

# REPORT

OF THE

## New Jersey State Traffic Commission

---

JANUARY, 1928

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MacCrellich & Quigley Co  
*Printers*  
Trenton, New Jersey  
1928

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*To His Excellency, the Governor, the Senate and General Assembly of the State of New Jersey:*

Report of the Joint Commission for the purpose of formulating a comprehensive plan of traffic rules and regulations, and of devising a uniform scheme of administration for the enforcement of the Motor Vehicle law and the State Traffic act.

*Committee*

- ASSEMBLYMAN RUSSELL S. WISE, *Chairman.*
- SENATOR A. CROZER REEVES.
- COLONEL HUGH A. KELLY, *Engineer.*
- SENATOR FIRMAN M. REEVES.
- JOSEPH CRAWFORD, *Engineer.*
- ORISON M. HURD.

*Officers*

- SENATOR FIRMAN M. REEVES, *Secretary.*
- JOSEPH CRAWFORD, *Treasurer.*
- PERRY E. BELFATTO, *Counsel.*
- PERCY A. BIVINS, *Consulting Engineer.*

JOINT RESOLUTION No. 4

Joint Resolution for the creation of a commission consisting of two members of the Senate to be named by the President thereof, two members of the House of Assembly to be named by the Speaker of the House, and two citizens to be selected by the Governor, who shall constitute a joint commission for the purpose of formulating a comprehensive plan of traffic rules and regulations, and to devise a uniform scheme of administration for the enforcement of the Motor Vehicle law and the State Traffic act.

*Be it resolved by the Senate and General Assembly of the State of New Jersey:*

WHEREAS, The complexity of municipal ordinances governing the traffic in the various municipalities of the State tend to cause confusion, and further to hinder the distribution of traffic over highways; and

WHEREAS, Consideration must be given to the rights of pedestrians on highways; and

WHEREAS, The enforcement of the State Motor Vehicle law and the State Traffic act is now committed to a variety of magistrates in cities, towns, townships, boroughs, villages and other municipalities, in many cases resulting in confusion and lack of uniformity with respect to the enforcement of said ordinances; and

WHEREAS, It is desirable and necessary that a comprehensive State-wide uniform traffic law should be adopted and a policy with respect to enforcement agreed upon;

*Be it resolved,* There is hereby created a joint commission consisting of two members of the Senate to be named by the President of the Senate, two members of the House of Assembly to be named by the Speaker thereof, and two citizens to be appointed by the Governor for the purposes of effectuating this resolution.

The said commission shall organize by the selection of a chairman and a secretary. It shall have power to issue subpoenas, signed by the chairman and attested by the secretary, to compel the attendance of witness and the production of books, papers and records.

NEW JERSEY STATE TRAFFIC COMMISSION. 9

The commission shall hold hearings in any part of the State, and shall have power to employ such technical and engineering experts and such clerical assistants as shall be necessary.

The commission shall be further charged with the duty of devising a uniform State-wide traffic act applicable to all municipalities; and further a uniform procedure with respect to the enforcement of the Motor Vehicle law and the Traffic act.

Its findings shall be embodied in an act or acts to be reported to the next session of the Legislature.

For the purpose of carrying into effect the provisions of this joint resolution there is hereby appropriated the sum of ten thousand dollars, or as much thereof as may be necessary, when included in any annual or supplemental appropriation bill.

This joint resolution shall take effect immediately.

Approved March 23d, 1926.

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PART I

A REVIEW OF THE TRAFFIC PROBLEM

Your commission was appointed October 19, 1926, and organized the following November, at Trenton, New Jersey, at which meeting Honorable Russell S. Wise was elected Chairman, and Honorable Firman M. Reeves, Secretary.

The Commissioners, for the purpose of convenience, adopted the "New Jersey State Traffic Commission" as a title, and under that name issued notices of its meetings.

Immediately on its formation the Commission conferred with the Commissioner of Motor Vehicles and the Engineer of the State Highway Commission, seeking their advice and co-operation in the work about to be undertaken, and adopted a program which included an itinerary of municipalities to be visited.

Interest immediately developed in the contemplated work of the Commission, and requests were received from officials throughout this State, as well as from other states, for hearings and conferences.

Although it was impossible to grant each and every request for meetings, places were selected that would be convenient for those interested, and judging from the large number of persons who responded to the notices no one section would reasonably feel itself to have been slighted.

The places and dates of these meetings were as follows:

Newark, N. J. . . . .	December	17, 1926
Jersey City, N. J. . . . .	January	5, 1927
Paterson, N. J. . . . .	January	14, 1927
Trenton, N. J. . . . .	January	24, 1927
Asbury Park, N. J. . . . .	February	3, 1927
Elizabeth, N. J. . . . .	February	25, 1927
Atlantic City, N. J. . . . .	April	22, 1927
Camden, N. J. . . . .	October	7, 1927
Atlantic City, N. J. . . . .	November	22, 1927
Newark, N. J. . . . .	January	7, 1928

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In addition to holding the above meetings, the Commission visited Cleveland, Ohio; Detroit, Michigan; Washington, D. C.; Savannah, Ga.; Philadelphia, Pa., and New York City, where the traffic conditions, signal controls and speed regulations were studied through the courtesy of the various officials.

At the meetings held in the State there appeared or were represented:

- Members of both Houses of the Legislature.
- Chiefs of Police.
- Safety Councils.
- Chambers of Commerce.
- Merchants' Associations.
- Manufacturers' Associations.
- Improvement Associations.
- Waterway and Highway Associations.
- Mayors and Commissioners of Municipalities.
- Traffic Clubs.
- Safety Instructors of Public Schools.
- State, County and Municipal Engineers.
- State Farm Bureau.
- State Association of Freeholders.
- New Jersey Trade Auto Association.
- Automobile Clubs.
- Civic Associations.
- New York State Traffic Commission.
- American Engineering Council.

Testimony of one hundred and fifty-one witnesses was recorded and the divergence of views on the subject of traffic control systems, speed, traffic courts, fines for violations and multifarious other relative matters seemed infinite.

Officials within cities differed with those of surrounding municipalities, county officials expressed opposite views from those held by officials of principal cities within the county boundaries, and State and municipal officials voiced opinions which differed one from the other. All agreed, however, that any uniform system would be better than the conflicting methods now employed.

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By reason of the geographical situation of this State, the increase in motor vehicle traffic must be given serious consideration and means must be devised for its expedition with a maximum of safety. New thoroughfares will, of course, aid in the solution of the problem, but in themselves will not solve it. A careful study of the traffic situation throughout the State shows that at the present time the maximum capacity of our highways is not utilized. This is due to lack of uniform regulation and also lack of uniformity in the enforcement of regulations which may in themselves be similar. It is a common thing to find during the heaviest traffic a slowly moving vehicle occupying a highway in such a manner as to prevent other vehicles going in the same direction from passing it, notwithstanding that there would otherwise be ample width to permit such passing. The result is a long stretch of unoccupied highway which would and should be utilized. This condition also tends to tempt drivers of following vehicles to cross the center of the highway for the purpose of passing the slowly moving vehicle, thereby creating a condition which frequently results in accidents and in the slowing up of traffic moving in the opposite direction.

The Commission believes that a slogan for effective regulation should be "Expedition with Safety."

Expedition with safety can be accomplished only by the establishment of a State-wide uniform system of regulation which can be readily understood by drivers. There are many places in which peculiar conditions exist, which cannot be dealt with properly by a general law or general regulations. In such cases a uniform form of notice should be provided, so that drivers may readily understand the existence of a special regulation and its nature, and may govern themselves accordingly without being obliged to hesitate and perhaps stop to inquire, thus delaying traffic. The regulations to be adopted should not only be uniform throughout the State, but should, so far as it is possible, be uniform with those of our neighboring states, particularly New York and Pennsylvania.

All regulations which may be adopted and put into force should be reasonable, since unreasonable regulations create a general disregard for all regulations.

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Speed in itself within reason is not dangerous. In fact, the speed limits can safely be increased in many places, particularly on through roads where there are few intersecting highways. On the other hand "cutting out of line" should be discouraged, and the motorist educated and induced to respect and obey signs and markings indicating street intersections and regulations.

It is recommended that the Legislature enact a law containing general regulations and creating a body with power to establish special regulations where necessary for the expedition of traffic with safety and in the interest of traffic as a whole rather than of purely local desires.

It is recommended that a traffic commission be created with the power, among other things, to adopt uniform types of signs, markings and signals, and with the power to prohibit all other types.

The traffic problem in a state like New Jersey, with its large volume of tourist and interstate travel, is so important and varied that constant study is necessary in order intelligently to cope with the condition.

Any traffic act, no matter how carefully prepared, must be subject to revision as conditions change, and it is evident that carefully worked out regulations, deemed satisfactory at the time of their adoption, may become obsolete and valueless. A continuing need for adjustment and improvement is thus seen.

Such traffic commission as is proposed should be given supervisory powers over the enforcement of the law as well as over the enactment of regulations to the end that there may be a uniformity of both enforcement and regulation. If such commission can appreciably intensify the utilization of existing road space, it will postpone the necessity for heavy expenditures of money for the widening of present highways or for the construction of new roads. Its creation would thus be justified.

Traffic regulation has become a problem so complex that municipalities find it difficult to cope with the situation, and only by concentrated, continuous attention in a State-wide way may hope for uniformity in regulation be realized.

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The intelligent, scientific and comprehensive handling of the problem will decrease the cost of doing business, enhance the value of real estate and make for the safety of pedestrians and automobilists.\*

\*There are said to be 25,000,000 automobiles on highways of the United States today, and 15,000,000 more are said to be anticipated. Twenty per cent of the population of the United States is concentrated within a radius of seventy miles from the capitol of this State.

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PART II

TRAFFIC SIGNALS AND TURNING MOVEMENTS

The important subject of traffic signals and their meanings received its merited attention from the Commission. There was unanimity of expression in favor of State-wide uniformity, but as to which system should be adopted there was lamentably a marked variance of opinion.

Traffic accident records disclose a startling number and proportion of pedestrian fatalities and injuries. The common-law rule has maintained for many centuries that all users of the highway have equal and reciprocal rights and duties on public highways. This has meant that, as a matter of law, pedestrians have equal rights with vehicles to use and occupy public roadways, but from the practical standpoint, the pedestrian has obviously not been in position to assert this equal right and has suffered in consequence.

It is desirable that existing conflicts between pedestrians and vehicular movement be reduced without unreasonable inconvenience to either. The pedestrian may well be called upon to surrender some of his present equal right to the use of all parts of the roadway. It is recommended that a pedestrian crossing a roadway within a business or residence district at any point other than an intersection or pedestrian crosswalk, be required to yield the right of way to vehicles upon the roadway. Operators of vehicles benefited by the foregoing regulation may justly be called upon to yield the right of way to pedestrians crossing roadways at intersections and marked pedestrian crossings.

THREE-COLOR SYSTEM

This Commission recommends the following traffic signal system because, in its opinion, it is designed to promote safety while facilitating the movement of traffic. It is based on the use of three colors. The colors recommended are green, red and amber or yellow.

**Green** means permission to go, subject to the safety of others or the specific directions of an officer.

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16 NEW JERSEY STATE TRAFFIC COMMISSION.

**Red** means to stop before entering the intersection or crosswalk and remain standing until green is shown.

**Amber**, alone, is for the exclusive use of pedestrians.

**Amber**, in combination with **Green**, means to stop before entering intersection or crosswalk unless when the **Amber** so appears with the **Green**, the vehicle is so close to the intersection that it cannot be stopped within its normal braking distance. This distance, for a speed of twenty miles an hour, is specified as fifty feet in the National Code on Brakes and Brake Testing. If within such distance the vehicle should proceed across the intersection. No vehicle should enter the intersection or crosswalk if not within this distance of fifty feet while the amber is displayed, but must wait for the green to appear alone.

All other use of green, red, amber or yellow lights so located as to be confused with traffic signals should be discontinued.

The colors should be shown in the following sequence: A green light displayed for a predetermined number of seconds, followed by the amber light in combination with the green light for a few seconds, followed by the amber light for a reasonable time for pedestrian traffic, followed by a red light, followed by a green light. The timing of all lights is to be determined by the volume of traffic. An illustration of the sequences is given in Figure 1.

This cycle affords ample opportunity to the pedestrian to cross. It is admitted that it results in a momentary delay for vehicular traffic, but the Commission feels that such delay is well warranted when it is considered that about sixty-five per cent of all fatalities in which motor vehicles appear involve pedestrians.

The total length of the cycle, as well as the division of the cycle between the two (or more) directions, should be determined by careful analysis of the traffic and other conditions. In general, a fairly short cycle is recommended—say 30 to 50 seconds for ordinary conditions. The use of cycles as long as 3 minutes, of which perhaps 2 minutes are devoted to one direction, encourages violation by both pedestrians and motorists and delays traffic. With a short cycle the approaching motorist can so gauge his speed, from a distance of one or two blocks, that he will reach the intersection on the go signal and thus avoid having to stop at all.

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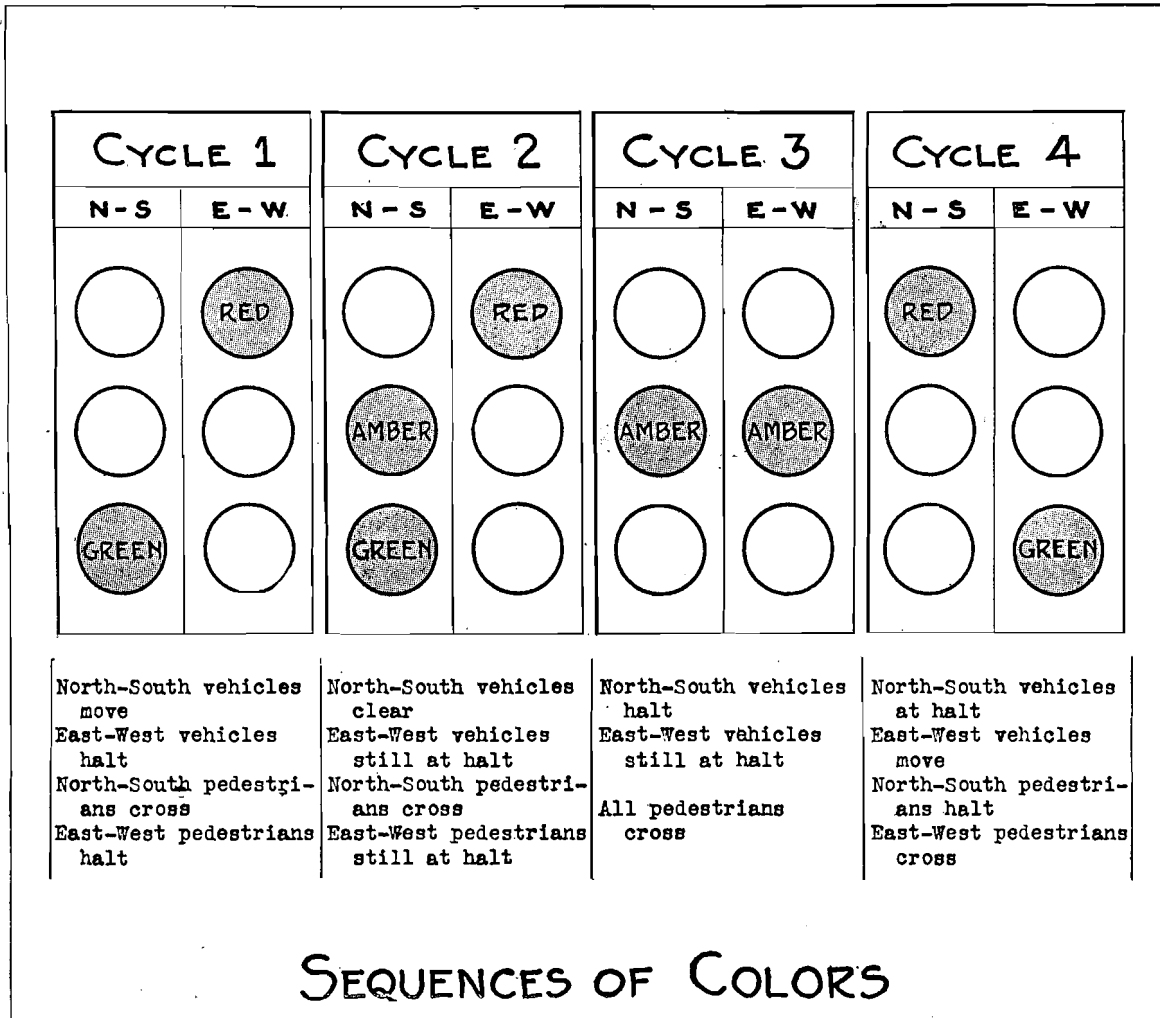


Figure 1

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The protection of the pedestrian is a phase of the traffic regulation problem to which, the investigations of this Commission show, least consideration has been given.

TWO-COLOR SYSTEM

Where the pedestrian traffic does not warrant the use of the amber light, the red and green only may be used, the green having the same significance as in the three-color system, namely, to permit vehicles to go, subject to the safety of others, and the direction of an officer.

Red means to stop, unless the vehicle is so close to the intersection that it is unable to stop before entering it, in which case it shall proceed across the intersection.

With the two-color system, it is generally considered necessary to overlap the reds—that is, to have the green change to red in one direction a few seconds before the red changes to green in the other direction, so that vehicles in or near the intersection proceeding in the former direction may clear the intersection before it is entered by vehicles from the latter direction. This interval of overlapping reds should be of the same length, ordinarily, as recommended for the amber and green in the three-color system.

USE OF SEMAPHORES

Manually operated semaphores have a place in traffic regulation. The Commission is of the opinion that where such devices are used they should have four vanes. The "stop" vanes should have a red field with the word "Stop" plainly visible and the "go" vanes a green field with the word "Go" plainly visible.

When used at night the semaphore should be equipped with corresponding red and green lights with the same visibility as the electrically equipped signals.

SIGNALS BY HAND

It has been observed by the Commission that there is a "wrong" way as well as a "right" way of directing traffic by hand signals. Officials in charge of traffic officers should confer for the purpose

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of formulating rules and regulations for uniform arm movements by such officers, as there are many who perform their duties in an efficient manner with shoulder height movements, while on the other hand there are officers whose hand signals are meaningless for all practical purposes because of the indifference of their execution.

