1932.

VICTORIA.

COUNTRY ROADS BOARD.

NINETEENTH ANNUAL REPORT

FOR YEAR ENDED 30TH JUNE, 1932.

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO ACT No. 3662.

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COUNTRY ROADS BOARD.

NINETEENTH ANNUAL REPORT.

Country Roads Board,
Exhibition Building,
Carlton, N.3,
31st October, 1932.

The Hon. J. P. Jones, M.L.C.,
Minister for Public Works,
Department of Public Works,
Melbourne, C.2.

SIR,

In accordance with the requirements of Section 96 of the Country Roads Act (No. 3662), the Board has the honour to submit herewith its Annual Report for the year ended 30th June, 1932.

FINANCE.

In spite of the depressed condition of finances, the revenue from motor registration fees reached practically the same level as during the previous year, the net amount received being only £704 less than that collected during the year ended 30th June, 1931.

This result was no doubt largely brought about by the new system of registration provided for under Act No. 3901 passed by Parliament in December, 1930, and which came into operation in February, 1932.

The total amount received from the Federal aid roads grant was also beyond expectations, and the Board was thus enabled to carry out a number of important developmental projects, which were not included in the programme of works at the commencement of the year.

The difficulty in securing adequate loan moneys, however, necessitated the curtailment by municipalities of construction works on declared main and developmental roads; consequently there is still a substantial balance under the loan authorization which was originally intended by Parliament to have been expended within the five-year period commencing 1st July, 1925. Although the programme of works has necessarily been reduced, a large amount of work was undertaken with funds provided from other sources.

Owing, however, to the fact that the total funds available were considerably below the total amount available for the preceding year, the expenditure decreased by 43 per cent.

STATE HIGHWAYS.

Since the control of the State highway system was vested in the Board in 1925, a gradual and progressive improvement has been effected by the expenditure of funds provided out of revenue, and to-day one can travel in all weathers along the highways from one end of the State to the other, with the exception of a short section of the Western Highway between Nhill and Dimboola, which is now in course of construction, and the mountainous section of the Omeo Highway. Of the total length of 1,513 miles of State highways, 1,486 miles are in good order and available for traffic throughout the year.

The total length of State highways restored under the low cost method is 971 miles, or 64 per cent. of the total. In this work the stage system of development has been adopted, with the final operation of surfacing the highway with tar or bitumen. The cost of surface treatment, including preparation of the surface to a width of 20 feet, varies from £400 to £500 per mile, whilst the cost of the completed roadway, including the treated surface, ranges from £700 to £1,000 per mile, depending on the value of the local material, transport, labour costs, &c.

This type of road has been proved to be quite suitable to carry average country traffic, maintenance has not been found excessive, so long as it has been given regular and systematic attention, particularly during the first year, and the important fact has been established that the cost of improving roads of this type has been reduced by at least 50 per cent.

In the building of low-cost roads, particular care must be taken in the selection of materials, design, drainage, and workmanship. In fact, it has been found that as much attention must be given to the construction of roads of this class as to high-type roads, and that often greater attention is required.

Every stage of construction must be carefully watched to see that approved methods are being given effect to to ensure that on completion the road surface is uniform throughout, and is capable without undue maintenance cost of carrying the traffic it is expected to carry.

Low-cost surface treatment methods have yielded excellent results. It has been found possible to maintain surfaced gravelled roads 18 feet wide in a satisfactory condition at a cost as low as £80 per mile per annum, which includes periodical resealing, attention to shoulders, drainage, &c.

American data indicate that a well-bonded gravel road sealed can, under American conditions, economically carry average traffic in excess of 1,000 vehicles per day, and in view of the much greater discrepancy in Victoria between the cost of the low type and of the hard pavement due to the high cost of the latter, the real figure for economical use of gravel is probably a great deal higher in this State.

In New Zealand the traffic capacity of the average gravel road has been quoted as 500 motor vehicles per day, but where cheap gravel of suitable quality has been available for use, roads in the Dominion have been satisfactorily maintained under a much greater traffic.

The general decrease in the price of materials and the cost of labour, and the economies effected as the result of research work carried on by the Board, has to a large extent contributed to the reduced cost of road construction and maintanence. Comparing present day costs with those of 1928, it is estimated that the construction costs have been reduced by 50 per cent. and maintenance by 30 per cent.

The length of State highways surface-treated during the year was 257.5 miles, 90 miles of which comprise new work and 167.5 miles resealing. With the completion of this work and that done in surfacing main roads, the mileage of roads treated by the Board now totals 2,960.

As soon as the road has been improved, traffic is attracted to it and rapidly increases, and it then becomes necessary to keep a tally of the traffic volume, as well as a careful check of the cost of maintenance. On the basis of these checks the necessity, or otherwise, of strengthening the road can be determined.

The usual traffic census which indicates the number and class of vehicles operating over a given section of roadway and forms a basis on which expenditure is incurred, was taken on the several highways during the year in August and February, the object being to secure data for use in the preparation of the programme of works for the ensuing year. From the information obtained, it can be decided whether it is more economical to replace sections of low-type surfaces with surfaces of a type having a greater resistance to traffic.

A safeguard against excess expenditure is thus obtained, the character of the improvement required can be more readily determined, and the amount saved in the running cost of motor vehicles can be easily ascertained.

It is a recognized principle that the expenditure on the construction and improvement of roads should be kept within the earning capacity of such work. That is, the motor user should receive the benefit of reduced operating cost of his vehicle as the result of the improved surfaces and the reduced wear and tear of his vehicle.

As traffic increases and the road is subject to continuous heavy traffic, there is justification for the construction of a higher type of roadway, but it is economically unsound to build a higher type pavement when the traffic is only of a light nature.

Whilst particular care must be exercised to ensure that the class of work done is not beyond the requirements of traffic, another important factor to be considered is that the reconstruction is not too light for the class of traffic it will be called upon to carry.

On these principles the work of reconstructing a section of the Princes Highway at Little River was carried out during last financial year. Apart from this, and a few minor works of a similar type, the whole of the reconstruction and reconditioning of the State highways has been done under the low-cost system according to a standard fixed high enough to withstand the traffic which it is anticipated they will be called upon to bear.

The system of patrol maintenance on the State highways has been largely responsible for considerable savings in the cost of upkeep, and at the same time systematic and more efficient work has been done.

The men employed as patrolmen, who are required to reside in the vicinity of the roadway on which they are employed, have now become skilled and proficient in their work, resulting in improved methods of maintenance at lower cost. Apart from these factors, improved surfaces are secured, resulting in considerable advantage to the motor operator in reducing the running costs of his vehicle.

As the cost of maintenance varies according to the volume and nature of the traffic, and the locality in which the road is situated, it follows that to quote detailed mileage costs would be misleading. Averaging all highways, the cost was £79 per mile during last financial year, which covers the cost of resealing.

The expenditure on State highways, including the replacement of bridges during the year under review, amounted to £265,249, of which £253,181 was provided out of revenue, and the balance from the Federal aid roads grant, no loan moneys whatever being utilized for the works, which comprised 71.1 miles of reconditioning and improvement of existing surfaces, and the betterment of constructed sections at a cost of £129,280, 167.5 miles of resealing at a cost of £43,000, and the maintenance of 1,154 miles under the patrol system for an expenditure of £80,901. From the Federal aid roads grant a total of £12,068 was expended, including £10,276 in replacing two important bridges on the Princes Highway East at Swan Reach and on the western section of the highway at Dartmoor.

On that portion of the Hume Highway within the Benalla District, the road has been placed in good order with the exception of 2 miles between Euroa and Violet Town. This section will be attended to during the current year, and on its completion the whole of the highway will be in first class condition.

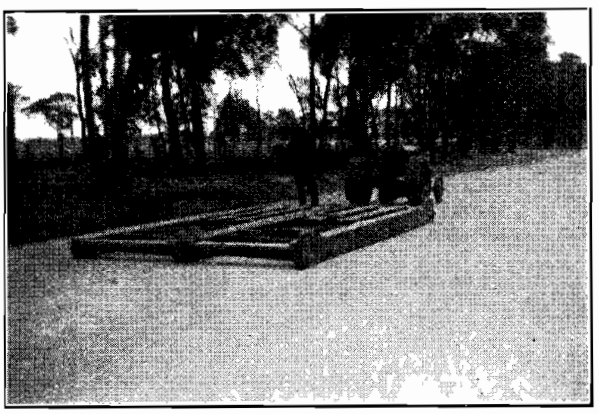


Plate No. 1.—Hume Highway. Surface treatment with road planers, between Longwood and Euroa.

On the western portion of the Princes Highway the principal work completed in the nature of reconstruction was that between Dartmoor and the South Australian border. This consisted of reconditioning 9.2 miles of rough limestone, and surfacing with crushed rock to a consolidated thickness of 1½ inches. The existing 12-feet road was widened by using local limestone rubble, surfaced with crushed rock. It is proposed to seal the road with bitumen as soon as conditions permit. With the completion of this work, the reconditioning at Haunted Hills between Moe and Morwell, and the improvement of the length between Swan Reach and Lakes Entrance, the Princes Highway from east to west over a length of 650 miles will be in good condition for the use of traffic at all seasons of the year.

The Western Highway was considerably improved by the construction of 8 miles between Horsham and Dimboola. The treatment with tars and bitumen of the clay formation on portion of this section which had been carried out in previous years as an experiment had been found to be quite successful, and justified the extension of this type of work. On completion of an additional 4 miles the Western Highway will be an all-weather road in first class order.

Plate No. 2.—Western Highway near Wallace, showing reconditioned surface

With the progress made with the construction, reconditioning and maintenance of the Calder Highway, the road is now in good trafficable condition; 34 miles were reconditioned and sealed, 29 miles reconstructed, and 17 miles resealed. Details of these works are set out in the attached report of the Chief Engineer.

On the Northern Highway extensive improvements were made, particularly on the section between Bendigo and Huntly, where the level of the roadway was raised 2 feet and gravelled, thereby eliminating a continual source of trouble caused by drainage from adjacent lands.

The Omeo Highway has been efficiently maintained by patrolmen throughout its entire length. At the Kiewa River a contract was recently let for the re-alignment of the road and the construction of three timber bridges with approaches. On completion the roadway will be much improved and made safer for traffic.

Owing to a number of bridges and culverts on State highways being no longer fit to carry the increased and fast moving traffic, it was necessary to replace the old structures by ones of a more modern type. The total cost involved was £17,613 for the year.

The more important of the bridges was that over the Tambo River at Swan Reach, a preliminary description of which was given in the Board's last Annual Report. During the last financial year several contracts, including the erection of the superstructure and the construction of the approaches, were completed, and the bridge is now open to traffic. The design of this structure has aroused considerable interest owing to the plate girders being electrically arc-welded. A full description of the design is contained in the Chief Engineer's report.

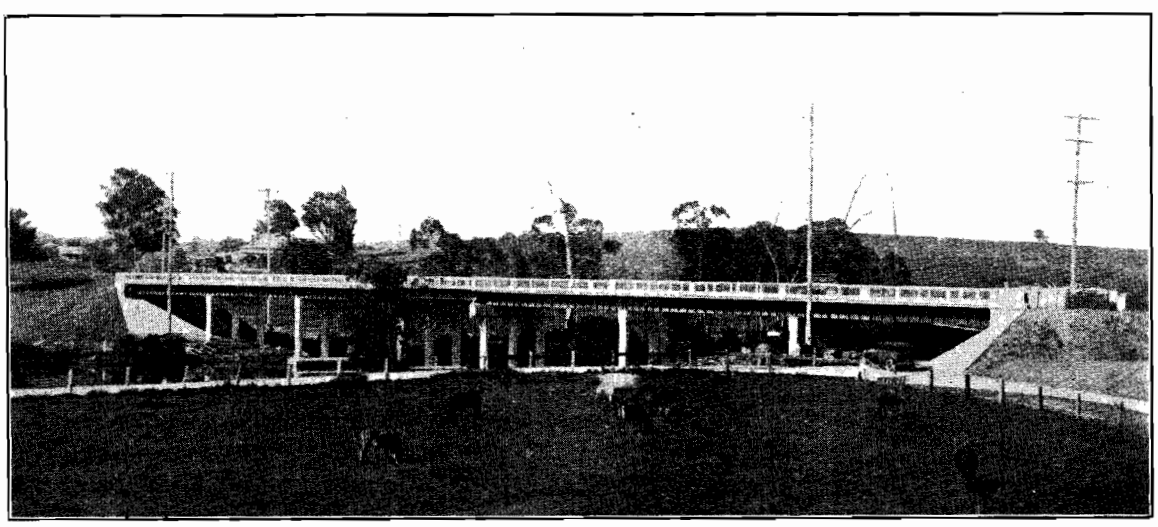


Plate No. 3.—Princes Highway East. Bridge over Tambo River at Swan Reach.

To replace a worn-out timber bridge over the Glenelg River at Dartmoor, on the western section of the Princes Highway, a new composite structure of steel and timber was partly constructed during the year under a contract let for the sum of £2,955.

The new bridge, which is being erected well above flood level, consists of three 50-ft. plate girder spans and nine 30-ft. timber stringer spans, with a width over kerbs of 19 feet.

Details of construction are given in the Chief Engineer's report.

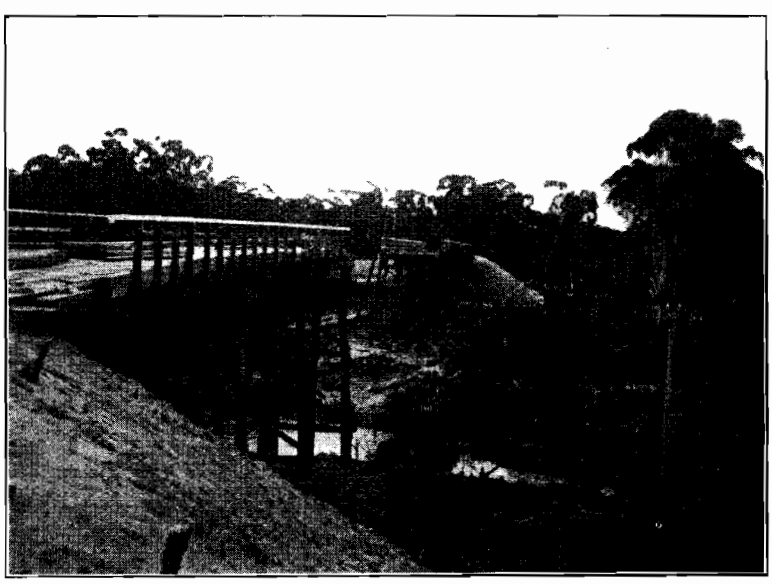


Plate No. 4.—New bridge over the Glenelg River at Dartmoor.

On the Hume Highway, near Wodonga, a contract was entered into for the erection of a concrete bridge 150 feet long and 22 feet wide. On completion, this bridge will be the last of five erected to span the Murray River flats on the principal interstate connexion between Wodonga and Albury.

The original bridges, which were constructed of timber about 60 years ago, had fallen into such a bad state that repairs were not justified, and they have been gradually replaced by the Board since 1918 by reinforced concrete structures. Owing to the increase in traffic, it has been necessary to provide for a width of 22 feet in the three bridges erected since 1919.

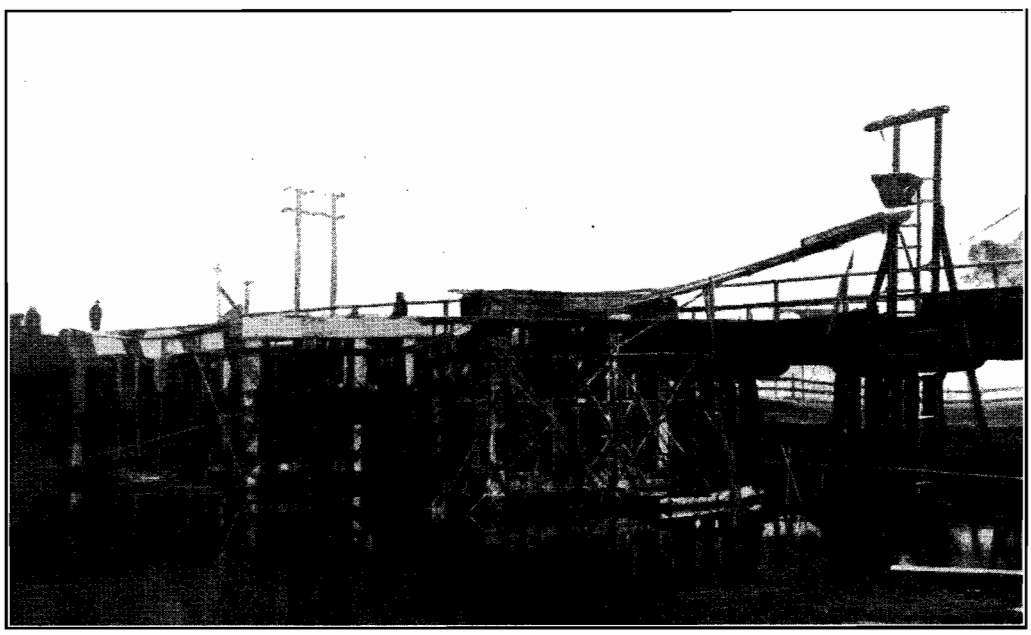


Plate No. 5.—Hume Highway. New bridge in course of erection over the Murray River Flats near Wodonga.

MAIN ROADS.

As a comparatively small amount of loan money was available for construction works, only 38·39 miles of newly constructed main roads were added to those of previous years.

The expenditure incurred out of loan moneys for the twelve months ended the 30th June last was £16,700, of which £16,308 was expended by municipal councils and £392 directly by the Board. The amount was distributed amongst 52 municipalities, and 56 new works were carried out, particulars of which are given in Appendix C.

An amount of £14,725 was expended from the Federal aid roads grant and £2,305 from funds provided under State Unemployment Relief Acts Nos. 3866 and 3948.

On account of the limited amount available for construction, only gradual improvement could be effected, and expenditure was confined to works of the most urgent nature, such as the linking of gravel or metalled sections and the extension of constructed roads for the main purpose of serving settlers.

Generally, the low-cost system of construction was continued, resulting in greater lengths of suitable roads being completed than under the old methods, and in the work being more economically carried out.

The total amount expended on permanent works on main roads from the inception of the Board to the 30th June last was £4,630,366, half of which is being contributed by shire councils by annual repayments. As this sum represents a large investment by the Government and municipal councils, it is essential that the investment be conserved by systematic and adequate maintenance. It is of vital importance that a continuous, comprehensive, and economical system of maintenance be organized on thorough lines, and in this the municipalities, the authorities responsible for the upkeep of the roads, have been closely co-operating with the Board. Not only do the interests of the travelling public demand that roads shall be kept in a state of repair, but also from an economic point of view the large amount expended in their construction represents an asset which must be continuously and systematically maintained in order that the asset may be preserved. It is wasteful to expend large sums of money on any road system, and then to neglect to maintain it in such a manner as to protect the investment.

Owing to the fact that several councils have neglected to give sufficient attention to maintenance, many of the declared main roads have deteriorated, especially following the abnormally wet season during the latter part of the year. In view of the greater necessity for

giving regular and systematic attention to low-cost roads which have been developed during the past few years, the Board, as the result of insufficient maintenance, is confronted with the problem of providing additional money for more extensive repairs, which would not have been necessary had the required work been carried out at the right time.

In those municipalities where maintenance is being carried on under the patrol system, roads are being economically kept up to the required standard at much less cost than by municipal councils which spasmodically effect repairs or delay them until work of an extensive nature becomes necessary.

The Board is making every endeavour to impress on all councils the advantages of economical, continuous, and organized maintenance, which is the most important activity contributing to the life of the road.

Although £620,330 was estimated by municipal councils—and this was far below requirements—as the amount required for the year for the maintenance, reconditioning, and restoration of 5,743 miles of declared main roads, the Board, owing to the withholding of £200,000 from the Country Roads Board Fund, was unable to allot more than £582,428 from the Fund, and of this sum £394,240 only was expended, as detailed in Appendix C. Added to this expenditure was an amount of £28,686 allotted from Federal aid funds, making the total expenditure on maintenance £422,926. When this is compared with the expenditure of £613,729 during the previous year, it is apparent that these roads could not have been adequately maintained.

In spite of the fact that they are required to contribute generally one-third only of the cost of maintenance, some municipalities are reluctant to expend the necessary amount on upkeep, as their finances have been considerably strained through inability to collect a large proportion of the rates, particularly in closer settlement areas, where settlers have been unable to meet their obligations on account of previous bad seasons and prevailing low prices for their produce.

The difficulties of the municipalities in this matter are fully recognized by the Board. In addition to their liability for a proportionate cost of maintaining main roads, they are responsible for the full cost of maintaining declared development roads, subsidiary and by-roads, the length of which, outside the metropolitan area, extends over a distance of 100,933 miles, whilst a large number of bridges are also required to be kept in a state of repair adequate for the traffic. As financial assistance from the Board under the Country Roads Act is limited to the maintenance of 7,256 miles of roads, including the bridges thereon, or 7.19 per cent. of the total length throughout the State, it is apparent that most of the municipalities are confronted by a large task in endeavouring to carry out their obligations.

It is gratifying to record, however, that municipal councils which are responsible for the work of maintaining declared main roads are evincing increasing interest in the work, but in many instances the extent of their efforts in this direction is largely governed by the amount to be contributed by them during the subsequent year.

Owing to the necessity for meeting the increase of traffic on longer lengths of constructed roads, particularly roads which carry traffic not of local origin, greater expenditure is required for their maintenance, and the Board, under the powers conferred in the Country Roads Act, is assisting necessitous municipalities as far as funds will allow by reducing below one-third of the total cost the municipal contribution towards maintenance.

With this measure of relief, and the relief under Act 4038, passed in July last, to be afforded to municipalities to the extent of £25,000 in respect of permanent works on State highways, main and developmental roads, for the financial year commencing 1st July, 1932, the position will be considerably eased.

The length of declared main roads treated with bitumen during the year was 164 miles, of which 35 miles consisted of new work and 129 miles of resealing. Contracts were entered into for forming, gravelling or metalling 25.51 miles as against 40.22 miles for the previous year. Permanent works constructed out of loan moneys were carried out over a length of 38.39 miles, compared with 54.28 miles during the year ended 30th June, 1931.

In the Bendigo district excellent progress was made with the construction of the Serpentine-Kerang Road, on which two contracts were let for the construction of 8 miles near Durham Ox.

On that portion of the Ballarat-Creswick Road constructed under the direct supervision of the Board, unsurfaced sections have been completed with gravel and a great improvement has been effected.

On the Ballarat-St. Arnaud-Donald Road, marked progress was made in completing unconstructed lengths, and a good road is now available throughout the year.

Work on the Stawell-Warracknabeal Road has now reached the stage when only 2 miles require constructing to complete the road for its full length. It is the Board's intention to provide for this during the current financial year.

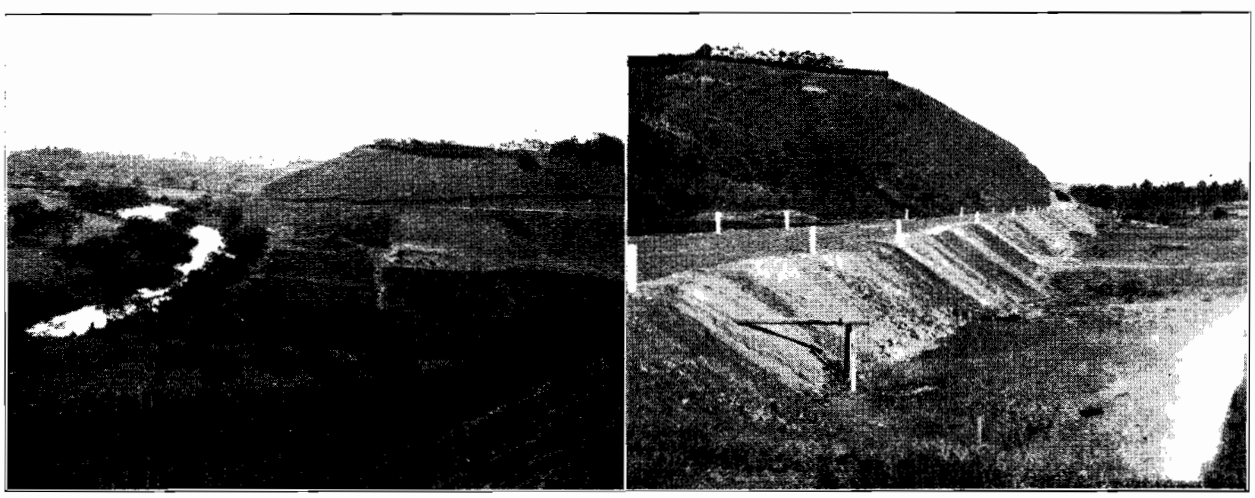
The further length of $3\frac{3}{4}$ miles of gravel construction completed on the Benalla-Shepparton Road provides a trafficable road at all seasons. With the completion of work to be carried out under a contract now in progress an additional 4 miles of gravelling will add materially to the improvement of the road. On those sections of the road already gravelled, a patrolman is now employed to ensure adequate maintenance.

On the Howlong-Barnawartha Road, which is an important interstate connexion with the Victorian railway system, four bridges over the Murray flats are being reconditioned, and the roadway has already been considerably improved. When completed this road will give better facilities for the conveyance of produce to the Barnawartha railway station.

Extensive improvements were effected to the Orbost-Delegate Road, which traverses the eastern portion of the State from Orbost northerly to the New South Wales border. Patrolmen are now engaged on the maintenance of this road.

The Point Nepean Road between Hearn's bridge and Moat's corner in the Flinders Shire, which was previously in a bad state of repair and had become dangerous owing to the edges of the pavement having become worn and broken, was placed in good order by widening and resheeting. A section between Moat's corner and Dromana was also improved by widening and reconstruction in modified macadam.

The formation of the deviation of the Fyansford Road near Geelong was completed out of Unemployment Relief Funds. In addition to having provided suitable employment for a large number of men, the new road, besides affording a well-graded access to Geelong from the west side in place of the excessively steeply-graded road previously in use, will provide opportunities of viewing the scenic beauties of the Barwon Valley in the immediate vicinity of the city. Recognizing the value of the new work, the Geelong Town Planning Association has already taken in hand a suitable scheme of tree planting along the sides of the road. The Board intends to surface the road during the present financial year with a view to making it trafficable at all seasons.



Plates Nos. 6 and 7.—Showing newly constructed Fyansford Road.

With the completion of the gravelling and sealing another 2 miles on the Geelong-Queenscliff Road near Moolap, a first class road between those places is now available.

The Geelong-Portarlington Road was reconstructed in gravel for a distance of 5 miles as far as Drysdale, and a section of 1 mile near Portarlington was similarly dealt with.

In the Shire of Healesville, the Healesville-Alexandra Road was extensively improved for a distance of 16.2 miles, and a section of this road known as the Black Springs hill in the Lillydale Shire was regraded, drained, and surfaced with crushed rock.

The main Warburton Road between Wandin North and Woori Yallock and from Wesburn to Millgrove was placed in order by metalling or reshaping with gravel and crushed rock, the total length of the completed work being 9.3 miles.

DEVELOPMENTAL ROADS.

With an amount of £81,966 expended out of loan moneys, supplemented by an expenditure of £77,638 from Federal funds derived from Customs duty on petrol, £14,683 from provision made for State Unemployment Relief, and £5,158 from Federal Unemployment Relief Funds, considerable progress was made with developmental road works during the year. The total amount was distributed amongst 92 shires, and 221 separate projects were put in hand.

The work done was on the lines of that completed during the previous year under the low-cost system, suitable local gravel or crushed rock having been utilized to meet the local conditions. When the volume of traffic justifies, these roads can be further strengthened, thus preserving the carriageway and decreasing the cost of maintenance.

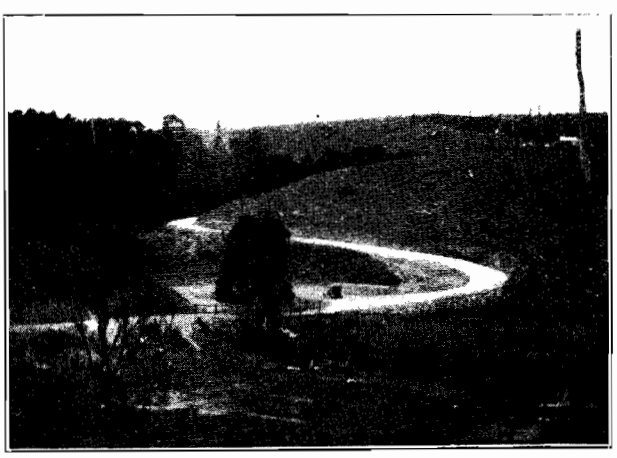
By extending and linking up works on the declared roads, 128.74 miles were added to the list of developmental roads completed or partially constructed out of loan moneys during the year ended the 30th June last, compared with 141 miles for the preceding financial year, 99.58 miles were dealt with by shire councils, and 28.46 miles directly by the Board. Details of the expenditure are given in Appendix " D."

Under Unemployment Relief Acts Nos. 3866 and 3948, £12,378 was expended, resulting in 14.8 miles of developmental roads being completed or initially constructed, and 76 roads constructed to isolated farms.

An expenditure of £77,638 from funds provided under the *Federal Aid Roads Act* 1931, was incurred in constructing roads in undeveloped areas and inaccessible parts of the State. The provision of moneys from this grant is a very valuable addition to the Board's funds, as it assists municipalities in the construction and maintenance of roads which they themselves could not construct or maintain from their own resources, and it enables valuable areas of country to be served with transport facilities, thus assisting in the development of agricultural land which would not otherwise have been provided with adequate roads for many years to come.

Due to the extension of all-weather roads in our rural districts, the use of the motor truck for the conveyance of farm produce has extended far beyond expectations. A few years ago it was possible to haul farm produce partly by sledge and partly by horse-drawn vehicles from the farm to the factory or market, but with the extension of the subsidiary road system on the lines followed during the past three years, the Board looks forward to these conditions being entirely changed at no distant date, when each farmer will be enabled to have his produce collected at his gate and rapidly transported to its destination.

Plate No. 8.—Showing method of haulage in Gippsland before road was constructed.



Plates Nos. 9 and 10.—Illustrating changed conditions on constructed roads in same area.

Another important development of recent years is the growth of trade due to the improved method of transporting fruit and vegetables. Prior to the advent of good roads in the vicinity of the metropolitan area and the larger provincial towns, the conveyance of these commodities by the horse-drawn wagon was a tedious operation for the grower, much of his time having to be spent on the road in carrying his goods to the market and returning to his farm. The improved road facilities have also resulted in motor truck delivery to the markets much further removed from the producing districts.

Along the valley of the Murray River, extending from Bringenbrong on the east to the South Australian border on the west, the Board has designed a road system to meet the needs of the rapidly increasing development which is taking place in agricultural and dairying pursuits. This area, it is considered, will ultimately contain the greatest rural population of the State. Connecting with 11 railway termini on the Victorian side of the river, and with 33 railway stations, together with a number of important developmental roads radiating from producing districts, this road, as yet far from complete, already carries a large amount of traffic from the agricultural, pastoral, and dairying districts south and north of the Murray. To improve the conditions illustrated in Plates Nos. 11 and 12 is the aim of the Board, conditions which the shire councils cannot possibly overcome on account of their limited financial resources.

