

1954
NEW ZEALAND

ROADS

STATEMENT OF POLICY
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Laid upon the Table of the House of Representatives by Leave

Introduction

A new and progressive policy has been launched by the Government to provide New Zealand with a roading system conforming fully to standards of durability, economy, and safety demanded in this modern transport age. It has its foundations in the changes made in the methods of roading finance and administration which came into force on 1 April this year.

On that date the National Roads Board, appointed under the National Roads Act 1953, took office as successors to the Main Highways Board, which had been the administrative authority on roading since its formation in 1922. The change was made of necessity—a necessity arising directly from the march of the years. The thirty-year-old financial and administrative system previously in use had been outpaced by the times.

The position briefly was this: The country was investing large sums of money in equipping itself with modern motor vehicles of size, weight, and loading capacity unthought of before the last war, and was also paying proportionately large sums for the petrol it used, but it had no adequate means of putting the necessary amount of money into a parallel effort to provide itself with the type of roads needed in the new transport age in which it found itself after the war.

The damaging effect of the war on the country's roads is too well known to be reviewed here in detail. Shortages of man-power and materials seriously restricted the amount of maintenance that could be carried on, and at the war's end there was the inevitable result that a mountain of deferred works had built itself up. A big effort was called for to retrieve this position, this effort being made all the more complicated and difficult because post-war traffic began to expand at a pace easily outstripping that which the roadmakers of that period could maintain,

The Government, after an intensive examination of all aspects of the roading situation, concluded that a new authority with a fresh outlook and with wider jurisdiction than the old Board was needed. There was an urgent need to come more firmly to grips with roading problems generally, and there was also the necessity of devising a method of coping quickly and adequately with the big changes in roading and transport which, though they had their beginning long ago, are continuing throughout the country with gathering force. The total of motor vehicles licensed to operate on the roads was climbing rapidly, until today there is a proportion of 1 of these vehicles to every 3.5 persons living in the Dominion.

More and more vehicles of heavier and still heavier classification are making their appearance, and there is no evidence that saturation point has been reached in the importation of these machines. Rather is it to be expected that the future will bring an even greater number of vehicles on to the roads through the increase in population. This can only mean a heavier demand on the carrying capacity of the road foundations.

That is only part of the situation that must be faced, but the Government believes that the legislation passed last session has opened the way to the achievement of early and practical results in modern roading within this country, and also in halting deterioration that is mainly attributable to the obsolete financial and administrative system of the past.

Through the passing of the National Roads Act 1953 the new Board has been able to approach its task-one of the most difficult of the day-with advantages that its predecessor lacked. These are:

- (1) Wider representation of local authorities and road users.
- (2) More money to spend, especially for local authorities.
- (3) Greater jurisdiction over all classes of roads and streets.

Out-moded ideas which restricted the activities of the old organization have been eliminated and the way has been cleared for the new Board to operate a policy designed to provide New Zealand with a roading system in keeping with its expanding economy. It is the purpose of this paper to show what has been done and is being done through the new administration towards achieving this goal.

Part I: First Step

In the middle 1920's many changes were made in both the financial and administrative machinery necessary for roading purposes. This period saw the introduction of motor taxation to provide roading funds and the application of the principles of earmarking finance and user payment. A modification of local-body control was also introduced with the formation of the Main Highways Board. Broadly speaking, the position that obtained in the twenties was in existence some thirty years later in spite of the fact that the whole character of motor transport and engineering techniques had undergone many changes.

Before the introduction of the roading legislation last year control of roads and the responsibility for their maintenance was divided by three main administrative groups. The first of these was the Main Highways Board. This body was comprised of three Government representatives, two county representatives, and one of the private motorists. It was formed in 1922. Its formation resulted from the realization that certain roads were becoming more and more part of a growing national system, which increased their importance beyond that of purely local interests.

The Main Highways Board, with the object of providing good connections between centres of population and one district and another, declared certain routes to be main highways. Local bodies were then entitled to a measure of financial assistance from the Board, and this body laid down the standards for any work undertaken.

The original proposals were progressively altered until 1936, when State highways were declared, with the Board providing the full cost of construction and maintenance. The Board also found at least three-quarters of the cost of main highways. The Board's sole concern and responsibility was the State and main highway system, totalling 12,789 miles. It had no jurisdiction over, or any interest in, anything other than the highway system.

The other two main controlling groups were the county councils and the municipalities. These local authorities were concerned only with their own roading requirements. No co-ordinating authority or organization with a wide enough charter to guide or assist the various authorities in establishing a satisfactory overall roading system was in existence.