TURNING MOVEMENTS

We find a wide variety of practice in both cities and rural districts. Our observation is that each diverse practice is either the result of local conditions, or of a point of view. Thus at an intersection having a high concentration of vehicular and pedestrian traffic, one locality, having in mind the safety of the pedestrian, may permit of no turns whatever; in another, where the point of view is the speeding up of traffic, left turns may be prohibited and right turns on both the red and the green are allowed, leaving the pedestrian to take his chances. On the other hand, we find localities in which the traffic is light (using that term relatively), where turns are made only on the green. Local conditions may also force the designation of "one-way streets" and the prohibition of left turns.

The conclusion of the Commission is that a specific regulation should be adopted which is to be of general application, but which can be modified by local authority (subject to the approval of constituted authority of the State) to meet local conditions, provided that visible and definite indications are placed on or near the signal devices. The right of a municipality to prohibit turns of any character is admitted and also the right of a traffic officer to take such action as may be necessary in a fire or other emergency.

Fundamentally, there must be a forced obedience to speed limits, and also to any laws applying to boulevard stops. It should also be mandatory that indicators be placed on beacons to show whether the turns should be in front of them or behind them. We favor turns in front. With these conditions as a basis we submit the following recommendations on turns, which apply directly to rectangular intersections and, in principle, to meetings and intersections which are irregular.

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**Right turns.** Right turns should be made on the green only. Drivers intending to make them should enter the right lane of traffic and keep as close as possible to the curb until the turn is completed. The turns should be at a slow rate of speed with due regard to the rights of pedestrians (Figure 2).

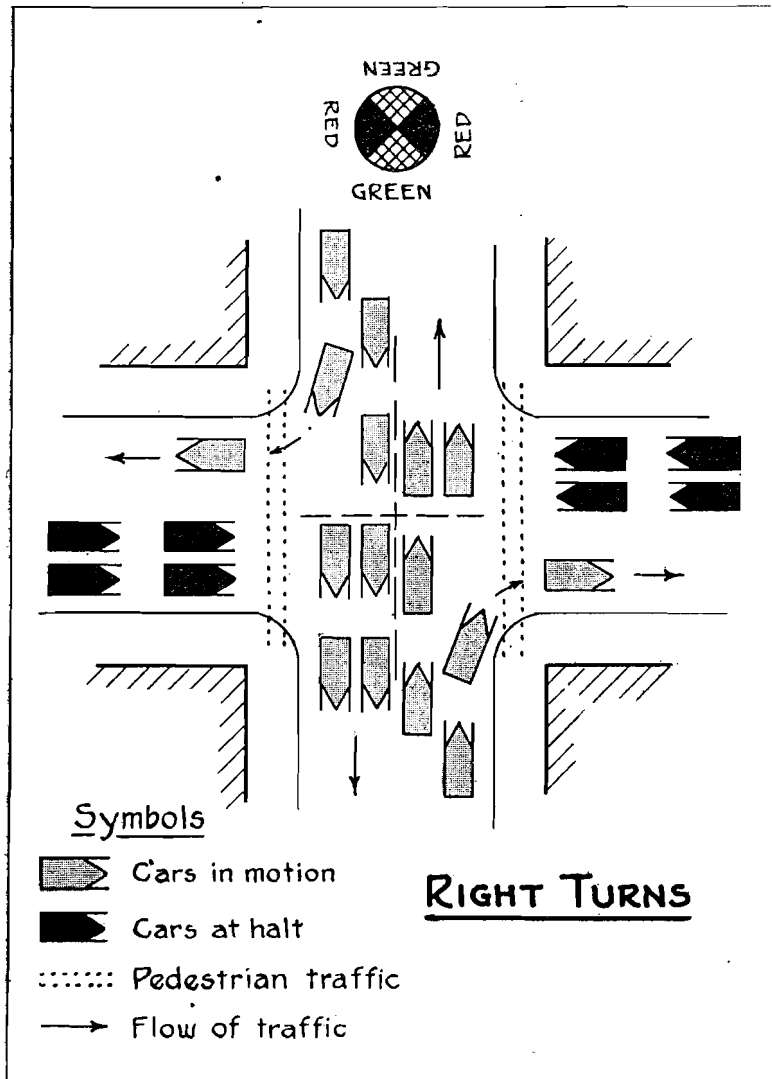


Figure 2

The operation of right turns in the manner just prescribed can also be visualized from Figure 3. In the upper diagram of the

## RIGHT TURNS

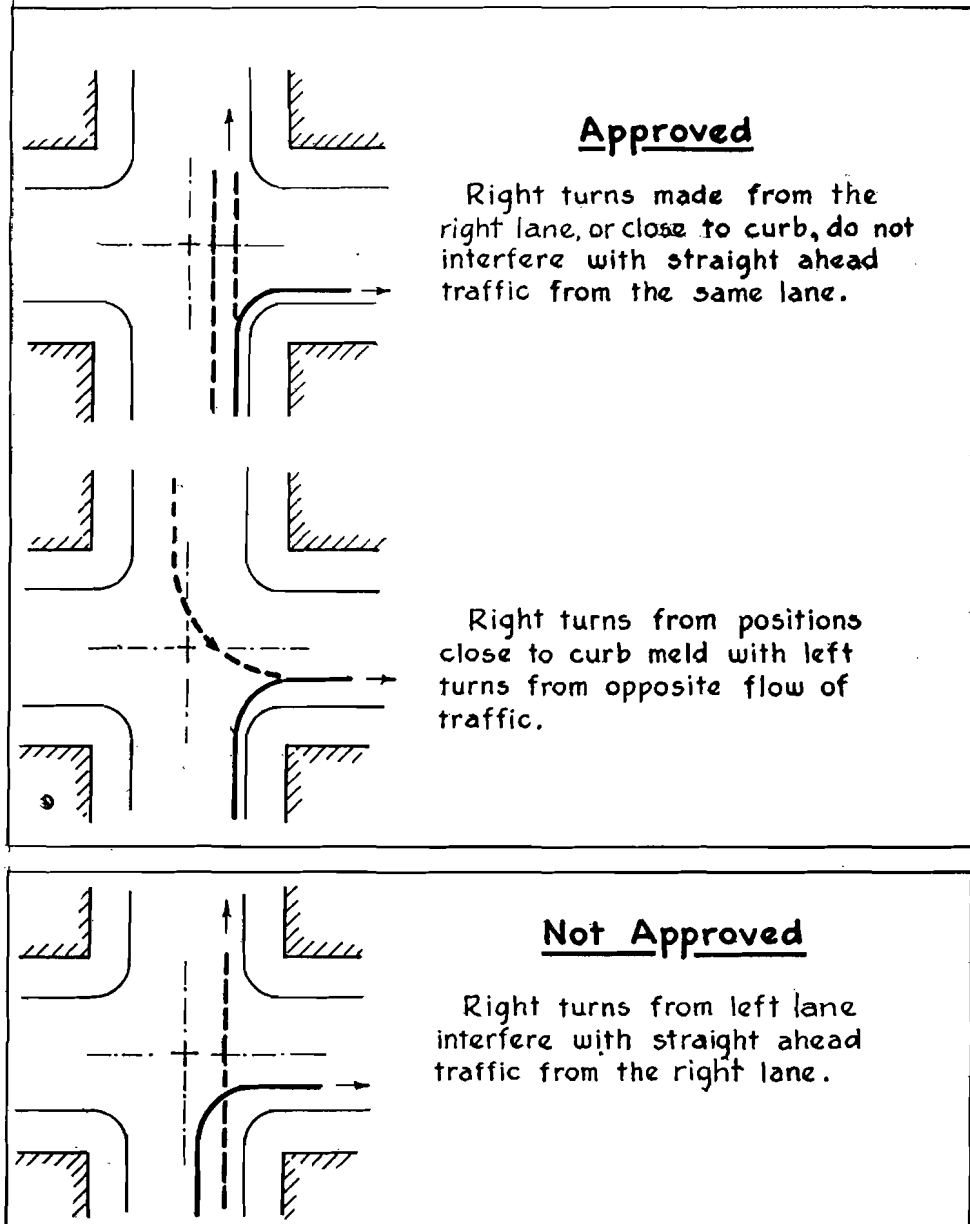


Figure 3

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section designated "Approved," it is shown that a right turn made from the traffic lane next to the curb does not interfere with straight ahead traffic from the same lane. If the turn were made from the left lane, or from close to the center line of the street, as shown in the section marked "Not Approved," a vehicle on turning necessarily crosses the traffic proceeding along the outer lane. In the lower diagram of the "Approved" section it is seen that right turns from positions close to the curb meld with left turns from the opposite flow of traffic.

**Left turns.** Left turns should be made on the green only.

Diagrams illustrating the principle of left turns are given in Figure 4 for slightly variant conditions, as for example, where each of the intersecting streets carries traffic in opposite directions and each is known as a "two-way" street; and also where one street is for traffic in one direction only (a "one-way" street) and the other is for "two-way" traffic.

(a) At intersections of two two-way streets (Figure 4a) a motorist should keep close to the center line of the through street and proceed at a slight angle towards its intersection with the center line of the cross street. Here he should await his safe opportunity to cut through the opposing line of traffic. If an officer be present, the motorist shall be governed by him when to continue. The turn is then made in front of the intersection of the center lines.

(b) From a two-way street to a one-way street (Figure 4b), the turn is made in front of the intersection of the center line of the through street with the prolongation of the curb line on the near side of the cross street. The movement is made at a favorable time to pass across the lane of the opposing traffic or upon the direction of the traffic officer in control.

(c) From a one-way street to a two-way street (Figure 4c) the turn is made from the left lane of traffic.

A reason for the recommendation that left turns be made on the near side, or in front, of the intersection of the center lines of two streets is apparent from Figure 5. In the diagram marked "Approved," it is seen that when a motorist takes position at the left of the lane and passes in front of the intersection (which is indicated by a cross), there is only *one* crossing of the opposite

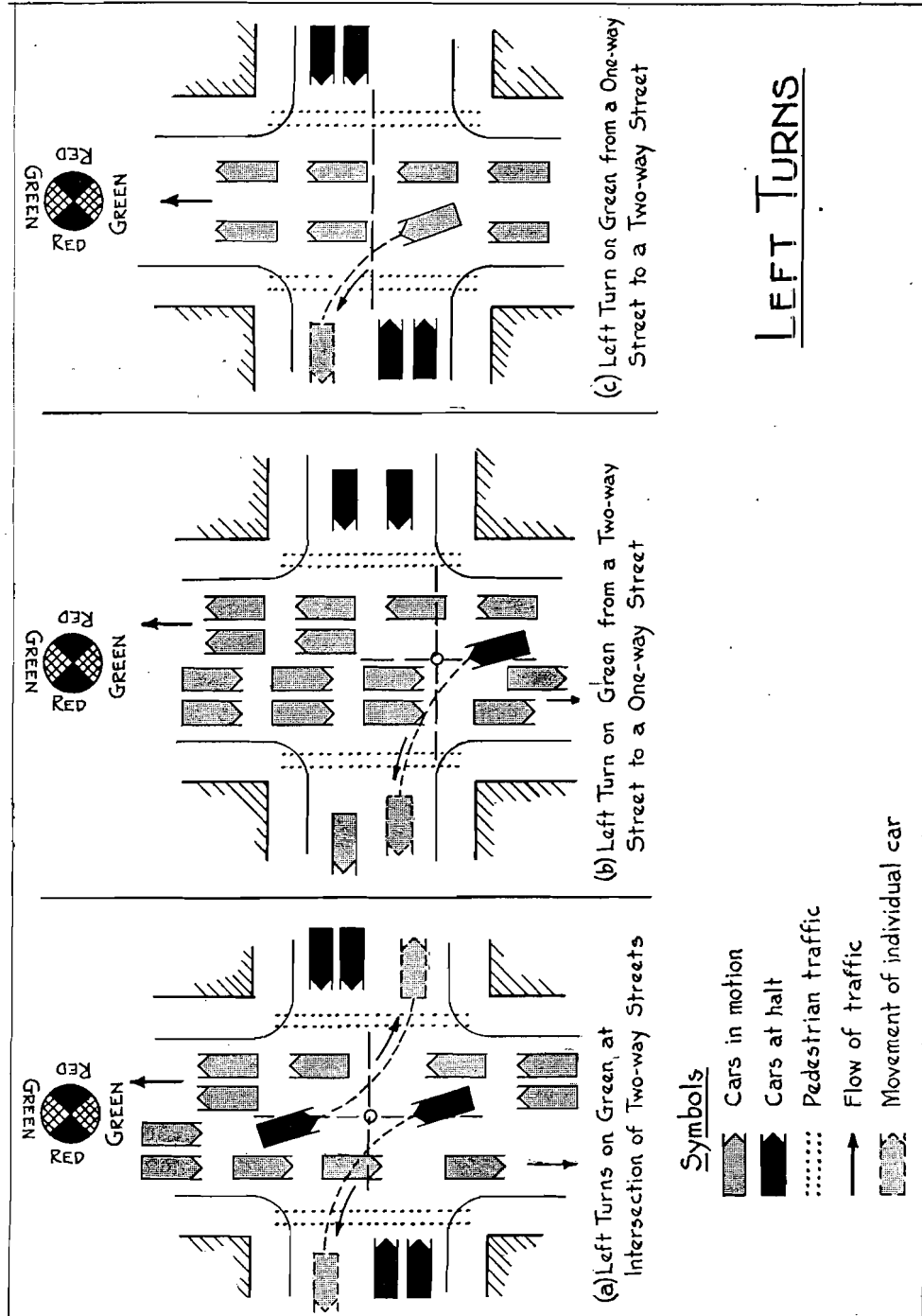


Figure 4

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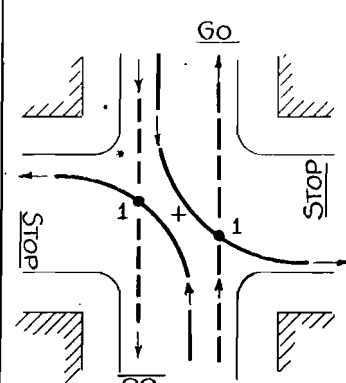
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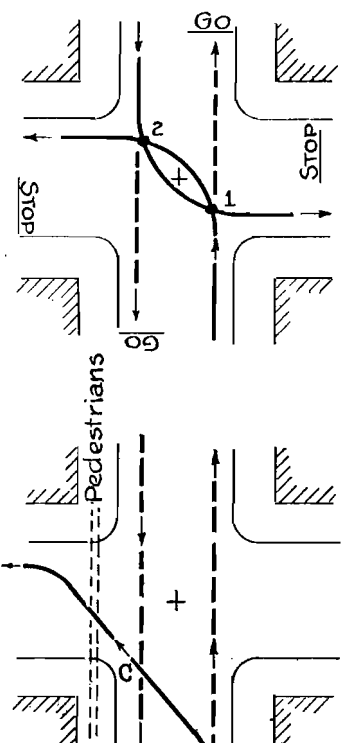
## LEFT TURNS

**Approved**



Motorists take position at left of lane and pass in front or left of center of intersection. In this way the left turns cross only the straight ahead traffic as shown at points 1.

**Not Approved**



When left turns are made behind or to right of intersection, motorists intercept left turns from opposite direction as at point 1 and also straight ahead traffic and left turns, as at point 2 from the same opposite direction.

A left turn, where a corner is "cut" as at C intersects straight ahead traffic at a dangerous angle and also approaches pedestrians from an unexpected direction.

Figure 5

traffic, as at Point 1. On the other hand, if the turn be made around or on the far side of the intersection, traffic is intercepted at *two* points. This is shown in the upper diagram of the section "Not Approved." One is at Point 1, where a crossing is made of traffic making a left turn from the opposing flow; the other is at Point 2, where straight ahead traffic and also left turns from the opposite direction are both crossed.

A further reason for passing closely to the intersection of the center lines is seen by inspection of the bottom diagram. If the corner is "cut" as at C the straight ahead traffic from the opposite direction is crossed at a sharp angle and pedestrians are approached from an unexpected direction. A vehicle making a right turn from the cross street meets such a movement without due warning.

Under special conditions, and where street widths will permit (if properly posted and regulated by a traffic signal device or police officer) it is recommended that left turns be made by requiring the driver to drive to the right of the intersection immediately adjacent to the left of the pedestrian cross-walk and to wait for the "go" signal for cross traffic before completing the turn. The driver then proceeds before the cross traffic starts. An illustration is given in Figure 6. This system has worked satisfactorily in Washington, D. C., and in Western cities and, where conditions permit, it should be adopted in New Jersey.

SPEED

If costly congestion is to be relieved, the flow of traffic must be rapid, but a rapid flow is extremely hazardous unless it can be smoothly operated with absolute safety at intersecting streets.

Many municipalities have installed signal devices that require a motorist to operate at eighteen to twenty miles an hour in order to derive the benefit of the system and assure safety from cross-street traffic, but still a twelve or fifteen-mile ordinance is kept in effect, encouraging and condoning traffic violations.

A check taken in one of the principal municipalities of the Street, where a twelve-mile speed limit was posted, showed that ninety-two per cent of the motorists violated the law with impunity.

