

The hearty co-operation of our Indiana contractors was necessary for the carrying out of our NRA program, and not only was this co-operation evidenced on the construction but on design problems as well.

The engineers of the highway department had little municipal experience to assist them on a program as extensive as the NRM work, but by the combined effort of the complete personnel the program was carried out in a satisfactory manner.

THE RELATION OF THE STATE BOARD OF ACCOUNTS TO COUNTY ROAD WORK

By Wm. P. Cosgrove, State Examiner, Indiana State Board of
Accounts, Indianapolis, Indiana

There are many subjects such as partition fences, cemeteries, sewers, garbage, health, etc., which at first glance would seem foreign to the examination and supervision of public offices. Wherever the public treasury is concerned in the receipt and disbursement of public moneys the State Board of Accounts is required to exercise its power of examination and supervision in the interests of the general tax paying public.

One might casually inquire, "What does accounting have to do with road work?" Well, we wouldn't have any road work if we had no funds set aside for that purpose, and we would have less money and consequently less roads, less road mileage, and less proper maintenance and upkeep if there were not some supervision over highway accounts, receipt of revenues, appropriations of highway funds, and the prevention of illegal and extravagant or wasteful expenditures.

The subject which you have assigned to me for discussion may, at first glance, seem limited. However, when one takes into consideration that it includes, from an accounting standpoint, certain kindred items connected with it, such as legal of the proceeds of motor vehicle licenses and gas tax collections, contracts for construction, repair and purchase of materials, employment of services, fees and salaries, drains and sewers, bridges and culverts, and forms and records of accounting, together with all the laws bearing upon this subject, I must confess that a large volume could be written upon the subject.

In my discussion, however, I will limit myself more particularly to highway maintenance, as I take it that is the subject with which this gathering is most concerned.

The statutes, as you are well aware, provide that there shall be collected a license upon motor vehicles and a tax upon

gasoline used. After the state has deducted from the total thus collected the cost of administration of the acts so providing for such taxes and licenses and certain refunds the balance is distributed half to the state highway department and half to counties, cities, and towns. Four-fifths of the distribution of the amount set aside for counties, cities, and towns is distributed to counties and one-fifth to cities and towns.

One-eighth of the distribution made to counties is based upon population and the remaining seven-eighths upon road mileage. The law provides that this vast sum of money placed with counties shall constitute a special road fund for each county and may be used by the board of commissioners both in construction and maintenance of county highways and bridges.

During the year 1934 from moneys so distributed there was paid by the Auditor of State into the county treasuries of Indiana the total sum of \$8,098,505.08. It is, therefore, the proper accountings for these moneys both in their receipt and the careful and legal expenditure of the funds that concerns the State Board of Accounts.

This relation exists in not only a supervision of the highway maintenance funds, but also in the inspection of the contracts and expenditures of that part of the fund which is set aside for the construction of highways and bridges.

RECENT LEGISLATION

The legislature also provided in 1932 that the property tax for highway maintenance should be eliminated and that henceforth the maintenance and repair of county highways should be paid for from the proceeds of motor vehicle licenses and gasoline taxes collected.

In 1932 the legislature placed with the county and under the jurisdiction of the county commissioners all roads which were at that time under the jurisdiction of the township trustees. The absorbing of all township roads by the then existing county highway system greatly increased the road mileage under the jurisdiction of the county commissioners and placed much responsibility upon these officers. The total road mileage under jurisdiction of all counties, according to latest figures of the State Highway Commission, was 68,822.4.

The 1933 legislature repealed previous statutes as to county highway maintenance and repair and enacted an entirely new law in this regard. This law provides that the county surveyor shall have charge of road and bridge repairs, except that the county commissioners may appoint a road supervisor if they see fit to do so.