Plate No. 11.—Murray Valley Road near Fish Point turn-off, Swan Hill Shire.

Plate No. 12.—Murray Valley Road, old limestone section in Swan Hill Shire.

The total length of the declared developmental roads under the Country Roads Act to the 30th June last, was 4,299 miles. Fifty-six miles of roads were added to existing declared developmental roads during the year.

Owing to the fact that numbers of the developmental roads connect with the main roads, the former are on completion used to a great extent by traffic not of local origin, resulting in shire councils which are responsible for the maintenance of developmental roads being called upon to expend more in their upkeep than would otherwise be the case. As many councils have during the past twelve months been experiencing considerable difficulty in collecting rates, it is consequently becoming increasingly difficult for them to find the necessary funds to maintain these roads in a proper state of repair.

In such cases the Board has assisted the shires to the utmost of its financial resources by declaring roads of this class as main roads, and so meeting the municipalities to the extent of two-thirds of the cost of maintenance. Main roads were thus extended during the year by 53 miles. Portion of the Federal aid grant has also been allocated in the most necessitous cases for the purpose of maintenance, the amount expended under that heading being £28,686 for the year.

Works executed by contract have been found to cost much less than those done under the day labour system, and for that reason practically the whole of the works were carried out under the former method ; 408 contracts were let for the year, but only 28 projects, costing £16,656, were carried through by day labour.

New roads in the areas of Crown lands thrown open for settlement in the Heytesbury forest, during the year 1930-31, are being gradually extended, 89.4 miles having been grubbed and cleared to the 30th June last. The work of forming and loaming has now been commenced under contracts for a total distance of 18.5 miles. The surfacing of these roads, which is the final and important stage, is also being proceeded with under contracts which were entered into for treating 4 miles with crushed rock, and 4.5 miles with gravel.

The Cobden-Kennedy's Creek-road has been formed as far as Scott's Creek. Contracts have been let for clearing the full length of 9.1 miles, and for forming 3.7 miles of the road between Scott's Creek and Carpendeit. With the completion of these two roads a large area of excellent country suitable for dairying gives promise of being successfully settled.

On the road from Tolmie to Whitfield a further $7\frac{1}{2}$ miles of forming was completed, and an additional $1\frac{3}{4}$ miles—which is in hand—will, when finished, complete the whole of the formation works on the road. When the road has been surfaced, facilities will be available for transporting produce to the railways at Whitfield and Mansfield, and in addition a large area of valuable country will be opened up.

With the completion of the contracts now in hand for gravelling $3\frac{3}{4}$ miles of the Toombullup-road, an all-weather road will be available, which should be of incalculable benefit to the settlers engaged in potato growing in the Archerton district.

In the eastern portion of the State good progress was made with the Wallagaraugh-road, extending for a distance of 5 miles from the Prince's highway near Genoa to Wallagaraugh. As the result of this work marked development is taking place in a large area of good country.

For the service of the settlement at the Ambyne, situated between Bonang and the Snowy River, extensive improvements have been carried out on the Bonang-Gelantipy-road. On the section of roadway already completed, patrolmen have been installed to ensure adequate maintenance, and this system of upkeep will be extended as construction proceeds, which work is being carried on towards the Snowy River to connect with the new bridge described in another part of this Report.

Marked progress was made with works on roads in the Morwell River Valley. For the first time in the hill country of Gippsland crushed rock was used for surfacing, and a total length of 8 miles of road, with tapered cross sections, was treated in this way. The results obtained indicate that with proper maintenance this type of surfacing is quite capable of carrying light traffic at a cost of approximately one-third to one-half of the expenditure required for the ordinary waterbound macadam road. The widening, regrading, and reforming of Siggins', Olsen's, Radburn's, and the Hatchery roads over a total length of 17,700 feet was also accomplished. It is the Board's intention to surface these roads with crushed rock as soon as possible to enable them to be used throughout the year in this valuable dairying area.

In the Alberton and Rosedale Shires, important works were completed or initially constructed on the Madalya and Callignee Estate roads, Whitelaw's track, and the Christies to Albert River road. The whole of these works are designed to serve extensive areas of valuable dairying country, and will ultimately be of immense benefit to the large number of settlers of those districts.

The Jumbuk and Middle Creek roads in the shire of Morwell, which also traverse important dairying centres, were considerably improved by forming, regrading, widening, and surfacing with crushed rock.

Work on the Apollo Bay-Wye River-road was further extended under contract by surfacing 1 mile with crushed rock around Cape Patten.

On the Skene's Creek-road in the Otway Shire, formation works between Tanybryn and Skene's Creek were completed, and a well-graded road is now available for summer use. Provision has since been made for surfacing, with a view to providing an all-year road on which the present farmers and the many new settlers who recently acquired blocks in this area are dependent for the transport of their cream to the butter factory at Apollo Bay.

Another important work in the Otway Shire was the completion of the formation of the Apollo Bay-Laver's Hill-road. The 4-mile section between Apollo Bay and the Elliott River has now been surfaced with crushed rock, but, owing to the exceedingly wet winter, contracts entered into for surfacing an additional 5 miles and gravelling 1 mile at Hordernvale, were delayed. Three miles of surfacing were completed on the section of the road leading to the Laver's Hill Railway Station.

In the Kinglake area the Toolangi–Kinglake-road was considerably improved by surfacing 5.8 miles. The road from Kinglake to Kinglake East was similarly treated between Mount Slide and Kinglake for a length of 1.3 miles.

On the Bonang-Gelantipy-road at a distance of 80 miles from the nearest railway station, the bridge over the Snowy River which was nearing completion at the 30th June, will form an important link between the settlements to the west and east of the river. The structure has a total length of 750 feet, and consists of reinforced concrete piers and abutment, with foundations resting on solid granite. The superstructure consists of a timber deck 16 feet 4 inches wide, supported on electrically welded steel trusses. This structure, which is claimed to be one of the longest welded bridges in the world, cost £11,950 as against an estimate of £12,500.

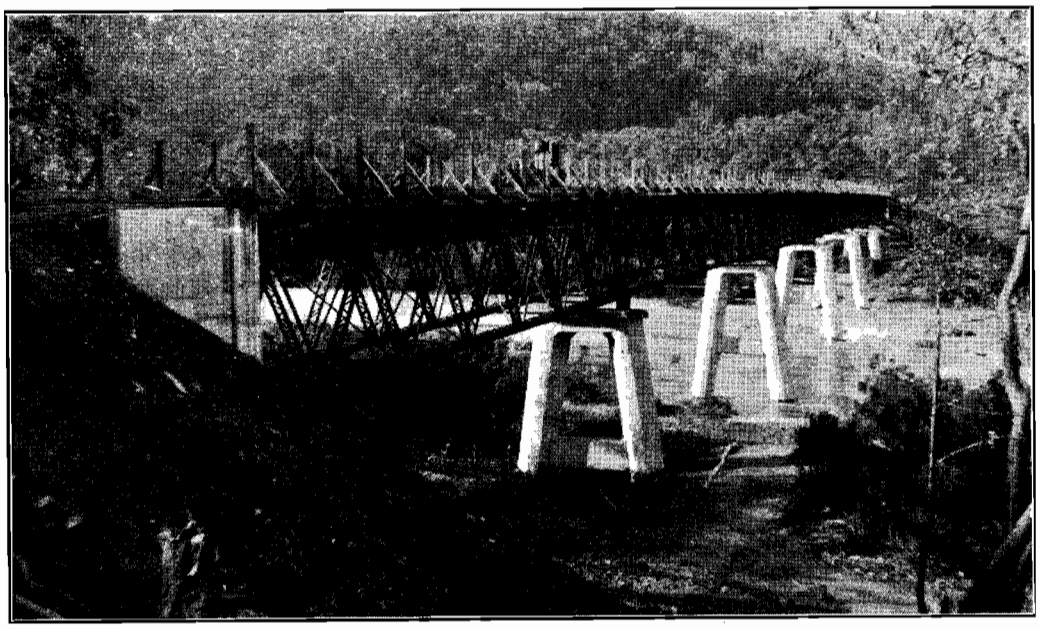


Plate No. 13.—Bridge over the Snowy River on the Bonang-Gelantipy Road.

ROADS FOR ISOLATED SETTLERS.

In the Board's last annual report emphasis was laid on the necessity of isolated farms being given direct communication with the main road leading to the rail or market. In the opinion of the Board this matter is of such economic importance that it cannot be too strongly stressed, especially in the present days of depression and low prices, which intensify the need for greater production at reduced cost.

With a system of developmental and main roads in a forward stage of development, the farmer has now many advantages compared with what existed a few years ago, but, unless the feeder or lateral system of roads is so arranged that each farmer has a satisfactory farm-to-market road available throughout the year, our developmental road system cannot be regarded as adequate. The provision of roads to serve the isolated farmer is an economic necessity, having a direct effect in retaining the man on the land, fostering and encouraging settlement, and assisting to make increased production more profitable.

Unless there is a road to the farmer's gate, the difficulties in the distribution of his produce commence at his gate in districts having a heavy rainfall and in irrigation areas, and he is seriously handicapped in not being able to make use of motor transport. Without roads connecting the farm with the market or rail, the farmer has great difficulties in disposing of his produce and returning with the necessities of the farm and the home. Without roads there can be no agricultural development; the success of our primary industries brings success to our manufacturers, and cheap transportation assists the farmer and manufacturer alike.

When it is realized that a large number of farms in the southern portion of the State have as their only means of access mere tracks or earth roads which become quagmires during the winter months, unusable except by means of horse or sledge, the seriousness of the position can be gauged.

The conditions illustrated in Plate No. 14 convey some idea of the difficulties many settlers are forced to contend with.

Plate No. 14.—Rossiter's Road, Hedley, South Gippsland.

The problem of the isolation of hundreds of our farmer settlers during the winter is, it is felt, one that must be grappled with, and must be dealt with by the judicious expenditure of moneys from time to time as same can be made available. By the utilization of local materials and the employment of local labour, suitable gravel or crushed rock roads are being built at low cost, and in this work considerable headway was made during the year. The total amount allotted, when expended, will provide 112 roads for 314 farm properties, at a cost of £16,546, provision of which is being made from the Federal aid roads grant.

The appreciation of the work accomplished, which has been expressed by many settlers, is a source of gratification to the Board, and emphasizes the necessity of continuing the construction of roads to isolated farms, so that every farmer will be ultimately provided with adequate roads that will be usable every day of the year.

FEDERAL AID ROADS GRANT.

The amount made available to Victoria under the Federal aid roads agreement and derived from duty on petrol was £277,809 for the year. The greater part of this sum was expended by the Board on roads of a developmental character, and proved of great assistance in providing improved road communication in various parts of the State, especially in dairying and agricultural areas. The amount expended during the year totalled £133,118, whilst commitments totalled £142,021. The number of projects put in hand was 263, of which 62 were on main roads and 201 on developmental roads.

For the provision of roads for settlers in areas isolated from the main road system, a sum of £4,534 was expended from the grant. As under the amended agreement with the Commonwealth Government, the States are free to spend the money on any class of road work, including maintenance, without any contribution from the State, the Board is enabled to make a very valuable addition to its programme of works, and in this way developmental roads of the character described can be undertaken without requiring any contribution from the municipalities, which owing to their limited finances would not have been in a position to carry them out for many years. In addition, these funds enable valuable areas of country to be served with transport facilities, and so assist in the development of agricultural land.

Necessitous shires were also assisted in the work of constructing developmental roads, more particularly in remote and inaccessible parts of the State, and 136.8 miles of roads of this nature were partly or wholly constructed during the year.

The need of this class of work is so urgent as a means of developing country districts, and assisting the farmer in reducing his transport costs and so cheapening the cost of production, that the Board is continuing this policy as far as funds will allow. Other important factors are that any expenditure from the grant does not involve the State or the municipality in any loan liability, and is of considerable benefit in relieving unemployment.

The proportion of Federal funds expended on main roads amounted to £43,411 during the year. This was necessary for the improvement and construction of trunk roads between important towns which carry to the railway system a large proportion of traffic from developmental and other roads. The total length of main trunk roads dealt with was 71.6 miles for the twelve months.

An amount of £748 was expended on maintaining roads previously constructed out of Federal aid funds, and the Board was thus enabled to keep these roads up to a proper standard.

An amount of £12,317 paid into the separate account in connexion with the making of surveys and preparation of plans and specifications was expended on roads of a developmental nature in extension of works already commenced. The principal roads dealt with were the Callignee Estate-road, the road between Timboon and Curdies River, the Merriman's Creek-road, and the Apollo Bay–Wye River-road.

STATE UNEMPLOYMENT RELIEF FUNDS.

Under Unemployment Relief Acts Nos. 3866 and 3948, a total amount of £14,683 was expended during the year under review from the sum of £200,400 allotted during the previous financial year. The expenditure which represents the major commitments carried forward from the preceding year, was expended on roads of a developmental character, the total length of initially constructed work being 100.38 miles.

In its last Annual Report the Board stressed the importance of the work upon which Unemployment Relief Funds have been expended, and pointed out that—apart from the fact that suitable employment is made available for a large number of men—valuable country is being opened up and production assisted at a time when the greatest need exists for country development.

COMMONWEALTH UNEMPLOYMENT RELIEF WORK.

On the 1st July, 1931, an amount of £4,924 was unexpended from the amount of £76,500 granted in July, 1930, by the Commonwealth Government to the State for the relief of unemployment. Of this balance £3,296 4s. 10d. was expended during the year ended 30th June last.

The expenditure was distributed over twelve developmental roads, the work comprising in the main surfacing of previously formed roads.

EMPLOYMENT.

Since the Board commenced operations in 1913, 11,555 miles of roads have been brought under a scheme for financial assistance by the Board, £10,777,322 having been expended out of loan moneys in constructing them. This has resulted in marked agricultural development, especially in the north-eastern and southern portions of the State, land settlement has increased to a considerable extent, many blocks of land which were abandoned some years ago have been re-occupied, and rural life has been made more attractive by reason of the ready access to rail and market and the social and educational opportunities of the larger towns.

The total amount expended on the construction and maintenance of roads during the financial year was £911,920. Through this expenditure suitable employment throughout the State was provided for a large number of men, the extent of which is not generally appreciated.

The work done during the year, which had the advantage of low prices, absorbed a great deal of the labour of the country towns and surrounding districts. Approximately 85 per cent. of the expenditure was paid for labour, and the greater portion of the money was thus circulated in the districts in which the work was carried out.

It has been calculated that during the twelve months ended 30th June last, continuous employment was made available for 5,000 men, including those engaged in producing materials used in constructing and maintaining the roads. As the materials are of little value in their original condition and their cost forms only a small proportion of the total, practically the full value of the completed roadway is directly due to the employment of labour, the process of manufacture and transportation. In other words, the amount expended on roads has been paid almost entirely to the men employed on the roads, and to those working in the industries that supply the materials.

Owing to the large decrease in the Board's total expenditure for the year as compared with the previous year, the number of men employed was necessarily reduced, the reduction being estimated at 4,000.

In addition, the municipalities which are responsible for the maintenance of developmental roads expend a considerable sum annually on that work, and employment is thus created for approximately 600 men.

As the money expended on the Board's road system is distributed over the whole of the State, the circulation of such a large sum must be of incalculable benefit to the cities, towns, and rural areas.

With a programme of works carried out under approved methods of finance, employment becomes stabilized, and workmen continuously engaged on road works become more proficient, resulting in a reduction of costs and a consequent increase in road mileage.

With the curtailment of road works trade and business are injuriously affected, as employment in industry is thus decreased on account of the reduced demand for goods that industry produces. This is particularly applicable to maintenance works, which under the system of patrol are of a continuous nature. Good roads can only last while their maintenance is regularly attended to by patrolmen engaged on the work throughout the year.

VALUE OF SMOOTH SURFACED ROADS.

Roads with good smooth surfaces effect a considerable saving in maintenance cost as well as in the cost of motor vehicle operation, whilst rough roads add to the running costs.

By the use of an instrument for ascertaining the relative roughness of road surfaces, known as the roughometer, which was described in a previous report, the Board is enabled to secure valuable information at very little cost. This information forms a basis on which road improvements are carried out, and indicates the change that is taking place in the condition of roads from time to time. It also materially assists in estimating the life of the road, and from these particulars future requirements and financial needs can be more accurately gauged.

From investigations made by the Board's engineers it has been ascertained that the saving in the operating costs of an average passenger motor car on a sealed gravel road as against an unsealed gravel road is .6d. per mile.

These results are confirmed by investigations made in other parts of the world. A recent report issued by a Committee of the New Zealand Society of Civil Engineers confirmed this saving, and the Californian Highway Commission found that a saving of 2.4 cents per mile

was effected on surfaced as compared with unsurfaced gravel roads. Although this figure is higher than the saving ascertained by the Board, the authorities took 1.25 cents per vehicle mile, which is equivalent to .6d. per mile. It is, therefore, evident that on the basis of an average motor car covering, say, 5,000 miles per annum over a smooth surfaced road, the saving in the cost of motor operation would be £12 10s. per annum, which is greater than the amount of the annual registration fee required to be paid under the Motor Car Act.

LABORATORY WORK.

The importance of the work carried out in the Board's testing laboratory has grown very considerably during the years. The distribution of available funds over an ever-increasing mileage, the increase in the use of local materials from different parts of the State, and the development of new methods of construction involving different manufactured products and new items of plant, are among the factors which have contributed to this increase in work. Not only has the increase affected the number of routine tests of materials submitted by tenderers and materials taken from works in progress, but much experiment has been necessary in order to decide the processes most suitable for treatment of various new materials, and to establish the new tests required to specify those materials. The experimental work has, of course, been co-ordinated with actual construction of various experimental lengths of road.

The importance of the sub-grade in road construction has also received increased attention. A large amount of work has been done on this subject in other countries and particularly in the United States of America, and use has been made of the publications from the latter source and in particular of the various methods of test and the technique of the tests and apparatus devised. Full particulars of these have been obtained, so that any research work carried out in this country will follow on and be comparable with the large amount of research work carried out and described by such authorities as the Bureau of Public Roads of Washington. While no systematic series of tests of Victorian soil has yet been undertaken, those which have been carried out in particular cases have proved of very great value in aiding the Engineer's judgment of particular soils in special jobs. In this, as in all research work, there is no doubt that very great savings can be effected by ascertaining with greater accuracy the physical factors involved and the physical properties of the materials which are used.

The following summary indicates the nature and extent of the work carried out in the laboratory for twelve months ended 30th June, 1932 :—

	No. of Tests.
1. Tests on samples of gravel and metal submitted by tenderers or from current contracts	700
2. Tests on refined tar produced by the bitural process	370
3. Tests on samples from suppliers' works for bituminous materials, by arc and distillation methods	80
4. Tests on tenderers' samples of bituminous materials prior to acceptance of contract	150
5. Special tests on fluxing of various bituminous materials	100
6. Soil samples tested	70
Note.—Each sample requires several individual tests.	
7. Mixing concrete test cylinders with materials from bridge contracts ..	20
8. Experimental research on paint, timber, apparatus and new methods of tests	110
Total	1,600

CONTROL OF TRAFFIC.

Under the Motor Car Act, the Board is given power to control the speed and weight of motor vehicles carrying goods for hire or in course of trade on declared main roads and State highways. To make this control effective, it was necessary to appoint a number of officers who combine the duties of Inspector under the Motor Omnibus Act with those of Traffic Inspector. The functions performed by these officers are very important, inasmuch as they play a great part in the economic use of the roads.

In the case of heavy goods traffic, proper control is particularly essential, and this is especially so in view of the changing conditions of traffic which demand smooth road surfaces, greater road widths, and easing of curves.

The Act provides that the maximum gross weight of any four-wheeled motor vehicle carrying goods on any road shall be 8 tons, but if the vehicle is not carrying goods in competition with the Railways, then the maximum gross load may be 10 tons. This has been found to be a wise provision in this State, as the roads that have been built are to a standard capable of carrying traffic up to those limits, and unless such limits were fixed, 5 per cent. of the traffic may do more damage than the rest of the 95 per cent. together.

Motor vehicles fitted with six wheels may carry a maximum gross weight of 13 tons, a higher basis having been fixed on account of the greater distribution of the weight per wheel and consequent less liability to road damage.

The number of cases reported to the Board during the year for breaches of the law in respect of load limits was seven. Prosecutions were instituted in six instances and fines recorded.

On account of offences committed by the drivers of motor trucks in travelling at a speed in excess of the limits allowed under the Motor Car Act, 167 cases were reported to the Board. 124 prosecutions were launched and fines inflicted in 122 cases.

It has been found that, as a rule, drastic action, such as the institution of legal proceedings, is necessary to act as a deterrent for breaches of the law, and that the action taken has had good effect in preventing the continuance of excessive damage to the roads. It should not be forgotten that the regulation of the weight and speed of motor trucks is an economic factor that must be particularly considered in relation to the maintenance of our road system.

WARNING SIGNS.

The erection on the State highways of standard warning signs in the form of red triangles fitted with reflectors should add materially to the safer operation of motor vehicles on the roads. These signs have been placed at suitable positions along the highways so that the attention of the motor user will be attracted to dangers which actually exist, and the signs have been placed at sufficient distance from those dangers to enable the driver to slacken his speed or stop his vehicle in time. Requests have been made to the Board from time to time for the erection of warning signs in positions where the features do not constitute a real danger, in which case the Board has refused to accede thereto, for the reason that otherwise there would be a tendency on the part of the motor driver to disregard warnings where risks exist.

Unfortunately, the importance of these signs is not fully recognized by certain individuals, who, failing to realize that the signs have been erected in the interests of public safety, deliberately damage them by smashing the reflectors, thereby greatly detracting from their usefulness.

AMENDING LEGISLATION.

Motor Car Act No. 3981.

A Bill to provide for the half-yearly registration of motor cars was passed by Parliament in December last.

Under the Motor Car Act No. 3901, it is provided that where a fee payable in respect of the registration or renewal of registration of any motor car amounts to £10 or upwards, and the Chief Commissioner of Police is satisfied that the payment of the whole of the fee in one payment would in any particular case be onerous, such fee may, with the approval of the Minister, be paid in half-yearly instalments in advance.

Act No. 3981, passed last December, made further provision for payment of half-yearly fees by specifying that a fee equalling half the fee to be paid together with an amount equalling 40 per cent. of half the fee, may be paid on the registration or renewal of registration of a motor car, but such registration shall have no force or effect after the expiration of six months, unless before the expiration of that period a further fee equalling half the fee less 25 per cent. of half the fee is paid.

Country Roads Board Fund Act No. 4038.

This Act, which was passed on the 19th July last, and came into operation on the 30th June, provides:—

1. For the discontinuance in respect of the financial year commencing on the 1st July, 1931, of the payment of the sum of £10,000 per annum from the consolidated revenue into the Country Roads Board Fund towards the cost of maintenance on main roads and State highways.
2. For the payment into consolidated revenue in the financial year commencing 1st July, 1931, from the Country Roads Board Fund the sum of £150,000. In lieu of this amount, arrangements have since been made for a similar sum to be made available to the Board out of National Recovery Loan.
3. For the relief of certain municipalities from the payment during the financial year commencing 1st July, 1932, of such of their liabilities in respect of permanent works on main roads, State highways, and developmental roads, as the Minister on the recommendation of the Board determines. Such relief is not to exceed £25,000, and is to be paid to the Treasurer of Victoria out of the Country Roads Board Fund.

ACQUISITION OF LAND FOR DEVIATIONS AND NEW ROADS.

For the construction of new roads and improving the grades and alignments of existing roads, a considerable volume of work has been entailed in the purchase of land.

In negotiations for the compulsory taking of land, 4,433 cases have been finalized since the inception of the Board, and a total amount of £183,202 has been paid to the owners of properties as compensation, this sum representing 45 per cent. of the aggregate claims. Of the unfinalized claims, only sixteen were required to be settled by arbitration in accordance with the provisions of the Country Roads Act. The sum claimed in arbitration proceedings amounted to £12,854, whilst the total award was £6,834.

LICENSING OF COUNTRY MOTOR OMNIBUSES.

The following statement shows the number of licences issued, the routes prescribed, &c., from the 1st July, 1931, to 30th June, 1932 :—

		Fees Payable.		
		£	*s.*	*d.*
Stage Motor Omnibuses—				
Licences issued and renewed ..	236 ..	589	18	3
Permits issued	19 ..	9	10	0
Routes prescribed	15 ..	..		
Touring Motor Omnibuses—				
Licences issued and renewed	60 ..	202	11	3
Light Motor Omnibuses—				
Licences issued and renewed ..	416 ..	1,672	1	1
Drivers' Licences issued	645 ..	161	5	0
		2,635	5	7

Since the Country Motor Omnibus Act came into force, 219 routes have been approved by the Governor in Council.

For various offences against the provisions of the Omnibus Acts and regulations, proceedings were instituted in 165 cases, and fines and costs amounted to £1,338 19s. 4d.

A comparison of the number of vehicles licensed during last financial year with the number licensed during the preceding year, indicated that 712 licences were issued for the period of twelve months ended 30th June, 1932, as against 781 for the previous financial year. These figures represent a decrease of 10 per cent.

STATEMENT OF ACCOUNTS.

Statements of accounts for the year ended 30th June, 1932, of the Country Roads Board Fund, and balance-sheets as at that date, appear in Appendix A.

On referring to the statement of the Country Roads Board Fund, it will be seen that the motor registration fees, which are the Board's principal source of revenue, amounted to £1,047,497 15s. ; motor drivers' licence fees, £51,815 1s. 6d. ; fines under the Motor Car Act, £17,488 14s. 11d. ; total gross revenue, £1,116,801 11s. 6d.

The cost of collection totalling £58,311 3s. 8d., which was paid out of the fund, included the following items of expenditure :—

Motor Registration Branch—		
Salaries	£15,368	
Wages	304	
Police Patrol—		
Wages	17,653	
Travelling allowances	2,150	
		£35,475
Postage, stationery, and printing		8,519
Number plates, &c.		7,368
Motor cycles, running costs and reconditioning		3,191
Miscellaneous		3,758
		£58,311

The net revenue under the Motor Car Act, therefore, was £1,058,490 7s. 10d.

The amount received for the licensing of country motor omnibuses under the Motor Omnibus Act was £3,657 for the year, whilst the expenditure incurred in the administration of the Act totalled £4,555, representing a deficiency of £898, which was borne by the Country Roads Board Fund.

Of the amount expended out of loan moneys, £16,700 was expended on declared main roads, and £81,966 on developmental roads. In the former case, half the total cost will be subsequently refunded by the municipalities over a term of 31½ years, whilst in the latter an average rate of 2 per cent. on the capital cost will be paid by municipal councils in respect of interest.

With this expenditure, the total loan liability of the Board as at 30th June, 1932, was £10,777,322. The whole of the interest and sinking fund on this expenditure is borne by the Board out of the Country Roads Board Fund and by the municipalities out of municipal revenue without any charge whatever on the consolidated revenue of the State. The amount paid out of the Board's Fund during last financial year in respect of interest and sinking fund was £119,000 17s. 11d., representing payments by municipalities and £368,613 14s. 6d. in respect of the State's proportion of expenditure.

Statement of expenditure on road construction, including expenditure under special appropriations, is submitted below in summarized form, from which it will be noted that the total for the year was £951,454 19s. 4d. Compared with last year's expenditure of £1,656,274 8s. 1d., a reduction of £704,819 is shown, equivalent to 43 per cent.

—	Under Direct Supervision of the Board.	Under Supervision of Municipalities.	Total.
	£ s. d.	£ s. d.	£ s. d.
1. State Highways—			
Maintenance and reconditioning ..	225,122 6 2	40,127 6 4	265,249 12 6
2. Main Roads—			
Construction	..	..	31,425 6 5
Maintenance	..	..	422,926 9 0
	58,878 10 6	395,473 4 11	454,351 15 5
3. Developmental Roads—			
Construction, &c.	82,462 9 0	77,142 16 10	159,605 5 10
4. State Unemployment Relief—			
Main and Developmental Roads ..	..	..	9,271 15 10
Roads for Isolated Settlers ..	..	..	5,411 12 10
	9,010 19 7	5,672 9 1	14,683 8 8
5. Great Ocean Road	523 15 8	..	523 15 8
6. Grants to Municipalities Act 3662 ..	..	39,534 19 4	39,534 19 4
7. Federal Unemployment Relief ..	3,296 4 10	..	3,296 4 10
8. Federal Trust	12,317 11 3	..	12,317 11 3
9. Experimental Roads	1,892 5 10	..	1,892 5 10
	393,504 2 10	557,950 16 6	951,454 19 4

Towards the expenditure on the reconstruction of bridges on State highways and for the construction and maintenance of main and developmental roads, the Commonwealth Government contributed an amount of £133,118 7s. 11d. under the provisions of the Federal aid roads agreement.

Under the provisions of the Federal Aid Roads Agreement an amount of £277,809 was provided for the construction and reconditioning of main and developmental roads.

The percentages of expenditure of funds from various sources is indicated in the accompanying diagrams. Diagram No. 1 shows the percentage of expenditure under the several headings during the year ended 30th June last, and No. 2 diagram supplies similar information for the period extending from the inception of the Board to the end of the financial year under review.

APPORTIONMENT OF COSTS.

In accordance with the provisions of Section 28 of the *Country Roads Act* 1928, the cost of permanent works and maintenance was apportioned for the year ended 30th June, 1931. An amount of £28,057 13s. 5d. was charged to municipalities in respect of expenditure on permanent works and £179,148 2s. 10d. on maintenance.

The Shires of Huntly and Walpeup have not yet paid the contribution due by them to the 30th June, 1932, on account of their inability to collect a large proportion of the rates. For that reason the Shires of Beechworth, Birchip, Charlton, Healesville, Lillydale, Mirboo, Shepparton, Upper Yarra and Waranga were in a position to pay their contribution in respect of permanent works only, leaving outstanding the sum due for maintenance, whilst the Swan Hill Shire Council

was able to pay only part of the arrears carried forward from the preceding year. The Shire Council of Otway is also in arrears, but with the development of a large part of the shire and an improvement in the municipal revenue it is expected that the outstanding account will be paid at no distant date.

The total amount due by the municipalities mentioned at the 30th June, 1932, was £41,745 8s. 2d., but this sum has since been reduced to £40,795 8s. 2d.

MOTOR REGISTRATION.

During the year ended 30th June, 1932, 167,952 motor cars were registered, the following classes of vehicles being included in the total :—

Private cars	117,160
Commercial motor vehicles	24,968
Hire cars	2,425
Licensed omnibuses	831
Motor cycles	22,568
Total	167,952

The new system of registration of motor cars provided for under Act 3901 which came into force in February last, requires, after the coming into operation of the new Act, that in the case of any motor car or trailer attached to a motor car, or any motor cycle, identifying numbers must be shown on number plates to be issued by the Chief Commissioner of Police to the person in whose name the car is registered, such plates to be kept fixed on the motor vehicle.

