

64TH CONGRESS }  
1st Session }

SENATE

{ DOCUMENT  
No. 548

# THE FEDERAL AID ROAD ACT

## SUMMARY OF THE FEDERAL AID ROAD ACT OF JULY 11, 1916

THE RULES AND REGULATIONS THEREUNDER

TOGETHER  
WITH

AN ARTICLE

BY SECRETARY OF AGRICULTURE DAVID F. HOUSTON  
ON "THE GOVERNMENT AND GOOD ROADS"



PRESENTED BY MR. BANKHEAD

SEPTEMBER 7, 1916.—Referred to the Committee on Printing

WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1916



**REPORTED BY MR. FLETCHER.**

IN THE SENATE OF THE UNITED STATES,  
*September 7, 1916.*

*Resolved*, That the manuscript submitted by the Senator from Alabama [Mr. Bankhead] on September 7, 1916, entitled "The Federal aid road act of 1916," including a summary of the same, rules and regulations of the Secretary of Agriculture, and an article entitled "The Government and good roads," by Hon. David F. Houston, be printed as a Senate document.

Attest:

JAMES M. BAKER, *Secretary.*

# FEDERAL AID ROAD ACT OF 1916.

[PUBLIC LAW—No. 156—64TH CONGRESS.]

[H. R. 7617.]

AN ACT To provide that the United States shall aid the States in the construction of rural post roads, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the Secretary of Agriculture is authorized to cooperate with the States, through their respective State highway departments, in the construction of rural post roads; but no money apportioned under this Act to any State shall be expended therein until its legislature shall have assented to the provisions of this Act, except that, until the final adjournment of the first regular session of the legislature held after the passage of this Act, the assent of the governor of the State shall be sufficient. The Secretary of Agriculture and the State highway department of each State shall agree upon the roads to be constructed therein and the character and method of construction; *Provided,* That all roads constructed under the provisions of this Act shall be free from tolls of all kinds.

SEC. 2. That for the purpose of this Act the term "rural post road" shall be construed to mean any public road over which the United States mails now are or may hereafter be transported, excluding every street and road in a place having a population, as shown by the latest available Federal census, of two thousand five hundred or more, except that portion of any such street or road along which the houses average more than two hundred feet apart; the term "State highway department" shall be construed to include any department of another name, or commission, or official or officials, of a State empowered, under its laws, to exercise the functions ordinarily exercised by a State highway department; the term "construction" shall be construed to include reconstruction and improvement of roads; "properly maintained" as used herein shall be construed to mean the making of needed repairs and the preservation of a reasonably smooth surface considering the type of the road; but shall not be held to include extraordinary repairs, nor reconstruction; necessary bridges and culverts shall be deemed parts of the respective roads covered by the provisions of this Act.

SEC. 3. That for the purpose of carrying out the provisions of this Act there is hereby appropriated, out of any money in the Treasury not otherwise appropriated, for the fiscal year ending June thirtieth, nineteen hundred and seventeen, the sum of \$5,000,000; for the fiscal year ending June thirtieth, nineteen hundred and eighteen, the sum of \$10,000,000; for the fiscal year ending June thirtieth, nineteen hundred and nineteen, the sum of \$15,000,000; for the fiscal year ending June thirtieth, nineteen hundred and twenty, the sum of \$20,000,000; and for the fiscal year ending June thirtieth, nineteen hundred and twenty-one, the sum of \$25,000,000. So much of the appropriation apportioned to any State for any fiscal year as remains unexpended at the close thereof shall be available for expenditure in that State until the close of the succeeding fiscal year, except that amounts apportioned for any fiscal year to any State which has not a State highway department shall be available for expenditure in that State until the close of the third fiscal year succeeding the close of the fiscal year for which such apportionment was made. Any amount apportioned under the provisions of this Act unexpended at the end of the period during which it is available for expenditure under the terms of this section shall be reapportioned, within sixty days thereafter, to all the States in the same manner and on the same basis, and certified to the Secretary of the Treasury and to the State highway departments and to the governors of States having no State highway departments in the same way as if it were being appor-

tioned under this Act for the first time; *Provided*, That in States where the constitution prohibits the State from engaging in any work of internal improvements, then the amount of the appropriation under this Act apportioned to any such State shall be turned over to the highway department of the State or to the governor of said State to be expended under the provisions of this Act and under the rules and regulations of the Department of Agriculture, when any number of counties in any such State shall appropriate or provide the proportion or share needed to be raised in order to entitle such State to its part of the appropriation apportioned under this Act.

SEC. 4. That so much, not to exceed three per centum, of the appropriation for any fiscal year made by or under this Act as the Secretary of Agriculture may estimate to be necessary for administering the provisions of this Act shall be deducted for that purpose, available until expended. Within sixty days after the close of each fiscal year the Secretary of Agriculture shall determine what part, if any, of the sums theretofore deducted for administering the provisions of this Act will not be needed for that purpose and apportion such part, if any, for the fiscal year then current in the same manner and on the same basis, and certify it to the Secretary of the Treasury and to the State highway departments, and to the governors of States having no State highway departments, in the same way as other amounts authorized by this Act, to be apportioned among all the States for such current fiscal year. The Secretary of Agriculture, in the same way as other amounts authorized by this Act to be apportioned, shall apportion the remainder of the appropriation for each fiscal year among the several States in the following manner: One-third in the ratio which the area of each State bears to the total area of all the States; one-third in the ratio which the population of each State bears to the total population of all the States, as shown by the latest available Federal census; one-third in the ratio which the mileage of rural delivery routes and star routes in each State bears to the total mileage of rural delivery routes and star routes in all the States, at the close of the next preceding fiscal year, as shown by the certificate of the Postmaster General, which he is directed to make and furnish annually to the Secretary of Agriculture.

SEC. 5. That within sixty days after the approval of this Act the Secretary of Agriculture shall certify to the Secretary of the Treasury and to each State highway department and to the governor of each State having no State highway department the sum which he has estimated to be deducted for administering the provisions of this Act and the sum which he has apportioned to each State for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and on or before January twentieth next preceding the commencement of each succeeding fiscal year shall make like certificates for such fiscal year.

SEC. 6. That any State desiring to avail itself of the benefits of this Act shall, by its State highway department, submit to the Secretary of Agriculture project statements setting forth proposed construction of any rural post road or roads therein. If the Secretary of Agriculture approve a project, the State highway department shall furnish to him such surveys, plans, specifications, and estimates therefor as he may require: *Provided, however*, That the Secretary of Agriculture shall approve only such projects as may be substantial in character and the expenditure of funds hereby authorized shall be applied only to such improvements. Items included for engineering, inspection, and unforeseen contingencies shall not exceed ten per centum of the total estimated cost of the work. If the Secretary of Agriculture approve the plans, specifications, and estimates, he shall notify the State highway department and immediately certify the fact to the Secretary of the Treasury. The Secretary of the Treasury shall thereupon set aside the share of the United States payable under this Act on account of such project, which shall not exceed fifty per centum of the total estimated cost thereof. No payment of any money apportioned under this Act shall be made on any project until such statement of the project, and the plans, specifications, and estimates therefor, shall have been submitted to and approved by the Secretary of Agriculture.

When the Secretary of Agriculture shall find that any project so approved by him has been constructed in compliance with said plans and specifications he shall cause to be paid to the proper authority of said State the amount set aside for said project: *Provided*, That the Secretary of Agriculture may, in his discretion, from time to time make payments on said construction as the same progresses, but these payments including previous payments, if any, shall not be more than the United States' pro rata part of the value of the labor and materials which have been actually put into said construction in

conformity to said plans and specifications; nor shall any such payment be in excess of \$10,000 per mile, exclusive of the cost of bridges of more than twenty feet clear span. The construction work and labor in each State shall be done in accordance with its laws, and under the direct supervision of the State highway department, subject to the inspection and approval of the Secretary of Agriculture and in accordance with the rules and regulations made pursuant to this Act.