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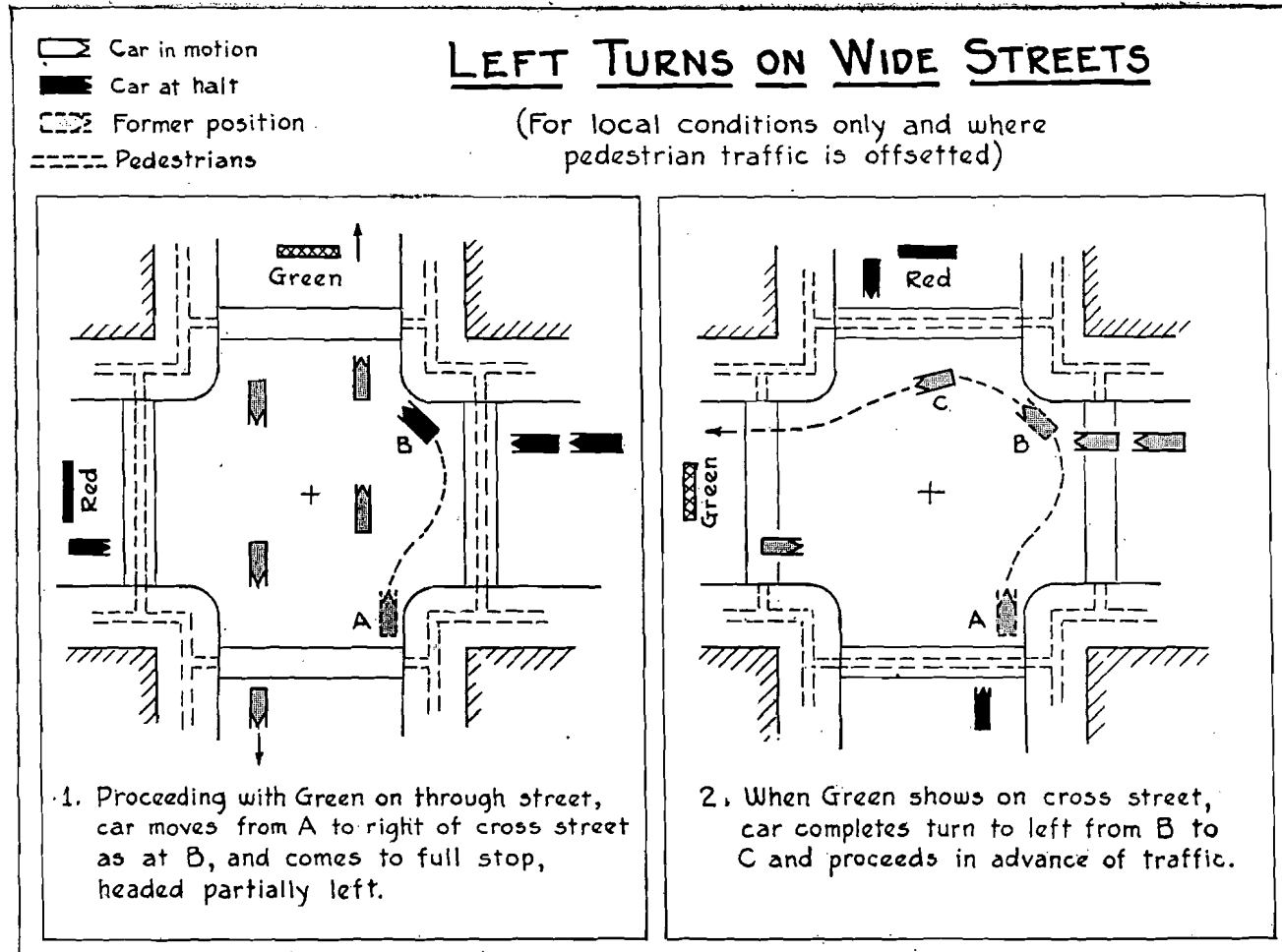


Figure 6

This question of speed and its consequences has been studied most carefully. The Commission has arrived at the conclusion that the present laws and ordinances relative to this subject are not in harmony with modern conditions; therefore it recommends the following speeds, which are in conformity with the conclusions of the National Conference on Street and Highway Safety, otherwise known as the "Hoover Conference":

(a) Any person driving a vehicle on a highway shall drive it at a careful and prudent speed, not greater than is reasonable and proper, having due regard to the traffic, surface and width of the highway and of any other conditions then existing, and no person shall drive any vehicle upon a highway at such a speed as to endanger the life, limb or the property of any person.

(b) Subject to the provisions of subdivision (a) and except in those instances where a lower speed is specified, it shall be prima facie lawful for the driver of the vehicle to drive at a speed not exceeding the following, but in any case when such speed would be unsafe, it shall not be lawful:

(1) Fifteen miles an hour when approaching within fifty feet of a grade crossing of any steam, electric or street railway when the driver's view is obstructed. A driver's view shall be deemed to be obstructed when at any time during the last two hundred feet of his approach to such crossing he does not have a clear and uninterrupted view of such railway crossing and of any traffic on such railway for a distance of four hundred feet in each direction from such crossing;

(2) Fifteen miles an hour when passing a school during school recess or while children are going to or leaving school during opening or closing hours;

(3) Fifteen miles an hour when approaching within fifty feet and in traversing an intersection of highways when the driver's view is obstructed. A driver's view shall be deemed to be obstructed when at any time during the last fifty feet of his approach to such intersection he does not have a clear and uninterrupted view of such intersection and of the traffic upon all of the

C and proceeds in advance of traffic.

as at B, and comes to full stop, headed partially left.

Figure 6

highways entering such intersection for a distance of two hundred feet from such intersection;

(4) Fifteen miles an hour in traversing or going around curves or traversing a grade upon a highway when the driver's view is obstructed within a distance of one hundred feet along such highway in the direction in which he is proceeding;

(5) Twenty miles an hour on any highway in a business district, when traffic on such highway is controlled at intersections by traffic officers or stop-and-go signals;

(6) Fifteen miles an hour on all other highways in a business district;

(7) Twenty miles an hour in a residence district;

(8) Thirty-five miles an hour under all other conditions.

It shall be prima facie unlawful for any person to exceed any of the foregoing speed limitations, except as provided in subdivision (c). In every charge of violation the complaint, also the summons or notice to appear, shall specify the speed at which the defendant is alleged to have driven, also the speed which this section declares shall be prima facie lawful at the time and place of such alleged violation.

(c) It is recommended that local authorities in their respective jurisdictions be authorized in their discretion to increase the speed which shall be prima facie lawful upon through highways at the entrances to which vehicles are by ordinance of such local authorities required to stop before entering or crossing such through highways. Local authorities shall place and maintain upon all through highways upon which the permissible speed is increased, adequate signs giving notice of such special regulations and shall also place and maintain upon each and every highway intersecting any said through highway appropriate stop signs.

PART III

PHYSICAL DETAILS OF SIGNALS

LENSES

A vertical arrangement of the lenses is preferred, as follows :

<b>Red</b>	at top.
<b>Amber</b>	in middle.
<b>Green</b>	at bottom.

When it is necessary to place the lights horizontally the order of the lenses should be

<b>Red</b>	at left.
<b>Amber</b>	in middle.
<b>Green</b>	at right.

The lenses are to be circular with an outside diameter of at least eight inches. An illustration of their arrangement is given in Figure 7.

Each lens is to have a separate light in a separate compartment with separate reflector and separate visor. The light is to be of such power, the lens and reflector of such design, and the visor so placed as to exclude phantom light and cause the signal to be visible for at least 300 feet under all conditions.

LOCATION OF SIGNALS

All traffic control signals should be so located that lights are plainly visible to all traffic to be regulated. This can best be accomplished by

- (a) One or two-way signal lights on four corners.
- (b) Four-way signal light on mast arm suspension over intersection.
- (c) Two or four-way signal light on mast arms on diagonal corners. This is recommended to a lesser extent than (a) and (b).

Poles carrying signal supports should be so placed as to be out of the pedestrian lanes.

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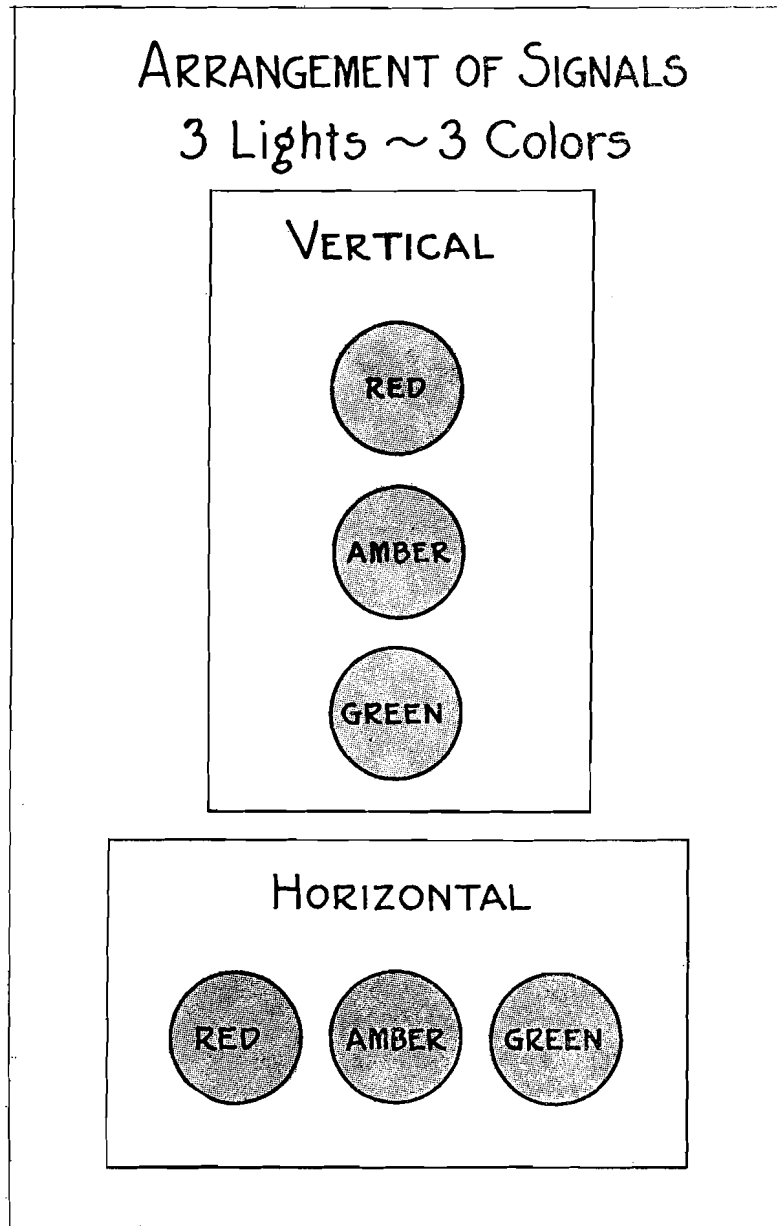


Figure 7

NEW JERSEY STATE TRAFFIC COMMISSION. 31

Whatever location is selected it should be standardized throughout each municipality and adjoining municipalities.

Each intersection on a continuously controlled thoroughfare should be controlled by signals or by suitable signs.

The Commission does not approve of the location of signals where they obstruct the paved width of the highway. It is fully aware that expensive and serviceable installations are now so placed. Since it would be manifestly unjust to require their early removal, the Commission recommends that no change be mandatory for at least three years but that, in the meantime, and as speedily as possible, they be replaced by devices located at the corners where they are off the paved highway or else suspended overhead.

HEIGHT OF SIGNALS

All traffic control signals should be placed at such height as to be plainly visible to approaching traffic at a distance of fifty feet from the intersection. Heights of eight to ten feet have been found satisfactory if the signal is within the curb line. If on bracket or mast arm suspension, a signal should clear the pavement by approximately fourteen feet.

CONTROL OF SIGNALS

The regular standard control should be provided with means of breaking the system into small units for emergency operation. This should be only supplemental to other methods of control and for special purposes such as fire runs.

TIMING OF SIGNALS

The period or cycle should be based on counts of turning and through traffic, study of turns, study of special intersections, distance between intersections, speeds of various classes of vehicles, and speed limits permitted, street car schedules, number of traffic lanes and capacity, and special intersections or obstructions. The green and amber lights should be shown for a sufficient time to clear the intersection. Changes in the time intervals should be made in both the rush hour and the light traffic period

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to insure a continuous even flow of traffic throughout the day. Timers should therefore be susceptible of adjustment through wide variation of intervals both of permitted movement and change periods. The operation of control signals at times when the volume of traffic is too light to justify such operation should be carefully avoided. In such cases the signals should only be operated during those hours when the traffic is sufficient to warrant it, and at all other times it should show by means of an illuminated indication (preferably a flashing amber light) that the signal is not in operation.

FIRE SIGNALS

Signal devices should be devised to flash red in all directions in the event of fire or other emergency. (See above "Control of Signals.")

USE OF SIGNAL COLORS FOR OTHER PURPOSES

The fundamental principle that red is a stop or danger signal should be adhered to rigidly. Consequently, all red lights on highways, such as those now found on safety isles, on police and fire alarm boxes, and on advertising signs, but excepting temporary warning lanterns, should be modified in some way, as for example, by another distinctive color, or by stripes, in order to promote certainty of indication.

The same principle applies to green and amber lights which could be mistaken for traffic signals.

WARNINGS AND TURNING INSTRUCTIONS

We recommend the use of such legends as "Stop," "Go," "Walk," "Right Turn Only," "Left Turn Only," "Turn Left or Right," or of arrows indicating direction of turns, etc., in connection with signal devices. They assist a confused motorist and are of aid to the color-blind.

It has been proposed to us that only positive and not negative warnings be used. We agree with this proposition in principle, but not in detail. For instance, the expression "Right Turn" or "Turn Right" might be construed as compulsory in a case where

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NEW JERSEY STATE TRAFFIC COMMISSION. 33

permissibility only was intended. The proper terminology, while apparently an insignificant detail, merits careful consideration and supervision by central authority.

The turning in front or behind of a beacon should be definitely indicated by a visible instruction, such as "Turn in Front" or "Turn in Rear." We favor turning in front. The warning "Keep Right" is subject to misinterpretation. The location of beacons on the paved highway is not approved as will be noted under a preceding caption "Location of Signals."

TRAFFIC OFFICERS

The hand signals made by traffic officers should be under a central supervision, preferably of some constituted organization of the various police or traffic departments.

The uniform, including gloves, of traffic officers, should be readily distinguishable by night and day.

ROADSIDE ADVERTISING

Advertising signs along or near a highway and bearing a warning to stop, either by printed word, representation of a signal, or of a traffic officer, should be prohibited.

The only signs which should be permitted within the right of way lines of a highway are those pertaining to traffic, or maintenance, or other matters of governmental control. A reasonable attitude, however, should be maintained in regard to banners or displays for patriotic or civic purposes.

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## PART IV

### SIGNS AND PAVEMENT MARKINGS

The Commission has made an extensive study of signs throughout the State and finds no standardization. It is important that signs used for a specific purpose conform to an established specification, so as to be uniform throughout the State, and it is advisable that this uniformity be sought in the specifications recommended by the Committee on Street Signs, Signals and Pavement Markers of the American Engineering Council.

If a uniform system of signs is adopted in the State of New Jersey, it may readily be assumed that other states will find it advantageous to follow suit, in which case uniformity in this particular respect, at least, may be realized speedily. The Commission would like to call attention to one outstanding characteristic of the signs recommended by the Committee on Street Signs, Signals and Pavement Markers, which is that each type of sign has its own particular shape, form and design, which renders it the more easily discernible. The importance of this is that there are, unfortunately, motorists who are illiterate and who cannot decipher printed instructions, warnings, or directional information. In addition, there are others who, because of defects in vision, cannot read the signs at an advantageous distance.

Illustrations of standard signs, representative of the intent of the Commission's specifications, are given on the following pages in a series of plates. They were furnished by courtesy of the U. S. Bureau of Public Roads.

#### GENERAL RECOMMENDATIONS ON SIGNS

##### **Maintenance**

Signs should be maintained continuously in good order and clear legibility by

- (a) Use of enamel signs.
- (b) Painting according to specifications.
- (c) Self illumination to be provided wherever possible.

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- (d) So placing signs not self-illuminated that they will be suitably illuminated by street lights or head lights.
- (e) Prompt replacement of broken or defaced signs and cleaning as required.

### Shape

The shape of signs is to conform to the following recommended uniform practice:

- (a) Stop signs to be octagonal.
- (b) Railroad grade crossing signs are to be circular.
- (c) Slow signs indicating conditions inherent in the street and requiring caution are to be diamond shaped.
- (d) Caution signs due to conditions adjacent to the street are to be square shaped.
- (e) One-way and detour signs are to be arrow shaped.
- (f) Direction, information and restriction signs for the benefit of the driver are to be rectangular.

### Color

The colors of signs are recommended as follows:

- (a) Railroad crossing—Yellow with Black letters.
- (b) Stop—Yellow with Red Letters.
- (c) Slow—Yellow with Black letters.
- (d) Caution—Yellow with Black letters.
- (e) One-way and Detour—White with Black letters.
- (f) Direction and Information—White with Black letters.
- (g) Restriction, No Parking—Orange with White letters.  
“ Limited Parking—Green with White letters.

### Material

Specifications for material, fabrication and finish, as proposed by the Joint Board on Interstate Highways and the U. S. Bureau of Standards are recommended for all city signs. Signs should follow the dimensions recommended for the various signs. These signs have been developed with the objective of carrying the fewest possible simple words, so arranged as to convey a complete message as vehicles pass at legal speeds.

Sharp corners and edges of all signs should be rounded slightly for safety.

### **Location and Height**

All signs are to be located as nearly as possible at the point where the message is to be obeyed, except as otherwise specially recommended.

Signs carrying reflectors are to be mounted so that reflecting element is not over 3 feet above such level. Other stop, slow or caution signs should be mounted at about the same height. Direction and detour signs if mounted on movable stands should be not over 4 feet in height and if mounted on stationary poles should be not over 8 feet in height.

Suggestions for the location of signs are given in Figures 16 to 23 inclusive.

## INDIVIDUAL SIGN RECOMMENDATIONS

### *Stop Signs*

All stop signs are to be octagonal, 18 by 18 inches outside, with the word "Stop" in four and one-half to five-inch letters through the horizontal center of the octagon. Upper and lower brackets are to carry messages as indicated below. All stop signs are to be clearly visible at all times at a distance of 150 feet. (Figure 8.)

#### **Full Stop Street**

Use stop sign with word "Street" inserted in the bracket below the word "Stop." This sign should be used only where full stop streets are established.

#### **Dead End Street**

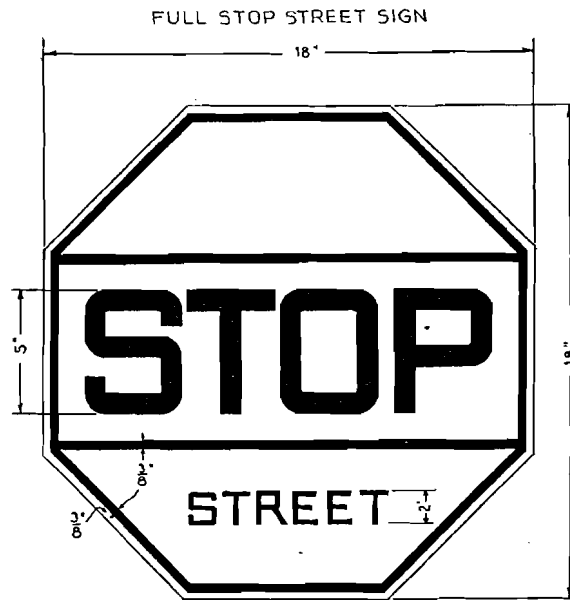
Use stop sign with words "Street" and "End" in the brackets above and below the words "Stop." This should be used only where this street ends with no outlet and should not be used at the end of "T" or "L" streets.