The number plates are to remain the property of the Crown, but the person to whom same are issued is required to pay for their use a sum not exceeding the average cost of, and incidental to, procuring and issuing the plate.

In addition, amended regulations require that when a motor car is registered or registration is renewed, a label is required to be affixed to the windscreen of the motor car.

Under this system the difficulties of identifying unregistered cars have been overcome and the revenue has benefited accordingly.

The net revenue received for last financial year was £1,058,490 as compared with £1,059,194 for the previous year.

In comparison with the figures for the financial year 1930–31, the total number of motor vehicles of all classes registered for last financial year decreased by 279. This decrease is accounted for by a fall of 1,476 in registration of hire cars, licensed omnibuses and motor cycles, and an increase of 1,197 in the number of private cars and commercial motor vehicles.

We have the honor to be, Sir,

Your obedient servants,

W. T. B. McCORMACK, Chairman.

F. W. FRICKE, Member.

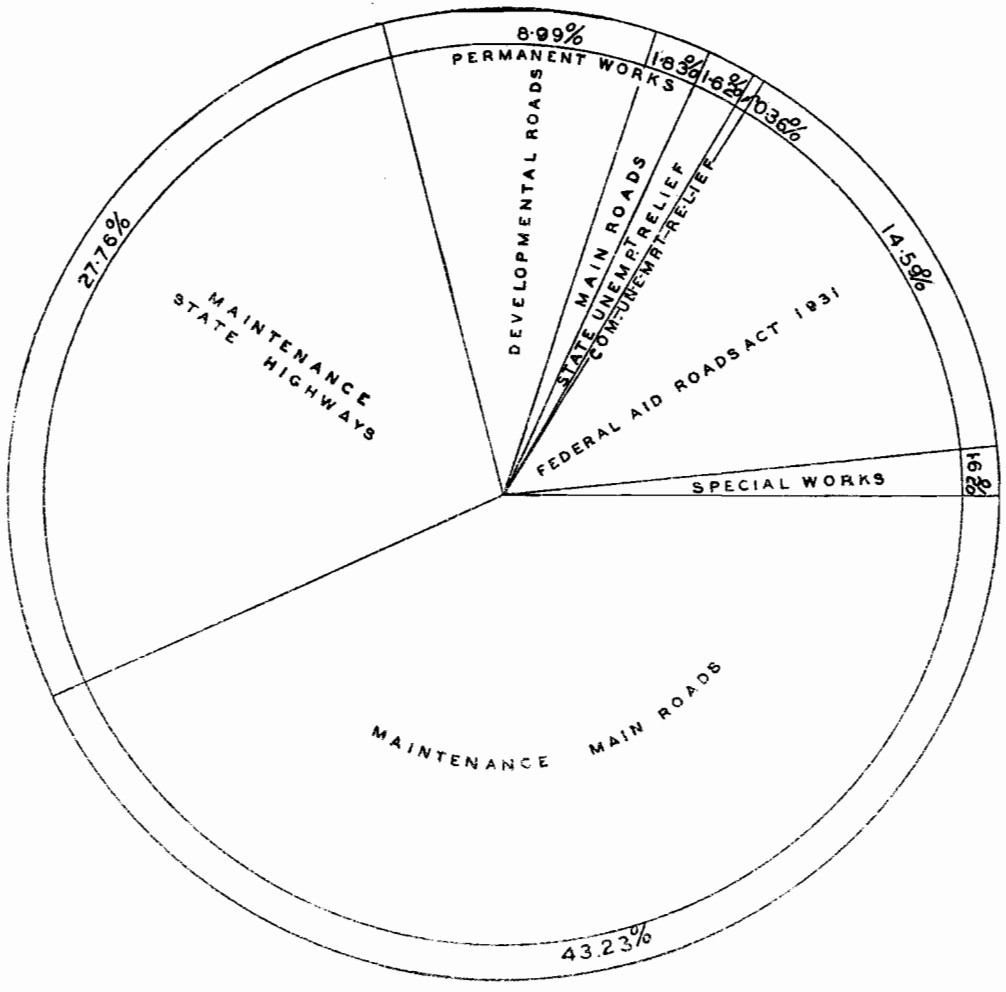
W. L. DALE, Member.

R. F. JANSEN, Secretary.

DIAGRAMS SHOWING COMPARITIVE SECTIONAL TOTAL EXPENDITURE

Road Works

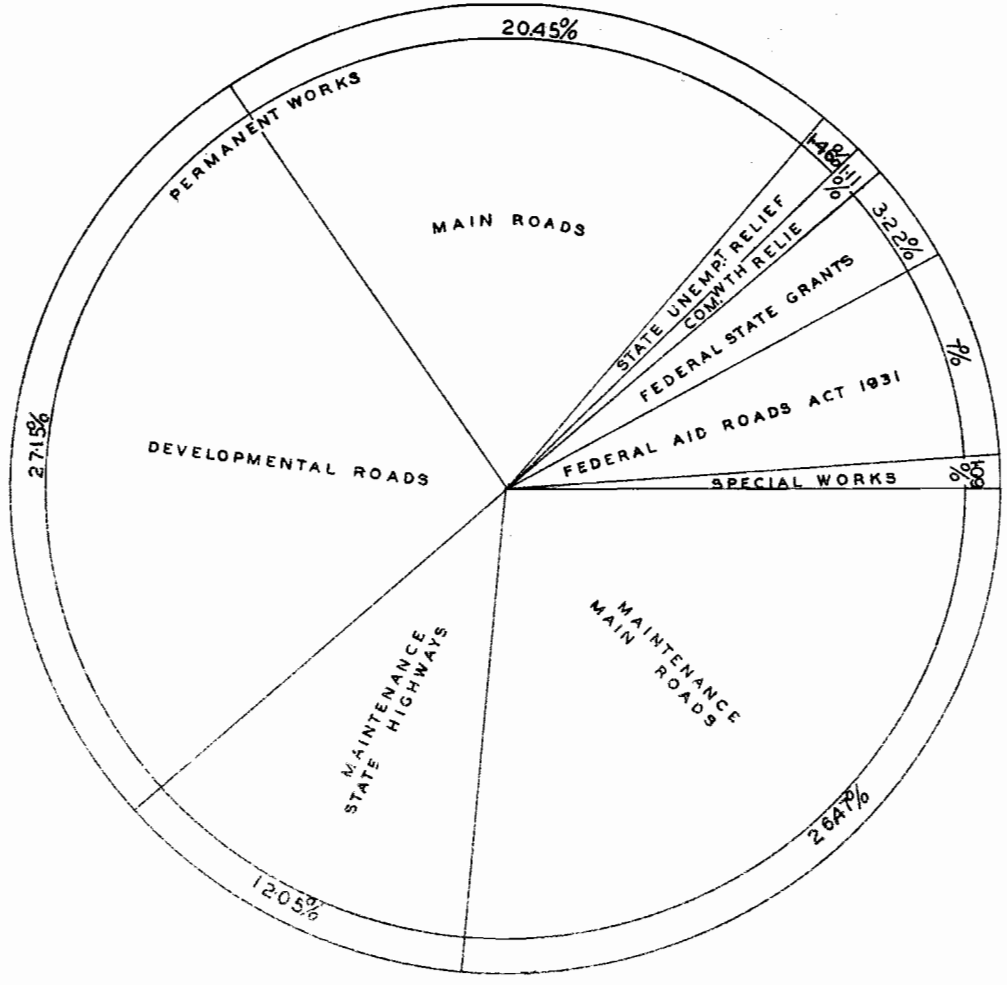
Expenditure for Financial Year 1931-32



Nº 1

Road Works

Total Expenditure since inception of Board to 30-6-32



Nº 2

CHIEF ENGINEER'S REPORT.

Country Roads Board,
Exhibition Buildings,
Carlton, N.3,
25th October, 1932.

The Chairman,

Sir,—

I have the honour to submit herewith my report on work carried out during the year ended 30th June, 1932.

WORKS UNDER DIRECT CONTROL.

While the expenditure under the direct control of the Board forms only a small portion of the Board's total expenditure, most of which of course is carried out by the municipalities, the work in general has special significance, as practically all the experimental work or trials of new methods of construction are carried out under the Board's control in the first instance. The Board has the necessary plant and laboratory to thoroughly test out various methods, and define standard procedure and designs. Municipal councils are, quite naturally, somewhat conservative in matters of road construction, particularly in regard to the adoption of new methods. The successful carrying out of works by the Board with new methods from time to time serves as an object lesson to the councillors as well as giving assistance to the shire engineers in adapting these methods to works under their control. In particular, the use of fine crushed rock, which was at first looked upon with disfavour by many councils, is becoming very general, with considerable resulting savings in road construction and maintenance. The result of the Board's experiments and experience is made available to the councils, chiefly through the agency of the district engineers. Shire engineers are co-operating excellently with the Board's district engineers in all matters and the results are seen not only in an improvement in the works carried out with funds allotted by the Board, but also in general municipal works.

The total expenditure on works carried out under the direct supervision of the Board was £393,504 for the financial year. The following table shows the expenditure and mileage of works done by the Board during the past three years:—

Year.	1929–30.	1930–31.	1931–32.
Expenditure under direct control	£1,148,041	£613,819	£393,504
Miles constructed or reconstructed	529	·651 (includes 112 miles surveyed, grubbed and cleared only)	588
Miles maintained	1,260	1,423	1,436

It is seen that while the expenditure has decreased considerably the amount of work done has remained, roughly, constant. This has been due to the continued low contract prices received, to the reduction in cost generally, and to the still wider adoption of low cost methods of construction. In particular, the general use of fine crushed rock, which has been found quite satisfactory even on heavily trafficked roads, has contributed largely to the lowering of construction and reconstruction costs. In this latter connexion it might be mentioned that 4 miles of the main Warburton-road, which carries a good deal of traffic of all descriptions, including railway motor buses, was re-sheeted with fine crushed rock to a depth of 2 inches consolidated only, The widening of the old 11-feet metal pavement was carried out in selected loam, and only the 2 inches consolidated sheeting was placed on this loam. The work was initially intended as a base course only, but successfully carried traffic both during the summer and during the past very wet winter, and will be sealed in the present financial year. The result of this work has enabled still more economical designs to be adopted on much similar work, generally, however, on lighter trafficked roads.

Economy of Surface Sealing.—With the completion of the heaviest trafficked sections of State highways (where surface sealing was obviously economical) it became necessary to obtain some accurate information as to the economy of sealing gravelled roads carrying lighter traffic, say of the order of 100 vehicles per day. Checks of the life of gravel re-sheeting on the Prince's Highway, near Sale, indicated a wear, under a traffic of approximately 180 vehicles per day, of approximately 1 inch per annum with a well-bonded coarse gravel. This "integral" figure was somewhat suspect, and a careful measurement was made of the wear on a section of the Calder Highway, between Charlton and Wycheproof, under a traffic of 100 vehicles per day. The gravel was a well-bonded coarse gravel (1-inch downward) from Korong Vale. Measurements were taken with a level over 100 feet of road at 2-feet intervals along and across the road. The mean wear for eight months was .804 inch, or approximately 1 inch per annum.

This gives an annual loss of 256 cubic yards (consolidated) of gravel per mile of 16-feet road. The gravel in question is expensive (18s. per cubic yard), being carried by rail, and a figure of 6s. 9d. consolidated in place would be a more general average. For this figure the saving by sealing would be approximately £85 per annum. Pavement maintenance of a sealed road (neglecting re-sealing) averages about £20 less than for an unsealed gravel under the traffic in question, due mainly to the necessity for dragging the latter, so that the total annual saving would be £105, less annual cost of a sealed pavement. This will include provision for first seal and periodical re-sealing, and should not exceed £70 per annum. The net saving for an average condition in plain country would therefore be approximately £35 per annum to the road-maintenance authority. Conditions of climate, cost of gravel, speed of traffic, and nature of gravel would, of course, need to be considered in any particular case.

The other saving to be considered is the saving in vehicle operation. Results obtained by research work done by the Board in a specially equipped car (details of which are given later) shows a saving of 0.60d. per mile for an average light car, and this is reasonably close to the figure obtained as a result of costing vehicles operating on different classes of roads in New Zealand. It also agrees with figures obtained in the United States of America, and therefore appears reasonably reliable. For 100 vehicles per day, therefore, we have a saving to the road-user of £117 per mile per annum.

The total saving by surface sealing, therefore, appears to be approximately £150 per mile per annum for traffic of 100 vehicles per day on average gravel roads in plain country. While these figures are not exactly applicable to all conditions, it is obvious that it is economical to seal gravel for very low traffic volumes—well within the limit of local traffic (which includes a high percentage of trucks) on most portions of the State highways. Sealed gravel is the highest type of construction used on the major length of the highways, and is considered adequate for traffic up to 1,000 vehicles per day. It is seen, therefore, that the type of pavement adopted is the lowest cost type that *would be adequate for local traffic*. It is also quite adequate for *through traffic* in the volumes experienced in this State, and the extra maintenance cost due to through traffic is only small, as effects of weather, drainage, &c., are proportionately large with our light traffic.

Bitumen is the only product which has been found satisfactory for sealing, tar products being of short life and limited in quantity. Bitumen is an imported material, as are many of the products concerned in the running cost of vehicles, as petrol, oil, rubber, &c. An estimate was made of the proportion of the £117 per mile given above which leaves the country, and this was found to be approximately £32. The annual cost of bitumen for sealing (including local and foreign charges) is only about £13 per annum, so that the net "balance of trade" is also strongly in favour of sealing with bitumen in lieu of constant re-sheeting. These comparisons neglect the question of danger from loose surface mulches, dust, &c., inseparable from unsealed gravel subject to any volume of fast traffic.

Tapered Cross Section.—It has generally been the practice to adopt a uniform cross section for road pavements of fine crushed rock, gravel or macadam, and a tendency to thickened edges as in concrete designs has had some support. On heavily trafficked roads this appears rational, but in many of the spur developmental roads carrying a few vehicles per day only, passing traffic is rare, and on the narrow formations which are used traffic invariably drives in the centre of the pavement except round corners, where the inside of the road is used. Observation and measurement indicate that for most of these roads an 8-feet pavement would carry over 95 per cent. of the wear, and the outer edges were used only, and that seldom, for passing. Again, the "boxed in" section forms a trough for water. For these reasons, a tapered cross section was tried on some gravel roads two years ago, and has been found very successful. Its use was, therefore, greatly extended during the past year, and is now adopted as standard for the conditions given. Where such roads are likely to form part of future through connexions, it cannot, of course, be recommended.

The advantages of this type of construction are:—

1. The cost of preparing the road-bed for the gravel or fine crushed rock is very low, being simple grader work.
2. There is no trough to hold water in clay country, and thickness of pavement can be reduced.
3. A wider pavement can be provided for much less material than in the normal type. This means that passing traffic need never leave the pavement, and cause shoulder ruts, with their costly maintenance and bad effect on the pavement.

A sketch showing a typical cross-section is given below (Fig. 1):—

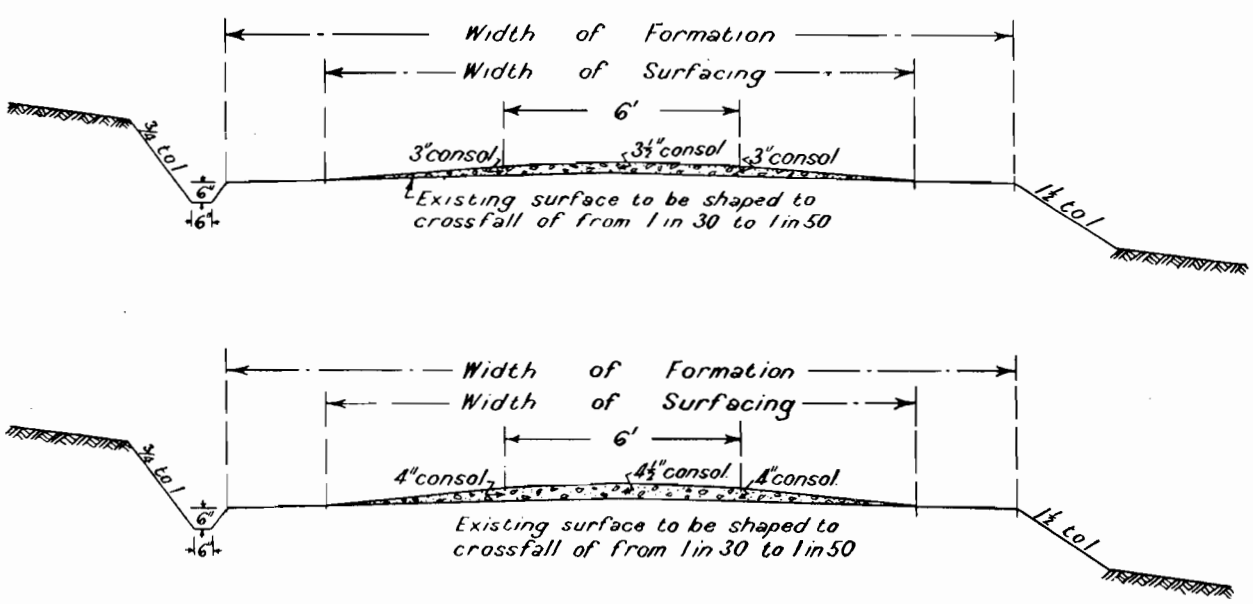


Fig. 1.—Type Cross Sections for Tapered Surfacing. Scale: 4 feet to 1 inch.

Bituminous Materials.—An interesting experiment designed to compare the life of various bituminous surfacings was carried out during the year. A large tray, carefully made, was divided into eight sections each 14 inches square, into which various materials were poured to a uniform thickness of 1 mm. This was carefully levelled up on the roof and left for five months. Temperature measurements were taken at various times on a control sample on the roof and in a bituminous roadway outside the office. The maximum

temperature recorded in the road was 160° F. The samples were carefully removed and slowly heated and melted down, and tested for penetration and ductility. The results obtained indicate that the life of even specially treated tar was not comparable to bitumen for surfacing work, although it can be widely and successfully used for other purposes. Further tests are being put in hand on a wider range of materials. A photo. of the test tray when removed is shown below.

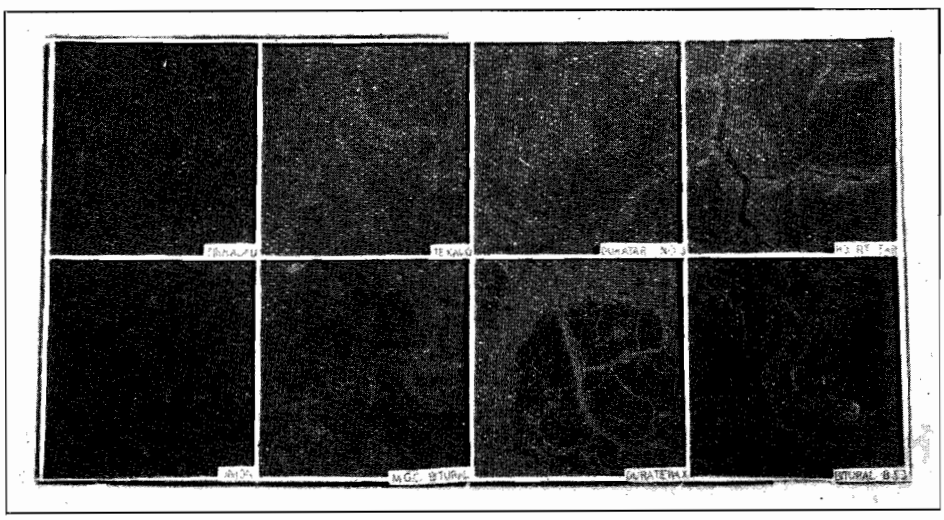


Plate No. 15.—Test Tray.

Traffic Counts.—Summer and winter traffic counts were taken on the State highways as usual, and on certain more important main roads. Small alterations were made in the location of stations so that the counts might be more representative of traffic over definite sections than a record of traffic at a particular point.

Fig. 2 shows the variation in registrations of motor vehicles and total traffic passing certain census stations since 1928.

Table 1 summarizes the results of the counts on the State highways taken in February, 1932. In this table the average number of vehicles of any type using a section of a highway has been obtained by—

(1) multiplying the number of vehicles passing each census station on the section by the length of highway on which the traffic is represented by the count at that station;

(2) adding the answers obtained for each station on the section;

(3) dividing the total by the number of miles in the section of highway.

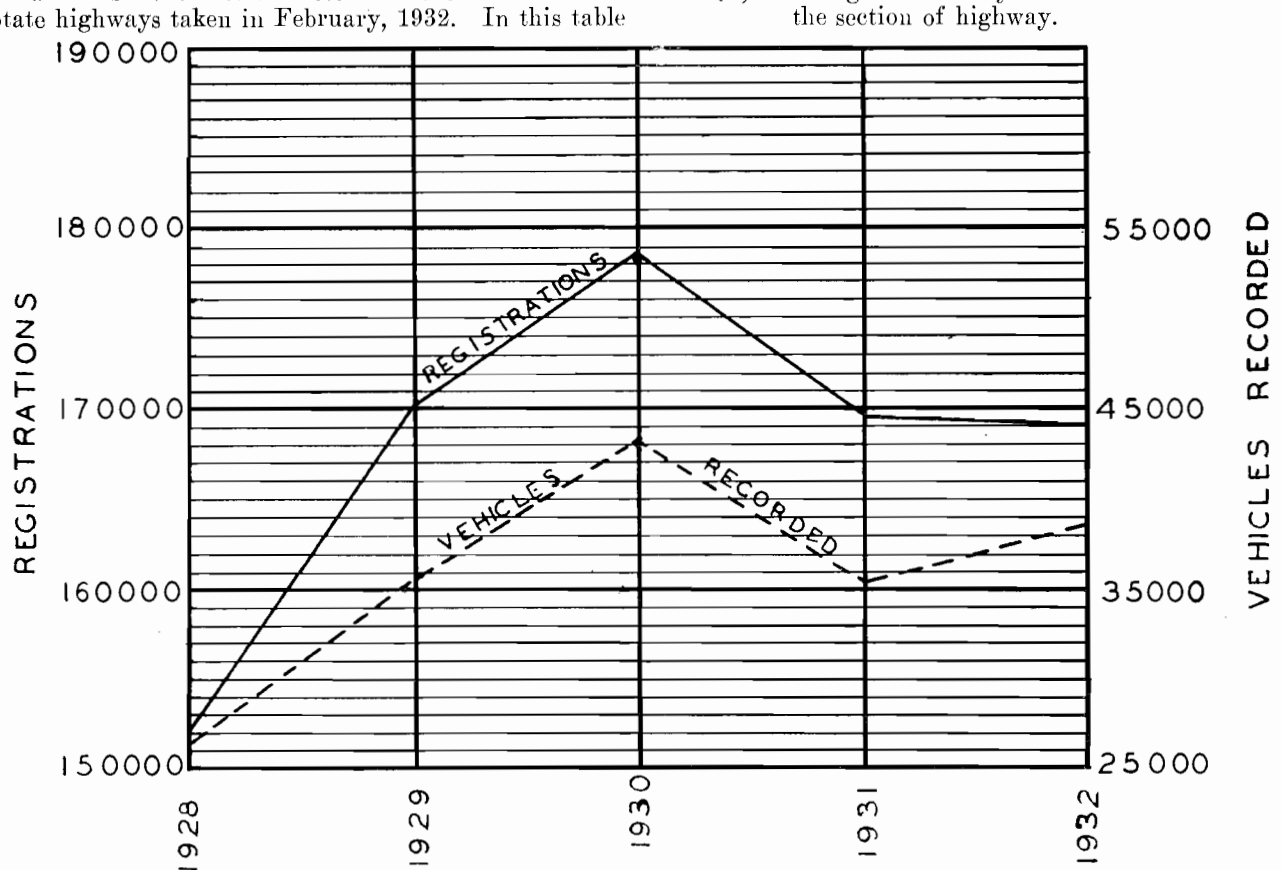


Fig. 2.—Graph showing Variation in Total Registrations in Victoria and Total Number of Vehicles passing Census Stations on State Highways. Census Period, 12 hours :—

Vehicles Recorded.—1928. Winter Count only.
1929-32. Average of Winter and Summer Counts.

Registrations.—Average of Total Number of Vehicles Registered at Date of Count in February and September each Year.

The summary does not show variations in traffic intensity due to short haulage to local centres, which can only be ascertained from the records of traffic at each census station.

The counts in conjunction with observation of road conditions form a very valuable means of assessing the value of various classes of materials and methods of construction, in addition to indicating the economic value of or necessity for road improvements. Space does not allow of publishing full details, but an examination of the details shows clearly the great extent to which the highways serve local traffic and act as feeders to the railway system. In many areas in the outlying sections particularly this is, of course, their main function, but even on the inlying sections this is very noticeable. Typical instances on the Princes Highway (east) are:—

(a)	47	miles from Melbourne—	53	trucks	near Garfield.
	62	„ „ „ —68	„	west of Warragul.
	70	„ „ „ —100	„	2 miles west of Yarragon.
(b)	91	„ „ „ — 35	„	Morwell River bridge (includes Morwell - Yallourn traffic).
	97	„ „ „ — 43	„	between Morwell and Traralgon.
	112	„ „ „ — 20	„	Flynn's Creek.
	124	„ „ „ — 53	„	between Rosedale and Sale.

These examples show the great extent to which the local truck uses the highways, and the same is found to apply, although less markedly, to motor cars.

TABLE 1.—AVERAGE DENSITY OF TRAFFIC ON STATE HIGHWAYS IN VEHICLES PER DAY BETWEEN 7 A.M. AND 7 P.M.

Highway.	Section.	Pneumatic Tires.						Solid Rubber Tires.		Horse Vehicles.		Unusual Vehicles.	Total.
		Buses.	Heavy Trucks.	Light Trucks.	Motor Cars.	Service Cars.	Motor Cycles.	Heavy Trucks.	Light Trucks.	Light.	Heavy.		
Prince's Highway West	1	5·0	54·1	81·6	429	1·8	52·9	17·0	1·9	35·7	4·2	0·2	683
	2	..	15·0	14·3	155	..	12·7	..	..	5·2	2·2	0·4	205
	3	2·4	12·8	22·1	308	4·3	28·2	1·9	0·7	42·4	4·5	..	427
	4	1·7	4·8	7·8	64·4	2·9	7·2	..	..	5·9	2·1	..	97
	5	0·4	0·6	1·5	50·4	1·7	15·0	0·4	..	16·8	1·0	0·6	89
Prince's Highway East	1	0·2	30·9	94·5	326	2·3	39·8	3·5	0·5	23·0	2·0	..	523
	2	1·1	21·0	23·1	160·5	0·9	12·8	1·7	..	8·9	0·2	..	230
	3	0·3	12·7	11·1	99	..	2·9	..	..	10·4	0·9	..	137
	4	2·2	4·4	9·9	70·7	4·1	8·4	0·1	..	9·4	2·5	..	111
	5	..	4·7	9·3	22·7	1·3	1·3	..	..	0·7	..	..	40
	6	..	..	3·7	18·0	..	1·8	..	..	..	..	..	23
Western Highway	1	0·3	31·4	34·6	258	7·4	19·0	5·1	1·5	22·2	5·6	0·1	385
	2	2·6	11·0	9·5	120·4	1·0	10·0	..	..	17·0	2·0	..	174
	3	..	18·8	14·0	102	0·3	7·1	0·6	2·2	12·5	19·2	..	177
	4	..	13·3	11·0	94·4	..	4·0	..	..	7·5	3·5	..	134
	5	..	..	8·0	68·6	..	..	..	..	9·8	4·2	..	91
Calder Highway ..	1	0·5	18·3	39·3	276	5·5	18·1	3·1	0·8	10·0	1·5	0·1	373
	2	4·0	15·6	29·0	173·8	4·0	12·6	1·1	0·5	17·6	7·0	..	265
	3	1·3	5·6	8·9	69·0	2·2	5·4	0·3	0·6	13·9	1·8	..	109
	4	..	5·0	9·0	54·0	3·0	..	..	..	23·0	11·0	..	105
	5	..	14·8	6·1	61·0	1·0	6·0	..	..	20·2	6·5	0·4	116
	6	1·5	3·6	30·5	83·0	2·3	9·9	..	..	31·1	2·4	..	165
Hume Highway ..	1	0·5	24·2	64·8	249·9	7·6	24·1	2·1	0·9	14·5	2·4	..	390
	2	..	12·7	13·3	140	5·9	6·6	1·2	0·4	12·3	0·8	0·4	194
	3	0·3	9·8	10·4	124·5	4·1	4·2	2·6	..	4·0	1·6	..	161
Northern Highway ..	..	2·9	1·4	14·4	107	7·4	14·2	..	0·4	15·6	1·1	..	164
Omeo Highway ..	1	0·2	1·8	11·3	28·9	3·5	4·4	..	..	8·3	0·5	0·7	60
	2	1·7	1·5	3·5	18·0	1·6	1·5	..	0·2	1·3	..	..	29
	3	..	0·6	0·7	2·9	0·6	1·1	..	..	0.1	1.1	..	7
	4	0.3	5.3	21.1	52.5	2.4	2.5	0.1	..	5.9	2.5	..	93

Soil Analysis.—Further work has been done during the year on the highly important subject of subgrade investigation, although unfortunately staff has not been available to carry out the programme originally planned. Some changes in methods have been made. The Bouyoucos method of mechanical analysis by means of hydrometers has been substituted for the Schone elutriator, and is giving results that are generally sufficiently accurate, while much more quickly obtained than by the standard Pipette method. Samples of soils were very kindly sent by the Bureau of Public Roads of America, together with the test results obtained by their experienced operators and machines. These will be checked in the Board's laboratory, and will form a basis of comparison of test results.

ROAD MIX.

Due to the relatively high cost of bituminous binders compared to gravels, &c., in this State, road-mix pavements are seldom economical. Some miles have been constructed in various parts of the State with success, using tar as a binder, but the tar has been found to be troublesome under some conditions. In order to extend the knowledge of this type of construction, half a mile of the Princes Highway East, near Garfield, was surfaced with a road-mix of approximately 2 inches consolidated thickness, using various binders. The aggregate was of the graded type, consisting of a mixture of screenings and toppings available from maintenance heaps and an old quarry dump. The analysis is shown below:—

Size of Screen.	A. Screenings (4771).	B. Screenings (4770).	Toppings (4772).	Adopted mix.
	Per cent.	Per cent.	Per cent.	Per cent.
Passing ¾ in.	100	100	..	100
„ ½ in.	90	83	..	93
„ ¼ in.	59	28	100	66
„ 10-mesh sieve ..	11	2	98	38
„ 20 „ „ ..	3	..	70·8	24
„ 30 „ „ ..	..	..	59·4	20
„ 40 „ „ ..	..	..	49·1	16
„ 50 „ „ ..	..	..	39·0	12
„ 80 „ „ ..	..	..	25·9	8
„ 200 „ „ ..	..	..	11·1	4

The adopted aggregate appeared to be well graded, and produced a dense stable material when mixed.

