- 2. That we consider seriously the divided section for our more important heavily traveled roads rather than the widening of the existing pavement to thirty or forty feet.
- 3. That we recognize that rural electrification must be considered in future plans of highway development.

With wider right-of-ways, wider shoulders, and wider culverts on our more important thoroughfares; with divided sections on the most heavily traveled roads; and with a network of electric lines threading their way to the farm homes of Indiana we may face the future with assurance that ours is a part of the world ready to meet what comes.

Each of the three suggestions mentioned will bring many social benefits and will enhance the opportunities of future generations born in this state, and, back of all our planning, we must recognize that Indiana's basic strength lies forever rooted in the soil.

SOME LEGAL ASPECTS OF HIGHWAY IMPROVEMENT

By E. B. Stotsenburg, Member, Indiana State Highway Commission, Indianapolis, Indiana

The President's Recovery Program during the last twenty months has brought to the attention of administrative bodies charged with the construction of public highways, numerous legal questions connected with such projects. These questions, with few exceptions, are not novel, but in the old order of things they were sometimes lost sight of. The State Highway Commission was charged with the duty of expending that portion of these federal grants which was allotted to the state for the construction of highways and streets. Prior to these extraordinary grants, made to the state as part of the President's Recovery Program, the State Highway Commission had done but little work in the cities and towns. This work consisted mainly of the extension of pavement in the smaller cities and towns, although in a few instances the state did improve streets to their full width. The federal grants of 1933 and 1934 changed this, in that such legislation authorized the State Highway Commission to improve streets in cities and towns over which federal highways are routed and also to improve certain county highways which were not a part of the state highway system. Under this authority the Commission improved streets in more than sixty cities and constructed some twelve or fifteen county roads in different parts of the state. These added duties required the members of the State Highway Commission to familiarize themselves with the law governing such improvements, and therefore the Commission feels that it has attained a knowledge of these laws which might be of some advantage to you.

In passing, let me state that it was a condition of the grant under which county highways were improved that a contract should be obtained from the board of commissioners of the county where the work was done insuring that the county would properly maintain such road when completed. We are pleased to announce that the state has taken all these county roads, so improved with federal money, into the state highway system, and that the obligation of the county to maintain these roads has thus been passed to the state.

This federal work done by the Commission has been going on for the last fifteen months and will be continued during the most of the present year. The legal questions which have arisen are the same as govern all highway improvement projects. From our experience we are convinced that there is no business, either public or private, which bristles with more legal questions or which demands more careful preparation and study.

NECESSARY PRECAUTIONS

At the very outset of every highway improvement project we must make a survey and prepare plans for the contemplated improvement. As such work is always performed under a written contract, the most careful preparation must be given to the preliminary work leading up to the making of such contract. After the survey the plans should be prepared in such detail that if any controversy arises between the contractor and the body contracting for the work, decision can be made by an examination of the plans and specifications. Frequently these are so indefinite, vague, and uncertain that it is impossible to determine just what was contracted for. These documents form a part of the contract and they can not be varied or modified by oral testimony unless they are so indefinite and uncertain that resort must be had to oral testimony or unless the parties by their conduct subsequent to the contract disregard its written provisions. In either of these cases the contract loses its sanctity as a written document. These documents are the foundation of the whole structure, and it is just as necessary to have them perfect as it is to build a sufficient foundation under a massive structure.

When the plans and specifications have been prepared and reduced to writing it is most important that a master set of the plans and specifications be identified first by the signature of the contracting body, and when an award is made, by the signature of the contractor. When so identified they should be filed for future reference. If this is not done it may be impossible to tell which of the many sets of plans and specifications are a part of the original and binding document. A few months ago in the trial of a cause involving a road contract three sets of plans appeared in evidence. The Supreme Court in passing on the case mentioned this fact

and stated it was impossible to tell which set of plans was binding. In order that this master copy may always be identi-

fied as the original document it should not be changed.

