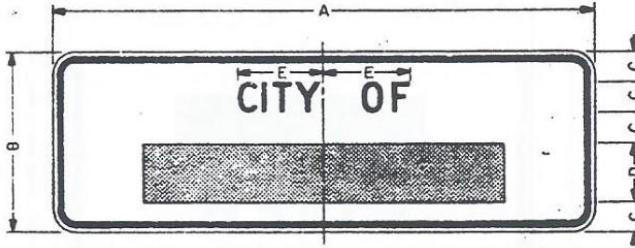
SIGN SIZE	DIMENSIONS			BOR- DER	BLANK STD
	A	B	C		
24x24	24	3	9	$\frac{1}{2}$	B3-24(S)
30x30	30	$3\frac{3}{4}$	$11\frac{1}{4}$	$\frac{3}{4}$	B3-30(S)

Name Group (I10 Series)

§ 23.841. City Name Sign (I10-1).

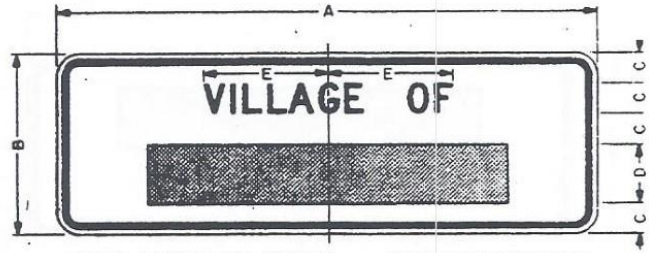
(a) *Justification.* The City Name Sign (I10-1) shall be authorized for use at entrances to cities.

(b) *Placement.* The I10-1 sign shall be placed at the corporate limits of the city.



COLOR LEGEND AND BORDER BACKGROUND BLUE (REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	1	2			
	36 x 12	36	12	2	4	5 3/4	D			



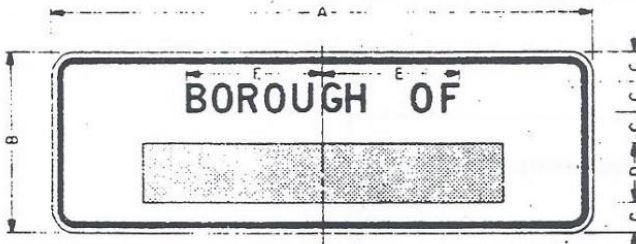
COLOR LEGEND AND BORDER BACKGROUND BLUE (REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	1	2			
	36 x 12	36	12	2	4	8 3/8	D			

§ 23.842. Borough Name Sign (I10-2).

(a) *Justification.* The Borough Name Sign (I10-2) shall be authorized for use at entrances to boroughs.

(b) *Placement.* The I10-2 sign shall be placed at the corporate limits of the borough.



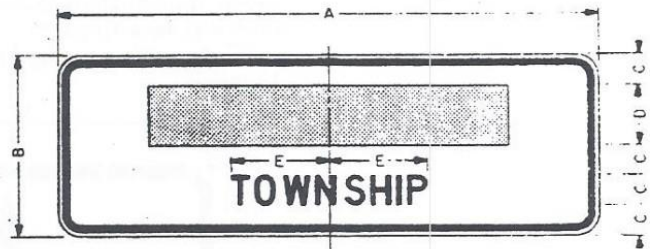
COLOR LEGEND AND BORDER BACKGROUND BLUE (REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	1	2			
	36 x 12	36	12	2	4	9 1/8	D			

§ 23.844. Township Name Sign (I10-4).

(a) *Justification.* The Township Name Sign (I10-4) shall be authorized for use at entrances to first and second class townships.

(b) *Placement.* The I10-4 sign shall be placed at the township line.



COLOR LEGEND AND BORDER BACKGROUND BLUE (REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINES		MAR-GIN	BOR-DER	BLANK STD
	A	B	C	D	E	1	2			
	36 x 12	36	12	2	4	6 1/2	VAR			

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RULES AND REGULATIONS

§ 23.845. County Name Sign (I10-5).

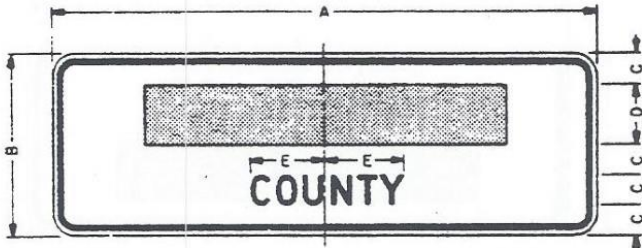
(a) *Justification.* The County Name Sign (I10-5) shall be authorized for use at entrances to counties.

(b) *Placement.* The I10-5 sign shall be placed at the county line.

§ 23.846. River Name Sign (I10-6).

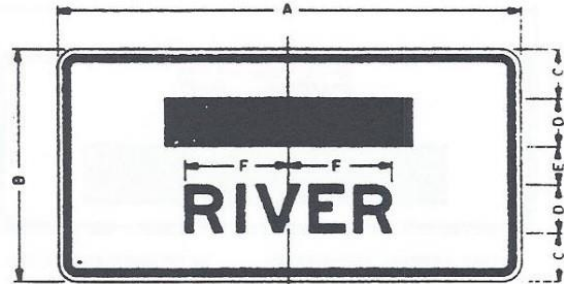
(a) *Justification.* The River Name Sign (I10-6) shall be authorized for use at major waterways and their important tributaries. It may also be used within official rest or scenic areas where there are vantage views of the river.

(b) *Size.* The standard size of I10-6 shall be 36 inches by 12 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

BLUE (REFLECTORIZED)
WHITE (REFLECTORIZED)



COLOR: LEGEND AND BORDER
BACKGROUND

BLUE (REFLECTORIZED)
WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					SERIES LINES	MAR-GIN	BOR-DER	BLANK STD	
	A	B	C	D	E					
36x12	36	12	2	4	5 1/8	VAR	D	3/8	3/8	B5-3612

SIGN SIZE	DIMENSIONS						SERIES LINES	MAR-GIN	BOR-DER	BLANK STD	
	A	B	C	D	E	F					
36x12	36	12	2	3	2	6 7/16	VAR.	E	3/8	3/8	B5-3612
48x24	48	24	5	5	4	10 11/16	VAR.	E	1/2	3/4	B5-4824

§ 23.847. Bicycle Route Sign (I11-1).

(a) *Justification.* The Bicycle Route Sign (I11-1) shall be authorized for use to guide cyclists on a predetermined bicycle route that may be a trail, secondary road or a combination of safe and suitable surfaces. The Information Arrow (I4-1-2) shall be mounted below this sign where the route changes direction.

(b) *Size.* The standard size of I11-1 shall be 24 inches by 18 inches.



COLOR: LEGEND AND BORDER
BACKGROUND

WHITE (REFLECTORIZED)
GREEN (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								SERIES LINE	BOR-DER	BLANK STD
	A	B	C	D	E	F	G	H			
24x18	24	18	1 1/2	7	3 1/2	3	5 1/2	9 1/2	C	1/2	B5-2418
30x24	30	24	1 7/8	8 3/4	4 3/8	4	6 7/8	12 1/2	C	5/8	B5-3024

Subchapter I. SCHOOL SIGNS (S SERIES)

§ 23.861. Purpose.

The signs in this group shall be authorized for use as a warning and to give notice of special regulations that apply in school areas.

The type and location of school area traffic control devices must be related to the volume and speed of traffic, street width and the number of children crossing.

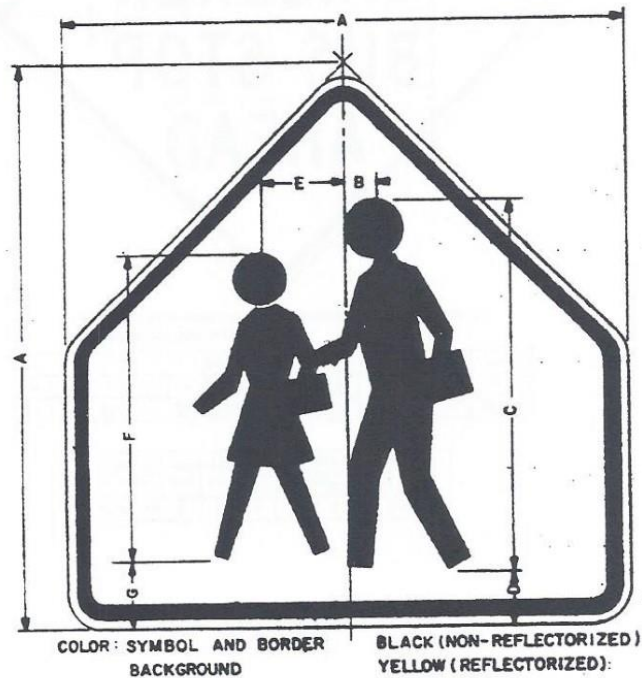
Safe and effective traffic control can best be obtained through the uniform application of policies, practices and standards developed through engineering studies and by using similar controls for similar situations which will promote uniform behavior on the part of motorists and pedestrians.

§ 23.862. School Sign (S1-1).

(a) Justification. The School Sign (S1-1) shall be authorized for use on a street or highway adjacent to school buildings or grounds and from which children have direct access to the school.

(b) Placement. The S1-1 should be placed not less than 150 feet in advance of the access point to the school building.

(c) Size. The 30-inch by 30-inch size is for use in urban areas and the 36-inch by 36-inch size is for use in rural areas.



SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
30 x 30	30	2	20	3	4 1/2	16 1/2	3 1/2
36 x 36	36	2 1/2	24	3 1/2	5 3/8	20	4 1/2

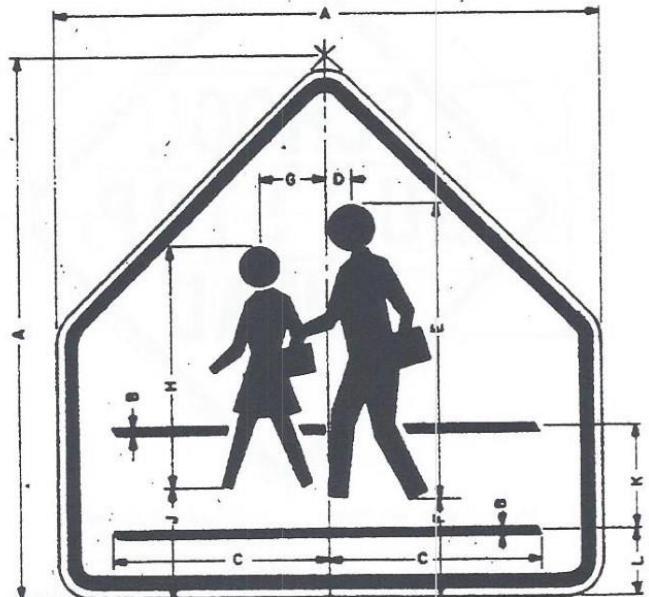
SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1 1/2	3/4	B8-30
36 x 36	2	1	B8-36

§ 23.863. School Crossing Sign (S2-1).

(a) Justification. The School Crossing Sign (S2-1) shall be authorized for use at established school crossings where a substantial number of school children cross a highway going to and from school. The crossing should be marked with crosswalk lines as provided in § 23.1055 of this Title (relating to crosswalks and crosswalk lines).

(b) Placement. The S2-1 sign should be erected at the crosswalk or at the minimum distance possible in advance of the crosswalk.

(c) Size. The 30-inch by 30-inch size is for use in urban areas and the 36-inch by 36-inch size is for use in rural areas.



SIGN SIZE	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	L
30 x 30	30	1 1/2	12	1 1/2	16 1/2	6	3 1/2	13 1/2	6 1/2	5 1/2	4
36 x 36	36	2	14 1/2	1 1/2	19 3/4	7 1/4	4 1/2	16 1/4	7 1/8	6 7/8	4 1/2

SIGN SIZE	MAR-GIN	BOR-DER	BLANK STD
30 x 30	1 1/2	3/4	B8-30
36 x 36	2	1	B8-36

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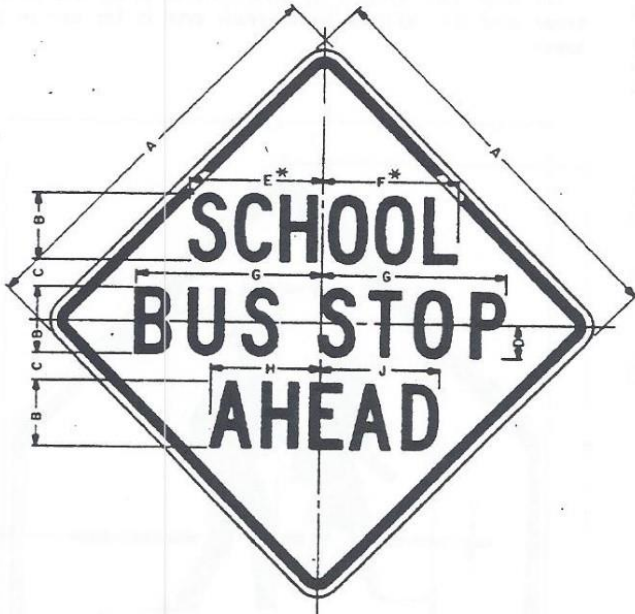
RULES AND REGULATIONS

§ 23.864. School Bus Stop Ahead Sign (S3-1).

(a) *Justification.* The School Bus Stop Ahead Sign (S3-1) shall be authorized for use in advance of locations where a school bus, when stopped to pick up or discharge passengers, is not visible by a motorist for a distance of 500 feet in advance.

(b) *Placement.* The S3-1 should normally be placed 500 feet in advance of the school bus stop.

(c) *Size.* The standard size is 30 inches by 30 inches.



COLOR: LEGEND AND BORDER BACKGROUND
BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
30x30	30	5	2	2½	10	10½	14	8¼	9
36x36	36	6	3	3	11½	12½	17	10	11

* Reduce spacing 13 1/2 %

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
30x30	C	C	C	½	¾	B3-30(D)
36x36	C	C	C	¾	¾	B3-36(D)

§ 23.865. School Children Bus Stop Ahead Sign (S3-2).

(a) *Justification.* The School Children Bus Stop Ahead Sign (S3-2) shall be authorized for use in advance of school children loading zones off the certificated routes of common carriers or the regular scheduled routes of authorities outside business or residence districts.

(b) *Placement.* When used, the S3-2 shall be placed 300 feet to 500 feet in advance of the school children loading zone on both approaches, except on a physically divided highway where signs are required only on the side of the loading zone.

Permission must be obtained from the District Engineer for placement within the Department's right-of-way.



COLOR: LEGEND AND BORDER BACKGROUND
BLACK (NON-REFLECTORIZED)
YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	L	M
36x36	36	5	2½	12	10½	11	12½	13½	13	13½	8½	9¼

SIGN SIZE	SERIES LINES				MAR-GIN	BOR-DER	BLANK STD
	1	2	3	4			
36x36	C	C	C	C	¾	¾	B3-36(D)

RULES AND REGULATIONS

§ 23.866. School Bus Crossing Sign (S3-3).

(a) *Justification.* The School Bus Crossing Sign (S3-3) shall be authorized for use in advance of locations where school buses cross or enter a highway under unusual hazardous conditions. Its use should be kept to a minimum indicating only those locations where terrain and roadway features limit the sight distance for either the motorist of bus driver.

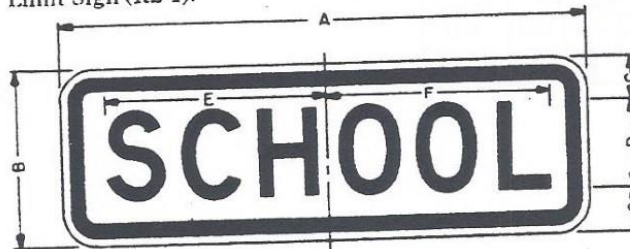


COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						SERIES LINES	MAR-GIN	BOR-DER	BLANK STD	
	A	B	C	D	E	F					
30 x 30	30	4	3	1/2	13 1/8	10 3/8	C	C	1/2	2	B3-30(D)

§ 23.867. School Panel (S4-3)

(a) *Justification.* The School Panel (S4-3) shall be authorized for use in conjunction with the Speed Limit Sign (R2-1) as provided in §§ 23.868 and 23.869 of this Title (relating to when flashing sign and during restricted hours sign). The S4-3 shall be mounted directly above the Speed Limit Sign (R2-1).



COLOR LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) YELLOW (REFLECTORIZED)

SIGN SIZE	DIMENSIONS					
	A	B	C	D	E	F
24 x 8	24	8	2	4	10	10 1/4

SIGN SIZE	SERIES LINE	MAR-GIN	BOR-DER	BLANK STD

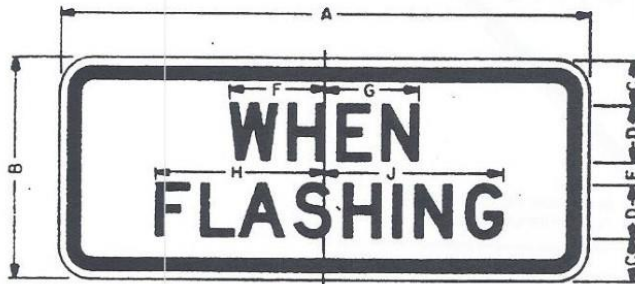
§ 23.868. When Flashing Sign (S4-4).

(a) *Justification.* The When Flashing Sign (S4-4) shall be authorized for use in lieu of the School Sign (S1-1) when engineering data justifies the need to display the 15-miles-per-hour speed limit as provided in § 1002(b)(2) of the Vehicle Code (75 P. S. § 1002). This sign shall be used in conjunction with the School Panel (S4-3), the Speed Limit Sign (R2-1) and the Speed Limit Sign Beacon as provided in § 23.962 of this Title (relating to speed limit sign beacon) to indicate that all vehicles are restricted to a maximum of 15 miles-per-hour speed limit during the time the beacons are flashing.

The S4-4 sign shall be mounted directly below the Speed Limit Sign (R2-1).

(b) *Permit.* Local authorities shall secure a permit for use of this sign in conjunction with the Speed Limit Sign Beacon as provided in § 23.882 of this Title (relating to authorization of use).

(c) *Placement.* The S4-4 sign shall be placed not less than 150 feet in advance of the access point to the school building. The Speed Limit Sign Beacon shall be placed as provided in § 23.962 of this Title (relating to speed limit sign beacon).



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS								
	A	B	C	D	E	F	G	H	J
24 x 10	24	10	2	2 1/2	1	4 3/8	4 1/4	7 5/8	8 1/8

SIGN SIZE	SERIES LINES		MARGIN	BORDER	BLANK STD
	1	2			
	24 x 10	D			

§ 23.869. During Restricted Hours Sign (S4-10).

(a) *Justification.* The During Restricted Hours Sign (S4-10) shall be authorized for use on a street or highway adjacent to school buildings or grounds and from which children have direct access to the school. This sign shall be used in conjunction with the School Panel (S4-3) and the Speed Limit Sign (R2-1) to indicate that all vehicles are restricted to a maximum of 15-miles-per-hour speed limit during school recess, or while children are going to or leaving school during opening or closing hours.

The S4-10 sign shall be mounted directly below the Speed Limit Sign (R2-1).

(b) *Placement.* The S4-10 sign shall be placed not less than 150 feet in advance of the access point to the school building.



COLOR: LEGEND AND BORDER BLACK (NON-REFLECTORIZED)
BACKGROUND WHITE (REFLECTORIZED)

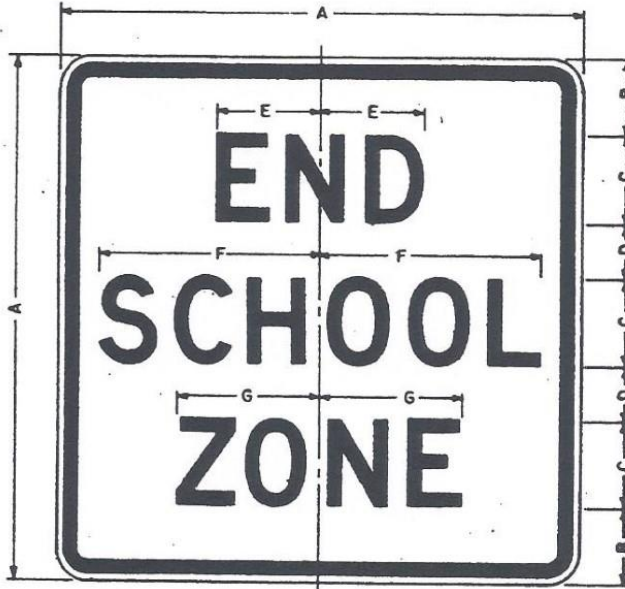
SIGN SIZE	DIMENSIONS							
	A	B	C	D	E	F	G	H
24 x 12	24	12	2	2	1	4 11/16	7 3/4	4 1/4

SIGN SIZE	SERIES LINES			MARGIN	BORDER	BLANK STD
	1	2	3			
	24 x 12	D	D			

RULES AND REGULATIONS

§ 23.870. End School Zone Sign (S4-11).

(a) *Justification.* The End School Zone Sign (S4-11) shall be authorized for use at the end of a school zone which is indicated by the School Sign (S1-1), the School Panel (S4-3) or the Variable School Speed Limit Sign as provided in § 23.871 of this Title.



COLOR: LEGEND AND BORDER BACKGROUND BLACK (NON-REFLECTORIZED) WHITE (REFLECTORIZED)

SIGN SIZE	DIMENSIONS						
	A	B	C	D	E	F	G
24 x 24	24	3 1/2	4	2 1/2	4 3/4	10 1/8	6 1/2

SIGN SIZE	SERIES LINES			MAR-GIN	BOR-DER	BLANK STD
	1	2	3			
24 x 24	D	D	D	3/8	3/8	B3-24

§ 23.871. Variable School Speed Limit Sign.

(a) *Justification.* The Variable School Speed Limit Sign shall be authorized for use to display a special speed limit on a highway adjacent to school buildings or grounds and from which children have direct access to the school.

A Variable School Speed Limit Sign will include but not be limited to a blackout message, a variable message or a message in effect during the operation of flashing beacons. Because of these special features it is not practical to establish a standard design for a Variable School Speed Limit Sign. Therefore, anyone desiring to use a Variable School Speed Limit Sign shall obtain approval for its design and operation as provided in § 23.111 of this Title (relating to use, test, approval and sale).

During the period the school speed limit is in effect, the Variable School Speed Limit Sign shall conform to the provisions of this Title (relating to basic shape, message, legend layout, colors, placement and operation of flashing beacons).

[Pa. B. Doc. No. 75-1037. Filed June 6, 1975, 9:00 a.m.]

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SUBCHAPTER J

TRAFFIC SIGNALS

Subchapter J
TRAFFIC SIGNALS
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Subchapter J. TRAFFIC SIGNALS
General Provisions

§ 23.881. Scope

(a) This Subchapter relates to a group of devices called highway traffic signals. These devices include: traffic control signals, pedestrian signals, beacons, lane-use control signals, drawbridge signals, emergency traffic signals, fire house warning devices, ramp metering signals and train approach signals and gates.

(b) The signals and devices described in this Subchapter shall be official and may be erected when authorized in accordance with the provisions of this Subchapter. It shall be unlawful to use on any street or highway any of these devices (except train approach signals), unless it is of a type which has been submitted to the Secretary of Transportation for test, and for which a Certificate of Approval has been issued and is then in effect as provided in § 23.11 of this Title (relating to use, test, approval and sale).

§ 23.882. Authorization of use.

Eliminated by Change #36

§ 23.883. Basis of installation.

(a) A careful analysis of traffic operations and other factors at a large number of signalized and unsignalized intersections, coupled with the judgment of experienced engineers, have provided a series of National warrants that define the minimum conditions under which signal installations may be justified. Consequently, the selection and use of this control device should be preceded by a thorough engineering study of roadway and traffic conditions.

(b) Engineering studies should be made of operating signals to determine if the type of installation and the timing program meet the current requirements of traffic.

TRAFFIC CONTROL SIGNALS

§ 23.891. General aspects.

(a) There are two types of traffic control signals, pretimed and traffic-actuated.

(b) The features of traffic control signals in which vehicle operators and pedestrians are interested are the location, design, indications, and legal significance of the signals. These are identical for all types of traffic control signals. Uniformity in the design features that affect the traffic to be controlled (as set forth in this Subchapter) is especially important for safe and efficient traffic operations.

(c) Special police supervision and/or enforcement should be provided for a limited time at a new non-intersection location.

§ 23.892. Area of control.

A traffic control signal shall control traffic only at the intersection or midblock location where the installation is placed.

§ 23.893. Advantages and disadvantages of traffic control signals.

(a) Traffic control signals are valuable devices for the control of vehicle and pedestrian traffic. However, because they assign the right-of-way to the various traffic movements, traffic control signals exert a profound influence on traffic flow.