The Secretary of Agriculture and the State highway department of each State may jointly determine at what times, and in what amounts, payments, as work progresses, shall be made under this Act. Such payments shall be made by the Secretary of the Treasury, on warrants drawn by the Secretary of Agriculture, to such official, or officials, or depository, as may be designated by the State highway department and authorized under the laws of the State to receive public funds of the State or county.

SEC. 7. To maintain the roads constructed under the provisions of this Act shall be the duty of the States, or their civil subdivisions, according to the laws of the several States. If at any time the Secretary of Agriculture shall find that any road in any State constructed under the provisions of this Act is not being properly maintained he shall give notice of such fact to the highway department of such State and if within four months from the receipt of said notice said road has not been put in a proper condition of maintenance then the Secretary of Agriculture shall thereafter refuse to approve any project for road construction in said State, or the civil subdivision thereof, as the fact may be, whose duty it is to maintain said road, until it has been put in a condition of proper maintenance.

SEC. 8. That there is hereby appropriated and made available until expended, out of any moneys in the National Treasury not otherwise appropriated, the sum of \$1,000,000 for the fiscal year ending June thirtieth, nineteen hundred and seventeen, and each fiscal year thereafter, up to and including the fiscal year ending June thirtieth, nineteen hundred and twenty-six, in all \$10,000,000, to be available until expended under the supervision of the Secretary of Agriculture, upon request from the proper officers of the State, Territory, or county for the survey, construction, and maintenance of roads and trails within or only partly within the national forests, when necessary for the use and development of resources upon which communities within and adjacent to the national forests are dependent: *Provided*, That the State, Territory, or county shall enter into a cooperative agreement with the Secretary of Agriculture for the survey, construction, and maintenance of such roads or trails upon a basis equitable to both the State, Territory, or county, and the United States: *And provided also*, That the aggregate expenditures in any State, Territory, or county shall not exceed ten per centum of the value, as determined by the Secretary of Agriculture, of the timber and forage resources which are or will be available for income upon the national forest lands within the respective county or counties wherein the roads or trails will be constructed; and the Secretary of Agriculture shall make annual report to Congress of the amounts expended hereunder.

That immediately upon the execution of any cooperative agreement hereunder the Secretary of Agriculture shall notify the Secretary of the Treasury of the amount to be expended by the United States within or adjacent to any national forest thereunder, and beginning with the next fiscal year and each fiscal year thereafter the Secretary of the Treasury shall apply from any and all revenues from such forest ten per centum thereof to reimburse the United States for expenditures made under such agreement until the whole amount advanced under such agreement shall have been returned from the receipts from such national forest.

SEC. 9. That out of the appropriations made by or under this Act, the Secretary of Agriculture is authorized to employ such assistants, clerks, and other persons in the city of Washington and elsewhere, to be taken from the eligible lists of the Civil Service Commission, to rent buildings outside of the city of Washington, to purchase such supplies, material, equipment, office fixtures, and apparatus, and to incur such travel and other expense as he may deem necessary for carrying out the purposes of this Act.

SEC. 10. That the Secretary of Agriculture is authorized to make rules and regulations for carrying out the provisions of this Act.

SEC. 11. That this Act shall be in force from the date of its passage.

Approved, July 11, 1916.

Eno

Center for  
Transportation

## SUMMARY OF FEDERAL AID ROAD ACT OF 1916.

The Federal aid road act was signed by the President and became a law on July 11, 1916.

### SUMMARY OF THE FEDERAL AID ROAD ACT.

#### PRINCIPLE OF THE ACT IS: COOPERATION.

**Purpose of the act.**—To promote construction of rural post roads by granting aid to the various States; to provide further money aid toward the construction of roads and trails wholly or partly within the national forests; to encourage supervision of roads within the State by competent State officials.

#### PROVISIONS OF THE ACT.

**Total amount appropriated, \$85,000,000.**—\$75,000,000 to be expended on the rural post roads in the several States during the five-year period ending June 30, 1921; \$10,000,000 to be expended at the rate of \$1,000,000 a year in connection with the national forest roads.

**Amounts to be expended from the major appropriation are:**

- \$5,000,000 for the year ending June 30, 1917;
- \$10,000,000 for the year ending June 30, 1918;
- \$15,000,000 for the year ending June 30, 1919;
- \$20,000,000 for the year ending June 30, 1920;
- \$25,000,000 for the year ending June 30, 1921.

**A deduction for administration** not to exceed 3 per cent of the appropriation for any one fiscal year is to be made by the Secretary of Agriculture, after which

**The remainder of each year's appropriation** is to be apportioned among the States in the following manner:

One-third in the ratio which the area of each State bears to the total area of all the States;

One-third in the ratio which the population of each State bears to the total population of all the States;

One-third in the ratio which the mileage of rural delivery and star routes in each State bears to the total mileage of rural delivery routes and star routes in all the States.

**Roads which may be constructed** under the act are defined as those over which the United States mails now are or may hereafter be transported, excluding streets and roads in places having a population of 2,500 or more, except that portion of such thoroughfares along which the houses average more than 200 feet apart.

**Federal money may be expended on construction only.**—The term "construction" is construed to include reconstruction and improvement of existing roads, but expenditure of funds is authorized upon only such projects as may be substantial in character.

The limit of expenditure which may be made by the United States upon any road is \$10,000 per mile, exclusive of the cost of bridges of more than 20 feet clear span. And in no event shall the share of the United States exceed 50 per cent of the total cost.

The Secretary of Agriculture is required, within 60 days after the approval of the act, to certify to the Secretary of the Treasury, to each State highway department, and to the governor of each State having no State highway department, the sum which he has estimated to be deducted for administering the provisions of the act and the sum which he has apportioned to each State for the fiscal year ending June 30, 1917, and on or before January 20 next preceding the commencement of each succeeding fiscal year he is required to make like certificates for such fiscal year.

The balance of the annual apportionment remaining unexpended at the close of any fiscal year in any State is to be available for expenditure in that State until the close of the succeeding fiscal year, except that an apportionment for any fiscal year to a State which has no State highway department is to be available for expenditure in that State until the close of the third fiscal year succeeding the close of the fiscal year for which the apportionment was made; in other words, in the absence of a highway department, it is to be available for four years from the beginning of the fiscal year for which the appropriation is made. Any amount remaining unexpended at the end of the period during which it is available is to be reapportioned within 60 days to all the States in the same manner and on the same basis as if it were being apportioned for the first time; and in the same manner the Secretary of Agriculture is to certify to the Secretary of the Treasury, to the State highway departments, and to the governors of States having no State highway departments, the amount of the apportionment to each State.

#### TO RECEIVE THE BENEFITS OF THE ACT.

I. A State must, through its legislature, assent to the provisions of the act, except that, until the final adjournment of the first regular session of the legislature held after the passage of the act, the assent of the governor of the State shall be sufficient.

II. A State must have a State highway department. The term "State highway department" is construed to include any department of another name, or any commission, or official, or officials empowered under the laws, to exercise the ordinary functions of a State highway department.

III. A State must submit to the Secretary of Agriculture, by its State highway department, a definite and comprehensive program of construction for the five-year period, or as much thereof as practicable, and subsequently from time to time an application for Federal aid, known as a project statement, setting forth proposed construction of each rural post road.

IV. A State must furnish, through its State highway department to the Secretary of Agriculture, upon his approval of a project, such surveys, plans, specifications, and estimates as the Secretary may require. Items included for engineering, inspection, and unforeseen contingencies shall not exceed 10 per cent of the total estimated cost of the work.



V. A State must agree, through its State highway department, with the Secretary of Agriculture upon the road to be constructed and the character and method of construction.

VI. A State must construct, under the supervision of its State highway department, the road or roads, including necessary bridges and culverts, approved by the Secretary of Agriculture. The work and labor are to be done in accordance with the laws of the State and rules and regulations made pursuant to the act, and subject to the inspection and approval of the Secretary of Agriculture.