#### **No Traffic Zone**

Use stop sign with the word "No" inserted in the bracket above and the word "Traffic" in the bracket below the word "Stop." To be placed as conditions require according to city ordinance.

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STOP SIGNS  
OCTAGON 18"x18" OUTSIDE



NOTE: STOP SERIES

- 1 FULL STOP STREET - WORD "STREET" BELOW.
  - 2 DEAD END STREET - WORD "STREET" ABOVE, "END" BELOW
  - 3 NO TRAFFIC ZONE - WORD "NO" ABOVE, "TRAFFIC" BELOW
- ALL STOP SIGNS TO HAVE YELLOW BACKGROUND

Figure 8

*Railroad Signs*

**Railroad Crossing**

Signs to be 24 inches outside diameter, with yellow background divided into quadrants by horizontal and vertical lines 2½ inches wide with black letters. "R R" six inches high placed in upper quadrants of circle. Sign should be placed within one hundred feet of the railroad crossing and is to be self-illuminated. (This is the standard railroad warning sign, adopted as U. S. Standard

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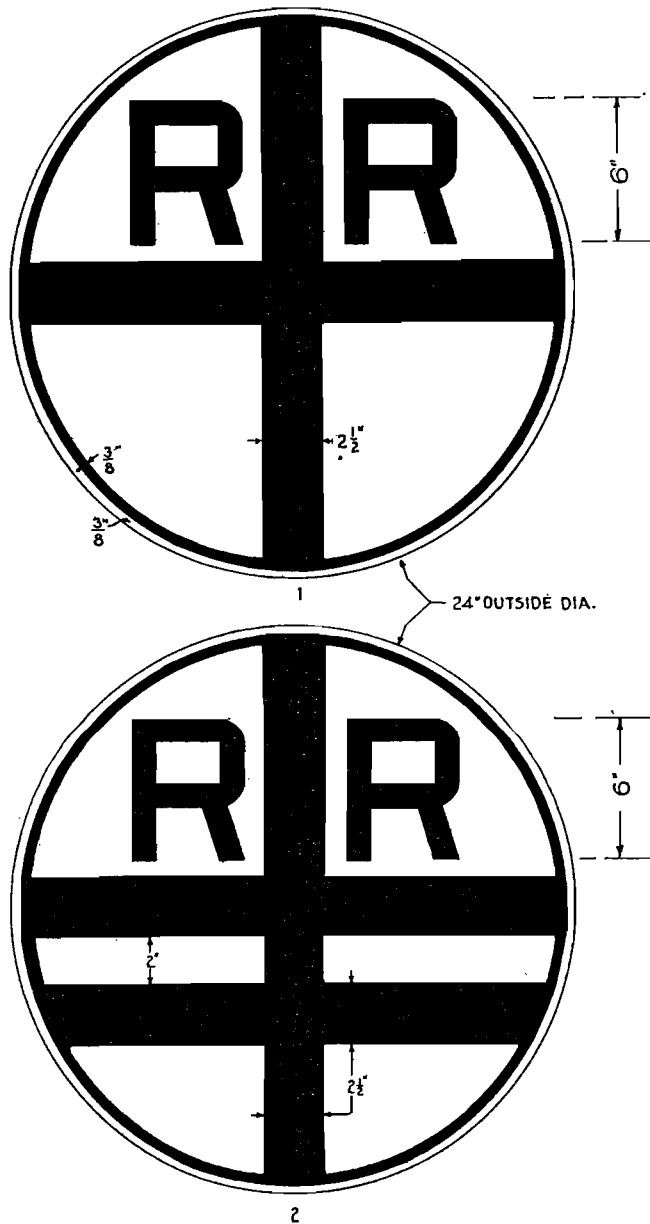
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38 NEW JERSEY STATE TRAFFIC COMMISSION.  
by American Association of State Highway Officials and should  
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Figure 9

RAILROAD SIGNS



NOTE: ALL RAILROAD SIGNS TO HAVE A YELLOW BACKGROUND

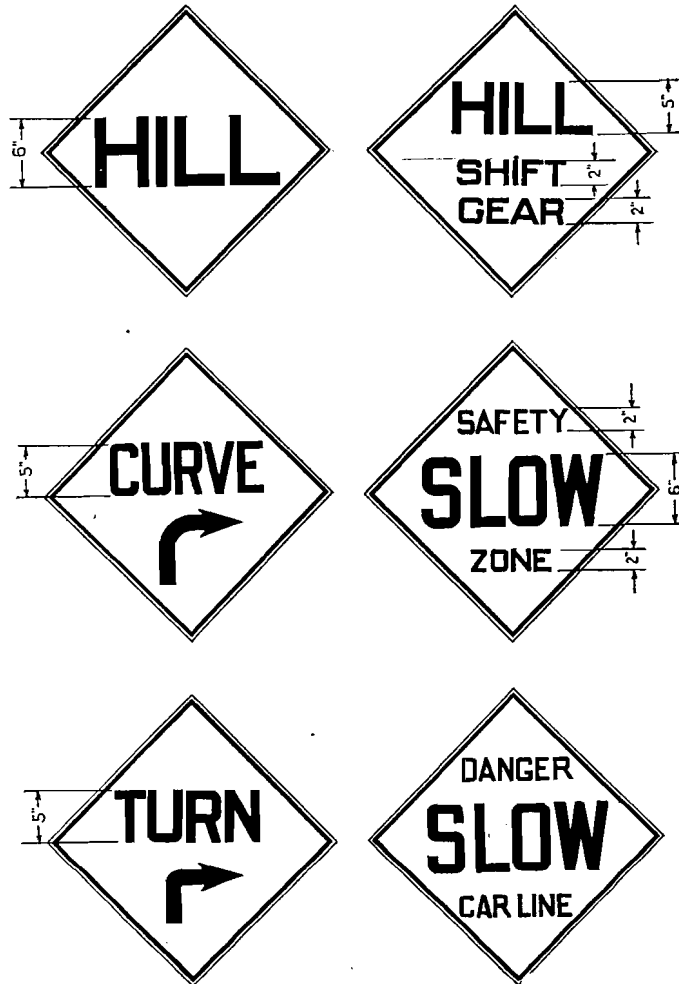
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*Slow Signs*

Signs to be 18 inches by 18 inches, used in the form of a diamond with the word "Slow" in 4-inch to 6-inch letters across the horizontal center of the diamond. All "Slow" signs to be clearly visible at all times at a distance of 100 feet. (Figures 10 and 11.)

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SLOW SIGNS  
18"x18"



NOTE: ALL SLOW SIGNS TO HAVE YELLOW BACKGROUND

Figure 10

SLOW SIGNS

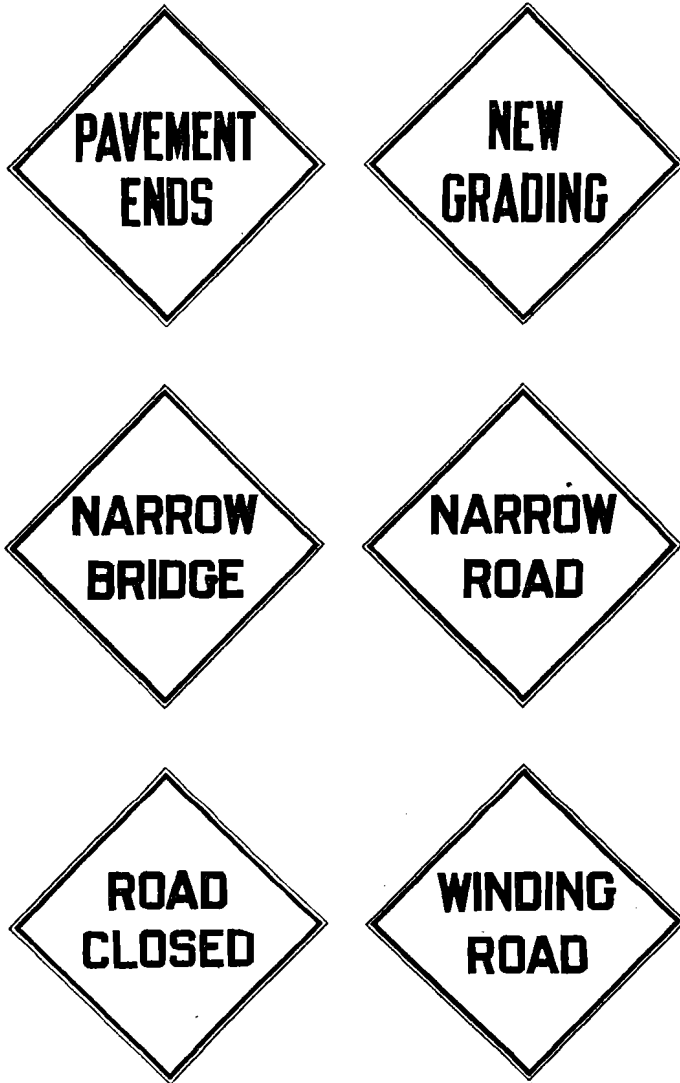


Figure 11

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### **Street Car Zones**

The words "Safety" and "Zone" to be respectively above and below the word "Slow" in two-inch letters. Signs to be placed at the end of the zone from which traffic approaches and at least two such signs along the side away from the car track if the zone is not raised. If loading zone is longer than 50 feet additional signs should be used.

### **Street Car Crossings**

Use slow sign with the words "Danger" and "Car Line" above and below the word "Slow" respectively. If the crossing is extremely dangerous it may be advisable to use a standard stop sign at this point.

### **Safety Islands**

Signs, lettering and placement to be the same as for street car zones given above.

### **Hill**

Use slow sign with the word "Hill" in 6-inch letters placed in horizontal center of the diamond. Sign should be placed at approximately 50 feet in front of the point where the grade begins. It should be shown on all grades of 6 per cent or more if longer than 300 feet.

### **Curves**

Use slow sign with the word "Curve" in 5-inch letters placed slightly above the horizontal center, with a bent arrow indicating the direction of the curve below it. Sign should be placed at 50 feet from beginning of curves having radii up to 600 feet, depending on speed permitted on approach.

### **Dangerous Intersections**

Use slow sign with "Dangerous" and "Intersection" placed above and below the word "Slow." This sign should be used rather than the "stop" signs where great danger does not exist.

### **Special Slow Signs**

"Bridge Caution," "Narrow Road," "Street Under Repair," etc., where required for special purposes should be the regular

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diamond slow sign with letters of suitable size to carry the message.

*Caution Signs*

Signs to be 18 inches used as a square with word "Caution" across the horizontal center in 4-inch letters. All "Caution" signs to be clearly visible at all times at a distance of 100 feet. (Figure 12.)

CAUTION SIGNS  
18" x 18"

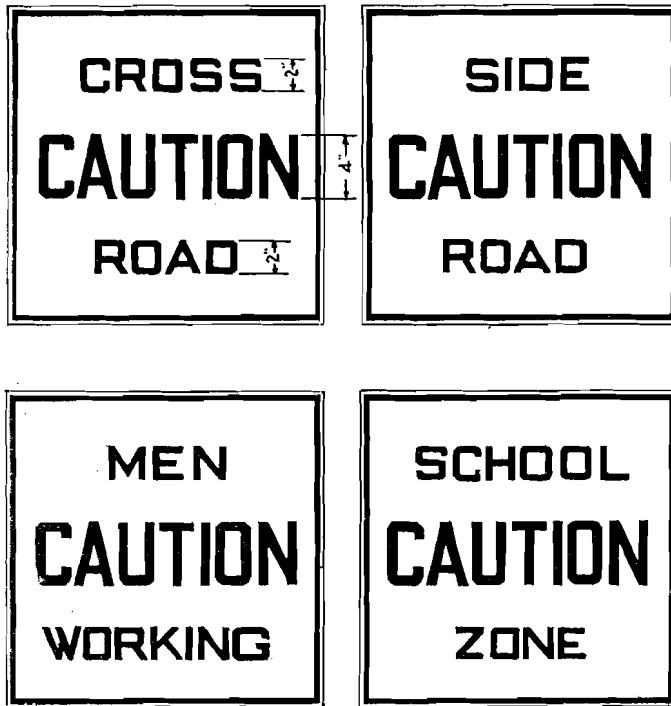


Figure 12

**School Zones**

Use the caution sign with the words "School" and "Zone" respectively, above and below the word "Caution." They should be placed at the beginning of the zone.

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**Playground Zones**

Use the caution sign with the word "Play" at the top, "Ground" below the word "Caution." Variations in the wording of this sign may be used to indicate "Play Street Closed." Signs should be placed at each end of the block where the playground is located.

**Caution Intersections**

Use "Caution" sign with words "Cross" and "Roads" above and below the word "Caution." This sign is to be used where warning is required only in minor degree.

ONE WAY SIGNS

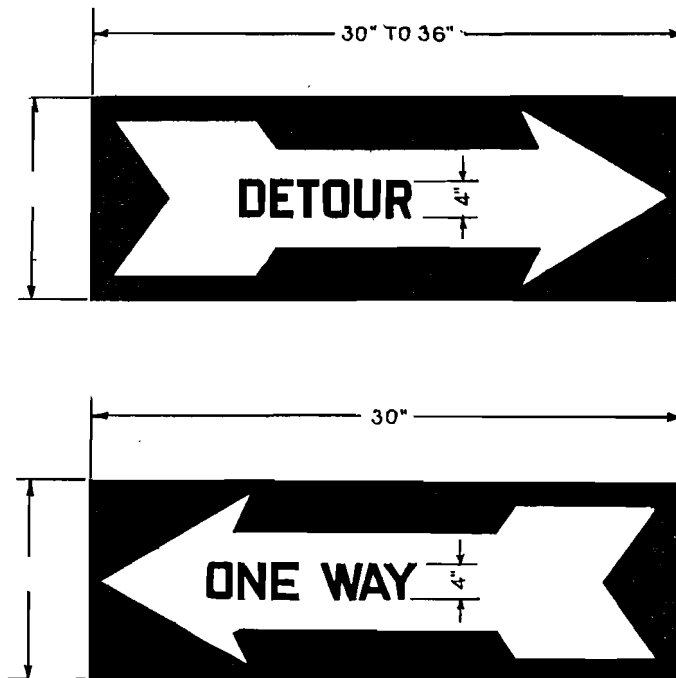


Figure 13

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*One-way Signs*

**One Way**

Sign to be an arrow 30 inches long and 6 inches wide with the words "One Way" written on the face of the arrow in 4-inch letters. A rectangular plate 36 inches long by 8 inches wide should be used, the arrow to be painted on a black background in white, the letters to be in black. If a cutout arrow is used as an alternate it should be larger to insure visibility. These markings should be placed not over fifteen feet from the entrance to the street which it controls. (Figure 13.)

**Detour**

Sign to be an arrow 24 inches long and 6 inches wide with the word "Detour" in letters 4 inches high. If it is desired to place additional information on this sign it should be lengthened accordingly. The sign should be placed at the point where the detour begins and at points where question may arise as to the street which it controls. (Figure 13.)

*Direction and Restriction Signs*

Direction and restriction signs are to be made so that one dimension will be a multiple of 6 inches. This will promote uniformity in the signs, and will permit of the most economical use of material going into sign construction. These signs should be so placed as to be either well illuminated by street lights or carry lights of their own. (Figures 14 and 15.)

**Speed Limit Signs—General**

Signs to be 24 by 30 inches, with words "Speed Limit" in letters 4 inches high, the numeral to be in figures 6 inches high, and the word "miles" to be in small letters at the bottom of the sign. Signs should be placed at the point where the limit starts.

**Drive to Right**

Signs to be 12 by 18 inches, with words "Keep to Right" in letters approximately four inches high. Signs to be placed at the point where the message is to be obeyed.

DIRECTION AND RESTRICTION SIGNS

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Figure 14

**No Right or Left Turn**

Sign to be 12 by 18 inches, and to carry wording "No Right or Left Turn" or "No Left Turn" or "No Right Turn," as may be required. Words to carry the instructions to be four inches high. Signs should be placed at the point where turn is prohibited.

**No Through Street**

Signs to be 12 by 18 inches and to carry wording "No Through Street." Height of letters to be four inches. Signs should be placed at the corner of street entrance.

**No Parking**

Signs to be square, 18 inches on a side. Largest letter to be three inches in height and letters for explanatory words to be from one to two inches in height, depending upon the number of words used. Signs should be placed at the point where the message is to be obeyed, and at least four to be placed in each regulation city block if no parking is permitted in such block.

**Time Limit Parking**

Signs to be same as for "No Parking" sign, the words "Parking Limit" to appear in large letters and the rest of the message in the smaller size letters. The signs should be placed at the point where the message is to be obeyed.

**Loading Zones**

Use "No Parking" sign described above with additional explanation desired to fill special requirements increasing the height dimension if necessary to get the entire message on. Signs should be placed at the point where message is to be obeyed.

**Street Intersections**

Use regular "No Parking" signs near street intersection with additional message "Here to Corner" or "... feet from corner" in small sized letters. Signs should be placed at the location where message is to be obeyed.

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### Quiet Zones

Signs to be 18 by 18 inches, with words "Hospital Quiet" in 6-inch letters on two lines. If additional words are used they should be in 2-inch letters at the bottom of the sign. Signs should be placed at least 100 feet from the corner line of the hospital or other zone which it is desired to protect.

### Jay Walking

Where this design is desired it should be rectangular, 12 by 18 inches, and high enough to carry the message desired.

### Routes and Distances

Signs to be 24 inches long and 18 inches wide or more (to be of such dimension as to carry the message required). Below the message an arrow about 18 inches long should be placed to indicate the direction desired. (Figure 15.)

### Fire House Zones

Sign to be 18 by 18 inches, with words "No Parking" in letters 4 inches high and the word "Fire House" underneath in letters 3 inches high. The sign to be the same height and proportion as regular "No Parking" signs. Signs should be placed at the point where the restricted parking for the protection of fire houses is necessary.