(b) Traffic control signals, properly located and operated usually have one or more of the following advantages:

(1) They can provide for the orderly movement of traffic.

(2) Where proper physical layouts and control measures are used, they can increase the traffic-handling capacity of the intersection.

(3) They can reduce the frequency of certain types of accidents, especially the right-angle type.

(4) Under favorable conditions, they can be coordinated to provide for continuous or nearly continuous movement of traffic at a definite speed along a given route.

(5) They can be used to interrupt heavy traffic at intervals to permit other traffic, vehicular or pedestrian, to cross.

(c) Many laymen believe that traffic signals provide the solution to all traffic problems at intersections. This has led to their installation at a number of locations where no legitimate factual warrant exists.

(d) Traffic signal installations, even though warranted by traffic and roadway conditions, can be ill-designed, ineffectively placed, improperly operated, or poorly maintained. The following factors can result from improper or unwarranted signal installations:

(1) Excessive delay may be caused.

(2) Disobedience of the signal indications is encouraged.

(3) The use of less adequate routes may be induced in an attempt to avoid such signals.

(4) Accident frequency (especially the rear-end type) can be significantly increased.

§ 23.894. Portable traffic control signals.

A portable traffic control signal not meeting all the requirements of this Subchapter is not recognized as a standard traffic control device and shall not be used.

§ 23.895. Meaning of signal indications.

The following meanings shall be given to highway traffic signal indications, except those on pedestrian signals:

(a) Green indications shall have the following meanings:

(1) Traffic, except pedestrians, facing a CIRCULAR GREEN may proceed straight through or turn right or left unless a sign at such place prohibits either such turn. But vehicular traffic, including vehicles turning right or left, shall yield the right-of-way to other vehicles, and to pedestrians lawfully within the intersection or an adjacent crosswalk, at the time such signal is exhibited.

(2) Traffic, except pedestrians, facing a GREEN ARROW, shown alone or in combination with another indication, may cautiously enter the intersection only to make the movement indicated by such arrow, or such other movement as is permitted by other indications shown at the same time. Such vehicular traffic shall yield the right-of-way to pedestrians lawfully within an adjacent crosswalk and to other traffic lawfully using the intersection.

(3) Unless otherwise directed by a pedestrian signal or pedestrian indication, pedestrians facing any green indication, except when the sole green indication is a turn arrow, may proceed across the roadway within any marked or unmarked crosswalk.

(b) Steady yellow indications shall have the following meanings:

(1) Traffic, except pedestrians, facing a steady CIRCULAR YELLOW or YELLOW ARROW signal is thereby warned that the related green movement is being terminated or that a red indication will be exhibited immediately thereafter when vehicular traffic shall not enter the intersection.

(2) Pedestrians facing a steady CIRCULAR YELLOW or YELLOW ARROW signal, unless otherwise directed by a pedestrian signal, are thereby advised that there is insufficient time to cross the roadway before a red indication is shown and no pedestrian shall then start to cross the roadway.

(c) Steady red indications shall have the following meanings:

(1) Traffic, except pedestrians, facing a steady CIRCULAR RED signal alone shall stop at a

clearly marked stop line, but if none, before entering the crosswalk on the near side of the intersection, or if none, then before entering the intersection and shall remain standing until an indication to proceed is shown except as provided in §23.895(c)(2) of this Title (relating to turns on red after stop).

(2) When a sign is in place permitting a turn, traffic, except pedestrians, facing a steady CIRCULAR RED signal may cautiously enter the intersection to make the turn indicated by such sign after stopping as provided in (1) above. Such vehicular traffic shall yield the right-of-way to pedestrians lawfully within an adjacent crosswalk and to other traffic lawfully using the intersection.

(3) Unless otherwise directed by a pedestrian signal, pedestrians facing a STEADY CIRCULAR RED signal alone shall not enter the roadway.

(d) Flashing signal indications shall have the following meanings:

(1) Flashing red (stop signal)—When a red lens is illuminated with rapid intermittent flashes, drivers of vehicles shall stop at a clearly marked stop line, but if none, before entering the crosswalk on the near side of the intersection, or if none, then at the point nearest the intersecting roadway where the driver has a view of approaching traffic on the intersecting roadway before entering the intersection, and the right to proceed shall be subject to the rules applicable after making a stop at a STOP sign.

(2) Flashing yellow (caution signal)—When a yellow lens is illuminated with rapid intermittent flashes, drivers of vehicles may proceed through the intersection or past such signal only with caution.

§ 23.896. Application of signal indications.

Basic displays used in signal operations are the steady CIRCULAR RED, CIRCULAR YELLOW or CIRCULAR GREEN indication, used on each of the approaches. The application for these signal indications shall be as follows:

(a) A steady CIRCULAR RED indication:

(1) Shall be given when it is intended to prohibit traffic from entering the intersection or other controlled area.

(2) Shall be displayed with the appropriate green arrow indications when it is intended to permit traffic to make a specified turn or turns, and to prohibit traffic from proceeding straight ahead through the controlled area. This display is optional where it is physically impossible for traffic to go straight ahead, as at the head of a "T" intersection.

(3) Shall be given when it is intended to prohibit all traffic, except pedestrians directed by a pedestrian signal, from entering the intersection or other controlled area.

(b) A steady CIRCULAR YELLOW indication shall be given following a CIRCULAR GREEN indication in the same signal face.

(c) A steady CIRCULAR GREEN indication shall be given only when it is intended to permit

traffic to proceed in any direction which is lawful and practical.

(d) Steady YELLOW ARROW and GREEN ARROW indications may be used in lieu of the corresponding circular indications at the following locations:

(1) Where certain movements are prohibited.

(2) Where certain movements are physically impossible.

(3) On an intersection approach which has an exclusive lane for turning movements.

(4) Where turning movements are "protected" from conflicting movements by other indications or by the signal sequence.

(5) Where all the movements on the approach do not begin or end at the same time and where the indications for the turning movements will also be visible to traffic with other allowable movements.

(6) If steady arrow indications are used:

(i) A steady YELLOW ARROW indication shall be used following a GREEN ARROW indication which has been displayed simultaneously with a CIRCULAR RED indication in the same signal face.

(ii) A steady YELLOW ARROW indication shall be used in a separate signal face following a GREEN ARROW indication, when that face is used exclusively to control a single directional movement.

(iii) A steady GREEN ARROW indication shall be used only when there is no conflict with other vehicles or with pedestrians crossing in conformance with the WALK indication or other pedestrian indication.

(c) The following combinations of signal indications shall not be simultaneously displayed on any one signal face, and shall not be simultaneously displayed in different signal faces on any one approach to an intersection unless the signal faces are tunnel visored, louvered, programmed and signed so that none of these prohibited combinations of signal indications are readily visible to drivers:

(1) CIRCULAR GREEN with CIRCULAR YELLOW.

(2) Straight-through GREEN ARROW with CIRCULAR RED.

(3) CIRCULAR RED with CIRCULAR YELLOW.

(4) CIRCULAR GREEN with CIRCULAR RED.

(f) When a traffic control signal is put on flashing operation, normally a yellow indication should be used for the major street and a red indication for the other approaches. Yellow indications shall not be used for all approaches. The following applications shall apply whenever signals are placed in flashing operation:

(1) A CIRCULAR YELLOW indication shall be flashed instead of any YELLOW ARROW indication which may be included in that signal face.

(2) NO CIRCULAR GREEN or GREEN ARROW indication or flashing yellow indication shall be terminated and immediately followed by a steady

red or flashing red indication without the display of the steady yellow change indication; however, transition may be made directly from a CIRCULAR GREEN or GREEN ARROW indication to a flashing yellow indication.

§ 23.897. Number of lenses per signal face.

(a) Each signal face, except in pedestrian signals and those signals included under other Highway Traffic Signals in this Subchapter shall have at least three lenses, but not more than five. The lenses shall be red, yellow or green in color, and shall give a circular or arrow type of indication. Allowable exceptions to the above are:

(1) Where a single section green arrow lens is used alone to indicate a continuous movement.

(2) Where one or more indications are repeated for reasons of safety or impact.

§ 23.898. Size and design of signal lenses.

(a) The aspect of all traffic control signal lenses, shall be circular. There shall be two sizes for lenses for traffic control signals, eight inches and twelve inches nominal diameter.

(b) Eight-inch lenses should be used for all traffic control signal installations except as noted in (c) and (d) below.

(c) Twelve-inch lenses normally should be used:

(1) For intersections with 85 percentile approach speeds exceeding 40 M.P.H.

(2) For intersections where signalization might be unexpected.

(3) For special problem locations, such as those with conflicting or competing background lighting.

(4) For intersections where drivers may view both traffic control and lane-use-control signals simultaneously.

(d) All arrow indications shall be 12-inch lenses.

(1) Arrows shall be pointed vertically upward to indicate a straight through movement and in a horizontal direction to indicate a turn at approximately right angles. When the angle of the turn is substantially different from a right angle, the arrow should be positioned on an upward slope at an angle approximately equal to that of the turn.

(2) Each arrow lens shall show only one arrow direction. The arrow shall be the only illuminated part of the lens visible.

(e) In no case shall letters or numbers be displayed as part of a vehicular signal indication.

(f) All lenses shall conform to the current standards for Adjustable Face Vehicle Traffic Control Signal Heads.

§ 23.899. Arrangement of lenses in signal faces.

(a) The lenses in a signal face shall be arranged in a vertical or horizontal straight line, except that in a vertical array, lenses of the same color may be arranged horizontally adjacent to each other at right angles to the basic straight line arrangement as provided in § 23.900 of this Title (relating to typical arrangements of lenses in signal faces).

(b) In each signal face, all red lenses in vertical signals shall be located above, and in horizontal signals shall be located to the left of all yellow and green lenses.

(c) A yellow lens shall be located between the red lens or lenses and all other lenses.

(d) In vertically arranged signal faces, each YELLOW ARROW lens shall be located immediately above the GREEN ARROW lens to which it applies. In horizontally arranged signals, the YELLOW ARROW shall be located immediately to the left of the GREEN ARROW lens.

(e) The relative positions of lenses within the signal face shall be as follows:

(1) In a vertical signal face from top to bottom:

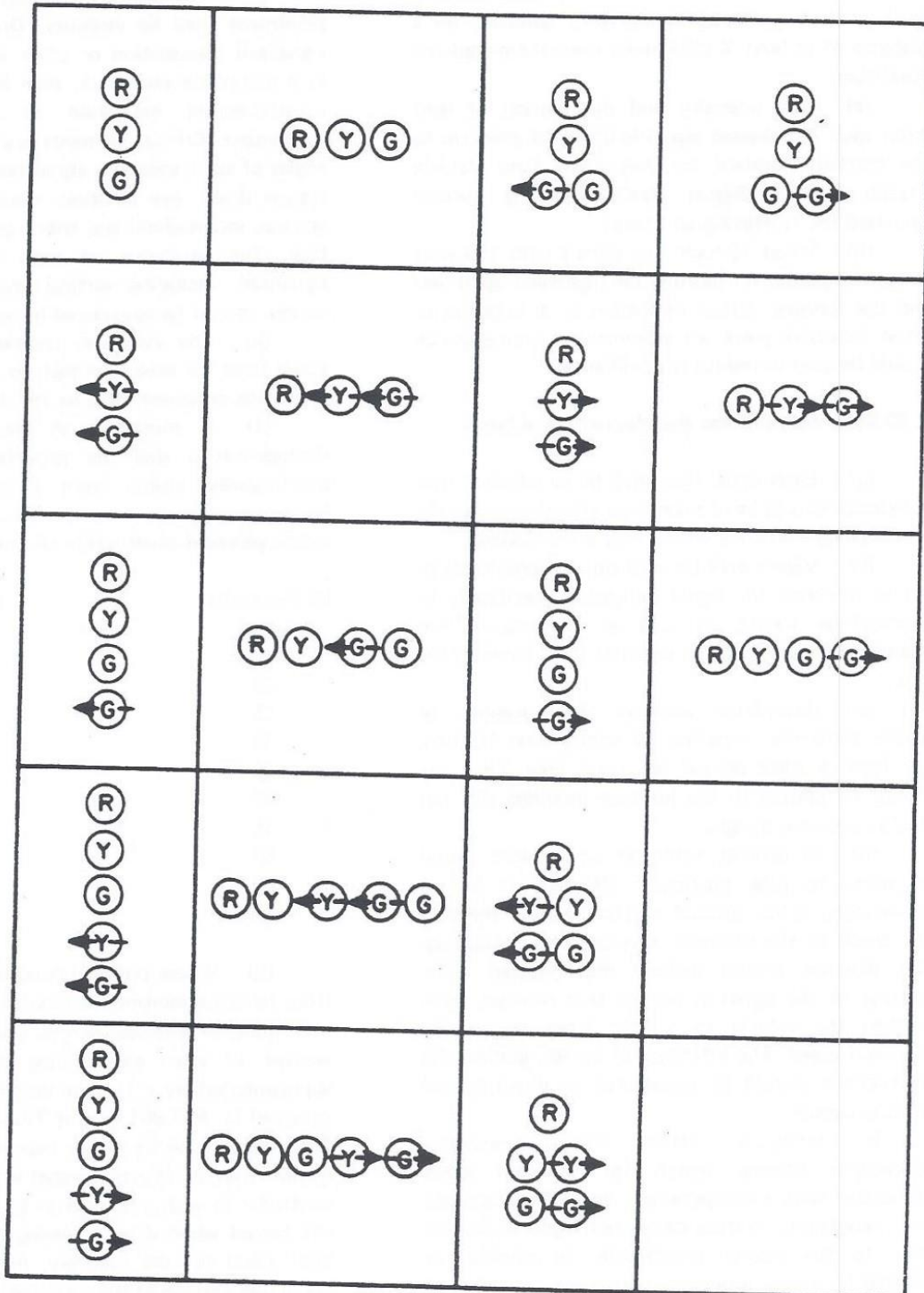
CIRCULAR RED
CIRCULAR YELLOW
Straight through YELLOW ARROW
Straight through GREEN ARROW
CIRCULAR GREEN
Left turn YELLOW ARROW
Left turn GREEN ARROW
Right turn YELLOW ARROW
Right turn GREEN ARROW

(2) In a horizontal signal face from left to right:

CIRCULAR RED
CIRCULAR YELLOW
Left turn YELLOW ARROW
Left turn GREEN ARROW
CIRCULAR GREEN
Straight through YELLOW ARROW
Straight through GREEN ARROW
Right turn YELLOW ARROW
Right turn GREEN ARROW

(3) In a cluster, identical signal indications may be repeated in adjacent vertical or horizontal locations within the same signal face.

(f) Basic horizontal and vertical display faces should not be used on the same approach. If used, they shall be separated to meet the lateral clearance provided in § 23.903 of this Title (relating to number and location of signal faces).



§23.900 TYPICAL ARRANGEMENTS OF LENSES IN SIGNAL FACES

§ 23.901. Illumination of lenses.

(a) Each signal lens shall be illuminated independently.

(b) When a signal lens, except in a pedestrian signal, is illuminated and the view of such an indication is not otherwise physically obstructed, it shall be clearly visible (to drivers it controls) for a distance of at least ¼ mile under normal atmospheric conditions.

(c) The intensity and distribution of light from each illuminated signal lens should conform to the current Standard for Adjustable Face Vehicle Traffic Control Signal Heads and the current Standard for Traffic Signal Lamps.

(d) When 12-inch lens signals with 150 watt lamps are placed on flashing for nighttime operation and the flashing yellow indication is so bright as to cause excessive glare, an automatic dimming device should be used to reduce the brilliance.

§ 23.902. Visibility and shielding of signal faces.

(a) Each signal face shall be so adjusted that its indications will be of maximum effectiveness to the approaching traffic for which they are intended.

(b) Visors shall be used on all signal faces to aid in directing the signal indication specifically to approaching traffic, as well as to reduce "sun phantom" resulting from external light entering the lens.

(c) Backplates improve the visibility of signals otherwise impaired by background lighting, sun light or glare behind the signal face. Their use should be limited to the purpose intended and not used as standard design.

(d) In general, vehicular signal faces should be aimed to have maximum effectiveness for an approaching driver located a distance from the stop line equal to the distance traversed while stopping. This distance should include that covered while reacting to the signal as well as that covered while bringing the vehicle to a stop from an average approach speed. The influence of curves, grades, and obstructions should be considered in directing and locating signals.

(e) Irregular street design frequently necessitates placing signals for different street approaches with a comparatively small angle between their indications. In these cases, each signal indication shall, to the extent practicable, be shielded or directed by visors, louvers, or other means so that an approaching driver can see only the indication controlling his movement. Tunnel visors exceeding twelve inches in length shall not be used on freeswinging signals.

(f) The provisions of §§ 23.902(a)-23.902(e) of this Title (relating to visibility and shielding of signal faces) does not preclude the use of special signal faces such that the driver does

not see their indications before seeing other indications when simultaneous viewing of both signal indications could cause the driver to be misdirected.

§ 23.903. Number and location of signal faces.

(a) The primary consideration in signal face placement shall be visibility. Drivers approaching a signalized intersection or other signalized area, such as a mid-block crosswalk, shall be given a clear and unmistakable indication of their right-of-way assignment. Critical elements are lateral and vertical angles of sight toward a signal face, as determined by typical driver eye position, vehicle design, and the vertical, longitudinal and lateral position of the signal face. The geometry of each intersection to be signalized, including vertical grades and horizontal curves, should be considered in signal face placement.

(b) The visibility, location and number of signal faces for each approach to an intersection or a mid-block crosswalk shall be as follows:

(1) A minimum of two signal faces for through-traffic shall be provided and should be continuously visible from a point at least the following distances in advance of and to the stop line, unless physical obstruction of their visibility exists:

85 Percentile Speed	Minimum Visibility Distance (Ft.)
20	100
25	175
30	250
35	325
40	400
45	475
50	550
55	625
60	700

(2) Where physical conditions prevent drivers from having a continuous view of at least two signal indications as specified herein, a suitable sign shall be erected to warn approaching traffic. It may be supplemented by a Hazard Identification Beacon as provided in §23.961 of this Title (relating to hazard identification beacon). A beacon utilized in this manner may be interconnected with the traffic signal controller in such a manner as to flash yellow during the period when drivers passing this beacon, at the legal speed for the roadway, may encounter a red signal upon arrival at the signalized location.

(3) A single signal face is permissible for the control of a turning lane controlled by an exclusive phase. Such a signal face shall be in addition to the minimum of two signal faces for through-traffic. When a separate signal face or faces controlling an exclusive turn lane is used a sign LEFT (or RIGHT) TURN SIGNAL shall be located adjacent to such signal face.

(4) Except where the width of the intersecting street or other conditions make it physically impractical, at least one and preferably both of the signal faces as provided in §23.903(b)(1) shall be located not less than 40 feet nor more than 120 feet beyond the stop line. Where both of the signal faces are post-mounted, they shall both be on the far side of the intersection, one on the right and one on the left or on the median island if practical. The signal faces required by §23.903(b)(3) shall conform to the same location requirements as the signal faces required by §23.903(b)(1) to the extent practical.

(5) Except where the width of the intersecting street or other conditions make it physically impractical, at least one and preferably both of the signal faces required by §23.903(b)(1) shall be located between two lines intersecting with the center of the approach lanes at the stop line, one making an angle of approximately 20 degrees to the right of the center of the approach lane(s) extended, and the other making an angle of approximately 20 degrees to the left of the center of the approach extended as provided in §23.904 of this Title (relating to desirable location of signal faces).

(6) Near-side signals should be located as near as practicable to the stop line.

(7) Where a signal face controls a specific lane or lanes of approach, its transverse position should be unmistakably in line with the path of that movement.

(8) Required signal faces for any one approach shall be not less than eight feet apart, preferably a minimum of twelve feet apart, measured

horizontally between centers of faces.

(9) When the nearest signal face is more than 120 feet beyond the stop line, a supplemental near side signal indication shall be provided.

(10) A signal face mounted on a span wire or mast arm should be located as near as practicable to the line of the driver's normal view.

(11) Supplemental signal faces should be used when an engineering study has shown that they are needed to achieve both advance and immediate intersection visibility. When used, they should be located to provide optimum visibility for the movement to be controlled. The following limitations apply:

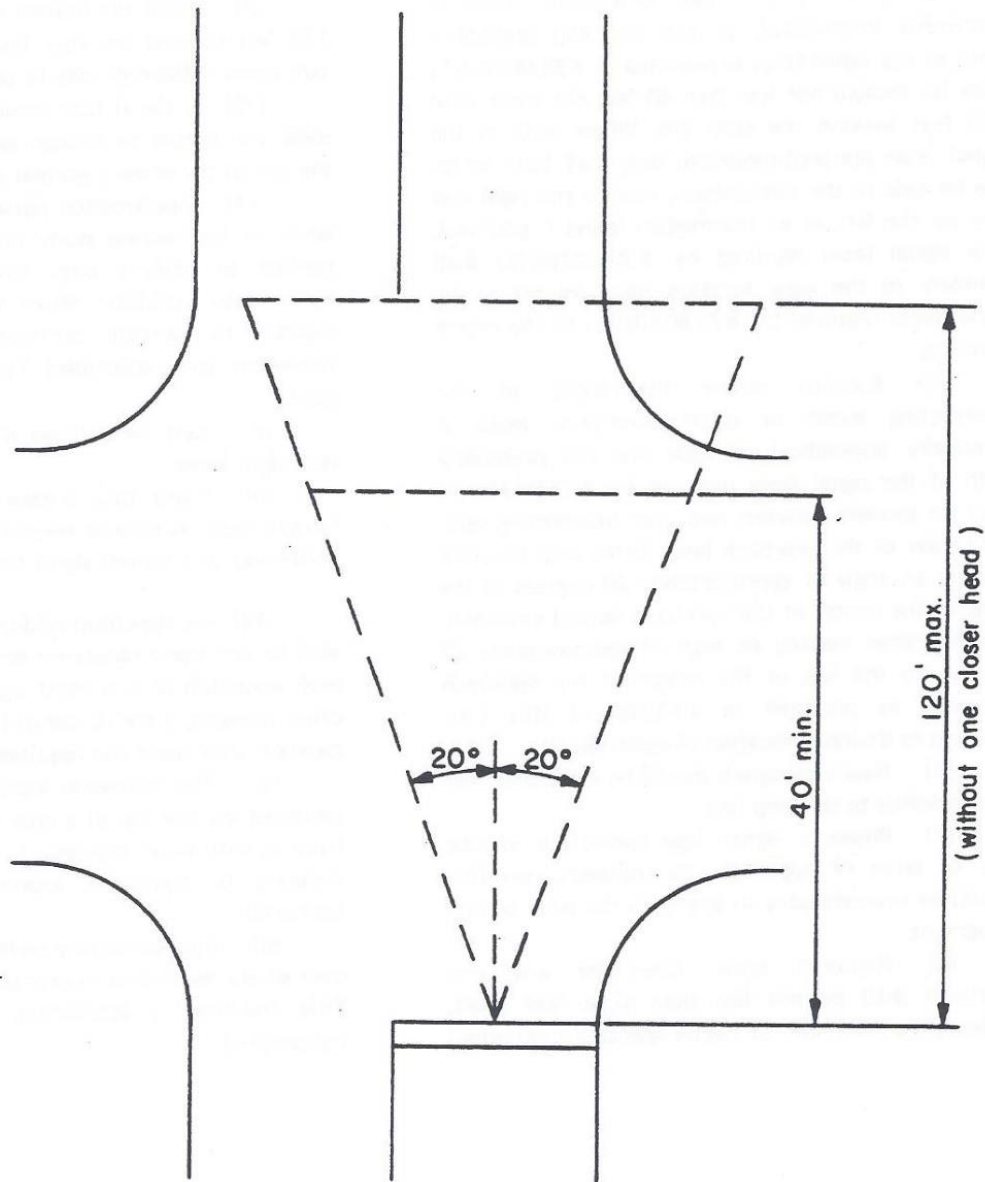
(i) Left turn arrows shall not be used in the near-right faces.

(ii) Right turn arrows shall not be used in far-left faces. A far-side median mount signal shall be considered as a far-left signal for this application.

(12) At signalized mid-block crosswalks, there shall be two signal faces over the traveled roadway for each approach with a third signal post mounted. In other respects, a traffic control signal at a mid-block location shall meet the requirements set forth herein.

(c) The transverse location of a signal face, if mounted on the top of a post or on a short bracket from it, shall be as provided in §23.906 of this Title (relating to transverse location of traffic signal supports).

(d) Supplementary pedestrian signals shall be used where warranted as provided in §23.943 of this Title (relating to application of pedestrian signal indications).



§23.904 DESIRABLE LOCATION OF SIGNAL FACES

§ 23.905. Height of signal faces.

(a) The bottom of the housing of a signal face, not mounted over a roadway, shall not be less than 8 feet nor more than 15 feet above the sidewalk or, if none, above the pavement grade at the center of the roadway.

(b) The bottom of the housing of a signal face suspended over a roadway shall not be less than

15 feet nor more than 19 feet above the pavement grade at its highest elevation.