VII. A State must properly maintain the roads constructed under the provisions of the act, except that in such cases as State laws impose the duty of maintenance upon civil subdivisions of the State, these must maintain the roads constructed. Proper maintenance is construed to mean the making of needed repairs and the preservation of a reasonably smooth surface considering the type of the road, but is not held to include extraordinary repairs or reconstruction. If at any time the Secretary of Agriculture shall find that any road constructed under the provisions of the act is not being properly maintained, he is directed to give notice of that fact to the highway department of the State. If within four months from the receipt of such notice the road has not been put in a proper condition of maintenance the Secretary of Agriculture is required to refuse thereafter to approve any project for road construction in the State, or civil subdivision, as the case may be, whose duty it is to maintain the road, until it has been put in a condition of proper maintenance.

A State prohibited by its constitution from engaging in any work of internal improvement may obtain its apportionment when any number of counties shall have appropriated or provided the proportion or share needed to be raised in order to entitle such State to its part of the appropriation.

Approval by the Secretary of Agriculture of the plans, specifications, and estimates submitted by a State highway department is followed by certification of the fact to the Secretary of the Treasury who thereupon is required to set aside the share of the United States payable on account of the project.

Partial and final payments for approved work are to be made by the Secretary of the Treasury, on warrants drawn by the Secretary of Agriculture, to the official, officials, or depository designated by the State highway department and authorized under the laws of the State to receive public funds of the State or county, but

No payment shall be greater than the United States' pro rata part of the value of labor and materials which actually have been put into the construction in conformity with the plans and specifications.

Freedom from tolls of all kinds is provided for all roads constructed under the act.

The Secretary of Agriculture is authorized to make rules and regulations for carrying out the provisions of the act; to employ assistants, clerks, and others from the eligible lists of the Civil Service Commission; to rent buildings outside the city of Washington, purchase supplies, materials, etc., and incur travel and other expenses such as he may deem necessary for carrying out the purposes of the act.

Inspection and approval by the Secretary of Agriculture at every stage of the proceedings is required. Except as to section 8 the Office

of Public Roads and Rural Engineering will act for the Secretary in the routine administration of the act. The apportionment of funds and the selection of projects under section 8 will be handled by the Forest Service, while surveying and construction work will be under the supervision of the Office of Public Roads and Rural Engineering. General inquiries may be addressed accordingly.

#### NATIONAL FOREST ROADS.

The appropriation of \$10,000,000 for the survey, construction, and maintenance of roads and trails wholly or partly within the national forests is to be available until expended under the supervision of the Secretary of Agriculture.

To receive aid a State, Territory, or county must make a formal request through its proper officer and must enter into a cooperative agreement with the Secretary of Agriculture for the survey, construction, and maintenance of the desired roads or trails upon a basis equitable to both the State, Territory, or county and the United States.

The aggregate expenditures in any State, Territory, or county must not exceed 10 per cent of the value, as determined by the Secretary of Agriculture, of the timber and forage resources which are or will be available for income upon the national forest lands within the respective county or counties wherein the roads or trails will be constructed. The Secretary of Agriculture is required to make annual report to Congress of the amounts expended for this purpose.

The United States is to be reimbursed for expenditures made under agreement between the Secretary of Agriculture and a State, Territory, or county by the application by the Secretary of the Treasury of 10 per cent of all revenues from the forest beginning with the next fiscal year after the making of the agreement. This reimbursement is to continue until the whole amount advanced under the agreement shall have been returned to the United States from the receipts of the national forest within or adjacent to which the money is expended.

**RULES AND REGULATIONS OF THE SECRETARY OF AGRICULTURE FOR CARRYING OUT THE FEDERAL-AID ROAD ACT. (EXCEPT SECTION 8 THEREOF.)**

Issued September 1, 1916.

**REGULATION 1.—DEFINITIONS.**

For the purposes of these regulations, the following terms shall be construed, respectively, to mean—

**SECTION 1. *The Federal-aid road act, or the act.***—An act of Congress entitled "An act to provide that the United States shall aid the States in the construction of rural post roads, and for other purposes," approved July 11, 1916. (Public, No. 156, 64th Congress.)

**SEC. 2. *The Secretary.***—The Secretary of Agriculture of the United States.

**SEC. 3. *Office of Public Roads.***—The Office of Public Roads and Rural Engineering of the United States Department of Agriculture.

**SEC. 4. *Ten per cent fund.***—Items for engineering, inspection, and unforeseen contingencies, not exceeding 10 per cent of the total estimated cost of the work.

**SEC. 5. *Authorized representatives of the Secretary.***—The Director of the Office of Public Roads and such other officials and employees thereof as he may designate from time to time.

**REGULATION 2.—APPLICATION OF REGULATIONS.**

**SECTION 1.** These regulations apply to all provisions, except section 8, of the act and shall not be applied to section 8 unless hereafter authorized or required by order of the Secretary.

**SEC. 2.** These regulations shall apply as fully where the State can not constitutionally engage in any work of internal improvements as in any other case, when any number of counties in such State shall appropriate or provide the proportion or share needed to be raised in order to entitle such State to its part of the appropriation apportioned under the act.

**REGULATION 3.—INFORMATION FOR THE SECRETARY.**

**SECTION 1.** Before an agreement is made upon any road or roads to be constructed in a State, or the character and method of construction, upon request of the Secretary there shall be furnished to him, by or on behalf of the State, general information as to its laws affecting roads and the authority of the State and local officials in reference to the construction and maintenance of roads; as to schemes for future construction; and as to provisions made, or to be made, for constructing and maintaining roads upon which it is contemplated that the expenditure of money appropriated by or under the act will be proposed. The information furnished shall be sufficient to enable the Secretary to determine whether it is likely that the money apportioned to the State will be expended, and the roads constructed will be properly maintained, in accordance with the terms of the act.

**SEC. 2.** Information requested by the Secretary or his authorized representative, relating to the maintenance of roads constructed under the provisions of the act, shall be furnished, from time to time, by the State highway departments, on forms supplied by the Office of Public Roads.

**SEC. 3.** Data furnished by or on behalf of a State shall be supplemented by such reports of the Office of Public Roads as the Secretary may from time to time require before he decides whether the State has complied with the terms of the act or has presented a project statement which should be approved.

**REGULATION 4.—PROJECT STATEMENTS.**

**SECTION 1.** A project statement shall contain all information necessary to enable the Secretary to ascertain (a) whether the project conforms to the requirements of the act; (b) whether adequate funds, or their equivalent, are or will be available by or on behalf of the State for construction; (c) what purpose the project will serve and how it correlates with the other highway work of the State; (d) the administrative control of, and responsibility for, the project; (e) the practicability and economy of the project from an engineering and construction standpoint; (f) the adequacy of the plans and provisions for proper maintenance of roads; and (g) the approximate amount of Federal aid desired. With each statement there shall be submitted for the approval of the Secretary copies of the form of contract, together with all documents referred to therein or made part thereof, and of the contractor's bond which it is proposed to use on the project. No alteration of such forms shall be made until it is approved by the Secretary.

**SEC. 2.** Suitable forms for project statements will be supplied by the Office of Public Roads.

**SEC. 3.** Project statements for any fiscal year may be submitted at any time after the apportionment for that year shall have been made.

**SEC. 4.** Projects will be deemed preferred and recommended for approval by the State highway department in the order in which the project statements are submitted, unless it be otherwise specified in writing, but the Secretary may, in his discretion, consider the projects in a different order.

**SEC. 5.** Each project statement shall be accompanied by a sketch map showing the location of the proposed project and all main contiguous transportation features.

**SEC. 6.** Suitable samples of materials suggested for use in the construction of a project shall be submitted to the Office of Public Roads, whenever requested by it, for examination prior to the Secretary's decision on the project statement.