FINANCIAL LIMITATIONS

The disabilities under which roading suffered in the immediate past are shown clearly by reviewing the operation of the financial arrangements on which it depended.

From 1947 onwards the main Highways Board was provided with funds appropriated annually by Parliament. Two votes were drawn upon These were " Highways Maintenance " vote in the Consolidated Fund and the " Highways Construction " vote in the Public Works Account. Expenditure from these sources was directed by the Main Highways Board, with the Minister of Works having a right of veto on construction. These funds provided money for :

- (a) The maintenance and construction of 5,299 miles of State Highways.
- (b) The payment of subsidies to boroughs (under 6,000 population) and County Councils for the maintenance and construction of 7,490 miles of main highways.

The old financial arrangements also included a complicated system under which local bodies were provided with roading funds :

Boroughs over 6,000 in population received their roading finance from :

- (a) Local rates.
- (b) Subsidy on rates.
- (c) Heavy traffic fees.
- (d) 8 per cent of 6d. of the petrol tax.

Boroughs under 6,000 in population gained their revenue from the following sources :

- (a) Local rates.
- (b) Subsidy on rates.
- (c) Heavy traffic fees.
- (d) Subsidies from the Main Highways Board for main highways.

County Councils also financed their roading programmes by the following method :

- (a) Local rates.
- (b) Subsidy on rates.
- (c) Heavy traffic fees,
- (d) Subsidies from the Main Highways Board for main highways.
- (e) And from other sources.

SUBSIDY ON RATES

Counties received a rate subsidy under section 9 of the appropriation Act 1916. The legislation provided for counties to receive a subsidy on general rates collected on the following basis :

- (a) 10s. in the pound where the rates collected did not exceed \$1,000.

- (b) 5s. in the pound where the general rates collected exceed \$1,000 with a minimum subsidy payable of \$500 and a maximum subsidy of \$2,500.

Under a proviso, the subsidy was not payable on the proceeds of a greater rate than 0.75d. in the pound of capital value, or 1s. in the pound of annual value.

Although payable under an Act of 1916, this subsidy was instituted in 1877. It may have been effective seventy-five years ago, but it had become a hopeless method of providing roading assistance to counties in the modern motor age.

Apart from other faults, this provision became notorious because of the inducement it offered for subdivision of counties. Large counties collecting substantial rates claimed that by so doing they were " losing Government subsidy ". To overcome this disability a number of counties conceived the idea of subdivision. Many local bodies - particularly in Canterbury - owe their existence to this form of subsidy. Subsequent legislation effectively curbed this trend.

The maximum limit of \$2,500 penalized the large counties, and the additional 0.75d. limit penalized local bodies that were prepared, or required, to rate themselves at a much higher figure. Some counties were receiving 5s. in the pound on their total general rates, and others, after the application of the limits, were under a shilling for every pound of general rates collected.

Under section 71 of the Municipal Corporations Act 1933 boroughs received a subsidy on general rates on the following basis :

- (a) Where the rates did not exceed \$750, a subsidy of 5s. in the pound was paid.
- (b) Where the rates exceeded \$750, the subsidy was payable at the rate of 2s. 6d. in the pound.
- (c) A minimum subsidy of \$187 10s. was payable and a maximum of \$450 in any one year. The value of these subsidies to authorities in the class of the four major municipalities was negligible.

These subsidies to both counties and municipalities have now been eliminated. They were payable for a number of years out of the Consolidated Fund, vote " Highways Maintenance ", and, in 1953-54 amounted to :

		\$
Counties	233,731
Boroughs	49,468
		<hr/>
		\$283,199
		<hr/> <hr/>

HEAVY TRAFFIC FEES

The payment of heavy traffic fees was introduced by the Public Works Amendment Act 1924. Originally they applied to vehicles over 2 tons gross weight. The fees were payable quarterly to the local authority in whose area the vehicles were garaged, and were on a graduated scale.

At that time New Zealand was divided into 18 heavy traffic districts. Fees collected in each of these districts were pooled and distributed either on a basis agreed upon by the local authorities concerned or by the Minister of Transport.

The scale of fees, however, remained unchanged after its inception, except for exemptions introduced from time to time.

PETROL TAX

For the last twenty-seven years boroughs over 6,000 received a share of the petrol tax, which in 1953 was 8 per cent of 6d. per gallon. The proceeds of this share of the tax were distributed between these boroughs on a per capita basis. Payment was made in lieu of assistance from the Main Highways Board.