(c) Within the above limits, optimum visibility and adequate clearance should be the guiding considerations in deciding signal height. Grades on approaching streets may be important factors, and should be considered in determining the most appropriate height.

§ 23.906. Transverse location of traffic signal supports and controller cabinets.

(a) In the placement of signal supports, primary consideration shall be given to ensuring the proper visibility of signal faces as provided in § 23.903-23.905 of this Title (relating to number, location and height of signal faces). However, in the interest of safety, signal supports and controller cabinets should be placed as far as practicable from the edge of the traveled way without adversely affecting signal visibility.

(b) Supports for the post-mounted signal heads at the side of a street with curbs shall have a horizontal clearance of not less than two feet from the face of a vertical curb. Where there is no curb, supports for post-mounted signal heads shall have a horizontal clearance of not less than two feet from the edge of a shoulder, within the limits of normal vertical clearance. A signal support should not obstruct a crosswalk.

(c) No part of a concrete base for a signal support should extend more than three inches above the ground level at any point.

(d) On medians, the above minimum clearances for signal supports should be obtained where practicable. Any supports which cannot be located with the required clearances should be of the breakaway type or should be guarded if at all practicable.

§ 23.907. Vehicle change interval.

(a) A yellow vehicle change interval shall be used following each CIRCULAR GREEN interval and, where applicable after each GREEN ARROW interval. In no case shall a CIRCULAR YELLOW indication be displayed in conjunction with the change from CIRCULAR RED to CIRCULAR GREEN. Separate signal faces should be used when exclusive turning movements are controlled by GREEN ARROWS.

(b) The exclusive function of the steady yellow interval shall be to warn traffic of an impending change in the right-of-way assignment.

(c) Yellow vehicle change intervals should have a range of approximately three to five seconds with a minimum of three seconds (except for ramp metering signals which may be less). Generally the longer intervals are appropriate to higher approach speeds.

(d) The yellow vehicle change interval may be followed by a short all way red clearance interval, of sufficient duration to permit the intersection to clear before cross traffic is released.

(e) A clearance interval shall be provided between the termination of a GREEN ARROW indication and the showing of a green indication to any conflicting traffic movement. (This clearance interval need not be a yellow but can be

accomplished by dropping the GREEN ARROW and the clearance interval shall be the same as in (c) above prior to displaying a green indication to any conflicting traffic).

§ 23.908. Coordination of traffic control signals.

Traffic control signals within one-half of a mile of one another along a major route or in a network of intersecting major routes should be operated in coordination, preferably with interconnected controllers. However, coordination need not be maintained across boundaries between signal systems which operate on different time cycles. Coordinated operation normally should include both pre-timed signals and traffic-actuated signals within the appropriate distances. Traffic signals shall be coordinated with railroad grade crossings signals as provided in § 23.912 of this Title (relating to traffic signals near grade crossings).

§ 23.909. Flashing operation of traffic control signals.

(a) All traffic signal installations shall be provided with an electrical flashing mechanism supplementary to the signal timer. A manual switch, or where appropriate, automatic means, shall be provided to actuate the flashing mechanism. The signal timer shall be removable without affecting the flashing operation. The mechanism shall operate in a manner similar to that of an Intersection control beacon as provided in § 23.963 of this Title (relating to intersection control beacon) to provide intermittent illumination of selected signal lenses. The flashing operation of the traffic control signal shall be such that the indications for each approach shall have a simultaneous ON and OFF period.

(b) The illuminating element in a flashing signal shall be flashed continuously at a rate of not less than 50 nor more than 60 times per minute. The illuminated period of each flash shall be not less than half and not more than two-thirds of the total flash cycle.

(c) When traffic control signals are put on flashing operation, the signal indications given to the several streets shall be as provided in § 23.896 of this Title (relating to application of signal indications).

(d) Automatic changes from flashing to stop-and-go operation shall be made at the beginning of the major street green interval, preferably at the beginning of the common major street green interval, (i.e., when a green indication is shown in both directions on the major street). Automatic changes from stop-and-go to flashing operation shall be made at the end of the common major street red interval (i.e., when a red indication is shown in both directions on the major street).

(e) The change from the flashing to stop-and-go operation, or from stop-and-go to

flashing operation by manual switch may be made at any time.

(f) Where there is no common major street green interval, the automatic change from flashing to stop-and-go operation shall be made at the beginning of the green interval for the major traffic movement on the major street. It may be necessary to provide a short, steady all-red interval for the other approaches before changing from flashing yellow or flashing red to green on the major approach.

§ 23.910. Continuity of operation.

(a) A traffic signal installation, except as provided below, shall be operated as a stop-and-go device or as a flashing device.

(b) When a signal installation is not in operation such as prior to placing it in service, during seasonal shutdowns, or when it is not desirable to operate the signals, they should be hooded, turned or taken down to clearly indicate that the signal is not in operation.

(c) When a traffic signal installation is being operated in the usual (stop-and-go) manner, at least one indication in each signal face shall be illuminated.

(d) When a traffic signal installation is being operated as a flashing device, the yellow indication shall be flashed in at least two required signal faces on each approach on which traffic is not stopped and the red indication shall be flashed in at least two required signal faces on each approach on which traffic is required to stop.

(e) The above provisions do not apply to emergency-traffic signals or drawbridge signals.

(f) When a single section, continuously illuminated GREEN ARROW lens is used alone to indicate a continuous movement, it may be continuously illuminated when the other signal indications in the signal installation are flashed.

§ 23.911. Signal operation must relate to traffic flow.

(a) Traffic control signals shall be operated in a manner consistent with traffic requirements. Data from engineering studies shall be used to determine the proper phasing and timing for a signal.

(b) Since traffic flows and patterns change, it is necessary that the engineering data be updated and reevaluated regularly.

(c) To assure that the approved operating pattern including timing is displayed to the driver, regular checks including the use of accurate timing devices should be made.

23.912. Traffic signals near grade crossings.

(a) All plans for traffic signal installations located within 300 feet of a highway-railroad grade

crossing shall be submitted to the Pennsylvania Public Utility Commission for approval.

(b) When a highway-railroad grade crossing is within 300 feet of an intersection controlled by a traffic signal, the control of the traffic signal may require preemption from the signal controller upon approach of trains to avoid conflicting aspects of the traffic signal and the train approach signal. This preemption feature requires a closed electrical circuit between the control relay of the train-approach signals and the preemptor in order to establish and maintain the preempted condition during the time that the train-approach signals are in operation. Except under unusual circumstances, the interconnection should be limited to the traffic signals within 300 feet of the crossing.

(c) Traffic signals shall not be used on mainline railroad crossings in lieu of railroad grade crossing protection devices. However, at industrial track crossings and other places where train movements are very slow (as in switching operations), traffic signals may be used in lieu of conventional train-approach signals to warn motorists of the approach or presence of a train. The provisions of this part relating to traffic signal design, installation and operation are applicable as appropriate where traffic signals are so used.

(d) At crossings where train movements are regulated or limited to the extent that train-approach signals are not required, preemption of the adjacent signalized intersections may be desirable to permit non-conflicting highway traffic to proceed during the time the crossing is blocked by a train. Except under unusual circumstances, the interconnection should be limited to the traffic signals within 300 feet of the crossing.

(e) The preemption sequence initiated when the train first enters the approach circuit, shall at once bring into effect a signal display which will permit all vehicles to clear the tracks before the train reaches the intersection or any approach thereto.

(f) When the green indication is preempted by train operation, a yellow change interval must be inserted in the signal sequence in the interest of safety and consistency. To avoid misinterpretation during the time that the clear-out signals are green, consideration should be given to the use of 12-inch red lenses in the signals which govern movement over the tracks.

(g) After the track clearance phase, the traffic signal may be operated to permit vehicle movements that do not cross the tracks, but in all cases shall prohibit movements over the tracks.

(h) Where feasible the location and the normal (no trains involved) phasing and timing of traffic signals near railroad grade crossings should be designed so that vehicles are not required to stop on the crossing even though in some cases this will increase the waiting time. The exact nature of the display and the location of the signals to accomplish

this will depend on the physical relationship of the crossing to the intersection area.

(i) When the train clears the crossing it is necessary to return the signal to a designated phase, normally the traffic movement crossing the tracks.

(j) As used herein, the terms "train" and "railroad" shall include transit vehicles operating upon stationary rails or tracks on private right-of-way.

§ 23.913. Priority control of traffic signals.

(a) Traffic control signals may be modified in timing, sequence and/or display to grant priority control to authorized classes of vehicles such as emergency and transit vehicles. Traffic signals operated under priority control shall use color sequences with which drivers and pedestrians are familiar. Nonstandard colors, unusual flashing cycles or flashing of yellow lights in signal assemblies while regular traffic signal operation goes on in the same assembly are prohibited. This does not preclude the use of auxiliary indications independent to the traffic signal assembly to indicate the existence of an emergency condition.

(b) The use of any traffic signal preemption equipment shall be limited to that time when the authorized vehicle is actually engaged in a priority operation.

(c) Devices used on authorized vehicles to preempt traffic signal control shall provide within such traffic signal control a change and/or clearance interval as required in § 23.907 and § 23.948 of this Title (relating to vehicle change interval and pedestrian intervals and phases).

(d) Traffic signals preempted by such authorized vehicles shall be operated in a manner designed to keep traffic flowing on one artery or one approach or flashing. The stopping of all traffic by the display of a steady ALL RED shall be prohibited. The duration of all such preempted operations shall be kept to a minimum (not longer than necessary to provide passage of the authorized vehicle).

(e) Systems in which traffic signal control is preempted by authorized vehicles shall be designed and installed so as to provide an additional safety indication (a fail-safe indication) to notify the driver of any authorized vehicle approaching the location that the authorized vehicle has failed to preempt the traffic signal. This fail-safe indication shall be given whether the failure results from a prior preemption by an authorized vehicle on the cross street, from equipment malfunction or from any other cause. All fail-safe indications of priority preemption systems shall operate alike. When the authorized vehicle has control of the signals, the fail-safe indication shall be a flashing white light on the street or approach which is preempted.

§ 23.914. Maintenance of traffic control signals.

(a) Prior to the installation of any traffic control signal, the responsibility for its maintenance should be clearly established. The responsible agency should provide for the maintenance of the signal and all of its appurtenances in a responsible manner. To this end, the agency should:

(1) Provide for alternate operation of the signal during a period of failure, either on flash or manually, or by having manual traffic direction by proper authority as may be warranted by traffic volumes or congestion, or by erecting other traffic control devices.

(2) Have properly skilled maintenance available without undue delay for all emergency calls, including lamp failures.

(3) Provide properly skilled maintenance for all components.

(4) Maintain the appearance of the installation in a manner consistent with the intention of this Subchapter, with particular emphasis on painting and on cleaning of the optical system.

(5) Service equipment and lamps as frequently as experience proves necessary to prevent undue failures.

(6) Provide adequate stand-by equipment to minimize the interruption of signal operation due to equipment failure.

(b) Every controller should be kept in effective operation in strict accordance with its predetermined timing schedule.

(c) A careful check of the correctness of time operation of the controller should be made frequently enough to insure its operating in accordance with the planned timing schedule. Timing changes should be made only by authorized persons. A written record should be made of all timing changes.

(d) Controllers should be carefully cleaned and serviced at least as frequently as specified by the manufacturer and more frequently if experience proves it necessary.

§ 23.915. Painting.

(a) The inside of visors (hoods) and the entire surface of louvers, and fins, and the front surface of backplates shall have a dull black finish to minimize light reflection to the side of the signals.

(b) To obtain the best possible contrast with the visual background, signal head housings shall be painted highway yellow.

§ 23.916. Vehicle detectors.

(a) The placement of vehicle detectors in relation to the Stop line is a very important factor in the proper operation of traffic actuated signals and should be a factor in signal design.

(b) Where the total entering traffic on one

street is more than twice that on the cross street, detectors on the cross street should be placed closer to the Stop line than on the main street.

(c) Additional "calling" detectors may be required on lower volume streets to handle traffic entering the street from driveways between the basic detector and the Stop line.

(d) The transverse placement of detectors should be such that vehicles traveling away from the intersection do not register "false-calls". On narrow two-way roadways this may require use of directional detectors.

§ 23.917. Auxiliary signs.

(a) Signal instruction signs as provided in §§ 23.278-23.280 of this Title (relating to Left Turn Signal sign, Right Turn Signal sign and Turn With Care sign) used with traffic signals shall be located adjacent to the signal face to which they apply. Minimum clearance of the total assembly shall be as provided in § 23.30 of this Title (relating to installation of signs) and § 23.905 of this Title

(relating to height of signal faces).

(b) Stop signs shall not be used in conjunction with any traffic signal operation except when a minor street or driveway is located within or adjacent to the controlled area, but does not warrant separate signal control due to extremely low potential for conflict.

(c) When used in conjunction with traffic signals, illuminated signs shall be designed and mounted in such a manner as to avoid glare and reflections that seriously detract from the signal indications. The traffic control signal shall be given dominant position and brightness to assure its target priority in the overall display.

(d) Traffic Signal Speed signs as provided in § 23.831 of this Title (relating to Traffic Signal Speed sign) may be used to inform drivers of the speed of progression, if this speed is substantially lower than the speed limits in effect on streets in the signal system.

(e) All auxiliary signs used in conjunction with traffic signals shall be illuminated or reflectorized.

WARRANTS

§ 23.921. Advance engineering data required.

(a) A comprehensive investigation of traffic conditions and physical characteristics of the location is required to determine the necessity for a signal installation and to furnish necessary data for the proper design and operation of a signal that is found to be warranted. Such data desirably should include:

(1) The number of vehicles entering the intersection in each hour from each approach during 16 consecutive hours of a representative day. The 16 hours selected should contain the greatest percentage of the 24-hour traffic.

(2) Vehicular volumes for each traffic movement from each approach classified by vehicle type (heavy trucks, passenger cars and light trucks, and public-transit vehicles), during each 15-minute period of the two hours in the morning and of the two hours in the afternoon during which total traffic entering the intersection is greatest.

(3) Pedestrian volume counts on each crosswalk during the same periods as the vehicular counts in paragraph (2) above and also during hours of highest pedestrian volume. Where young or elderly persons need special consideration, the pedestrians may be classified by general observation and recorded by age groups as follows:

(i) under 13 years.

(ii) 13 to 60 years.

(iii) over 60 years.

(4) The 85-percentile speed of all vehicles on the uncontrolled approaches to the location.

(5) A condition diagram showing details of the physical layout, including such features as intersection geometrics, channelization, grades, sight-distance restrictions, bus stops and routings, parking conditions, pavement markings, street lighting, driveways, location of nearby railroad crossing, distance to nearest signals, utility poles and fixtures, and adjacent land use.

(6) A collision diagram showing accident experience by type, location, direction of movement, severity, time of day, date, and day of week for the last three years.

(b) The following data are also desirable for a more precise understanding of the operation of the intersection and may be obtained during the periods specified in (2) above:

(1) Vehicle-seconds delay determined separately for each approach.

(2) The number and distribution of gaps in vehicular traffic on the major street when minor-street traffic finds it possible to use the intersection safely.

(3) The 85-percentile speed of vehicles on controlled approaches at a point near to the intersection but unaffected by the control.

(4) Pedestrian delay time for at least two

30-minute peak pedestrian delay periods of an average weekday or like periods of a Saturday or a Sunday.

(c) Adequate roadway capacity at a signalized intersection is desirable. Widening of both the main highway and the intersecting roadway may be warranted to reduce the delays caused by assignment of right-of-way at intersections controlled by traffic signals. Widening of the intersecting roadway is often beneficial to operation on the main highway because it reduces the signal time that must be assigned to side-street traffic. In urban areas, the effect of widening can be achieved by elimination of parking at intersectional approaches. It is always desirable to have at least two lanes for moving traffic on each approach to a signalized intersection. Additional width may be necessary on the leaving side of the intersection, as well as the approach side, in order to clear traffic through the intersection effectively. Before an intersection is widened, the additional green time needed by pedestrians to cross the widened streets should be checked to ensure that it will not exceed the green time saved through improved vehicular flow.

§ 23.922. Warrants for traffic signal installation.

(a) Traffic control signals should not be installed unless one or more of the signal warrants in this Subchapter or other current Department criteria are met. Information should be obtained by means of engineering studies and compared with the requirements set forth in the warrants. If these requirements are not met, a traffic signal should neither be put into operation nor continued in operation (if already installed).

(b) When a traffic control signal is indicated as being warranted, the signal and all related traffic control devices and markings shall be installed according to the standards set forth in this Chapter.

(c) An investigation of the need for traffic signal control should include where applicable, at least an analysis of the factors contained in the following warrants:

(1) Warrant 1—Minimum vehicular volume.

(2) Warrant 2—Interruption of continuous traffic.

(3) Warrant 3—Minimum pedestrian volume.

(4) Warrant 4—School crossings.

(5) Warrant 5—Progressive movement.

(6) Warrant 6—Accident experience.

(7) Warrant 7—Systems.

(8) Warrant 8—Combination of warrants.

§ 23.923. Warrant 1, Minimum vehicular volume.

(a) The minimum vehicular volume warrant is intended for application where the volume of intersecting traffic is the principal reason for consideration of signal installation. The warrant is satisfied when, for each of any eight hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor-street approach to the intersection.

(b) These major-street and minor-street volumes are for the same eight hours. During those

eight hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

(c) When the 85-percentile speed of major-street traffic exceeds 40 miles per hour, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the minimum vehicular volume warrant is 70 percent of the requirements below (in recognition of differences in the nature of operational characteristics of traffic in urban and rural environments and smaller municipalities).

MINIMUM VEHICULAR VOLUMES FOR WARRANT 1

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
Major Street	Minor Street		
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

§23.924. Warrant 2, Interruption of continuous traffic.

(a) The interruption of continuous traffic warrant applies to operating conditions where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or hazard in entering or crossing the major street. The warrant is satisfied when, for each of any eight hours of an average day, the traffic volumes given in the table below exist on the major-street and on the higher-volume minor street approach to the intersection, and the signal installation will not seriously disrupt progressive traffic flow.

(b) These major-street and minor-street volumes are for the same eight hours. During those eight hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

(c) When the 85 percentile speed of major-street traffic exceeds 40 miles per hour, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the interruption of continuous traffic warrant is 70 percent of the requirements below (in recognition of differences in the nature and operational characteristics of traffic in urban and rural environmental and smaller municipalities).

MINIMUM VEHICULAR VOLUMES FOR WARRANT 2

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
Major Street	Minor Street		
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

§ 23.925. Warrant 3, Minimum pedestrian volume.

(a) The minimum pedestrian volume warrant is satisfied when, for each of any eight hours of an average day, the following traffic volumes exist:

(1) On the major street, 600 or more vehicles per hour enter the intersection (total of both approaches); or where there is a raised median island four feet or more in width, 1,000 or more vehicles per hour (total of both approaches) enter the intersection on the major street; and

(2) During the same eight hours as in subsection (a)(1) of this section there are 150 or more pedestrians per hour on the highest volume crosswalk crossing the major street.

(b) When the 85-percentile speed of major-street traffic exceeds 40 miles per hour, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the minimum pedestrian volume warrant is 70 percent of the requirements above (in recognition of differences in the nature and operational characteristics of traffic in urban and rural environments and smaller municipalities).

(c) A signal installed under this warrant at an isolated intersection should be of the traffic-actuated type with push buttons for pedestrians crossing the main street. If such a signal is installed at an intersection within a signal system, it should be equipped and operated with control devices which provide proper coordination.

(d) Signals installed according to this warrant shall be equipped with pedestrian signals conforming to requirements set forth in other sections of this Subchapter.

(e) Signals may be installed at non-intersection locations (mid-block) provided the requirements of this warrant are met, and provided that the related crosswalk is not closer than 150 feet to another established crosswalk. Curbside parking should be prohibited for 100 feet in advance of and 20 feet beyond the crosswalk. Phasing, coordination, and installation must conform to standards set forth in this Subchapter. Special attention should be given to the signal head placement and the signs and markings used at nonintersection locations to be sure drivers are aware of this special application.

§ 23.926. Warrant 4, School crossing.

(a) A traffic control signal may be warranted at an established school crossing when a traffic engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at the school crossing shows that the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period.

(b) When traffic control signals are installed entirely under this warrant:

(1) Pedestrian signals shall be provided at least for each crosswalk established as a school crossing.

(2) At an intersection, the signal normally should be traffic-actuated. As a minimum, it should be semi-traffic actuated, but full actuation with detectors on all approaches may be desirable. Intersection installations that can be fitted into progressive signal systems may have pretimed control.

(3) At non-intersection crossings, the signal should be pedestrian-actuated, parking and other obstructions to view should be prohibited for at least 100 feet in advance of and 20 feet beyond the crosswalk, and the installation should include suitable standard signs and pavement markings. Special police supervision and/or enforcement should be provided for a new non-intersection installation.

§ 23.927. Warrant 5, Progressive movement.

(a) Progressive movement control sometimes necessitates traffic signal installations at intersections where they would not otherwise be warranted, in order to maintain proper grouping of vehicles and effectively regulate group speed. The progressive movement warrant is satisfied when:

(1) On a one-way street or a street which has predominantly unidirectional traffic, the adjacent signals are so far apart that they do not provide the necessary degree of vehicle platooning and speed control, or

(2) On a two-way street, adjacent signals do not provide the necessary degree of platooning and speed control and the proposed and adjacent signals could constitute a progressive signal system.

(b) The installation of a signal according to this warrant should be based on the 85-percentile speed unless an engineering study indicates that another speed is more desirable.

(c) The installation of a signal according to this warrant should not be considered where the resultant signal spacing would be less than 1,000 feet.

§ 23.928. Warrant 6, Accident experience.

(a) The accident experience warrant is satisfied when:

(1) Adequate trial of less restrictive remedies with satisfactory observance and enforcement has failed to reduce the accident frequency; and

(2) Five or more reported accidents a year of types susceptible of correction by traffic signal control, have occurred each year for a three-year period, each accident involving personal injury or property damage to an apparent extent of \$200 or more; and

(3) There exists a volume of vehicular and pedestrian traffic not less than 80 percent of the requirements specified either in the minimum vehicular volume warrant, the interruption of

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continuous traffic warrant, or the minimum pedestrian volume warrant; and

(4) The signal installation will not seriously disrupt progressive traffic flow.

(b) Any traffic signal installed solely on the Accident Experience warrant should be traffic-actuated (with control devices which provide proper coordination if installed at an intersection within a coordinated system).

§ 23.929. Warrant 7, Systems warrant.

(a) A traffic signal installation at some intersections may be warranted to encourage concentration and organization of traffic flow networks. The systems warrant is applicable when the common intersection of two or more major routes has a total existing, or immediately projected, entering volume of at least 800 vehicles during the peak hour of a typical weekday, or each of any five hours of a Saturday and/or Sunday.

(b) A major route as used in the above warrant has one or more of the following characteristics:

(1) It is part of the street or highway system that serves as the principal network for through traffic flow;

(2) It connects areas of principal traffic generation;

(3) It includes rural or suburban highways outside of, entering or traversing a city;

(4) It has surface street freeway or expressway ramp terminals;

(5) It appears as a major route on an official plan such as a major street plan in an urban area traffic and transportation study.

§ 23.930. Warrant 8, Combination of warrants.

(a) In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where two or more of Warrants 1, 2, and 3 as provided in §§ 23.923-23.925 are satisfied to the extent of 80 percent or more of the stated values.

(b) Adequate trial of other remedial measures which cause less delay and inconvenience to traffic should precede installation of signals under this warrant.

§ 23.931. Factors governing selection of type of control.

(a) The principal factors that may lead to the favorable consideration of traffic-actuated control in the selection of the type of signal control include:

(1) Low, fluctuating or unbalanced traffic volumes.

(2) High side street traffic volumes and delays only during the peak hours.

(3) The pedestrian or accident warrant is the only warrant which is met.

(4) The installation is to provide for one-way movement of two-way traffic.

(5) The installation is at a non-intersection location.

§ 23.932. Pedestrian actuated control.

(a) Operation of traffic-actuated signals must take into consideration the needs of pedestrians as well as vehicular traffic. This can be accomplished in the following ways:

(1) When pedestrian signals are not warranted in conjunction with a traffic-actuated signal installation as provided in § 23.943 of this Title (relating to application of pedestrian signals) but where pedestrian movement exists and there is inadequate opportunity to cross without undue delay or the pedestrian would have inadequate crossing time during the green interval, pedestrian detectors shall be installed and operated as provided in § 23.947 of this Title (relating to detectors). A signal indication will also be visible to the pedestrian for each pedestrian movement.

(2) When pedestrian signals are warranted and installed in conjunction with a traffic-actuated signal, the operation should follow the patterns provided in §§ 23.947-23.948 of this Title (relating to detectors; pedestrian intervals and phases).

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RULES AND REGULATIONS

PEDESTRIAN SIGNALS

§ 23.941. Pedestrian signals.