**SEC. 7.** Where any part of the cost of a project is to be furnished by a county or other local subdivision or subdivisions of a State, the project statement shall be accompanied by certified copy of each resolution or order, if any, of the appropriate local officials respecting the funds which are or will be made available, or respecting the supervision of the construction of the road and of the expenditure of the money provided or to be provided for paying such cost.

**REGULATION 5.—SURVEYS, PLANS, SPECIFICATIONS, AND ESTIMATES.**

**SECTION 1.** Surveys and plans shall show, in convenient form and sufficient detail, according to accepted engineering practice, necessary data in connection with the specifications and estimates, to enable the Secretary to ascertain and pass upon location, grades, drainage, bridges, other structures, special and unusual features, the work to be performed, and the probable cost thereof.

**SEC. 2.** Specifications shall set forth the proposed method of construction, type of construction, materials to be used, and other essentials, in such detail as to afford complete knowledge of all steps to be taken in the construction of the project.

**SEC. 3.** The estimate for each project shall show the estimated quantity and cost of each item of construction in detail and, separately, the 10 per cent fund, and shall not include any expense of advertising.

**SEC. 4.** Rights of way necessary for any project shall be provided, and any incidental damages to adjoining property due to construction work paid by or on behalf of the State, and the expense thereof shall not be included in the estimate or paid in any part, directly or indirectly, by the Federal Government.

**SEC. 5.** Grade crossings shall be avoided where practicable. The estimated cost of eliminating a grade crossing shall not include any amount the State, county, or other civil subdivision has received, is to receive, or is entitled to receive, directly or indirectly, as reimbursement or payment from the owner of a public utility for or on account of such elimination.

**SEC. 6.** No part of the expense of making surveys, plans, specifications, or estimates, by or on behalf of the State prior to the beginning of construction work, shall be included in the estimate or paid by the Federal Government.

**SEC. 7.** When plans, specifications, and estimates have been approved by the Secretary, no alteration thereof shall be made without his approval.

**SEC. 8.** For all projects for which statements are submitted after December 31, 1916, standards governing the form and arrangement of plans, specifications, and estimates will be hereafter prescribed and promulgated by the Secretary.

**REGULATION 6.—PROJECT AGREEMENTS.**

SECTION 1. A project agreement between the State highway department and the Secretary shall be executed, in triplicate, on a form furnished by him, previous to commencement of the construction of the project.

**REGULATION 7.—CONTRACTS.**

SECTION 1. No part of the Federal money set aside on account of any project shall be paid until it has been shown to the satisfaction of the Secretary that adequate means, either by advertising or by other devices appropriate for the purpose, were employed, prior to the beginning of construction, to insure the economical and practical expenditure of such money.

SEC. 2. Immediately on publication of advertisements, copies thereof shall be furnished to the Office of Public Roads.

SEC. 3. Bids shall be in such form that the unit prices at which the various services are to be performed and the various materials furnished will be clearly shown.

SEC. 4. Copy of the tabulated bid prices, showing the unit prices and the totals of each bid for every project, shall be furnished promptly to the Office of Public Roads.

SEC. 5. In advance of the acceptance of any bid, sufficient notice of the time and place the contract is to be awarded shall be given to the Office of Public Roads to enable it, if it so desire, to have a representative present. When a bid has been accepted prompt notice thereof shall be given to the Office of Public Roads.

SEC. 6. If the contract be awarded to any other than the lowest responsible bidder, the Federal Government shall not pay more than its pro rata share of the lowest responsible bid, unless it be satisfactorily shown that it was advantageous to the work to accept the higher bid.

SEC. 7. A copy of each contract as executed shall be immediately certified by the State highway department and furnished to the Office of Public Roads.

SEC. 8. The specifications and plans shall be made a part of the contract.

SEC. 9. No alteration in such contract shall be made without the approval of the Secretary.

**REGULATION 8.—CONSTRUCTION WORK AND LABOR.**

SECTION 1. Suitable samples of materials to be used in construction work shall be submitted, by or on behalf of the State highway department, to the Office of Public Roads whenever requested.

SEC. 2. Unless otherwise stipulated in writing by the Secretary or his authorized representative, materials for the construction of any project shall, prior to use, be tested for conformity with specifications, according to methods prescribed or approved by the Office of Public Roads.

SEC. 3. Unless otherwise specifically stipulated in the project agreement, bridges, viaducts, and underpasses shall have clear width of roadway of not less than 16 feet and clear head room of not less than 14 feet for a width of 8 feet at the center.

SEC. 4. No part of the money apportioned under the act shall be used, directly or indirectly, to pay, or to reimburse a State, county, or local subdivision for the payment of any premium or royalty on any patented or proprietary material, specification, process, or type of construction, unless purchased or obtained on open actual competitive bidding at the same or a less cost than unpatented articles or methods equally suitable for the same purpose.

SEC. 5. The supervision of each project by the State highway department shall include adequate inspection throughout the course of construction.

SEC. 6. Written notice of commencement and completion of construction work on any project shall be given promptly by the State highway department to the Office of Public Roads.

SEC. 7. Reports of the progress of construction, showing force employed and work done, shall be furnished, from time to time, whenever requested by the Secretary or his authorized representative.

SEC. 8. Labor, teams, materials, and equipment furnished, in lieu of money, by or on behalf of the State highway department on construction work shall be used only on such terms and conditions as are set forth in the project agreement.

**REGULATION 9.—RECORDS AND COST KEEPING.**

**SECTION 1.** A separate account for each project shall be so kept, by or under the direction of the State highway department as to enable the secretary, or his authorized representative, to ascertain at any time the expenditures on and the liabilities against the project and, separately, the condition of the 10 per cent fund.

**SEC. 2.** Such other records of contract and force account work, and of inspections and tests by or on behalf of the State, shall be kept, by or under the direction of the State highway department, as will enable the Secretary, or his authorized representative, at any time to determine the condition of the construction and maintenance of, and the cost to the State and the Federal Government of the construction work and labor done on any project.

**SEC. 3.** The accounts and records, together with all supporting documents, shall be open, at all times, to the inspection of the Secretary, or his authorized representative, and copies thereof shall be furnished when requested.

**SEC. 4.** Certified copies of pay rolls on force account work and of all vouchers for other expenditures shall be furnished, whenever requested by the Secretary or his authorized representative.

**SEC. 5.** Whenever requested by the Secretary or his authorized representative, unit costs on any project shall be kept on forms furnished by the Office of Public Roads.

**REGULATION 10.—PAYMENTS.**

**SECTION 1.** Vouchers, in the form provided by the Secretary and certified as therein prescribed, showing amounts expended on any project and amount claimed to be due from the Federal Government on account thereof, shall be submitted by the State highway department to the Office of Public Roads, either after completion of construction of the project or, if the Secretary has determined to make payments as the construction progresses, at intervals of not less than one month.

**REGULATION 11.—OFFICE OF PUBLIC ROADS.**

**SECTION 1.** Papers and documents required by the act or these regulations to be submitted to the Secretary may be delivered to the Office of Public Roads and from the date of such delivery shall be deemed submitted.

**RULES AND REGULATIONS OF THE SECRETARY OF AGRICULTURE UNDER SECTION 8 OF THE FEDERAL AID ROAD ACT.**

Issued September 1, 1916.

**REGULATION 1.—DEFINITIONS.**

For the purposes of these regulations the following terms shall be construed, respectively, to mean:

**SECTION 1. Act.** Section 8 of an act of Congress entitled "An act to provide that the United States shall aid the States in the construction of rural post roads, and for other purposes," approved July 11, 1916. (Public, No. 156, 64th Congress.)

**SEC. 2. Secretary.** The Secretary of Agriculture of the United States.

**SEC. 3. Office of Public Roads.** The Office of Public Roads and Rural Engineering of the United States Department of Agriculture.

**SEC. 4. Local authority.** The State, Territory, or county, jointly or severally, making application for the survey and construction of a road or entering into a cooperative agreement with the Secretary.