Bituminous Binders.—As the work was of an experimental nature it was decided to try out the suitability of "cut-back" bitumen and bitumen emulsion as binders, as well as a light distilled tar which had been used previously for such work. A typical specification for the light tar employed is as follows:—

Specific viscosity Engler, 60 to 80 at 104 deg. F.
Specific gravity, 1.05 to 1.12.
Free carbon content, 5 to 10 per cent.
Solubility in CS^2, 91 per cent.
Typical distillation, 0-170 deg. C., 0.5 per cent.; 170-235 deg. C., 15.2 per cent.; 235-270 deg. C., 10.2 per cent.; 270-300 deg. C., 7.4 per cent. Total distillate, 33.4 per cent.
Penetration of pitch, 44 at 77 deg. F.
Softening point of pitch, 118.4 deg. F.

Tar is subject to deterioration by oxidation, which may result in the crumbling under traffic of the pavement in which it is used. It was decided, therefore, to experiment with the use of bitumen cut-back with partly volatile oils to a viscosity suitable for thorough mixing, but which would set up in the course of a week or longer by the evaporation or dispersion of the lighter fractions of the fluxing medium. The emulsion used was of the slow-setting type designed for premixing with aggregates and for mixed-in-place work.

The viscosity of the tar used in previous work (70 deg. Engler at 104 deg. F.) had proved suitable for thorough mixing under ordinary summer conditions (60 deg. F.), and the bitumen cut-back mixtures were designed to have, under laboratory test at 104 deg. F., a viscosity of approximately 80 deg. Engler. The compositions of the mixtures decided on were as follows:—A, 3 parts bitumen, 85/100 pen.; 1 part of residual oil; 1¼ parts of power kerosene; test viscosity, 78 deg. Engler at 104 deg. F. B, 2 parts bitumen, 85/100 pen.; 1 part tar flux oil; test viscosity, 76.8 deg. Engler at 104 deg. F.

In Table 2 are given distillation tests of samples of the solvents used, viz., power kerosene and tar flux oil, and of the cut-back mixtures A and B. The residue of binder A after evaporation has a float test at 90 deg. F. of 126 seconds, indicating a material slightly softer than 85/80 liquid bitumen, while that from binder B is slightly harder, having a float test of 495 seconds at 90 deg. F., which is of the order of that of 90/80 liquid bitumen.

TABLE 2.—DISTILLATION TESTS OF SOLVENTS AND MIXTURES.

Temperature, Deg. C.	Percentage Distilled off—	
	Tar Flux Oil.	Power Kerosene.
0–150	Nil	Trace
0–160	Nil	4
0–170	Nil	7·6
0–180	Nil	17
0–190	1·5	29
0–200	12	46·5
0–210	39	56·5
0–220	63	68
0–225	70·5	73
0–230	76·2	77·5
0–235	82	81
0–240	85	84·5
0–250	89·5	89
0–260	93	92·5
0–270	97	96
	liquid residue	liquid residue

Fraction, Deg. C.	Cut-back Binder "A."	Cut-back Binder "B."
0–225	0·2	Nil
225–315	11·54	2·2
315–360	4·59	4·24
Residue	83·67	73·76
Float test of residue	126 sec. at 90 deg. F.	495 sec. at 90 deg. F.

The quantity of bituminous binder to be used per sq. yard of surface area of road was determined from the formula proposed by Stanton, of the California Highways Commission, which is as follows:—$P = 0.020a + 0.045b + 0.180c$, where P = percentage of binder by weight (S.G.= unity, approx.) a = percentage of aggregate retained on a 10-mesh sieve, b = percentage of aggregate passing 10-mesh sieve and retained on a 200-mesh sieve, c = percentage of aggregate passing a 200-mesh sieve. From this formula and the grading of the adopted aggregate, the value of P is found to be 3.5 per cent. The thickness of aggregate used, as stated later, was 3 in. loose measurement, and the weight of the aggregate approximately 100 lb. per c. feet, giving the quantity of binder to be used 0.78 gal. per square yard. The figure adopted was 0.8 gal. per square yard.

The emulsion used contained 85/100 pen. bitumen, and was of the slow-breaking type designed to possess mechanical stability in the presence of finely divided aggregate, and, therefore, to be suitable for mixed-in-place work. As the bitumen content is only about 55 per cent., the remainder of the emulsion consisting of water and emulsifying agents, it would appear necessary to use a quantity of 1.45 gallon per square yard of emulsion for the thickness of aggregate employed.

On account of the fluidity of the emulsion and consequent high covering value and the reported success of work carried out in England with a lesser quantity of binder (equivalent in this case to 1.10 gallon per square yard), it was decided to adopt a figure of 1.30 gallon of emulsion per square yard. In accordance with recommended practice to facilitate mixing, the emulsion was mixed before application with an equal quantity of clean water. The lengths of road and the location of each section on which the various types of binders were used are as follows:—

Binder.	Length of Section.	Location Miles from Melbourne.
Tar	1,450 ft.	46·56 m. to 46·84 m.
Cut-back binder "B"	420 ft.	46·84 m. to 46·92 m.
Cut-back binder "A"	390 ft.	46·92 m. to 46·99 m.
Emulsion	340 ft.	46·99 m. to 47·05 m.

Tack Coat.—The tack coat applied to the existing road surface was to provide a bond between the pavement and the new surfacing. The material used for this purpose consisted of vertical retort tar refined by the "Bitural" process and had a penetration of 250 at 68 deg. F.

Construction methods follow ordinary practice, the tar and cutbacks being applied by sprayer. The bitumen emulsion binder was applied by hand-pouring, as some doubt existed as to whether it could be sprayed successfully without breaking, though it is claimed that this offers no difficulties when the emulsion is fresh, that is, not older than two months. The emulsion was first mixed with an equal quantity of clean water, a bitumen heater being used for the purpose. As breaking is accelerated by the action of strong light when in the presence of finely-divided particles, it was found necessary to turn the aggregate over immediately after pouring, in order to delay the breaking until mixing was complete. Mixing was carried out by blading with a grader. During early consolidation the surface was maintained with a planer and occasionally re-shaped with the grader.

The work was carried out under very adverse weather conditions. After the aggregate had been spread, rain occurred almost daily and the binder was applied when conditions were at all possible. Some of the lighter fractions of the binders were washed out by rain following the spraying. On the cut-back sections this effect was apparent to a greater extent on one-half width of road than the other, and resulted in the more rapid

setting of the mix on that side. The moisture contained in the aggregates, apart from the effect mentioned above, delayed considerably the setting up of the surfacing and prolonged the necessary period of maintenance and made it necessary to postpone sealing. When the moisture did eventually dry out during a spell of fine weather, the section where the light tar was used, which had been the softest and most easily marked by traffic during the wet period, set the most rapidly on account of the hardening of the tar, and dragging was discontinued.

After this stage the cut-back bitumen sections remained soft in places, and it was necessary to keep the planer in operation to prevent traffic marks setting into the surface. The emulsion was applied under fairly favorable conditions and did not remain soft for longer than a period of about three days, during which consolidation and final shaping were effected. On account of the relative hardness of the 85/100 penetration bitumen used in manufacturing the emulsion, it was not considered desirable to disturb the material after the emulsion had broken.

The work confirmed the opinion that cut-back bitumen would prove suitable for work of this nature as each of the binders used proved workable during mixing. The cold and wet conditions prevailing discounted the value of any observations which may have been made on the time of setting under summer conditions. The time of setting up is important as it represents the period available for the correction of irregularities of grade and cross section, but too slow setting prolongs the period of maintenance unduly and increases the cost.

The result of the work has been generally satisfactory for all materials considering the very bad conditions experienced.

Vehicle Operating Costs.

Investigations made in other parts of the world have shown that there are very appreciable differences in the cost of operating motor vehicles on different kinds of road surface, and early in this year tests were carried out by the Board to compare those costs under local conditions. It was decided to attempt to compare costs on roads having a smooth bituminous surface with costs on roads having a mulch of loose gravel on the surface, this being the normal condition of a gravel road, it having been found impossible to properly maintain such a road unless a certain amount of loose material is kept on the surface.

Although the running costs of any particular class or make of vehicle will average out over a long period, the factors entering into that cost are numerous, and it was realized that it would be practically impossible to compare, accurately, the total costs of any car when operated over the two types of surface. Accordingly it was decided to compare petrol consumption only. As this is influenced by wind, grade, and condition of the engine as well as by the road surface, apparatus was designed to measure the consumption accurately in a short distance so that these factors could be either eliminated or else averaged out.

The tests were carried out with the roughometer car —a Ford, model T—using a burette fitted into the petrol system, via a three-way cock, so that the petrol used could be measured over a short length of level road (about half a mile). The tests were made at a uniform speed of 25 miles an hour with the tires at 25 lb. a square inch and constant ignition setting. The burette was only switched on to the system after speed had been attained and was switched off before slowing down, so that consumption during starting, accelerating, and stopping was from the main tank and was excluded from the test measurement. Immediately after a run in one direction the car was turned round and the run repeated in the opposite direction, so that by averaging the two runs the effect of grade and wind would be eliminated. The sections chosen were substantially flat, and there was very little wind. Usually three pairs of runs were made, and the maximum difference from the mean was of the order of one per cent. The length of the run was measured by an odometer fitted to the car, reading directly to 0.001 mile. At the same time as the petrol consumption was taken the roughometer was read and the roughness of the road recorded.

After some preliminary tests petrol consumption was plotted against the "roughness" of the surface. The graph showed a general tendency for the consumption to increase with "roughness," but, probably because so many factors influence the petrol consumption, the relationship was not very precise. The results given hereafter were obtained on sections having a similar "roughness." They were all made the same day, in summer, so that engine temperature did not vary much, and as far as could be arranged, under similar conditions. The results are as follow:—

Type of Surface.	Petrol Consumption. m.p.g.
Gravel, with heavy mulch of fine material	24.0
Gravel, with light mulch of medium material	27.0
Gravel sealed, with loose gravel on surface	27.3
Mean, weighted for average conditions	25.5
Gravel, sealed, no loose material ..	28.4
Penetration macadam, good order ..	29.2
Sand, sealed, no loose material ..	30.4
Mean	29.3

Decrease in petrol consumption, say, 15%.

To get the actual saving represented by this, the running cost of the Board's cars for the year 1930-31 were considered. The mean figures for twenty-eight cars, with an average annual mileage of about 17,000, are:—

Petrol	1.10	92.3 per cent.
Oil	.07	
Tires, &c.	.32	
Repairs	1.57	
Depreciation ..	.61	
Registration ..	.10	7.7 per cent.
Garage	.17	
Insurance	.04	
Total	3.98 pence per mile.	

A saving of 15 per cent. on this petrol cost alone amounts to 0.16d. per mile. This means that the owner of a car driven 9,200 miles over gravel roads in good condition would save in petrol bills an amount equal to the average car registration fee (£6 3s.) if the gravel were surface-treated with bituminous material. However, the petrol is not the only saving.

No tests have been made to determine relative rates of tire wear, but the results obtained by Agg in America can be used. He found the relative rates to be 1.00 for "high type," 2.12 for "intermediate type," and 2.9 for "low type" surfaces. As the above cost figures are from cars operating over all conditions of surface, it has been assumed that, on changing from a gravel to a surface-treated road, there will be a saving of 50 per cent. Repairs are a big item, and considerable investigation in America has shown that maintenance costs of vehicles vary in accordance with the work done by the engine, and, as this is measured by the rate at which it uses fuel, the percentage saving in repair costs may be assumed to be the same as that in petrol. Depreciation is a fairly important item, and, as far as actual

TABLE 3.

Class.	Single Sealing.			Double Coat.			Resealing.		
	Length.	Cost.	Cost sq. yd.	Length.	Cost.	Cost sq. yd.	Length.	Cost.	Cost sq. yd.
	Miles.			Miles.			Miles.		
800-gallon (steam)	13·87	£3,791	6·47d.	9·76	£3,079	8·27d.	192·08	£39,371	4·60d.
400-gallon (motor)	19·30	£5,499	6·48d.	44·56	£18,619	9·85d.	89·59	£19,304	5·40d.
300-gallon	..	..	..	37·44	£13,473	8·80d.	14·81	£3,649	6·44d.
Total	33·17	£9,290	6·48d.	91·76	£35,171	9·23d.	296·48	£62,324	4·91d.

utility of the car is concerned, could probably be treated in the same way as repairs, e.g., the reduction in dust alone would appreciably affect wear and tear of many parts. However, in practice, obsolescence is an important factor. Half the depreciation has been assumed to be on account of mechanical deterioration as measured by fuel consumption. The total savings then are—

Petrol, 1.10 x .15	0.16d.
Oil, .07 x 0	0
Tires, .32 x .5	.16d.
Repairs, 1.57 x .15 ..	.24d.
Depreciation, .61 x .07 ..	.04d.
Total	0.60d. per mile.

This is a saving of 15 per cent. of the total running cost, and, to use the same analogy again, means that the owner of an "average" car in the habit of driving 2,500 miles a year over good gravel roads would save the average registration fee if those roads were surface treated.

Confirmation of this estimated saving is found in the report of a committee of the New Zealand Society of Civil Engineers, who estimated that the saving amounted to ¾d. per mile, and in the investigations of Agg, of the engineering experimental station, Iowa, U.S.A., who gives the relative costs of operation as 1.00 for high type, 1.23 for intermediate type, and 1.48 for low type roads, including those portions only of the cost that depend on the distance travelled, i.e., excluding registration, garage, and insurance.

The Californian Highway Commission found that operating costs varied, not only with the type of road surface, but with the weight of vehicle, being higher as the weight increased. For a vehicle weighing 3,000 lb. the operating costs per mile on different types of surface are—

Concrete	1.75 cents.
Bituminous concrete ..	2.12 cents.
Macadam	4.12 cents.
Gravel	4.5 cents.

This indicates a saving of 2.4 cents (approximately 1.2 pence) per mile on bituminous concrete as compared with gravel.

BITUMINOUS SURFACING OF ROADS.

Plant.—Owing to a smaller mileage of new work and maintenance resealing during season 1931-32, only fourteen sprayers were put into commission, several working short seasons.

No new plant was purchased or any major alterations made, but the existing plant was maintained in good condition.

Work.—The lengths treated by each class of sprayer and the respective costs are set out in table 3.

Plant Efficiency.—The efficiency of operation of the 800 gallon plants is shown by the percentage of time spent under various headings during the past five seasons. The figures are calculated on the total time the plant is away from the storeyard, exclusive of time stored in the field, the rated output being taken at four loads per day.

800 *Gallon Sprayers.*—

Season.	1927–28.	1928–9.	1929–30.	1930–31.	1931–32.
Spraying ..	40·4	37	35·7	47·5	42·2
Moving ..	22·1	24	28	21	23
Weather ..	16	16	12·4	10·5	10·2
Holidays ..	6·6	7	6·9	8	9·5
Mechanical delays	4·9	3	3·5	4	2·6
Avoidable delays ..	10	13	13·5	9	11·1

The increase in avoidable delays was largely due to failure of supplies of covering material.

400 *Gallon Sprayers.*—The efficiency of each 400 gallon sprayer on a basis of eight loads per day five and a half days per week=100 per cent. is as under:—

Season 1931–32.	Sprayer No.					Total.
	1.	2.	3.	4.	5.	
Spraying	39·5	42·4	47·6	52·6	35·9	43·2
Moving	24·9	25·2	20·9	19·7	19·5	22·4
Weather	20·1	6·8	7·7	7·0	13·8	11·5
Holidays	7·9	6·7	11·4	10·2	4·7	8·0
Mechanical delays ..	2·5	4·5	4·3	0·4	3·7	3·6
Avoidable delays ..	9·7	13	10·2	16·3	5·7	11·1
Totals	104·6	98·6	102·1	106·2	83·3	99·8
Stored in field ..	2·1	10·7	..	43·3	22·9	18·3

The large amount of time stored in the field was due to failure of supplies of covering material.

Where the total is greater than 100 per cent. it indicates that the plant put out more than eight loads per spraying day.

MATERIALS.

Binder-Bituminous.—Bitumen of 85/100 penetration was again purchased, this being the lightest grade which is packed in reasonably light drums, and can be stripped and chopped up in north-western Victoria in summer. In order to apply a seal coat which is more stable, more non-skid, and cheaper to maintain by being able to incorporate more aggregate in the binder at the time of its application, thus reducing the amount of gritting and sweeping on later in the season, all the bitumen was cut back to 250 penetration or road oil consistencies according to the class of surface being treated. Tar fluxes and fuel oil were used for cutting back the bitumen. These lighter grades of binder being more fluid flow to a certain extent, and thus assist in producing a more uniform coat. They remain soft for a longer period allowing the aggregate to be worked with a broom drag, and give a more stable coat, reducing summer bleeding and permitting the production of a surface of better riding qualities.

For the reasons set out above, all "Bitural" used was of 220-300 penetration grade. (50g, 5 sec. 68° F.)

Aggregate (Covering Material).

Rate of Application.—Consequent upon the use of a lighter grade of binder the Board's standard rate of application of 1 cubic yard of covering material to 80 square yards of pavement had to be amended for all applications of binder heavier than 0.2 gallon per square yard as set out below:—

Rate of Application of Covering Material.

Gallons binder per square yard.	1 cubic yard to —
0.15	100 square yards.
0.2	80 „ „
0.25	65 „ „
0.3	60 „ „
0.33	55 „ „

except when a rate of 0.3 or 0.33 is applied in two applications, when aggregate should be applied at the rate of 1 cubic yard to 50 and 45 square yards respectively.

Grading.—The behaviour of run of the pit gravels and aggregates containing a very large percentage of fines was observed, and late in the season it was decided to amend the aggregate (covering material) specification to further reduce the allowable percentage of fines in screenings and covering gravel. The specifications adopted for next season's work are as follow:—

Screenings or Crushed Gravel.

Size of Screen.	¾-in. Circular.	½-in. Circular.	¼-in. Circular.	No. 8 B.E.S.A. Sieve	No. 18 B.E.S.A. Sieve.
Percentage passing screen ..	100	50–95	20–65	0–20	0–3

Screened Gravel.

Size of Screen.	¾-in. Circular.	½-in. Circular.	¼-in. Circular.	No. 8 B.E.S.A. Sieve.	No. 18 B.E.S.A. Sieve.
Percentage passing screen ..	100	50–90	20–65	0–20	0–3

General.—By the use of a soft binder, an aggregate having a French co-efficient of wear of not less than 10, a reduction in the percentage of fines, the exclusion of oversize particles which break up and come out of the seal coat and cause surface breaks, the use of the drag, broom drag, and roller broom, and the working of the covering aggregate for several weeks after the spraying of the binder, a stable surface seal having a mosaic appearance of a durable nature with a non-skid surface was produced.

Regulating Seals.

Many old sealed waterbound gravel and penetration macadam roads, although sound, have surfaces of poor riding qualities. The improvement of adjoining lengths and the general increase in road speed have led the road user to demand a surface of the highest riding quality. To meet this demand with surfaces where the thickness necessary to correct irregularities did not exceed 1 inch, and without scarifying and reshaping, a considerable amount of experimental work was carried out in five separate localities, using two methods and ten types of material.

The methods were—

1. Levelling seal.
2. Road mix seal.

Levelling Seal—(Called in some American literature "multiple lift macadam").—In this method a tack coat of .15 gallon per square yard of bituminous material (Bitural, tar, or cut back) of similar consistency to 85-80 road oil is first sprayed. Screenings of a maximum gauge of 1 inch to ¾ inch, depending on the thickness, are then spread at a rate of 1 cubic yard to 40-65 square yards. They are shaped up with a long wheel base grader or one-man power grader, checked with a straightedge, hand spotted up where necessary, and then rolled. A second spray of .3 gallon to .25 gallon per square yard of heavier bitumen or tar (100 to 250 penetration) is then applied. Fine screenings, ½ inch to 3-16th inch, are next applied at the rate of 1 cubic yard to 80 square yards, evened up with a broom drag and rolled.

There are obvious technical objections to this method where the existing road is very rough, the existing seal coat not waterproof or covered with fat patches. This type is only recommended for roads which are already waterproof, with a reasonably flat section, and where the irregularities are not too great.

Road Mix Seal—(Called variously retread, mulch, mixed in place, oil process, gravel process, and surface mix).—This class of treatment can be done by either of two methods:—

1. Graded aggregate type.
2. Macadam type.

The graded aggregate type depends for stability largely on the grading of the aggregate, and not on interlock, and, therefore, requires an appreciable quantity of fine material to act as a filler.

The macadam type depends on interlock for its stability, and requires a strong bituminous binder. This type of binder does not permit of easy re-working, but is more resistant to the attacks of water, and permits of consolidation by rolling immediately after mixing. The grading of aggregate is readily obtainable, and a cut-back bitumen of a relatively low viscosity is easily and cheaply produced by cutting back 85-100 penetration with oils obtainable from stock.

The macadam aggregate type was used with good results during the year, and the following standard specification has been developed for works in the 1932-33 season.

ROAD-MIX SEAL (MACADAM TYPE).

Purpose.—Many sealed waterbound and gravelled roads, although sound, are not smooth enough for present day traffic owing to faults in construction. The road-mix seal specified hereafter is a method by which the greater part of the irregularity of such roads may be removed at a cost not greatly exceeding that of resealing in the ordinary way.

Condition of Old Road.—The pavement on which it is proposed to put down the road-mix seal must be perfectly sound and capable of carrying traffic even though it is rough. The crossfall must not exceed 1 in 20 when the seal is applied. The condition of the old bituminous seal may be either—

(*a*) Such that it is waterproof and would not normally need resealing.

or

(*b*) That it needs resealing at once, and is not considered waterproof.

Preparation of Old Road.—Any areas in the road which are not considered sufficient to carry the traffic shall be taken out, replaced and sealed some months before the road-mix seal is applied to the surface. Care shall be taken to avoid excess of bituminous or tarry material in the seal coat on these areas in order to avoid fat patches appearing in the road-mix seal.

Immediately before the road-mix seal is applied, the existing bituminous carpet shall be repaired, and any holes or depressions filled with tarred metal or tarred screenings. The road-mix seal will not eliminate depressions which require a large volume of material to fill them.

All loose material shall be swept off the pavement.

Mineral Aggregate.—Screenings, fine screenings, and toppings shall be crushed from hard basalt, quartz, or other approved rock having a French co-efficient of wear of not less than 10. No spalls or stones weighing less than 3 lb. shall

be crushed. When tested with laboratory screens the gradings of the materials shall comply with the following requirements :—

Material.	Percentage of Materials, by Weight, passing hand-screens of the sizes given below.				
	¾-in. Circular.	½-in. Circular.	¼-in. Circular.	No. 18 B.E.S.A.	No. 38 B.E.S.A.
Screenings ..	100	50–85	0–15	..	0–2
Fine screenings ..	..	100	50–85	0–10	0–2
Toppings ..	..	100	70–95	..	0–2

The surfaces of the particles shall be clean and free from dust.

Bituminous Binder.—The bituminous binder shall consist of the following mixture :—

Material.	Parts by Volume.
Bitumen	100
C.O.R. fuel oil	10
No. 1 tar flux	20–25
Light tar flux, mineral turps or second grade petrol	12–17½

In cold weather it will be desirable to use the maximum amount of mineral turps, light tar or petrol, and the minimum amount of tar flux No. 1. In hot weather the opposite will be the case.

Tar flux No. 1 shall not be added to the mixture of bitumen and fuel oil when the temperature of the mixture exceeds 300 deg. F. Light tar flux, mineral turps, or petrol shall not be added when the temperature of the mixture of bitumen, fuel oil and tar flux No. 1 exceeds 260 deg. F. While fluxing is carried out, oil fires shall be drawn, and no naked lights nor smoking shall be allowed within 100 feet of the heaters.

The tar fluxes, mineral turps, or petrol shall not be added to the fuel oil and bitumen until the sprayer is ready to pump the mixture from the heater into its tank before moving to the road. The light tar flux, mineral turps, or petrol, shall be added by pouring it into the screening box while the mixture is being pumped into the sprayer. The lid of the sprayer shall be kept closed, and the mixture circulated for at least fifteen minutes before spraying.

Spreading Screenings.—The screenings shall be spread uniformly over the surface of the pavement at the rate of 1 cubic yard to.....square yards of surface. Wherever possible, spreading shall be carried out with some form of spreading device attached to the tail end of a motor lorry. The surface of the mineral aggregate shall be brought to uniform cross section by the passage of a broom planer.

Application of Bituminous Binder.—The bituminous binder shall then be applied to the surface of the loose screenings by a mechanical sprayer. The rate of application shall be .....gallons per square yard.

Mixing.—The screenings and bituminous binder shall be mixed and spread by one or two passages of a special mixing and spreading planer which will be supplied by the Board wherever work of this type is carried out. In cold weather it may be desirable to continue to pass the planer over the material after mixing is complete in order to accelerate the volatilization of the lighter oils. If this is done, great care must be taken not to continue it until the mixture ceases to flow freely. Perfection in the shape of the final surface obtained depends upon the height of the spreading blade above the general grade of the pavement remaining constant during the passage of the mixing planer, and sufficient material always being available in front of the spreading blade to fill depressions without flowing over the top. On account of the inequalities in the old road it will generally be necessary to alter the setting of the blade occasionally. Great care must be taken, however, to keep it at an approximately constant height. The operator should be warned that sudden changes are to be avoided.

Hand Spreading.—Before rolling, any unfilled depressions or holes caused by the planer not running straight shall be filled by hand with excess mixed material available in front of the spreading blade at the end of each passage. It shall be screeded off level with the adjacent mixture.

Rolling.—The roller used for consolidation shall be power driven, shall weigh between seven and twelve tons, and should preferably be a three-wheeled type. The wheels of the roller used for the consolidation shall be kept covered with a thin film of oil and water, which shall be applied to the wheels by hanging bags on them saturated with the two materials. As soon as the roller can travel over the mixture without excessive picking up, consolidation shall be carried out and continued until no further movement occurs in the mixture.

Covering.—When consolidation of the mixture is complete, the surface shall be covered with toppings at the rate of 1 cubic yard to every 200 to 250 square yards of surface. After these have been spread and uniformly distributed with a broom planer, rolling and brooming shall be continued until the toppings are incorporated in the surface and all voids are filled. The pavement may be then opened to traffic.

Sealing.—If the bituminous carpet on the old pavement is not considered waterproof, the road-mix seal constructed as previously specified shall be sealed at some time between one and two months after completion, and, in any case, before the following autumn rains.

The bituminous binder shall be as specified for the road-mix seal except that the parts of petrol, mineral turps, or light tar flux shall be reduced to 10. It shall be applied to the surface at the rate of .12 gallon per square yard, and shall be covered with fine screenings at the rate of 1 cubic yard to every 100 square yards of surface. A broom planer shall be used continuously before and while the fine screenings are being rolled in.

Notes on Weather.—It is considered essential that work of this type should only be carried out during fine weather, as rain occurring during the process may spoil the work, and may make it necessary to at least apply a seal coat to the surface, which would be unnecessary if the work were carried out in good weather.

RATES OF APPLICATION OF BITUMINOUS BINDER AND SCREENINGS.

Screenings. Approximate loose thickness in Inches.	1 cubic yard Loose Covers, sq. yds.	Rate of Application of Bituminous Binder, gals. per sq. yd.
0·66	55	·33
0·69	52	·35
0·80	45	·40
1·00	35	·50

Based on using approximately 18.2 gallons of binder per cubic yard or covering material, measured loose.

TIME STUDIES OF 800-GALLON SPRAYING UNITS.

In the period 29th January to 12th February, 1932, a number of time studies were undertaken on 800-gallon spraying units.

Scope.—The studies were limited to two different units, viz.—

(*a*) That at Burrumbeet, on the Western Highway, section 2.

(*b*) That on the main Warburton road, at Yarra Junction.

The first unit consisted of Leyland steam sprayer No. 8, with two 800-gallon oil-fired heaters Nos. 3 and 4. The job was carried out under the Board's supervision. The second unit consisted of Leyland steam sprayer No. 7, with two 800-gallon wood-fired heaters Nos. 2 and 12. The job was carried out under the supervision of the shire.

Aim.—The aims of these investigations were to determine—

(*a*) the amount of lost time, if any, by any machine or labour gang due to lack of full co-operation between the various machines and gangs comprising the unit;

(*b*) to consider the possibility and method of eradicating the cause of such lost time;

(*c*) the determination of a standard performance for the various operations;

(*d*) to compare performances between the unit with the oil-fired heaters and the units with the wood-fired heaters;

(*e*) to compare performance of oil-fired heater No. 3, equipped with two 8-in. diameter flue tubes, with the performance of oil-fired heater No. 4, which has a container without any flue tubes.

Outline of Method.—The method of investigation adopted was to time (by watch) each operation of *each machine*. For example, the following operations of the heaters were timed :—

(*a*) Cleaning heater;
(*b*) loading heater;
(*c*) time heater lit;
(*d*) temperature of bitumen in heater every half hour;
(*e*) pumping bitumen; and
(*f*) cleaning heater.

Many of these operations were again subdivided, e.g., loading heater. In this typical case, a certain number of men (four) are necessary to obtain a swift and economic rate of loading. A study in this case, therefore, is required so that operations are so divided that the four men are kept going evenly, i.e., that say two are not idle part of the time waiting for the other two to complete their operation. Actual times taken were tabulated.

(*a*) and (*b*).—Causes of lost time beyond control were not considered, e.g., wet weather, as it was considered that the main object was to study efficiency of the plant under normal working conditions.

Description of Jobs.—The job studied (1) at Burrumbeet consisted of 8.02 miles of resealing of the Western Highway, section 2, width 18 feet, with 100 penetration Texaco bitumen fluxed to 250 penetration with Duratar No. 2 flux oil.

Application of bitumen at the rate of 0.20 gallon per square yard; application of cover (Burrumbeet gravel) at the rate of 1 cubic yard per 100 square yards of road pavement.

(2), at Yarra Junction, consisted of 4.34 miles of resealing of main Warburton-road, shire of Upper Yarra; width 16 feet, with 100 penetration Texaco bitumen fluxed to 250 penetration with residual oil ex C.O.R. Application of bitumen at the rate of 0.25 gallons per square yard; application of cover (Black's screenings) at the rate of 1 cubic yard per 80 square yards of road pavement.

JOB AT BURRUMBEET.

Rate of Work.—This unit had the advantage of having had the same gang employed continuously for some weeks. With regard to the heater-loading gang in particular, this is important. The plant was regularly putting out five loads per day, each of fifteen drums; i.e., the length of 18-ft. pavement sprayed was 9,375 feet, or 1.775 mile per day.

Organization—

(*a*) Cover cartage gang—
6 horses and drays and 12 labourers.

(*b*) Sweeping and cover gang—
8 labourers.

(*c*) Heater gang—
Leading heater hand and 3 labourers.