If in the course of construction, as frequently happens, it becomes necessary to change the plans and specifications by additions, eliminations, or other changes the changes should be made on separate sheets, signed by the parties, and attached to the master copy. No change in either the plans or specifications, no matter how unimportant such change may seem, should be made except in this manner. If changes are verbally made in the plans and specifications it leaves the rights and obligations of the parties in doubt and also reduces the contract from a binding written document to the status of an oral agreement. This means a resort to oral evidence. that is, the testimony of witnesses; and it is not necessary for me to call your attention to the difficulties of establishing rights and liabilities of contending parties by such testimony, especially where a public body is one of the contesting parties and the case is tried in some other community.

In practically every contract there will be some changes. The specifications, therefore, should provide how such changes, additions, or subtractions from the contract are to be made, both as to the right to make such changes and also the ascertainment of the amount of addition to or deduction from the base price. I must again impress upon you the importance of making no changes in the original contract unless such changes are fully agreed to by both parties in writing, the consideration stated, the document evidencing the change signed, and a proper record made on its minutes by the public body

contracting for the work.

There is another matter in this connection to which your attention should be called. If changes or alterations are not permitted by the contract, and are made, it might result in making the contract invalid as to the surety thereon, although courts have gone a long way to uphold such bonds, even against alterations. A chance of such adverse ruling can easily be avoided and should be guarded against by providing in the specifications the right to make alterations and the method by which such changes are to be made. In fact, the bond itself should stipulate that such alterations or changes, if agreed to by the parties in conformity with the specifications, will not avoid the bond.

AMPLE RIGHT-OF-WAY NEEDED

After the plans and specifications have been perfected the next consideration must be the obtaining of a sufficient right-of-way for your project. Cities may procure right-of-way under the statute authorizing the opening of new and the widening of existing streets. Counties have more difficulty in procuring adequate width for highway improvement. New improvement should not be constructed on inadequate right-

of-way. The members of the present State Highway Commission have come to the conclusion that an adequate right-of-way should be procured on all new projects and on all additional county highways taken into the state highway system. We realize the increase of motor traffic on our highways. The increased speed and the facility for handling motor vehicles demand a wider roadway. Greater widths are needed also in order that proper protection may be provided not only for the motorist but also for farm and wagon traffic.

We must remember that we are building highways not only for today but for the generations who follow us. To construct new highways on an inadequate right-of-way is being unfair both to the public and the landowner. If a highway is constructed on an insufficient right-of-way or on a right-of-way procured sufficient for the needs of today only, the property owners will make improvements accordingly. When it becomes necessary, by reason of increased travel or increased hazards, to obtain additional right-of-way, buildings must be moved back and a large compensation must be paid to the landowner. The landowner is inconvenienced and an additional burden is put on him and on the public. should follow the advice of old man Means, I think it was, in The Hoosier Schoolmaster. You will remember that the old man was a big landowner in Indiana in the early days. When asked how it came that he had acquired so much land, he said: "I told Ma we would git a plenty while we were gitting." This advice is good advice to you public servants who must plan both for today and tomorrow.

The method to be followed by a county in procuring a new or additional right-of-way is to have a petition signed by twelve or more freeholders. The petition is then filed and proceedings had under the law providing for the opening, vacation, change, and widening of highways with which you are all familiar.

The viewers appointed to assess damages may take into consideration benefits, if any, accruing by the improvement to the landowner claiming damages.

There is a matter that I want to call to the attention of the members of the boards of commissioners of the counties who happen to be present. Last fall the State Highway Commission announced that it had added some six hundred miles to the state highway system. No particular highway was designated, and it is the purpose of the Commission not to designate the particular highway until a proper survey is made following some existing highway as nearly as possible and until a sufficient right-of-way is procured by the county. The county can obtain such right-of-way at a more reasonable price than the state, and as it is relieved of all future expense for the maintenance and construction of such highway it will be a good investment for the county. In the meantime it is

the duty of the county authorities to maintain such highways, and the county will not be relieved of this expense until it has been notified of the route of the new highway.