**SEC. 5. State.** Any State or Territory.

**SEC. 6. Road.** A road, trail, or bridge.

**SEC. 7. National forest road.** A road constructed or to be constructed in cooperation with the local authorities under the direct supervision of the Secretary of Agriculture and paid for, in whole or in part, out of moneys made available by the act.

**SEC. 8. Cooperative road.** A road constructed or to be constructed under State, Territory, or county supervision and under cooperative agreement as provided in the act, but paid for out of funds other than those appropriated by the act.

**SEC. 9. Construction.** Reconstruction and improvement of roads, as well as original construction.

**SEC. 10. Maintenance or properly maintain.** The making of needed repairs and the preservation of a reasonably smooth surface, considering the type of road, but not extraordinary repairs or reconstruction.

**SEC. 11. State highway department.** Any department of another name, or commission, or official or officials, of a State empowered, under its laws, to exercise the functions ordinarily exercised by a State highway department.

**REGULATION 2.—APPORTIONMENT.**

**SECTION 1.** Ten per cent of each annual appropriation shall be withheld as a special fund, from which, as directed by the Secretary, the apportionment to any State as hereafter provided may be increased, and from which there shall be paid such amounts as the Secretary may find necessary for the general administration of the provisions of the act. The remaining ninety per cent of each annual appropriation shall be apportioned to the States as follows: One-half on the basis that the aggregate area of the lands of the United States in the national forests in each State bears to the total land area of such State, and one-half in the proportion that the estimated value of timber and forage resources of the national forests in such State bears to the total value of timber and forage resources of the national forests of all the States: *Provided, however,* That in such apportionment the States of Florida, Michigan, Minnesota, Nebraska, North Dakota, and Oklahoma shall be considered as a unit of apportionment, and the States within which lands have been acquired by the United States under the provisions of the act of March 1, 1911 (36 Stat., 961), entitled "An act to enable any State to cooperate with any other State or States or with the United States for the protection of watersheds of navigable streams, and to



appoint a commission for the acquisition of lands for the purpose of conserving the navigability of navigable rivers," known as the Weeks law, shall also be considered as a unit of apportionment.

SEC. 2. The apportionment for the fiscal year ending June 30, 1917, shall be made as of the date of the approval of these regulations, and on or before the 1st day of January next preceding the commencement of each succeeding fiscal year the Secretary will make like apportionment for such fiscal year.

SEC. 3. Any amounts apportioned to the States as herein provided remaining unexpended for a period of three years after such apportionment may be reapportioned by the Secretary to the several States in the manner provided for original apportionment.

#### REGULATION 3.—APPLICATIONS.

SECTION 1. Application for the survey, construction, and maintenance of roads under the act shall be made by the proper local authority to the Secretary upon forms furnished by the Forest Service and filed in the district office of the Forest Service for the district within which the proposed road is located. Any application by a county in a State having a State highway department shall, before filing, be referred to such department for its recommendation, which shall be filed with the application.

SEC. 2. Applications for the fiscal year ending June 30, 1917, shall be filed on or before October 1, 1916, and for each succeeding fiscal year on or before the 1st day of January next preceding such fiscal year.

SEC. 3. Each application shall contain: (a) Satisfactory evidence of authority to make application on behalf of the State, Territory, or county, and to enter into a cooperative agreement with the Secretary for the survey, construction, and maintenance of the proposed road; (b) a statement of the public needs to be served by the proposed road and the manner in and extent to which such road is necessary for the use and development of the resources upon which communities within or adjacent to the national forests are dependent; (c) a statement showing (1) the general location of the proposed road, (2) its termini, length, grades, and estimated cost, and (3) the name, population, and location with respect to the proposed road of each community that would be benefited thereby; and (d) proposals for cooperation, giving in detail the amount and extent of the cooperation offered, whether in money, materials, labor, or the construction of a cooperative road and whether cooperative moneys will be held and disbursed by the local authority or will be deposited in the United States Treasury in accordance with the provisions of the act of Congress approved June 30, 1914 (38 Stat., 415, 430), entitled "An act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1915," creating a special fund of contributions for cooperative forest work, available until expended, for the payment of the expenses of such work and for refunds to the contributors of amounts paid by them in excess of their share of such work.

SEC. 4. Applications which are not approved for the fiscal year for which made will be retained, and unless modified or withdrawn by the applicant will be considered for succeeding fiscal years.

#### REGULATION 4.—SELECTION OF PROJECTS.

SECTION 1. The Forest Service shall prepare: (a) A project plan for each State, providing, as far as practicable, for a comprehensive road system in the national forests, showing in the order of their importance the roads within or partly within the national forests which it believes should be constructed; (b) maps showing the road system for each national forest and delimiting the projects listed, as provided in section 3 hereof, with a mark or marks of identification for each; and (c) a statement for each county in which there is a national forest, showing the maximum amount which may be expended therein under the act. Such project plans, maps, and statements shall be submitted to the Secretary for approval, and after such approval shall be transmitted to the Office of Public Roads for its information.

SEC. 2. Unless satisfactory data are already available, reconnoissance surveys and preliminary cost estimates shall be made by or under the direction of the Office of Public Roads of all road projects for which proper application has been made.



SEC. 3. A list of the projects applied for, arranged as to each State in the order in which construction is recommended, shall be forwarded each year for presentation to the Secretary. The project list as approved by the Secretary shall determine the order of construction for each year.

**REGULATION 5.—COOPERATIVE AGREEMENT.**

SECTION 1. Upon the approval of any project list, a cooperative agreement for execution by the Secretary and the local authority shall be prepared by the solicitor from data furnished by the Forest Service and the Office of Public Roads for each of those projects, in the order listed, for which funds are or will be available, and shall provide for: (a) Surveys, plans, construction, and maintenance of the project to be done in accordance with these rules and regulations; (b) amount, value, and character of cooperation; (c) furnishing of labor and materials, the deposit of cooperative funds in the Treasury, or the disbursement of such funds by the local authority; (d) supervision and inspection during construction and approval upon completion; (e) final accounting to each party to the agreement of all labor or materials furnished and all moneys expended under the agreement; and (f) such other terms as in the opinion of the Secretary should be included.

SEC. 2. The basis of cooperation shall be the reconnoissance survey estimate of the cost of final survey and construction. Cooperation shall be expressed as far as feasible in percentages. If the location survey estimates exceed the reconnoissance estimates by 25 per cent or more, the Secretary shall so notify the local authority, and at any time within 30 days either party to the agreement may apply for a modification thereof. If modifications can be agreed upon, a supplementary agreement, if necessary, shall be drawn; otherwise, either party may withdraw from the agreement upon 30 days' notice. In case of such excess, construction shall not be started nor advertisements made for bids until final agreement is reached.

SEC. 3. Each local authority will be required to cooperate as herein defined in an amount at least equal to 50 per cent of the estimated cost of the final survey and construction and the entire cost of maintenance of national forest roads, unless a satisfactory showing is made to the Secretary that such an amount of cooperation is inequitable. Cooperation by local authorities may be in the form of money, labor, materials, or the construction of cooperative roads, and the amount and value thereof shall be fixed by the Secretary. Cooperation in the form of road construction will be accepted only when such cooperative road connects with and is an extension of a national forest road, and to the extent only that such road is necessary to furnish a connection between a national forest road and the general State, Territory, or county road system. Such cooperative road may be either within or without national forest boundaries.

**REGULATION 6.—SURVEYS, CONSTRUCTION, AND MAINTENANCE.**

SECTION 1. Upon the execution of a cooperative agreement the Office of Public Roads shall proceed with the survey and construction of the road in accordance with such cooperative agreement.

SEC. 2. National forest roads shall be constructed under the supervision of the Office of Public Roads, in accordance with plans prepared by it and approved by the Forest Service. The maintenance of such roads shall be under the supervision of the Office of Public Roads, unless otherwise provided in the agreement.