All moneys payable under this provision were to be applied only towards the cost of construction and maintenance of streets forming continuations of highways or towards the payment of interest, sinking fund, or instalments of principal and interest on moneys borrowed for the construction of such streets. These moneys could not be diverted to other purposes without the prior consent of the Main Highways Board.

It can be seen that unwieldly, inadequate, and complicated arrangements had been put together, somewhat haphazardly, to provide the country with much-needed roading funds. Summed up, these included :

- (a) A subsidy on rates to local bodies which had been in existence since 1877. This was payable from the " Highways Maintenance " vote in the Consolidated Fund.
- (b) Payment to boroughs over 6,000 of a share of the petrol tax. This was chargeable against vote " Transport ".
- (c) The sharing by local bodies of heavy traffic fees (a national charge) which had been paid into a district pool for distribution.
- (d) Two parliamentary votes for expenditure incurred by the Main Highways Board.

Apart from the complex system that applied to the use of national moneys, the Roading Investigation Committee showed conclusively that the proportion of motor taxation used by local bodies for

roading purposes was most inconsistent. Some authorities, for instance, were spending motor taxation exclusively on their roads and streets without any local contribution, whilst in other cases motor taxation represented a minor share of expenditure.

It is obvious that there was need for a change which would do away with the out-dated subsidies and ensure a more equitable distribution of moneys paid by the motorist.

GROWTH OF MOTOR TRAFFIC

It is not necessary to go too far into the past to get the picture of the spectacular and rapid increase in the use of motor transport in New Zealand. This is the case, particularly in the post-war years. In 1940 registration totalled 317,527, but during the war registrations dropped by 25,389 to 292,137 in 1944. In the short period of ten years, however, this figure has doubled itself, and on 30 June 1954 the total registrations in New Zealand had grown to 587,751, and what is of more importance is the rapid increase in the number of heavy motor vehicles now using the roads.

The industrial use of motor transport has expanded rapidly in recent years and now must be treated as an essential part of New Zealand's economy. Since its introduction to rural areas its progress has exceeded all bounds of expectation. In a matter of a few years the droving of stock has almost disappeared and its place has been taken by fast and heavy motor trucks used to transport sheep and cattle. Increased use is being made of fertilizer, which is transported by road, and regular road services to outlying districts have been introduced. These are factors of vital concern to the primary industries for whom a breakdown in the roading system, from any cause, would be disastrous. The secondary industries too, are now relying heavily on road transport for the movement of raw materials and for the distribution of finished products. Public passenger services also are making more and more use of the roads.

Once looked upon as a luxury, road transport is now essential to the whole economic well-being of the country, and it is obvious that its efficiency must be protected as well as improved. With a capital investment of over \$300,000,000 in vehicles, roads, and services, the industry is worth protecting.

We thus have a valuable and essential industry dependent upon an efficient roading system. To meet its demands and requirements there existed prior to April this year an obsolete administrative and financial system which the Government felt it was in duty bound to change.

Part II: Finance

Following conferences and agreement with the local bodies and motor associations, legislation was enacted in 1953 providing that all taxation moneys levied for roading purposes are paid direct into a special roading account. This procedure will facilitate the work of roading throughout the country.

It must be appreciated that roading stands alone in a unique field of engineering and construction. Roads are "living" things and do not have the characteristics of other forms of engineering. For instance, a hydro-electric station, once it has been built, is endowed with qualities that remain stable, or require little modification. A road, however, is subject to change, modification, and alteration throughout its life, these changes resulting from the rise and fall of stresses placed upon it by climatic conditions and by the types of vehicles which use it. Just as the classes and types of traffic are never static, so roads cannot be static.

It is imperative that all roading authorities, national as well as local, should have an assured income so that they can plan their activities well in advance and thus take the fullest possible advantage of favourable weather and make the best use of plant and contracting forces. Otherwise, uneconomic roading costs will be incurred.

The burden of complaint by all roading authorities throughout New Zealand for many years has been that, apart from their own internal revenues, which have been inadequate for the purpose, the monetary assistance forthcoming from national sources has been unreliable, uncertain and a severe handicap to wise and prudent road planning and construction. The new legislation has removed these disabilities.

Damage on a road surface can be likened to an injury on a human limb. Attended to at once, it will heal quickly; neglected, it will grow worse and perhaps lead to serious illness, even causing amputation of the limb. Finance is the basic ingredient of the ointment that cures the ills from which roads suffer, the others being labour, plant, and materials; but it must be available when it is needed, not when it is too late.

