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First National Conference

on

Street and Highway Safety



HON HERBERT HOOVER

Secretary of Commerce

Chairman

**DEPARTMENT OF
TRANSPORTATION**

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**National Associations cooperating with the Department of Commerce
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AMERICAN MUTUAL ALLIANCE
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CHAMBER OF COMMERCE OF THE UNITED STATES
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NATIONAL SAFETY COUNCIL

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First National Conference on Street and Highway Safety

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Finance Committee

ELLIOT H GOODWIN, Chamber of Commerce of the United States	<i>Chairman</i>
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Address of the President of the United States to the National Conference on Street and Highway Safety

The National Conference on Street and Highway Safety has been called by the Secretary of Commerce for the devising of means and the making of recommendations toward the lessening of the numberless accidents which now kill and maim so many of our citizens. Few conferences are more opportune or deal with graver affairs. With the deplorable and continuing increase in highway mortality and injury, the time is highly appropriate for a comprehensive study of the causes that we may have proper understanding of conditions and so may intelligently provide remedies.

The problem is but one of those inherent in advancing civilization. The increasing demands upon our highways from a growing population, the development of new uses, the imposition of modes of transportation not contemplated when they were created, have brought about congestion, confusion, and conflict, until the yearly toll of traffic accidents has reached an appalling total. If the death and disaster that now fall upon innocent people, through the year and over our country as a whole, were concentrated into one calamity we would shudder at the tremendous catastrophe. The loss is no less disastrous because diffused in time and space. The evil you are combating is so widespread as to be of national concern and we do well to look at it with a country-wide vision. But its solution does not rest in national action. Highway control is primarily for the states, and it is best that this is so. We cannot regulate local traffic by Act of Congress. Means to overcome the difficulties, to keep our complex traffic moving with order and safety must be found by the states. It is a proper function of Federal authority to mobilize the best experience in each part of the country that it may be applied elsewhere to the end that rules may be wise and uniform. But uniformity, while of the greatest value and highly advisable, so far as shifting local requirements will permit, should not be imposed by the inflexible fiat of central power. Rather it should

come from the common desire of the states to give the highest protection to their people to regulate traffic in the most efficient manner, with final realization in the attainment of a common standard of perfection

This is the high ideal towards which you are striving and your task is the finding and suggesting of methods of accomplishment. You have already done much by impressing upon the minds of our people knowledge of the terrible toll of traffic accidents. The further course of action and regulation will largely depend upon your recommendations. The undertaking is of supreme value, and you have my best wishes in your efforts.

Opening Address by Hon. Herbert Hoover, Secretary of Commerce, and Chairman of the National Conference on Street and Highway Safety

I have called this National Conference on Street and Highway Safety at the urgent request of a large number of interested groups from all parts of the country. This meeting has been denominated in some of the press as a "life and death" conference. It does aim at furthering means to save life and prevent accidents; to make travel safer on our highways for both the pedestrian and the passenger. It certainly is not safe now.

In the assembly of the conference we have not had in mind primarily either the motorists, the automobile, or the insurance or railway industries, or any other class or particular interest, but rather that we should have representatives here from every interested element of the entire country. If we have lent more emphasis in one quarter than another it has been that we have had in mind the people who use the streets and roads, of whom at least 65 per cent are at any given moment pedestrians. A very large portion of the 22,600 deaths and the 678,000 serious personal injuries which is our annual traffic toll for the last year have happened to men, women and children on foot. The next largest group who suffer are the motorists themselves who are the victims of reckless driving upon the part of a small minority of vicious or ignorant.

About 85 per cent of our street and highway accidents are due to the automobile, and while the rate of accidental deaths in our country from other causes has steadily decreased, due to better safety measures, yet during the past ten years our automobile accidents have doubled. This rate has even increased by about 14 per cent in the last year. While we must not underestimate the importance of the motor vehicle as a vital part of our transportation system as well as a means of recreation, we must approach this subject in terms of those who are injured.

Nor is there in this conference any sense of conflict of interest between groups, for the transportation industries are themselves the most insistent on a great reduction in this terrible toll. The automobile is the greatest development of twenty years, both economically and socially. But if we wish for its fullest development we must reduce its terrors. And in these aspects I have found a most gratifying unity of

opinion both in the industry and all of its collateral branches. The automobile is no longer a luxury—it is a complete necessity. It has added recreation, efficiency, and vision to the American people. Probably 75 per cent of our people participate in its use. It is here to stay, and to stay in constantly increasing numbers. If it has brought about the present traffic conditions so quickly that we have been unable to cope with it if our roads and streets were laid out for other purposes and are inadequate to the situation, then it is fitting and proper that the public officials, the transportation interests, the business interests, the motorists and those engaged in the business of alleviating suffering should gather together to assist in straightening out the tangle.

And it is high time that something should be done about this. We must find constructive measures to meet the crisis of tens of thousands of deaths annually, with hundreds of thousands of serious personal injuries, and millions of property damage, accompanied by an economic loss of some staggering sum, such as \$600,000,000 yearly. I have talked much about the elimination of waste in industry, in dollars and cents, and in time. But here is a waste in human lives each year equal to one-third of the American losses by death in the World War, two and one-half times as many casualties as all those suffered by the American forces. This is yearly loss to which is given added emphasis by the fact that it has been and is steadily increasing until the American people, at last awakened to the appalling situation, are demanding in no uncertain terms that something be done about it, and that something soon.

In this same connection it is interesting to note the attitude of our great daily newspapers. Two or possibly three years ago, even though at that time street and highway accidents were most common, the accounts of them very rarely appeared on the front page. Unless they resulted in fatalities or happened to important personages they were fortunate if they got a paragraph or two somewhere near the classified advertising section. Today over two hundred great newspapers are cooperating with the National Associations in a daily study and analysis of the accidents happening in their respective communities. I dare say there is not a progressive newspaper in the United States which is not making an organized drive on traffic conditions in their cities.