SEC. 3. Cooperative roads shall be constructed in accordance with plans made as provided in the cooperative agreement and approved by the Office of Public Roads and the Forest Service. Such roads shall be subject to approval by the Secretary on completion, and to inspection by the Office of Public Roads during construction and maintenance. Cooperative roads shall be maintained by the local authorities.

SEC. 4. If a cooperative road is not constructed as provided in the preceding section, or any road constructed under a cooperative agreement is not properly maintained in accordance with its terms, or there is failure to comply with any other of its terms, the Secretary will give notice of such fact to the proper local authority. If within four months from the receipt of such notice the terms of such agreement are not complied with, the Secretary will thereafter refuse to enter into any other cooperative agreement with such local authority until compliance has been made with the original agreement.

**REGULATION 7.—ACCOUNTING.**

**SECTION 1.** All Federal funds expended for road construction under the act and all cooperative funds which may be deposited in the United States Treasury in accordance with the act of Congress approved June 30, 1914 (38 Stat., 415, 430), mentioned in section 3 of regulation 3, shall be disbursed as directed by the Secretary of Agriculture.

**Sec. 2.** Cooperative funds used for the survey and construction of national forest roads but not deposited in the Treasury shall be disbursed by the local authority only upon vouchers approved by the Office of Public Roads.

**Sec. 3.** A separate account shall be kept, as directed by the Secretary, of all moneys disbursed for national forest roads showing the States and counties within which and the projects upon which such moneys have been expended, and the Secretary will furnish to the local authorities a detailed statement of such expenditures as soon as practicable after the completion of every project.

**Sec. 4.** Unless otherwise directed by the Secretary, records of the costs of survey and construction of all road projects, whether cooperative or national forest roads, shall be kept upon forms to be supplied by the Office of Public Roads. If the Secretary shall so direct, progress statements or reports shall be submitted from time to time to the Office of Public Roads on forms supplied by that office, and within 90 days after the completion of a project the local authority shall submit to the Secretary a final report of the project on a form supplied by the Office of Public Roads.

**Sec. 5.** Immediately upon the execution of a cooperative agreement the Secretary will notify the Secretary of the Treasury of the amount to be expended by the United States within or adjacent to any national forest thereunder, and upon the completion of each project and the closing of the project accounts relating thereto the Secretary will submit to the Secretary of the Treasury a statement of the total expenditures of Federal funds made on account thereof and the distribution of such expenditures to each national forest concerned.

## ARTICLE ON THE GOVERNMENT AND GOOD ROADS.

BY HON. DAVID F. HOUSTON, SECRETARY OF AGRICULTURE.

[American Review of Reviews, September, 1916.]

During the coming year there will be throughout the country increasing interest in the application of the new Federal law providing grants of money for country roads in the 48 States. So many bills have been introduced and discussed at Washington that the average reader is not quite clear as to the provisions of the measure that has now been placed on the statute books by Congress and the President. Appreciating the great interest that the present Secretary of Agriculture has shown in the progress of the movement for good country roads as bearing vitally upon all the problems of rural life we have requested him to make an authoritative statement as to the way in which the law would work in its relation to the respective States. In the midst of many public duties of exceptional importance, the Secretary has acceded to our request and prepared the following admirable statement dealing with the highway situation as affected by this new Federal law.—The Editor.

For many years there has been a definite and growing interest in good roads. In early times road improvement, such as was undertaken, was directed almost exclusively by local agencies.

To thoughtful men it was apparent that if satisfactory results were to be secured central control, at least by the States, should be established. Washington, writing to Patrick Henry, referred to the slight progress that was being made under the direction of the local jurisdictions and suggested the necessity of developing a central State body which should have as its function the promotion of a movement for better roads and for more effective administrative supervision of construction and maintenance.

Comparatively little headway was made for many years, and not until about the beginning of this century did State action begin to assume definite proportions or to develop the requisite control. About 12 years ago the total annual expenditure of the States for road building amounted to only \$2,000,000, but by 1912 the amount had increased to \$43,000,000, and it is estimated that at present the Nation is expending the equivalent of at least \$225,000,000 for road improvement. Along with the increased provision for road building there has come a great improvement in machinery for planning roads and for expending the funds. There has been a definite movement for the creation of State highway commissions. Three or four years ago only 29 of the States had any adequate highway machinery, while today 39 have fairly satisfactory commissions. The result has been better planning, great improvement in administrative methods, and a fuller return to the people for the money provided by them.

### THE NATIONAL GOVERNMENT'S INTEREST.

The interest in road development was manifested a number of years ago by the Federal Government in the provision for a Federal office

of roads in the Department of Agriculture. For a time this office had inadequate support. Its activities were limited largely to testing and research work, to the issuance of publications of an educational character, and to the giving of expert advice. More recently it has extended its activities in a number of directions, and especially in making demonstrations of the best methods of road building in different sections of the country.

The progress made by this office is revealed in the fact that the appropriations for the support of its ordinary activities have increased from \$279,400 for the fiscal year 1914 to \$599,200 for the fiscal year 1917. In 1912 the Congress placed an additional burden upon it. It made an appropriation of half a million dollars to be expended by the Secretary of Agriculture in cooperation with the Postmaster General in improving the condition of roads to be selected by them on which rural delivery was established or might be established, and provided that such improvements should be made under the supervision of the Secretary of Agriculture. This appropriation was made contingent on the contribution by the State or its civil subdivisions of double the amount provided by the Federal Government. There was thus placed under the immediate supervision of the office of public roads the expenditure of a million and a half dollars in addition to its regular appropriation. The handling of the special fund furnished data of much value, and the results have been responsible in no inconsiderable measure for the larger provision recently made in the passage of the Federal-aid road act, approved July 11, 1916.

#### ENORMOUS COST OF BAD ROADS.

There is no need of discussing the importance of good roads. They are essential to comfortable travel, to the economic production and distribution of farm products, to the development especially of satisfactory rural schools, and to the improvement of the social life of the Nation. Bad roads are very expensive possessions. It is estimated that it costs 23 cents under existing conditions to haul a ton a mile on the average country road and only 13 cents on a properly improved road, but this is not all the story.

The direct cost is very great and the indirect costs are possibly even greater. With bad roads the farmer is compelled to haul when he should be engaged in other activities, while with good roads he can plan his operations without reference to the weather. The States and the local units, as has been intimated, has strikingly recognized these truths by greatly increasing their appropriations and by devising better machinery.

#### FEDERAL COOPERATION.

The question whether or not the Federal Government should participate in any large way directly in the construction of roads has long been before the American people. Hundreds of bills of almost every conceivable character have been introduced in Congress and debated. The Central Government has a very special and peculiar interest in good roads. It has under its control the transportation of mails, and, with the growth of the rural delivery, the difficulties confronting it in securing economic handling of mails have greatly increased and have been fully recognized.

The impression became general that the Federal Government should participate in the construction of roads, limiting its attention to those over which Federal mails are or may be carried. The constitutional warrant for such action rests on the authority of Congress to establish post offices and post roads. Furthermore, it was conceived to be reasonable that the people of the Nation should have the benefit of the knowledge of both their State and Federal experts, and that the machinery of the two jurisdictions should be placed in a cooperative relation to render effective service to the people. The discussion turned largely on the specific proposals for legislation and on the matter of guaranteeing that money contributed for road building should be wisely expended, and that a dollar's worth of work should be secured from each dollar appropriated.