Pedestrian signals are special types of traffic signals intended for the exclusive purpose of controlling pedestrian traffic. These signals consist of the illuminated words WALK and DONT WALK.

Subchapter J. TRAFFIC SIGNALS

§ 23.942. Meaning of pedestrian signals.

The meaning of pedestrian signals ~~(and)~~ is set forth in § 3113(a) of the Vehicle Code, as follows:

(1) **WALK** — Pedestrians facing the signal should proceed across the roadway in the direction of the signal and shall be given the right-of-way by the drivers of all vehicles.

(2) **DONT WALK** — Pedestrians should not start to cross the roadway in the direction of the signal, but any pedestrian who has partially completed his crossing on the WALK signal should proceed to a sidewalk or safety zone while the DONT WALK signal is showing.

(3) **Flashing WALK** — Whenever the WALK indication is flashing, pedestrians facing the signal are cautioned that there is possible hazard from turning vehicles, but pedestrians may proceed across the roadway in the direction of the signal indication and shall be given the right-of-way by the drivers of all vehicles.

(4) **Flashing DONT WALK** — Whenever the DONT WALK indication is flashing, pedestrians should not start to cross the roadway in the direction of the indication, but any pedestrian who has partly completed crossing during the WALK indication should proceed to a sidewalk or safety zone, and all drivers of vehicles shall yield to the pedestrian.

§ 23.943. Application of pedestrian signals.

(a) Pedestrian signals shall be installed in conjunction with vehicular traffic signals (which meet one or more of the traffic signal warrants previously set forth) under any of the following conditions:

(1) When a traffic signal is installed under the pedestrian volume or school crossing warrant.

(2) When an exclusive interval or phase is provided or made available for pedestrian movement in one or more directions, with all conflicting vehicular movements being stopped. (This does not mandate the installation of pedestrian signals for pedestrians crossing the approach leg of a one-way street).

(3) When vehicular signals are not visible to pedestrians such as on one-way streets, at "T" intersections; or when the vehicular signals are in a position which would not adequately serve pedestrians. (This does not mandate the use of pedestrian signals if three section vehicle signals have been installed and are visible to pedestrians).

(4) At established school crossings at intersections signalized under any warrant.

(b) Pedestrian signals also may be installed under any of the following conditions:

(1) When any volume of pedestrian activity requires use of a pedestrian clearance interval to minimize vehicle-pedestrian conflicts or when it is necessary to assist pedestrians in making a safe crossing.

(2) When multi-phase operation (as with split-phase timing) would tend to confuse pedestrians guided only by vehicle signals.

(3) When pedestrians cross part of the street, to or from an island, during a particular interval (where they should not be permitted to cross another part of that street during any part of the same interval).

§ 23.944. Design requirements

(a) Design requirements for pedestrian signals include the following:

(1) Pedestrian signals should attract the attention of, and be readable to, the pedestrian (both day and night) at all distances from 10 feet to the full width of the area to be crossed.

(2) All pedestrian signals shall be rectangular in shape and shall consist of the lettered messages WALK and DON'T WALK. Only internal illumination shall be as provided in § 23.945 of this Title (relating to pedestrian signal face designs).

(3) When illuminated, the WALK signal shall be lunar while conforming to the current Standard for Adjustable Face Pedestrian Signal Heads. All except the letters shall be obscured by an opaque material.

(4) When illuminated, the DONT WALK signal shall be Portland orange conforming to the current Standard for Adjustable Face Pedestrian Signal Heads. All except the letters shall be obscured by an opaque material.

(5) When not illuminated, the WALK and DONT WALK messages shall not be distinguishable by pedestrians at the far end of the crosswalk they control.

(6) The letters shall be at least three inches high for a crossing where the distance from the near curb to the pedestrian signal is 60 feet or less. For distances over 60 feet, the letters should be at least 4½ inches high.

(7) The light source shall be designed and constructed so that in case of an electrical or mechanical failure of the word DONT, the word WALK of the DONT WALK message will also remain 'ark.



Single Section



Two Section Type

§ 23.945 PEDESTRIAN SIGNAL FACE DESIGNS

§ 23.946. Location.

(a) Pedestrian signal faces shall be mounted with the bottom of the housing not less than seven feet nor more than 10 feet above the sidewalk level, and so there is a pedestrian signal in the line of pedestrians' vision which pertains to the crosswalk being used.

(b) The DONT WALK signal shall be

mounted directly above or integral with the WALK signal.

(c) Pedestrian signal heads may be mounted separately or on the same support with other signal heads. When mounted with other signal heads there shall be a physical separation between the two heads.

(d) The pedestrian signal head shall be so positioned and adjusted as to provide maximum visibility at the beginning of the controlled crossing.

(a) Pedestrian detectors of the push button or other type shall be designated to operate on a circuit not to exceed 18 volts. They may be mounted on signal standards, wood or steel poles, or individual posts. They should be conveniently located near each end of crosswalks where actuation is required. A mounting height of 3½ to 4 feet above the sidewalk has been found best adapted to general usage. Permanent-type signs shall be mounted with the detectors as provided in §§ 23.272-23.273 of this Title (relating to push button for green light sign; push button for walk signal sign) explaining their purpose and use. At certain locations, it may be desirable to supplement this sign with a larger sign suspended over the sidewalk to call attention to the push button. Where two crosswalks, oriented in different directions, end at or near the same location, the positioning of pedestrian push buttons and corresponding signs should clearly indicate which crosswalk signal is actuated by each push button. Additional push-button detectors may be required on islands or medians where a pedestrian might become stranded.

(b) Special purpose push-buttons (to be operated only by authorized persons) should include a housing capable of being locked to prevent access by the general public. Instruction signs are not necessary in this case.

(c) A pilot light or other means of indication may be installed with a pedestrian push button and normally shall not be illuminated. Upon actuation, it shall be illuminated until the pedestrian's green or WALK indication is displayed.

§ 23.948. Pedestrian intervals and phases.

(a) Three combinations of pedestrian signal intervals and vehicular signal intervals are authorized as follows:

(1) Combined pedestrian-vehicular interval — Signal phasing wherein pedestrians may proceed to use certain crosswalks and vehicles are permitted to turn across these crosswalks. Such vehicles shall yield the right-of-way to pedestrians as stated in the Vehicle Code. (The pedestrian signal shall be flashing WALK during this interval and no vehicle traffic signal shall display a green turn arrow to permit vehicles to turn across any pedestrian crosswalk that has a WALK signal displayed.)

(2) Semi-exclusive pedestrian-vehicular interval — Signal phasing wherein pedestrians may proceed to use certain crosswalks with parallel or other vehicular movements, but wherein

vehicles are not permitted to enter or turn across these crosswalks during the pedestrian WALK interval. Vehicles may, however, make authorized turn-on-red movements across the subject crosswalks provided they yield to all pedestrians in a crosswalk. (The pedestrian signals shall be steady WALK during this walk interval.)

(3) All exclusive pedestrian phase — Signal phasing wherein pedestrians may proceed to cross the intersection in any designated crosswalk during an exclusive phase while all vehicles are ~~(stopped)~~ required to stop. Vehicles may, however, make authorized turn-on-red movements provided they yield to all pedestrians in a crosswalk. (The pedestrian signals shall be a steady WALK during the walk interval of this phase.)

(b) Pedestrians should be assured of sufficient time to cross the roadway at a signalized intersection. Where traffic signals are of the actuated type, control equipment should provide sufficient pedestrian crossing time when there has been a pedestrian actuation and the minimum vehicular time is less than that needed by the pedestrians. Where traffic signals are not of the vehicle-actuated type, pedestrian actuation may be used to provide sufficient pedestrian crossing time, or the vehicular time should be adjusted to provide the crossing time needed by pedestrians.

(c) The WALK interval shall be not less than seven seconds, so that pedestrians will have adequate opportunity to leave the curb, before the clearance interval is shown. However, the WALK interval itself need not equal or exceed the total crossing time calculated for the street width, as many pedestrians will complete their crossing during the flashing DONT WALK clearance interval.

(d) A pedestrian clearance interval shall always be provided where pedestrian signals are used. It shall consist of a flashing DONT WALK signal. The duration should be sufficient to allow a pedestrian crossing in the crosswalk to leave the curb and travel to the center of the farthest traveled lane before opposing vehicles receive a green signal (normal walking speed is assumed to be four feet per second). On a street with a median at least six feet in width, it may be desirable to allow only enough pedestrian clearance time on a given phase to clear the crossing from the curb to the median. In the latter case, if the signals are pedestrian-actuated, an additional detector shall be provided on the island as provided in § 23.947 of this Title (relating to detectors).

(e) When a traffic signal is being operated as a flashing device, the pedestrian signals shall not be illuminated.

OTHER HIGHWAY TRAFFIC SIGNALS

BEACONS

§ 23.961. Hazard identification beacon.

(a) A hazard identification beacon consists of two separate sections of a standard traffic signal head with a flashing CIRCULAR YELLOW indication in each section. Typical applications include:

1. Obstructions in or immediately adjacent to the roadway.
2. Supplemental to warning signs.
3. Supplemental to regulatory signs, except the STOP, YIELD, DO NOT ENTER, WRONG WAY and SPEED LIMIT signs.

(b) A hazard identification beacon shall be used only to supplement an appropriate warning or regulatory sign or marker. The beacon shall not be included within the border of the sign.

(c) Hazard identification beacons, when used at intersections, shall not face conflicting vehicular approaches.

(d) The hazard or other condition warranting Hazard identification beacons should largely govern their location with respect to the roadway.

(e) All hazard identification beacon installations shall consist of two horizontal indications flashing alternately. The indications shall be mounted not less than 30 inches apart from center to center of the lens and normally 15 inches behind the sign except for overhead installations.

(f) For post mounted installations, the beacons shall be mounted above the top of the sign with the closest part of the housing not less than 12 inches from the nearest edge of the sign. The beacon units shall be at least eight feet and normally not more than 12 feet above the surface of the roadway or sidewalk.

(g) For overhead installations, the beacons shall be mounted with the center of the lens in line with the horizontal centerline of the sign and the closest part of the housing shall be 12 inches from the edge of the sign. The clearance of the sign above the roadway surface shall not be more than 19 feet nor less than 17 feet.

(h) In no case should they be mounted on pedestals in the roadway unless the pedestal is within the confines of a traffic or pedestrian island. Where an obstruction is in or adjacent to the roadway, illumination of the lower portion or the beginning of the obstruction, or a sign on or in front of the obstruction is desirable, in addition to the beacon.

§ 23.962. Speed limit sign beacon.

(a) A speed limit sign beacon is two CIRCULAR YELLOW lens sections mounted

vertically and flashed alternately. Typical installations include:

(1) A blankout school speed limit sign beacon shall have lenses with a visible diameter of not less than six inches and shall be located within the border of the sign.

(2) Any other speed limit sign beacon (including a school speed limit sign beacon other than the blankout sign) shall have lenses with a visible diameter of not less than eight inches and be mounted outside the border of the sign with the center of the lens in line with the vertical centerline of the sign. These beacons shall be mounted with the closest part of the housing 12 inches above the top and below the bottom of the sign. The bottom of the housing of the lower beacon shall be at least five feet above the roadway surface or sidewalk.

(b) A speed limit sign beacon is intended for use with a fixed or variable speed limit sign. Where applicable, a flashing speed limit beacon (with an appropriate accompanying sign) may be used to indicate the speed limit shown is in effect (variable message speed limit signs and/or school speed limit).

(c) All school speed limit sign beacons shall be controlled by a time clock. The time of operation shall be indicated on the permit, and they shall be limited as much as possible in order not to destroy the effectiveness of the sign. In general, the arrival and departure times can be covered by allowing the sign to operate for one-half hour for each period. The noontime movements should be covered by two one-half hour periods, but may require a longer period which should not exceed one and one-half hours. All times should be shorter if at all possible. The signs should not be used when a small portion of the student body is moving about, such as only a minor percentage of the pupils leaving school for lunch. They shall not be flashed at night, on school holidays, during vacation or on non-school days.

§ 23.963. Intersection control beacon.

(a) An intersection control beacon consists of one or more sections of a standard traffic signal head, having flashing CIRCULAR YELLOW or CIRCULAR RED indications in each face. They are installed and are used only at an intersection to control two or more directions of travel. A minimum of two indications shall be provided for each approach. Supplemental indications may be needed on one or more approaches in order to provide adequate visibility to approaching motorists.

(b) Intersection control beacons are intended for use at intersections where traffic or physical conditions do not justify conventional traffic signals but where high accident rates indicate a special hazard.

(c) These devices may be warranted by one or more of the following conditions:

- (1) At intersections where sight distance is

extremely limited or where other conditions make it especially desirable to emphasize the need for stopping on one street and for proceeding with caution on the other. This type of installation is effective at intersections where approach speeds are in excess of that warranted by conditions and drivers need more notification than can be provided by the use of standard or oversize Stop signs or by Stop signs and Advance Warning signs.

(2) A serious concentration of accidents susceptible of correction by the cautioning or stopping of traffic but a traffic signal is not warranted.

(d) Application of Intersection control beacons shall be limited to:

(1) Yellow on one route (normally the major roadway) and red for the remaining approaches.

(2) Red for all approaches (where all-way stop is warranted).

(e) A stop sign should be used with a flashing red intersection control beacon.

(f) Flashing yellow indications shall not face conflicting vehicular approaches.

(g) An intersection control beacon is generally suspended over the intersection; however, it may be used at other suitable locations. If suspended over the roadway the clearance above the pavement shall be at least 15 feet but not more than 19 feet and the two indications shall be a minimum of eight feet apart. If pedestal mounting is used, the bottom of the signal head shall be at least eight feet but not more than 15 feet above the pavement. In no case should it be mounted on a pedestal in the roadway unless the pedestal is within the confines of a traffic or pedestrian island.

(h) The flashing operation of an intersection control beacon shall be such that the indications for each approach shall have a simultaneous ON and OFF period.

(i) A flashing red beacon may be used with a steady right turn green arrow to emphasize the condition "STOP-EXCEPT RIGHT TURN".

§ 23.964. Stop sign beacon.

(a) A stop sign beacon is one section of a

standard traffic signal head with a flashing CIRCULAR RED indication. The lens may be either eight-inch or 12-inch nominal diameter.

(b) The stop sign beacon shall be mounted with the bottom of the housing 12 inches above the top of a stop sign and normally behind the sign.

(c) The stop sign beacon should be used only where added emphasis is required for observance of the stop sign.

§ 23.965. General design and operation of beacons.

(a) Flashing beacon units and their mounting shall follow the general design specifications for traffic control signals, which shall include the following essentials.

(1) Each signal unit lens shall have a visible diameter of not less than eight inches, except for Speed limit sign beacons as provided in § 23.962 of this Title (relating to speed limit sign beacon).

(2) When illuminated, the beacon shall be clearly visible (to all drivers it faces) for a distance of at least one-quarter mile under normal atmospheric conditions unless otherwise physically obstructed.

(3) The red and yellow lens colors shall be in accordance with the requirements of the current Standard for Adjustable Face Vehicle Traffic Control Signal Heads.

(b) All flashing contacts shall be equipped with filters for suppression of radio interference.

(c) Beacons shall be flashed at a rate of not less than 50 nor more than 60 times per minute. The illuminated period of each flash shall not be less than one-half and not more than two-thirds of the total cycle.

(d) Beacons should be operated only during those hours when the hazard or regulation exists.

(e) A flashing yellow beacon interconnected with a traffic signal controller may be used with an advance traffic signal warning sign.

(f) If more than a 100 watt lamp is used in a flashing yellow beacon and the flashing yellow is so bright as to cause excessive glare during night operations, an automatic dimming device should be used to reduce the brilliance during night operation.

LANE-USE CONTROL SIGNALS

§ 23.971. Lane-use control signals.

(a) Lane-use control signals are special overhead signals having indications used to permit or prohibit the use of specific lanes of a street or highway or to indicate the impending prohibitions of use. Installations are distinguished by placement of these special signals over a certain lane or lanes of the roadway and by their distinctive shapes and symbols. Supplementary signs are often used to explain their meaning and intent.

(b) Lane-use control signals are most commonly used for reversible-lane control. This type of control should be used only when a competent engineering study shows that there is need and also that the planned operation is practicable. Reversible-lane operation may be appropriate at toll-booth areas.

(c) Lane-use control signals also may be used where there is no intent or need to reverse lanes. Some applications of this type are:

(1) On a freeway, where it is desired to keep traffic out of certain lanes at certain hours to facilitate the merging of traffic from a ramp or other freeway.

(2) On a freeway, near its terminus, to indicate a lane that ends.

(3) On a freeway or long bridge, to indicate a lane which may be temporarily blocked by an accident, breakdown, etc.

§ 23.972. Meaning of lane-use control signals.

(a) The meanings of lane-use control signals are as follows:

(1) A steady DOWNWARD GREEN ARROW means that a driver is permitted to drive in the lane over which the arrow signal is located.

(2) A steady YELLOW X means that a driver should prepare to vacate in a safe manner, the lane over which the signal is located because a lane control change is being made, and to avoid occupying that lane when a steady RED X is displayed.

(3) A steady RED X means that a driver shall not drive in the lane over which the signal is located, and that this indication shall modify accordingly the meaning of all other traffic controls present. The driver shall obey all other traffic controls and follow normal safe driving practices.

§ 23.973. Design of lane-use control signals.

(a) All lane-use control signal indications shall be in units with rectangular faces. Nominal minimum height and width of each face shall be 12 inches for typical applications. However, other sizes with message recognition distances appropriate to

signal spacing may be employed for unusual applications.

(b) Each lane to be reversed shall have a DOWNWARD GREEN ARROW on an opaque background, a RED X on an opaque background and a YELLOW X on an opaque background for each direction of travel.

(c) Each nonreversible lane immediately adjacent to a reversible lane shall have a DOWNWARD GREEN ARROW displayed to traffic traveling in the permitted direction and a RED X displayed in the opposite direction. Other nonreversible lanes on any street so controlled may also be provided with these indications.

(d) The indications provided for each lane may be in separate units or may be superimposed in the same unit. When in separate units, the RED X shall be on the left, the YELLOW X shall be in the middle and the DOWNWARD GREEN ARROW shall be on the right.

(e) The color of lane-use control signal indications shall be clearly visible for $\frac{1}{4}$ mile at all times under normal atmospheric conditions, unless otherwise physically obstructed.

(f) The visibility angle of the lane-use control signal shall be at least as great as that for the standard circular traffic signal as provided in § 23.902 of this Title (relating to visibility and shielding of signal faces).

§ 23.974. Location of lane-use control signals.

(a) Lane-use control signal units shall be located approximately over the center of the lane controlled.

(b) If the area to be controlled is more than one-quarter mile in length, or if the vertical or horizontal alignment is curved, intermediate lane-use control signal indications shall be placed over each controlled lane at frequent intervals. This placement shall be such that a motorist will at all times be able to see at least one indication, and preferably two (due to the possibility of a burnout of a signal indication) along the roadway, and will have a definite indication of the lanes specifically reserved for his use.

(c) All lane-use control indications shall be located in a straight line across the roadway at right angles to the roadway alignment.

(d) The bottom of any lane-use control signal unit shall be not less than 15 feet nor more than 19 feet above the pavement grade.

(e) On roadways having intersections controlled by traffic signals, the lane-use control indication shall be placed sufficiently far in advance of or beyond such traffic signals to prevent them from being misconstrued as traffic control signals. Twelve-inch lenses may be necessary in the intersection traffic control signals to aid in distinguishing between the two types of signals.

§ 23.975. Operation of lane-use control signals.

(a) All reversible-lane control signals shall be coordinated and wired to a master control which will operate so as to permit signal indications for each direction in any of the reversing lanes to change from a steady RED X to a DOWNWARD GREEN ARROW or from a DOWNWARD GREEN ARROW to a steady YELLOW X and then to a steady RED X. The showing of a DOWNWARD GREEN ARROW or steady YELLOW X or any combination thereof, in both directions over the same lane, shall be guarded

against by electrical interlock.

(b) During change-over periods, a steady YELLOW X indication shall be used to notify traffic in a reversible lane to prepare to vacate the lane.

(c) The type of control provided for reversible-lane operation should be such as to permit either automatic or manual operation of the lane-use control signals. If an automatic system is used, a manual control to over-ride the automatic control shall be provided.

(d) When used, lane-use signals shall be operated continuously.

DRAWBRIDGE SIGNALS

§ 23.981. Drawbridge signals.

Signals installed at drawbridges are a special type of highway traffic signal, the purpose of which is to notify traffic to stop because of the road closure rather than alternately giving the right-of-way to conflicting traffic movements. They are manually operated in coordination with the opening and closing of the drawbridge, and with the operation of gates, barriers, or other devices used to warn, control and stop vehicles. Unlike traffic control signals, drawbridge signals may be operated frequently or at extremely infrequent intervals depending upon the nature of the physical conditions and waterway traffic.

§ 23.982. Application of drawbridge signals.

Drawbridge signals shall always be used in conjunction with gates and other types of protection commonly employed at drawbridges.

§ 23.983. Design of drawbridge signals.

(a) The signal heads and mountings of drawbridge signals shall follow the standard design specifications for traffic control signals. Drawbridge signals may be supplemented with bells to provide additional warning to drivers and pedestrians.

(b) Nominal eight-inch signal indications are standard. However, if prevailing approach speeds are in excess of 25 miles per hour, or when considerations such as roadway width or geometrics, signal location, conflicting lights or objects in the background, etc., indicate the need for greater signal effectiveness, signal heads with 12-inch diameter lenses and 100-watt or larger lamps should be provided.

(c) Where physical conditions prevent a driver (traveling at the 85 percentile approach speed) from having a continuous view of at least one signal indication for approximately 10 seconds before reaching the stop line, an auxiliary device shall be provided. This device may be either an auxiliary signal or a DRAWBRIDGE AHEAD sign with a Hazard identification beacon interconnected with the drawbridge controller.

(d) A DRAWBRIDGE AHEAD sign shall always be used at the proper distance from the drawbridge to give advance warning to motorists, except in urban conditions where such signing would not be feasible. Such signs should be supplemented by a Hazard identification beacon under the conditions described above as well as for other conditions. It is desirable to control this beacon from the bridge-tender's station so it will be flashed only when needed to warn of drawbridge operation.

(e) Since drawbridge operation covers so wide a range of time periods between openings, two types of signals are provided and engineering judgment must be exercised in determining which to use under particular circumstances. The first type consists of the standard three-color (red, yellow, and green) traffic signal indications, generally to be used when drawbridge operation is quite frequent. The second type consists of two red signal indications in vertical array separated by a STOP HERE ON RED sign.

§ 23.984. Location of drawbridge signals.

Two signal indications shall be provided for each approach to the movable span. One signal shall be at the right side of the roadway, and the other at the left side or over the left half of the roadway, directly across the roadway from the right hand indication. Insofar as practicable, the height and lateral placement of signals at drawbridges should conform to the requirements for other traffic control signals. They should ordinarily be from 20 to 50 feet in advance of the first gate or other barrier.

§ 23.985. Operation of drawbridge signals.

(a) Signals at drawbridges shall be interconnected with the drawbridge gates or other warning or control devices, and with the movable span, so that signals, gates and movable span are controlled manually by the bridge tender through an interlocked switching control. Signals on adjacent streets and highways should be interconnected with the drawbridge control, if indicated by engineering considerations. If the drawbridge is close to a railroad grade crossing and there is a possibility that traffic may be stopped on the crossing as a result of the bridge opening, a supplementary traffic signal coordinated with the drawbridge signal should be provided to prevent traffic from being stopped on the railroad crossing. Extreme care should be used in planning such signal installations to avoid creating confusion or hazardous conditions.

(b) Where bridge openings are frequent and the three-color type of signal is used, the green signal shall be illuminated at all times between bridge opening periods. When the bridge is to be opened, the signal shall change to yellow for a predetermined interval (normally three to five seconds) and shall change to red not less than 15 seconds before the gates or other devices begin to operate to close the roadway. While the gates are closed, the signals shall show a continuous red indication. After the bridge has been closed and the gates have been opened, the signal indications shall return to steady green. The sequence of signal, gate and bridge operation shall be automatic, through interconnection with the bridge control mechanism. The duration of each signal indication interval, except the yellow interval, shall,

therefore, be controlled by the bridge operation.

(c) Where bridge openings are less frequent or where for some other reason the double-red type of signal installation is selected, the signal shall not be illuminated between bridge opening periods. When the bridge tender initiates the bridge opening procedure, the signal shall start alternate flashing of the red indications. After a minimum period of approximately 20 seconds, the gates may be lowered. When the bridge has been again closed and the gates have been raised, the red signal indications shall be discontinued.

(d) When a hazard identification beacon is used with the DRAWBRIDGE AHEAD sign, it should be interconnected with the drawbridge controller in such a manner as to begin operation sufficiently in advance of the beginning of the bridge opening signal sequence as to warn drivers that they will encounter a red signal or vehicle stopped by the signal. It may frequently be desirable to continue this beacon in flashing operation after the drawbridge cycle has been completed until all stopped vehicles have started to move and traffic is again flowing freely.