ADVERTISING AND BONDING

With your plans and specifications prepared and your right-of-way procured, the next step would be the advertising of the work. In giving such notice the law governing the particular class of contracts must be followed. When the notice of advertisement has thus been legally made and bids have been received, such bids should be publicly opened. This is most important in order to avoid any suspicion that the bids have been tampered with or that some favorite bidder has been given an advantage.

The next important consideration is the contract bond. Too often sufficient attention has not been given to the sufficiency of the surety offered on the bond. Individual surety should not be encouraged. If taken it must be remembered that a mere examination of the tax duplicate is not sufficient. Land may be mortgaged to a large amount or in the joint name of a husband and wife, in which event the surety would be worthless. The one offering the surety may have a wife, in which event one-third of his land would not be subject to execution. The offered surety may be financially involved or in debt and subsequent judgments thereon may defeat the bond. A good solvent surety company is preferable. Any public contracting body can procure from the United States Department of Treasury a list of all the companies doing bonding business, showing the companies the government regards as solvent and from whom bonds are permitted to be taken by the several departments of government and the amount that each company is entitled to write.

If the surety on the bond is insufficient, and if the contractor fails in his engagement, the public contracting body is in as bad a condition as if no bond had been taken in the first instance, because it must proceed to complete the work, generally at an increased cost and at public expense. If liberal estimates are made—and they are frequently made in the hopes of bolstering the contractor and getting the work completed—then my advice is, scan your bonds carefully and be certain that the surety thereon is solvent and amply able to carry out its engagement if called upon to do so.

WORKMEN'S COMPENSATION LAW

Public bodies contracting for highway improvement, including the State Highway Commission, counties, and municipalities, are covered by the Indiana Workmen's Compensation Law unless they exempt themselves from liability in the manner prescribed by law; that is, before permitting any work to be done under the contract the public body making the

contract must procure from the contractor a certificate issued by the industrial board of Indiana that such contractor has complied with the compensation law. It is not sufficient, in order to avoid such liability, to take the contractor's statement, either written or otherwise, that he is carrying compensation insurance, but the certificate from the industrial board must be procured and filed with the contracting body. If this is not done and any workman on the job should be injured, the public body becomes liable to pay the compensation if the contractor is not able to do so.

INSPECTION

Another most important thing is the proper inspection of the work during its progress. This means that a competent inspector should be on the job not only to pass upon the material going into the job, but also on the manner in which the work is being done, whether it is according to the contract or not. It is too often the case that some person is appointed inspector who does not have sufficient knowledge to determine whether or not the work is being done according to the specifications or whether or not the materials provided for in the specifications are going into the job. After the work is done it will be too late in most cases to ascertain whether the specifications have been lived up to. The administrative body charged with the carrying out of these provisions should remember always that it is representing the public. No matter how well acquainted it may be with the contractor or how friendly it may be to him, it is at all times dealing at arm's length with him and its interest should be solely that the contract is lived up to in every detail and that the public at every step is protected. If this were always done there would be much less criticism of the conduct of public officials than we now have.

I seem to have somewhat digressed from the subject assigned to me. I feel, however, that the most benefit which could be derived from a discussion of the subject is the pointing out of how legal pitfalls can be avoided. My final, and I believe the most important, suggestion I have to make is to follow the advice of the attorney selected by you, and if, after doing so, you feel that his advice is wrong, then procure another attorney in whose advice you have confidence.

FINAL REPORT OF THE INDIANA TRAFFIC SURVEY

By W. F. Milner, Engineer of Special Assignments, Indiana State Highway Commission, Indianapolis

Two years ago Mr. F. A. Henning (now district engineer at Greenfield) prepared and delivered to you here a "preliminary report" of our traffic survey, then in progress, and prob-