In 1913, as Secretary of Agriculture, I reviewed the good-roads movement and indicated some of the provisions which, in my judgment, should be incorporated if legislation was to be enacted. In 1914 I returned to this subject in my annual report and said:

The problem, so far as the Federal Government is concerned, is how to inject its assistance into the situation primarily so as to secure efficient expenditure. The people of the Nation are intensely interested in this problem, and pressure will continue for action by the Federal Government. The matter is of sufficient importance to justify again an attempt to indicate the wise course of action in case the Federal Government is further to expand its activities and lend direct support. If direct Federal aid is to be expended, it should be done only under such conditions as will guarantee a dollar's results for every dollar of expenditure. \* \* \* Legislation should provide for cooperation between the Federal Government and the States, and the State, through an expert highway commission, should be the lowest unit with which the Federal machinery should deal. If the Federal Government recognizes any other unit than the State highway commission, it will complicate the situation in those States where satisfactory developments have taken place, and it will retard movements in the right direction in other communities. If, on the other hand, the law recognizes only a central highway commission, it will strengthen the hands of those that now exist and secure the creation of such bodies in the 26 States that do not now have them. The mere creation of such bodies in every State would be a marked gain. The Federal department and the highway commission of each State should be empowered jointly to select the roads upon which the work is to be performed and to determine the manner and methods of constructing roads under projects mutually agreed upon previously.

It seems desirable that if Federal money is to be expended it should be limited to construction projects and should not be used for maintenance, and, furthermore, because of the time required for the development of the requisite machinery and because of the difficulty of assumption by either jurisdiction of a large initial burden the Federal appropriation should at first be relatively small.

Expenditure for maintenance would involve the Government in a very unsafe and uncertain course. It would be a continuing appropriation on a vast scale. It would seem only proper that if roads are secured the States and the communities should maintain them. I clearly recognize that it is difficult to draw the line between construction and maintenance on the simpler forms of road; but, after all, the line can be drawn and would be much clearer if proper methods of construction were pursued.

As an automatic check to a drain on the Federal Treasury, in case Federal aid is extended, provision should be made that each State shall make available for construction at least as much as is set aside by the Federal Government, preferably twice as much, and that it shall give a satisfactory guaranty to maintain the roads constructed. On all projects on which Federal money may be expended in cooperation with the States it should be provided that the two authorities shall fully cooperate, and that before Federal money is made available for any projects such projects shall have been mutually agreed upon by the Federal department and the State authorities, with clear understandings

as to methods of construction, specifications, materials, and the development of a road system.

It will be objected by some that this suggestion involves an invasion of State rights. As a matter of fact, it simply looks to the use of Federal money for the purpose for which it may be voted, and to its efficient expenditure. Those who fear invasion of State rights can easily obviate the danger by declining to ask for Federal money. If they demand Federal money they can not easily decline to have its proper and efficient expenditure safeguarded. It is no argument to assert that State agencies may be trusted. As a matter of fact, they are not the officials who have to assume the responsibility for the expenditure of Federal money. We do trust State authorities fully to vote and expend State funds. They assert the right to look after the expenditure of State funds, and do so with great jealousy. They should show a willingness to have the Federal officers assist in the supervision of the expenditure of Federal moneys.

One thought should be clearly held in mind, namely, that it is highly unwise to discourage State and local effort. Only in recent years have the States begun seriously to attack many of the problems which it was originally contemplated they should solve. If the Federal Government were to make a very large appropriation, it is not improbable that the States would begin to look to it somewhat exclusively for funds with which to build roads. Such a development would be calamitous.

#### FEATURES OF THE NEW LAW.

After considering many proposals and after long debate the Federal aid road act was passed by the Congress and approved by the President. It had practically the unanimous indorsement of the highway commissioners of the several States. It is based on sound principles. Its leading features are as follows:

1. It authorizes the Secretary of Agriculture to cooperate with the States through their respective State highway departments in the construction of rural post roads. This principle is important and significant. Heretofore the agencies of the State and the Federal Governments have too often usually proceeded entirely independently and not infrequently worked at cross purposes and sometimes in an antagonistic spirit. The principle of cooperation between the two Governments is extending and promises much for the people whom they serve.

2. No money appropriated by the act can be expended in any State until the legislature of the State shall have assented to the provisions of the act. It is provided that until the final adjournment of the first regular session of the legislature the assent of the governor may be sufficient, but since practically in every case appropriations will be needed and in some cases a State highway department will have to be created, the assent of the governor will not make possible actual operations.

The assent of the State will imply its acceptance of all the terms of the act and such action as may be necessary to enable it to cooperate effectively with the Federal department.

3. Federal money may be expended only for the construction of post roads. The term "construction" is interpreted to include reconstruction and improvement, the latter excluding merely the making of needed repairs and the preservation of a reasonably smooth surface. To maintain the roads constructed under the provisions of the act is made the duty of the States or of their civil subdivisions according to the laws of the several States, and it is provided that, if the Secretary of Agriculture shall find any road in any State so

constructed is not being properly maintained within a given period, he shall give notice of this fact to the highway department and, if within four months from the receipt of the notice the road has not been put in the proper condition of maintenance, no further aid can be extended to such State or civil subdivision.

Perhaps the weakest point in good roads legislation and practice has been the lack of adequate provision for maintenance. It will be essential under the terms of this act that, in considering proposed road projects, careful regard shall be given to the provisions to be made by the States or their civil subdivisions for the maintenance of roads in the discharge of this duty. The construction work in each State must be done in accordance with the laws of the State and under the direct supervision of the State highway department, but the Secretary of Agriculture is given power to inspect the work as it proceeds, to approve it, and to make the necessary rules and regulations for the enforcement of the act. It is stipulated that the projects shall be substantial in character and that expenditures of Federal funds shall be applied only to such projects.

4. There are appropriated out of the Federal Treasury for carrying out the general purposes of the act the following sums of money: For 1917, \$5,000,000; 1918, \$10,000,000; 1919, \$15,000,000; 1920, \$20,000,000; 1921, \$25,000,000. Unexpended balances for any State for any fiscal year shall be available until the close of the succeeding fiscal year and amounts apportioned for any fiscal year to any State which has not a State highway department shall be available for expenditure until the close of the third fiscal year succeeding that for which the apportionment was made. The latter part of this provision was inserted to permit States not having highway machinery to develop it.

A few States in the Union have constitutional provisions prohibiting the State from engaging in any work of internal improvement. The State, of course, may remove this disability. If it does not do so, then, if any number of counties in such State shall appropriate the proportion needed in order to entitle such State to its part of the appropriation apportioned to it under this act and all the other provisions of the act are complied with, the work may proceed. The wording of the act makes it clear that whether action is by the States or by counties, it must be adequate to meet the Federal apportionment to the State.

In accepting the terms of the act the State, as a matter of course, pledges its faith to the five-year program. This is important because it makes possible the arrangement of a comprehensive scheme of road building. Obviously the expenditure of the entire amount of money contemplated under the act should be planned at the outset as far as possible and road systems and projects conceived accordingly. This does not bind the State Legislature to make an appropriation at the first session for the five-year period. This would be prevented by the constitution of many States; but it does involve a pledge of the State's faith to continue the appropriations according to the terms of the act; and even where the counties contribute the necessary funds the assent of the State must be had and the other terms of the act, such as the existence of a highway commission and the acceptance of the duty of maintaining roads, must be complied with.

5. The contribution of the Federal Government for the construction of any road is limited to 50 per cent of the estimated cost of it and can not exceed 50 per cent of the actual cost. The aggregate expenditure out of Federal funds for the construction over the country generally is \$75,000,000. At least as much more must be expended by the States for construction alone. The act, therefore, contemplates an aggregate expenditure for general road-construction work over the country of \$150,000,000.