The new method of roading finance which came into force on 1 April this year meets this contingency. It ensures that money is available when it is needed, and there is no longer any excuse for

delaying the beginning of urgent works or for neglecting repairs. On the other hand, there is every inducement to local roading authorities to go ahead, tackling their problems vigorously and neglecting nothing that will promote economy of transport, smoother travel, and greater safety.

Although in this its first year of operation the new Board did not get its estimates out until early in July (its first meeting was held at the end of April), the Board has approved in this year's estimates a programme which will cover mainly the construction season to May of 1955, by which time it is expected that the 1955-56 programme will be available.

The levying of a special payment upon the motoring community for roading is not so much a tax as a user payment for a service sought and given. The motorist in New Zealand (and this term applies to every user of any sort of motor vehicle using the roads) is willing to pay a reasonable sum in order that he may be assured of a roading system in keeping with the needs of present-day motor vehicle traffic. As long as the payment imposed upon him is judiciously used and is expended through an authority thoroughly seized with its responsibilities and conscious of New Zealand's roading needs he has expressed himself willing to make a user payment on condition that he is given good roading in return for his money.

The motorist has been promised a new deal, and the Government, through the National Roads Board, is setting out to see that he gets it. Revenue collected through the charge made on the petrol consumed while the motorist is using the roads now goes back directly into roading along with other income derived by the Board. The old system of finance has been abandoned. The country cannot go back to it and at the same time hope to provide itself with the type and class of roads it needs.

Part III: The " Roads " Vote

The " Roads " vote is appropriated annually by Parliament and is entirely outside the jurisdiction of the National Roads Board. It is a long-standing vote for new roading and bridging, mostly within county areas. Only a limited amount of money from this source has been devoted to municipal roading and bridging.

" Roads " vote expenditure is capital expenditure funded from the National Development Account for the purpose of developmental roading. In the main the new roads and bridges, as a charge against this item, provide access to farmlands and enable further country to be brought into production. Farmers who had previously relied upon packhorse and similar primitive means of haulage are given roads and bridges sufficient to carry reasonable transport, which in turn allows of increased production to the overall developmental value of New Zealand.

The new " Backblocks access " item of the " Roads " vote provides for the construction of roading access to those settlements which through the years have not been of sufficient standing in economic value to achieve a place in the priority lists of district roading. Future production will certainly be increased as a result of these backblocks access roads, but generally it could not be said that the land has the high potential productive value of other areas to which the district roading and bridging are applicable.

In broad terms the object of the " Roads " vote is to give road access to isolated settlers, to open up settlement, and to provide for new developmental roadworks. The development of New Zealand and, therefore, these undertakings, would not be a fair and reasonable charge against the National Roads Fund, which for the most part is provided by road transport for current roading requirements. However, as soon as the roads have been constructed the local authority will commence maintenance, and money spent in this manner will benefit by subsidies on rates payable from the National Roads Fund, so that the motorist and transport operator are brought in as soon as motor vehicles begin to use the roads.

Capital expenditure from the " Roads " vote is not to be confused with funds provided for local-body roading works of a maintenance or replacement nature. In the past certain subsidies have been paid from the Consolidated Fund for district bridge replacements as distinct from entirely new bridges and for repairs of flood damage. The Consolidated Fund has been relieved of these charges, and such subsidies are now paid from the National Roads Fund.

Part IV: Policy and Works

The National Roads Board has been charged with the responsibility of halting the deterioration of New Zealand's roads and improving the roading system in keeping with the ever-increasing traffic. The practice of carrying out heavy reconstruction of a few miles of road at a cost of thirty, forty, and even fifty thousand pounds per mile while many miles of road on either side of the heavy reconstruction are potholing and completely breaking up will be changed.

Under the new administration there will be an all-out attack on potholes, and poor roads will be made good roads before good roads are made better.

Motorways adjacent to the large centres of population are necessary in the interests of road safety and economy of transport, but the construction of boulevards and super-highways in rural areas will cease until greatly increased lengths of strengthened and sealed good average standard highways are achieved.

The wider representation on the National Roads Board ensures a lively interest in all aspects of roading. With the assistance of twenty District Roads Councils with representation similar to that of the National Board, the interests of the whole Dominion will be adequately covered. The District Councils will serve as the outposts, and, as the people on the spot, will be able to keep the National Board informed of district roading requirements.