Equipment.—Equipment consisted of—

(*a*) 1 800-gallon Leyland bitumen sprayer No. 8.
(*b*) 2 800-gallon oil-fired bitumen heaters Nos. 3 and 4.
(*c*) 1 1½-yard motor truck.
(*d*) 1 horse broom No. 15.
(*e*) 1 steam roller No. 17, Wallis and Stevens, 12-14 ton, with Springfield scarifier.
(*f*) 3 Furphy water carts.
(*g*) Hand brooms, square-mouth shovels, &c.

JOB AT YARRA JUNCTION.

This job was under shire supervision. The figures obtained are not so helpful as in the Burrumbeet job, because they are unduly affected by such influences as waiting on road to be swept. The weather also was bad. Therefore, these figures were not analysed in detail as for the Burrumbeet job, but sufficient information has been obtained to enable a comparison between the oil-burning and wood-burning 800-gallon heaters to be made, and also to evolve a standard performance for the unit.

Rate of Work.—This unit had a "green" heater gang, and consequently their performance was not as good as that on the other job. The plant was putting out four loads per day when not held up by road not being ready. Each load consisted of thirteen drums of bitumen, plus C.O.R. flux. With four loads per day, the output of the plant was 5,850 feet, or 1.11 mile per day of 16-ft. width pavement.

Organization.—Very similar to organization of first job, but larger numbers used.

Equipment.—Equipment consisted of—

(*a*) 1 800-gallon Leyland bitumen sprayer No. 7.
(*b*) 2 800-gallon wood-fired bitumen heaters Nos. 2 and 12.
(*c*) 1 horse broom.
(*d*) 2 drays.
(*e*) 1 steam roller.
(*f*) 3 Furphy water carts.
(*g*) hand brooms, square-mouth shovels, &c.

PRODUCTION TABLE ANALYSED (BURRUMBEET JOB).

In general, the co-operation between the various parts is very good. In the past the criterion of production has been the ability of the heaters to produce loads of bitumen ready to be sprayed. On this job, however, an analysis of the table for the sprayer shows that the sprayer was working up to its maximum capacity, and was never at any time held up or kept waiting for the heaters to deliver a load of hot bitumen except as mentioned under (*a*) below.

(*a*) *Amount of Lost Time* (*Burrumbeet Job*).

(i) *By Sprayers.*—A study of the sprayer time shows very little lost time. In cases where idle time is more than ten minutes, the cause in every case but one has been due to water in the flux causing delay in the heaters. In the remaining case, the sprayer was idle for 71 minutes because of two short leads in succession. The lead and spray only took 52 minutes in one case and 32 minutes in the next. The heater took only 2 hours 25 minutes over in its preparation of the load, so that its performance was not at fault.

(ii) *By Heaters.*—There were no cases where the heater had a load ready more than a few minutes before the sprayer was ready to take it.

(iii) *By Heater Gang.*—A study of table shows idle time of the three labourers in heater gang to be about 15 to 30 minutes between loads, whilst the leading heater hand had no spare time because of the attention which must be paid to his burners. This idle time is idle in the sense only that it is not spent on direct production of heated loads. This time, however, is necessary in that it gives an opportunity to stack the used drums, sharpen axes, and clean outside of heaters; hence there is no lost time in this gang.

(iv) *By Other Gangs and Plant.*—All other plant was kept going on this job. The cover gang had plenty of sweeping to do between the periods of covering. The roller was kept going to capacity.

(*b*) *Suggested Remedies for Lost Time.*

Sprayer.—(i) Do not spray portions of pavement involving a short lead early in the day. The best loads for short leads are the last two of the day. This results in reduced sprayer overtime after 5 p.m.

(ii) Stack bitumen so that containers are kept as cool as possible, resulting in easier stripping.

(*c*) *Standard Performance of Spraying Plant.*

Reasonable times which should be allowed for the different operations on 800-gallon spraying units are listed.

(*d*) *Oil-fired Heaters compared with Wood-fired Heaters.*

It can definitely be stated that the oil-fired heater's output is five loads per pair of heaters per ordinary working day, whilst the wood-fired heaters' output is four loads per pair of heaters per ordinary working day. The relative capitalized costs of the two types of heaters show a probable *small* net saving per annum in favour of conversion.

(*e*) *Oil-fired Heater No. 3, equipped with two 8-in. diameter flue tubes, compared with Oil-fired Heater No. 4 (without flue tubes).*

No noticeable difference in the heating performance of these heaters could be detected. The flues, on the other hand, make cleaning of the container a much more difficult and lengthy process. The comparative performance has been tabulated.

BRIDGES.

During the year 169 bridge projects were investigated. Plans and specifications were prepared by the Board's staff for 54 structures, and plans and specifications submitted by municipal councils for 31 bridges were examined. Maintenance proposals for the remaining 84 structures were put in hand, and these works have been largely completed. Timber bridges of ordinary stringer and cross-decking type have been found to be very difficult to maintain due to the necessity for stripping many sound pieces to replace faulty members. If, however, the details of construction are designed as described later so as to facilitate maintenance and improve protection of the members, it is considered that it may be possible to maintain indefinitely a bridge built of timber, and that the total annual charges will be much less than for any so-called permanent type of construction. This does not apply to bridges of single span having high abutments, or to culverts. In these such a large proportion of the structure is in contact with damp earth on one side that concrete is a better means of construction, provided that satisfactory aggregates are reasonably accessible and the foundations are suitable. Flexible timber construction has many advantages where alluvial soils are encountered.

Notwithstanding the necessity for considering fundamental economics in choosing a medium of construction, there appears to be a strong prejudice in some municipalities against the use of timber and an undue preference for concrete works. This may be due in some districts to the fact that a concrete structure in favorable circumstances will stand neglect better than timber. In the past timber bridges have undoubtedly been neglected for long periods, minor repairs, in fact, being frequently postponed until such decay of members resulted as to call for expensive replacements in order to restore safety of traffic. Whatever the type of construction, such a policy of neglect is undoubtedly wasteful, and when applied to timber must also result in a reduced load capacity, uncomfortable service, and unsightliness. These results do not condemn the medium of construction. With regular maintenance a well-designed timber structure is just as strong and serviceable as one built of other materials, and the appearance of a well maintained smooth-surfaced timber bridge is very satisfactory. Regular maintenance is as essential in this case as in any other type of engineering work.

It would appear as a general rule for structures of more than one span that it is not economical to construct a concrete bridge if it costs more than 70 per cent. more than a timber bridge. Taking into account widely fluctuating construction and interest charges and uncertain knowledge of the actual life of concrete bridges, such economic comparisons can of course be regarded only as one check in the choice between timber and concrete or steel. At the present time reduction of funds and the fact that future traffic may require wider and stronger bridges generally favour the use of timber, on account not only of its economy but also of its adaptability.

Of the bridges recently completed those which are different from standard construction or are important because of their size are described hereunder.

Swan Reach.

During the year, contracts for the superstructure and approaches were let and completed. The general view of the completed bridge is shown in plate No. 3. The details of the electrically arc-welded plate girders are shown in Fig. 3. The clearness of outline and freedom from rivet heads are striking features. The girders are generally similar to specially rolled I sections except that the material is disposed so as to resist stresses in the most economical manner. In comparing the design of welded plate girders with rivetted plate girders, the following points may be noted:—

1. *Web Plate to Flange Plate Connexion.*—The customary flange angle as a means of transferring stresses is dispensed with, and the web plate is directly connected to the flange plate with a fillet weld on each side. To a designer familiar with the usual function of flange angle rivets, the first thought is to design the weld connexion for shear transference. Actually, however, though the weld does transfer shear stress, it does it in a similar manner to an element of the web plate immediately adjacent. The actual stress in the weld metal is divisible into several parts in order of magnitude—

(*a*) axial stress as an integral part of the plate girder;
(*b*) axial and transverse stress from cooling (tension);
(*c*) shear stress.

The weld metal required to transmit shear is usually very small for road bridges, and the fillet size will usually be determined from the minimum run necessary to secure proper fusion, provided that it gives a total section greater than web plate thickness. Intermittent welding does not affect these stresses greatly.

European experiments indicate that the cooling stress in a weld run on heavy plates is up to 3 tons per square inch tension. It would appear desirable, therefore, for welds on the tension flange to be annealed with a further light run of weld if high stresses are used.

From the construction stand-point, the fillet weld between the web plate and the flange plate is applied simultaneously on both sides of the web plate in short lengths. The transverse cooling stress of the weld pulls the flange plate towards the web plate unless securely clamped at close intervals to a heavy welding table.

2. *Flange Splices.*—Flange splices may be made by a butt weld with the ends of the plates ground to a 70° "Vee" to receive the joint. Such joints can be made to develop the full strength of the member. The flange splice should be made before the flange is welded to the web plate. If this is not possible, as in field splices, the web plates should be about one-eighth inch apart to allow for the contraction of the butt weld in the flange plates. Where stress is high at the splice point, a greater factor of safety may be obtained by welding on a short length of splice plate in addition to the butt weld. This should be done in all cases where splices are done in the field except where the stress is very low.

3. *Web Splices.*—Web splices may be similar to flange splices except that it is considered desirable to strap the web plate at the top and bottom where the axial bending stresses are high.

4. *Stiffeners.*—Stiffeners are very simple, and consist of a steel flat intermittently welded to the web plate and fully welded to the flange plate. The cooling stress of the intermittent weld pulls the edge of the flat stiffener into watertight contact with the web plate between welds.

5. *Bearing Plates.*—The welding between bearing plates and the girder should be as light as possible to avoid distortion. Actually, practically no stress other than bearing is present at such joints, and it would appear advisable to secure bearing plates to flange plates with set screws or bolts, especially where the bearing plate rests on a turned rocker.

The need for more detailed scientific investigation of the structural properties of foundation soils was exemplified in two ways in connexion with the construction of the approach embankment over the alluvial river banks. At a low point on the natural surface of the approaches a 7 feet x 7 feet box culvert was designed with a bearing pressure of 1 ton per square foot. The foundation was in a shallow excavation in the natural soil, and the load consisted almost entirely of the earth bank over the culvert. To reduce longitudinal stresses to a minimum, the culvert was in three separate sections. With a load corresponding to $\frac{1}{4}$ ton per square foot the centre section settled 4 inches, and progressive settlement with increased bank filling finally caused a settlement of 20 inches in the centre section.

The abutment of the bridge was of the buried pier type, with filling spilled through between columns which were supported by raking and vertical piles. From the back of the crosshead which carried the girder seatings, a concrete wall was carried up as a vertical cantilever. The accepted theories provide that earth pressure against such a wall would tend to move it towards the river. Actually, however, the abutment has moved back towards the embankment approximately $1\frac{1}{4}$ inches. This, together with the culvert settlement, may be due to the compression of the alluvial strata under the weight of the embankment, involving also lateral strain in the soil and consequent tilting of the abutment. In neither case, of course, was the structure endangered.

Snowy River.

During the year designs were completed, tenders called, and the work carried out for the superstructure of this bridge, the concrete piers and abutments having been completed under a previous contract. The superstructure consists of a timber deck 16 ft. 4 in. wide over kerbs, supported on electrically arc welded steel trusses continuous over piers, and is shown in plate No. 13. Alternative tenders were called for riveted trusses, but mainly due to the high cost of transporting the extra material and the cost of the extra material

itself, the lowest tender was for welded trusses. The details of the trusses are as follows:—

Overall length	..	750 feet.
Span lengths	..	2 end spans at 105 feet. 4 intermediate spans at 135 feet.
Type	.. ..	Deck Warren.
Panel lengths	.	15 feet.
Height C. to C. chords		10 feet.
Spacing C. to C. chords		10 feet.
Max. chord section	..	2 at 10 in. x 3½ in. x 24.46 lb. channels.
Min. chord section	..	2 at 9 in. x 3 in. x 17.46 lb. channels.
Max. web section	..	2 at 8 in. x 3 in. x 15.96 lb. channels.
Min. web section	..	2 at 4 in. x 2 in. x 7.09 lb. channels.

A pair of channels was used in all chord members with the flanges turned out, and with a clear space of 12⅛ inches between the webs. The channels were plated (tension), and laced (compression). All joints were lap-welded either by lapping the web members on to the webs of the channel chord sections or by the use of splice plates. This method, in addition to being more economical in weld metal than heavy butt welding, also allowed stock lengths of material to be used with a minimum of end preparation. The whole of the welding work was done at the site from power supplied from a portable petrol-driven three-phase generator. The trusses were fabricated on their sides on light welding tables in the bed of the river, which, except for the rapids under one span, was quite dry for the greater part of the construction period. The pairs of chord channels were first laced or plated in lengths of 30 to 40 feet. They were laid out flat on the table and tack-welded to the table to the proper camber, and chord splices were then made. The laced or plated pairs of web channels were then put in place and welded up.

The total cost of the work was £11,950, of which the substructure cost £3,350; the trusses cost, including painting, £6,508; and the timber deck cost £2,100. The cost per lineal foot is £16, and the cost per square foot £1. The high cost of transport over mountain roads 80 miles from the nearest railway contributed approximately 25 per cent. of the total. The deck timber was carted 30 miles.

Dartmoor Bridge.

The original bridge over the Glenelg River on the Princes Highway West at Dartmoor was constructed of messmate 38 years ago, and since that date had practically no maintenance. It was rapidly approaching a dangerous condition, and loads were limited to 5 tons pending provision of funds for a new bridge. A new bridge above flood level was designed and almost completed this year. It consists of three 50-ft. plate girder spans and nine 30-ft. timber stringer spans, having a width over kerbs of 19 feet. The height from deck level to water level is 48 feet, and at the pedestal abutments the height from ground level to deck level is 21 feet. The main feature of interest in this structure is the pile detail. To drive piles in one length required piles over 60 feet long with a costly falsework to support the pile machine, or a very high and unwieldy pile machine. A trial has therefore been made of driving messmate piles into the ground with the top 18 inches below ground level and making a reinforced concrete pipe sleeve junction 4 feet long with a redgum pile above the messmate pile. In addition to the reduction of driving cost, the lower cost of shorter piles has enabled a saving of approximately £1,000 to be made in the cost of the structure, and at the same time the most vulnerable part of the pile (that near ground level) is provided with a concrete sleeve to retain creosote, which will be poured from time to time into a groove at the top of the concrete.

Wodonga No. 1 Bridge.

A contract was let and work commenced on the construction of a five-span concrete bridge near the Murray River. This bridge, which is 150 feet long and 22 feet wide, will complete the construction in reinforced concrete of all crossings over the Murray River billabongs between the main river channel and the high ground at Wodonga.

Timber Bridge Design and Specification.

The older standard of timber stringer bridge with transverse decking has now been entirely superseded in favour of the cross section and details shown in Fig. 4. The reasons for the change were outlined in a previous report. Timber bridges on roads under the direction of the Board will in future conform to this

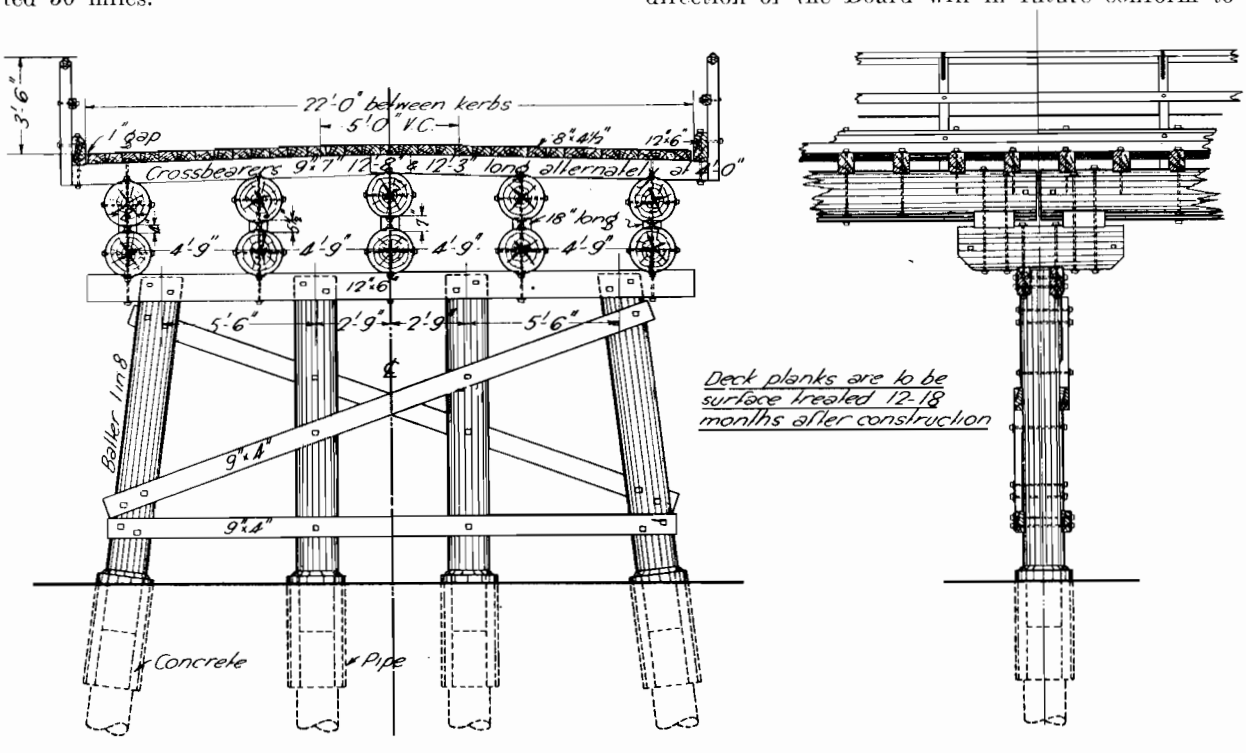
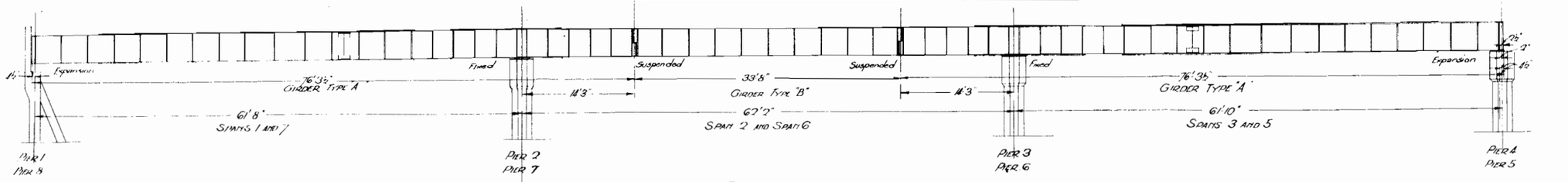


Fig. 4.—Typical Timber Bridge Details.

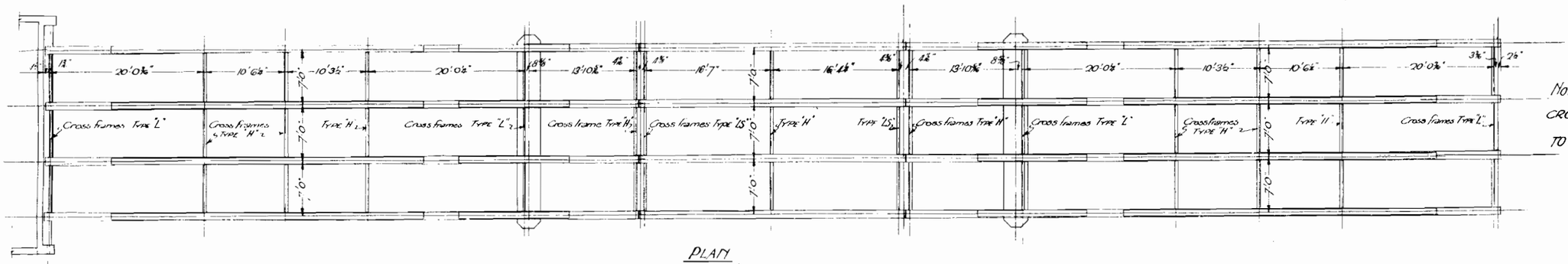
COUNTRY ROADS BOARD

PRINCE'S HIGHWAY EAST SECTION 4 TAMBO SHIRE

BRIDGE OVER TAMBO RIVER AT SWAN REACH

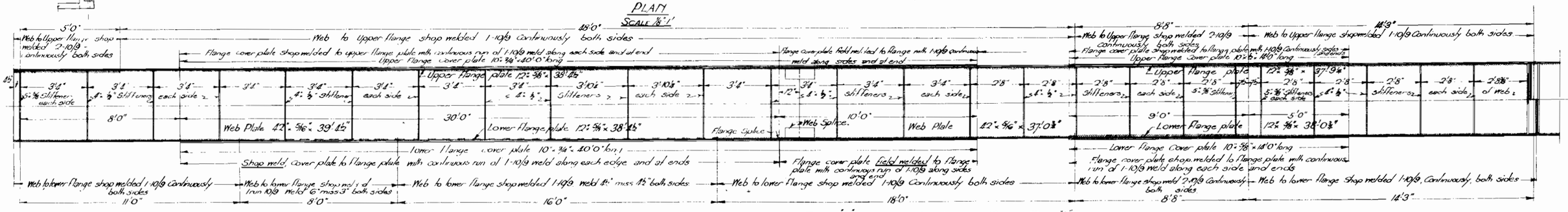


GENERAL ELEVATION
SCALE ⅛"=1'

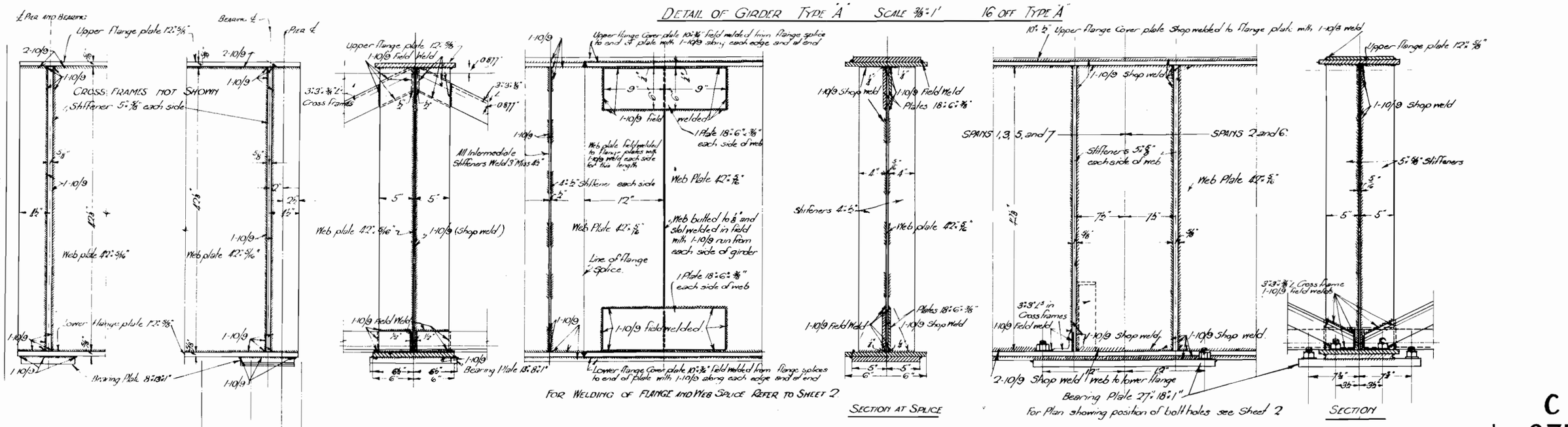


NOTE. FOR LEVELS, LONGITUDINAL AND CROSS CAMBER OF GIRDERS REFER TO SHEET No 2A

PLAN
SCALE ⅛"=1'



DETAIL OF GIRDER TYPE 'A' SCALE ⅜"=1' 16 OFF TYPE 'A'



FOR WELDING OF FLANGE AND WEB SPLICE REFER TO SHEET 2

DETAIL AT ABUTMENT PIERS 1 AND 8 1½"=1'

DETAIL AT PIERS 4 AND 5 1½"=1'

CROSS SECTION AT END STIFFENER

DETAILS OF WEB SPLICE ½"=1'

SECTION AT SPLICE

DETAIL OF GIRDER AT PIERS 2, 3, 6 and 7. 1½"=1'

SECTION

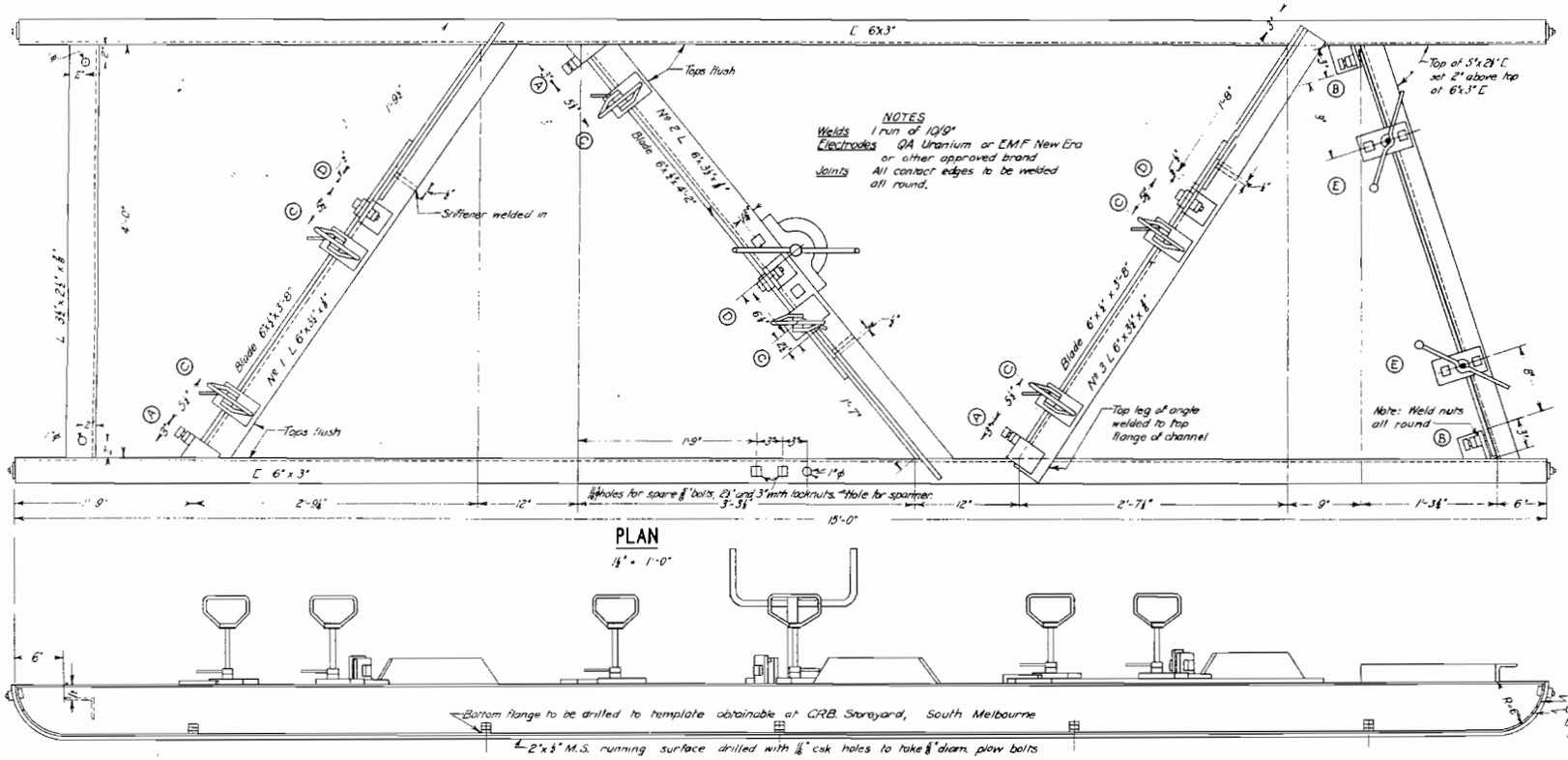
C

½ 375

R.A.M. 2/6/61

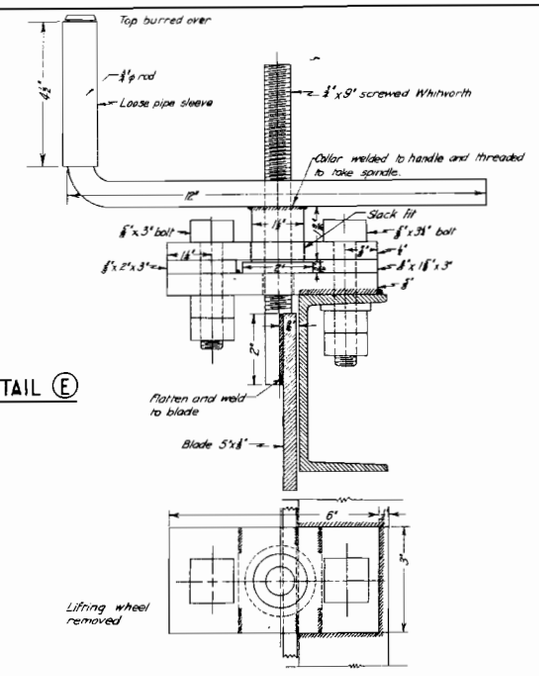
FIG. 3.

COUNTRY ROADS BOARD .