EMERGENCY TRAFFIC SIGNALS

§ 23.987. Emergency traffic signals.

An emergency traffic signal is a special adaptation of a traffic control signal to obtain the right-of-way for an authorized emergency vehicle. It may be installed at an intersection or at other locations where there is direct access from a building housing an emergency vehicle.

§ 23.988. Design of emergency traffic signals.

(a) A traffic control signal for emergency vehicle movements shall meet the design requirements of a standard traffic control signal except as provided in subsection (b) of this section.

(b) Each face of every signal head on any street approach shall have a minimum of three eight inch lenses one of which shall be yellow and one red. At least one of the signal faces on each street approach shall be over the roadway except at midblock locations where two signal faces on each approach on the through street shall be located over the roadway with a third signal face post mounted. If an approach is a driveway to the building which houses emergency vehicles, a minimum of one signal face, having at least one lens (green), shall be installed facing the emergency vehicle approach.

(c) A sign, legible at all times, shall be erected near the overhead signal for each street approach facing approaching traffic. The sign shall be the R10-22 Emergency Signal sign.

§ 23.989. Warrants for emergency traffic signals.

(a) The installation of an emergency traffic signal for the purpose of controlling traffic to

facilitate the movement of emergency vehicles shall be considered only when less restrictive and less costly solutions fail to eliminate the hazard.

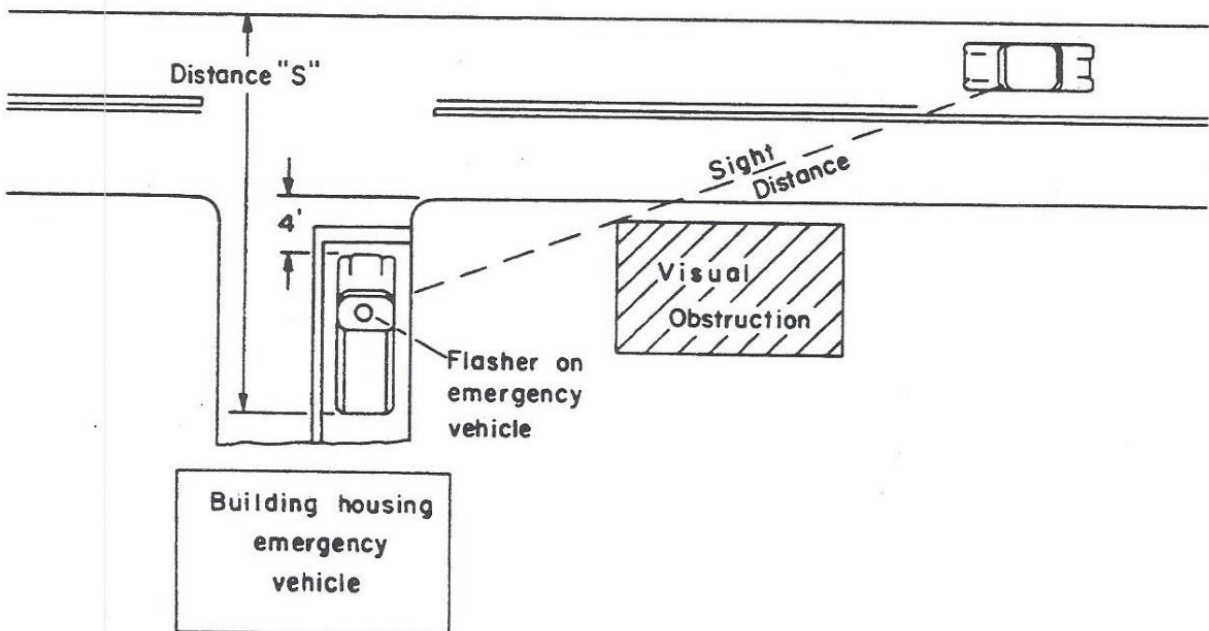
(b) An emergency traffic signal may be justified if adequate gaps in traffic do not exist to permit the safe entrance of emergency vehicles or if the stopping sight distance for vehicles approaching on the through street is insufficient to permit safe entrance of emergency vehicles. The values given in the following warrants are minimums and shall not be reduced:

(1) Warrant 1—the volume of traffic on the through street must exceed the following values for the AADT in both directions of travel.

Lanes	Volumes
2	6000
3	9000
4	16000

(2) Warrant 2—the cross-corner sight distance for an approaching motorist is less than the appropriate value given in the following table. The sight distance determination is based on the location of the visibility obstruction for the critical approach lane for each street or drive and the 85 percentile speed for the through street.

Approach Speed (MPH)	Cross Corner Sight Distance			
	Minimum S=40'	S=60'	S=80'	S=100'
25	230'	260'	290'	320'
30	280'	315'	345'	380'
35	330'	370'	410'	450'
40	370'	420'	460'	500'
45	420'	470'	520'	570'
50	460'	520'	580'	640'
55	510'	570'	640'	700'
60	560'	630'	700'	760'



§ 23.990. Operation of emergency traffic signals.

(a) The sequence and manner of operation of this device may be actuated manually from a local control point such as a fire house, police headquarters, civil defense office or from an emergency vehicle equipped for remote operation of the signal.

(b) A signal installed at a mid-block location shall operate at all times, either a steady green or a flashing yellow on the street. When an emergency actuation occurs, a steady yellow change indication shall be shown to traffic on the street. The steady yellow indication cannot be displayed in the same lens which displayed the flashing yellow. The steady

yellow shall be followed by a steady red indication for the street and a green indication on the emergency vehicle driveway. The duration of the preemption period should be determined by on site test run studies but should not exceed 1.5 times the emergency vehicle passage or clearance time.

(c) Signals located at intersections should be operated either in the flashing mode between emergency actuations or as full time traffic actuated to accommodate normal vehicular and pedestrian traffic on the streets. When an emergency actuation occurs, the traffic signals on the through street shall operate to permit a normal change interval prior to the change to red on the through street before the arrival of the emergency vehicle on the cross street.

FIRE HOUSE WARNING DEVICE**§ 23.991. Fire house warning device.**

A fire house warning device is a flashing warning signal for use at fire houses when the warrants for an emergency traffic signal are not satisfied or if the local authorities do not desire to install the emergency traffic signal and the fire equipment has direct access to the street or highway.

§ 23.992. Design of fire house warning device.

(a) A fire house warning device shall be a flashing signal for emergency vehicle movements which displays the word FIRE in steady red with alternately flashing yellow signal lenses on either side all in a horizontal line. When the signal is not operating, the word FIRE shall not be visible. The red letters in the word FIRE shall be a minimum of eight inches in height and the yellow signal lenses shall be either eight or ten inches in diameter.

(b) The illuminating element, lens, reflector and visor (together with the louver or back plates, if used) shall each be of such design as to render the device, when illuminated, clearly visible to the approaching traffic for which it is intended.

§ 23.993. Warrants for fire house warning device.

This warning device may be used only in conjunction with a regularly constituted fire company building from which fire equipment will have cause to emerge directly onto a street or highway under conditions which are hazardous to the equipment or to passing traffic.

§ 23.994. Operation of fire house warning device.

(a) A flasher device, installed in a separate housing remote from the signal, shall be used to provide intermittent illumination of the yellow lenses during the time the word FIRE is illuminated in a steady red. The illuminating element in the yellow lenses shall flash at a rate of not less than 50 nor more than 60 times per minute. The illuminated period of each flash shall not be less than half and not more than two-thirds of the total cycle.

(b) The warning device shall be turned on immediately before the equipment is to emerge and shall be timed to turn off automatically after sufficient time has elapsed to permit the equipment to enter the main stream of traffic.

RAMP METERING SIGNALS

§ 23.995. Ramp metering signals.

Ramp metering signals are used to regulate the flow of traffic on entrance ramps to expressways. These devices serve to minimize the hazards and interference of the merging operation, to improve the quality of traffic flow on the expressway and to balance traffic flow in the expressway corridor including alternate routes adjacent to the expressway. While these signals are similar in physical appearance to normal traffic control signals, their mode of operation is somewhat different.

§ 23.996. Design of ramp metering signals.

The design of the individual signal heads and mounting shall conform to the requirements for traffic control signals in this subchapter and the faces displayed shall be a standard traffic control signal head configuration consisting of red, yellow and green indications.

§ 23.997. Justification of ramp metering signals.

(a) Ramp metering signals are authorized for use when the following conditions are met.

(1) The expected reduction in delay to expressway traffic exceeds the delay to ramp users and added travel time for diverted traffic and traffic on the alternate surface routes.

(2) There is adequate storage space for the vehicles which will be delayed.

(3) There are suitable alternate surface routes.

(4) There is recurring congestion on the expressway due to traffic demand in excess of the capacity or there is recurring congestion or a severe accident hazard at the expressway entrance because of inadequate ramp merging area.

(b) Ramp metering signals may also be authorized for use to reduce sporadic congestion on isolated sections of an expressway caused by short period peak traffic loads from special events or from severe peak loads of recreational traffic.

§ 23.998. Placement of ramp metering signals.

There shall be a minimum of two signal faces for each ramp controlled by ramp metering signals and all signals shall utilize vertically aligned lenses with a minimum nominal diameter of eight inches. On entrance ramps having more than one lane, there shall be a signal face mounted on the left side and on the right side of the ramp. The required signal faces should be mounted such that the height to the bottom of the housing of the lowest signal face is a

minimum of 4.5 feet and a maximum of six feet. Their placement along the ramp shall be carefully determined to provide reasonable storage on the ramp for waiting vehicles and to provide acceleration distance to permit entering vehicles to match the speed of traffic on the expressway.

§ 23.999. Operation of ramp metering signals.

(a) One-at-a-time metering may be used to require vehicles arriving at an expressway ramp to enter the expressway one at a time with reasonable headways between vehicles. In this case, the green and yellow signal indications are minimized allowing only enough time for one vehicle to proceed through the signal.

(b) Bulk metering may be used where the roadway geometrics and/or traffic patterns would permit more vehicles to enter the expressway than with the one-at-a-time metering system. In such cases, it may be desirable to install ramp metering signals as part of a system of metered ramps to avoid excessive diversion of traffic to an otherwise uncontrolled ramp. A Bulk metering method would be used in this case to regulate the number of vehicles entering each platoon. This is accomplished by altering the duration of the red and green indications.

§ 23.1000. Meaning and application of the color of ramp metering signals.

(a) A green signal indication shall be given only when it is intended to permit a vehicle or vehicles to proceed on the ramp and to merge with the main line of traffic.

(b) A steady yellow signal indication shall be used to warn vehicular traffic facing the signal that the red indication will be exhibited immediately thereafter.

(c) A flashing yellow signal indication shall be used as a caution signal when the ramp metering signal is not being operated as a stop-and-go device. No flashing yellow signal indication shall be terminated and immediately followed by a steady red signal indication without the display of the steady yellow clearance interval.

(d) A steady red signal indication shall be used to notify vehicular traffic facing the signal that it must stop at the stop line and remain standing until the green signal or flashing yellow signal indication is shown. The transition from steady red to flashing yellow may be made directly.

TRAIN APPROACH SIGNALS AND GATES

§23.1001. Train approach signals and gates.

Railroad-highway grade-crossing protection shall in all cases conform to order of the Pennsylvania Public Utility Commission.

SUBCHAPTER K

MARKINGS

Subchapter K

MARKINGS

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GENERAL PROVISIONS

§ 23.1021. Justification.

(a) The traffic markings described in this Subchapter shall be authorized for use as official traffic markings and, as far as practicable, these markings conform with the most recent edition of the Manual on Uniform Traffic Control Devices for Streets and Highways which has been endorsed by the Federal Highway Administrator.

(b) In addition, the Secretary of the United States Department of Transportation has directed that markings on all streets and highways in each State should conform with such standards.

§ 23.1022. Functions and limitations of markings.

(a) Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they 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. In such cases they serve as a very effective means of conveying certain regulations and warnings that could not otherwise be made clearly understandable.

(b) Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic. In spite of these limitations, they have the advantage, under favorable conditions, of conveying warnings or information to the driver without diverting his attention from the roadway.

§ 23.1023. Standardization.

(a) Each standard marking shall be used only to convey the meaning prescribed for it. Before any new highway, detour, or temporary route is opened to traffic, all necessary markings should be in place.

(b) Markings required by road conditions or restrictions should be removed or obliterated when those conditions cease to exist or the restrictions are withdrawn. Markings no longer applicable which may create confusion in the mind of the motorist shall be removed or obliterated.

§ 23.1024. Materials.

(a) The most common method of placing

pavement, curb and object markings is by means of paint; however, a wide variety of other suitable marking materials is available. Other forms of markings include raised pavement markers, post mounted delineators and hazard markers. Materials used should provide the specified color throughout their useful life.

(b) Markings which must be visible at night shall be reflectorized unless ambient illumination assures adequate visibility. All markings on Interstate highways shall be reflectorized.

(c) Pavement marking materials used in the vicinity of pedestrian activity should not present tripping or excessive slipping hazards.

§ 23.1025. Colors.

(a) Pavement markings shall be yellow, white or red in color and shall conform to the standard highway colors.

(b) The use of black is permitted in combination with the above colors where the pavement itself does not provide sufficient contrast. This use of black does not establish it as a standard pavement marking color but as a means of achieving contrast on light-colored pavements.

§ 23.1026. Longitudinal pavement markings, general principles.

(a) Longitudinal pavement markings shall conform to the following basic principles:

(1) Yellow lines delineate the separation of traffic flows in opposing directions or the left edge of pavement on a divided highway.

(2) White lines delineate the separation of traffic flows in the same direction.

(3) Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

(4) Broken lines are permissive in character.

(5) Solid lines are restrictive in character.

(6) Double lines indicate maximum restrictions.

§ 23.1027. Longitudinal lines, widths and patterns.

(a) The widths and patterns of longitudinal lines shall be as follows:

(1) A normal width line is four inches to six inches wide.

(2) A wide line is usually twice the width of a normal line.

(3) A double line consists of two normal width lines separated by a discernible space.

(4) A broken line is formed by segments and gaps, usually in the ratio of 3:5. A commonly used standard is 15-foot segments and 25-foot gaps. Other dimensions in this ratio may be used as best suit traffic speeds and need for delineation.

(5) A dotted line is formed by short

segments, normally two feet in length, and gaps, normally four feet or longer.

§ 23.1028. Types of longitudinal lines.

(a) The following examples illustrate the application of the principles and standards as provided in §§ 23.1025-23.1027 of this Title (relating to general provisions).

(1) A normal broken white line is used to delineate the edge of a travel path where travel is permitted in the same direction on both sides of the line. Its most frequent application is as a lane line of a multi-lane roadway.

(2) A normal broken yellow line is used to delineate the left edge of a travel path where travel on the other side of the line is in the opposite direction. A frequent application is as a center line of a two-lane, two-way roadway where overtaking and passing is permitted.

(3) A normal solid white line is used as a right-side pavement edge marking and to delineate the edge of a travel path where travel in the same direction is permitted on both sides of the line but crossing the line is discouraged. A frequent application is as a lane line approaching an intersection. A wide, solid white line is used for emphasis where the crossing requires unusual care. It is frequently used as a line to delineate left or right-turn lanes.

(4) A double solid white line is used to delineate a travel path where travel in the same direction is permitted on both sides of the line, but crossing the line is restricted. It is frequently used as a channelizing line in advance of obstructions which may be passed on either side but not encroached upon. It can also be used in one-way tunnels where traffic is not to cross the centerline.

(5) A double line consisting of a normal broken yellow line and a normal solid yellow line delineates a separation between travel paths in opposite directions where passing is permitted for traffic adjacent to the broken line and is restricted for traffic adjacent to the solid line. This is a one direction no-passing marking and is used on two-way, two lane roadways to regulate passing and to delineate the lane in which traffic is permitted to pass. Traffic adjacent to the solid line should cross this marking only as part of a left-turn maneuver.

(6) A double line consisting of two normal solid yellow lines delineate the separation between travel paths in opposite directions where overtaking and passing is restricted in both directions. Traffic adjacent to this line may cross it with care as part of a left-turn maneuver. It is frequently used as a channelizing line in advance of an obstruction which must be passed on the right and to form a channelizing island separating traffic in counter directions.

(7) A double normal broken yellow line delineates the edge of a lane in which the direction of travel is changed from time to time. Its use is for a reversible lane, but only with proper signs and/or signals.

(8) A normal dotted line is used to delineate the extension of a line through an intersection or interchange area. It shall be the same color as the line it extends.

(9) A solid yellow line delineates the left edge of a travel path to indicate a restriction against passing on the left or delineates the left edge of pavement on a divided street or highway.

§ 23.1029. Transverse markings.

(a) Transverse markings including shoulder markings, word and symbol markings, stop lines, crosswalk lines, and parking space markings shall be white except that:

(1) Transverse median markings shall be yellow as provided in § 23.1039 of this Title (relating to median islands formed by pavement markings).

(2) Line, word and symbol markings visible only to traffic proceeding in the wrong direction on a one-way roadway shall be red.

(b) Because of the low approach angle at which pavement markings are viewed, it is necessary that all transverse lines be proportioned to give visibility equal to that of longitudinal lines, and to avoid apparent distortion where longitudinal and transverse lines combine in symbols or lettering.

§ 23.1030. Curb markings.

(a) Curb markings fall into two categories:

(1) Roadway delineation which may be yellow or white in color. Yellow curbs may be provided on islands or raised curbs which delineate the separation of traffic flows in opposing directions and white may be used on islands or raised curbs where traffic flowing in the same direction is allowed to pass on both sides.

(2) Parking prohibition which shall be yellow in color. Painted curbs shall only be provided in areas where the restriction is signed or where the prohibition is covered under the Vehicle Code (75 P. S. § 1021).

§ 23.1031. No passing zone markings.

Where center line are installed, no passing zones shall be established at vertical and horizontal curves and elsewhere on two-lane and three-lane highways where an engineering study indicates passing shall be prohibited because of inadequate sight distances or other special conditions. A no-passing zone shall be marked by either a one direction, no passing marking or a two direction, no passing marking.

**APPLICATION OF PAVEMENT AND
CURB MARKINGS**

§ 23.1032. Center lines.

(a) A center line separates traffic traveling in opposite directions. It need not be at the geometrical center of the pavement. In locations where a continuous center line is not required, short sections may be useful on approaches to important intersections, marked crosswalks, or railroad crossings. Center lines are frequently used around curbs or over hill crests, to control the position of traffic.

(b) The center line markings on two-lane, two-way highways shall be either:

(1) A normal broken yellow line where passing is permitted in both directions as provided in § 23.1028(a)(2) and § 23.1033(a) of this Title (relating to a normal broken yellow line).

(2) A double line consisting of a normal broken yellow line and a normal solid yellow line where passing is permitted in one direction and restricted in the other as provided in § 23.1028(a)(5) and § 23.1033(b) of this Title (relating to a normal broken yellow line and a normal solid yellow line).

(3) A double line consisting of two normal solid yellow lines where passing is restricted in both directions as provided in § 23.1028(a)(6) and § 23.1033(b) of this Title (relating to two normal solid yellow lines).

(c) The center line on undivided highways where four or more lanes are always available, is usually a double solid yellow line as provided in 23.1034(a) of this Title (relating to two normal solid yellow lines).

(d) Three-lane, two-way highways shall be

marked in one of the following manners:

(1) No passing, center lane left-turn only where continuous roadside development exists requiring left turns for access to the developments and a high percentage of left turns exist as provided in § 23.1036(a) of this Title (relating to multi-lane, two-way marking with two-way left turn lane).

(2) Alternate passing zones in rural and urban areas where roadside development and/or other conditions do not dictate a more restrictive type of pavement marking as provided in § 23.1036(b) of this Title (relating to three lane two-way with alternate no passing).

(3) Left-turn standby lanes in areas where horizontal or vertical alignment and limited roadside development or intersecting roadways require protected left-turn lanes as provided in § 23.1037 of this Title (relating to two-way marking to provide left turn standby lane).

(4) Reversible center lane to provide additional capacity by changing direction of travel from time to time as provided in § 23.1036(c) of this Title (relating to two-way marking with reversible center lane).

(e) Center lines are desirable on paved highways under the following conditions:

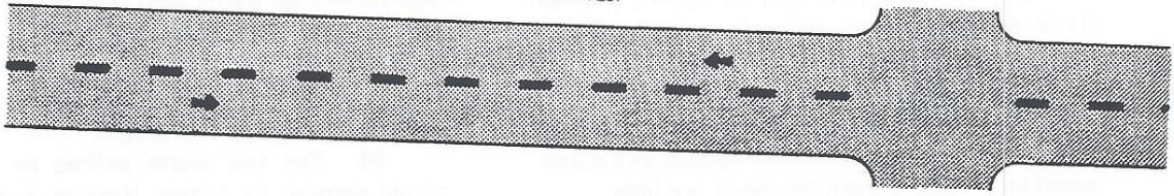
(1) In rural districts on two-lane pavements 16 feet or more in width with prevailing speeds of greater than 35 miles per hour.

(2) In residence or business districts on all through highways, and on other highways where there are significant traffic volumes.

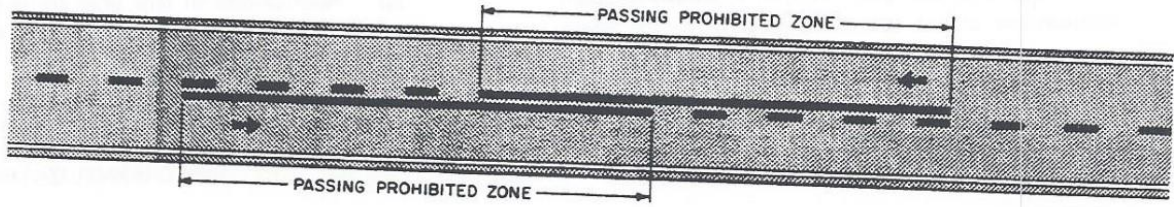
(3) On all undivided pavements of three or more lanes.

(f) Center line are also desirable at other locations where an engineering study indicates a need for them.

(a)- TYPICAL TWO-LANE, TWO-WAY MARKING WITH PASSING PERMITTED.



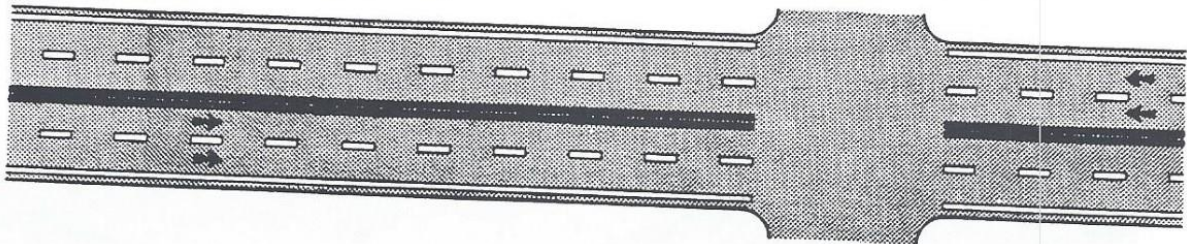
(b)- TYPICAL TWO-LANE, TWO-WAY MARKING WITH PASSING PROHIBITED ZONES.



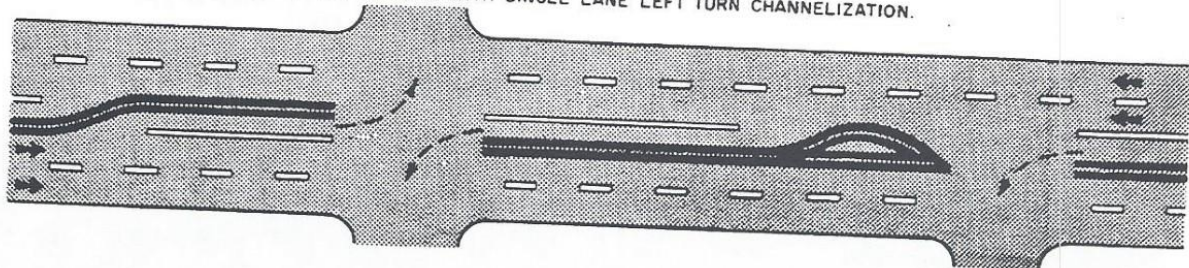
Marking Legend
Yellow
White

§ 23.1033 TYPICAL TWO-LANE, TWO-WAY MARKINGS

(a)- TYPICAL MULTI-LANE, TWO-WAY MARKING.



(b)- TYPICAL MULTI-LANE, TWO-WAY MARKING WITH SINGLE LANE LEFT TURN CHANNELIZATION.



Marking Legend
Yellow
White

§ 23.1034 TYPICAL MULTI-LANE, TWO-WAY MARKINGS

§ 23.1035. Lane lines.

(a) Lane lines are used to separate lanes of traffic traveling in the same direction. They should be used:

- (1) On multi-lane highways.
- (2) At congested locations where the roadway will accommodate more lanes of traffic than would be the case without the use of lane lines.