There is but cold comfort in the statement that it has crept upon us almost unawares and that our traffic lanes are inadequate. True, it is that the dreams of the inventors of the automobile have been realized in a fashion which would take the pen of Jules Verne to portray. True, the advance of the automobile industry is almost in-

credible True it is that there are 12 000,000 active cars probably transporting more people daily than all our railways True it is that but few people can visualize the staggering sum of two billions of dollars spent each year for passenger cars alone True it is that all this has come about within the short space of 25 years and even more largely in 10 years

But all these truths do not alter the fact that with all this admirable development, with the fine service and vision that the motor has brought to the American people, we are facing a crisis in our city streets and rural highway traffic that must be met at once and must be met in such a manner as to leave in no uncertainty the permanent result of such collective measures as we can suggest

† In order that this conference should be different and should be more effective than the average of national conferences we six months ago created eight committees, comprising men and women representing every complexion of the public—the highway and police authorities of the country, the representatives of our educational institutions, the automobile and insurance industries, the construction engineers groups interested in town planning in the promotion of national safety, organized labor and our chambers of commerce These committees with their staff of assistants have shown the greatest devotion in determination of fact as to the situation in all of its ramifications. Their conclusions as to cause, as to experience in correction gained in various parts of the country, as to the most advantageous methods of regulation, of engineering, of town planning, are placed before the conference ready for consideration and discussion The conference will, therefore, be able to proceed directly to discussion of remedy without the usual waste of time in collection of material upon every point or waste time upon oratorical debate

My experience during the past few months with these committees who have been engaged on the work preliminary to this conference has convinced me that a field of improvement can be found that the conference will be able to present constructive suggestions of the utmost importance, that the effect of your presence here and the nation's wide interest in remedy thus created will itself be helpful

It is impossible to put the whole blame for the deplorable conditions upon any particular individuals or any particular classes of traffic If we were to analyze the facts presented to the conference as to the causes of this enormous death roll and injury we would find that incompetence, carelessness and recklessness are the largest of the contributors to this ghastly toll We would find in a lesser degree

the lack of preventive measures We would find a considerable contribution from confusion over the regulations in force We would find also that prevention of accidents is in part involved in large problems of difficult solution in the planning of our cities, the construction of highways, and generally the handling of these new traffic problems that have been thrown upon cities and country wholly unplanned for such use

There are three broad methods of approach to remedy First, through prevention and safeguard and second, through much stronger punishment for violation of the rights of others, third through public education as to its responsibilities

It is not my purpose here to enter upon the proposals before the conference They cover a tremendous range from town planning and traffic planning, regulation, legislation and engineering construction and education They embrace both punitive and preventive measures Many parts of the proposals are in use in some place in the country today, but only in parts For instance but few of our states impose rigorous determination of competence before licensing drivers I have within a few months had a friend run down on the sidewalk by a wooden-legged driver who never drove before and who mistook the accelerator for the brake

But few states have driven toward sufficient personal accountability for recklessness Again within my own experience of the last three months I witnessed in my motor minor a heart-breaking tragedy of a head-on collision due to a reckless attempt to pass another car on a sharp curve

There is no uniformity in traffic regulations I could be arrested and convicted on a dozen counts between Washington and New York if I carefully followed either the Washington or New York traffic regulations

The vast majority of motorists are conscientious and careful and competent If they were not these 12 000 000 motors moving daily at these speeds among 110,000 000 people (or whatever portion venture out) would produce a veritable holocaust It is the inconsiderate, the careless, the incompetent, who are bringing these dangers—35 per cent to 50 per cent of all accidents are chargeable to them The conscientious, careful motorists are their victims as well as the pedestrian Nor is the pedestrian altogether free from contributory negligence Our sidewalks are his exclusive property, he has equal rights on the open streets and roads with the transportation There are the careless and reckless among them, but in even this connection we must not

overlook the fact that the motorist has a responsibility to conduct himself as if everything else on the road was born foolish

You will find in your committee recommendations cumulative suggestions for vigorous action as to carelessness and recklessness. While various forms of traffic controls and regulations may tend to minimize the effectiveness of the reckless as a destroyer of human life, and to save them from themselves, I am convinced that a large corrective must be more vigorous punishment. The great majority of accidents are each and every one of them in themselves proof of guilt in either incompetence, carelessness or recklessness. The time has come when every accident must be examined and punishment meted out that will impress the mind of the reckless for the balance of their natural lives.

Your committees are not proposing any federal government activities; they recognize the fine headway made in many localities by the local authorities, they are proposing the more universal extension of the best remedies that have been devised; they are proposing a more live conscience of the motorist to his responsibilities. I am convinced that the crisis can be met and that out of this conference will come constructive suggestions of the greatest value. Remedy cannot be accomplished over night. It is only the preparation for a long siege which will eventually free the American people from much of the menace of traffic. If we can further organize constructive action I look forward with the greatest confidence to a steady reduction of the accident rate, and after all, if we save the life of one child, all the money and all the time and all the effort expended in the past or in the future will be well worth the efforts and expense.

The streets are facilities belonging to all the people and to no one special class, and if the result of the conference makes them just a bit more safe for all of the people it will have earned the thanks of the entire nation.

I attribute the possibilities of doing this entirely to the American spirit of cooperation and the widespread interest as is represented today when men of broad vision are meeting, sacrificing their time and their personal interests to sit down together and work out a problem of humanity.

At the conclusion of Secretary Hoover's address the Conference proceeded to a detailed discussion of the reports of its eight committees and formulated the following consolidated report, which was unanimously adopted

Report of the National Conference on Street and Highway Safety

The growing toll of street and highway accidents has become a great national problem, reaching in 1923 a total of 22 600 deaths 678,000 serious personal injuries and \$600,000 000 economic loss; an increase of 80 per cent in the past seven years About 85 per cent of these accidents were incident to automobile traffic

This is a national loss of so appalling a character as to warrant the most complete consideration and effort at drastic remedy Such treatment is also essential in order that the full public benefit from this new system of transportation shall not be jeopardized because of accidents and congestion

The Conference on Street and Highway Safety, including police officials, highway and motor vehicle commissioners, insurance companies railroad and street railway companies, safety councils chambers of commerce labor unions, women's clubs, automobile associations automobile manufacturers and various other national groups was called by the Secretary of Commerce for the purpose of determining the essential facts and promoting better organization and coordination of activities in the reduction of accidents

During the past six months eight representative committees have been engaged in the investigation of the facts of current practice and the most successful methods of reducing accidents Their investigations cover (I) Statistics (II) Traffic Control, (III) Construction and Engineering (IV) City Planning and Zoning (V) Insurance, (VI) Education, (VII) the Motor Vehicle and (VIII) Public Relations The reports* of these committees after widespread distribution and public comment have been given detailed consideration by this Conference They contain recommendations on which essential agreement has been reached and which, if carried out, even in part, will effect an immediate reduction in the accident toll

The chief problem to which the Conference has addressed itself has therefore been that of putting this knowledge to practical application in the most expeditious manner

The problem is primarily one of organization, which must rest

*For copies of the reports of the above committees as well as additional copies of this report address the Conference on Street and Highway Safety Department of Commerce Washington D C.

upon a sound basis of legislation. It requires: first, proper facilities which, by promoting a free and even flow of traffic, will reduce at the same time the accident hazard and the extent of regulation required, second, a thoroughly considered and effectively enforced system of traffic regulation; and, third, a comprehensive program of cooperative action by all elements of society to promote the development of proper facilities, effective regulation and widespread education.

Uniform, impartial enforcement of reasonable requirements by adequate and properly organized police is a primary necessity in reducing street and highway accidents. Furthermore, the most abundant provision of adequate streets and highways, the most careful working out of traffic regulations and the most vigorous enforcement of traffic laws, to be 100 per cent effective in the reduction of accidents, must be supplemented by a sense of personal responsibility instilled in every motorist and every pedestrian.

