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Highway Maintenance and Betterment in 1934

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The safe, economical and comfortable use of most of the highways in the United States is dependent almost entirely upon day to day maintenance operations. This maintenance work, in the case of the States and many counties, is highly organized and under efficient technical supervision and control. Our whole improved road mileage absolutely depends upon such maintenance for its existence.

At this time, especially, when the most energetic effort is being put forth to get unemployed men to work, the necessary and useful work of highway maintenance and betterment must commend itself as an activity of the highest value.

That the opportunity of employment afforded by maintenance work has not been overlooked during the past year or two of deepest depression is indicated by statistics of numbers of men thus employed compiled by the Bureau of Public Roads, and shown in the following table.

United States Department of Agriculture
Bureau of Public Roads

State and Federal Employment on Maintenance

Month	1933	1932	1931
December		139,986	34,437
November		160,728	23,653
October	171,302	158,819	24,483
September	160,560	150,128	17,113
August	158,337	151,208	17,359
July	141,644	130,118	108,003
June	152,941	129,019	107,692
May	142,767	129,773	94,462
April	137,066	141,582	93,732
March	145,618	132,642	91,334
February	140,689	137,938	80,166
January	151,039	141,081	54,299

It is apparent that maintenance activity has been employed, especially during the winter months when other highway work is at low ebb, to occupy each year since 1931 an increasing number of men. Nearly 100,000 more men were thus employed in January 1933 than in the same mid-winter month of 1931. In October last more than 171,000 men were employed, over 13,000 more than in October 1932 and nearly 47,000 more than in the same month of 1931.

The figures also show that the number of men this year employed on maintenance work has been kept much more nearly constant than in 1931. Between the minimum of 137,000 employed in April and the October maximum of 171,000 there was a range of less than 35,000, as compared with the difference of 80,000 men between the smallest and greatest monthly employment in 1931.

Looking to the coming year's work with a view to continuing the activities of the highway departments as well-organized and smoothly-functioning agencies of public works in the relief of unemployment, the necessity of continuing the services of the widespread State maintenance organizations is apparent. The maintenance supervisors of the various State highway departments are in intimate contact with the work that must be done on the State highways, and the needs of the counties can be determined quickly by these supervisors through county officials. The State highway departments are closely knit agencies of Government controlling disciplined organizations

sufficiently widely dispersed to insure reasonable success in any emergency effort to provide work for many of the unemployed men throughout the country. Such work can be undertaken by these maintenance organizations with reasonable assurance that considerable highway value will be created by the work done.

The idea formerly rather prevalent that roads once built could be expected to continue in service indefinitely without further attention is being replaced by the understanding that all roads regardless of type require intelligent care to repair, as it occurs, the wear that must be expected on roads that are used as heavily as most modern roads are. Yet, even now, it is probably true that the general public has little conception of the relatively fragile character, from the standpoint of time durability of perhaps 75 percent of our surfaced mileage of highways.

The latter comment is not, in any sense, a reflection on the quality of road construction. The relatively fragile surfaces referred to represent no failure of the road builder but, on the contrary, his deliberate choice as the means of providing as quickly as possible the low-cost, dustless and mudless surfaces that are needed, if the traffic is to be properly served, on tens of thousands of miles, and on which any improvement would be long deferred if it were necessary to await the building of more durable surfaces.

Not only are these low-cost surfaces built with the full expectation that a continuous protective and preservative treatment

will be given them; but it is actually expected through such treatment gradually to improve the original construction. In this type of work maintenance, in the strict sense of the word, shades almost imperceptibly into betterment.

The accomplishment of public works of lasting value using the labor of men who otherwise would be unemployed is the avowed purpose of the Public Works Administration and also of the Civil Works Administration which was created to hasten employment with the aid of public works funds. Betterment of highways most certainly is a work of lasting value and both of these agencies have appropriated funds for such work.

While the appropriation of \$400,000,000 made specifically for highways by the National Industrial Recovery Act is to be used for construction only - the States and local Governments being expected to maintain the roads built - there will be included a large amount of work that would properly be classifiable as betterment, and betterment of an exceedingly valuable type. Emphasis is placed on the elimination of traffic hazards through betterments such as the separation of grades at railroad crossings, widening narrow roads, replacing weak bridges, road relocation to avoid dangerous crossings, and construction to facilitate traffic flow. An interesting betterment that has advantages from both utilitarian and aesthetic standpoints is the flattening of highway excavation and embankment slopes and covering them with rich soil that will grow grass readily. Such work employs a maximum of hand labor, reduces regular maintenance costs by lessening the effects

of erosion, decreases traffic hazards through improved visibility on curves, and enhances materially the beauty of the roadsides. Other important betterments, in addition to the repair of road surfaces, include laying tile drains and cobble gutters, fencing right of way, building guard walls, lengthening and improving waterway structures, straightening stream channels, and many similar minor operations.

The removal of snow continues as a necessary winter highway work that has been carried on for a number of years to keep traffic moving and, at the same time, to relieve some unemployment at a season when distress generally is widespread. Such work, although in the nature of an operating charge, is performed by the regular maintenance forces augmented by unemployed men as conditions may require.

Footpaths and sidewalks constructed where needed along roadsides in congested areas furnish a new and important means of employing a large number of men on hand labor work. The value of such footpaths and sidewalks as a protection to pedestrians has been recognized for a long time and their construction is a much needed highway betterment.

The high value of betterments to the public that travels the highways plainly appears when the addition to the serviceableness of the roads is considered. Such work also constitutes an investment that reduces materially the recurring annual cost of regular maintenance as well as adds to the utility, safety and convenience of the highways.

Bringing highways up to date is a matter of great importance to the traveling public. Existing roads were built in sections at various times and during various stages in the development of the science of road building. Under similar traffic conditions, it seems reasonable that the various parts of a highway should show similarity of improvement. The need for modernization of highways to meet changing conditions of vehicle speeds and weights is self-evident to any traveler on the roads.

During 1934 regular maintenance and betterment of highways must continue with added emphasis on betterments, following in natural sequence the initial highway construction. In the present unemployment emergency, highway betterment furnishes a natural and widely-diffused means of employing many men. In addition, maintenance and betterment work require but little machine operation as measured by highway construction activities.