Already, with the full concurrence of the Government, there has been a marked simplification of administration and a considerable delegation of authority to districts and local roading organizations. Following are some examples of the changes which have been made:

- (1) Bulk financial authorities have been issued for highway maintenance so that a local body, or a district office of the Ministry of Works, does not have to make application to the National Board before applying a surplus of maintenance money from one highway to another highway on which more work has become necessary. This alteration allows of flexibility in spending money where it is most needed. Costing will remain on the individual highway basis.
- (2) Local authority plans and specifications, when prepared by a qualified engineer to broad standards previously determined, will not be subjected to examination of every detail by the National Roads Board. Such examinations can only lead to irritating delays and give rise to feelings of enmity

and frustration among local roading authorities without achieving compensating benefits. This change will permit of a much earlier commencement of works and is very greatly appreciated by district and local engineers. It means also that National Roads Board and Ministry of Works engineers will be free to devote their time and energy to the much more valuable function of providing a technical intelligence and advisory service. In short, departmental engineers will serve in an advisory, but not a supervisory, capacity.

- (3) In future local roading authorities will be able to accept tenders without reference to the National Roads Board when prices are within 10 per cent of the estimated cost. This is another time-saver. There was no merit in the old system of referring every tender to the central authority. Contractors will now be able to plan their activities better and keep valuable plant in operation.
- (4) Under the previous administration a local authority could undertake work other than by contract only on special approval from Wellington. This no longer obtains. While the general policy is to let work by contract, it is for the local authority to decide by which method any particular work is to be undertaken. Because of the spirit of competition engendered it is often desirable to have contractors and direct forces working side by side.
- (5) Payment of subsidies on general rates in the case of counties and on population in the case of municipalities will be made promptly every quarter. As for claims covering work being done on a subsidy basis there will be no delay while claims are held for checking by the Ministry of Works. On the presentation of a suitable certificate with the claim, payment will be made at once. The only check will be that of the Audit Department. Prompt payments of subsidies will go far to reduce the need for local authorities to seek temporary financial accommodation from the banks, and therefore will save considerable interest bills. There will thus be more money available for roading.

Other steps along lines similar to those enumerated above have been taken to simplify administration, and to the end that there is a general speeding up of roading programmes. These actions have already served as real morale builders among roading authorities, and for the first time in thirty years the local bodies really feel that they can now take their places as full partners with the Government in a concerted attack on the roading problem.

In addition to improvements in administration, the National Roads Board has fully appreciated its charter and has quickly geared its forces and machinery into action, and, with the full approval of the Government, has laid down a clear-cut policy with the following as important aspects :

- (1) Top priority to maintenance.
- (2) The maximum effort towards the extension of sealing.
- (3) Strengthening of road crusts.
- (4) A vigorous attack on the bridging problem.
- (5) More energy and expedition towards the completion of worthwhile sections of motorway.
- (6) Special attention to road safety and the elimination of " black spots ".
- (7) Ministry of Works to expand laboratory and technical intelligence service.
- (8) National Roads Board to relieve transport operators of all existing composition charges and levies in the case of industrial roads, and local authorities to be compensated from the National Roads Fund.
- (9) Special roading grants to be made to those local authorities who are unable to build and maintain their roading system to a desirable standard having special regard to increased production and to the maintenance of backblocks roads.

During the next few years the stress must be on stabilizing the Dominion's present roading assets before they become too great a liability. Intensive maintenance of the road surface is a first priority, so that vehicle operators will be provided with a hard, smooth road crust, thus increasing the comfort of road travel and reducing the accident potential and the wear-and-tear on vehicles.

There is an urgent need for the strengthening of metal crusts and of sealed pavements to bring roads up to a reasonable load carrying capacity having regard to all the circumstances. The aim is ultimately to provide for 6½ ton axle loads throughout the rural main highway system, and, where practicable, local authorities will be urged to adopt a similar aim on at least the main county roads.

For the upgrading and strengthening of sealed pavements the National Roads Board has adopted a new technique which will save time and money. Already spectacular results are being achieved.

A very real difficulty in road strengthening in the immediate future is the serious shortage of road metal and the lack of means of producing metal in the majority of districts. Not only are there very few districts where there has been any stockpiling of metal, but

also the original metal laid on so many roads, perhaps only a few years ago, has been worn away to a very thin crust. It does not seem to have been realized that modern pneumatic-tired vehicles quickly scatter metal into the gutters and over the fields as dust.