(b) Lane lines are usually normal broken white lines which permit lane changing with care.

(c) A normal solid white line may be used as the lane line in critical areas where it is advisable to discourage lane changing. Typical locations for such applications are at tunnels or bridges having width restrictions, approaches to intersections and

interchange areas where lane changing disrupts traffic flow.

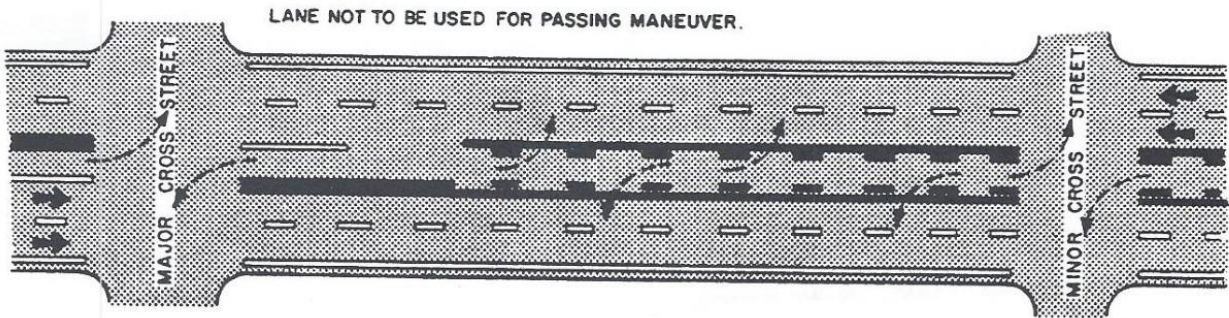
(d) A solid white line may be used to separate through traffic lanes from special secondary lanes, such as uphill truck lanes, left or right-turn lanes and transit bus lanes.

(e) A double solid white line shall be used when lane changing is discouraged.

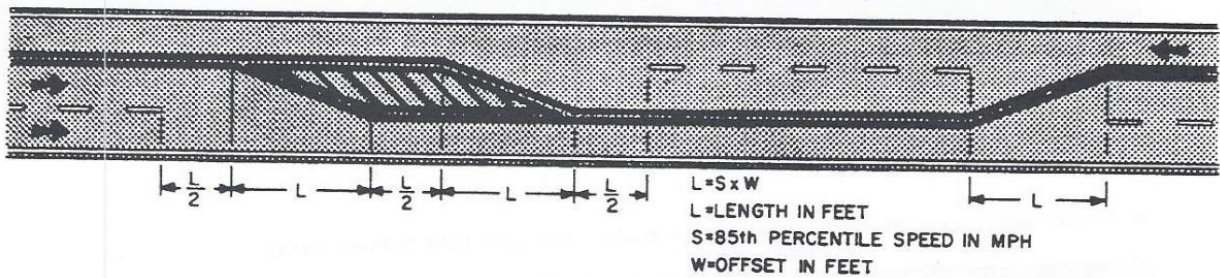
(f) The lane width defined by lane lines should normally be 12 feet. However, a reduction is permissible where a maximum number of lanes must be made available for the most efficient movement or storage of vehicles or where low operating speeds prevail.

(g) Applications of lane lines are as provided in 23.1034, § 23.1036 and § 23.1038 of this Title (relating to typical multi-lane markings).

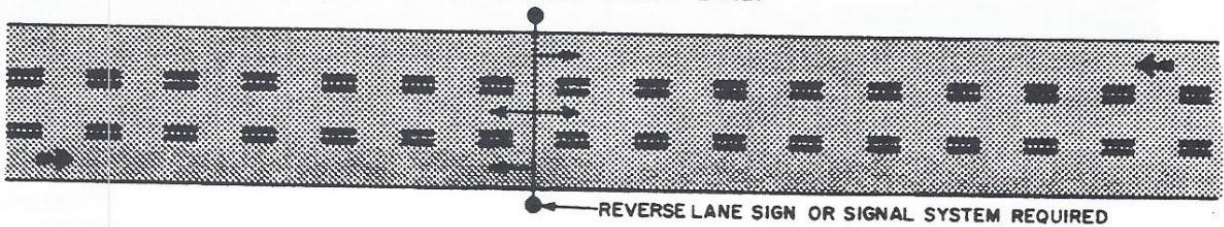
(g)- TYPICAL MULTI-LANE, TWO-WAY MARKING WITH SINGLE LANE, TWO WAY LEFT TURN CHANNELIZATION.



(b)-TYPICAL THREE LANE, TWO WAY WITH ALTERNATE NO PASSING.



(c)-TYPICAL TWO-WAY MARKING WITH A REVERSIBLE CENTER LANE.

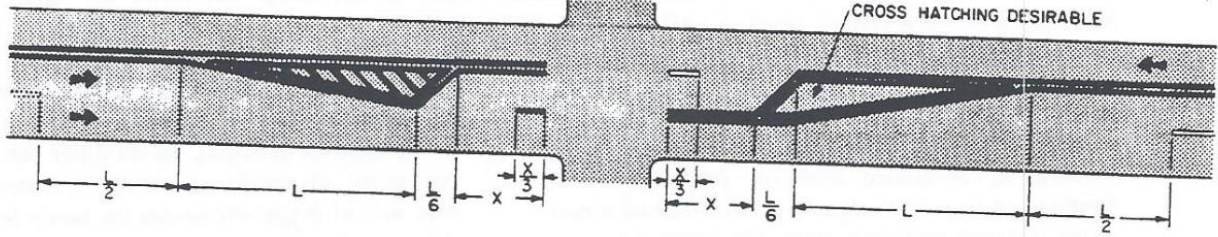


Marking Legend

	Yellow
	White

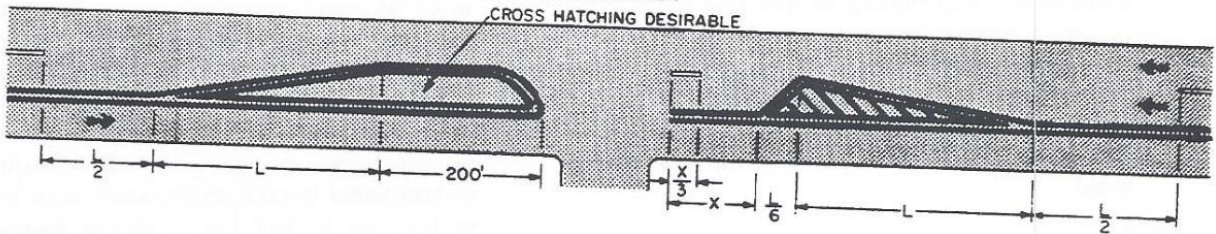
§ 23.1036 TYPICAL MULTI-LANE, TWO-WAY MARKINGS


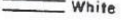
(a)-TYPICAL THREE-LANE MARKING, WITH DUAL LEFT TURN CHANNELIZATION



$L = S \times W$
 L = LENGTH IN FEET
 S = 85th PERCENTILE SPEED IN MPH
 W = OFFSET IN FEET
 X = 25 FT. PER 30 TURNING VPH (75 FEET MIN.)

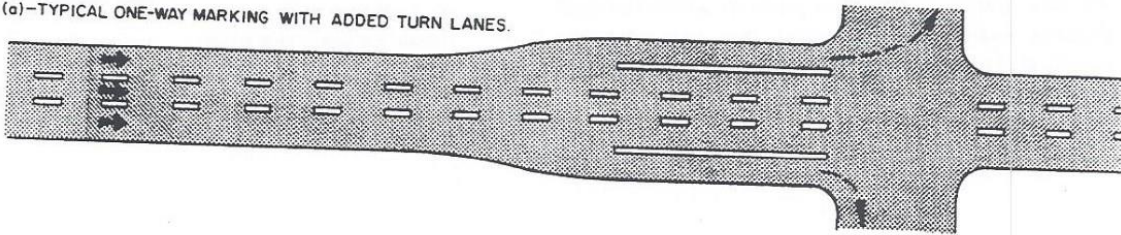
(b)-TYPICAL THREE-LANE MARKING, WITH SINGLE LEFT TURN CHANNELIZATION



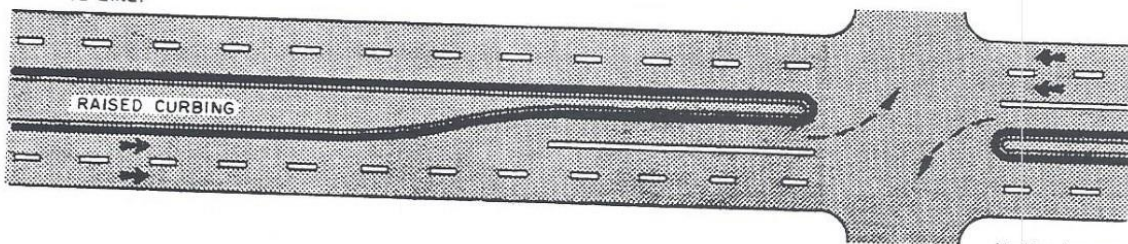
Marking Legend
 Yellow
 White



§ 23.1037 TYPICAL TWO-WAY MARKING TO PROVIDE LEFT TURN STANDBY LANE

(a)-TYPICAL ONE-WAY MARKING WITH ADDED TURN LANES.



(b)-TYPICAL DIVIDED HIGHWAY MARKING WITH RAISED MEDIAN AND OPTIONAL MEDIAN EDGE LINE.



Marking Legend
 Yellow
 White

§ 23.1038 TYPICAL ONE-WAY AND DIVIDED HIGHWAY MARKINGS

23.1039. No passing zone markings.

(a) A no-passing zone at a horizontal or vertical curve is warranted where the sight distance, as defined below, is less than the minimum necessary for safe passing at the prevailing speed of traffic. Passing sight distance on a vertical curve is the distance at which an object 3.75 feet above the pavement surface can just be seen from a point 3.75 feet above the pavement as provided in § 23.1040(a) of this Title (relating to no-passing zones at vertical curves). Similarly passing sight distance on a horizontal curve is the distance measured along the center line (or right hand lane line of a three-lane highway) between two points 3.75 feet above the pavement on a line tangent to the embankment or other obstruction that cuts off the view on the inside of the curve as provided in § 23.1040(b) of this Title (relating to no-passing zones at horizontal curves).

Where center lines are installed and a curve warrants a no-passing zone, it should be so marked where the sight distance is equal to or less than that listed below for the prevailing off-peak 85 percentile speed.

<i>85 Percentile Speed (MPH)</i>	<i>Minimum Passing Sight Distance (Feet)</i>
30	500
40	600
50	800
60	1000
70	1200

The beginning of a no-passing zone (Point "A") is that point at which the sight distance first becomes less than that specified in the table above. The end of the zone (Point "B") is that point at which the sight distance again becomes greater than the minimum specified. No Passing Zones shall be marked in the following manner:

(1) On a two-lane highway, the no-passing marking, which is a solid yellow line, shall be parallel to and extended along the center line throughout the no-passing zone. The solid yellow line shall be on the side of the center line where the restriction is to apply as provided in § 23.1033(b) of this Title (relating to two-lane two-way markings).

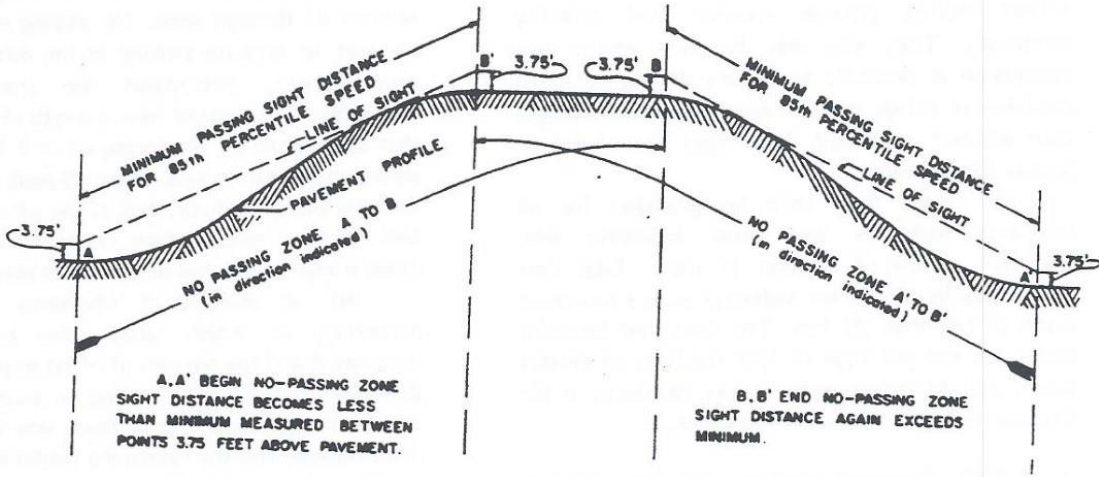
(2) On a three-lane highway where the no-passing marking is being moved from one direction to the opposite direction, the transition marking shall start at the left-hand lane line of the center lane and shall extend diagonally across the center lane to the right-hand lane line and thence extend along the lane line to the end of the zone. The no-passing marking shall extend across the center line on a diagonal for a distance computed by the formula $L = S \times W$; where L equals the length in feet, S the 85th percentile speed (off peak) in miles per hour and W the width of the center lane in feet as provided in § 23.1036(b) of this Title (relating to three lane, two-way with alternate no-passing).

(3) The no-passing marking is also used on two-way roadways at pavement width transitions and on approaches to obstructions which must be passed on the right. It shall also be used on approaches to railroad grade crossings and may be used at other locations where passing should be prohibited as provided in § 23.1053 and § 23.1059 of this Title (relating to markings for obstructions in the roadway and railroad grade crossings).

(b) In addition to the pavement markings here prescribed, NO-PASSING ZONE signs shall be used in accordance with the provisions of this Chapter.

(c) Where the distance between successive no-passing zones is less than 400 feet, the appropriate no-passing marking (one direction or two direction) should connect the zones.

(a)-VERTICAL CURVE

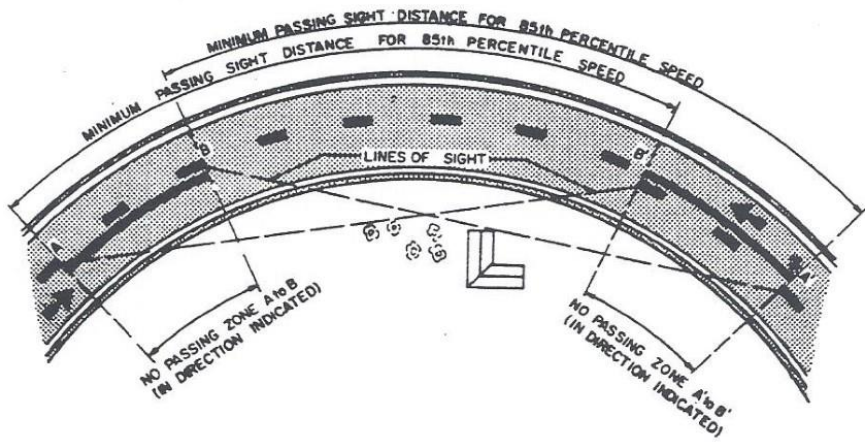


A.A' BEGIN NO-PASSING ZONE
SIGHT DISTANCE BECOMES LESS
THAN MINIMUM MEASURED BETWEEN
POINTS 3.75 FEET ABOVE PAVEMENT.

B.B' END NO-PASSING ZONE
SIGHT DISTANCE AGAIN EXCEEDS
MINIMUM.

NOTE: NO-PASSING ZONES IN OPPOSITE DIRECTIONS MAY OR MAY NOT OVERLAP,
DEPENDING ON ALINEMENT.

(b)-HORIZONTAL CURVE



Marking Legend
 Yellow
 White

A.A' BEGIN NO-PASSING ZONE
SIGHT DISTANCE, MEASURED ALONG
CENTERLINE (OR RIGHT-HAND LANE LINE
ON THREE LANE ROAD) BECOMES LESS
THAN MINIMUM.

B.B' END NO-PASSING ZONE
SIGHT DISTANCE AGAIN EXCEEDS
MINIMUM.

NOTE: NO-PASSING ZONES IN OPPOSITE DIRECTIONS MAY OR MAY NOT OVERLAP,
DEPENDING ON ALINEMENT.

§ 23.1040 METHOD OF LOCATING AND DETERMINING THE LIMITS OF
NO-PASSING ZONES AT VERTICAL AND HORIZONTAL CURVES.

23.1041. Edge lines.

(a) Pavement edge line markings provide an edge of pavement guide for drivers. They have a unique value as a visual reference for the guidance of drivers during adverse weather and visibility conditions. They also may be used where edge delineation is desirable to reduce driving on paved shoulders or refuge areas of lesser structural strength than adjacent pavement. Edge lines should not be broken for driveways.

(b) Edge lines shall be provided for all Interstate highways and other highways with pavement widths of 20 feet or more. Edge lines should not be placed on highways with a pavement width of less than 20 feet. The lines shall be white except on the left edge of each roadway of divided streets and highways and one-way roadways in the direction of travel they shall be yellow.

§ 23.1042. Pavement marking extensions through intersections and interchanges.

Where road design or reduced visibility conditions make it desirable to provide control or to guide vehicles through an interchange or intersection, (such as at offset, skewed, complex multi-legged intersections or where multiple turn lanes are used) a dotted line may be used to extend markings as necessary through the interchange or intersection area.

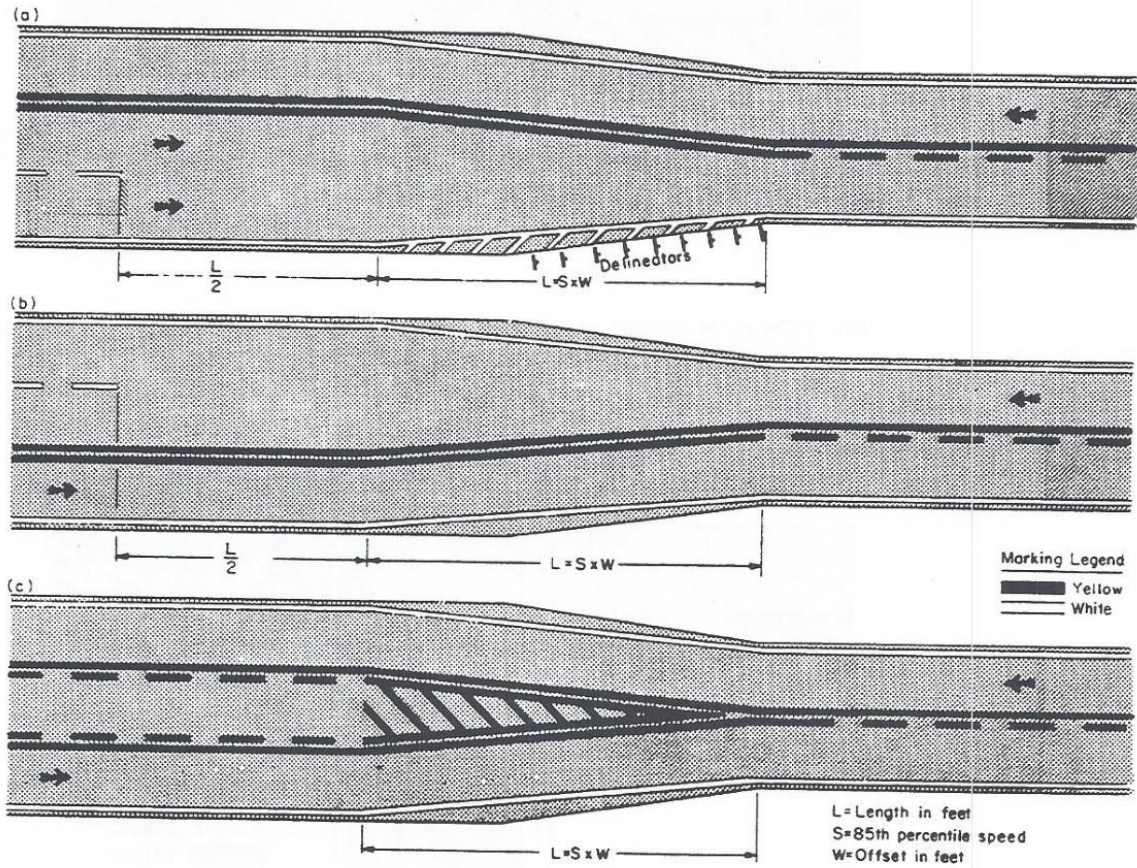
§ 23.1043. Lane reduction transitions.

(a) Where pavement markings are used, lane reduction markings shall be used to guide traffic at points where the pavement width changes to a lesser number of through lanes. No passing markings shall be used to prohibit passing in the direction of the convergence, throughout the transition area. Converging lines should have a length of not less than that determined by the formula $L = S \times W$, where L equals the length in feet, S the off-peak 85 percentile speed in miles per hour, and W the offset distance in feet. On new construction, where no 85 percentile speed is established, the design speed may be used.

(b) A number of situations are possible depending on which lanes must be offset or terminated and the amount of offset as provided in § 23.1044 of this Title (relating to pavement width transition markings). One or more lane lines must be discontinued, and the remaining center and lane lines must be connected in such a way as to merge traffic into the reduced number of lanes.

(c) Lane lines should be discontinued one-half the distance L before the beginning of the convergence computed by the formula $L = S \times W$. Edge lines should be installed from a point equal to the distance L , computed by the formula $L = S \times W$, prior to the beginning of the convergence and continue past the beginning of the narrower roadway.

(d) Pavement markings at pavement width transitions supplement the standard signs.



§ 23.1044 TYPICAL PAVEMENT WIDTH TRANSITION MARKINGS

§ 23.1045. Channelizing line.

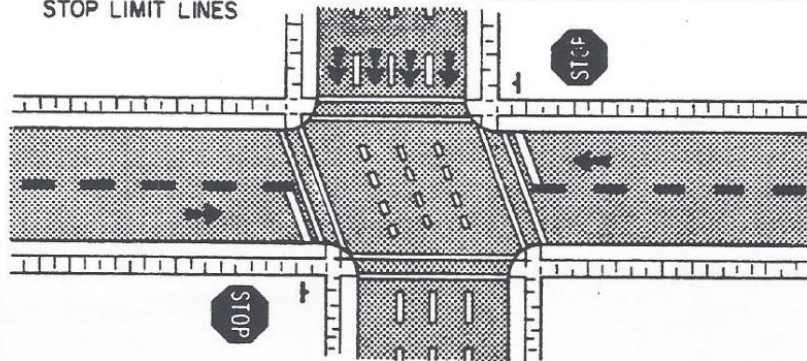
(a) The channelizing line shall be a wide or double solid white line.

(b) The channelizing line may be used to form traffic islands where travel in the same direction

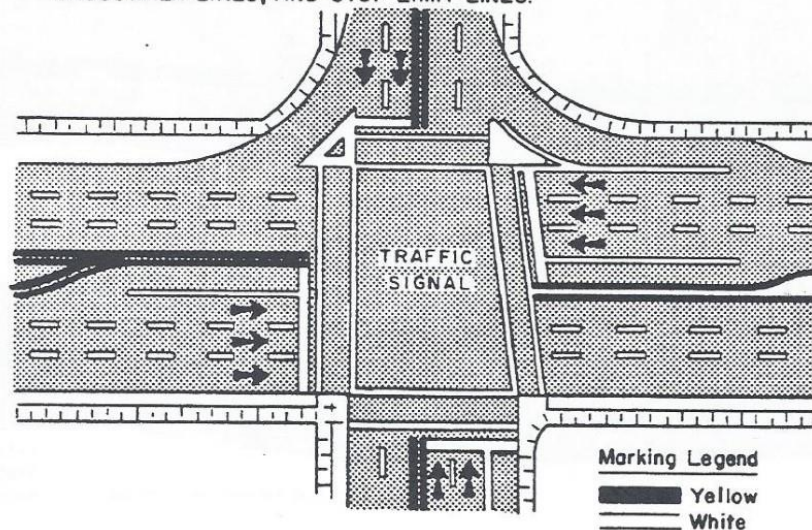
is permitted on both sides. Other markings in the island area such as cross-hatching shall be white.

(c) Typical examples of channelizing line applications are as provided in § 23.1038, § 23.1053 and § 23.1046 of this Title (relating to illustrated application of markings).

(a)- TYPICAL PAVEMENT MARKING WITH OFFSET LANE LINES CONTINUED THROUGH THE INTERSECTION AND OPTIONAL CROSSWALK LINES AND STOP LIMIT LINES



(b)- TYPICAL PAVEMENT MARKING WITH OPTIONAL TURN LANE LINES, CROSSWALK LINES, AND STOP LIMIT LINES.



§ 23.1046 TYPICAL MARKINGS AT INTERSECTIONS

§ 23.1047. Median islands formed by pavement markings.