The Conference recognizes the need for fundamental preventive measures involved in comprehensive city planning and zoning. Unless there is proper control of the development of private property it is rarely possible to provide street and highway facilities adequate for future needs.

The Conference submits the following expression of its findings and conclusions which it recommends to the legislative and administrative authorities, to associations and business concerns, and to the motor-vehicle driver and the pedestrian.

I Legislative Principles

There is, in the opinion of the Conference, a tendency to include far too much detail in legislation. This not only divides responsibility but also hinders progress toward uniformity. Laws should be so drafted as to include only those features which must be authorized by legislation, leaving the great mass of detailed regulations to be prescribed by the responsible officials whose orders should, within the limits fixed by statute, have the effect of law.

There should be a minimum of restrictive laws and regulations. The history of transportation shows that restrictive measures written without regard to economic needs have always proved a failure. The system of regulation should take into account and go hand in hand with a constructive program for meeting the demands of street and highway traffic.

Federal Government

The Federal Government's relation to the safety program is one of encouragement of assembly and distribution of information, and the development and use of best practices, believing that uniformity will be secured by voluntary action of the various States.

State Government

The State, as the sovereign political unit to which cities and other political subdivisions are subordinate, should enact constructive legislation, including enabling acts which will empower cities and other local units to provide for a proper development of their territory, legislation dealing with unorganized areas; and laws creating a State department or bureau to administer the laws applying to motor vehicles, including the issuing and revocation of licenses for both cars and drivers and also the enforcement of regulations on the highway. This may be either a separate department or a division of some existing State department. The motor vehicle department or bureau should have an adequate staff qualified by training and experience not only to handle licenses but to examine drivers, regulate traffic on the highways, investigate accidents and enforce regulations regarding design, construction, inspection and maintenance of motor vehicles.

Regulatory legislation should be for adoption by States and not by cities. The State enforcement division must have sufficiently broad powers to formulate the regulatory provisions necessary to the detailed control of traffic, leaving, however, to municipal authorities the formulation and enforcement of ordinances covering local conditions, such as the establishment of parking areas.

Municipal Government

There should be an adequately manned traffic division in the police department with traffic safety a major function of such bureau. In cities the common practice of enforcement by the police department is recognized, and the police should enforce the State law within the city limits.

Traffic Planning

In all States and municipalities there should be specific provision for adequate and timely planning of traffic facilities and traffic-control measures. These activities should be closely coordinated nationally between adjoining States, between States and their political subdivisions, and between the several agencies charged with the provision of facilities and control of their use.

In metropolitan areas faced with highly complicated traffic movement, it is desirable that there be established a special traffic planning commission whose duty it is to study the flow of traffic, make recommendations as to the elimination of hindrances to this flow, formulate plans for the correction of unsatisfactory and unsafe traffic conditions, etc. It may be desirable for this commission to be a division of a city planning body.

Grade Crossings

Elimination of grade crossings, either by relocation of highways or rail lines or by grade separation, constitutes the only perfect solution of the grade-crossing problem. It should be carried on under a proper program, first eliminating the most dangerous crossings on thoroughfares carrying heavy traffic. This is made difficult by the enormous costs involved, and, if attempted on a wholesale scale would impose an excessive financial burden resting in the last analysis upon the public. It is therefore, necessary that the program, having due regard to the relative costs and advantages of grade-crossing elimination and other methods of protection, be given the most thorough joint consideration by proper authorities. In laying out new highways the question of so locating them as to avoid railway grade crossings to the greatest possible extent should be carefully considered.

Relocation of highways offers many possibilities not yet fully developed which should be worked out by the State authorities, in cooperation with the railways. Authority to order grade separations or proper protection at grade crossings should be vested in the State commission having jurisdiction over the railways which should also

determine and enforce a proper division of the costs between the railroads and the public. The State highway department should have the authority to plan the improvements and to initiate the proceedings for all highways under its jurisdiction. Time is an essential element and a prompt decision should be provided for in the law.

Properly designated State commissions should be empowered to designate dangerous grade crossings at which motorists must stop.

The elimination and protection of grade crossings are of such importance and involve to such an extent the public safety as to require that priority be given to them, in the allocation of capital funds by the railroads and of public monies for highway building, over expenditures for other safety measures designed to protect the public.

Traffic Courts

Special traffic courts, both city and rural, should be established for the prompt and effective handling of traffic violations. It is to the public interest that there be State supervision of local procedure in traffic violation punishment, to the extent necessary to secure uniformity of administration and to prevent the abuse of judicial authority.

Licensing of Drivers

No unlicensed person should be permitted to operate a motor vehicle. A reasonable length of time after the passage of the law requiring operators to be licensed should be granted operators already qualified in which to secure licenses without examination. The department or division administering the motor-vehicle law should have full authority to refuse an operator's license to any person and to suspend or revoke a license already issued for any reason deemed sufficient.

Before granting an operator's license, the department or division should determine the applicant's ability to operate a motor vehicle safely by ascertaining his physical and mental fitness and his knowledge of the laws, and by requiring an actual demonstration of his ability to operate a motor vehicle. It is recommended that all States designate the minimum age limit, but that no person under sixteen years of age, and no person who cannot read English, should be permitted to operate, drive or direct a motor vehicle.

Penalties

Reckless driving and any other flagrant disregard of the rights of others by any user of the streets or highways should be vigorously and unceasingly prosecuted. There should be legislation providing

adequate penalties for infractions of traffic rules, including mandatory suspension or revocation of licenses for a specified length of time for cumulative evidence of carelessness or irresponsibility, for operating a motor vehicle while under the influence of intoxicating liquor or drugs, or for other serious offenses against the motor-vehicle law, and severe penalties for driving during the period of suspension or revocation, there should be a sufficient number of organized traffic officers to detect and prosecute such infractions; and there should be cooperation between States for the enforcement of the laws in each State.

The law with respect to motor vehicles should provide that when any motor vehicle is operated with gross negligence or recklessness in violation of the provisions of the general motor-vehicle law, resulting in serious injury to persons or property, where such violation has been established by due process of law the registration of the car should be suspended or revoked and its number plates be removed or other means of prohibiting use of the vehicle instituted for a period depending on the seriousness of the offense.

Speed

Regulation of speed of vehicles should be directed primarily at reckless driving and should be uniform throughout the country as far as practicable. It should be unlawful to operate a vehicle at a speed greater than is reasonable and proper, having regard for the traffic and the use of the highway, or so as to endanger the life limb or property of any person. In order to promote uniformity the speed limits should be subject to general control by State law, which should prohibit any municipality from establishing a speed limit lower than 15 miles per hour, provided that municipalities and other political subdivisions of the State should be empowered to fix speed-limit zones according to local conditions, but should be required to mark the boundaries of such zones plainly. In rural areas, instead of an absolute speed limit, it should be provided that when any vehicle exceeds 35 miles per hour that speed shall be prima facie unreasonable and it shall be incumbent upon the operator to prove affirmatively the reasonableness of such greater speed.