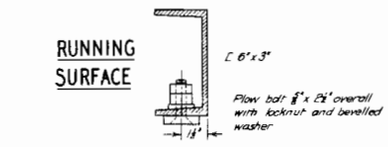


PLAN
¼" = 1'-0"

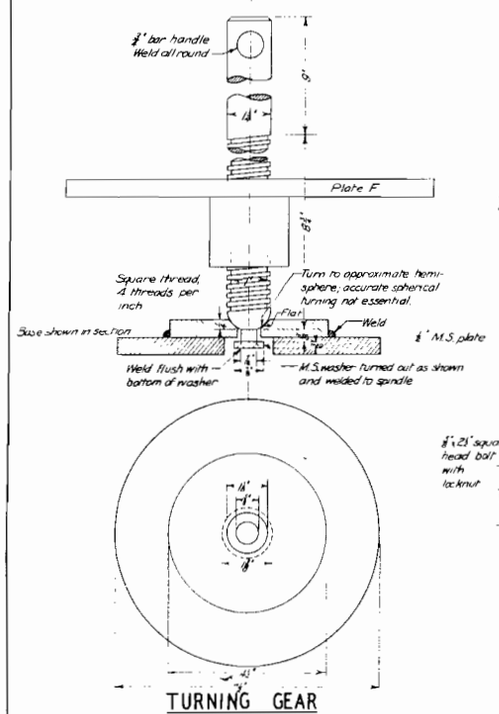
ELEVATION



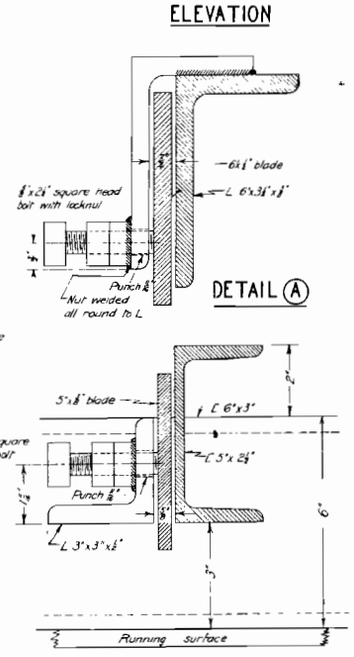
DETAIL Ⓔ



RUNNING SURFACE

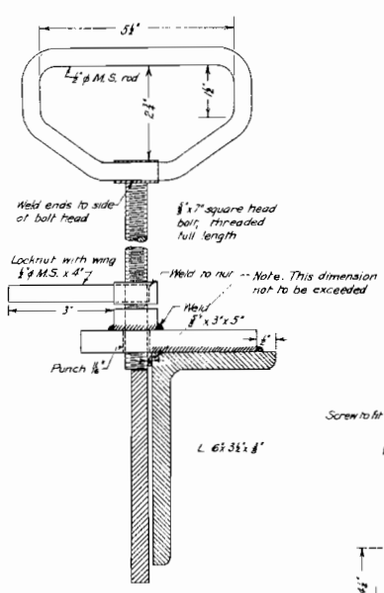


TURNING GEAR



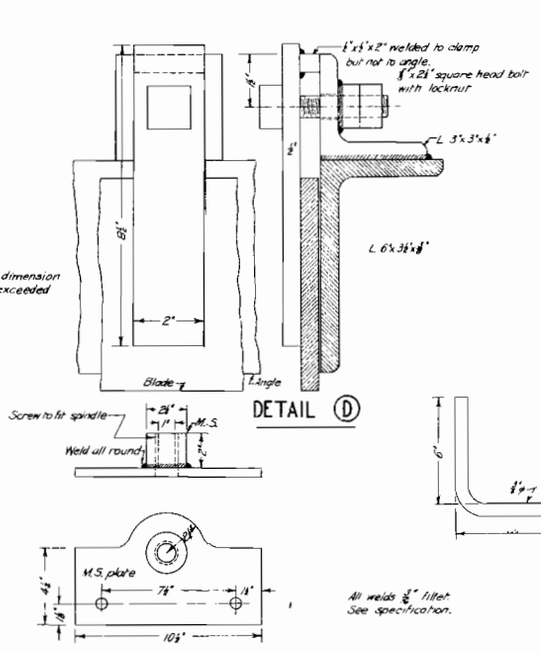
DETAIL Ⓐ

DETAIL Ⓑ



DETAIL Ⓒ

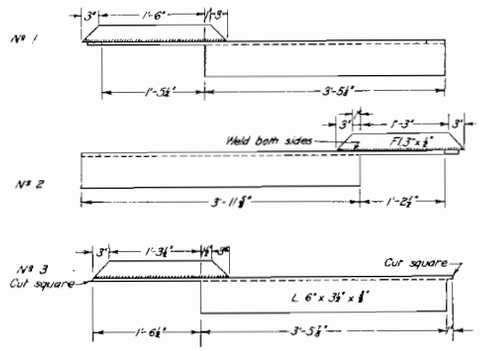
Scales
1", 3", 6" = 1'-0"



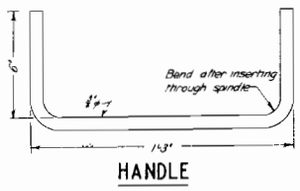
DETAIL Ⓓ

PLATE Ⓕ

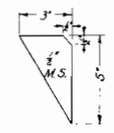
All welds ⅜" fillet. See specification.



BLADE-SUPPORTING ANGLES



HANDLE



STIFFENER

STEEL ROAD PLANER

FIG. 5.

new standard design. Where pier heights are greater than 6 feet from ground level, the form of pile construction referred to in the Dartmoor bridge should be used. In bridges over swampy ground where permanent water exists a few feet underground, consideration will be given to the use of relatively poor timbers for the portions of the piles below ground water level. It should be possible to make more use of cheap local timber, where in conditions such as this they will last indefinitely.

The parts of the structure which are most difficult to renew (piles above ground level, crossheads, abutment sheeting, corbels, &c.) should be of higher class timber than decking, kerbs, &c. With the present style of construction, these latter are placed in a very favorable condition against rotting, and are easily renewable without disturbance to the remainder of the structure. To facilitate stringer replacements, the details shown in Fig. 4 were evolved. New stringers may be hauled up into place loosely and made to bear against the deck and corbel by wedging off the corbel. This provides ventilation round corbels and stringers and makes for longer life, both on that account and further because of the accessibility of the several parts for subsequent inspection and spraying with preservatives such as sodium arsenite, creosote, &c. Wherever possible high class timber should be used for abutment sheeting, as this portion is the least favorable in the structure with regard to decay, and because sheeting is one of the most difficult units to replace properly. Experiments indicate that precast concrete slabs 3 inches thick by 12 inches wide can be economically used in place of timber sheeting behind abutment piles.

Road Maintenance Plant.

Following on the success of welding when applied to bridge girders and trusses, considerable advancement has taken place in the replacement of timber drags and planers by means of electrically arc welded structural steel units. Contrary to expectation, the steel units can be made even lighter than those of timber, and can be manufactured at a lower price. They withstand prolonged storage in the open better than timber.

The main units obtained by contract are as follows:—

Road Drags.—(*a*) 5 feet. 39 No.
(*b*) 8 feet. 32 No.
Planers.—(*a*) 9 feet x 4 feet wide. 2 No.
(*b*) 15 feet x 5 feet wide. 3 No.
Broom Drags.—10 feet x 5 feet wide. 14 No.

The cost of these units complete is as follows:—

Road Drags.—(*a*) 5 feet. £4.
(*b*) 8 feet. £5.
Planers.—(*a*) 9 feet x 4 feet wide. £10.
(*b*) 15 feet x 5 feet wide. £16.
Broom Drags.—10 feet x 5 feet wide. £5.

The structural details of a 15-ft. planer evolved after experience with earlier types is shown in Fig. 5. It will be noted that apart from the ruggedness of the main chassis, the cutting blades consist of plain steel flats without any holes. These can be adjusted to any desired cut by adjusting screws while the planer is in motion. The final spreading blade is capable of instantaneous adjustment during travel, thus providing for proper distribution either generally or locally.

Yours obediently,

L. F. LODER,
Chief Engineer.

APPENDIX A.

COUNTRY ROADS BOARD FUND.

Dr. RECEIPTS. *Cr.*

		£ s. d.	£ s. d.	£ s. d.
1931.				
July 1.	To Balance	.. ..	.. ..	704 2 5
1932.				
June 30.	,, Motor Car Act No. 3741—			
	Registration Fees	1,047,497 15 1		
	Licence Fees	51,815 1 6		
	Fines	17,488 14 11		
		1,116,801 11 6		
	Less Refunds and Cost of Administration ..	58,311 3 8		
			1,058,490 7 10	
	,, Motor Omnibus Act No. 3742—			
	Fees and Fines	3,675 1 11		
	Less Refunds	17 14 0		
			3,657 7 11	
	,, Country Roads Board Act No. 3662—			
	Registration of Traction Engines	900 10 0		
	,, Fees and Fines	494 14 6		
		1,395 4 6		
	,, Acts Nos. 3662, 3741 and 3742—			
	Costs	277 10 8		
			1,672 15 2	
	,, Municipalities Repayments—			
	Permanent Works ..	142,635 15 0		
	Maintenance	171,434 13 0		
			314,070 8 0	
	,, Hire of Plant	22,278 13 5		
	,, Stores and Materials ..	106,167 1 10		
	,, Sundries	29,917 0 11		
			158,362 16 2	
	,, Unclaimed Grants to Municipalities		311 6 7	
				1,536,565 1 8
	,, Act No. 3866—Relief of Unemployment ..		6,242 7 7	
	,, Act No. 3866—Construction of Roads for Isolated Settlers		1,253 13 2	
				7,496 0 9
	,, Great Ocean Road—Wye River (R.S.L.) ..		.. ..	500 0 0
	,, F.A.R. Trust—Recoup		.. ..	2,971 5 4
				1,548,236 10 2

PAYMENTS.

		£ s. d.	£ s. d.
1932.			
June 30.	By Maintenance—(Appendix)	664,889 4 10	
	Less Refunds	17,467 12 6	
			647,421 12 4
	,, Interest and Sinking Fund (Municipalities Repayments)		119,000 17 11
	,, Recoup to Revenue Act No. 3944—		
	Interest—Main Roads	131,104 5 4	
	Developmental Roads	183,730 16 9	
	,, Sinking Fund Contributions	23,829 8 0	
	Exchange	29,949 4 5	
			368,613 14 6
	,, Transfer to Revenue Act No. 4038		150,000 0 0
	,, Stores and Materials		112,822 16 10
	,, Motor Expenses		4,672 0 7
	,, Plant Purchase and Repairs		8,343 11 9
	,, Storeyard		7,352 9 11
	,, Sundry Debtors		10,254 11 1
	,, Suspense Account		1,332 10 4
	,, Motor Omnibus Act (Administration)		4,555 13 0
	,, General Expenditure (Salaries, &c.)		63,743 3 9
	,, Act No. 3866—Construction of Roads for Relief of Unemployment	6,829 6 8	
	Less Refunds	588 13 5	
			6,240 13 3
	,, Act No. 3866—Construction of Roads for Isolated Settlers	1,376 3 6	
	Less Refunds	188 8 10	
			1,187 14 8
	,, Great Ocean Road—Airey's River Bridge ..	29 18 11	
	Less Refunds	6 3 3	
			23 15 8
	,, Great Ocean Road—Wye River (R.S.L.) ..	615 16 11	
	Less Refunds	115 16 11	
			500 0 0
	,, F.A.R. Trust	13,377 12 9	
	Less Refunds	1,060 1 6	
			12,317 11 3
	Balance	.. ..	29,853 13 4
			1,548,236 10 2

RECONCILIATION STATEMENT.

	£ s. d.
Balance as per Treasury Books	32,030 19 9
Add Outstanding Transfers	1,475 16 2
	33,506 15 11
Deduct Accounts in Transit	3,653 2 7
Balance as per Country Roads Board Accounts	29,853 13 4

REVENUE ACCOUNT, 30TH JUNE, 1932.

Dr.

1932.		£	s.	d.	£	s.	d.	£	s.	d.
June 30.	To Maintenance Works—General				387,383	15	0			
	Wood's Point Road (1) ..	2,012	15	1						
	Wood's Point Road (2) ..	2,199	2	9						
	Mt. Buffalo Road	770	0	2						
	Walhalla Road	1,874	12	5						
	State Highways	253,181	6	11						
					260,037	17	4			
								647,421	12	4
	,, Contribution to Sinking Fund				29,750	4	6			
	,, Interest on Loans				89,250	13	5			
								119,000	17	11
	,, Recoup to Revenue Act No. 3944—									
	Interest—Main Roads ..	131,104	5	4						
	Developmental Roads	183,730	16	9						
					314,835	2	1			
	,, Sinking Fund Contributions				23,829	8	0			
	Exchange				29,949	4	5			
								368,613	14	6
	,, Transfer to Revenue Act No. 4038				..		..	150,000	0	0
	,, Audit Fee				398	14	6			
	,, Experimental Section				1,892	5	10			
	,, Federal Aid Commission, 2 per cent.				385	7	2			
	,, Fidelity Guarantee				189	6	2			
	,, Gravel Sites and Metal Investigation				390	4	10			
	,, Instruments				87	6	5			
	,, Motor Expenses				4,519	8	1			
	,, New Offices—Exhibition Building				48	15	0			
	,, New Storeyard				648	8	9			
	,, Office Expenses				1,426	0	10			
	,, Office Furniture				620	7	0			
	,, Patrolmens' Cottages				51	0	1			
	,, Plans, Purchase				524	10	9			
	,, Plant, Purchase				2,205	13	4			
	,, Postages and Telegrams				1,356	11	3			
	,, Printing and Stationery				957	13	6			
	,, Salaries				37,556	1	7			
	,, Storage Sites				15	11	2			
	,, Telephones				382	11	1			
	,, Testing Materials				501	14	2			
	,, Travelling Expenses				1,871	13	5			
	,, Motor Omnibus Act—Administration				4,555	13	0			
	,, Detection of breaches of Acts Nos. 3662 and 3720 ..				650	16	1			
	,, Investigation Surveys				10	3	10			
	,, Tree Planting				228	7	7			
	,, Advertising, Government Printer				398	1	10			
	,, Direction Boards and Warning Signs				547	5	6			

Cr.

1931.		£	s.	d.	£	s.	d.	£	s.	d.
July 1.	By Balance							354,734	1	2
1932.										
June 30.	,, Motor Car Act No. 3741—									
	Registration Fees	1,047,497	15	1						
	Licence Fees	51,815	1	6						
	Fines	17,488	14	11						
		1,116,801	11	6						
	Less Refunds and Cost of Administration	58,311	3	8						
					1,058,490	7	10			
	,, Motor Omnibus Act No. 3742—									
	Fees and Fines	3,675	1	11						
	Less Refunds	17	14	0						
					3,657	7	11			
	,, Country Roads Act No. 3662—									
	Registration of Traction Engines				900	10	0			
	Fees and Fines				494	14	6			
	Costs (Acts 3662, 3741 and 3742)				210	18	7			
	Forfeited Deposits				55	6	3			
	Plans, Sale of				127	19	2			
	Plant Earnings	23,365	1	0						
	Deduct Working Costs ..	14,541	15	7						
					8,823	5	5			
	Rents				513	12	9			
	Royalty on Gravel and Metal				503	7	4			
	Sale of Old Roads				149	15	3			
	Storeyard Account				2,203	19	3			
	Timber, &c., Revenue Account				24	13	6			
	Grants to Municipalities				311	6	7			
	,, Maintenance Works—									
	Contributions payable by Municipalities ..				99,644	19	6			
	,, Permanent Works—									
	Contributions payable by Municipalities ..				138,442	0	7			
	,, *Federal Aid Roads Act* 1926—									
	Commission, 2 per cent.				50	15	0			
								1,314,604	19	5

Dr. REVENUE ACCOUNT, 30TH JUNE, 1932—*continued.* *Cr.*

1932.		£	s.	d.	£	s.	d.		£	s.	d.
June 30.	To Law Costs, R.31 Work	12	1	0							
	,, Supervision, R.31 Work	10	10	0							
	,, Transfer—Engineer to Bendigo	18	13	0							
	,, Employees Recreation Leave	6	18	10							
	,, Refund of Licence Fees—U.R. and W.F. Act	5	2	6							
	,, Incidentals—Film Tax Census	0	18	3							
	,, Survey of Old Nowa Nowa–Buchan–Gelantipy Road	16	18	3							
	,, Main Roads (Sundries)	2	0	0							
	,, Developmental Roads (Sundries)	21	3	9							
					62,513	18	4				
	,, F.A.R. Trust, Expenditure				12,317	11	3				
	,, Federal Relief Outstanding				1,861	18	3				
	Balance				307,609	8	3				
					1,669,339	0	7		1,669,339	0	7

BALANCE-SHEET AT 30TH JUNE, 1932.

LIABILITIES.	£	s.	d.	ASSETS.	£	s.	d.	£	s.	d.
Contractors' Deposits	9,977	13	8	Country Roads Board Fund				29,853	13	4
Sundry Liabilities	4,316	8	0	Maintenance Expenditure—						
Sinking Fund	382,336	17	10	Contributions payable by Municipalities	99,644	19	6			
Revenue Account	307,609	8	3	Contributions payable by Municipalities in Arrears	16,885	1	11			
								116,530	1	5
				Permanent Works—						
				Contributions payable by Municipalities	138,442	0	7			
				Contributions payable by Municipalities in Arrears	7,691	16	2			
								146,133	16	9
				Outstanding Accounts				3,684	6	4
				Materials, Stock—						
				Storeyard	13,992	8	4			
				Branches	1,731	10	1			
								15,723	18	5
				Investment Account for Redemption of Loans				382,336	17	10
				Trust Account				9,977	13	8
	704,240	7	9					704,240	7	9

COUNTRY ROADS BOARD LOAN ACCOUNT, ACT No. 3662 (Nos. 2635, &c.)

RECEIPTS.

		£	s.	d.
1931.				
July 1.	To Balance	13,236	5	2
1932.				
June 30.	To Proceeds of Loans	7,000	0	0
	„ Transfers	93	3	2
		20,329	8	4

PAYMENTS.

		£	s.	d.	£	s.	d.
1932.							
June 30.	By Permanent Works (Appendix)	17,887	6	9			
	Less Refunds	1,187	5	8			
					16,700	1	1
	Balance				3,629	7	3
					20,329	8	4

RECONCILIATION.

	£	s.	d.
Treasury Balance	3,613	7	10
Add Outstanding Credits	15	19	5
	3,629	7	3

BALANCE-SHEET AS AT 30TH JUNE, 1932.

LIABILITIES.

	£	s.	d.	£	s.	d.	£	s.	d.
Interest on Permanent Works							32,628	9	6
Loan Securities Issued	4,769,908	19	5						
Less Amount repaid to Treasury	80,000	0	0						
				4,689,908	19	5			
Deduct Discount				55,913	4	0			
							4,633,995	15	5
							4,666,624	4	11

ASSETS.

	£	s.	d.
Permanent Works Expenditure to Date	4,630,366	8	2
Interest Capitalized on Permanent Works Act No. 3662	32,628	9	6
Country Roads Board Loan Account	3,629	7	3
	4,666,624	4	11

DEVELOPMENTAL ROADS LOAN ACCOUNT, ACT No. 3662 (Nos. 2944, 2985, AND 3255).

RECEIPTS.

		£	s.	d.
1931.				
July 1.	To Balance	28	7	7
1932.				
June 30.	„ Proceeds of Loans	68,300	0	0
	„ State Loans Repayment Fund	9,073	3	4
	„ Transfers	11,639	9	10
	Balance	2,021	13	6
		91,062	14	3

PAYMENTS.

		£	s.	d.	£	s.	d.
1932.							
June 30.	By Expenditure (Appendix)	85,158	0	11			
	Less Refunds	3,191	8	6			
					81,966	12	5
	„ Public Account (Advances Account)				9,096	1	10
					91,062	14	3

RECONCILIATION.

	£	s.	d.	£	s.	d.
Accounts in Transit				2,131	0	3
Treasury Balance	46	10	11			
Outstanding Credits	62	15	10			
				109	6	9
				2,021	13	6

BALANCE-SHEET AS AT 30TH JUNE, 1932.

LIABILITIES.	£ s. d.	£ s. d.
Loan Securities Issued	6,228,209 19 0	
Deduct Discount	92,348 14 2	
		6,135,861 4 10
Treasury Developmental Railways, Act No. 3662 (sec. 83/16)	11,052 8 1	
Consolidated Revenue Act No. 3662 (sec. 84/17)	34,854 7 9	
		45,906 15 10
Interest, Act No. 3662 (sec. 86–1)	71,597 16 7	
Arrears of Interest, Act No. 3662 (sec. 86/1)	9,761 14 3	
Contributions Postponed	16,585 2 6	
		97,944 13 4
State Loans Repayment Fund		9,073 3 4
Developmental Roads Loan Account		2,021 13 6
		6,290,807 10 10

ASSETS.	£ s. d.	£ s. d.
Permanent Works Expenditure		6,146,956 1 8
Contributions Payable by Municipalities, Act No. 3662 (sec. 83–16 and sec. 84–17)	38,500 0 0	
Contributions Payable by Municipalities in Arrears	7,406 15 10	
		45,906 15 10
Contributions Payable by Municipalities, Act No. 3662 (sec. 86–1)	88,182 19 1	
Contributions Payable by Municipalities in Arrears	9,761 14 3	
		97,944 13 4
		6,290,807 10 10

DEVELOPMENTAL ROADS INTEREST, ACT No. 3662 (Sections 83/16, 84/17, AND 86/1).

1932.	RECEIPTS.	£ s. d.	£ s. d.
June 30.	To Interest Contributed by Municipalities—		
	Act No. 3662, sec. 83/16	9,761 7 10	
	sec. 84/17	27,525 0 4	
	sec. 86/1	67,436 18 4	
			104,723 6 6
			104,723 6 6

1932.	EXPENDITURE.	£ s. d.
June 30.	By Payments to Treasury	104,723 6 6
		104,723 6 6

AUDITOR-GENERAL'S CERTIFICATE.

The Accounts have been audited and compared with the books, with which they agree. Reconciliations have also been made with the books of the Treasury. I certify that the statements submitted are correct.

W. H. COVE,
Deputy Auditor-General,
9th November, 1932.

E. J. HICKS, Accountant,
7th November, 1932.

COUNTRY ROADS BOARD.

SUMMARY OF BOARD'S ASSETS AS AT 30TH JUNE, 1932.

	£ s. d.
Patrolmen's Cottages	11,581 0 0
Workshop Fittings, Tools, &c.	1,560 15 10
Motor Car Tools, &c.	93 15 11
Furniture and Fittings	4,647 12 3
Testing Laboratory Equipment	394 5 5
Furniture, &c., Motor Registration Branch	4,475 5 6
Works Film	200 0 0
Survey Instruments	355 7 0
Pistols	40 5 0
Motor Cars and Cycles, including Police Motor Cycles	3,718 0 0
Motor Car Accessories	100 10 0
Loadometers	1,400 0 0
Boards Storeyard, No. 1	4,460 0 0
	33,026 16 11
Working Plant	47,865 10 0
Total	80,892 6 11

APPENDIX B.

COUNTRY ROADS BOARD.

STATEMENT OF APPORTIONMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE OF MAIN ROADS FOR THE YEAR ENDED 30TH JUNE, 1931.

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Alberton Shire ..	359 13 9	8 17 6	2,078 2 0
Alexandra Shire ..	116 15 7	4 1 3	891 12 9
Arapiles Shire ..	404 9 9	9 16 11	501 7 2
Ararat Borough ..	..	..	257 9 7
Ararat Shire ..	..	..	3,781 19 8
Avoca Shire ..	..	..	288 7 11
Avon Shire ..	..	..	292 10 4
Bacchus Marsh Shire	..	..	1,284 14 7
Bairnsdale Shire ..	..	..	339 12 3
Ballan Shire ..	..	..	841 6 0
Ballarat Shire ..	..	..	1,802 1 0
Bannockburn Shire	36 6 3	1 1 8	1,319 18 2
Barrarbool Shire ..	..	..	927 10 11
Bass Shire ..	1,008 12 3	12 19 10	1,214 2 3
Beechworth Shire	..	..	471 0 7
Belfast Shire ..	..	..	1,199 5 6
Bellarine Shire ..	..	..	1,190 14 10
Benalla Shire ..	56 5 4	1 13 7	1,443 9 10
Berwick Shire ..	19 12 5	0 9 9	1,383 18 10
Bet Bet Shire ..	3 17 8*	0 2 5	307 5 0
Birchip Shire ..	183 5 0	5 11 10	208 16 4
Blackburn and Mitcham Shire	..	..	764 5 8
Borung Shire ..	1,060 8 11	32 6 0	2,463 6 7
Braybrook Shire ..	..	..	181 7 4
Bright Shire ..	..	..	373 3 9
Broadford Shire ..	..	..	14 7 10
Broadmeadows Shire	..	..	339 11 4
Bulla Shire ..	..	..	946 5 3
Buln Buln Shire ..	532 10 8	12 16 4	1,857 11 0
Bungaree Shire ..	..	..	857 2 5
Buninyong Shire	..	..	1,040 9 4
Castlemaine Borough	..	..	122 16 3
Charlton Shire ..	529 4 7	13 5 10	715 5 0
Chelsea City ..	..	..	148 3 11
Chiltern Shire ..	104 5 2	2 1 11	236 17 6
Clunes Borough ..	..	..	22 19 5
Cohuna Shire ..	..	..	278 13 2
Colac Shire ..	100 18 1	3 11 0	3,245 17 5
Corio Shire ..	169 18 7	3 6 1	2,095 16 1
Cranbourne Shire	805 2 10	23 2 5	3,352 8 2
Creswick Borough	..	..	37 8 3
Creswick Shire ..	..	..	566 7 3
Dandenong Shire ..	..	..	464 19 7
Daylesford Borough	2 3 0*	0 0 6	611 6 8
Deakin Shire ..	..	..	1,602 3 8
Dimboola Shire ..	33 1 3	1 4 7	850 13 1
Donald Shire ..	166 10 11	4 3 3	1,196 10 4
Doncaster and Templestowe Shire	62 7 7	2 2 1	1,925 5 1
Dundas Shire ..	502 10 1	0 8 1	6,643 14 3
Dunmunkle Shire	182 14 9	6 2 2	1,632 3 10
Eaglehawk Borough	..	..	177 2 10
East Loddon Shire	260 19 6	5 12 2	126 16 3
Echuca Borough	10 9 1	0 7 10	167 16 1
Eltham Shire ..	8 0 1*	0 6 7	1,490 1 1
Euroa Shire ..	511 10 2	13 17 11	440 4 0
Ferntree Gully Shire	6 19 3*	0 1 5	2,185 8 9
Flinders Shire ..	1,022 8 11	25 16 0	3,485 12 10
Footscray City ..	..	..	95 8 10
Frankston and Hastings Shire	195 0 1	0 6 11	1,794 12 3
Carried forward	8,456 1 6	195 13 10	66,575 7 10

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	8,456 1 6	195 13 10	66,575 7 10
Geelong City ..	..	..	21 6 0
Gisborne Shire ..	..	..	219 8 10
Glenelg Shire ..	454 18 6	14 8 0	2,105 1 9
Glenlyon Shire ..	113 13 0	3 15 10	812 4 7
Goulburn Shire ..	..	..	879 6 3
Grenville Shire ..	..	..	1,938 13 6
Hamilton Town ..	..	..	541 14 5
Hampden Shire ..	42 17 8	0 19 4	8,847 18 4
Healesville Shire ..	302 15 3	8 11 1	660 2 4
Heidelberg Shire	..	..	1,133 15 2
Heytesbury Shire	233 5 6	1 11 10	976 17 2
Horsham Borough	..	..	1,522 16 9
Huntly Shire ..	..	..	349 19 6
Inglewood Borough	..	..	36 10 5
Kara Kara Shire ..	1,322 6 9	26 15 9	2,368 6 7
Karkarooc Shire ..	291 15 11	6 3 9	1,259 17 1
Keilor Shire ..	..	..	246 18 7
Kerang Shire ..	..	..	20 16 2
Kilmore Shire ..	..	..	277 16 3
Koroit Borough ..	..	..	87 15 9
Korong Shire ..	..	..	176 6 0
Korumburra Shire	4 3 3*	0 2 9	3,754 2 2
Kowree Shire ..	393 17 8	10 8 0	747 9 7
Kyneton ..	17 0 10	0 0 1	480 14 9
Lawloit Shire ..	261 0 8	3 18 8	883 10 0
Leigh Shire ..	..	..	370 12 11
Lexton Shire ..	..	..	269 5 4
Lillydale ..	1,463 12 10	35 14 10	2,966 3 0
Lowan Shire ..	391 9 3	4 16 11	956 4 5
Maffra Shire ..	16 2 0	0 0 4	2,583 12 3
Maldon Shire ..	..	..	619 0 3
Mansfield Shire ..	..	..	813 17 4
Marong Shire ..	2 19 0*	0 0 9	1,352 16 6
Maryborough Borough	..	..	521 5 11
McIvor Shire ..	22 17 5	0 6 9	1,091 2 10
Melton Shire ..	..	..	69 16 3
Metcalfe Shire ..	..	..	82 17 1
Mildura Shire ..	483 17 4	14 12 4	676 6 9
Mildura Town ..	..	..	40 4 6
Minhamite Shire ..	..	..	4,619 0 3
Mirboo Shire ..	552 10 10	12 3 7	372 5 8
Mordialloc City ..	..	..	328 5 8
Moorabbin Shire ..	..	..	630 18 5
Mornington Shire	..	..	755 0 0
Mortlake Shire ..	..	..	3,787 11 6
Morwell Shire ..	546 9 2	10 5 7	921 17 10
Mount Rouse ..	..	..	2,674 14 3
Mulgrave Shire ..	..	..	39 1 6
Narracan Shire ..	495 11 9	14 8 4	1,277 9 7
Newham and Woodend Shire	393 9 7	3 14 0	86 7 8
Newstead and Mt. Alexander Shire	..	..	508 17 5
Numurkah Shire	199 8 7	5 2 3	1,510 18 5
Oakleigh City ..	..	..	926 14 10
Omeo Shire ..	488 6 8	12 7 1	423 6 3
Orbost Shire ..	500 16 3	10 3 11	811 3 5
Otway Shire ..	..	..	610 8 10
Oxley Shire ..	23 15 11	0 11 2	353 0 9
Phillip Island ..	..	..	500 18 8
Port Fairy Borough	..	..	105 6 10
Portland Shire ..	40 7 0	1 10 3	882 4 10
Carried forward	17,515 10 1	398 7 0	131,463 13 8

* Liability paid in full.

STATEMENT OF APPORTIONMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE OF MAIN ROADS, ETC.—*continued.*

Name of Municipality.	Permanent Works.			Maintenance.
	Principal.	Interest.		Amount.
	£ s. d.	£ s. d.		£ s. d.
Brought forward	17,515 10 1	398 7 0		131,463 13 8
Preston City ..	..	..		1,452 19 6
Pyalong Shire ..	..	..		109 9 9
Queenscliff Borough	..	..		333 18 5
Ringwood Borough	20 15 11	0 14 1		391 5 3
Ripon Shire ..	..	..		1,326 16 9
Rochester Shire ..	519 0 10	14 17 8		301 9 2
Rodney Shire ..	471 19 6	15 6 5		3,844 6 9
Romsey Shire ..	380 13 0	7 15 3		544 8 4
Rosedale Shire ..	..	..		374 6 5
Rutherglen Shire	192 7 0	4 11 8		722 10 1
Sale Town ..	..	..		170 4 0
Sebastopol Borough	..	..		346 19 8
Seymour Shire ..	5 0 7*	0 3 1		245 12 3
Shepparton Borough	..	..		1,117 7 2
Shepparton Shire	62 0 8	2 10 3		1,836 15 0
South Barwon Shire	..	..		1,000 0 9
South Gippsland Shire	704 3 10	14 3 1		1,514 2 2
St. Arnaud Borough	..	..		464 16 6
Stawell Borough ..	..	..		28 0 9
Stawell Shire ..	388 6 6	9 4 4		957 3 11
Strathfieldsaye Shire	..	..		476 3 0
Swan Hill Shire ..	1,061 5 1	26 8 0		1,134 15 9
Talbot Shire ..	..	..		214 8 11
Tambo Shire ..	..	..		451 1 11
Towong Shire ..	..	..		598 3 8
Carried forward	21,321 3 0	494 0 10		151,420 19 6

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	21,321 3 0	494 0 10	151,420 19 6
Traralgon Shire ..	263 17 8	0 16 5	690 5 7
Tullaroop Shire ..	..	..	1,257 8 2
Tungamah Shire ..	461 15 6	14 7 0	860 4 4
Upper Murray Shire	309 4 0	9 14 2	289 4 3
Upper Yarra Shire	9 18 9*	..	1,232 12 5
Violet Town Shire	435 3 7	12 9 3	54 18 5
Walpeup Shire ..	815 16 6	23 5 8	557 17 2
Wangaratta Borough	1,400 0 0	3 15 5	763 17 9
Wangaratta Shire	320 16 9	9 19 0	376 6 11
Wannon Shire ..	..	..	1,304 2 2
Waranga Shire ..	..	..	1,553 14 5
Warragul Shire ..	0 19 3*	0 0 8	3,516 5 8
Warrnambool Shire	280 1 8	10 10 7	4,353 4 0
Werribee Shire ..	..	..	193 5 11
Whittlesea Shire ..	229 7 6	8 3 7	935 13 5
Wimmera Shire ..	136 10 0	2 2 11	522 13 7
Winchelsea Shire	10 11 9	0 7 2	1,844 13 3
Wodonga Shire ..	..	..	924 5 0
Wonthaggi Borough	..	..	559 15 2
Woorayl Shire ..	255 16 7	8 8 10	3,183 5 10
Wycheproof Shire	20 1 3	0 3 0	417 9 11
Yackandandah Shire	68 10 8	1 7 9	804 19 2
Yarrawonga Shire	1,533 17 3	46 8 2	932 0 4
Yea Shire ..	164 1 9	0 17 1	599 0 6
Total ..	28,057 13 5	646 17 6	179,148 2 10

* Liability paid in full.