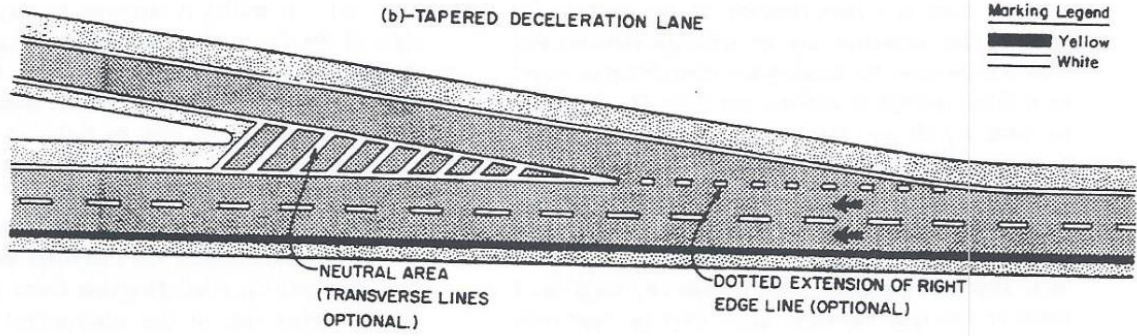
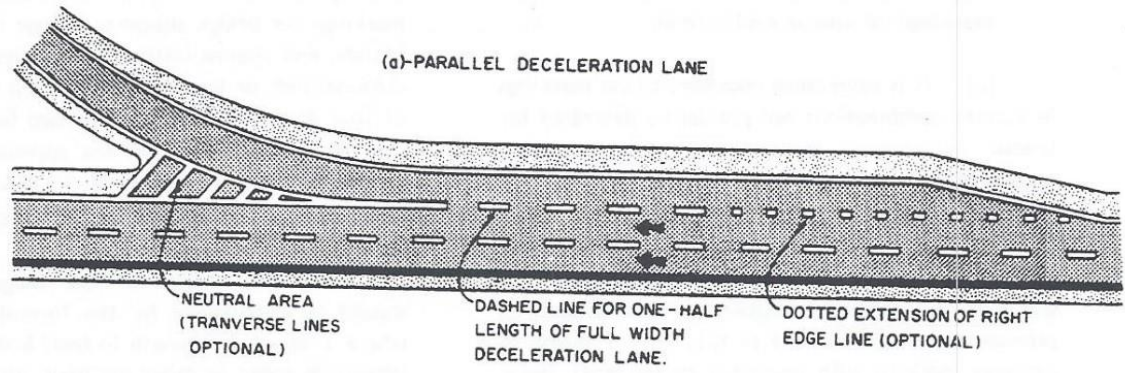
Two double yellow lines shall be used to form continuous median islands where these islands separate travel in opposite directions. Other markings in the median island area such as crosshatching shall be yellow.

§ 23.1048. Marking interchange ramps.

(a) Channelizing lines at exit ramps of expressways provide a neutral area which reduces the probability of collision with the curb nose and also directs exiting traffic at the proper angle for smooth divergence into the ramp. The channelizing line promotes safe and efficient merging with the through traffic at entrance ramps as provided in § 23.1049 and § 23.1050 of this Title (relating to exit ramp and entrance ramp markings).

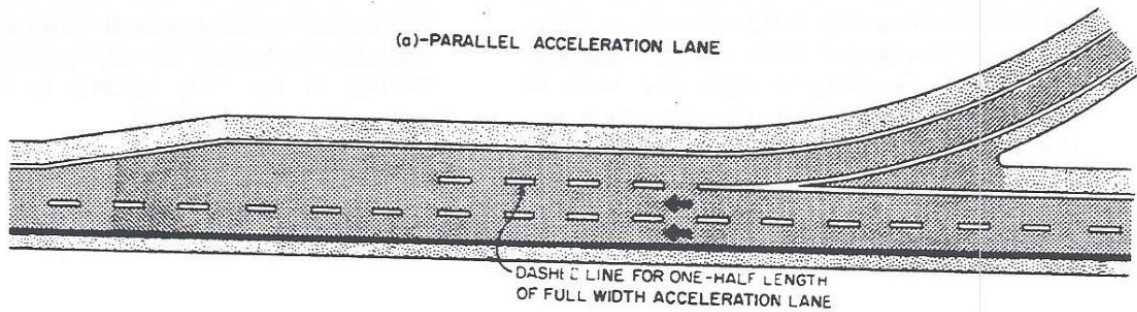
(1) Exit Ramps—For exit ramps, channelizing lines should be placed along both sides of the neutral area between the main roadway and the exit ramp lane. With a parallel deceleration lane, a lane line should be extended from the beginning of the channelizing line for a distance of approximately one-half the length of the full width deceleration lane. White markings may be placed in the neutral area for special emphasis.

(2) Entrance Ramps—For entrance ramps, a channelizing line should be placed along the side of the neutral area adjacent to the ramp lane. With a parallel acceleration lane, a lane line should be extended from the end of the channelizing line for a distance approximately one-half the length of the full width acceleration lane. With a tapered acceleration lane, a lane line may be placed to extend the channelizing line, but not beyond a point where the tapered lane meets the near side of the through traffic lane.

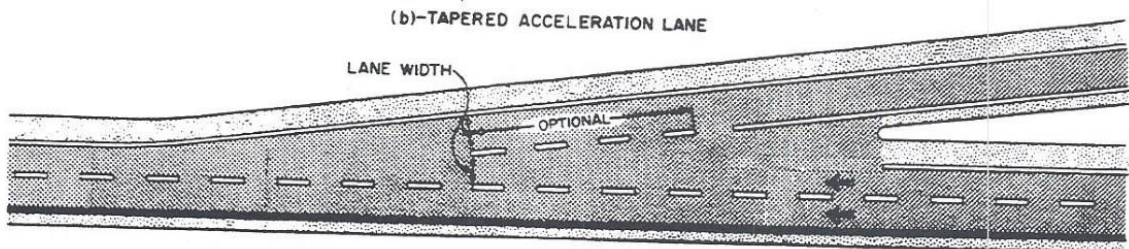


Marking Legend
Yellow
White

§ 23.1049 TYPICAL EXIT RAMP MARKINGS.



Marking Legend
Yellow
White



§ 23.1050 TYPICAL ENTRANCE RAMP MARKINGS.

§ 23.1051. Combination lane line and center line markings for unique applications.

(a) It is sometimes necessary to use markings in certain combinations not previously described for special applications intended to improve traffic operations.

(1) **Reversible Lane**—For reversible lane markings, each edge of the lane shall be marked by the use of a normal broken double yellow line with the gaps and segments adjacent to one another as provided in § 23.1036(c) of this Title (relating to two-way marking with reversible center lane). Signs and/or signals shall be used to supplement the pavement markings.

(2) **Two-Way Left-Turn Lane**—A two-way left-turn lane is a lane reserved in the center of a highway for exclusive use of left-turn vehicles and shall not be used for passing and overtaking or travel by a driver except to make a left turn. The lane may be used by drivers making the left turn in either direction. A two-way left turn lane shall be marked as provided in § 23.1036(a) of this Title (relating to multi-lane, two-way marking with two-way left turn lane) by a single direction, no passing marking on each edge of the lane. This is generally used on a three or five-lane highway. Signs shall be used with the pavement markings.

§ 23.1052. Approach to an obstruction.

(a) Pavement markings shall be used to guide traffic on the approach to fixed obstructions within a paved roadway. An obstruction may be so located that all traffic must keep to the right of it, or it may be between two lanes of traffic moving in the same direction. The markings in either case must be designed to guide traffic away from the obstruction. The use of channelizing lines or no-passing markings

are generally effective. Obstruction approach markings for bridge supports, refuge islands, median islands, and channelization islands shall consist of a diagonal line, or lines extending from the center line of lane line to a point one to two feet to the right side, or to both sides, of the approach end of the obstruction as provided in § 23.1053 of this Title (relating to markings for obstructions in the roadway).

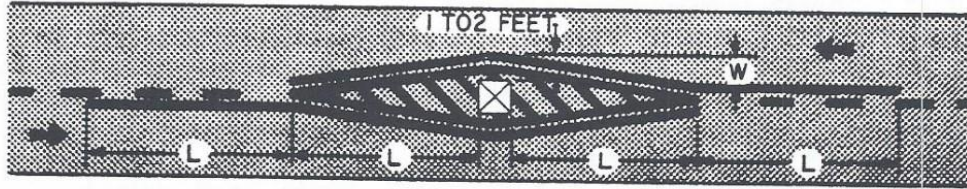
(b) The length of the diagonal markings should be determined by the formula $L = S \times W$ where L equals the length in feet, S the off-peak 85 percentile speed in miles per hour, and W the width of the offset in feet. The minimum length of the diagonal shall be 100 feet in urban areas and 200 feet in rural areas.

(c) If traffic is required to pass only to the right of the obstruction, the marking shall consist of a no-passing marking at least twice the length of the diagonal portion determined by the formula above. A painted median island may be installed in advance of the obstruction by placing yellow markings in the triangular area between the markings.

(d) If traffic may pass either to the right or left of the obstruction, the markings shall consist of two channelizing lines diverging from the lane line, one to either side of the obstruction for a length determined by the formula $L = S \times W$. In advance of the point of divergence, a wide, solid white line or double white line shall be extended in place of the broken line for a distance equal to the length of the diverging lines.

(e) It may be desirable where traffic is permitted to pass to both right and left of an obstruction, to place additional white markings in the triangular area between the markings as provided in § 23.1053 of this Title (relating to markings for obstructions in the roadway).


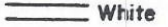
(a)-CENTER OF TWO-LANE ROAD.

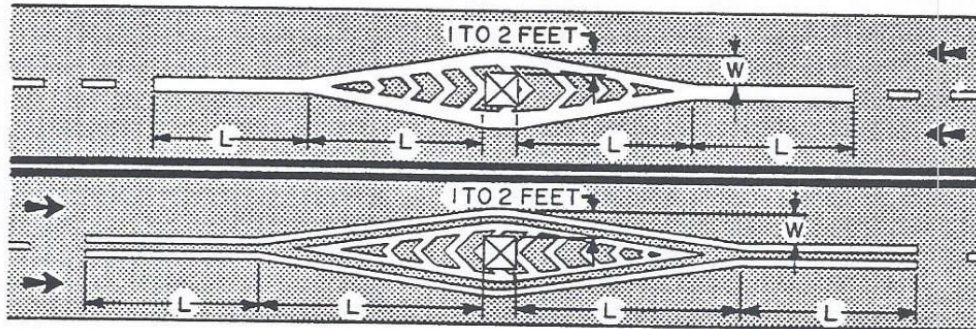


(b)-CENTER OF FOUR-LANE ROAD



(c)-TRAFFIC PASSING BOTH SIDES OF OBSTRUCTION.
(ALTERNATE METHODS OF MARKING)

Marking Legend
 Yellow
 White



$$L = S \times W$$

S = 85TH PERCENTILE SPEED IN MILES PER HOUR
 W = OFFSET DISTANCE IN FEET

MINIMUM LENGTH OF: L = 100 FEET IN URBAN AREAS
 L = 200 FEET IN RURAL AREAS

LENGTH "L" SHOULD BE EXTENDED AS REQUIRED BY
 SIGHT DISTANCE CONDITIONS.

§ 23.1053 TYPICAL APPROACH MARKINGS FOR OBSTRUCTIONS IN THE ROADWAY

§ 23.1054. Stop lines.

(a) Stop lines are solid white lines, normally 12 to 24 inches wide, extending across all approach lanes.

(b) Stop lines should be used in both rural and urban areas where it is important to indicate the point, behind which vehicles are required to stop, in compliance with a STOP sign, traffic signal, officers direction, or other legal requirement.

(c) Stop lines, where used, should ordinarily be placed four feet in advance of and parallel to the nearest crosswalk line. In the absence of a marked crosswalk, the Stop line should be placed at the desired stopping point, in no case more than 30 feet or less than four feet from the nearest edge of the intersecting roadway.

(d) If a stop line is used in conjunction with a STOP sign, it should ordinarily be placed in line with the STOP sign. However, if the sign cannot be located exactly where vehicles are expected to stop, the Stop line should be placed at the stopping point.

§ 23.1055. Crosswalks and crosswalk lines.

(a) Crosswalk markings at signalized intersections and across intersectional approaches on which traffic stops, serve primarily to guide pedestrians in the proper paths. Crosswalk markings across roadways on which traffic is not controlled by traffic signals or STOP signs, must also serve to warn the motorist of a pedestrian crossing point. At non-intersectional locations, these markings legally establish the crosswalk and should be accompanied by a Pedestrian Crossing Sign.

(b) Crosswalk lines shall be solid white lines, marking both edges of the crosswalk. They shall be not less than six inches in width and should not be spaced less than six feet apart. Under special circumstances where no advance stop line is provided or where vehicular speeds exceed 35 miles per hour or where crosswalks are unexpected, it may be desirable to increase the width of the crosswalk line up to 24 inches in width. Crosswalk lines on both sides of the crosswalk should extend across the full width of

pavement to discourage diagonal walking between crosswalks as provided in § 23.1056 of this Title (relating to crosswalk marking).

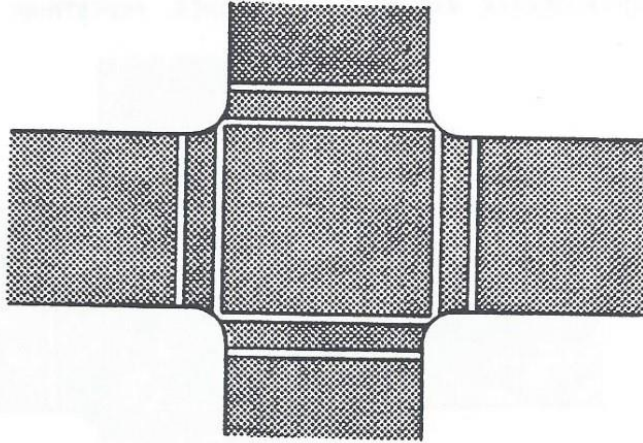
(c) Crosswalks should be marked at all intersections where there is substantial conflict between vehicle and pedestrian movements. Marked crosswalks should also be provided at other appropriate points of pedestrian concentration, such as at loading islands, midblock pedestrian crossing, and/or where pedestrians could not otherwise recognize the proper place to cross.

(d) Crosswalk markings should not be used indiscriminately. A careful engineering study should be required before they are installed at locations away from traffic signals or STOP signs.

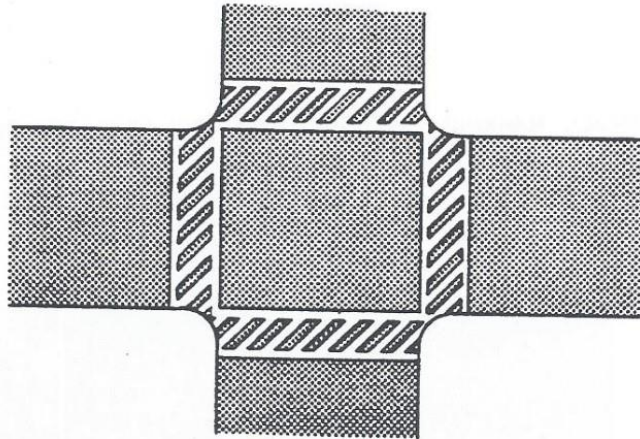
(e) Since non-intersectional pedestrian crossings are generally unexpected by the motorist, warning signs should be installed and adequate visibility provided by parking prohibitions.

(f) For added visibility, the area of the crosswalk may be marked with white diagonal lines at a 45° angle or with white longitudinal lines at a 90° angle to the line of the crosswalk as provided in § 23.1056(b) of this Title (relating to crosswalk marking). These lines should be approximately 12 to 24 inches wide and space between lines should equal the line width. When diagonal or longitudinal lines are used to mark a crosswalk, the transverse crosswalk lines may be omitted. This type of marking is intended for use at locations where substantial numbers of pedestrians cross without any other traffic control device, at locations where physical conditions are such that added visibility of the crosswalk is desired or at places where a pedestrian crosswalk might not be expected. Care should be taken to insure that crosswalks with diagonal or longitudinal lines used at some locations do not weaken or detract from other crosswalks (where special emphasis markings are not used). When a pedestrian control signal, which permits diagonal crossing, is installed at an intersection, a unique marking may be used for crosswalk as provided in § 23.1057 of this Title (relating to crosswalk marking for exclusive pedestrian phase).

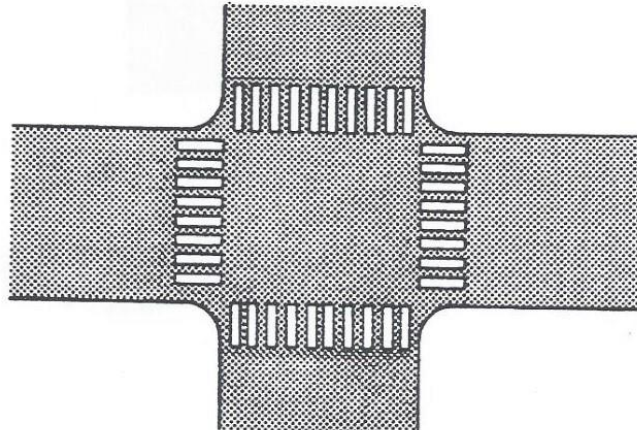
(a)- STANDARD CROSSWALK MARKING



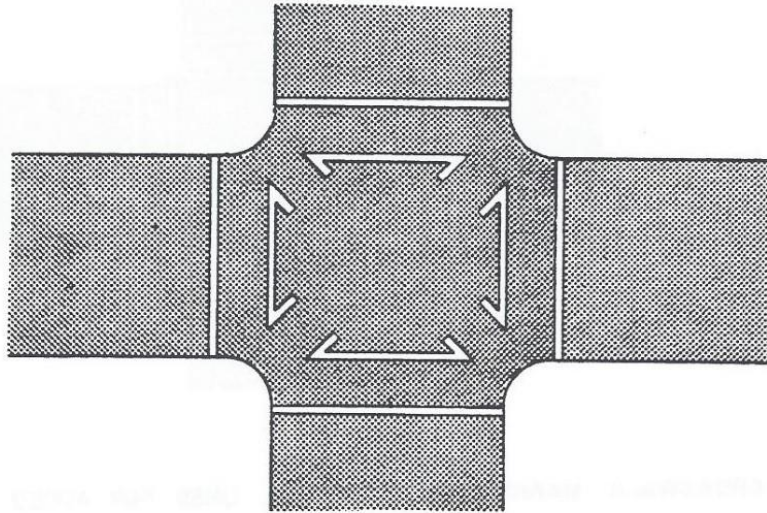
(b)- CROSSWALK MARKING WITH DIAGONAL LINES FOR ADDED VISIBILITY.



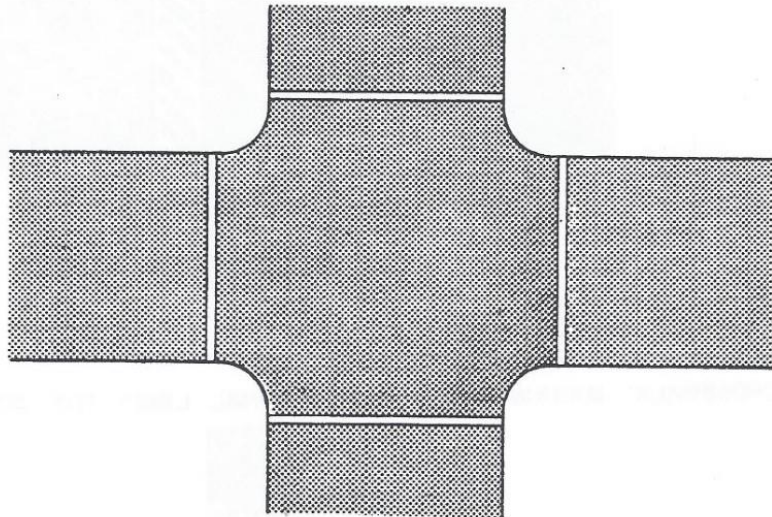
(c)- CROSSWALK MARKING WITH LONGITUDINAL LINES FOR ADDED VISIBILITY.



(a)-CROSSWALK MARKING THAT OUTLINES PEDESTRIAN TRAVEL PATHS.



(b)-CROSSWALK MARKING THAT OUTLINES THE EDGE OF PEDESTRIAN TRAVEL AREA.



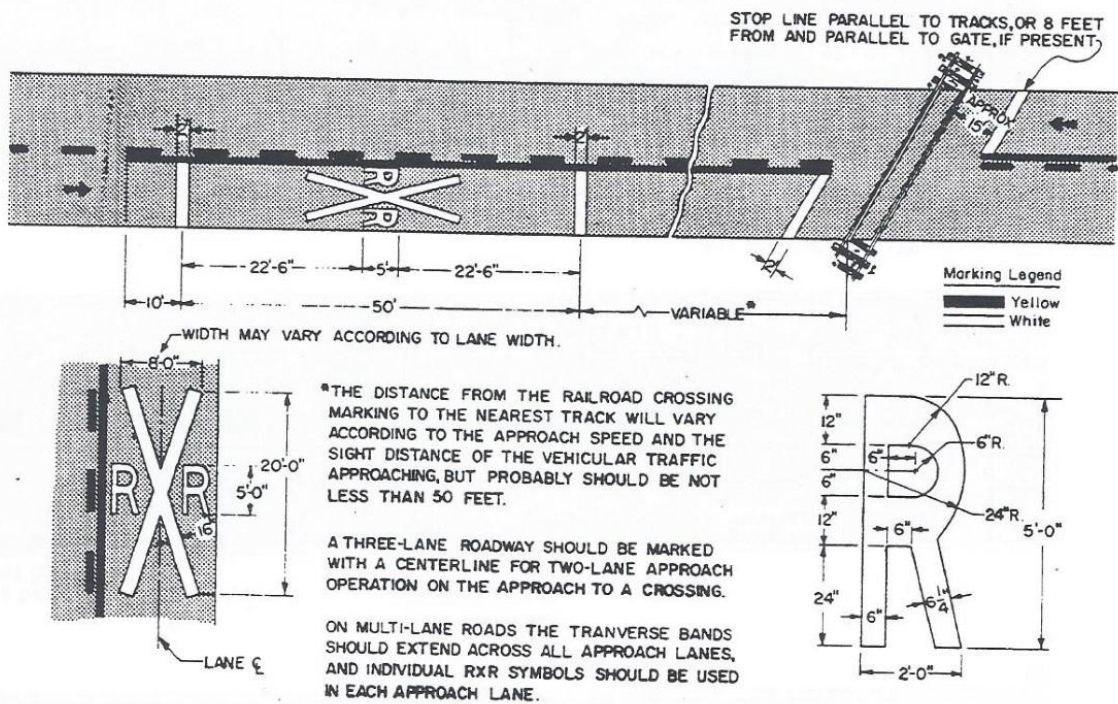
§ 23.1057 TYPICAL CROSSWALK MARKING FOR EXCLUSIVE PEDESTRIAN PHASE

§ 23.1058. Approach to railroad crossing.

(a) Pavement markings in advance of a railroad crossing shall consist of an X; the letters, RR; a no-passing marking and certain transverse lines. They should be placed on all paved approaches to railroad crossings. These markings, if physically feasible, shall be placed at all grade crossings where railroad highway grade crossing signals or automatic gates are operating, and at all other used crossings where the prevailing speed of highway traffic is 40 miles per hour or greater.

(b) The markings should also be placed at crossings where engineering studies indicate there is a significant potential conflict between vehicles and trains. At minor crossings or in urban areas, these markings may be omitted if engineering study indicates that other devices installed provide suitable protection. Such markings shall be white except for the no-passing markings.

(c) The design of railroad crossing pavement markings shall be essentially as provided in § 23.1059 of this Title (relating to markings at railroad grade crossings).