To overcome this obstacle the National Roads Board has taken energetic steps to open up new quarries, to install crushing plants, and to let contracts of sufficient magnitude to encourage contractors to get quickly into action in setting up good modern metal producing plants. Metal will be a bottleneck for the present roading season. However, almost every week the position is improving, but roading authorities must maintain the pressure if works are not to be held up because of lack of metal.

Vigour and drive and new techniques will be brought to bear for a much-accelerated programme of road sealing to eliminate the dust nuisance to residents along the roads, for the comfort and safety of travellers, and to reduce the cost of vehicle operation. The comfort and safety factors of dust-free roads are so generally appreciated, that there is no need for further comment on that score. The economy of sealed roads however, may not be so well understood. In this regard the findings from exhaustive tests in both America and Australia are most interesting. These tests have shown conclusively that for an average vehicle, for instance, a light runabout or a medium motor-car, the saving in operating costs on sealed roads exceeds 2d. per mile. For heavy vehicles the saving is much greater. Thus, for every mile of sealing, where the road carries, say, an average of 500 vehicles per day, the total daily saving to vehicle owners is 500 times 2d., which exceeds \$4.

This means that the annual saving for operators on the mile of sealed road would be of the order of \$1,500. When the sealing programme reaches 1,000 miles per year, with the average vehicle density remaining at 500 vehicles per day, the annual saving in vehicle operation will be some \$1.5 million. Under the new policy and new techniques a sealing programme of 1,000 miles per annum within a few years is not an extravagant aim.

The decision to adopt a tar-sealing coat covered with chips for the initial treatment of gravel or macadam roads is one of the most important made by the National Roads Board. Tar sealing with chips can be applied under a wider range of temperature and other conditions than can a tar prime coat, which, generally, must be followed up within a short period by a road-oil seal. Tar sealing as a rule will be eventually covered with a road-oil seal, but the tar seal itself can have a life of several years before the road-oil need be applied. With good-quality tar a two-coat tar seal can often have a life approaching that of road oil.

This change of technique from tar priming to tar sealing will give a sealing season of eight or even nine months instead of the four or five months as at present. This fact by itself will contribute in considerable measure to getting rid of unsealed roads, with their objectionable and dangerous loose shingle and clouds of dust.

It is admitted that a prime coat followed by a road-oil seal laid under suitable conditions is perhaps the best type of surfacing yet developed for the treatment of highways in this country, but on shell rock, pumice, other inferior types of top course, and on any top course not densely graded and properly compacted a tar seal has all the advantages. Furthermore, there is a shortage of engineers and tar sealing does not call for so much skilled engineering supervision as does road-oil seal work, and the chips used with tar need not meet such an exacting specification as in the case of chips for road-oil seal.

The New Zealand gasworks are not producing enough tar of sealing grade to meet the new demand, but good-quality tar is available from the United Kingdom at a competitive price after the payment of freight. Tar will not be imported when a suitable grade of New Zealand tar at a reasonable price can be purchased.

A further means by which the length of sealed roading can be rapidly extended is to seal to a width of 12 ft. where that width meets the traffic requirements. On all important roads there must be provision for two-way traffic, and even on roads with a low traffic density a double lane must be provided when the road is winding and tortuous with blind curves and corners. When visibility is satisfactory, however, and traffic is limited to 150 or 250 vehicles per day there is no justification for sealing more than 12 ft.

There are hundreds of miles of roads throughout the country where traffic amounts to 150 to 250 vehicles per day and where the width of gravel is only about 12 ft. For the infrequent passing which obtains vehicles must move over with one wheel of each axle completely off the gravel. It will be no different when the gravel is sealed for a width of 12 ft.-one set of wheels will have to run on the shoulder while passing, but this time there will be no clouds of dust to blind drivers, and vehicle operators will enjoy all the benefits of a sealed road.

Sealing is ranked so high in priority that district programmes were not awaited in the case of many important roads, obviously overdue for a sealed surface, before the National Roads Board directed that these particular roads should be prepared and sealed as quickly as possible.

At one of the Board's early meetings directions were given to work at full speed to close the unsealed gap on the Blenheim-Christchurch route, to accelerate sealing in Southland and Central Otago, to let

contracts immediately for reconstruction and sealing of the Nelson-Blenheim highway and many other highways in the Marlborough-Nelson area. In the North Island it was decided to complete the improvement and sealing of the Mimi Gorge on the New Plymouth - Te Kuiti route without delay, to proceed at once with the realignment and sealing of the Atiamuri-Wairakei highway, the Te Ngae - Paengaroa section of the Rotorua - Mount Maunganui route, and the Kaimai Hill between Tauranga and the Waikato.