The 1933 act places the management and control of all highway maintenance finances with the board of county commissioners. The budget-making and appropriation of these moneys is specifically placed under the control of the com-

missioners. The estimate of the county surveyor or highway supervisor, if such supervisor is appointed, shall be made annually in September for the ensuing year. When passed upon and approved by the board of commissioners it becomes the budget for the year for maintenance and repairs of all county highways and bridges without any further appropriation. The commissioners are given power to make additional appropriations within the year upon recommendation of the surveyor, but are limited in their appropriations to the receipts of such revenues for the current year. Hence, there is placed upon the shoulders of the county commissioners the entire general management of road repairs and maintenance and the moneys of the county set aside for that purpose. Purchase of materials and supplies and of road tools and machinery, letting of contracts or doing such work or making purchases without letting of contracts is a matter for the judgment of the members of the board of county commissioners under the 1933 law.

The board, because of the power and authority thus given it by this law, is responsible for the proper management of these funds in the interest of the taxpayers. Good sound judgment should be used in the exercise of these powers, and there should be a careful conservation of these moneys in order that the public interests will be taken care of in such a manner that full value will be received for every dollar so expended and will be evident in the condition of the highways rather than that certain persons or firms who may not be interested in the public good as much as they are in their own private gain shall be favored with profits.

Our investigations of the expenditure of highway moneys in some counties shows good business management, while in others a comparison of the costs does not show results that could have been obtained had there been careful and business-like management.

Budget-making is very important to the conservation of these funds. A detailed estimate with a view not only to providing for maintenance costs for the ensuing year but also to obtaining the most mileage maintenance possible and purchases at the lowest and best prices, considering quality of material, should be taken into consideration.

A careless budget will result in careless maintenance and waste of funds. A careful budget will result in better roads and more road mileage for the maintenance dollar. It is, therefore, the duty of the State Board of Accounts to examine carefully into these budgets, into the moneys so expended in the interest of the proper conservation of these funds.

The assistance of our department is, therefore, offered you in your highway financial problems and I am sure that, generally, you will appreciate our co-operation in the interest of

the discharge of your official duties toward giving the public all that is possible in proper and legal highway maintenance.

POWERS AND DUTIES OF COUNTY ROAD OFFICIALS

I think it would be well here to analyze the powers and duties of the board of county commissioners and the powers and duties of the county surveyor or highway supervisor as provided by the 1933 County Highway Maintenance Act.

Such powers and duties are as follows:

1. Powers and duties of the board of county commissioners in administration of highway act:

Fixes compensation of surveyor or highway supervisor in January of each year.

Allows expense of surveyor at rate of five cents per mile for use of his own car in carrying on his official duties.

Provides for all tools and equipment necessary.

Provides for housing and repairs of such tools and equipment.

Must pass upon proposed repair of any bridge or culvert when cost will be more than fifty dollars. (Expenditure of more than \$500.00 for repair of any bridge or culvert shall be made as heretofore provided by law.)

Passes upon surveyor's annual estimate of expenditures for ensuing year.

Makes the annual budget from surveyor's estimate.

May increase or decrease budget any time thereafter.

May increase budget but must keep such increase within the revenues for the year.

Shall determine and designate any assistance needed in the administration of the act.

Shall provide for the compensation to be paid for such assistance.

Shall receive and pass upon monthly reports of the surveyor of work done under his jurisdiction.

Shall receive, upon the first Monday of January each year, the annual report of the surveyor.

Shall require surveyor to attend regular meetings of the board and advise with the board in road maintenance matters.

Shall have power to purchase and contract for all road and bridge repair materials.

Shall have power to purchase and contract for all machinery and tools necessary.

Shall pass upon bonds required by law of assistant supervisors and approve these bonds if sufficient and proper.

Shall pass upon monthly vouchers of assistant highway supervisors.

Shall employ teams, trucks, and men for road work.

Shall designate as well as employ all assistants.

Shall determine rate of wages to be paid to them, and for all labor, trucks, and teams.

Shall receive for consideration any petition of the surveyor for

entry upon lands for drainage purposes or to obtain gravel, stone, timber, or other material from such lands for highway maintenance.