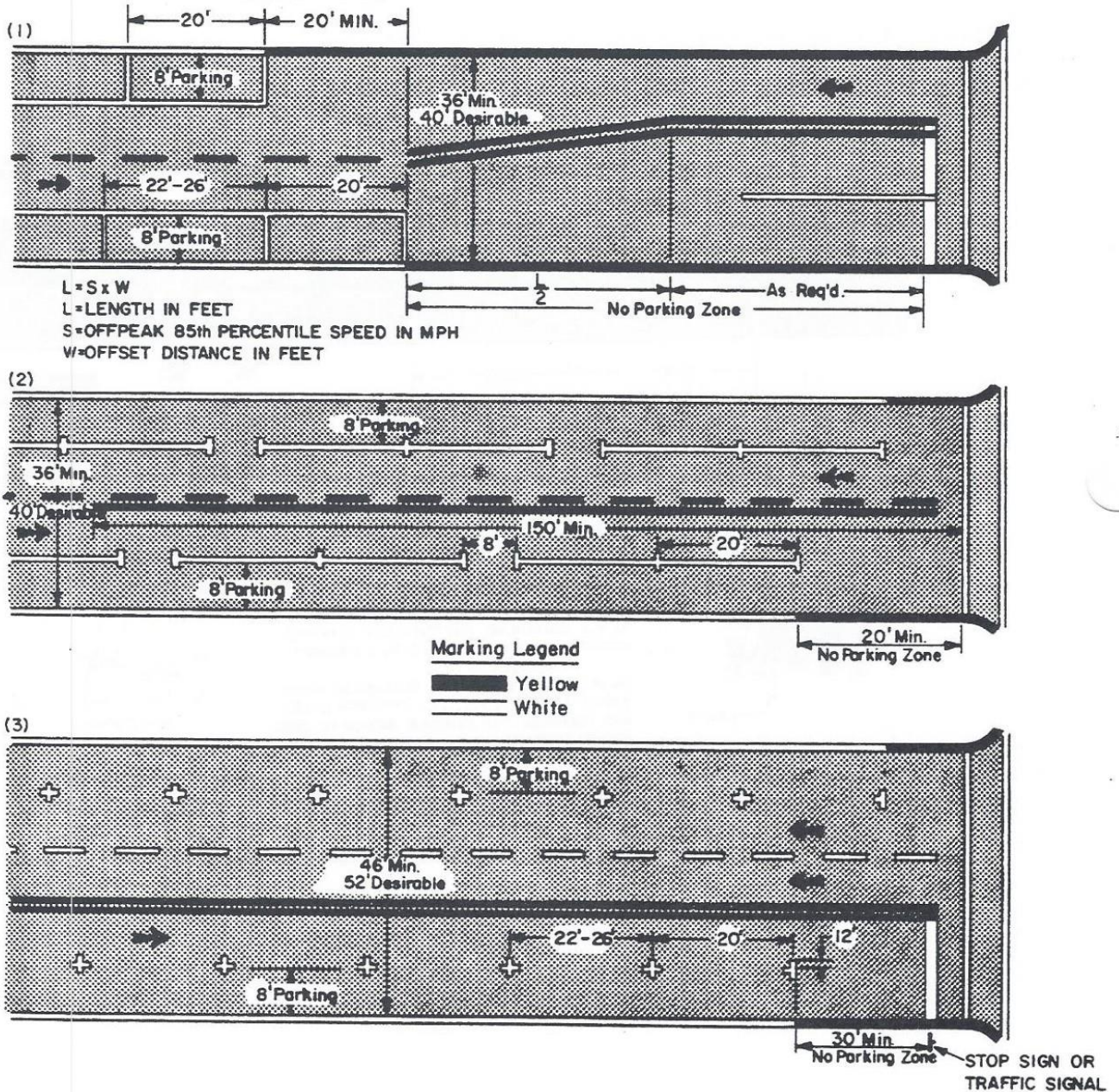


§ 23.1059 TYPICAL PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSINGS.

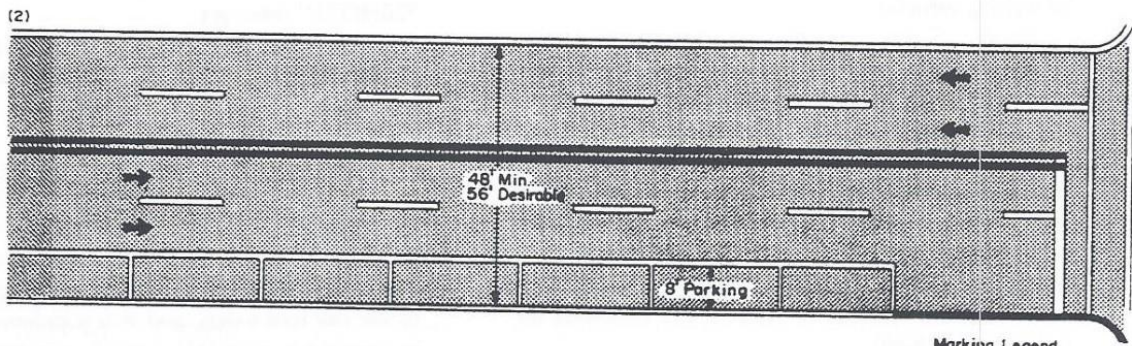
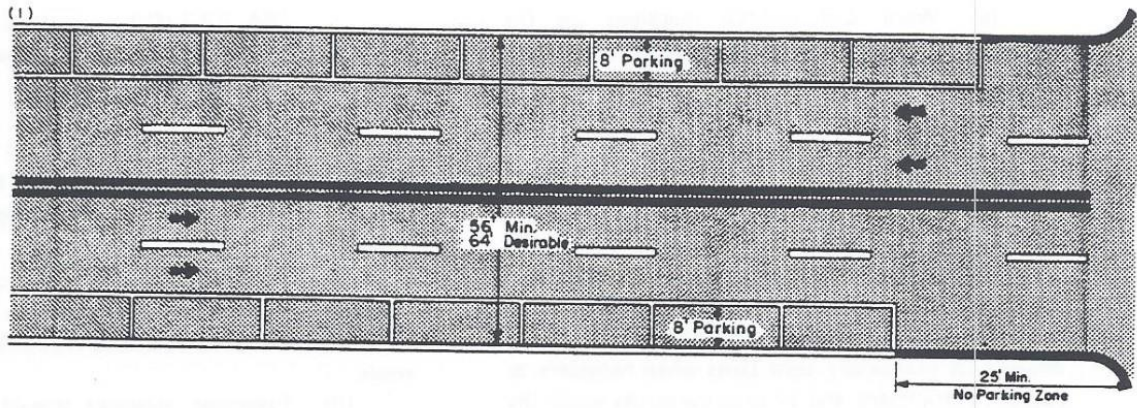
§ 23.1060. Parking space.

- (a) Parking space markings shall be white.
- (b) The marking of parking space limits on urban streets encourages more orderly and efficient use of parking spaces where parking turnover is

substantial and tends to prevent encroachment on fire hydrant zones, bus stops, loading zones, approaches to corners, clearance spaces for islands and other zones where parking is prohibited. Typical parking space markings are as provided in § 23.1061 of this Title (relating to parking space markings).



§23.1061(a) TYPICAL PARKING SPACE MARKINGS



Marking Legend
Yellow
White

§ 23.1061(b) TYPICAL PARKING SPACE MARKINGS

§ 23.1062. Pavement words and symbols.

(a) Word and symbol markings on the pavement may be used for the purpose of guiding, warning, or regulating traffic. They should be limited to not more than a total of three lines of words and/or symbols. They shall be white in color.

(b) Symbol arrows may be used to convey either guidance or mandatory messages; however, where a movement that would otherwise be legal is to be prohibited, the arrow marking must be accompanied by standards signs and the word "ONLY." Signs or markings should be repeated in advance of mandatory turn lanes when necessary to prevent entrapment and to help motorists select the appropriate lane before reaching the end of the line of waiting vehicles.

(c) Symbol messages are generally preferable to word messages. The letters and symbols should be greatly elongated in the direction of traffic movement because of the low angle at which they are viewed by approaching drivers. Large letters, symbols and numerals should be used, eight feet or more in height; and, if the message consists of more than one word, it should read "up," i.e., the first word should be nearest to the driver. See § 23.1066 of this Title (relating to dimensions of letters and numerals for pavement marking).

(d) Where speeds are low somewhat smaller characters may be used. The space between lines should be at least four times the height of the characters for low speed roads but not more than ten times the height of the characters, under any condition. Typical layouts are provided in §23.1064 and § 23.1065 of this Title (relating to letters and arrows for pavement marking).

(e) Word and symbol markings considered appropriate for use when warranted include the following:

- (1) Regulatory:
 - "STOP"
 - "RIGHT (LEFT) TURN ONLY"
 - "25 MPH"
 - "SYMBOL ARROWS"
- (2) Warning:
 - "STOP AHEAD"
 - "SIGNAL AHEAD"
 - "SCHOOL"
 - "SCHOOL CROSSING"
 - "PED X-ING"
 - "R X R" (RAILROAD CROSSING)

- (3) Guide:
 - "US 40"
 - "PA 135" (Other words or symbols may be necessary under certain conditions).

(f) Since an uncontrolled use of pavement markings can result in driver confusion the number of different word and symbol markings should be minimized.

(g) The word "STOP" shall not be used on the pavement unless accompanied by a stop line and STOP sign and every vehicle is required to stop at all times.

(h) Pavement messages should generally be no more than one lane in width except the "SCHOOL" messages.

(i) See § 23.1063 of this Title (relating to the application of word and symbol markings on the pavement).

(j) Preferential lane markings.

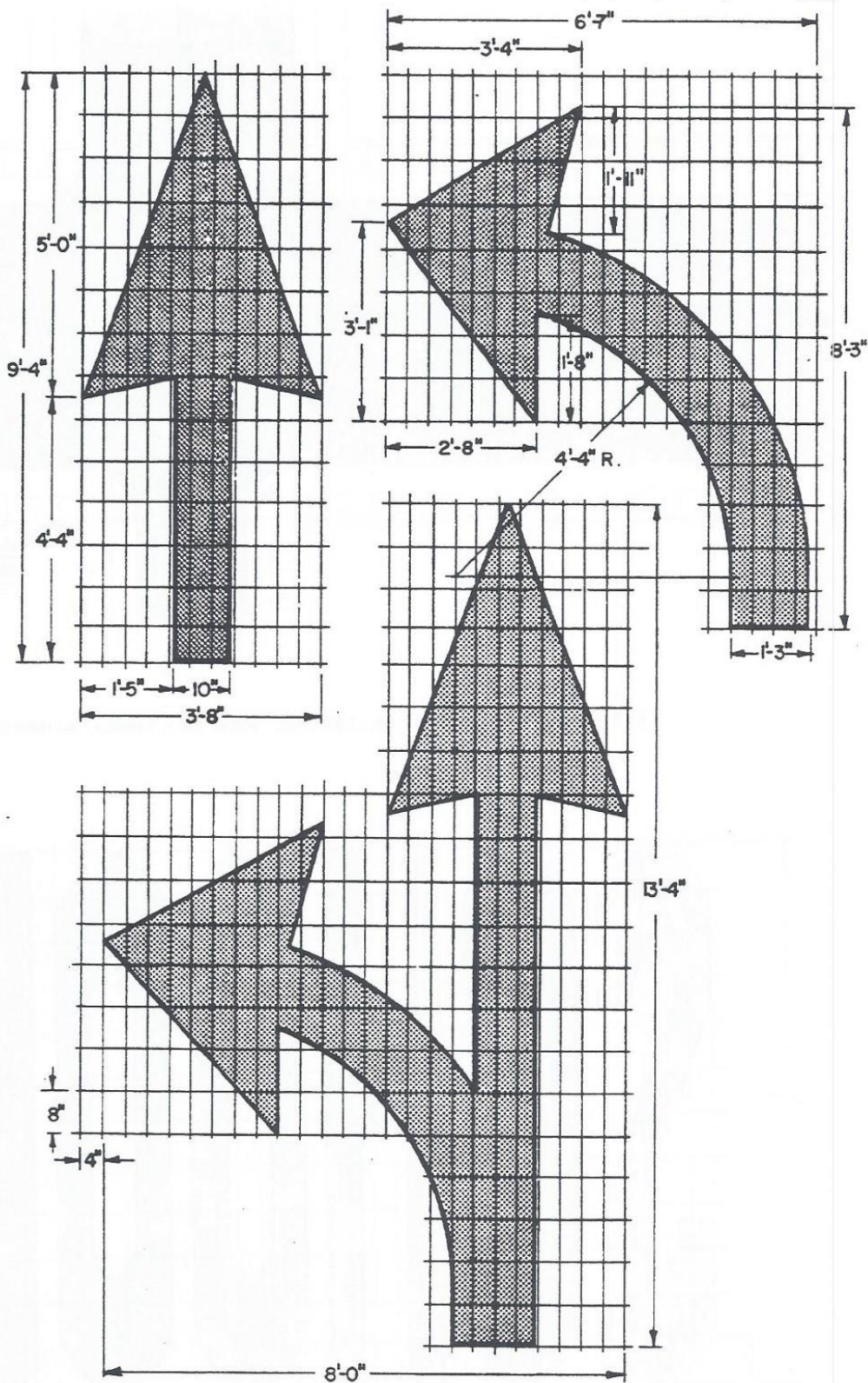
(1) When a lane is assigned full or part time to a particular class or classes of vehicles, the preferential lane markings shall be used.

(2) The marking is intended to convey that a restriction on the class or classes of vehicles permitted to use the lane exists, and it is supplemental to signs or signals conveying the specific restrictions. Signs or signals shall be used with the preferential lane markings.

(3) The preferential lane marking shall be an elongated diamond formed by white lines at least 6 inches in width symmetrical about its longitudinal and transverse axes. The diamond shall be at least 2½ feet in width and 12 feet long and shall be placed coincident with the longitudinal center of each restricted lane.

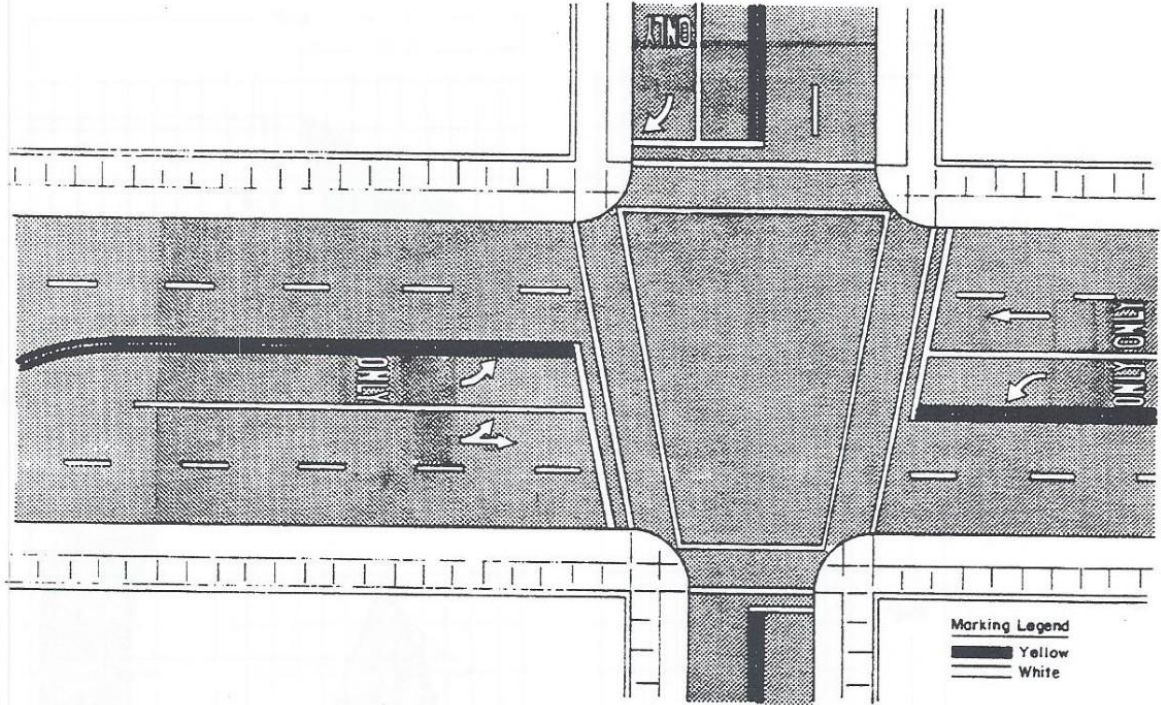
(4) The frequency with which the marking is placed is a matter for engineering judgment based on prevailing speed, block lengths, distance from intersections, and other considerations necessary to adequately communicate with the driver. Spacing as close as 80 feet may be appropriate for a city street, while a spacing of 1,000 feet may be appropriate for a freeway.

(5) Word markings may be used to supplement but not substitute for the preferential lane markings.

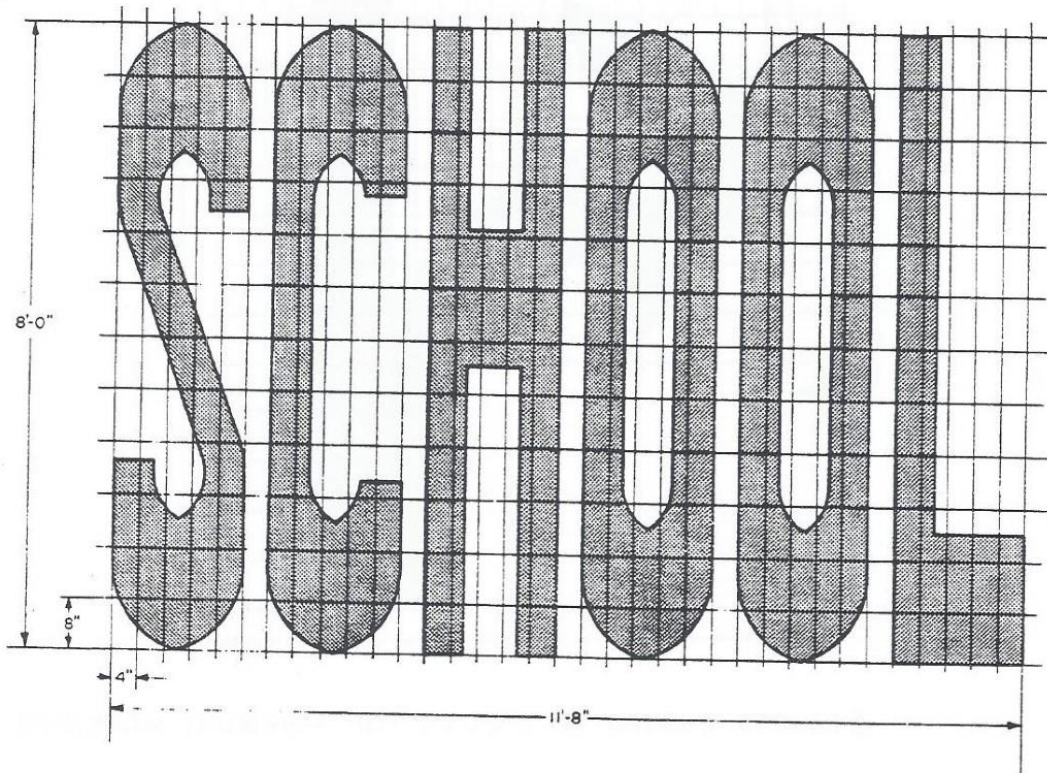


§23.1065 ELONGATED ARROWS FOR PAVEMENT MARKINGS.

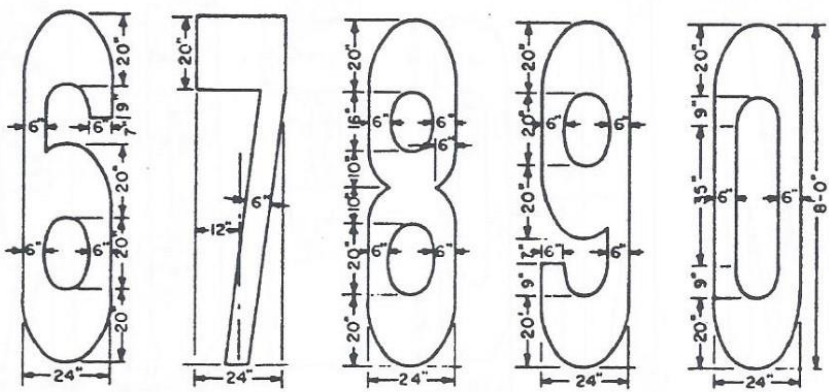
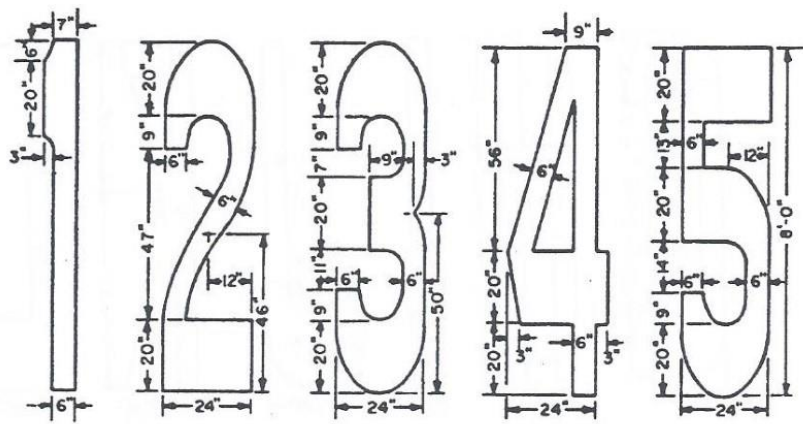
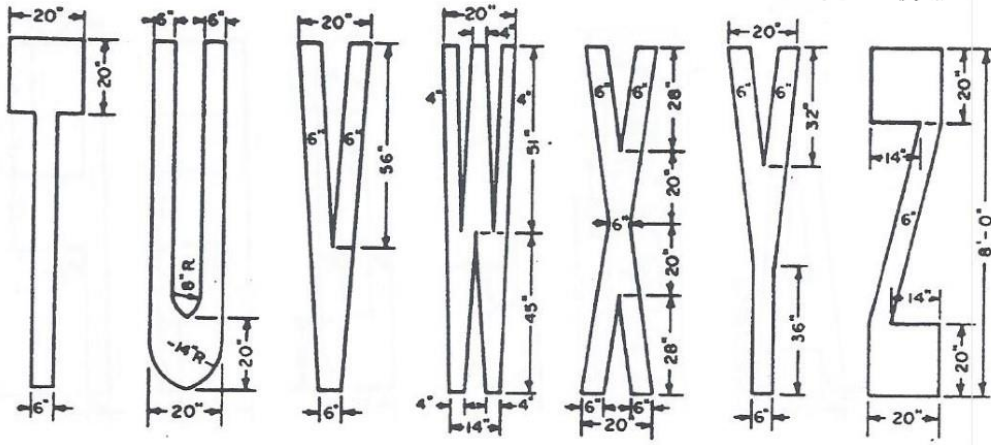
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§23.1063 TYPICAL LANE-USE-CONTROL WORD AND SYMBOL MARKINGS.



§23.1064 ELONGATED LETTERS FOR PAVEMENT MARKING



§ 23.1066(b) DIMENSIONS OF LETTERS AND NUMERALS FOR PAVEMENT MARKING

CURB MARKINGS FOR PARKING RESTRICTIONS

§ 23.1067. Application of curb markings.

Since curb markings of yellow and white are used for delineation and visibility, it is usually advisable to establish parking regulations through the installation of standard signs. However, when prescribed by local authorities, yellow may be used for curb markings as a supplement to standard signs to prevent encroachment on fire hydrant zones, bus stops, loading zones, approaches to corners, clearance space for islands and other zones where parking is prohibited.

OBJECT MARKINGS

§ 23.1068. Object marker design.

(a) When obstructions within or adjacent to the roadway require marking, the marker shall consist of an arrangement of one or more of the following designs:

- (1) Hazard Marker (W16-1)
- (2) Three yellow Delineators (W16-3-1) arranged vertically
- (3) Clearance Markers (W16-2), (W16-2-1)
- (4) Overhead Clearance (W12-3)

§ 23.1069. Application of object markers.

(a) Objects in the Roadway—Obstructions within the roadway shall be marked with a Hazard Marker (W16-1) or Clearance Markers (W16-2), (W16-2-1).

(b) For additional emphasis a large surface such as a bridge pier may be painted with diagonal stripes, 12 inches or greater in width similar in design to the Clearance Markers (W16-2), (W16-2-1). The alternating black and reflectorized white stripes shall be sloped down at an angle of 45° toward the side of

the obstruction which traffic is to pass. Where a sign is used with the diagonal stripes, the stripe markings should be discontinued to leave a 3 inch space around the outside of the sign.

(c) Appropriate signs directing traffic to one or both sides of the obstruction may be used in lieu of the object marker. In addition to markings on the face of an obstruction in the roadway, warning of approach to the obstruction shall be given by appropriate pavement markings.

(d) Where the vertical clearance of an overhead structure is less than 14 feet 6 inches the clearance in feet and inches should be clearly marked on the structure with Clearance Sign (W12-3).

§ 23.1070. Objects adjacent to the roadway.

(a) Objects not actually in the roadway may be so close to the edge of the road that they need a marker. These include underpass piers, bridge abutments, handrails and culvert headwalls. In some cases there may not be a physical object involved, but other roadside conditions such as narrow shoulder drop-offs, gores, small islands and abrupt changes in roadway alignment may make it undesirable for a driver to leave the roadway. Three yellow Delineators (W16-3-1) arranged vertically or Clearance Markers (W16-2), (W16-2-1) are intended for use at such locations. The inside edge of the marker shall be in line with the inner edge of the obstruction.

(b) Standard warning signs should also be used where applicable.

§ 23.1071. End of a roadway.

The Hazard Marker (W16-1-1) should be used to mark the end of a roadway, at which point there is no alternate vehicular path. More than one marker or a larger marker may be used at the end of the roadway where conditions warrant. The minimum mounting height of this marker shall be four feet. Appropriate advance warning signs should be used.