In some of the above cases work has been proceeding apace for more than three months. Both contractors and direct forces are being used. In other cases surveys and plans are in hand preliminary to letting contracts. The district programmes were approved in July, so that, in addition to the above list, a great deal of further preparation for sealing is going on with the object of sealing many hundreds of miles during the approaching summer.

So much for sealing of highways, but citizens and motorists are, of course, also very interested in the sealing of county roads and borough streets. The additional subsidies which local authorities are now receiving will help in this direction. Municipalities with populations in excess of 6,000 within whose boundaries there are no subsidized main and State highways will receive a general subsidy of 22s. per head of population. The smaller boroughs with populations of less than 6,000 do have subsidized main and State highways within their boundaries and for this reason they receive a general subsidy of 15s. per head of population. Counties receive a general subsidy of 8s. for every \$1 of general rates collected in addition to at least three quarters of the cost of main highways, and these local authorities are relieved entirely of the cost of work on State highways.

Overall, local authorities will receive considerably more money from the National Roads Fund than they received previously from the several sources. The intention is that local bodies should spend the extra money now available to them on the improvement of county roads and borough streets as apart from the highways. There should therefore be greatly increased activity on the part of counties and boroughs in extending surface sealing.

There is little doubt that road sealing will provide a greater benefit to road travellers and transport operators than any other form of road work. Therefore, everything practicable will be done to get rid of the loose stones and clouds of dust from our unsealed roads.

The bridge position throughout the country gives cause for concern. In many districts loads have to be seriously restricted because of substandard bridges. Even on the highway system deficient bridges all too frequently upset the cost of goods transport.

The National Roads Board is exerting every effort and exploring every avenue to eliminate bridge restrictions on the roading system. Bridging, whether of concrete or steel, or even timber in some cases, will be financed to the limit of the available man-power and contractors. At the same time it is intended to make full use of Bailey bridging to strengthen many existing substandard bridges and to replace old bridges until permanent structures can be built. Bailey bridging, for various reasons, is unsuitable for permanent work.

Farm access roads are also being given special attention in the bridging programme. In the hauling of fertilizers and the carting of farm produce good roads and adequate bridging are vital. There is a full realization of the importance to New Zealand of increased production, and, in so far as adequate roading will contribute to this end, the Government and the National Roads Board will play their full share.

On the construction of motorways adjacent to the large centres expenditure has been mounting up to considerable proportions year by year with the completion of only very limited sections. Too much money has been lying idle for too long on partly completed motorways. Even though it may mean some postponement of the commencement of other desirable construction works, the finance will be allocated and the motorways pushed to completion in suitable sections. Motorways leading to and from the main centres are not luxuries, but are needed for the elimination of serious traffic bottlenecks and in the interest of safety and economy of vehicle operation.

It is aimed to complete the Auckland Southern Motorway to Redoubt Road by the end of the coming summer. This may be a little ambitious, but with suitable weather conditions and with materials coming to hand it can be done. Auckland will then have some 8 miles of well worthwhile motorway. At Wellington the motorway is planned to be completed to Porirua before Christmas. This will give Wellington 5 miles of motorway.

The National Roads Board is road-safety conscious, and the elimination of many "black spots" is in hand. At this stage it would be unrealistic to attempt a wholesale programme of major safety works, but a multitude of little things will receive attention in the interest of safety. In this connection a close liaison has been established with the Transport Department.

A great deal has been accomplished in the few months since the Board took office.

Not only has there been the considerable advantage of not having to await appropriation, but also the assured income to the National Roads Fund has allowed two- and three-year plans to be made and contracts arranged accordingly. Work will now proceed more

expeditiously and more smoothly without the waste of rushing work towards the end of the financial year or carrying out construction during unsuitable seasons.

Some countries have arranged two- and three-year allocation of funds without annual appropriation, some have earmarked different forms of motor taxation for roading, and some, including America, have made an extensive reversion to the toll system for financing road works. However, we need not necessarily follow other countries. We should do what best suits New Zealand.

It should be remembered that the motorist does pay to general taxation by way of substantial Customs duty on motor vehicles and spare parts. It was convenient to leave petrol as the means of collecting payment to the extent that the roads are used—pay as you go and not for the time the vehicle spends in the garage. Payment for the road service provided could have been collected by tolls as is being done so extensively in America today, but tolls are costly to collect and, as far as New Zealand is concerned, any overall system of tolls would be a retrograde step. A levy on the petrol used was the obvious and commonsense procedure for raising road funds.