#### APPORTIONMENT OF FUNDS.

6. The Secretary of Agriculture, after making a deduction not exceeding 3 per cent of the appropriation for any fiscal year for administrative purposes, is authorized to apportion the remainder for each year among the several States on the basis of three factors—population, area, and mileage of rural delivery and star routes—each factor having a weight of one-third. The apportionment, as worked out for the fiscal year 1917, is as follows:

Alabama.....	\$104, 148. 90	Nevada.....	\$64, 398. 30
Arizona.....	68, 513. 52	New Hampshire.....	20, 996. 62
Arkansas.....	82, 689. 10	New Jersey.....	59, 212. 68
California.....	151, 063. 92	New Mexico.....	78, 737. 81
Colorado.....	83, 690. 14	New York.....	250, 720. 27
Connecticut.....	31, 090. 44	North Carolina.....	114, 381. 92
Delaware.....	8, 184. 37	North Dakota.....	76, 143. 06
Florida.....	55, 976. 27	Ohio.....	186, 905. 42
Georgia.....	134, 329. 48	Oklahoma.....	115, 139. 00
Idaho.....	60, 463. 50	Oregon.....	78, 687. 37
Illinois.....	220, 926. 23	Pennsylvania.....	230, 644. 17
Indiana.....	135, 747. 62	Rhode Island.....	11, 665. 71
Iowa.....	146, 175. 60	South Carolina.....	71, 807. 64
Kansas.....	143, 207. 40	South Dakota.....	80, 946. 02
Kentucky.....	97, 471. 91	Tennessee.....	114, 153. 48
Louisiana.....	67, 474. 66	Texas.....	291, 927. 81
Maine.....	48, 451. 50	Utah.....	56, 950. 15
Maryland.....	44, 047. 22	Vermont.....	22, 844. 47
Massachusetts.....	73, 850. 95	Virginia.....	99, 660. 71
Michigan.....	145, 783. 72	Washington.....	71, 884. 28
Minnesota.....	142, 394. 06	West Virginia.....	53, 270. 46
Mississippi.....	88, 905. 84	Wisconsin.....	128, 361. 07
Missouri.....	169, 720. 41	Wyoming.....	61, 196. 82
Montana.....	98, 287. 19		
Nebraska.....	106, 770. 81	Total.....	4, 850, 000. 00

The basis of apportionment may slightly change, but, roughly speaking, the amount which each State will receive from the Federal Government after the first year may be ascertained by multiplying these sums by 2, 3, 4, or 5, and the aggregate amount for each State received from the Federal Treasury will be approximately as follows, to be met by equal contributions from the States:

Alabama.....	\$1, 562, 233. 50	Iowa.....	\$2, 192, 634. 00
Arizona.....	1, 027, 702. 80	Kansas.....	2, 148, 111. 00
Arkansas.....	1, 240, 336. 50	Kentucky.....	1, 462, 078. 65
California.....	2, 265, 958. 80	Louisiana.....	1, 012, 119. 90
Colorado.....	1, 255, 352. 10	Maine.....	726, 772. 50
Connecticut.....	466, 356. 60	Maryland.....	660, 708. 30
Delaware.....	122, 765. 55	Massachusetts.....	1, 107, 764. 25
Florida.....	839, 644. 05	Michigan.....	2, 186, 755. 80
Georgia.....	2, 014, 942. 20	Minnesota.....	2, 135, 910. 90
Idaho.....	906, 952. 50	Mississippi.....	1, 333, 587. 00
Illinois.....	3, 313, 893. 45	Missouri.....	2, 545, 806. 15
Indiana.....	2, 036, 214. 30	Montana.....	1, 474, 307. 85



Nebraska.....	\$1, 601, 562. 15	South Carolina.....	\$1, 077, 114. 60
Nevada.....	965, 974. 50	South Dakota.....	1, 214, 190. 30
New Hampshire.....	314, 949. 30	Tennessee.....	1, 712, 302. 20
New Jersey.....	888, 190. 20	Texas.....	4, 378, 917. 15
New Mexico.....	1, 181, 067. 15	Utah.....	854, 252. 25
New York.....	3, 760, 804. 05	Vermont.....	342, 667. 05
North Carolina.....	1, 715, 728. 80	Virginia.....	1, 494, 910. 65
North Dakota.....	1, 142, 145. 90	Washington.....	1, 078, 264. 20
Ohio.....	2, 303, 581. 30	West Virginia.....	799, 056. 90
Oklahoma.....	1, 727, 085. 00	Wisconsin.....	1, 925, 416. 05
Oregon.....	1, 180, 310. 55	Wyoming.....	917, 952. 30
Pennsylvania.....	3, 459, 662. 55		
Rhode Island.....	174, 985. 65	Total.....	72, 750, 000. 00

**STATES MUST TAKE THE INITIATIVE.**

7. The State is the lowest unit with which the Federal Government may cooperate and only through a State highway department. This is made especially clear by the requirement that the Secretary of Agriculture and the State highway department of each State shall agree upon the roads to be constructed therein and the character and method of construction, and that any State desiring to avail itself of the benefits of the act shall by its State highway department submit to the Secretary of Agriculture project statements setting forth proposed road construction. If the Secretary approve such project the highway department shall furnish to him such surveys, plans, specifications, and estimates therefor as he may require.

It will be especially noted that there must be an agreement between the Secretary of Agriculture and the State highway department of each State on the roads to be constructed, that projects, plans, specifications, and estimates shall be submitted by the State highway department and approved by the Secretary of Agriculture before any Federal money can be expended.

The initiative under the act lies with the States, and the Federal Government can not begin operations until after the acceptance of the act by the State, a State highway department has been created, if none exists, and road projects and the requisite engineering data have been submitted to the Secretary of Agriculture and approved. It should be clear, therefore, to communities interested in road projects which might be considered under this act that they should place themselves in touch directly with their central State highway agency.

**NATIONAL FORESTS AND GOOD ROADS.**

8. Special provision is made to meet a situation arising especially in the Western States of the Nation because of the presence in those States of the Federal Government as a great landholder. In all the great Rocky Mountain and Pacific Coast States the Federal Government controls millions of acres of forest lands. There are many communities having a sparse population in which the Federal Government is the largest landholder. These communities are struggling to develop themselves and to secure outlets to adjoining communities and to markets. In many cases they have had to rely mainly on taxes on private holdings for means to finance their enterprises.

Heretofore the Federal Government has definitely recognized that the forests should contribute to the local development, as well as the national welfare, especially, by providing for the use of 35 per cent of all gross receipts from the forests for local public purposes; but in some sections there are little or no revenues from the forests, and it was clear that the community should not wait until the period of hardest struggle was past before any assistance was given them. The first need of many of the sections in undeveloped regions is for more and better roads. Without them their struggle to get a foothold is much more difficult. They remain isolated from neighbors and from the outside world with meager educational opportunities and conditions unfavorable to community life and to progress. To meet the situation, the Federal aid road act provides that out of any Federal money not otherwise appropriated the sum of \$1,000,000 a year for 10 years may be expended under the supervision of the Secretary of Agriculture upon request from the proper officers for the construction and maintenance of roads and trails within or only partly within the national forests.

It stipulates that officers of the proper jurisdiction shall enter into a cooperative agreement with the Secretary of Agriculture for the construction and maintenance of such roads or trails on an equitable basis when necessary for the use and development of resources upon which the community is dependent. It provides further that the aggregate expenditures in any State, Territory, or county shall not exceed 10 per cent of the value of the timber and forage resources within the area in which the roads or trails are to be constructed. It is contemplated that under this provision projects shall be carefully considered both on their relative and absolute merits and that on behalf of the Federal Government, under the direction of the Secretary of Agriculture, the work shall be undertaken by the Forest Service and the Federal Office of Public Roads in cooperation.

This Federal aid road act was designed not only to promote road building but also adequately to safeguard through efficient machinery the expenditure of all funds arising under it. There is a good reason for believing that these purposes will be realized. It is highly probable that it will do much more than this. As has been pointed out, the Nation is now annually spending the equivalent of \$225,000,000 for road building. The improvements of administrative agencies and methods which will certainly follow the operation of this act should lead to greatly increased efficiency in the expenditure of these large additional sums. In such case the Nation will realize great benefit not only from the expenditure of the joint funds but also of the separate surplus money of the States and communities.

How soon actual operations can begin in any State will depend upon the action of the State and the adequacy of its arrangements to meet the terms of the act. The Federal Government will be in position to proceed as soon as the rules and regulations are formulated and projects are presented for its determination.