Certification of Titles

All of the States should adopt the principle of certification and registration of automobile titles as one of the most important and effective means for reducing thefts, and by virtue of this result, owing to the causal relation between the theft and accident hazards, also a measure for improving the present public accident situation. This

legislation should be uniform and should contain adequate provision for enforcement with proper penalties for violation. Closer cooperation between the various agencies interested in the passage of these laws would be helpful in securing their enactment.

Reporting and Investigation of Accidents

Where they do not now exist, statutes should be passed in every State which would make it the specific business of some State agency, preferably that clothed with authority for issuing or revoking licenses to receive traffic accident reports and to investigate accidents, whether occurring within or beyond the corporate limits of municipalities.

It should be made obligatory by law for those concerned to report traffic accidents involving serious personal injury or property damage, and an adequate penalty for failure to report should be provided; such reports to be tabulated and distributed at regular intervals by a State agency to the courts and to the officials responsible for the enforcement of the traffic regulations.

Safety Education in Schools

Education in safety and accident prevention should be incorporated in the curricula of elementary schools, both public and private, parochial schools, night schools, vocational schools, citizenship schools and schools for non-English-speaking adults.

Provision of Playgrounds

Adequate playgrounds throughout the community should be provided and particularly there should be available a playground for every school both as a safety measure to keep the children off the streets, and as a means for safety instruction and citizenship building. Special training in safety measures should be provided for playground supervisors. Like the schools playgrounds should, as far as practicable, be so located that children will not have to cross busy traffic streets in going to and from them.

Provision of Traffic Facilities

The systematic provision of funds is essential to permit carrying on a well-ordered program for the improvement and maintenance of traffic facilities, including adequate roadways and rights-of-way, elimination of excessive grades and curves, guard rails or walls at danger points, clear view at curves and intersections, the public's share of the expense of grade crossing elimination and protection, roadway lighting, street and highway signs, signals and surface markings.

II Administrative and Regulatory Principles

The legislative authority should grant power to make and enforce regulations and take other action indicated in the following paragraphs. These are not intended to be a complete or exhaustive enumeration of the regulations which should be prescribed, but cover the more important recommendations of the several committees.

Uniformity

Uniformity of traffic regulations is essential. This varies from exact uniformity in the case of definitions of terms, rules of the road, signs, signals and highway markings, and rules for passing railroad grade crossings, to essential uniformity in such matters as reports of accidents, parking regulations, motor-vehicle design, equipment, inspection and maintenance.

Statistics

Statistics regarding street and highway accidents are so vital to any comprehensive understanding and treatment of the safety problem that their collection, analysis and publication in every State and community are essential. Their value depends largely upon prompt and frequent publication.

Accident Reports

In the investigation of accidents sufficiently detailed information should be gathered to indicate clearly whether the accidents occurred because of—

- (a) Recklessness, carelessness or incapacity of persons;
- (b) Fault of mechanism of the vehicle;
- (c) Physical conditions of the locality where the accident occurred.

The information that should be obtained may be grouped under the following headings:

- | | |
|--|---|
| (a) Location | (k) Condition of car or cars at time of accident |
| (b) Time (hour) | (l) Speed of car or cars |
| (c) Type | (m) Primary cause of accident |
| (d) Weather | (n) Violation of traffic ordinances or motor vehicle laws |
| (e) Road conditions | (o) Age and sex of injured |
| (f) Lighting conditions (street) | (p) Extent of injuries |
| (g) Physical condition of persons involved | (q) Estimate of property damage |
| (h) Experience of driver | (r) Preventive action recommended |
| (i) Age and sex of driver | |
| (j) Relation of driver to owner | |

Spot Maps

Accident spot maps should be maintained, to be used primarily to detect those points at which accidents occur most frequently, and as a basis for plans to eliminate the conditions which cause accidents

Traffic Surveys

Special regulations for the use of particular streets including the placing of automatic signs and signals the designation of arterial streets and highways and restrictions of class of traffic, direction of traffic, parking privileges and the hours and periods of such restrictions, should be based upon competent traffic counts and analyses and established in accordance with some general plan of traffic movement founded upon the design of the street system in each city

Segregation of Traffic

In congested centers and where large volumes of vehicle movement take place between centers considerably removed, it is suggested that an effort be made to segregate street cars, motor trucks and passenger automobiles on separate thoroughfares, and that attention be given to the desirability of restricting unnecessary use of residence streets by through motor-truck traffic

City Planning and Zoning

Street and highway hazards are due chiefly to vehicular traffic. These hazards can be greatly reduced by a proper arrangement of streets and highways. Consequently each community must necessarily study and carefully consider its own special problems with particular emphasis upon

(a) The problems presented by streets and highways crossing each other at grade or crossing railroad or rapid transit lines at grade, with the two purposes of reducing the number of crossings by a better arrangement of transit lines and thoroughfares and by separating grades so far as practicable where crossings remain necessary. Elimination of grade crossings is most needed along major traffic arteries or boulevards

(b) The problem of classifying traffic and of providing suitable and adequate facilities for each class. This involves the proper location of the various kinds of development; industrial, commercial, residential through a proper planning of traffic and other

public facilities provided in the various areas, supplemented by zoning regulation of private property

(c) The location of its traffic originating centers and the possible development of its outlying areas with the two purposes of straightening main traffic arteries and of so spacing them that there will lie between them areas sufficient in size to support neighborhood stores, schools and recreation facilities

(d) The possibilities offered by its topography and its present development to create by-pass highways and belt highways which will permit through traffic, especially trucks, to avoid congested districts or even any built-up portions of the city or town

(e) The control of subdivisions to avoid in the future the types of streets which tend to congest traffic and cause accidents

Stopping and Day Storage Space for Automobiles

Each community should reach a decision, based upon present local conditions and probable future development, as to how it will provide for the stopping and parking or day storage of automobiles and should apply that decision in its city plan

Design and Equipment of Streets

While the arrangement of streets and parking spaces is the first essential in securing an even and safe flow of traffic, this must be supplemented for each kind of street by determining the most effective width, corner radius, sight clearance, etc., and the needed equipment, such as safety zones or isles of safety, lighting devices, traffic signals pavement marking. These will differ with the character of the street and the width of its roadway

Importance of Sub-Centers and Satellites

It is necessary for each region or group of communities to plan more carefully the development of industrial and business sub-centers and satellite communities with a view both to encouraging appropriate decentralization and to preventing these new centers from in turn becoming areas of traffic congestion and danger