APPENDIX C.

COUNTRY ROADS BOARD.

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE OF MAIN ROADS FOR THE YEAR ENDING 30th JUNE, 1932

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
ALBERTON SHIRE—				
Balook–Traralgon Road	13 16 0		..	
Balook–Yarram Road	235 9 3		335 8 6	
Boolarra–Welshpool Road	..		Bd. 236 7 2	
Carrajung–Gormandale Road	515 14 11		960 2 8	
Foster–Yarram Road	..		904 16 3	
Grand Ridge Road	41 11 8		..	
Sale–Yarram Road	454 3 8		792 16 7	
Yarram–Boolarra Road	3 10 0		960 3 0	
Yarram–Port Albert Road	..		408 11 7	
Yarram–Won Wron Road	..		526 9 6	
		1,264 5 6		5,124 15 3
ALBERTON AND MORWELL SHIRES (Joint Works)—				
Grand Ridge Road	..		Bd. 96 16 9	
				96 16 9
ALBERTON, MORWELL, AND SOUTH GIPPSLAND SHIRES (Joint Works)—				
Grand Ridge Road	..		Bd. 245 17 4	
				245 17 4
ALBERTON, MORWELL, AND TRARALGON SHIRES (Joint Works)—				
Grand Ridge Road	..		Bd. 829 11 5	
				829 11 5
ALEXANDRA SHIRE—				
Cathkin–Mansfield Road	..		504 0 9	
Healesville–Alexandra Road			1,642 11 9	
Upper Goulburn Road	..		1,108 4 0	
Yarck Road			59 0 8	
				3,313 17 2
ALEXANDRA AND YEA SHIRES (Joint Works)—				
Upper Goulburn Road	4 19 0		..	
		4 19 0		
ARAPILES SHIRE—				
Horsham–Hamilton Road	457 8 11		360 17 11	
Horsham–Natimuk–Edenhope Road	67 2 8		196 6 10	
		524 11 7		557 4 9
ARARAT BOROUGH—				
Ballarat–Stawell Road	..		139 11 1	
				139 11 1
ARARAT SHIRE—				
Ararat–Elmhurst Road	..		972 6 0	
Ararat–Warrnambool Road	..		3,058 19 4	
Ballarat–Hamilton Road	..		2,133 1 0	
Maroona–Glenthompson Road	..		2,502 7 4	
				8,666 13 8
AVOCA SHIRE—				
Ararat Road	..		597 6 6	
Ballarat–St. Arnaud Road	..		964 10 5	
Bealiba Road	..		133 14 3	
Landsborough Road	..		53 19 6	
Maryborough Road	..		155 14 8	
				1,905 5 4
AVON SHIRE—				
Dargo Road (Section "A")	..		203 16 4	
Dargo Road (Section "B")	..		165 14 10	
Maffra–Sale Road	..		132 2 8	
Maffra–Stratford Road	..		43 9 4	
Prince's Highway	..		121 18 6	
				667 1 8
BACCHUS MARSH SHIRE—				
Ballarat Road	..		35 1 0	
Geelong–Bacchus Marsh Road	..		576 11 7	
Gisborne Road	..		524 2 4	
				1,135 14 11
BAIRNSDALE SHIRE—				
Bulumwaal–Tabberabbera Road	..		643 3 2	
Prince's Highway	..		271 14 0	
				914 17 2
Carried forward	..	1,793 16 1	..	23,597 6 6

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	1,793 16 1	..	23,597 6 6
BALLAN SHIRE—				
Ballarat Road	..		34 5 0	
Daylesford Road	..		864 7 1	
Gordon–Meredith Road	..		380 2 6	
Mount Wallace Road	..		587 10 0	
				1,866 4 7
BALLAN AND BUNINYONG SHIRES (Joint Works)—				
Gordon–Meredith "A" Roads	..		36 15 5	
				36 15 5
BALLARAT SHIRE—				
Ballarat–Lexton Road	..		3,076 11 8	
Maryborough–Ballarat Road	..		810 5 5	
				3,886 17 1
BALLARAT AND BUNGAREE SHIRES (Joint Works)—				
Ballarat–Creswick Road	..		Bd. 690 6 10	
				690 6 10
BANNOCKBURN SHIRE—				
Geelong–Ballarat Road	..		1,194 0 0	
Gordon–Meredith Road	..		59 13 5	
Inverleigh Road	..		2,179 19 1	
Shelford–Bannockburn Road	..		213 2 3	
				3,646 14 9
BARRARBOOL SHIRE—				
Airey's Inlet Road	..		182 6 8	
Anglesea Road	..		721 14 8	
Hendy Main Road	..		120 9 2	
				1,024 10 6
BASS SHIRE—				
Almurta Road	..		167 19 1	
Almurta–Grantville Road	..		44 8 11	
Dalyston–Wonthaggi Road	11 12 6		379 2 2	
Inverloch–Wonthaggi Road	..		1,376 15 0	
Korumburra–Wonthaggi Road	220 17 8		618 2 1	
Main Coast Road	..		594 17 10	
Wonthaggi–Loch Road	175 11 2		1,214 18 10	
		408 1 4		4,396 3 11
BASS SHIRE AND WONTHAGGI BOROUGH (Joint Works)—				
Loch–Wonthaggi Road	..		389 11 1	
				389 11 1
BEECHWORTH SHIRE—				
Beechworth Road	..		1,015 11 9	
Bright Road	..		92 10 6	
Everton–Myrtleford Road	..		411 15 3	
Stanley Road	..		43 12 9	
				1,563 10 3
BEECHWORTH AND WANGARATTA SHIRES (Joint Works)—				
Beechworth Road	..		40 0 0	
				40 0 0
BELFAST SHIRE—				
Hamilton Road	..		230 19 1	
Penshurst Road	..		594 4 1	
				825 3 2
BELLARINE SHIRE—				
Geelong–Portarlington Road	..		Sh. 327 13 10	
			Bd. 3,852 18 0	
Geelong–Queenscliff Road	..		Bd. 2,876 14 7	
				7,057 6 5
BENALLA SHIRE—				
Benalla–Mansfield Road	..		459 5 1	
Gooroombat Road	..		1,280 11 10	
Gooroombat–Thoona Road	..		292 17 0	
Greta Road	..		..	
Lima Road	..		50 4 10	
Sydney Road	..		454 3 7	
Tatong–Toombullup Road	..		314 15 11	
				2,851 18 3
BERWICK SHIRE—				
Beaconsfield–Emerald Road	..		243 10 10	
Cockatoo–Gembrook Road	..		29 15 9	
Gembrook Road	8 3 0		93 14 6	
Gembrook–Beenak Road	..		35 6 6	
Hallam–Emerald Road	291 17 11		85 14 10	
Nar-nar-goon–Longwarry Road	..		280 17 10	
Princes' Highway	..		Bd. 26 16 7	
Woori Yallock–Pakenham–Koo-wee-rup Road ..	Bd. 10 12 11		1,293 13 10	
		310 13 10		2,089 10 8
BET BET SHIRE—				
Avoca–Bealiba Road	..		258 17 3	
Betley Road	..		18 9 9	
Dunolly Road	..		33 6 6	
Dunolly–Eddington Road	..		367 1 7	
				677 15 1
Carried forward	..	2,512 11 3	..	54,639 14 6

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	2,512 11 3		54,639 14 6
BIRCHIP SHIRE—				
Beulah–Birchip–Wycheproof Road	..		578 19 2	
Donald–Birchip–Sealake Road	..		492 16 9	
				1,071 15 11
BLACKBURN AND MITCHAM SHIRE—				
Main Healesville Road	..		1,717 0 3	
				1,717 0 3
BORUNG SHIRE—				
Birchip Road	3 0 0		146 10 6	
Dimboola Road	3 0 0		177 15 0	
Hopetoun Road	175 0 0		816 11 0	
Minyip Road	3 0 0		1,032 14 0	
Rainbow Road	3 0 0		908 19 7	
		187 0 0		3,082 10 1
BRAYBROOK SHIRE—				
Ballarat Road	..		305 17 8	
Prince's Highway	..		Bd. 540 0 0	
				845 17 8
BRIGHT SHIRE—				
Bright Road	..		606 5 3	
Harrietville Road	..		157 13 6	
Kiewa Valley Road	227 8 0		413 2 0	
Mount Buffalo Road	..		Bd. 770 0 2	
		227 8 0		1,947 0 11
BRIGHT AND BEECHWORTH SHIRES (Joint Works)—				
Bright Road	..		45 0 0	
				45 0 0
BROADFORD SHIRE—				
Sydney Road	..		Bd. 9 5 4	
				9 5 4
BROADMEADOWS SHIRE—				
Sydney Road	..		377 5 5	
				377 5 5
BROADMEADOWS AND KEILOR SHIRES (Joint Works)—				
Lancefield Road	..		505 4 11	
				505 4 11
BULLA SHIRE—				
Melbourne–Lancefield Road	..		514 15 1	
Sunbury Road	..		10 10 10	
The Gap Road	..		9 12 5	
				534 18 4
BULN BULN SHIRE—				
Fumina Road	..		60 3 11	
Longwarry–Drouin Road	..		1,298 12 9	
Loch Valley Road	..		17 9 3	
Main Neerim "A" Road	..		608 5 1	
Main Neerim "B" Road	..		1,247 19 0	
Main Neerim "C" Road	..		827 8 11	
Main South Road	..		2,233 7 6	
Neerim East Road	..		104 19 11	
Prince's Highway	..		110 10 11	
Westernport Road	..		244 4 6	
				6,753 1 9
BUNGAREE SHIRE—				
Daylesford–Ballarat Shire	..		139 17 1	
				139 17 1
BUNINYONG SHIRE—				
Ballarat–Rokewood Road	..		325 3 4	
Elaine–Mount Mercer Road	..		16 12 11	
Geelong–Ballarat Road	..		1,247 11 9	
				1,589 8 0
CASTLEMAINE BOROUGH—				
Melbourne–Bendigo Road	..		220 15 0	
				220 15 0
CHARLTON SHIRE—				
Bendigo Road	..		343 17 3	
Donald Road	75 19 8		676 0 9	
St. Arnaud Road	..		114 19 3	
		75 19 8		1,134 17 3
CHELSEA CITY—				
Point Nepean Road	..		344 16 10	
				344 16 10
CHILTERN SHIRE—				
Barnawartha–Howlong Road	..		59 4 1	
Chiltern–Howlong Road	..		81 17 4	
Rutherglen–Wodonga Road	..		95 11 1	
Sydney Road	..		231 3 6	
				467 16 0
CLUNES BOROUGH—				
Maryborough–Ballarat Road	..		149 8 2	
				149 8 2
Carried forward	..	3,002 18 11	..	75,575 13 5

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	3,002 18 11	..	75,575 13 5
COLAC SHIRE—				
Colac–Ballarat Road	..		5,688 12 9	
Colac–Beech Forest Road	..		719 7 7	
Prince's Highway	..		460 19 9	
				6,869 0 1
CORIO SHIRE—				
Ballarat Road	..		240 19 4	
Fyansford Road	..		1 14 7	
Geelong–Bacchus Marsh Road	..		3,589 1 9	
Prince's Highway	..		Bd. 144 0 8	
				3,975 16 4
CORIO AND BACCHUS MARSH SHIRES (Joint Works)—				
Bacchus Marsh Road	..		463 18 2	
				463 18 2
CRANBOURNE SHIRE—				
Koo-wee-rup–Pakenham Road	..		323 19 7	
Lang Lang–Nyora Road	..		67 6 10	
Main Coast Road	..		9,739 9 1	
Westernport Road	..		535 16 11	
				10,666 12 5
CRESWICK SHIRE—				
Castlemaine–Ballarat Road	..		1,058 0 10	
Daylesford–Ballarat Road	..		898 15 4	
				1,956 16 2
COHUNA SHIRE—				
Cohuna–Leitchville Road	..		605 0 4	
Murray River Valley Road	..		1,010 17 3	
				1,615 17 7
DANDENONG SHIRE—				
Cheltenham Road	..		350 16 10	
Prince's Highway	..		536 16 5	
				887 13 3
DANDENONG AND CRANBOURNE SHIRES (Joint Works)—				
Dandenong–Frankston Road	..		249 7 7	
				249 7 7
DAYLESFORD BOROUGH—				
Ballan Road	..		235 7 8	
Ballarat Road	..		151 12 8	
Castlemaine Road	..		50 8 1	
Hepburn–Daylesford Road	..		1,991 15 0	
Malmsbury–Daylesford Road	..		98 0 8	
				2,527 4 1
DEAKIN SHIRE—				
Echuca–Cornella Road	..		136 2 2	
Echuca–Picola Road	..		34 0 8	
Kyabram–Nathalia Road	274 11 9		743 17 6	
Kyabram–Tongala Road	..		511 0 10	
Rochester–Kyabram Road	..		479 10 8	
		274 11 9		1,904 11 10
DEAKIN AND NUMURKAH SHIRES (Joint Works)—				
Echuca–Picola Road	..		201 17 7	
Kyabram–Nathalia Road	..		12 0 0	
				213 17 7
DEAKIN AND RODNEY SHIRES (Joint Works)—				
Kyabram–Tongala Road	..		37 6 7	
Rochester–Kyabram Road	..		64 15 10	
				102 2 5
DIMBOOLA SHIRE—				
Horsham Road	..		518 0 10	
Rainbow Road	..		1,695 16 1	
Rainbow Rises Road	..		192 18 1	
Warracknabeal Road	..		645 4 6	
				3,051 19 6
DIMBOOLA AND KARKAROOC SHIRES (Joint Works)—				
Hopetoun–Rainbow Road	..		176 10 0	
Rainbow Road	..		640 0 2	
				816 10 2
DONALD SHIRE—				
Donald–Charlton Road	..		152 0 9	
Donald–Minyip Road	..		64 18 2	
Marnoo Road	..		36 7 9	
St. Arnaud–Birchip Road			409 0 0	
				662 6 8
DONCASTER AND TEMPLESTOWE SHIRES—				
Doncaster Road	..		1,647 19 3	
Heidelberg–Warrandyte Road	..		2,716 5 10	
Ringwood–Warrandyte Road	10 8 9		411 5 4	
		10 8 9		4,775 10 5
DONCASTER AND TEMPLESTOWE AND RINGWOOD BOROUGH (Joint Works)—				
Ringwood-Warrandyte Road	10 8 9		..	
		10 8 9		..
Carried forward	..	3,298 8 2	..	116,314 17 8

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	3,298 8 2	..	116,314 17 8
DUNDAS SHIRE—				
Hamilton–Dunkeld Road	50 6 6		1,676 3 10	
Hamilton–Horsham Road	..		1,935 7 11	
Hamilton–Mount Gambier Road	..		2,439 6 4	
Hamilton–Port Fairy Road	..		3,144 14 10	
Hamilton–Portland Road	..		1,252 11 7	
Hamilton–Warrnambool Road	..		1,315 18 6	
		50 6 6		11,764 3 0
DUNMUNKLE SHIRE—				
Horsham–Murtoa Road	..		220 18 3	
Minyip–Donald Road	..		117 4 8	
Rupanyup–Murtoa Road	..		453 12 7	
Stawell–Warracknabeal Road	249 18 0		1,139 14 3	
		249 18 0		1,931 9 9
EAGLEHAWK BOROUGH—				
Mount Korong Road	..		737 14 3	
				737 14 3
EAST LODDON SHIRE—				
Dingee Road	..		64 12 7	
Prairie Road	..		83 18 0	
				148 10 7
ECHUCA BOROUGH—				
Echuca–Cornella Road	..		254 1 11	
Echuca West Road	..		24 8 9	
Echuca–Wyuna Road	..		107 18 5	
				386 9 1
ELTHAM SHIRE—				
Eltham–Yarra Glen Road	..		1,624 19 5	
Hurstbridge–Kinglake Road	375 18 5		1,420 19 1	
Whittlesea–Kinglake Road	..		93 1 11	
Yarra Glen–Glenburn Road	..		263 5 3	
		375 18 5		3,402 5 8
EUROA SHIRE—				
Arcadia Road	..		10 11 5	
Euroa–Arcadia Road	..		478 14 6	
Euroa–Mansfield Road	..		197 13 2	
Euroa–Strathbogie Road	..		400 13 7	
Murchison–Shepparton Road	138 0 0		54 5 6	
Sydney Road	..		Bd. 23 13 3	
		138 0 0		1,165 11 5
FERN TREE GULLY SHIRE—				
Belgrave–Emerald Road	..		2,010 0 2	
Emerald Road	101 3 3		244 4 3	
Main Fern Tree Gully Road	..		2,410 16 2	
Monbulk Road	..		1,109 2 8	
Olinda Road	..		1,517 9 10	
		101 3 3		7,291 13 1
FLINDERS SHIRE—				
Hastings–Flinders Road	..		1,300 18 7	
Mornington–Flinders Road	345 3 1		874 6 7	
Point Nepean Road	..		2,984 0 7	
Point Nepean Road	..		Bd. 1,358 14 5	
Stony Point Road	..		303 18 11	
		345 3 1		6,821 19 1
FLINDERS AND FRANKSTON AND HASTINGS SHIRES (Joint Works)—				
Hastings–Flinders Road	31 16 11		..	
		31 16 11		
FOOTSCRAY CITY—				
Prince's Highway	..		Bd. 1,660 0 0	
				1,660 0 0
FRANKSTON AND HASTINGS SHIRE—				
Frankston–Dandenong Road	..		1,324 17 4	
Frankston–Flinders Road	..		2,304 19 7	
Point Nepean Road	..		1,789 13 11	
				5,419 10 10
GISBORNE SHIRE—				
Bacchus Marsh Road	..		127 18 6	
Gisborne Station	..		65 2 1	
Melbourne–Bendigo Road	..		Bd. 34 16 0	
				227 16 7
GLENELG SHIRE—				
Coleraine–Casterton Road	..		1,286 12 3	
Dergholm Road	278 6 4		1,121 14 9	
Mount Gambier Road	347 14 6		1,620 18 10	
Portland–Casterton Road	..		1,745 14 8	
Wando Vale Road	61 1 7		1,093 17 3	
		687 2 5		6,868 17 9
GLENLYON SHIRE—				
Ballan Road	40 9 0		235 1 4	
Ballarat Road	..		150 1 0	
Castlemaine–Daylesford Road	..		333 7 0	
Daylesford–Hepburn Road	..		306 5 7	
Malmsbury–Daylesford Road	..		706 4 0	
		40 9 0		1,730 18 11
Carried forward	..	5,318 5 9	..	165,871 17 8

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	5,318 5 9	..	165,871 17 8
GOULBURN SHIRE—				
Avenel–Longwood Road	..		18 18 10	
Goulburn Valley Road	..		481 9 5	
Murchison–Shepparton Road	..		95 1 3	
Station Road	..		67 12 3	
Vickers Road	..		115 17 0	
				778 18 9
GRENVILLE SHIRE—				
Ballarat–Hamilton Road	..		4,148 11 4	
Cressy Road	..		18 7 7	
Lismore Road	..		101 6 2	
Pitfield Road	..		133 13 11	
				4,401 19 0
HAMILTON TOWN—				
Ararat Road	..		51 17 11	
Coleraine Road	..		215 14 3	
Portland Road	..		218 19 4	
Port Fairy Road	..		360 0 9	
				846 12 3
HAMILTON TOWN AND DUNDAS SHIRE (Joint Works)—				
Hamilton–Warrnambool Road	..		431 0 7	
				431 0 7
HAMPDEN SHIRE—				
Camperdown–Ballarat Road	..		1,813 12 9	
Caramut–Lismore Road	..		507 11 5	
Lismore–Cressy Road	..		2,502 1 9	
Prince's Highway	..		803 18 7	
Terang–Mortlake Road	..		772 5 10	
				6,399 10 4
HEALESVILLE SHIRE—				
Healesville–Alexandra Road	..		928 14 3	
Healesville–Alexandra Road	..		Bd. 910 12 11	
Healesville–Woori Yallock Road	..		290 1 1	
Marysville Road	..		Bd. 1,014 2 9	
				3,143 11 0
HEIDELBERG SHIRE—				
Greensborough–Hurstbridge Road	..		2,086 7 1	
Heidelberg–Warrandyte Road	..		217 9 3	
Main Heidelberg–Eltham Road	..		2,209 3 2	
Main Whittlesea Road	..		248 4 4	
				4,761 3 10
HEYTESBURY SHIRE—				
Camperdown–Cobden Road	..		3,381 9 4	
Cobden–Port Campbell–Princetown Road	182 0 10		3,422 8 5	
Timboon–Port Campbell Road	75 13 6		1,043 6 4	
		257 14 4		7,847 4 1
HORSHAM BOROUGH—				
Dimboola–Horsham Road	..		563 18 9	
Dooen Road	..		808 12 8	
Hamilton Road	..		309 17 8	
Natimuk Road	..		341 18 7	
Western Highway	..		468 5 6	
				2,492 13 2
HUNTLY SHIRE—				
Bendigo–Echuca Road	..		0 6 2	
Heathcote–Elmore Road	..		16 0 0	
				16 6 2
INGLEWOOD BOROUGH—				
Bendigo–Charlton Road	..		76 18 5	
				76 18 5
KARA KARA SHIRE—				
Avoca–St. Arnaud Road	..		1,746 13 11	
Charlton Road	..		139 7 3	
Navarre Road	..		205 11 9	
St.Arnaud–Donald Road	547 9 3		1,854 15 2	
		547 9 3		3,946 8 1
KARKAROOC SHIRE—				
Hopetoun–Rainbow Road	..		238 11 1	
Hopetoun–Warracknabeal Road	..		397 2 3	
Hopetoun–Woomelang–Sealake Road	..		790 7 7	
Rainbow–Beulah–Birchip Road	..		1,280 16 1	
				2,706 17 0
KARKAROOC AND BIRCHIP SHIRES (Joint Works)—				
Rainbow–Beulah–Birchip Road—	..		136 13 1	
				136 13 1
KEILOR SHIRE—				
Melbourne–Bendigo Road	..		693 4 10	
				693 4 10
KERANG SHIRE—				
Koondrook Road	..		92 8 1	
				92 8 1
KILMORE SHIRE—				
Heathcote Road	..		275 6 1	
Lancefield–Kilmore Road	..		9 15 10	
Sydney Road	..		Bd. 6 18 6	
				292 0 5
Carried forward	..	6,123 9 4	..	204,935 6 9

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	6,123 9 4	..	204,935 6 9
KILMORE AND ROMSEY SHIRES (Joint Works)—				
Lancefield–Kilmore Road	..		90 19 0	
				90 19 0
KILMORE AND PYALONG SHIRES (Joint Works)—				
Heathcote Road	..		47 14 2	
				47 14 2
KOROIT BOROUGH—				
Koroit–Warrnambool Road	..		498 15 1	
				498 15 1
KORONG SHIRE—				
Borung–Hurstwood Road	..		161 0 7	
Charlton–Bendigo Road	..		71 9 7	
Serpentine Road	..		221 12 5	
				454 2 7
KORUMBURRA SHIRE—				
Bena–Poowong Road	..		821 0 7	
Korumburra–Drouin Road	..		195 15 7	
Korumburra–Leongatha Road	..		189 2 1	
Korumburra–Warragul Road	9 1 6		584 17 1	
Korumburra–Wonthaggi Road	515 14 6		2,413 1 10	
Lang Lang–Nyora Road	..		798 7 3	
Loch–Wonthaggi Road	..		28 16 2	
Nyora–Poowong Road	..		1,283 16 9	
Poowong–Ranceby Road	..		55 6 2	
		524 16 0		6,370 3 6
KOWREE SHIRE—				
Booroopki Road	149 13 0		256 2 11	
Booroopki–Frances Road	..		663 17 5	
Edenhope–Goroke Road	..		630 14 10	
Hamilton–Edenhope–Apsley Road	16 19 0		573 11 11	
		166 12 0		2,124 7 1
KYNETON SHIRE—				
Daylesford Road	..		20 9 7	
Melbourne–Bendigo Road	47 3 9		34 2 0	
Redesdale Road	..		274 8 5	
Trentham Road	..		1,135 10 10	
Tylden–Woodend Road	..		125 10 7	
		47 3 9		1,590 1 5
LAWLOIT SHIRE—				
Broughton Road	..		497 9 2	
Nhill–Kaniva–Border Road	..		570 15 10	
South Lillimur Road	..		629 15 8	
Yearinga Road	..		547 17 10	
				2,245 18 6
LEIGH SHIRE—				
Ballarat–Rokewood Road	..		260 5 7	
Cressy–Inverleigh Road	..		485 4 10	
Cressy–Rokewood Road	..		296 0 4	
Inverleigh–Shelford Road	..		138 13 8	
Rokewood–Shelford Road	..		645 12 3	
Shelford–Bannockburn Road	..		438 19 11	
Werneth Road	..		54 8 1	
				2,319 4 8
LEXTON SHIRE—				
Avoca–Ararat Road	..		79 13 3	
Avoca–Ballarat Road	..		218 19 6	
				298 12 9
LEXTON AND ARARAT SHIRES (Joint Works)—				
Avoca–Ararat Road	..		35 7 6	
				35 7 6
LILLYDALE SHIRE—				
Evelyn–Lilydale Road	..		1 15 3	
Main Healesville Road	190 8 5		846 17 7	
Main Warburton Road	44 7 6		3,969 10 9	
Main Warburton Road	..		Bd. 47 1 9	
Monbulk Road	..		142 9 5	
Monbulk Road, M.M.B.W. Section	..		15 11 11	
Mount Dandenong Road	..		554 0 9	
Yarra Glen Road	..		525 14 10	
		234 15 11		6,103 2 3
LOWAN SHIRE—				
Dimboola–Kaniva Road	..		202 0 9	
Goroke Road	..		571 10 8	
Lorquon West Road	393 18 9		919 18 0	
Yanac Road	531 17 1		959 11 11	
		925 15 10		2,653 1 4
MAFFRA SHIRE—				
Boisdale–Briagalong Road	..		355 6 10	
Briagalong–Dargo Road	..		74 13 6	
Bushy Park–Valencia Creek Road	..		24 14 3	
Licola Road	..		235 8 11	
Maffra–Sale Road	..		331 3 10	
Maffra–Stratford Road	..		563 19 5	
Tinamba–Boisdale Road	..		1,333 18 9	
Tinamba–Newry Road	..		622 16 7	
Traralgon–Maffra Road	..		1,590 19 4	
				5,133 1 5
Carried forward	..	8,022 12 10		234,899 18 0

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	8,022 12 10	..	234,899 18 0
MAFFRA AND AVON SHIRES (Joint Works)—				
Maffra–Stratford Road	..		174 5 10	
				174 5 10
MALDON SHIRE—				
Baringhup Road	..		53 4 1	
Castlemaine–Maldon Road	..		410 12 5	
Castlemaine–Newstead Road	..		72 2 9	
Maldon–Eddington Road	..		664 3 8	
Newstead Road	..		56 1 7	
				1,256 1 6
MANSFIELD SHIRE—				
Euroa–Merton Road	..		106 16 2	
Mansfield Road	..		1,129 17 3	
Mansfield–Tolmie Road	..		150 9 5	
Mansfield–Woodspoint Road	..		433 11 6	
Mansfield–Woodspoint Road	..		Bd. 2,012 15 1	
				3,833 0 5
MARONG SHIRE—				
Bendigo–Bridgewater Road	..		50 5 1	
Bendigo–Eddington Road	..		785 1 6	
Bendigo–Serpentine Road	..		349 5 6	
				1,184 12 1
MARYBOROUGH BOROUGH—				
Avoca Road	..		247 6 8	
Ballarat Road	..		35 0 0	
Castlemaine Road	..		14 13 10	
Eddington Road	..		20 0 8	
				317 1 2
MELTON SHIRE—				
The Gap Road	..		26 11 9	
Toolern Road	..		31 1 4	
				57 13 1
METCALFE SHIRE—				
Kyneton–Redesdale Road	..		636 5 5	
				636 5 5
MORDIALLOC CITY—				
Point Nepean Road	..		728 7 2	
				728 7 2
MORDIALLOC AND CHELSEA CITIES (Joint Works)—				
Point Nepean Road	..		Bd. 193 6 0	
				193 6 0
MILDURA SHIRE—				
Deakin Avenue	..		262 8 2	
Irymple Road	..		183 19 9	
Melbourne Road	..		197 5 9	
Wentworth Road	709 8 4		1,530 5 0	
		709 8 4		2,173 18 8
MILDURA TOWN—				
Deakin Avenue	..		70 11 1	
Punt Road	..		43 11 1	
				114 2 2
MINHAMITE SHIRE—				
Hamilton–Macarthur–Port Fairy Road	..		3,008 16 0	
Warrnambool–Hawkesdale–Penshurst Road	..		1,114 11 3	
				4,123 7 3
MIRBOO SHIRE—				
Allambee East–West Tarwin Road	..		48 13 10	
Boolarra South–Mirboo Road	..		46 9 8	
Mardan Road	140 0 0		62 19 11	
Mirboo–Allambee East Road	..		136 18 6	
Mirboo–Leongatha Road	..		114 19 4	
Mirboo South Road	..		330 17 4	
		140 0 0		740 18 7
MOORABBIN SHIRE—				
Centre Dandenong Road	..		577 10 7	
Point Nepean Road	..		947 2 4	
				1,524 12 11
MORNINGTON SHIRE—				
Point Nepean Road	..		128 3 4	
Point Nepean Road	..		Bd. 1 15 10	
				129 19 2
MORTLAKE SHIRE—				
Caramut–Lismore Road	..		2,254 1 8	
Mortlake–Ararat Road	..		2,453 10 5	
Mortlake–Warrnambool Road	..		1,077 4 10	
Terang–Mortlake Road	..		749 7 5	
				6,534 4 4
MORWELL SHIRE—				
Boolarra–Foster Road	..		64 13 2	
Boolarra–Foster Road	..		Bd. 283 19 2	
Boolarra–Morwell Road	..		1,510 19 2	
Boolarra–Welshpool Road	1,458 17 4		Bd. 416 16 7	
Jeeralang West Road	19 1 5		399 17 0	
Princes Highway	..		192 18 0	
		1,477 18 9		2,869 3 1
Carried forward	..	10,349 19 11	..	261,490 16 10

