

Editorial Comment

The Federal Crossing Protection Program

THE LONG-AWAITED rules and regulations for the installation of crossing protection with federal funds available under the Emergency Relief Act, have now been released, as explained elsewhere in this issue. As anticipated, an alternative plan has been provided so that the states can assume a portion of unemployment relief in case the requirement, that 40 per cent of the money must be spent for direct labor, cannot be met. The installation of protection offers an opportunity for the expenditure of a larger relative outlay for wages than numerous other projects proposed. By a careful choice of materials and distribution of labor, including field supervision, and other reasons, as explained in an editorial in the July issue, schedules can be proposed which will meet the stipulation or come so close as to receive favorable consideration and approval on a co-operative basis.

The opportunity is now presented to provide automatically controlled protection at thousands of crossings. Thus after years of argument, the public in general, as well as the government officials, have agreed that the hazard has been brought about primarily by the extensive use of motor vehicles and the construction of paved roads. As a result of this conviction, the government now proposes to provide the funds for improving safety of highway travel at railroad crossings.

However, in this program, crossing protection is definitely in competition with other forms of improvements, no definite sums being allocated to each. Therefore the amount of crossing protection to be approved depends very definitely on the forehandedness of the railroads in initiating action by contact with state highway officers and, through them, with the district engineers and the Chief of the Bureau of Public Roads. It is granted that, in some instances, the preliminary negotiations must be conducted with diplomacy. However, this is being done successfully in numerous states, and the obstacles imposed should not be looked upon as insurmountable. The important point is that the funds are available, and if the signal engineers do not exert their efforts to get an adequate allotment for crossing protection, the money will be allocated to other purposes.

Obsolescence in Signaling

THE INTRODUCTION of faster schedules for passenger as well as freight trains has focused attention on the well-known fact that the signaling on many miles of railroad is decidedly obsolete, so much so that many of the older installations are not only inefficient but entirely unadapted for the handling of trains as they are being operated today. The respacing of signals to provide adequate braking distances has been dealt with recently in these columns, but beyond this major consideration serious problems arise also with regard to the replacement of obsolete apparatus.

So far as the signals themselves are concerned, perhaps the most antiquated are the hundreds of miles of enclosed disk signals that are still in service on lines handling fairly heavy and fast traffic. Scarcely less open to criticism are the extensive installations of two-position, lower-quadrant semaphores that are still to be found.

Rail is allowed to wear to certain limits and is then replaced; bridges are replaced when they become inadequate for the loadings imposed; cars are scrapped when they become inadequate for modern train loadings and speeds; but signals are supposed to function forever. This situation is, of course, due in part to the fact that signaling must be so maintained as to function safely at all times. Relays, signal mechanisms, switch machines, etc., are sent through the shop time and again to take up wear and bring them back to their original operating characteristics. An accurate statement of all of the costs involved in making such repairs would, in many instances, show that the amount of money spent for overhauling an old device represents a large proportion of the cost of a new piece of equipment, that would operate so much more efficiently as to pay for itself in a few years.

The idea of "jacking up the bell," constructing a new locomotive under it, and calling it a shopping job, has largely been discarded in the locomotive field. Thousands of locomotives are being scrapped because railroad managements find it more economical to buy new modern motive power. Likewise, thousands of freight cars are being burned in order to salvage the scrap iron, because these old cars are of designs no longer adequate for operation in today's trains.

In a similar manner, numerous interlockings and the signaling on many sections of certain roads are due for a thorough "house-cleaning." The self-satisfaction, acquired from the fact that maintenance has been improved to such an extent that signal performance is much better than in certain years in the past, is no fence to hide behind. The signals may be working just as good or better than they ever did. But if the entire layout is so antiquated as not to meet modern requirements, some one is going to analyze the situation and the signal engineer will then be placed on the defensive unless he has previously called this condition to the attention of his management.

The opening wedge for prying loose certain signal rehabilitation programs is the necessity for meeting the requirements for the operation and protection of trains now being operated. On certain territories extensive replacement of obsolete equipment must be made to provide safety. However, there is always the necessity of justifying an expenditure also from an economic standpoint. It is oftentimes surprising to one to discover the savings that can be effected by modern apparatus and methods of power supply in reducing operating and maintenance costs. However, in the vast majority of projects, such as the combining of interlockings, installing remote control, extending centralized traffic control, etc., savings in operating expenses, as well as increased efficiency in train operation, go a long way to justify the expenditure required.

As an example of what can be done, the Boston &