Relation Between Street Facilities and Development of Private Property—Zoning

Each community should, in determining the character, width and arrangement of its streets, at the same time determine, through zoning the character, use and bulk of abutting buildings

Each community or group of communities in planning the main arterial highway system should take account of the effect of zoning regulations in regulating and stabilizing traffic flow

Playgrounds and Schools

Each community should study the opportunities offered by its territory to provide playgrounds and recreation spaces adequate in size and number so that it will not be necessary to use the roadway for play purposes, and, like the schools, so located that children will not have to cross busy traffic streets in going to and from them

Subdividers should be encouraged to dedicate adequate recreation space for public use

Inter relation of Traffic Facilities

Each community should, in planning its traffic system bear in mind that the automobile and the motor bus supplement rather than conflict with rapid transit rail lines

Comprehensive Traffic and Thoroughfare Plan Necessary

In order that a community may deal effectively with its problems of street and highway safety it must coordinate all its efforts in a comprehensive traffic and thoroughfare plan, showing a complete system of traffic ways, parking or automobile storage areas and needed street improvements both within the city or town limits and within the area of probable building development outside of such limits. The traffic and thoroughfare plan should be developed in consonance with a plan for the transportation and transit lines and stations and with the zoning regulations. The adoption of these plans should be followed by a definite long-term improvement and financial program

Street and Highway Construction

Roadway Width

The roadway of every improved rural highway should be wide enough for at least two lines of traffic. Every pavement in a city street should be wide enough for at least three lanes of traffic without street cars or four lanes with street cars. Those for streets of heavy traffic should be wider. Street and highway pavement widths should be in multiples of widths of traffic lanes i.e. 9 feet minimum for motor vehicles and 10 feet for street cars

Right-of-Way

Right-of way for parking space, for clear view at curves and intersections and for future roadway widening should be provided before the cost of the land becomes prohibitive

Parkways and sidewalks should be so placed as to facilitate future widening with proper provision for safety zones

Parking Spaces

To make it feasible to prohibit parking or stopping on the traveled roadway improved rural highways should be provided, either continuously or at intervals not exceeding 300 feet, with reasonably hard and level parking places entirely outside of the traveled way. It is generally not practicable to construct city streets and pavements of sufficient width to provide permanently for unrestricted parking

Grades

Safety as well as economy requires that grades in excess of 6 per cent be avoided where feasible in laying out or improving thoroughfares of primary importance, whether in country village or city

Curves

Highways of primary importance should not have curves of less than 300-foot radius. Heavy grades and sharp curves should not be combined

Cross-Section

The cross-section of the pavement or roadway should be as flat as drainage conditions will permit. Curves should be widened and banked and provided with transition curves to effect an easy transition between straight sections of the roadway and the curves

Guard Railings

Guard railings of substantial type should be erected on the shoulders of embankments

Clear View

A clear view of approaching vehicles for at least 300 feet should be provided at all points on highways of primary importance. This may necessitate controlling private advertising signs whether upon the public highways or upon private property near the highways; removing trees, shrubs and sloping banks on or off the right-of-way at curves and intersections and cutting down sharp hillcrests

Street Intersections

At street intersections the grades of each street should be maintained if possible, particularly those of main arteries of traffic. The radius of curvature of curbs should ordinarily be not less than 15 feet, and 20 feet in special cases.

Bridges

Every bridge on an improved highway or street should be at least 22 feet wide, to enable two lines of traffic to pass without difficulty. Existing one-way bridges should be widened or rebuilt. Suitable provisions should be made for the safety of pedestrians, either by sidewalks or by frequent safety zones built outward so as not to narrow the roadway.

Detours

Detours around highways, streets or bridges under construction or reconstruction should be carefully selected and maintained in safe condition, and clearly marked.

Maintenance and Snow Removal

Safety requires that pavements and roadway shoulders be maintained in good condition. This will include prompt removal of snow from all streets and highways of heavy traffic.

In congested areas street repairs and street openings should as far as possible be carried out at periods of minimum traffic.

Marking Speed Zones

Local speed limits and other special regulations should be conspicuously announced by standard signs at appropriate places on the highways indicating the beginning and end of speed limit zones on both sides.

Signs and Signals

Cautionary or stop signs and signals at danger points, direction and distance signs at important junctions and intersections, and signs and signals to indicate special traffic rules and regulations are all necessary for the safe operation of vehicles on the streets and highways and should be provided.

For signs and signals, both luminous and nonluminous, the following color indications are recommended, and these colors should not be used for any other purpose: Red for "Stop"; green for "Proceed", yellow for "Caution" as at curves; some special cautionary indication

at cross roads; white letters or symbols to be used on the red or green background, and black on the yellow. Distance and direction signs should be black and white.

Besides highway intersections, for which a special indication is recommended, sharp curves, steep descending grades and narrow bridges or places in the roadway are danger points, and should be conspicuously marked with yellow cautionary signs. Red stop-signs should be used at the entrances to through traffic highways.

Railroad Crossing Protection

Railroad crossings remaining at grade should be safeguarded in every reasonable way. Standard warning signs and pavement markings should be used to mark the approaches to all public railroad crossings. Where the volume of traffic requires it additional protection should be afforded by the use of flagmen, gates or approved electric or mechanical devices. So far as possible a clear view along the track in both directions from both sides thereof should be maintained. Sharp curves abrupt changes of grade, roughness in the pavement, or other conditions at or near the tracks which tend to divert the attention of the motorist should be avoided.

The spotting of cars near unprotected grade crossings by the railroads so that the view is thereby obstructed should be discouraged.

Street and Highway Surface Markings

Rural highways should be marked with a white center line on curves at and near hill crests at irregular intersections and at any other points where safety requires that motorists keep strictly to the right. No parking even off the traveled roadway should be permitted opposite these white lines. White center lines should not be used on straight level sections of highway or street except at highway, street or railroad crossings. Black center lines on straight sections of highways are desirable.

Pedestrian lanes should be marked on the pavement at busy intersections.

Objects near the roadway such as curbs, poles, fences and rock surfaces should be painted white. Obstructions, such as columns and curbs, at the centers of underpass should be striped diagonally black and white.

Lighting

City streets should be sufficiently illuminated so that bright headlights will be unnecessary and so that traffic signs will be clearly visible.

Flood lighting of traffic officers is recommended. Illumination should be provided on State highways wherever the State finds that it is financially practicable.

The Motor Vehicle

Brakes

Pending the adoption by constituted authorities of a code for standard braking ability, all motor vehicles, except possibly motorcycles and heavy trucks, should be capable by means of the service brake alone of stopping in a distance of not more than 50 feet from a speed of 20 miles per hour on a dry smooth hard-surfaced road free from any loose material. The emergency brakes should be capable of the same performance as service brakes but as an absolutely minimum requirement they should be capable of holding the vehicle on any grade which it can ascend.