### Fire Hydrants

Use "No Parking" signs with words "No Parking" same as above sign and additional message placed below. Extend height of sign if additional space is needed. The sign may be placed at the fire hydrant and limits indicated marked on curb, if longer limit than 10 feet is required.

### Special and Miscellaneous Restriction and Instruction Signs

"Emergency," "No Trucking," "No Loitering," "Taxi Stand," "Bus Stand," and other restriction signs where required for special purposes should conform to general specifications for these signs. Such signs should not be used if any of the above signs will cover the requirement.

**Note.**—The above recommended Standard signs are intended for use in cities. County and municipal authorities may increase the size of these signs by 25 per cent. in suburban and rural sections.

DIRECTION AND RESTRICTION SIGNS

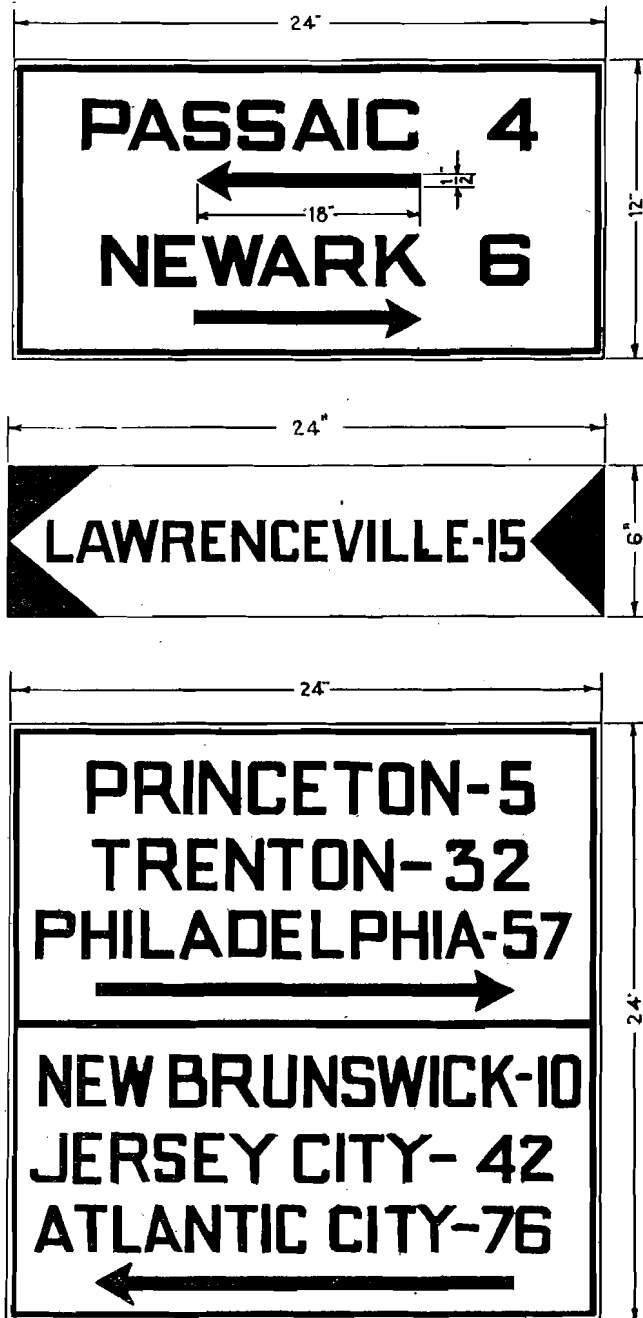
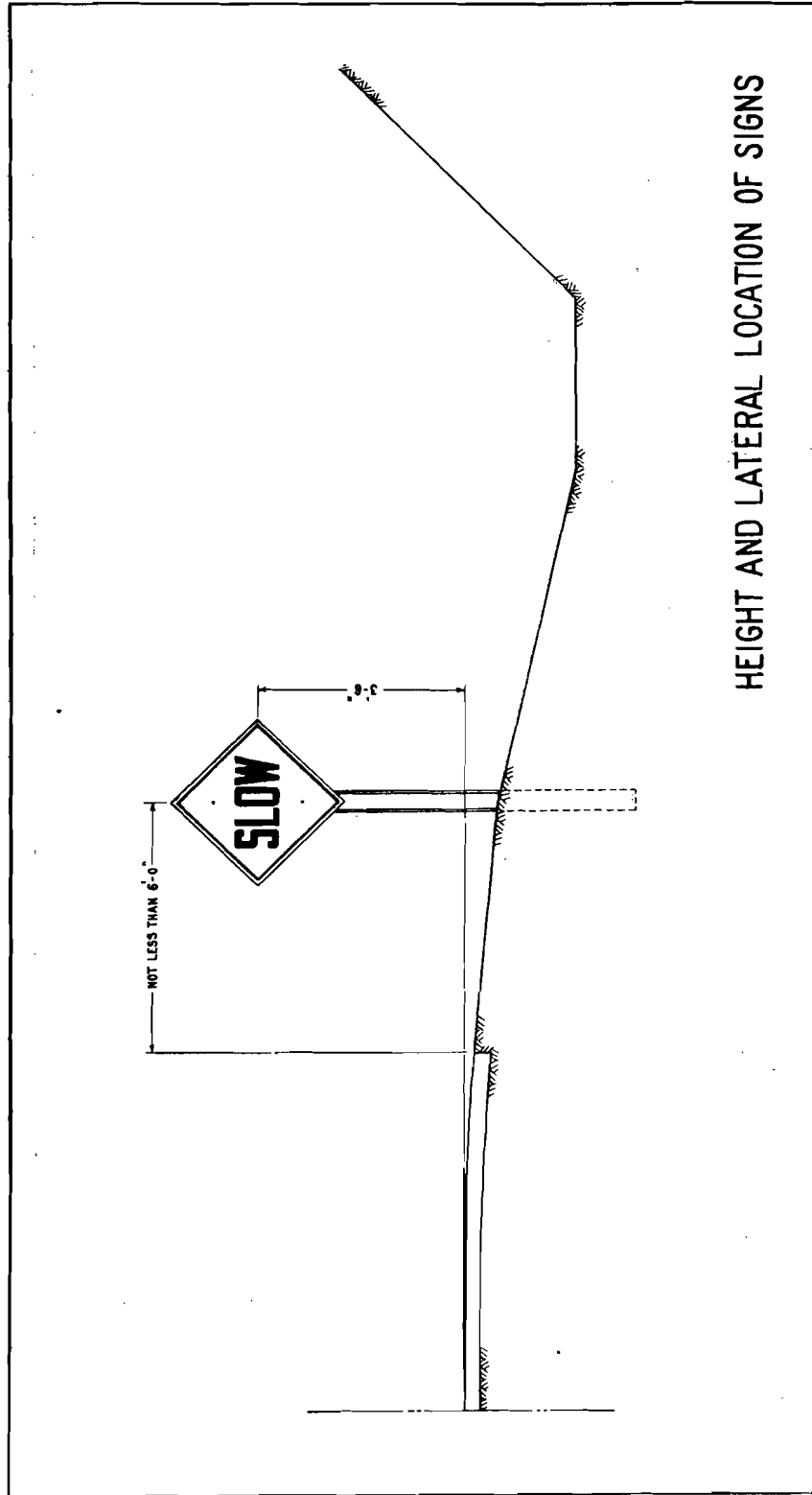


Figure 16

24' 6" 12" 6"



HEIGHT AND LATERAL LOCATION OF SIGNS

Figure 16

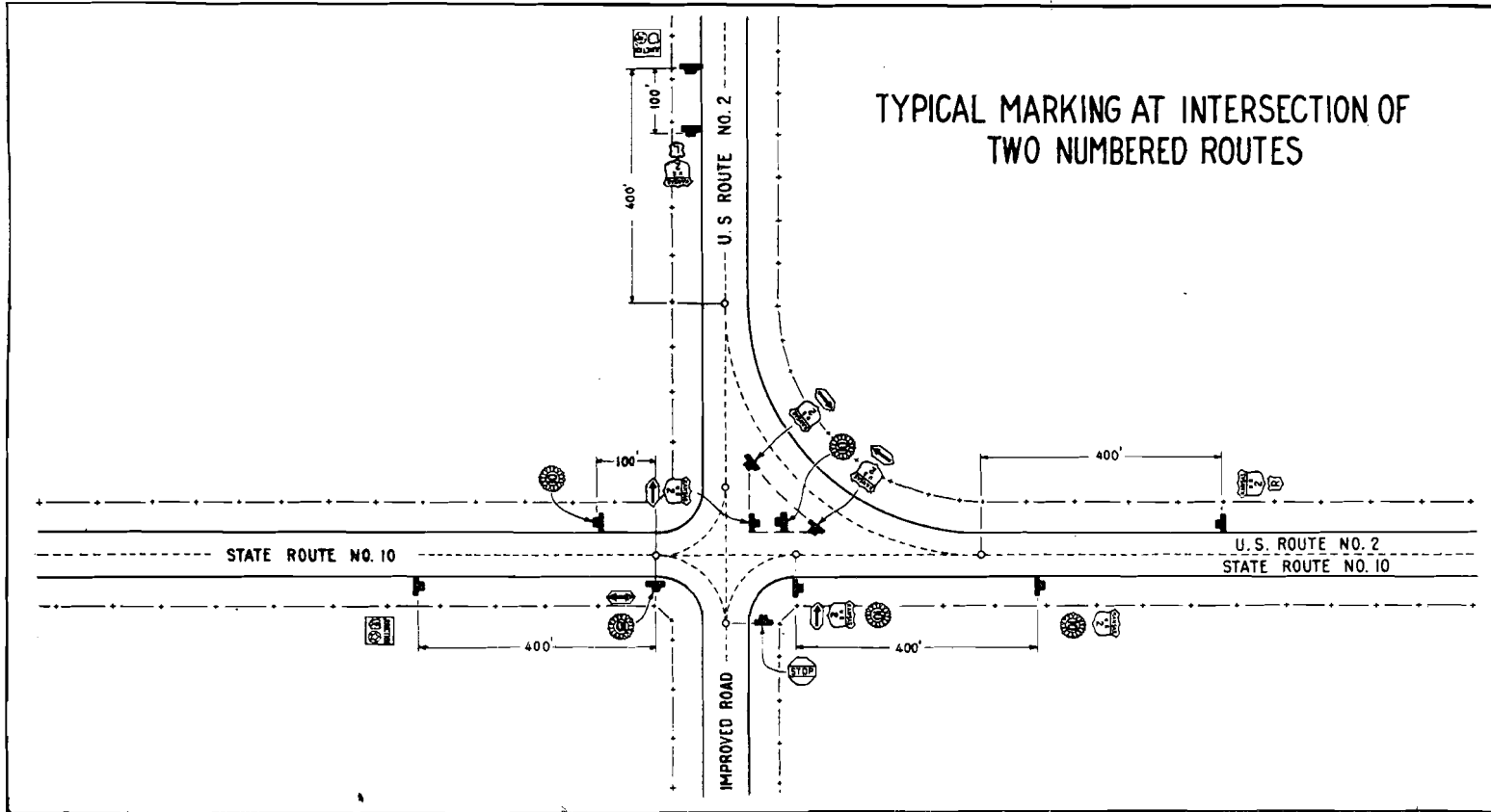


Figure 17

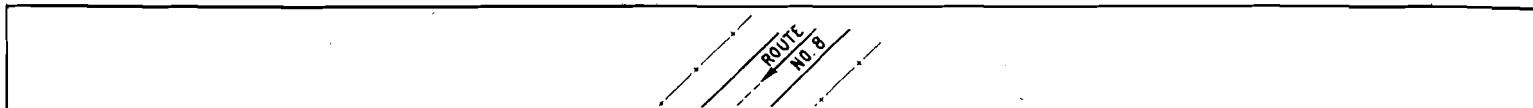


Figure 17

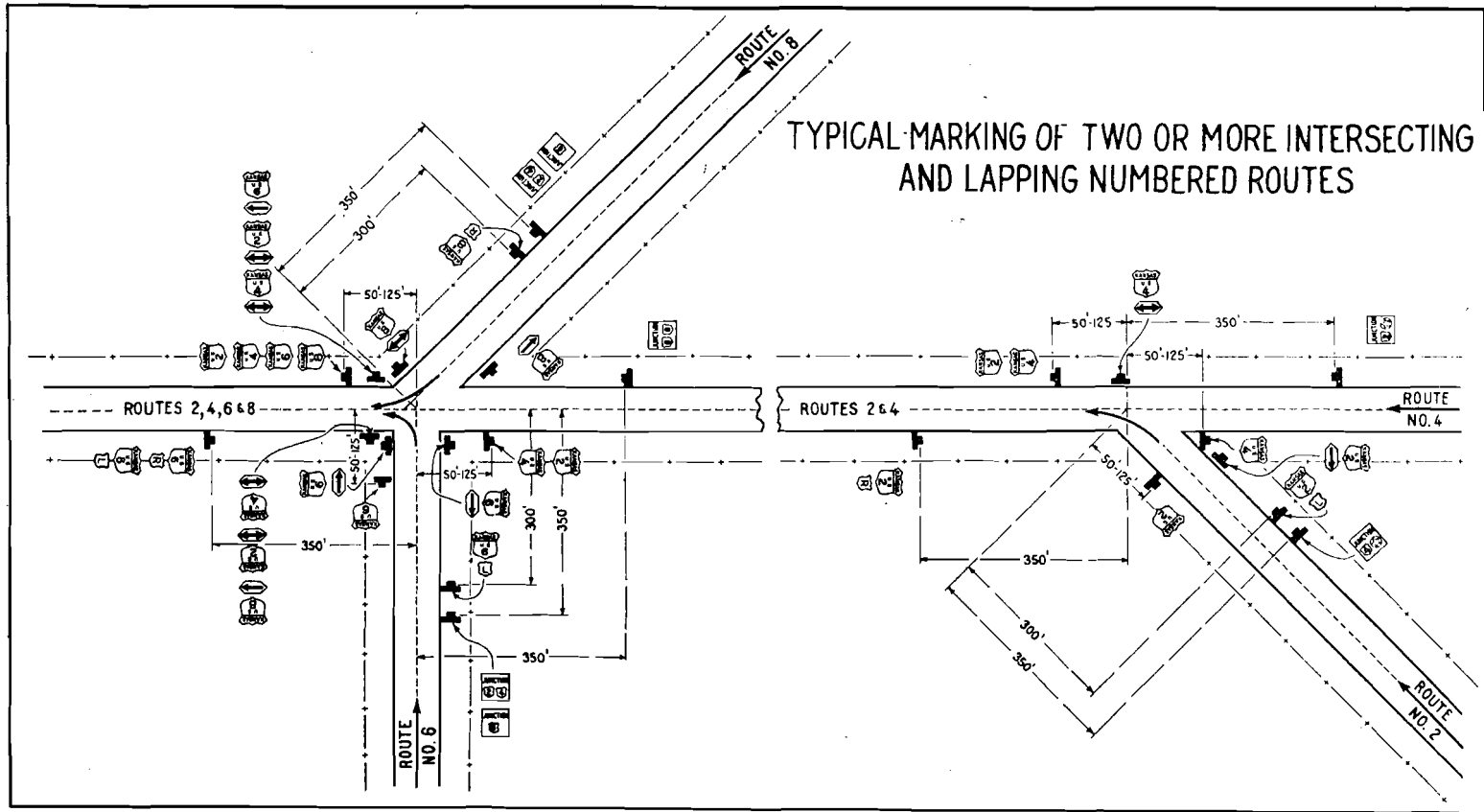


Figure 18

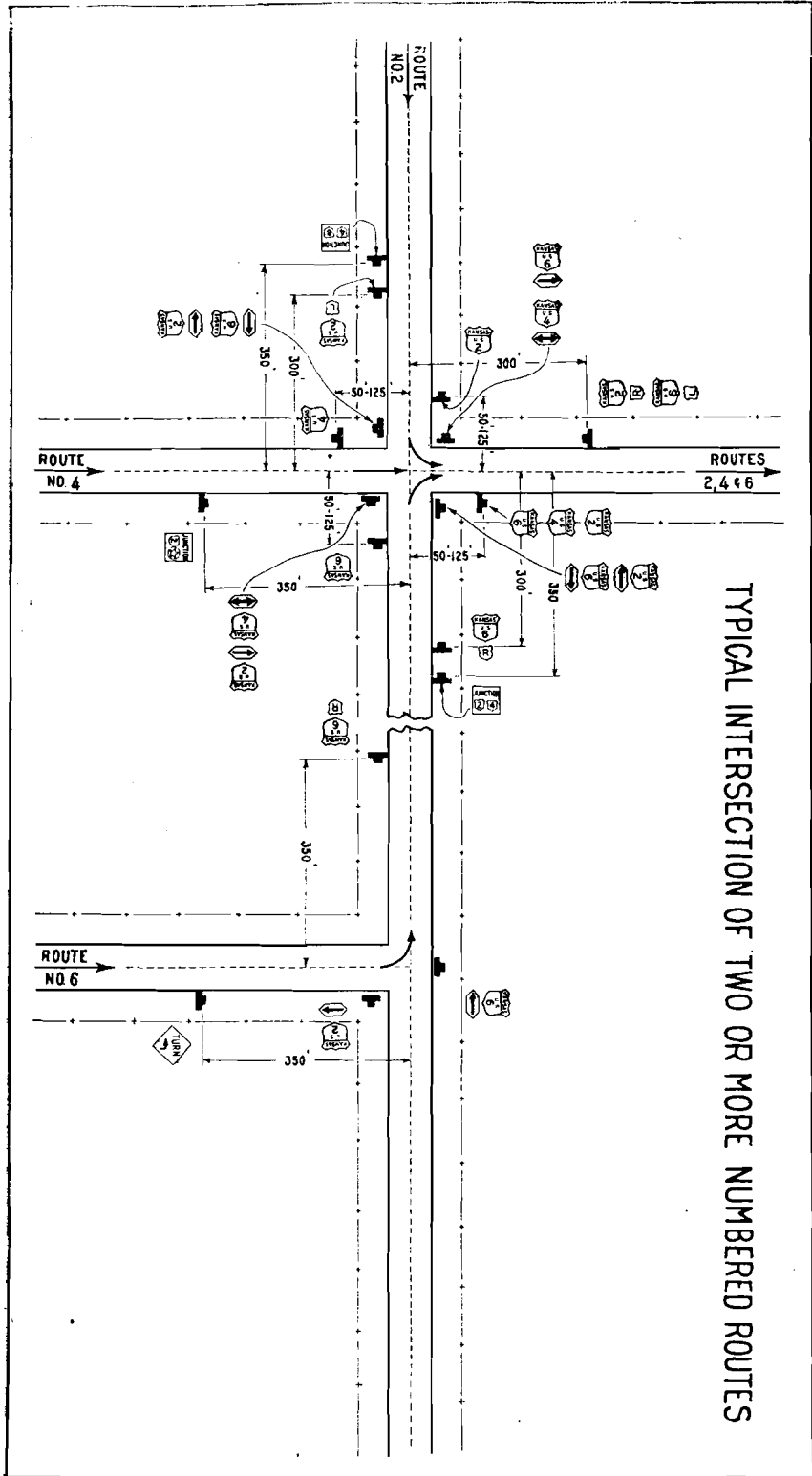


Figure 19

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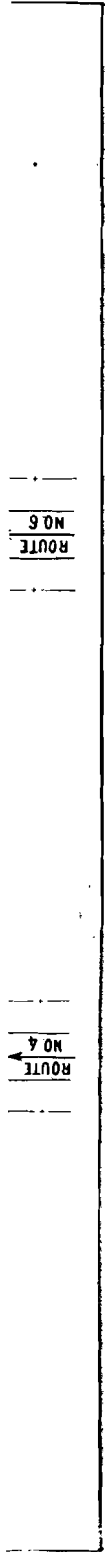