Shall appoint viewers to assess damages to landowners in such events.

Shall authorize auditor to issue warrant to landowners for payment of any damages so awarded.

Shall authorize auditor to issue warrants to viewers for their compensation in such matters.

May employ any person other than the county surveyor to serve as highway supervisor and serve at the will of the board of commissioners.

2. Powers and duties of the county surveyor or highway supervisor in administration of the highway maintenance act:

Shall have general charge of repair and maintenance work of highways and bridges.

Shall be entitled to receive not less than \$2.00 nor more than \$3.00 per year for each mile of highway under his supervision.

Shall be entitled to five cents per mile for use of his own conveyance in travel in discharge of his duties. (This applies to county surveyor.)

May provide for repairs of a bridge or culvert where cost of repair is \$50.00 or under, but above that must first obtain approval of county commissioners.

Shall have police power in control of highways.

May fix load limit for any highway, bridge, or culvert.

Shall place detour signs for closed highways or bridges.

Shall establish standards of maintenance.

Shall before first Monday in September of each year, on forms prepared by state board of accounts, propose a complete itemized estimate for the ensuing year of cost of his office and of highway and bridge maintenance.

Shall file such estimate with county commissioners, in order that they may pass upon it in considering the budget.

May request the commissioners to increase or decrease any budget item within the year, but must be sure that the regular budget, together with such increases, shall not exceed the revenues for the year.

Shall file with board of commissioners an itemized monthly report of all work done.

Shall file with board annually on first Monday of January of each year a report of office work for the year preceding and likewise a complete statement of all moneys expended for maintenance work as provided for by the budget classifications.

Shall examine reports and claims of all assistants and file them with the county auditor.

Shall meet with board of commissioners and advise with them at their regular meetings as to maintenance work.

Recommends to commissioners purchases to be made of highway and bridge repair materials and machinery and tools necessary.

Shall call meeting of assistants at least once each month to discuss matters concerning repair of highways and bridges.

Shall have charge of assistants in their work.

Shall require assistants to file with him, upon dates designated by the auditor, an itemized monthly report of cost of labor and materials for preceding month, showing duties, hours, and kind of service, names of parties performing service, where performed, and kinds and quantity of material used and where used.

Shall pass upon report as a voucher, and, when it is approved, file it for allowance by board of commissioners.

Shall petition board of county commissioners for entry upon lands when necessary for drainage purposes or for timber, stone, gravel, or other material necessary for highway maintenance, estimating cost of these materials.

With approval and payment of damages upon allowance of board of county commissioners, surveyor shall enter upon such lands for purposes named, provided no appeal is taken from commissioners' action.

Shall prepare a map showing length and character of each road.

Shall give names or numbers of all roads.

Surveyor shall be entitled to salary as surveyor or supervisor, depending upon the largest amount, but shall not receive both salaries.

Shall attend Annual Road School sessions at expense of county.

NEW DEVELOPMENTS IN MAINTENANCE OPERATIONS

By C. W. McClain, Engineer of Maintenance, Indiana State
Highway Commission, Indianapolis, Indiana

Maintenance operations are so ever-changing that it is difficult to say what is new, and quite often it is a misnomer to call them developments. This characteristic of maintenance calls for constant vigilance and alertness and many times discourages maintenance men in their constant struggle to combat the ever-destructive forces of traffic, elements of weather, and the growing demand of the traveling public to expect uniform solutions in similar situations regardless of geographic location.

Maintenance of streets and highways consists of the preservation, repair, improvement, and development of surfaces, roadbeds, and structures, and of the facilitating and promoting of safety of traffic movements.

I will take up these different items in the order named in an attempt to point out recent methods used in attempted solutions.

PRESERVATION

Under this term falls the attempt to keep, as far as possible, the existing conditions on a highway or street as nearly intact as possible. Dragging loose metal surfaces, cleaning