Steering Gear

Lost motion or play in steering gears should be limited to about 15 degrees. The toe-in of front wheels should never exceed five-eighths of an inch.

Lights

Present lighting regulations should be more rigidly enforced as a necessary beginning in arriving at any improved night-driving condition on the highways.

The study of proper road illumination combined with the minimizing of undesirable glare should be given immediate further consideration with a view to determining whether it may not be possible to improve the regulations now in force.

Clear red should be used for tail lights and the rear aspect of parking lights and its use should be prohibited for any other exterior light so located as possibly to be mistaken for a tail light or a parking light.

Clear yellow should be used for "stop lights" and a maximum permissible intensity of such "stop-lights" should be established.

The use of colored lights on vehicles tending in any way to confuse the meaning of the customary safety-lights should be prohibited.

The location of spot-lights should be limited to the right of the vertical center-line of the vehicle and the beam of the spotlight should never be directed to the left of the vertical center-line.

Driver Vision

Design of bodies and cabs should be carried out with due regard to the necessity of reducing to the minimum the shut-off area of driver vision

The use of all posters or other obstructions to vision on the front windows or on the windshield should be avoided

Audible Signals

All motor vehicles should be equipped with adequate audible signals

Motor Vehicle Width

The overall width of body, chassis or load of any motor vehicle should be limited to 96 inches

Motor Vehicle Inspection and Maintenance

* Loading beyond the rated capacity of any vehicle should be prohibited. In the interest not only of safety but of economy of operation, adequate and periodic inspection, adjustment and repair of motor vehicles is absolutely essential. To this end there should be prepared a simple and practical inspection chart and code applicable to all makes of motor vehicles giving particular attention to items affecting safety. To promote its general acceptance, it is recommended that this chart and code when prepared, be issued by the Department of Commerce.

Public service commissions and other public bodies having control of common carriers operating motor vehicles should establish reports and methods of supervision to insure adequate inspection and up-keep.

Conduct of Drivers and Pedestrians*Pedestrians and Motorists*

Pedestrians and motorists should bear a considerate attitude each to the other. Along rural highways wherever there are suitable side walks or paths pedestrians should use them. Where there are none they can generally walk most safely on the lefthand side facing the traffic, but should not force motor traffic out of line or otherwise impede it. In cities pedestrians should be instructed, urged and required to keep within the boundaries of designated safety zones and crossing places and, when there is congestion, to cross only with the traffic. Motorists should be required to accord pedestrians safe and dignified use of such safety zones and crossing places.

Rules of the Road

In city streets, except one-way streets, and on rural highways whenever the traffic is heavy, the current of traffic should be on the right-

hand side of the roadway Heavy and slow-moving vehicles should keep to the right where possible and their operators should by mirrors or otherwise keep a good lookout to the rear so as not to obstruct traffic

Vehicles before entering or crossing a properly designated 'through-traffic' street or highway should be required to come to a full stop At all other intersections any approaching vehicle should be required to grant the right-of-way to any vehicle approaching from its right at such speed as to reach the intersection at approximately the same time.

Passing

Except in wide city streets carrying two or more well defined lines of traffic in the same direction a vehicle should pass another moving in the same direction only on the left-hand side of the overtaken vehicle and only after giving due warning of approach Overtaking moving vehicles on sharp curves approaching hill crests, at intersections or at railroad crossings should be prohibited An overtaken car should not increase its speed while being overtaken, and the operator of an overtaking car should exercise care not to crowd from the highway the car being overtaken Street cars stopped to discharge or receive passengers should not be overtaken except where a safety zone or loading platform is provided

Parking and Stopping

Standing cars should not be permitted to endanger or seriously impede moving traffic, or prevent reasonable access to the sidewalk for loading or unloading of vehicles This will prohibit the parking or stopping of cars on any part of the traveled portion of a rural highway and also involves the prohibition or vigorous restriction of parking at congested points in cities

Hand Signals

Safety requires that operators of motor vehicles indicate by hand signals their intent to do anything which may affect the movements of others in the vicinity Uniformity and simplicity in such signals are both highly important A single cautionary signal, made by extending the arm well outside the vehicle, as a warning that the operator is about to turn slow down stop or back is recommended as preferable to a code which attempts to show more exactly what the operator intends to do Vehicles the design of which does not permit the

driver to make proper hand driving signals should be equipped with some simple form of mechanical signal to give the necessary indications

Railroad Grade Crossings

Unless a full stop is required by law, vehicles should not be permitted to exceed a speed of 15 miles per hour when approaching within 100 feet of any railroad crossing. There should be a penalty enforced against a motorist who disobeys a clearly visible and positive signal to stop at a grade crossing.

Tires

The use of badly worn tires, especially on the front wheels of a motor vehicle, should be avoided as a possible source of danger.

Traffic Control Officers

Standardized plans should be developed for the selection and training of traffic control officers, and such plans should be put into operation by all communities. It is further recommended that, for the benefit of small communities, either such training be organized on a state basis or arrangements made by which the opportunities of the larger cities can be made available to the smaller communities.

Education

Education in safety and accident prevention should be incorporated in the curriculum of elementary schools by such means as the following:

(a) As part of a general course in citizenship in which due regard is paid to the responsibilities and obligations involved in human relations. For this purpose through some agency of research there should be gathered together materials and accounts of practices in the teaching of safety for use in the preparation of such a program.

(b) As subject matter of other courses in such fundamentals as arithmetic, geography, history, reading, nature studies and art.

(c) Through educational contests.

(d) Through organized school-boy patrols and junior safety councils.

(e) Through the use of motion pictures and dramatization.

(f) Through talks by local traffic police officers in uniform.

Safety education should be carried on into the secondary schools, in which the same habits and attitudes inculcated in the elementary schools should be extended into higher and more complex fields.

III Suggestions for Cooperative Work

Associations of Officials

The value of the service rendered by such groups as the Eastern Conference of Motor Vehicle Administrators, American Association of State Highway Officials, International Association of Police Chiefs, and others of a similar standing and character is well recognized, particularly as they act as a point of contact between the officials and the public or between the officials and agencies directly interested in special phases of the traffic problem. They contribute in the development of best practices and in securing for these practices the proper recognition from officials concerned.

Unofficial Organizations

In all principal communities there are unofficial organizations affiliated with national bodies devoted wholly, or in part, to the promotion of street and highway safety, or able to serve as a nucleus for such work, including safety councils, chambers of commerce and automobile clubs. These groups, together with national associations, being unofficial, must be cooperative in their service, which is largely educational and of particular value in research, publicity and the collection and dissemination of information.

All State and local law-enforcing agencies are urged to make every possible use of the cooperation of unofficial agencies and organizations, both in laying out the most effective methods of enforcement and in securing public support therefor.