Figure 19

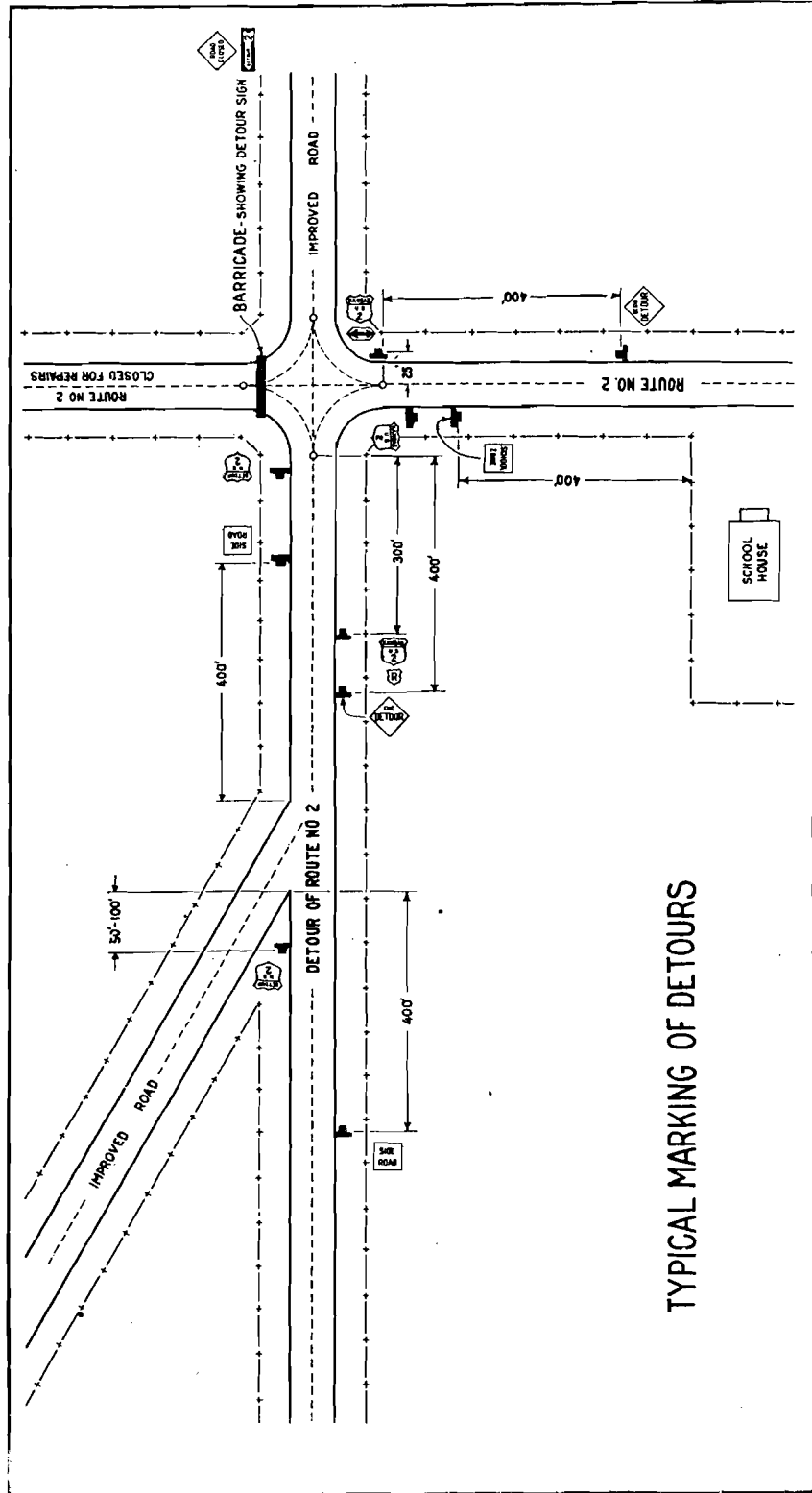
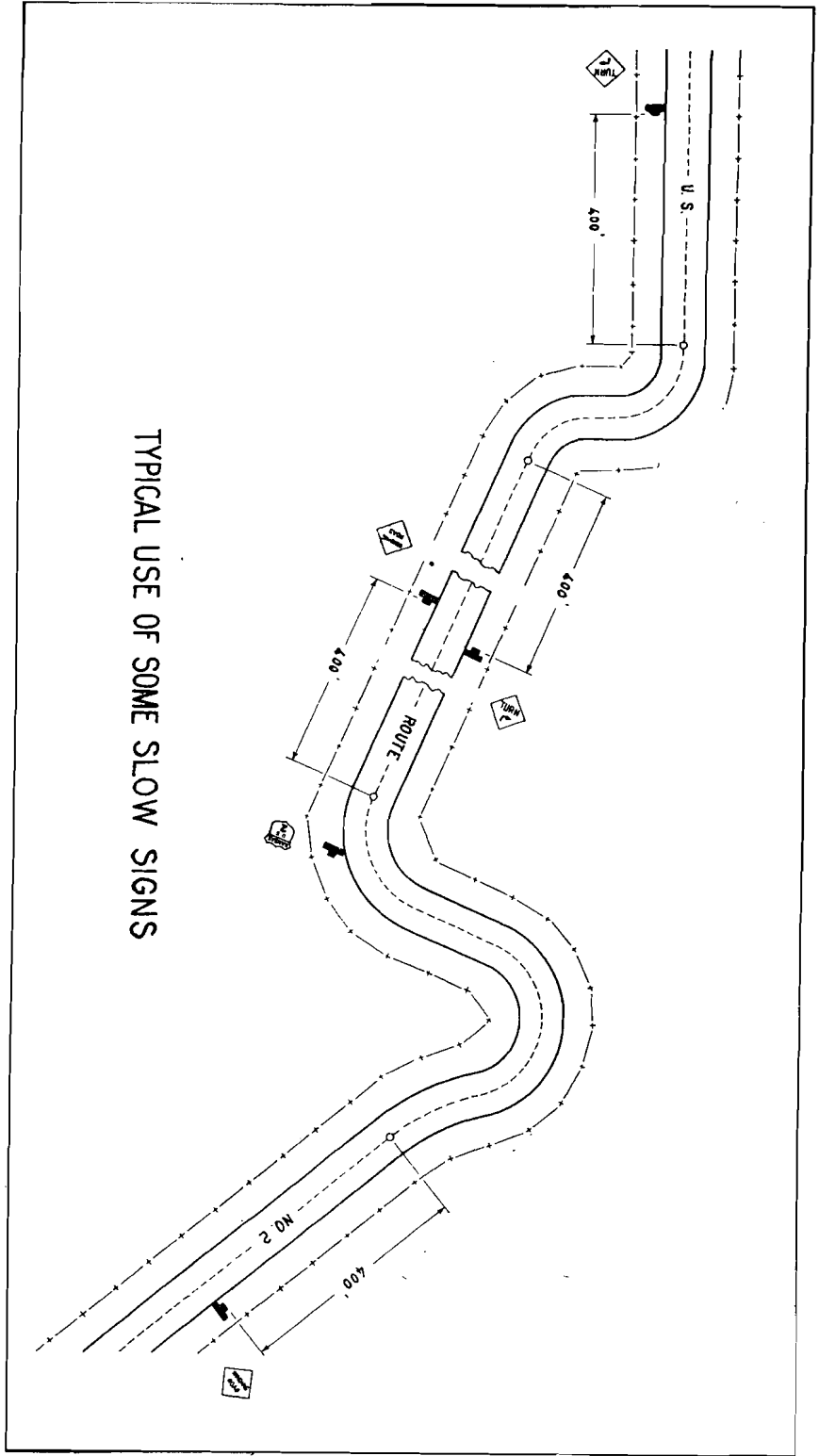


Figure 20



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Figure 21

TYPICAL USE OF SOME SLOW SIGNS

SUGGESTED DESIGN FOR SLAT GUIDE SIGNS WITH BRACKETS FOR MOUNTING ON POSTS



Figure 21

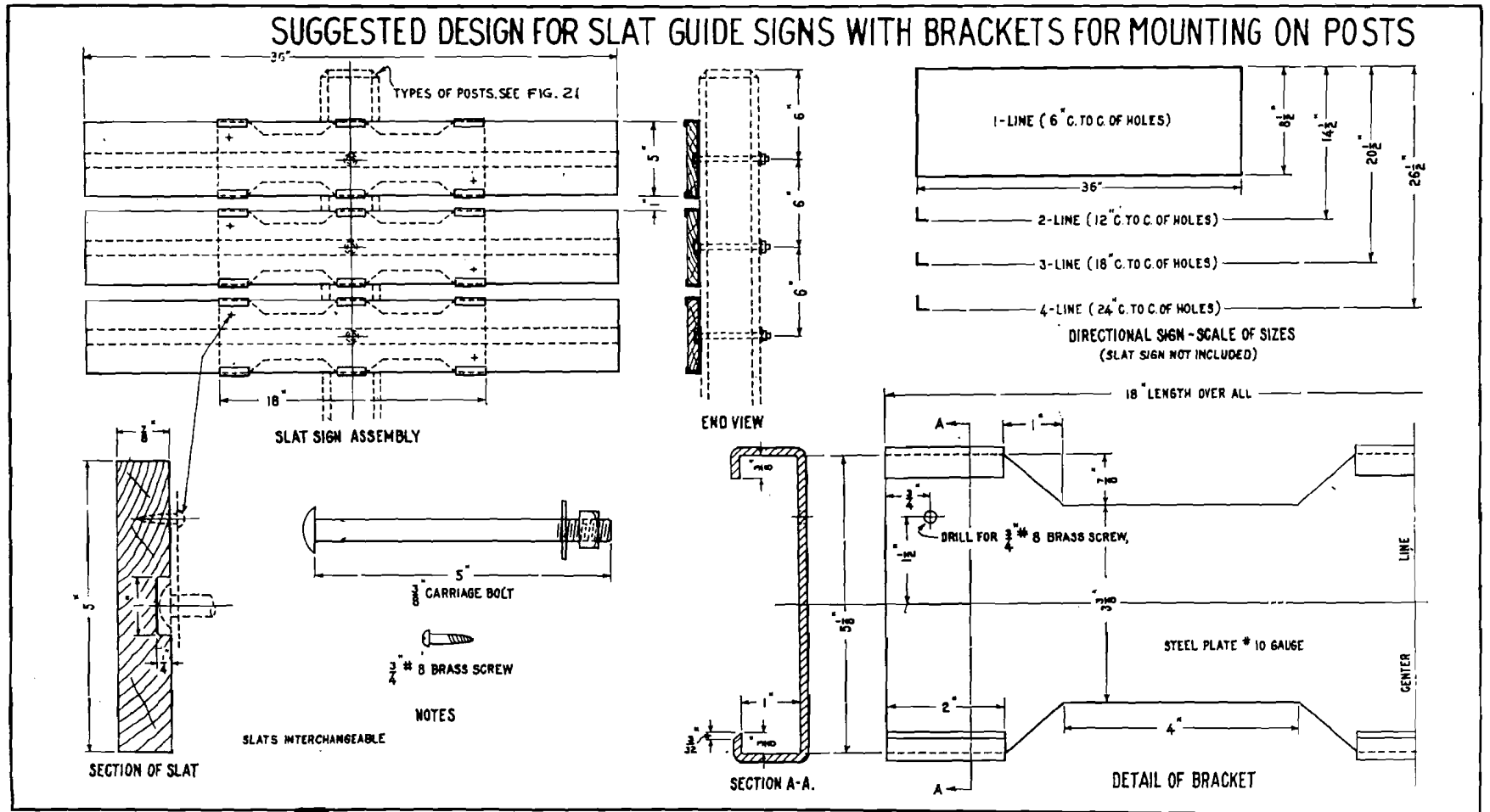


Figure 22

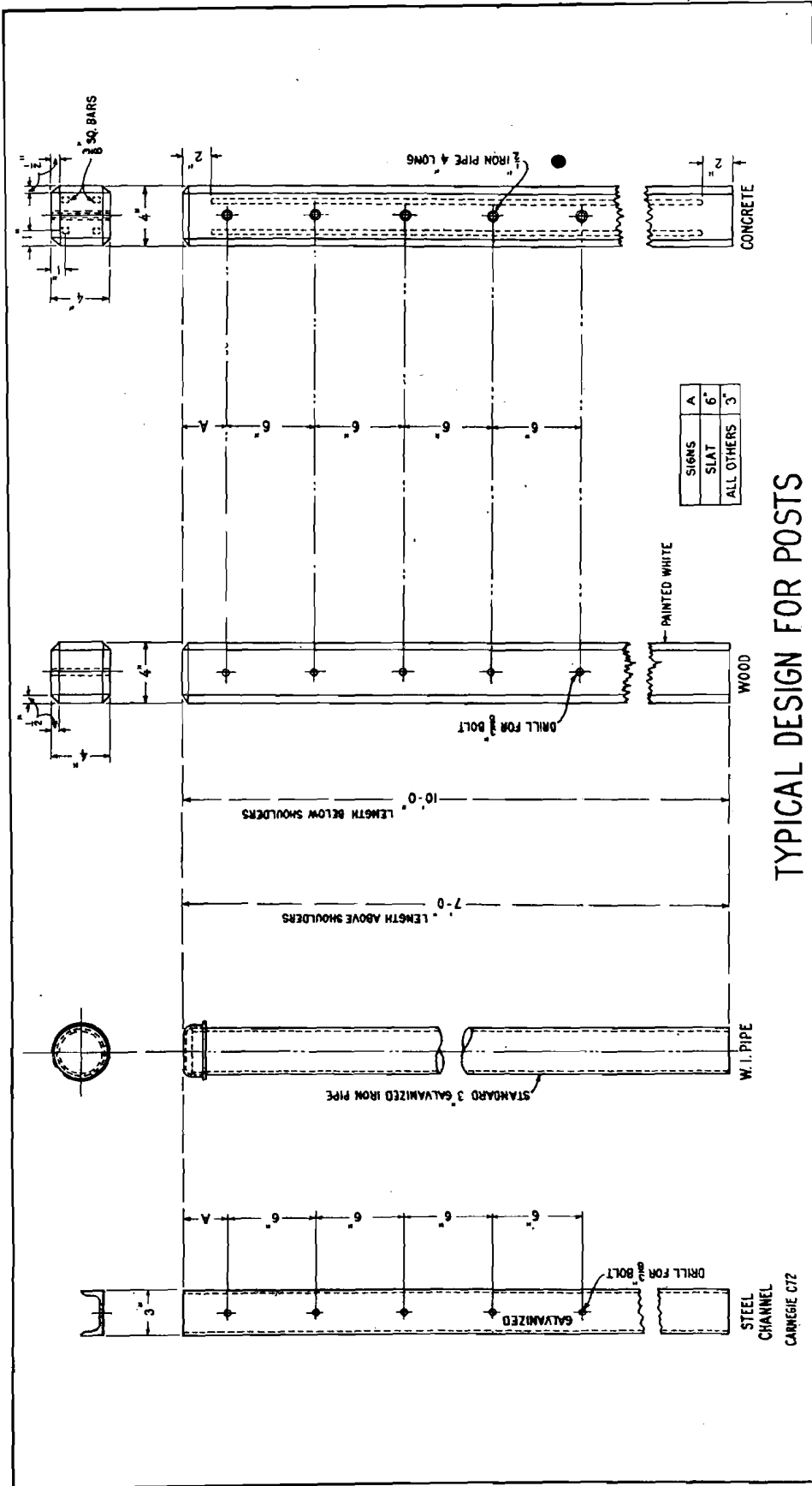


Figure 23

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Spec

The signs cast in concrete in the J cation

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**Specifications for Uniform Signs and Markers as Proposed  
by the Joint Board of Interstate Highways**

This work contemplates the fabrication and finishing of road signs and markers in wood, embossed metal, cast iron, cast steel, cast aluminum, or vitrified enamel, as indicated by the purchasers, in accordance with the standard working drawings approved by the Joint Board on Interstate Highways, and with these specifications.

**MATERIALS**

The material to be used for the sign board in any order shall be designated by the purchaser, and shall conform to the following:

**Wood** used for these signs should be yellow poplar, redwood, white pine, yellow pine, fir, or cypress, kiln dried, grading one face clear, other side free from wane, loose knots or large pitch pockets, as may be designated and approved by the purchaser.

**Sheet metal** used for embossed signs or for base of vitrified enamel signs shall conform to the following requirements at the option of the purchaser.

(a) The total amount of carbon, phosphorus, sulphur, manganese and silicon shall not exceed 0.7 per cent. If the total of these five elements equals or exceeds 0.20 per cent the metal shall contain not less than 0.17 per cent of copper, and not more than 0.06 per cent of sulphur. If the total of these five elements is less than 0.02 per cent the presence of copper is optional and sulphur shall not exceed 0.04 per cent.