The Government fully realizes the importance of road communications. The standard of living, the requirements of defence, and the national economy of the Dominion depend to a major extent on our road transport. For large volumes of goods to be hauled over long distances across the land the railways have unrivalled advantages, but road transport has flexibility, speed, and comfort and the ability to provide a personal and door-to-door service. Road transport stands high in the public preference, and its rapid development has overshadowed anything else in the transport field in this generation.

The extent to which we have come to rely on road transport, and particularly on the motor truck, is not always appreciated. If all motor transport came to a stop overnight the New Zealand way of life would cease abruptly, and the larger cities would face a grave food shortage. Trucks carry vegetables, milk, meat, and other fresh foods from farm to market, and practically all foodstuffs are trucked from wholesaler to retailer. It is by motor transport that essential and critical materials are delivered to farms and factories, and without this delivery the wheels of industry would stop; widespread unemployment, distress, and an economic crippling would result.

The motor vehicle is dependent upon roads, and the better the roads the cheaper and the more efficient is motor vehicle haulage. It should always be borne in mind that by virtue of increased operating costs on inadequate roads we pay for good roads whether we

have them or not. The Government is determined to leave no stone unturned to the end that the towns, the rural areas, and the backblocks have the good roads for which they must pay by one means or another, and accordingly the National Roads Fund has been established and the National Roads Board set up to give New Zealand the roads which it deserves.

APPENDIX I

THE constitution of the National Roads Board is as follows:

- (a) An officer of the Ministry of Works, appointed as the Chairman of the Board:
- (b) An engineer of the Ministry of Works, appointed as the Deputy Chairman of the Board:
- (c) An officer of the Ministry of Works competent to advise the Board on administration :
- (d) An officer of the Transport Department, nominated by the Minister of Transport :
- (e) Two members, nominated by the New Zealand Counties Association Incorporated :
- (f) One member, nominated by the Municipal Association of New Zealand Incorporated :
- (g) One member, representing the owners of commercial motor vehicles :
- (h) One member, representing the owners of private motor vehicles.

APPENDIX II

National Roads Fund: Estimated Receipts and Expenditure, 1954-55

Receipts		£(m.)	Expenditure		£(m.)
Petrol tax (less refunds)	..	10.25	State and main highways (gross allocation, 11.3 m.): Estimated expenditure	..	10.50
Mileage tax	..	0.10	Subsidies to local authorities (under Section 23, National Roads Act)	..	3.00
Tire tax	..	0.02	Other Local Body Roads and Streets—	..	£(m.)
Registration and licence fees	..	1.60	Industrial roads	..	0.10
Heavy traffic fees	..	1.50	Restoration of flood damage	..	0.15
Contribution from Consolidated Fund	..	1.00	Bridge replacements	..	0.15
Miscellaneous receipts	..	0.15	Special roading grants	..	0.20
Petrol tax (3d. per gallon, 26/11/53 to 31/3/54), (non-recurrent)	..	0.88	Revenue collection expenses	..	0.60
			Ministry of Works : Administration	..	0.21
			Experimental works and investigations	..	0.75
			Government roads, toll gates, Hutt Road charges	..	0.05
			Contingencies and reserve	0.04
					0.35
					£15.50

APPENDIX III
Main Highways Estimates, 1954-55

	Main	state	Total
Maintenance			
1. General maintenance	\$ 1,077,814	\$ 1,722,769	2,800,583
2. Reseals	185,837	567,100	752,937
3. Major bridge repairs ..	58,322	64,518	122,840
4. Flood damage	66,132	101,272	167,404
5. Traffic safety and control	680	71,025	71,705
6. Miscellaneous	1,992	150,121	152,113
	<u>1,390,777</u>	<u>2,676,805</u>	<u>4,067,582</u>
Construction			
1. New construction or reconstruction	248,378	1,924,105	2,172,483
2. New bridging	139,516	379,280	518,796
3. Major improvements	848,844	1,984,236	2,833,080
4. Minor improvements	101,077	181,087	282,164
5. Bridge renewals	451,883	985,296	1,437,179
6. Miscellaneous	23,668	46,822	70,490
	<u>1,813,366</u>	<u>5,500,826</u>	<u>7,314,192</u>
Totals	\$3,204,143	\$8,177,631	\$11,381,774