Automobile Manufacturers

Automobile manufacturers are urged to give attention to the following suggestions:

The engine accelerator pedal should be located at a sufficient distance from the brake pedal to minimize the danger of applying the accelerator when intending to actuate the foot brake. The brake pedal should be so constructed as to minimize the danger of the driver's foot slipping from it when he wishes to actuate the foot brake. In vehicles in which it is intended that the accelerator pedal and the brake pedal shall be operated by the same foot, the movement of the foot from the accelerator to the brake pedal should be as easy and direct as possible.

Motor vehicles should be so designed as to permit braking with the engine on severe grades without injury to any of the mechanical parts. Service brakes should be so constructed as to be capable of simple and safe adjustment by the operator throughout the life of the wearing parts. Ratchets of hand brakes should be so designed and constructed as to have greater durability and certainty of operation, so that they may give efficient service throughout the life of the vehicle. The design and construction of motor vehicles should be such that unintended lubrication shall not reach the braking surfaces.

Some device for cleaning the windshield from rain and snow that can be conveniently operated by the driver should be available for use when windshields cannot be kept open or a clear vision secured by other means. The portion of the windshield in front of the driver should be made so it can be readily opened by the driver if weather conditions require it to afford proper vision.

The question of mirror design and location for purposes of rear view should be studied.

A study of the use of bumpers as a safety device should be undertaken in the near future. When bumpers are used the height of the center line above the road surface should be standardized so far as conditions will permit.

Insurance Companies

Insurance companies are urged—

(a) To keep a detailed and clearly organized record of their experience of street and highway accidents according to causes, location and other controlling factors and to exert their influence through cooperative effort to bring about the preparation of a uniform standard form for the recording of essential particulars relating to accidents and their prevention on our streets and highways.

(b) To cooperate through their various associations and affiliations in the compilation and distribution, with other agencies, of a uniform manual for the use of automobile drivers, designed to educate the operators of motor vehicles in safe driving practices and divided into two sections, the one comprising special instructions to drivers of commercial automobiles and the other special instructions to drivers of private passenger automobiles.

(c) To cooperate with and impress upon those insuring fleets of commercial automobiles the desirability of conducting regular and periodical courses of instruction for their fleet drivers.

(d) To adopt the practice in so far as practicable of making

periodical inspections as to the condition of automobiles insured by them, with particular attention to such matters as brake adjustment steering control, clutch mechanism and lighting equipment

(e) To take steps through the national insurance associations in which they hold membership, or otherwise, to bring about a coordination of the public accident prevention work now being done by them, and to consider the accomplishment of this object through the organization of a coalition committee composed of the engineering and safety experts representing the various types and groups of insurance carriers

Community Experience

It is recommended that every community undertake prevention work aggressively, since it is the community that largely controls the factors that make for a reduced accident toll, this factor in turn being reflected ultimately in a lower cost for public liability, property damage and collision insurance

Associations of Automobile Users

Many unimproved highways not part of the present or proposed Federal-aid or State highway system carry considerable motor traffic. Automobile clubs or other agencies can perform a useful service by supplementing the work of public authorities in placing standard signs at the chief danger points on such highways. They can also discourage reckless driving by their members.

Business and motor vehicle associations should encourage the loading, unloading and movement of trucks during the hours when other traffic is lightest, especially in congested districts.

Operators of Fleets of Motor Vehicles

Standardized plans should be developed and put into operation wherever practicable for the education in safety, safe driving, and accident prevention of the employees of steam and electric railways, employees of taxicab and motor bus companies, and the drivers employed by operators of fleets of commercial vehicles.

Schools and Colleges

Preparation for the teaching of safety should be incorporated in the curricula of normal schools, summer schools and teachers' colleges. Engineering schools should undertake the training of traffic experts either by offering special courses or if more practicable at the present time by including such instruction in courses such as civil engineering.

Safety Education of the Public

Plans should be developed and put into operation for the education in safety of the general public through such methods as the following

- (a) Newspaper and magazine publicity
- (b) Posters in public places
- (c) Motion pictures and lantern slides
- (d) Radio talks
- (e) Schools for motorists including both men and women
- (f) Safe drivers clubs
- (g) Safety programs or addresses at meetings of various organizations
- (h) The churches
- (i) Mass meetings
- (j) Plans for reaching parents through school children
- (k) Special campaigns

In connection with such education the importance of courtesy among the drivers of motor vehicles should be emphasized

Safety education and accident prevention should be included in the programs of women's organizations, and these organizations should undertake among their special activities the reaching of women in their homes

Organization of Cooperative Work

The conclusions of the Conference on Street and Highway Safety should be brought to the attention of the political heads of communities of 5 000 population or less on main traveled highways with the recommendation that they be put into effect in so far as they are applicable to communities of this size

With regard to communities of from 5,000 to 25 000 population a complete set of the Conference committee reports should also be brought to the attention of the political head of the community and to the attention of the Chamber of Commerce, or in the absence of a Chamber of Commerce, of some corresponding civic body, with the same recommendation

With regard to communities of from 25,000 to 100 000 population, where no safety organization is in existence steps should be taken where practicable immediately after the Conference to bring about the formation of voluntary safety committees of which the nucleus should be such representatives of the various cooperating organizations as may be located in the community, with a permanent secretary either on part

or full time. These committees should organize the community to put into effect the conclusions of the Conference and to consider the continuation of an organized safety program.

In many cities of this class there already exist one or more organizations with safety programs, even though there may be no safety organizations as such. In such cases these organizations should be utilized to initiate the formation of the proposed voluntary safety committees to carry out the recommendations of the Conference and eventually effect a permanent safety organization.

With regard to cities of 100,000 population or more, where no safety organization is in existence, steps should be taken immediately to bring about the formation of a permanent organization to cooperate with the proper public authorities in the promotion of safety and in making effective the conclusions of the Conference.

In the formation of such an organization, all civic bodies should be asked to join, such as chambers of commerce, other commercial or trade bodies, motor clubs, central labor bodies, women's clubs, and similar associations.

IV Program of Future Activities

There is considerable overlapping and duplication in the field of safety education, publicity and the collection and dissemination of data. Such duplication is inevitable in connection with a subject so close to the public interest. It is especially desirable, however, that as much duplication as possible be avoided in the efforts of unofficial organizations which are more particularly concerned in the national field. Their combined facilities utilized in the furtherance of the conclusions of the Conference on Street and Highway Safety will contribute immeasurably toward attaining a common objective—increased safety on street and highway.

The first step in this direction has been taken with the calling of the Conference on Street and Highway Safety. There should be a continuation of these cooperative steps. This can best be accomplished through a joint committee consisting of representatives of the cooperating organizations to be appointed by the Secretary of Commerce for the purpose of coordinating the safety programs of national organizations and of carrying to a conclusion the recommendations of the Conference on Street and Highway Safety.