(b) Commercial flat back sheets.

**Cast iron** shall conform to the American Society for Testing Materials Standard Specifications, Serial Designation A 47-24, or A 48-18, and subsequent amendments to date of contract, as may be indicated by the purchaser. Where adequate foundry control methods are enforced, special tests for physical properties of the separate heats used will not be required.

CONCRETE

WOOD

WOOD

W. I. PIPE

STEEL CHANNEL  
CARRIAGE C72

**TYPICAL DESIGN FOR POSTS**

Figure 23

**Cast steel** shall conform to the A. S. T. M. Standard Specifications, Serial Designation A 88-24 (semi-steel), and subsequent amendments to date of contract. Where adequate foundry control methods are enforced, special tests for physical properties of the separate heats used will not be required.

**Cast aluminum** shall conform to the A. S. T. M. Standard Specification, Serial Designation B 26-21, Alloy E, and subsequent amendments to date of contract.

PAINT

(a) Paint for metal signs both for background and design colors shall be of the enamel type of a quality and character to permit of baking, and shall produce a true color tone, and a surface smooth, tough and without cracks or other blemishes. The yellow color tone, as indicated by reflected white light, shall show a dominant wave length of not less than 580, nor more than 588 millimicrons, a purity of not less than 80 per cent, and an integral reflection of pigment of not less than 35 per cent. A liquid color sample conforming to this specification will be furnished by the purchaser if demanded.

(b) Enamels for vitrifying shall be either a colored glass or shall have a glass base or carrier with pigment in suspension, so compounded that upon fusion they will produce glass of the required color.

(c) Paint for wooden signs, both for background and design colors, shall consist of pure linseed oil and best grade pigments, together with pure gum turpentine and dryer. It shall produce a true color tone which will not change under exposure, and a surface smooth, tough and without cracks or other blemishes. The yellow color tone as indicated by reflected white light shall meet the same standards as specified for paint for metal signs.

FABRICATION

Variation

All working drawings show finished signs, and die and pattern makers must provide for allowances required by the processes of manufacture. For wood the overall dimensions are nominal

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For sheet metal the overall dimensions of finished signs may vary from drawings by not more than one-sixteenth inch per foot for draw in embossing. For cast iron, cast steel and cast aluminum the overall dimensions of finished signs may vary from drawings by not more than one-eighth inch per foot.

#### Wooden Signs

Signs made of wood shall have tongue and groove glue joint parallel with grain of wood, which grain shall run in the direction of the longer overall dimension of the finished sign; shall be thoroughly glued with a high grade waterproof glue, and shall be reinforced with two battens securely fastened to each separate member of the sign. Sign boards and battens shall be of one-inch stock, surfaced on all sides. Face of board when finished shall be a smooth plane surface.

#### Sheet Metal Signs

Signs made of sheet metal shall be embossed or have a vitrified finish; and when embossed the details of the design shall be raised from the background of the design not less than one hundred one-thousandths (0.100) nor more than one hundred and twenty-five one-thousandths (0.125) of an inch. The finished embossing vitrifying shall conform to the lines of the working drawing and shall be clear and even in outline and free from cracks or tears. The entire sign shall be free from wind, twist or buckle, and the background shall be substantially a plane surface. Unless otherwise specified by the purchaser, all signs shall be of eighteen (18) gauge metal, United States Standard. If so specified, signs having a dimension of more than twenty-two (22) inches lateral to the finished design shall be of sixteen (16) gauge metal, United States Standard.

#### Cast Iron or Steel Signs

Signs of cast iron or steel shall be true to line and finish as specified under material specifications. The background shall be not less than one hundred and sixty one-thousandths (0.160) of an inch in thickness, and the design shall be raised not less than one hundred one-thousandths (0.100), nor more than one hundred and twenty-five one-thousandths (0.125) of an inch.

NEW JERSEY STATE TRAFFIC COMMISSION.

Thickness of background, if to be greater than the minimum specified above, shall be so stated by the purchaser.

**Cast Aluminum Signs**

Signs of cast aluminum shall be true to line and gauge and free from holes and coarse, pitted or porous areas. The background shall be not less than two hundred one-thousandths (0.200) of an inch in thickness, and the design shall be raised not less than one hundred one-thousandths (0.100) nor more than one hundred and twenty-five one-thousandths (0.125) of an inch. The thickness of background, if to be greater than the minimum, shall be so stated by the purchaser.

FINISH

*Background Color*

**Wood Signs**

Wooden signs shall have a primer coat, dipped, brushed or sprayed; a second coat dipped, brushed or sprayed; and a finish coat, brushed or sprayed. Each coat shall be thoroughly dry before the succeeding coat is applied. The finish coat after drying shall produce a semi-gloss finish and shall be free from brush marks, blisters, wrinkles or other blemishes.

**Embossed Metal Signs**

Embossed metal signs shall have one primer coat, dipped or sprayed and at least one additional coat on the back and two additional coats on the face. The last coat shall be brushed or sprayed, and following the application of the last background coat the sign shall be baked for not less than one and one-half hours at a temperature of 175° F. to 325° F., according to the requirements of the pigment and carrier oils. The baking temperature and rate of increase of temperature shall be so controlled as to produce a tough, flexible coating, not visibly darkened and entirely free from cracks, shrinkage, wrinkles, blisters or other blemishes. Separate baking of each background coat may be given, but is not required.

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**Vitrified Enamel Signs**

Vitrified enamel signs shall have a background finish consisting of a "slush," "grip" or "ground" coat, separately fused to the base metal. On this shall be applied the succeeding coats necessary to produce the desired design. All coats shall be suffused as to produce in the finished sign a single integral coat of enamel.

**Cast Iron and Steel Signs**

The background coat of cast iron and steel signs shall be applied in the same manner as specified for embossed metal signs.

**Cast Aluminum Signs**

Signs of cast aluminum may be finished as bright castings without further treatment, or they may have applied a coat of aluminum paint, wherever the color code of the standard designs specified white. Baking will not be required for aluminum paint, but if the background color is applied with paint of the enamel type, the process shall be the same as specified for embossed metal signs.

*Design Color*

**Wooden Signs**

The design color on wooden signs shall be applied by hand or process. The design color shall dry to an even, glossy black. The finished design shall be clear cut and sharp, the lines of all letters and detail true, regular and free from waviness, unevenness, furry edges or lines and from all cracking, scaling, pitting, blistering or blemishes of any kind.

**Sheet Metal Signs**

The design color on embossed metal signs shall be applied by means of rolls or other suitable device, and the equivalent at least of two wet coats shall be applied. The design color shall then be baked as required for the background color. On vitrified enamel signs the design shall be produced by the successive application of enamels necessary to produce the desired colors, fused as required above. The finished design shall be clear cut and sharp, the lines of all letters and details true, regular and free from waviness, unevenness, furry edges or lines, and from all cracking, scaling, pitting, blistering or blemishes of any kind.

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### Cast Iron, Steel and Aluminum Signs

The design color on cast metal signs may be applied in the manner as specified for embossing metal signs, or may be built up with brushing or spraying lacquers which will blend thoroughly with the metal surface or background coats.

### PAVEMENT AND CURB MARKINGS

The use of markings on the pavement should be reduced to a minimum and observance of those used should be enforced.

#### *Markings*

**Traffic Lanes.** Lines on the pavement or inserts so placed as to form a line should be used to indicate traffic lanes.

- (a) On curves having a radius of less than 600 feet;
- (b) on grades over five per cent; and
- (c) on straight streets wide enough for three or more traffic lanes where congestion exists in opposite directions at different times of the day.

These lines should be drawn for

- (a) 100 feet beyond the place where curvature ends;
- (b) 100 feet beyond the place where vehicles are out of sight of approaching vehicles on the grade or approaching the grade; and
- (c) for at least 50 feet beyond the intersection on streets having straight traffic lanes.

**Cross-walks.** Lines or inserts should be placed to indicate cross-walks at all signal controlled intersections.

**Street Car Turning Limits.** The turning limits or overhang of a car should be marked on the pavement.

**Parking Limits.** Parking limits should be marked on the curb, but no words should be used. Parking stalls should be painted or indicated by inserts on the pavement where angle parking or parking normal to the curb is permitted.

**Pedestals, Pillars and Abutments.** All pedestals, pillars and abutments in the street should be cross-hatched with alternating black and white lines three inches wide at 45 degrees.

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*Marking Specifications*

The surface line markings should be white paint, or canvas, or suitable inserts. If paint is used, the markings should be six inches wide, and the paint should be in accordance with specifications recommended by the U. S. Bureau of Standards. The paint should be renewed sufficiently to be completely visible at all times.

Brass, steel, aluminum or brick inserts are recommended for use on bituminous pavements. If inserts are used they should be spaced not more than 12 inches apart.

*Mushroom Buttons*

The use of mushroom buttons of any type is not approved.

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### PART V

#### LOADING AND SAFETY ZONES

##### STREET CAR LOADING ZONES

Street car loading zones for passengers should be installed at all street car stops where the width of street, density of vehicular traffic and density of passenger traffic, justify such installation.

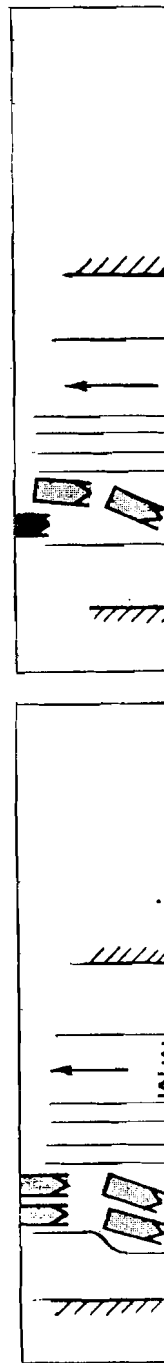
A minimum distance of 9 feet from the edge of the zone to the right-hand curb should be left as a traffic artery.

Street car loading zones should have a minimum width of 4 feet. Protecting iron posts should be at least 5 inches in diameter and extend 3½ feet above the surface of the pavement. These posts should be placed on the corners of the loading zones from which traffic approaches. Protecting beacons or lights should be mounted so that the light element is not over 6 feet above the surface of the pavement. If raised safety platforms are used they should be not more than 6 inches in height.

“No Parking” signs, as hereinbefore provided, should be placed on the curb along the length of the zone for fifty feet from each end of the zone. The regular street car zone signs, hereinbefore recommended, should be placed at the end from which traffic approaches the loading zone, and if city ordinances will permit, should carry the additional message “Vehicles Pass to Right.” If loading zones are not provided, all vehicles should be required to come to a complete stop behind standing street cars which are loading or unloading passengers, and remain stopped until passengers have moved to the curb.

Safety islands have a positive value in the protection of pedestrians, but congestion to vehicular traffic results if by their introduction the width of the roadway is so reduced that there is one less lane of traffic than formerly.

In its investigations in other cities, and particularly in Detroit, Mich., the Commission found that this condition is satisfactorily met by narrowing the sidewalks at the “throat” to such an extent that the effective width of the traveled way is maintained. Diagrams illustrative of this feature are given in Figure 24.



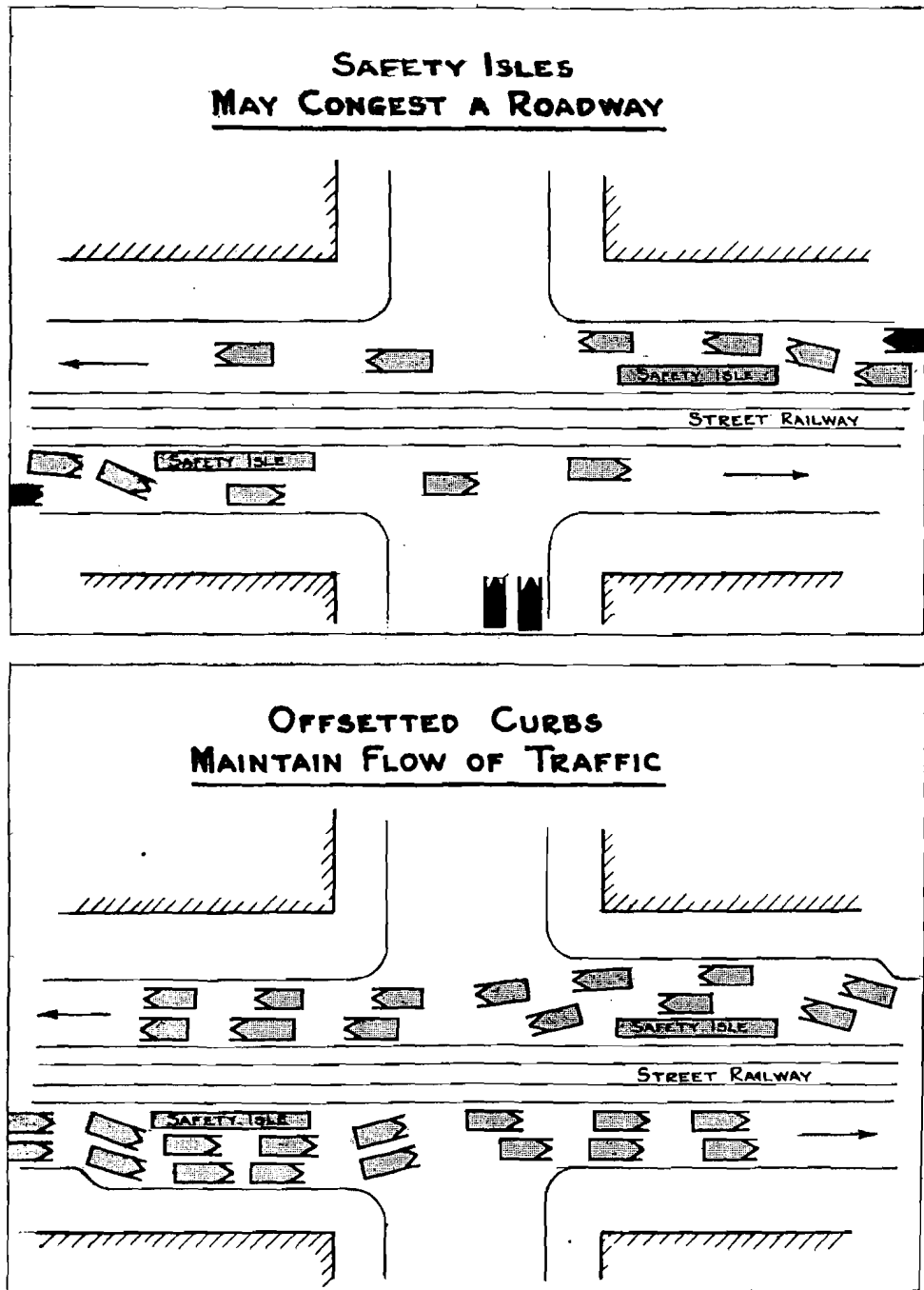


Figure 24

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SAFETY ZONES

Safety zones should be installed in the cross-walks at wide or hazardous intersections. The dimensions should be four feet wide, six feet long (or longer if pavement will permit), and six inches high. Light elements of illuminating beacons should be not over six feet above the pavement level.

A flush type of safety zone is recommended, protected by two end posts at least 5 inches in diameter, placed at the end of the zone from which traffic approaches. In the center of the end between these posts should be placed an amber warning, preferably of the flashing type, so arranged as to illuminate the approach end of the loading zone. (A diagram of this platform will be noted in the report of this subject prepared by Messrs. Fitzgerald and Palmer, Pittsburgh Electric Railways.)

As an alternate, a raised safety zone may be used, in which case a flashing beacon of the same type referred to above should be mounted on the end of the raised zone from which traffic is approaching.

Safety zones where required in the cross-walks of wide or hazardous intersections should be preferably of the raised type and illuminated with beacons displaying amber lights. No safety zone should be erected or marked on the pavement unless so protected.

PARKING NEAR INTERSECTIONS

Parking at the approach to a corner and immediately beyond it should be restricted, the distance to be established by local ordinance. In general, the distance should not be less than thirty feet, but at the approach to boulevards or "stop streets" it should be at least fifty feet.

The purpose of this recommendation is to establish visibility. In some cities this recommendation would affect authorized bus stops.

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PART VI

MODEL ORDINANCE

A vast difference in ordinances is found throughout the State, and investigation shows that a uniform ordinance will make enforcement easier, facilitate the movement of traffic, lessen the nervous strain of drivers who, by reason of its uniformity, would the more easily become familiar with its provisions, promote motor touring now rendered less pleasurable than it might be, because of the existing multiplicity of regulations within New Jersey; and reduce accidents and fatalities.

Every municipal government has as one of its functions the protection of life and property. The fulfillment of this duty has legislative, administrative and judicial ramifications, and co-ordination is necessary. This, the Commission thinks, is attainable through a State law providing for the adoption by municipalities of a uniform ordinance such as is set forth here.

The Commission feels that this is a step in the right direction of uniformity.

Model Municipal Traffic Ordinance

An ordinance regulating traffic upon the public streets of the (City) of ( ) and repealing Ordinance (No. ) and all other ordinances and sections of ordinances in conflict herewith.

It is ordained by ( ) as follows:

ARTICLE I

Definition of Terms

Section 1. Definitions. Whenever in this ordinance the following terms are used they shall have the meanings respectively ascribed to them in this section.

"Street or Highway." Every way set apart for public travel, except bridle paths and foot paths.

"Private Road or Driveway." Every road or driveway not open to the use of the public for purposes of vehicular travel.

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"Roadway." That portion of a street or highway between the regularly established curb lines or that part devoted to vehicular traffic.

"Alley." A public highway wherein the roadway does not exceed twenty feet in width.

"Sidewalk." That portion of a street between the curb lines and the adjacent property lines.

"Intersection." The area embraced within the prolongation of the lateral curb lines or, if none, then the lateral boundary lines of two or more streets or highways which join one another at an angle whether or not one such street or highway crosses the other.

"Cross-walk." That portion of the roadway ordinarily included within the prolongation of curb and property lines at street intersections or that portion of a roadway clearly indicated for pedestrian crossing by lines marked on the surface.

"Safety Zone." The area or space officially set apart within a highway for the exclusive use of pedestrians and which is so plainly marked or indicated by proper signs as to be plainly visible at all times while set apart as a safety zone.

