

RESULTS FROM THE PUBLIC WORKS HIGHWAY PROGRAM

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Road building under the public works highway program has progressed rapidly under the stimulation of meeting employment needs so that in the two years ending July 31 a mileage has been completed more than equal to that of the State highways of populous New England with the large State road mileage of New York also included. It might also be compared with the total State road mileage of several Western States. The exact mileage completed under the joint supervision of the Bureau of Public Roads and the forty-eight State highway departments was 26,004 miles.

On the same date 7,881 miles additional were under construction or approved for construction, and 6,315 large bridges and grade crossing structures were built, building and approved for construction. Not included in these figures are many miles of other roads in the national forests and parks and across public lands built by the Bureau during the same time and from other funds provided by Congress.

Of the roads completed, 13,962 miles were on the Federal-aid system outside of municipalities, 2,021 miles were on roads or streets extending the Federal-aid system into or through cities, and 10,021 miles were secondary or feeder roads.

There remained unexpended on June 30 only a small amount of the original \$400,000,000 appropriated by the National Industrial Recovery Act, and the major portion of the second appropriation of

\$200,000,000 provided by the Hayden-Cartwright Act already has been put to work. Of the \$600,000,000 provided by the two acts less than \$28,000,000 remained available for new projects on that date.

Increased employment was the primary purpose of these appropriations, and the extent to which the purpose was realized is shown by the fact that direct employment on highway work with Federal funds increased in volume from a total of 876,736 man-months in the fiscal year 1932 to 2,191,264 man-months during the fiscal year ending June 30 last. It is estimated that indirect employment in producing and transporting materials and equipment amounted to 1.4 times the direct employment. On this basis the indirect employment afforded during the fiscal year amounted to 3,067,700 man-months which added to the direct employment results in approximately 5,259,000 man-months for the year.

Projects financed with public works highway funds are being brought rapidly to completion and new work will be financed in large part with funds allotted under the Emergency Relief Appropriation Act of 1935. Under this act \$200,000,000 has been allotted for highways and \$200,000,000 for elimination of hazards at grade crossings. Michigan has been apportioned \$6,301,414 for highways and \$6,765,197 for grade crossing work.

Federal-aid to the States for highways has been resumed with the fiscal year that began on July 1 and \$125,000,000 has been apportioned, Michigan's share being \$3,837,292. These funds must be matched with State funds.

The total of new Federal funds made available to the State for highway and grade crossing work is \$16,903,903. These are funds administered by the Bureau of Public Roads and do not include allotments made by the Works Progress Administration.

Rules and regulations governing the expenditure of funds provided under the Emergency Relief Appropriation Act have been promulgated. The initiative in selecting projects rests with the State highway departments but they must be selected according to specific requirements intended to produce the maximum of employment.

The funds must be spent upon different classes of roads as follows: At least 25 percent upon secondary roads; at least 25 percent upon extensions of the Federal-aid highway system into municipalities; and the balance upon the Federal-aid and State highway systems. At least 25 percent of the works program grade-crossing funds must be expended upon projects on secondary roads. Grade crossings that have large amounts of vehicular and rail traffic and that are near areas of large unemployment will have preference in selection for improvement.

Projects for the elimination of hazards to life at grade crossings may be of four types as follows: (1) separation of grades at crossings; (2) installation of adequate protection devices; (3) reconstruction of existing grade-crossing structures; and (4) relocation of highways to eliminate grade crossings.

The rules and regulations under which the programs are prepared contain provisions insuring that the money will be used for useful projects and relieve unemployment to the greatest extent possible. Provision that the equivalent of one man-year of job employment must be furnished for each \$1,400 of Federal funds expended on highway projects guarantees that job labor will receive a large share of the Federal funds expended. The maximum hours of work for manual labor are 8 hours per day and 130 hours per month, thereby defining a man-year of employment as 12 times 130 or 1,560 man-hours.

An alternate plan for utilization of works program funds for highways is provided under which the State is released from requirements as to the amount of employment on each particular project. In return the State agrees to supplement Federal funds with State funds in sufficient amount so that, for the entire program or such part of it as may be elected, a man-year of employment will be furnished for each \$1,400 of Federal funds expended. In States having comparatively high minimum wage rates, a man-year of employment may be taken as a proportionate amount less than 1,560 man-hours. The alternate plan thus allows considerable variation between types of projects that may be undertaken, but at the same time it guarantees that the Federal funds expended will relieve unemployment to the same extent as under the regular plan.

The State highway departments will set minimum wage rates for three prescribed classes of labor - unskilled, intermediate grade, and skilled. These wage rates must be approved by the Bureau of Public Roads and must be reasonably comparable to wage rates paid for similar work using State funds.

In employing labor only persons certified for assignment to work by the U. S. Employment Service shall be employed and preference must be given to those certified from public relief rolls. Since projects must be located where the relief load is heaviest, based upon data furnished by the Emergency Relief Administration, the money will necessarily be spent where the most socially desirable benefits can be obtained.

This broad program to aid the unemployed also includes benefits to the highway user. The nation's network of improved highways is being expanded rapidly and roads are being made safer for the speed and density of traffic that now prevails. The public need of all classes of people for inexpensive and convenient transportation is being met in both rural and urban areas.

Grade crossing eliminations furnish an example of the progress being made in the removal of traffic hazards that lead to serious motor vehicle accidents. There were 707 grade crossing elimination projects completed, in progress or planned for construction under the supervision of the Bureau of Public Roads and using public works highway funds on July 31 of this year.

These improvements reduce grade-crossing hazards where highways intersect both railroads and other highways. An enlarged program of similar safety projects is provided for in the \$200,000,000 fund for removal of hazards at railroad grade crossings apportioned to the States in June.

Traffic hazards are being removed not only at railroads but also along the highways by improvements such as the widening of narrow bridges and pavements, the provision of foot paths where needed, and the flattening of sharp curves. At the same time new areas of the country are being opened up to comfortable travel by building secondary or feeder roads, and an effort is being made to overcome the congestion that now clogs many of the approach roads to cities by the more adequate improvement of the highways crossing suburban areas and also of the main connecting routes across cities.

These public works improvements also seek to remedy existing conditions on a considerable mileage of road improved some years ago with types of surface suitable only for light traffic. Many such roads now carry a large volume of traffic; maintenance costs are high and service to vehicles is inadequate. Adequate improvement of these roads is an important part of the program.

The problems to be solved by State and Federal highway administrators have taken on much broader aspects within the last few years. Formerly attention was centered almost entirely on the rural sections of the State and Federal-aid systems. No other course was practicable and we have no regrets over a policy that

provided the greatest benefits to the largest number of people in the shortest possible time.

We have reached a point in our development where we can no longer ignore the needs of traffic flowing from the main highways into and through cities and from feeder roads to the main highways. At the same time we must continue improvement of the main rural highways to bring them up to a standard consistent with traffic needs.

A division of funds must be made for three separate classes of work. We are already doing this in the current program involving Federal funds. The public is already demanding a broadening of the responsibility of State highway officials as evidenced by legislative acts in a number of States. There is so much work of each class which obviously must be done that we have no fear of serious mistakes in current work. However, we cannot continue our planning on the basis of the inadequate knowledge that is now available. A thorough inventory of our road system with regard to its present condition of improvement and detailed knowledge concerning the kind and volume of traffic over it is needed. The amount and the cost of needed improvement of each class can be determined only with such information. When these facts are known we will be in a position to determine what the total program should be and to give proper proportion to its various parts.

The bureau is now planning surveys in cooperation with the various States to obtain information to serve this purpose.