It is not desirable to set up a new permanent national safety organization. However, the cooperation of the various organizations in this effort to find a solution of the traffic problem must be carried to completion in such a way as to assure productive results. This can be done only through the medium of a joint committee of their representatives meeting periodically and conducting without interruption a steady drive through the local agencies provided for in the recommendations.

It is also recognized that further development of certain special phases of the problem before this Conference is extremely desirable and to that end voluntary committees of technical experts should be created.

Perhaps most prominent among these special phases is the problem of securing uniformity of legislation, regulation, statistics and practices. The flow of street and highway traffic recognizes no political boundaries and cannot be hampered by changing principles of control even though local conditions may dictate the necessity for local changes, of detail without creating that confusion and uncertainty which is in itself a menace to the safety of motorist and pedestrian alike.

With regard to one phase of the problem—that is, the physical relationship of size, weight and speed of the vehicle to the highway—great

progress has already been made by the cooperative efforts of the Bureau of Public Roads; the highway officials and the manufacturers of the vehicles. On other phases tending toward the standardization of the rules of conduct, considerable progress has been made by the National Association of Railroad and Utility Commissioners, the Eastern Conference of Motor Vehicle Administrators, the Bureau of Standards, the American Engineering Standards Committee, the Highway Education Board, the National Safety Council and other national associations. An outstanding contribution to the attainment of uniformity was rendered during the war by the Highway Transport Committee of the Council of National Defense and directly following the war by a joint committee of representatives from the American Association of State Highway Officials, National Automobile Chamber of Commerce, American Automobile Association and the Highway Industries Association. These groups, after many meetings formulated a proposed uniform vehicle law, many principles of which have since been incorporated in various State laws. The Motor Vehicle Conference Committee has also been rendering valuable service in working for the adoption of uniform principles of regulating size, weights and speeds of vehicles.

Similar constructive work in the development of uniformity in other branches of traffic safety should be immediately undertaken and pushed as rapidly as possible through the operation of voluntary committees.

After adopting the above report the conference adopted the following resolutions:

- 1 That a second National Conference on Street and Highway Safety be called by the Secretary of Commerce at or about the same time next year

- 2 That a Joint Committee to carry on the interim work and prepare for the next conference be appointed by the Secretary of Commerce

- 3 That the Public Relations Committee be requested to serve in promoting the adoption of the recommendations of the present Conference

In closing the Conference Secretary Hoover said:

I would like to make this general observation before this Conference dissolves. In the assembling of the Conference we were not representing any special group or interest. You will find that here in our debate there have been represented the state highway commissioners the men who have the primary responsibility of the provision for and

regulation of our rural traffic. You will find also a large representation of our police officials, who have the immediate obligation of controlling traffic and the enforcement of the law in our towns and cities. You will find also the representatives of many of the welfare organizations of the country who are interested primarily in the saving of human life. Beyond that again you will find the representatives of all of the industries that bear upon this problem. We have had the advantage of a number of technical organizations whose duty it is to provide the engineering genius in the development of the industries and of our highways. So that the Conference has been representative of every phase of thought that could be brought to bear upon this most serious question.

Now, again, it has not been our purpose, nor has it developed in your debate that we were engaged in the establishment of new organizations, but rather that we should establish cooperation between organizations and different localities in the multitude of complexities with which we are confronted. It is not in the sense of endeavor to set up a new organization that we propose to meet again next year, but rather that during this year we should further develop the principles that have been here set down, many of them now in a tentative fashion; we should further investigate technical questions; in order that a year hence we may come to even further crystallization of principle and the more positive development of method upon which we have so finely started at this Conference. In the meantime we should exert ourselves to secure the adoption of these principles to secure the application of the valuable experience of one locality to all localities, that we may in the end save human life.

And just one closing remark. [The growth of our population, the growth of industry, the growth in complexity of our civilization itself demands of the American people a far wider degree of cooperation than today if we are to continue to progress. In those days when there were about three men in a county they seldom rubbed elbows, but today when we have as many as seven million in a county we are confronted with a multitude of problems that can be solved alone by intelligent cooperation of the entire community.] I have conceived this Conference and other Conferences of this character as perhaps the first steps in a new conception of government. Not government from a central authority, but government by stimulation of the local community to its responsibilities and the education of the local community to intelligent action. That to me is a far wiser, a far greater solution than the constant drive to centralize the government of the United States. That

has been the sense of this Conference and should be the sense of its continuing organization

I wish to express my appreciation to you for the kind remarks that have been made on my behalf. I am delighted to have had the opportunity of service. It comes to but few men to have the chance, the opportunity, to serve their countrymen. You have come here yourselves at a great deal of personal expense, a great deal of loss of time and money. You are contributing to the service of your countrymen, and I wish to thank you as a citizen among you.

List of Members of National Conference on Street and Highway Safety, December 15 and 16, 1924

A

- L A ABBOTT Bureau of Public Roads Washington, D C
 R B ABBOTT, Assistant General Superintendent Reading Company Reading Pa
 PAUL ACKERMAN, Secretary Dayton Automobile Club Dayton, Ohio
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 H A ADAMS, Union Pacific Railroad Company Omaha Nebr
 THOMAS ADAMS Regional Plan of New York and Its Environs, New York City
 F R AGG Iowa State College of Agriculture & Mechanics Arts Ames Iowa
 P G AGNEW American Engineering Standards Committee, New York City
 W D B AINEY Chairman Pennsylvania Public Service Commission Harrisburg Pa
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- FRED W BAER President International Association of Fire Fighters Washington D C
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 D H BEATTY Southern Railway System Washington D C
 RAYMOND BECK, American Automobile Association Washington D C
 HARRY J BELL Milwaukee Association of Commerce Milwaukee Wis
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B JOHN BLACK The National Grange Columbus Ohio

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W A BOOTH Canadian National Railways Montreal, Canada

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FORREST BRADEN Chief of Police Louisville, Ky

W H BREARLEY Autocar Company Ardmore, Pa

JOHN L BRIDGES Automobile Club of Maryland, Baltimore Md

H S BRIGGS President, American Electric Railway Claims Association New York City

ROY F BRITTON President, Automobile Club of Missouri, St Louis, Mo

E J. BROOKHART, Celina Mutual Casualty Company Celina Ohio

WILLIAM BROSMITH Vice President The Travelers Insurance Company Hartford, Conn

A J BROSSEAU, President Mack Trucks Inc New York City.

CHARLES A BROWN Florida Automobile Association Orlando Fla

DAVID BROWN The Texas Company New York City

LAWSON H BROWN Brooklyn Chamber of Commerce, Brooklyn N Y

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MRS RUTH MCCURRY BROWN, National American Legion Auxiliary Little Rock, Arkansas

C H BRYSON The Ohio State Automobile Association Athens, Ohio

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WILLIAM E BUEHLER M D, Mayor's Safety Commission Chicago, Ill

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