"Loading Zone." That portion of a roadway adjacent to a curb reserved for the exclusive use of vehicles during the loading or unloading of passengers or material.

"Vehicle." Every device in, upon or by which any person or property is or may be transported or drawn upon a public highway, excepting devices moved by human power or used exclusively upon stationary rails or tracks.

"Motor Vehicle." Every vehicle, as herein defined, excepting street railway cars, which is self-propelled.

"Street Car." Every device traveling exclusively upon rails when upon or crossing a street other than cars or trains propelled or moved by steam.

"Authorized Emergency Vehicle." Vehicles of the fire department (fire patrol), police vehicles and such ambulances and vehicles of public service corporations as are approved by the ( ) when operated in response to, but not when returning from, an emergency call.

"Pedestrian." Any person afoot.

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"Operator." Any person who is in actual physical control of a vehicle.

"Traffic." Pedestrians, vehicles and street cars, either singly or together, while using any street for purposes of travel.

"Right of Way." The privilege of the immediate use of the street or highway.

"Parking." The stopping or standing of a vehicle, whether attended or unattended, upon a roadway otherwise than temporarily for the purpose of and while actually engaged in loading or unloading passengers or in obedience to traffic regulations or traffic signs or signals.

"Official Traffic Signs." All signs, signals and markings not inconsistent with this ordinance heretofore or hereafter placed or erected under this ordinance or by authority of the ( ) for the purpose of regulating or directing traffic.

"Business District." The territory contiguous to a street or highway when fifty per cent or more of the frontage thereon for a distance of 300 feet or more is occupied by buildings in use for business.

"Residence District." The territory contiguous to a street or highway not comprising a business district, when the frontage on such street or highway for a distance of 300 feet or more is mainly occupied by dwellings or by dwellings and buildings in use for business.

ARTICLE II

*Authority of Police*

Section 1. (Police) to Direct Traffic.

(a) It shall be the duty of the ( ) of this city to enforce the provisions of this ordinance. Officers of the (police department) are hereby authorized to direct all traffic by means of visible or audible signal in conformance with the provisions of ( ) that in the event of a conflagration or other emergency, officers of the police or fire department may direct traffic, as conditions may require, notwithstanding the provisions of this ordinance.

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Upon adoption of this section, insertion should be made both in the heading and in the body of the section of the proper designation of the city officer, board or department empowered and required to enforce the ordinance. This matter should also receive attention in succeeding sections where official designations appear in brackets.

Section 2. ( ) Authorized to Adopt Emergency Regulations. The ( ) is hereby empowered to make and enforce regulations necessary to make effective the provisions of this ordinance and to make temporary regulations to cover emergencies or special conditions, provided any such regulations are not inconsistent with the provisions of this ordinance, or the Motor Vehicle Act, or the State Traffic Act.

Section 3. Obedience to Police. It shall be unlawful for any person to refuse or fail to comply with any lawful order, signal or direction of a traffic or police officer.

Section 4. Public Employees to Obey Traffic Regulations.

(a) The provisions of this ordinance shall apply to the operator of any vehicle owned by or used in the service of the U. S. government, this State, county or (city) and it shall be unlawful for any said operator to violate any of the provisions of this ordinance, except as otherwise permitted in this ordinance.

(b) The provisions of this ordinance regulating the movement, parking and standing of vehicles shall not apply to authorized emergency vehicles as defined in this ordinance while the driver of such vehicle is operating the same in an emergency in the necessary performance of public duties. This exemption shall not, however, protect the driver of any such vehicle from the consequence of a reckless disregard of the safety of others.

Section 5. Persons Propelling Push Carts or Riding Bicycles or Animals to Obey Traffic Regulations. Every person propelling any push cart or riding a bicycle or an animal upon a roadway shall be subject to the provisions of this ordinance applicable to the driver of any vehicle except those provisions of this ordinance with reference to the equipment of vehicles.

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ARTICLE III

*Traffic Signs and Signals*

Section 1. Traffic Signs and Signals.

(a) It shall be the duty of the ( ) to place and maintain, or cause to be placed and maintained, all official traffic signs and signals. All signs required hereunder for a particular purpose shall be uniform throughout the (city).

(b) No provision of this ordinance for which signs are required shall be enforceable against an alleged violator if at the time and place of the alleged violation the sign herein required is not in proper position and sufficiently legible to be seen by an ordinarily observant person.

Section 2. Obedience to Traffic Signs and Signals. It shall be unlawful for any operator or for the motorman of any street car to disobey the instructions of any official traffic control signal, traffic signs or marks upon the street, unless otherwise directed by a traffic or police officer.

Section 3. Display of Unauthorized Signs Prohibited. It shall be unlawful for any person to place or maintain or to display upon or in view of any street any unofficial sign, signal or device, which purports to be or is an imitation of or resembles an official traffic sign or signal, or which attempts to direct the movement of traffic. The ( ) is hereby empowered to remove or cause to be removed, without notice, any sign, signal or device, the erection or display of which is prohibited in this section and every such prohibited sign, signal or device is hereby declared to be a public nuisance.

Section 4. Interference With Signs Prohibited. It shall be unlawful for any person to wilfully deface, injure, move, obstruct or interfere with any official traffic sign or signal.

Section 5. ( ) Authorized to Designate Cross-walks. The ( ) is hereby authorized to establish and to designate and shall thereafter maintain upon the surface of the roadway, by appropriate devices, marks or lines, cross-walks, approximately equal in width to the adjacent sidewalk at all intersections where,

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in his opinion, there is particular danger to pedestrians crossing the roadway.

Section 6. ( ) Authorized to Designate Safety.

(a) The ( ) is hereby empowered to establish safety zones of such kind and character and at such places as he may deem necessary for the protection of pedestrians.

(b) The ( ) is also authorized to mark lanes for traffic on street pavements at such places as he may deem advisable, consistent with the provisions of this ordinance.

(c) The ( ) is hereby empowered to determine those intersections at which operators of vehicles shall not make right or left turns and shall properly sign such intersections. Signs shall be erected and maintained designating the provisions of this section.

ARTICLE IV

*Pedestrians' Rights and Duties*

Section 1. Pedestrians Crossing Intersections. On streets where traffic at intersections is controlled by "Stop" and "Go" signals or by traffic or police officers, pedestrians shall not cross a roadway against the "Stop" signal. A pedestrian crossing or starting across any such intersection on a "Go" signal shall have the right of way over all vehicles including those making turns, until such pedestrian has reached the opposite curb or a place of safety and it shall be unlawful for the operator of any vehicle to fail to yield the right of way to any such pedestrian. A pedestrian shall not cross a street where traffic at intersections is controlled by "Stop" and "Go" signal or by traffic or police officers, except such crossing be made at an intersection or a marked cross-walk.

The success of a rule requiring definite obedience to traffic control signals by pedestrians depends in large measure upon a proper timing of the signals.

Section 2. Pedestrians to Use Right Half of Cross-walks. Pedestrians shall move, as far as practicable, upon the right half of cross-walks.

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Section 3. Pedestrians Soliciting Rides. It shall be unlawful for any person to stand in a roadway for the purpose of or while soliciting a ride from the operator of any private vehicle.

ARTICLE V

*Street Cars and Railroad Trains*

Section 1. Passing Street Cars.

(a) The driver of a vehicle shall not overtake and pass upon the left any street car proceeding in the same direction, whether actually in motion or temporarily at rest, when a travelable portion of the highway exists to the right of such street car, even though such portion of the highway is occupied by traffic. This provision shall not apply on one-way streets.

(b) The driver of a vehicle overtaking any street car stopped or about to stop for the purpose of receiving or discharging any passenger, shall bring such vehicle to a stop, to the rear of the nearest running board or door, then in use, of such street car, and remain stationary until any such passenger has boarded such car or reached a place of safety, excepting that where a safety zone has been established or excepting where an eight-foot clearance is possible and observed, a vehicle need not be brought to a full stop before passing any such street car, but may proceed past such car at a speed not greater than is reasonable or proper, and with due caution for the safety of pedestrians.

Section 2. Driving on Street Car Tracks. It shall be unlawful for the operator of any vehicle proceeding upon any street car tracks in front of a street car upon a public street, to fail to remove such vehicle from the tracks as soon as practicable after signal from the operator of said street car.

Section 3. Driver not to Cross Ahead of Street Car. When a street car has started to cross an intersection no operator shall proceed onto the car tracks in front of the street car.

Section 4. Driving Through Safety Zone Prohibited. It shall be unlawful for the operator of a vehicle at any time to drive the same over or through a safety zone as defined in this ordinance, except in cases of emergency or where authorized to do so by a police officer.

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Section 5. Boarding or Alighting From Street Cars or Vehicles. It shall be unlawful for any person to board or alight from any street car or vehicle while such street car or vehicle is in motion, or for the operator of such street car or vehicle to knowingly permit any person to board or alight from said street car or vehicle while in motion.

Section 6. Unlawful Riding.

(a) It shall be unlawful for any person to ride on any street car or vehicle upon any portion thereof not designed or intended for the conveyance of passengers. This provision shall not apply to an employee engaged in the necessary discharge of a duty.

(b) It shall be unlawful for the operator of any street car or auto bus to operate the same while any door or doors of said street car or auto bus is or are open.

Section 7. Railway Trains and Street Cars Not to Block Street. It shall be unlawful for the directing officer or the operator of any steam or street railway train or car to direct the operation, or to operate the same in such a manner as to prevent the use of any street for purposes of travel for a period of time longer than five minutes, except that this provision shall not apply to trains or cars in continuous motion.

ARTICLE VI

*Stopping, Standing and Parking*

Section 1. Stopping Prohibited in Specified Places. It shall be unlawful for the operator of a vehicle to stop, stand or park such vehicle in any of the following places, except when necessary to avoid conflict with other traffic or in compliance with the directions of a traffic or police officer or traffic sign or signal:

- (1) Within an intersection.
- (2) On a cross-walk.
- (3) Between a safety zone and the adjacent curb or within twenty (20) feet of a point on the curb immediately opposite the end of a safety-zone, unless the ( ) shall indicate a different length by signs.

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- (4) Upon the approach to an intersection, within twenty-five (25) feet of the intersecting roadway, except at alleys.
- (5) Within fifteen (15) feet of the driveway entrance to any fire station.
- (6) Within at least 10 feet of a fire hydrant.
- (7) In front of a private driveway.
- (8) On a sidewalk.
- (9) Within a designated auto bus or taxicab station.

Section 2. Standing for Loading or Unloading Only in Certain Places.

(a) It shall be unlawful for the operator of a vehicle to stop, stand or park said vehicle for a period of time longer than is necessary for the loading or unloading of passengers or materials, provided that the loading or unloading of passengers shall not consume more than three (3) minutes, in any of the following places:

- (1) In any alley.
- (2) In any loading zone or bus stop. Signs may be erected indicating the hours when parking for other than loading or unloading is permitted.

(b) It shall be unlawful for the operator of any vehicle to stop, stand or park such vehicle for a period of time longer than is necessary for the loading or unloading of passengers, and in no event longer than three minutes at any curb in front of the entrance of a school, church, theatre, hotel, hospital or any other place of public assemblage during hours designated by official signs.

(c) The ( ) shall determine the location of loading zones and bus stops and shall mark by appropriate signs or as specifically required herein those places where standing for loading or unloading only is permitted under this section.

Section 3. Parking Time Limited in Specified Places. The operator of a vehicle shall not park such vehicle for longer than..... at any time, between the hours of..... and.....of any day except Sunday, in the following described district:

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Signs shall be erected and maintained in each block designating the provisions of this section.

This section is designed upon proper insertions being put in the blanks to declare the maximum length of time for parking in any designated district.

Section 4. Parking Prohibited During Certain Hours in Designated Places. The operator of a vehicle shall not park such vehicle between the hours of.....of any day except Sunday within the (designated district) nor upon any of the following described streets:

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Signs shall be erected and maintained in each block designating the provisions of this section.

This form section is appropriate for use in event it is desired, for example, to prohibit parking in the downtown district during the late afternoon rush hours.

Section 5. Standing or Parking Close to Curb.

(a) Except when necessary in obedience to traffic regulations or traffic signs or signals the operator of a vehicle shall not stop, stand or park such vehicle in a roadway other than parallel with the edge of the roadway, headed in the direction of traffic, and with the curb-side wheels of the vehicle within six (6) inches of the edge of the roadway, except as provided in the following two paragraphs:

- (1) Upon those streets which have been marked or signed for parallel parking, vehicles shall be parked parallel to the curb indicated by such marks or signs.
- (2) No vehicle shall stand backed to the curb when loading or unloading, except when it is impracticable to load or unload such vehicle while standing parallel to the curb; provided, that no vehicle shall be permitted to completely block the passage of other vehicles by remaining backed up to curb for longer than four minutes; provided, further, that no vehicle shall be

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permitted to obstruct the passage of any street car by remaining backed up to the curb. If necessary to back up to the curb, if the vehicle is horse-drawn, it must stand parallel to the curb and facing the direction of traffic.

(b) ( ) shall determine upon what streets angle parking shall be permitted and shall mark or sign such streets or cause the same to be marked or signed.

Section 6. Unlawful to Drive Through Any Procession Unless Otherwise Directed by a Traffic or Police Officer. It shall be unlawful for the operator of any vehicle or street car to drive between the vehicles comprising a funeral or other authorized procession, provided that said vehicles are conspicuously so designated. This provision shall not apply at intersections where traffic is controlled by signals.

ARTICLE VII

*Validity, Repeal and Publication*

Section 1. Effect of Ordinance. If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The ( ) hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional.

Section 2. Repeal. Ordinance No. . . . . (former traffic ordinance of the city) of this (city) is hereby repealed, and all ordinances or parts of ordinances in conflict with or inconsistent with the provisions of this ordinance are hereby repealed, except that this repeal shall not affect or prevent the prosecution or punishment of any person for any act done or committed in violation of any ordinance hereby repealed prior to the taking effect of this ordinance.

Section 3. Publication of Ordinance. The ( ) shall certify to the passage of this ordinance and cause the same to be published in the. . . . .

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ADOPTION OF ADDITIONAL REGULATIONS.

The present laws of the State and those recommended by the Commission include additional regulations and rules of the road such as restrictions as to speed and prohibitions against reckless driving. In general it is believed that such State law provisions need not be and should not be repeated in municipal ordinances. However, it is recognized that, in some instances, it is necessary for purposes of local enforcement to repeat State law provisions in municipal ordinances. With this situation in mind additional regulations may be adopted.

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## PART VII

### CONTROL METHODS OF ELECTRIC SIGNAL SYSTEMS

In foregoing pages the Commission gives its recommendations on electrically lighted signals in so far as they apply to the regulation of traffic, but it made no mention of the methods or systems by which these signals are controlled.

On the merits of any one particular system the Commission feels that it should take no stand. It believes that the problem of selection should be solved locally and under State supervision, leaving the field free to inventive genius, so that under the stimulus of competition further improvements will constantly be made. Nevertheless, it is considered advisable to include in this report, but for information only, an outline of the purposes of outstanding types now in use. The material is abstracted from a study made by the American Engineering Council.

#### **Independent Control**

Where it is desired to control traffic by means of signals at isolated intersections or at intersections where such control will not affect the movement of traffic at other signal controlled intersections, the independent method of operation may be employed. In this case the timing of the signal should be based upon the relative flow of traffic in each direction through the intersection.

#### **Co-ordinated Control**

Where local traffic conditions indicate the need of traffic signals at a number of neighboring intersections, continuously or at intervals along a given thoroughfare and where the control of traffic at one intersection will affect the movement at others, some plan of co-ordination is desirable. This may be accomplished either by the synchronized method or by the progressive method.

#### **Synchronized System**

The synchronized system provides the simplest and least expensive method of co-ordination, as all signals are operated as a

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unit from a central station. The timing of this system should be based on the average conditions which exist throughout the section of the street to be controlled.

1. It necessitates the stopping of all traffic in a given direction simultaneously and this prevents continuous movement of vehicles. On streets occupied by electric railways the synchronous method results in a considerable increase in the "peak" load occasioned by the simultaneous starting of all electric railway cars.
2. It encourages speeding in order that a vehicle may pass as many lights as possible before a directional change of signals.
3. As the timing of all signals must be the same, preferably based on the flow of traffic at the most congested intersection, traffic at all other intersections is penalized accordingly.

**Progressive System**

Where it is desirable to provide for an approximately continuous movement of traffic, the progressive method may be utilized. This method can be developed in a limited or flexible manner.

**Limited Progressive System**

1. It is a simple adaptation of the synchronized system obtained by changing the wiring of alternate signals or groups of signals so that each signal or group shows the other color in the same direction.
2. It permits the continuous movement of traffic at approximately a predetermined speed.
3. It discourages speeding because a vehicle is forced to make frequent stops if it exceeds the speed for which the system is arranged.
4. It requires the time intervals for through traffic and for cross traffic to be equal, so that an excessive time is devoted to cross traffic on a street where there is a greater volume of through traffic.

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5. It is difficult to apply to a street having intersections at irregular intervals, but is adapted to a street having blocks of equal length.
6. It reduces the capacity of the street because only those vehicles which enter the first intersection of a group during the first part of the green interval can move continuously.

#### Flexible Progressive System

This system provides maximum use of the street and is therefore better than any plan yet developed.

1. It is however more complicated and expensive to install than either of the foregoing. It requires either a synchronous type of motor at each intersection, or direct cable connection from each signal to one central control station.
2. It is especially well adapted to a general area comprising a number of adjacent streets where the congestion of traffic is such as to require regulation at each intersection.
3. It permits the continuous movement of traffic at approximately a predetermined speed on both through and cross streets.
4. It makes possible the adjustment of the timing of each signal to the relative flow of traffic at that particular intersection and is equally effective whether the length of blocks is equal or irregular.
5. The only limitation on the system is that the complete cycle of changes for all intersections must be of the same duration.

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**PART VIII**

**ADMINISTRATION OF TRAFFIC LAWS AND  
REGULATIONS**

Although the joint resolution creating this Commission provides, among other things, for a recommendation of methods for the uniform administration of traffic laws and regulations, no such recommendation is here included for the reason that lack of time has prevented the completion of the Commission's studies in this respect. The Commission, if continued, will be prepared to make a recommendation on this point to the 1929 session of the Legislature.