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	10,349 19 11	..	261,490 16 10
MOUNT ROUSE SHIRE—				
Ballarat–Hamilton Road	..		1,859 18 0	
Hamilton–Dunkeld Road	..		296 13 7	
Hamilton–Penshurst Road	..		2,543 7 10	
Maroona–Glenthompson Road	..		8 14 11	
Penshurst–Caramut Road	..		1,799 0 6	
				6,507 14 10
MULGRAVE SHIRE—				
Ferntree Gully Road	..		1,018 1 9	
				1,018 1 9
McIVOR SHIRE—				
Heathcote–Elmore Road	..		198 4 5	
Heathcote–Redesdale Road	..		240 8 11	
Kilmore–Heathcote–Bendigo Road	..		395 19 2	
				834 12 6
NARRACAN SHIRE—				
Moe–Yallourn Road	..		216 8 1	
Princes Highway	..		51 1 8	
Trafalgar–Thorpdale Road	..		576 10 10	
Trafalgar–Willowgrove Road	..		183 0 7	
Walhalla Road	57 4 5		676 8 10	
Walhalla Road	..		Bd. 1,874 12 5	
Yarragon–Leongatha Road	..		370 6 4	
Yarragon–Shady Creek Road	..		92 10 10	
		57 4 5		4,040 19 7
NEWHAM AND WOODEND SHIRE—				
Lancefield Road	..		361 13 3	
Melbourne–Bendigo Road	..		Bd. 74 9 7	
Tylden Road	148 18 7		94 11 2	
		148 18 7		530 14 0
NEWHAM AND WOODEND AND KYNETON SHIRES (Joint Works)—				
Tylden Road	..		29 13 0	
				29 13 0
NEWSTEAD AND MT. ALEXANDER SHIRE—				
Castlemaine–Daylesford Road	..		324 0 3	
Castlemaine–Maryborough Road	..		406 11 9	
Creswick Road	..		211 14 8	
Maldon Road	..		16 7 5	
				958 14 1
NUMURKAH SHIRE—				
Echuca–Picola Road	..		602 15 7	
Murray Valley Road	24 0 0		56 15 4	
Nathalia–Kyabram Road	..		334 8 7	
Nathalia North Road	..		80 19 9	
Nathalia–Picola Road	..		374 1 9	
Numurkah–Nathalia Road	52 7 0		214 16 3	
Numurkah–Tumgamah Road	224 8 2		28 4 11	
Shepparton–Numurkah–Cobram Road	..		295 6 4	
		300 15 2		1,987 8 6
NUMURKAH AND DEAKIN SHIRES (Joint Works)—				
Echuca–Picola Road	..		100 14 0	
				100 14 0
OAKLEIGH CITY—				
Ferntree Gully Road	..		6 10 7	
Princes Highway	..		47 0 5	
				53 11 0
OMEO SHIRE—				
Benambra Road	258 1 4		484 9 4	
Day Avenue	..		504 6 0	
		258 1 4		988 15 4
OMEO AND BRIGHT SHIRES (Joint Contributory)—				
Bright–Omeo Road	..		1,362 7 6	
Bright–Omeo Road	..		Bd. 233 12 5	
				1,595 19 11
ORBOST SHIRE—				
Cann Valley Road	..		813 2 10	
Genoa–Gipsy Point Road	..		321 17 10	
Marlo Road	78 14 11		240 0 2	
Princes Highway	..		141 0 9	
Wangarabelle Road	..		77 14 4	
		78 14 11		1,593 15 11
OTWAY SHIRE—				
Beech Forest–Apollo Bay Road	..		554 19 9	
Beech Forest–Lavers Hill Road	..		372 6 3	
Beech Forest–Mount Sabine Road	..		293 19 8	
Cape Patten Road	..		514 17 10	
Carlisle–Gellibrand Road	..		492 9 5	
Colac–Beech Forest Road	..		87 15 2	
Forrest–Apollo Bay Road	..		1,343 0 7	
Lavers Hill–Glenaire Road	..		110 3 7	
Lavers Hill–Princetown Road	..		1,144 3 4	
				4,913 15 7
Carried forward	..	11,193 14 4	..	286,645 6 10

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	11,193 14 4	..	286,645 6 10
OXLEY SHIRE—				
Bright Road	222 17 4		1,269 16 0	
Greta–Glenrowan Road	..		89 1 11	
Oxley Road	..		219 9 11	
		222 17 4		1,578 7 10
OXLEY SHIRE AND WANGARATTA BOROUGH (Joint Works)—				
Oxley Road	..		25 3 8	
				25 3 8
PHILLIP ISLAND SHIRE—				
Newhaven Road	..		425 5 4	
Phillip Island Road	..		460 8 11	
Ventnor Road	..		496 3 9	
				1,381 18 0
PORT FAIRY BOROUGH—				
Hamilton Road	..		29 15 1	
Prince's Highway (Portland)	..		235 6 3	
Prince's Highway (Warrnambool)	..		84 2 1	
				349 3 5
PORTLAND SHIRE—				
Heath Road	..		4 3 5	
Portland–Casterton Road	..		590 5 8	
Portland–Hamilton Road	..		836 3 2	
				1,430 12 3
PRESTON CITY—				
Epping Road	..		771 11 11	
Whittlesea Road	..		594 14 11	
				1,366 6 10
PYALONG SHIRE—				
Kilmore–Heathcote–Bendigo Road	..		344 1 4	
				344 1 4
QUEENSCLIFF BOROUGH—				
Geelong Road	..		171 3 1	
Point Lonsdale Road	..		1,002 13 2	
				1,173 16 3
RINGWOOD BOROUGH—				
Main Healesville Road	..		1,621 3 2	
Mount Dandenong Road	..		437 5 5	
Ringwood–Warrandyte Road	..		464 18 11	
				2,523 7 6
RINGWOOD BOROUGH AND DONCASTER AND TEMPLESTOWE SHIRE (Joint Works)—				
Warrandyte Road	..		174 11 0	
				174 11 0
RIPON SHIRE—				
Ballarat–Ararat Road	..		331 2 3	
Ballarat–Hamilton Road	..		759 6 0	
Skipton Road	..		1,703 1 6	
				2,793 9 9
RIPON AND HAMPDEN SHIRES (Joint Works)—				
Ballarat–Hamilton Road	..		5 18 5	
				5 18 5
ROCHESTER SHIRE—				
Bendigo-Echuca Road	..		272 2 7	
Rochester–Bamawm Prairie Road	290 2 2		743 1 7	
Timmering Road	..		435 13 5	
		290 2 2		1,450 17 7
RODNEY SHIRE—				
Kyabram–Nathalia Road	..		361 0 6	
Kyabram–Tongala Road	..		152 0 9	
Mooroopna–Undera Road	..		666 18 8	
Shepparton–Tatura Road	..		3,619 8 7	
Tatura–Byrneside–Kyabram Road	..		1,375 0 11	
Tatura–Murchison Road	85 10 3		1,062 6 11	
		85 10 3		7,236 16 4
RODNEY SHIRE AND SHEPPARTON BOROUGH (Joint Works)—				
Shepparton–Tatura Road	..		707 15 2	
				707 15 2
ROMSEY SHIRE—				
Lancefield–Kilmore Road	..		206 1 8	
Melbourne–Lancefield Road	..		1,840 5 5	
Woodend–Lancefield Road	11 12 6		39 3 1	
		11 12 6		2,085 10 2
ROSEDALE SHIRE—				
Prince's Highway	..		420 18 0	
Sale–Yarram Road	..		749 7 6	
Seaspray Road	..		329 6 3	
Traralgon–Gormandale Road	..		249 15 4	
Willung Road	..		62 13 5	
				1,812 0 6
ROSEDALE AND ALBERTON SHIRES (Joint Works)—				
Carrajung–Gormandale Road	..		7 10 8	
				7 10 8
Carried forward	..	11,803 16 7	..	313,092 13 6

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	11,803 16 7	..	313,092 13 6
RUTHERGLEN SHIRE—				
Barnawartha–Howlong Road	..		22 7 1	
Chiltern–Howlong Road	..		Bd. 3 5 5	
Chiltern–Howlong Road	..		309 19 10	
Rutherglen–Wahgunyah Road	..		548 14 10	
Springhurst–Rutherglen Road	..		416 1 5	
Wodonga Road	..		458 11 4	
Yarrawonga Road	..		370 18 2	
				2,129 18 1
RUTHERGLEN AND WANGARATTA SHIRES (Joint Works)—				
Yarrawonga Road	..		174 11 2	
				174 11 2
SALE TOWN—				
Prince's Highway	..		3 1 7	
Sale–Longford Road	..		206 19 10	
				210 1 5
SEBASTOPOL BOROUGH—				
Ballarat–Rokewood Road	..		335 16 4	
				335 16 4
SEYMOUR SHIRE—				
Avenel–Longwood Road	..		22 5 3	
Goulburn Valley Road	..		212 0 6	
Seymour–Yea Road	..		1 17 8	
Sydney Road	..		Bd. 703 11 1	
Upper Goulburn Road	..		620 7 4	
				1,560 1 10
SHEPPARTON SHIRE—				
Dookie–Nalinga Road	..		34 15 11	
Shepparton–Nagambie Road	..		83 10 11	
Shepparton–Nalinga Road	..		769 4 3	
Shepparton–Numurkah Road	..		508 12 8	
Pine Lodge Road	..		1,420 16 11	
				2,817 0 8
SHEPPARTON SHIRE AND SHEPPARTON BOROUGH (Joint Contributory)—				
Shepparton–Nagambie Road	..		21 15 4	
				21 15 4
SHEPPARTON SHIRE AND SHEPPARTON BOROUGH (Joint Works)—				
Pine Lodge Road	..		39 15 11	
				39 15 11
SHEPPARTON BOROUGH—				
Shepparton–Nagambie Road	..		354 13 1	
Shepparton–Nalinga Road	..		163 1 11	
Shepparton–Numurkah Road	..		106 18 3	
				624 13 3
SHEPPARTON BOROUGH AND RODNEY SHIRE (Joint Works)—				
Shepparton–Mooroopna Road	..		10 8 7	
Shepparton–Tatura Road	..		7 19 6	
				18 8 1
SOUTH BARWON SHIRE—				
Barwon Heads Road	..		2,374 0 0	
Prince's Highway	..		489 14 4	
Torquay Road	..		403 12 4	
				3,267 6 8
SOUTH BARWON AND BARRARBOOL SHIRES (Joint Works)—				
Torquay Road	..		1,940 5 10	
				1,940 5 10
SOUTH BARWON AND BELLARINE SHIRES (Joint Works)—				
Barwon Heads Bridge Road	..		2 3 7	
				2 3 7
SOUTH GIPPSLAND SHIRE—				
Boolarra–Foster Road	..		316 5 2	
Boolarra–Welshpool Road	25 15 4		313 4 3	
Falls Road	..		83 4 0	
Foster–Yarram Road	..		572 14 6	
Main South Gippsland Road	..		921 18 7	
Stony Creek–Dollar Road	..		69 10 3	
Toora–Gunyah Road	..		156 0 4	
Turton's Creek Road	..		349 5 11	
		25 15 4		2,782 3 0
SOUTH GIPPSLAND AND WOORAYL SHIRES (Joint Works)—				
Boolarra–Foster Road	..		Bd. 240 1 8	
Dollar–Stony Creek Road	..		2 3 4	
Main South Gippsland Road	..		31 19 4	
				274 4 4
ST. ARNAUD BOROUGH—				
Avoca–St. Arnaud Road	..		273 17 3	
Charlton Road	..		39 9 9	
Navarre Road	..		371 2 6	
St. Arnaud–Donald Road	..		152 17 3	
				837 6 9
STAWELL BOROUGH—				
Ararat–Stawell Road	..		242 7 4	
Glenorchy Road	..		89 3 5	
				331 10 9
Carried forward	..	11,829 11 11	..	330,459 16 6

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	11,829 11 11	..	330,459 16 6
STAWELL SHIRE—				
Landsborough Road	..		68 9 11	
Marnoo Road	24 3 5		1,228 11 8	
Navarre Road	..		377 15 4	
Stawell–Grampians Road	..		1,077 15 7	
Stawell–Glenorchy–Horsham Road	..		1,887 10 6	
Stawell–Warracknabeal Road	..		612 1 6	
		24 3 5		5,252 4 6
STRATHFIELDSAYE SHIRE—				
Heathcote–Bendigo Road	..		968 7 9	
Mandurang Road	..		595 1 8	
Strathfieldsaye Road	..		586 7 10	
				2,149 17 3
SWAN HILL SHIRE—				
Euston Road	32 14 0		1,277 2 8	
Nyah–Ouyen Road	..		74 11 11	
Piangil Station Road..	..		230 6 4	
Swan Hill Road	..		504 9 10	
Ultima Road	..		196 12 11	
Ultima–Sea Lake Road	..		19 10 0	
		32 14 0		2,302 13 8
TALBOT SHIRE—				
Maryborough–Avoca Road	..		2 17 0	
Maryborough–Ballarat Road	..		235 5 6	
				238 2 6
TAMBO SHIRE—				
Bairnsdale–Bruthen Road	..		123 5 5	
Bruthen–Omeo Road	..		44 5 2	
Mossiface Road	..		94 3 11	
Nowa Nowa–Buchan–Gelantipy Road	..		1,663 3 11	
Prince's Highway	..		Bd. 325 13 7	
				2,250 12 0
TOWONG SHIRE—				
Murray Valley Road	..		3,533 18 6	
Omeo Road	..		344 5 1	
				3,878 3 7
TRARALGON SHIRE—				
Prince's Highway	..		128 15 5	
Traralgon–Balook Road	..		458 7 1	
Traralgon–Gormandale Road	..		558 4 9	
Traralgon–Jeeralang Road	..		128 10 3	
Traralgon–Maffra Road	1,022 2 9		132 6 2	
		1,022 2 9		1,406 3 8
TULLAROOP SHIRE—				
Avoca Road	..		821 0 10	
Ballarat Road	..		23 2 4	
Castlemaine–Maryborough Road	..		Bd. 369 10 11	
Dunolly Road	..		23 15 0	
Eddington Road	..		73 3 2	
Natte Yallock Road	..		55 4 0	
				1,365 16 3
TUNGAMAH SHIRE—				
Cobram–Katamatite Road	711 4 1		1 0 4	
Cobram South Road	..		56 17 9	
Cobram–Strathmerton Road	..		83 16 4	
Numurkah–Tungamah–Wilby Road	663 16 11		1,063 19 2	
St. James Road	588 6 5		53 2 2	
Yarrawonga–Cobram Road	..		1,213 7 3	
		1,963 7 5		2,472 3 0
UPPER MURRAY SHIRE—				
Corryong Road	278 6 1		535 5 7	
Tintaldra Road	..		199 14 4	
		278 6 1		734 19 11
UPPER YARRA SHIRE—				
Don Road	..		42 4 7	
Warburton Road..	..		1,827 0 0	
Main Warburton Road	..		Bd. 1,525 4 0	
Woods Point Road	..		Bd. 2,199 2 9	
				5,593 11 4
VIOLET TOWN SHIRE—				
Shepparton Road	..		125 3 5	
Sydney Road	..		Bd. 162 5 11	
Violet Town–Dookie Road	..		68 8 2	
				355 17 6
WALPEUP SHIRE—				
Mildura Road	..		46 7 5	
Ouyen–Pinnaroo Road	..		468 15 3	
				515 2 8
WANGARATTA BOROUGH—				
Beechworth Road	..		7 4 9	
Sydney Road	..		87 4 8	
				94 9 5
Carried forward	..	15,150 5 7	..	359,069 13 9

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	15,150 5 7	..	359,069 13 9
WANGARATTA SHIRE—				
Beechworth Road	..		220 7 9	
Rutherglen Road	..		3 3 8	
Wangaratta–Myrtleford Road	..		40 19 7	
Yarrawonga Road	..		129 12 9	
				394 3 9
WANGARATTA AND BEECHWORTH SHIRES (Joint Works)—				
Beechworth Road	..		31 6 1	
				31 6 1
WANGARATTA AND YARRAWONGA SHIRES (Joint Works)—				
Peechelba Road	..		39 2 1	
				39 2 1
WANNON SHIRE—				
Coleraine–Harrow–Apsley Road	..		821 14 7	
Hamilton–Coleraine–Casterton Road	..		1,114 10 8	
Wannon Bridge Road	..		188 17 11	
				2,125 3 2
WANNON AND GLENELG SHIRES (Joint Works)—				
Hamilton–Coleraine–Casterton Road	..		16 18 1	
				16 18 1
WARANGA SHIRE—				
Colbinabbin–Moora Road	..		9 11 11	
Elmore–Colbinabbin Road	..		14 7 3	
Heathcote–Elmore Road	..		54 17 3	
Murchison–Rushworth Road	..		245 0 3	
Tatura Road	..		19 13 8	
				343 10 4
WARANGA AND GOULBURN SHIRES (Joint Works)—				
Murchison–Rushworth Road	..		27 3 6	
				27 3 6
WARRAGUL SHIRE—				
Bloomfield Road	..		850 0 4	
Brandy Creek Road	..		2,600 3 11	
Darnum–Allambee Road	..		764 13 1	
Prince's Highway	..		29 18 9	
Warragul–Korumburra Road	..		1,292 13 1	
Warragul–Leongatha Road	..		272 19 0	
				5,810 8 2
WARRNAMBOOL SHIRE—				
Allansford–Nirranda Road	..		1,367 1 4	
Caramut–Lismore Road	..		214 18 3	
Framlingham Road	..		731 17 6	
Garvoc–Laang Road	..		1,412 19 7	
Mortlake Road	..		811 11 9	
Peterborough Road	..		758 6 0	
				5,296 14 5
WERRIBEE SHIRE—				
Geelong–Bacchus Marsh Road	..		8 4 0	
Prince's Highway	..		79 6 0	
				87 10 0
WHITTLESEA SHIRE—				
Epping Road	..		557 8 6	
Main Whittlesea Road	133 12 0		486 19 0	
Wallan Road	..		188 19 8	
Whittlesea–Kinglake Road	..		356 6 4	
		133 12 0		1,589 13 6
WIMMERA SHIRE—				
Dooen Road	..		669 8 4	
Horsham–Murtoa Road	..		178 12 5	
Horsham–Wal Wal Road	..		3 0 4	
Natimuk Road	565 12 0		831 4 7	
		565 12 0		1,682 5 8
WIMMERA AND ARAPILES SHIRES (Joint Works)—				
Horsham–Hamilton Road	..		1,022 16 4	
				1,022 16 4
WIMMERA AND ARAPILES SHIRES AND HORSHAM BOROUGH (Joint Works)—				
Horsham–Hamilton Road	..		1 10 2	
				1 10 2
WINCHELSEA SHIRE—				
Birregurra–Forrest Road	..		273 19 1	
Lorne Road	..		239 3 2	
Prince's Highway	..		Bd. 38 3 3	
				551 5 6
WODONGA SHIRE—				
Kiewa–Wodonga Road	..		3 8 2	
Sydney Road	..		34 11 10	
Tallangatta Road	..		628 15 6	
Wodonga–Yackandandah Road	..		117 6 10	
				784 2 4
WONTHAGGI BOROUGH—				
Loch–Wonthaggi Road	..		511 11 6	
Wonthaggi–Inverloch Road	..		1,718 4 8	
Wonthaggi–Korumburra Road	..		73 19 8	
				2,303 15 10
Carried forward	..	15,849 9 7	..	381,177 2 8

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	15,849 9 7	..	381,177 2 8
WOORAYL SHIRE—				
Farmers Road	..		492 5 5	
Inverloch–Leongatha Road	..		1,324 4 10	
Inverloch–Wonthaggi Road	..		47 11 0	
Leongatha–Yarragon Road	..		705 13 8	
Lower Tarwin Road	..		382 19 2	
Main South Gippsland Road	..		4,003 10 2	
Mardan Road	..		184 1 5	
Turtons Creek Road	..		67 10 11	
Warragul–Leongatha Road	..		229 14 4	
Wild Dog Valley	..		172 5 5	
				7,609 16 4
WYCHEPROOF SHIRE—				
Birchip–Sealake Road	..		245 4 9	
Birchip–Wycheproof Road	425 18 4		780 10 3	
Corack Road	..		82 12 3	
Sealake–Ultima Road	..		259 11 6	
Woomelang–Sealake Road	..		257 18 0	
Wycheproof–Sealake Road	..		28 1 9	
		425 18 4		1,653 18 6
YACKANDANDAH SHIRE—				
Dederang Road	2 9 6		719 13 4	
Gundowring Road	402 3 2		489 10 3	
Kiewa East Road	..		88 4 1	
Kiewa–Wodonga Road	..		229 8 0	
Yackandandah–Wodonga Road	..		257 16 3	
		404 12 8		1,784 11 11
YARRAWONGA SHIRE—				
Peechelba Road	..		11 3 1	
Tungamah–Wilby Road	..		0 18 0	
Wangaratta–Yarrawonga Road	..		232 3 11	
Yarrawonga–Cobram Road	..		335 10 5	
Yarrawonga–Rutherglen Road	..		56 19 8	
				636 15 1
YEA SHIRE—				
Upper Goulburn Road	..		748 18 0	
Yea–Glenburn Road	20 0 6		445 7 6	
		20 0 6		1,194 5 6
YEA AND ELTHAM SHIRES (Joint Works)—				
Yarra Glen–Glenburn Road	..		157 8 8	
				157 8 8
YEA AND BROADFORD SHIRES (Joint Works)—				
Upper Goulburn Road	..		26 6 9	
				26 6 9
		16,700 1 1		394,240 5 5
STATE HIGHWAYS.				
Prince's Highway West	..		39,680 6 3	
Prince's Highway East	..		41,732 9 1	
Western Highway	..		45,054 12 5	
Calder Highway	..		43,758 11 1	
Northern Highway	..		19,026 9 1	
Hume Highway	..		45,312 15 9	
Omeo Highway	..		18,616 3 3	
				253,181 6 11
Total	..	16,700 1 1	..	647,421 12 4

APPENDIX D.

COUNTRY ROADS BOARD.

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS FOR YEAR ENDED 30TH JUNE, 1932.

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
ALBERTON SHIRE—		
Albert River Road	2,234 9 9	
Blackwarri–Yarram Road ..	1,394 9 4	
Carrajung–Balook Road ..	311 14 9	
Madalya Road	1,155 3 3	
Whitelaw's Track Road ..	63 0 0	
		5,158 17 1
ARAPILES SHIRE—		
Arapiles–Grassy Flat Road ..	79 3 6	
Miga Lake–Gymbowen Road	290 11 10	
		369 15 4
BAIRNSDALE SHIRE—		
Calulu–Boggy Creek Road ..	483 19 5	
Glenaladale–Lindenow Road..	420 0 0	
Hodge's Estate Road ..	42 3 6	
Lindenow–Meerlieu Road ..	645 10 0	
		1,591 12 11
BALLAN SHIRE—		
Moorarbool West Road ..	2 0 0	
		2 0 0
BASS SHIRE—		
Dalyston–Glen Forbes Road..	941 15 8	
Loch–Wonthaggi Road ..	345 14 6	
		1,287 10 2
BENALLA SHIRE—		
Molyullah–Tatong Road ..	212 15 11	
		212 15 11
BORUNG SHIRE—		
Boolite–Sheephills Road ..	262 18 11	
		262 18 11
BORUNG AND KARKAROOC SHIRES (Joint Works)—		
Galaquil West Road ..	190 18 9	
		190 18 9
BRIGHT SHIRE—		
Buffalo River Road ..	339 16 10	
Happy Valley Road ..	332 5 5	
Kiewa Valley Road ..	22 14 0	
Myrtleford–Yackandandah Road	182 2 1	
		876 18 4
BULLA AND ROMSEY SHIRES (Joint Works)—		
Konagaderra Road ..	4 18 0	
		4 18 0
BULN BULN SHIRE—		
Mountain View Road ..	647 12 8	
Mountain View–McDonald's Track Road	574 16 4	
Neerim North Road ..	223 2 9	
		1,445 11 9
BUNGAREE SHIRE—		
Bolwarrah Road	50 0 0	
		50 0 0
CHARLTON SHIRE—		
Glenloth Road	139 3 10	
Lake Marmal Road.. ..	42 12 4	
		181 16 2
COHUNA SHIRE—		
Cohuna–Leitchville Road ..	270 18 6	
Cohuna–Mead Road ..	218 2 11	
Gannawarra Road	236 0 0	
Murray River Valley Road	307 10 8	
		1,032 12 1
COLAC SHIRE—		
Colac–Forrest Road ..	36 13 6	
Cundare–Duverney Road ..	461 19 1	
		498 12 7
COBIO SHIRE—		
Gilmour's Road	252 15 6	
McArthur's Road	539 1 5	
		791 16 11
Carried forward ..	..	13,958 14 11

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	13,958 14 11
CRANBOURNE SHIRE—		
Mank's Road	53 15 6	
Pearcedale Road	320 8 11	
		374 4 5
DEAKIN SHIRE—		
Echuca East Road	316 8 11	
Girgarre East Road ..	499 4 3	
		815 13 2
DEAKIN AND RODNEY SHIRES (Joint Works)—		
Kyabram–Stanhope Road ..	311 0 10	
		311 0 10
DIMBOOLA SHIRE—		
Detpa–Hindmarsh Road ..	212 17 0	
Glenlee–Jeparit Road ..	500 0 0	
		712 17 0
DONALD SHIRE—		
Donald–Minyip Road ..	162 5 10	
		162 5 10
DUNMUNKLE SHIRE—		
Banyena Road	10 0 0	
		10 0 0
ELTHAM SHIRE—		
Cottle's Bridge–Strathewan Road	712 10 2	
		712 10 2
EUROA SHIRE—		
Strathbogie Road	174 6 8	
		174 6 8
EUROA AND GOULBURN SHIRES (Joint Works)—		
Longwood–Ruffy Road ..	100 17 11	
		100 17 11
FERN TREE GULLY SHIRE—		
Emerald–Monbulk Road ..	190 0 0	
		190 0 0
FLINDERS SHIRE—		
Brown s Road	239 13 8	
Main Creek Road	141 19 1	
		381 12 9
FRANKSTON AND HASTINGS SHIRE—		
Quarry Road	38 12 6	
		38 12 6
GLENELG SHIRE—		
Dergholm–Elderslie Road ..	519 19 2	
Glenorchy Estate Road ..	74 0 9	
Merino–Struan–Tahara Road	111 10 0	
		705 9 11
GLENLYON SHIRE—		
Daylesford–Trentham Road ..	371 4 3	
South Bullarto Road ..	372 5 2	
		743 9 5
GRENVILLE SHIRE—		
Gillett's Road	49 17 6	
		49 17 6
HAMPDEN SHIRE—		
Cundare–Duverney Road ..	289 14 11	
Foxhow Road	344 0 11	
		633 15 10
HEYTESBURY SHIRE—		
Devil's Gully Road ..	814 6 7	
Glenfyne West Road ..	3 0 0	
South Ecklin Road ..	786 16 6	
Timboon–Cowley's Creek Road	671 0 0	
Timboon–Scott's Creek Road	262 7 0	
		2,537 10 1
KARKAROOC SHIRE—		
Hopetoun–Lascelles Road ..	235 19 4	
Hopetoun–Yaapeet Road ..	2 3 6	
Wathe Siding Road ..	62 8 0	
		300 10 10
Carried forward ..	..	22,913 9 9

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS, ETC.—*continued.*

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	22,913 9 9
KERANG SHIRE—		
Murrabit Road	245 16 2	245 16 2
KORONG SHIRE—		
Borung West Road ..	74 3 5	
Woolshed Road	74 2 4	148 5 9
KORUMBURRA SHIRE—		
Bena–Kongwak Road ..	1,002 3 2	
Korumburra South Road ..	272 4 5	
Poowong Estate Road ..	512 9 4	
Poowong–Olsen Road ..	379 12 1	
Timm's Road	95 8 7	2,261 17 7
KOWREE SHIRE—		
Edenhope–Natimuk Road ..	1 5 0	
Elderslie Road	11 9 3	
Miga Lake–Gymbowen Road	198 4 2	
Minimay Road	118 16 6	329 14 11
KYNETON SHIRE—		
Baynton Road	197 0 0	197 0 0
LAWLOIT SHIRE—		
Miram West Road	1,003 1 9	1,003 1 9
LILLYDALE SHIRE—		
Monbulk–Seville Road ..	10 0 0	
Olinda Creek Road ..	20 1 2	
Wandin Road	62 9 1	92 10 3
LOWAN SHIRE—		
Diapur–Yanac Road ..	285 15 9	
Netherby Road	1,288 13 4	
Winiam Road	20 0 0	
Yanac South Road ..	370 0 9	1,964 9 1
MAFFRA SHIRE—		
Bundalaguah Road ..	158 10 1	158 10 1
MARONG SHIRE—		
Newbridge–Shelbourne Road	25 0 0	
Yarraberb Road	698 15 0	723 15 0
MELTON SHIRE—		
Exford Road	453 16 8	453 16 8
MILDURA SHIRE—		
Benetook Avenue	600 18 8	
Merrinee North Road ..	15 12 10	
Plrlta South Road	123 12 0	
Red Cliffs East Road ..	4 7 2	
Red Cliffs West Road ..	62 8 6	806 19 2
MINHAMITE SHIRE—		
Heywood Road	112 1 7	
Lake Gorrie Road	47 17 6	
McArthur–Condah Road ..	117 6 8	
Nardoo Road	40 10 0	
Orford–St. Helens Road ..	32 9 2	
Woodlands Road	170 0 0	520 4 11
MIRBOO SHIRE—		
Mirboo North–Thorpdale Road	543 13 11	
Mirboo–Yarragon Road ..	16 5 0	
Nicholl's Road	33 12 0	593 10 11
MORWELL SHIRE—		
Middle Creek Road ..	12 10 10	
Thorpdale East Road ..	272 18 7	285 9 5
McIVOR SHIRE—		
Tooborac–Lancefield Road ..	24 1 6	24 1 6
McIVOR AND PYALONG SHIRES (Joint Works)—		
Tooborac–Lancefield Road ..	343 12 7	343 12 7
Carried forward ..	..	33,066 5 6

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	33,066 5 6
NARRACAN SHIRE—		
Coalville–Narracan Road ..	293 3 2	
Mirboo North–Thorpdale Road	544 11 8	
Moe–Moondarra Road ..	1,190 11 9	
Platina Road	137 13 10	
Shady Creek Road	34 9 10	
Sunny Creek Road	292 11 5	
Thorpdale East Road ..	284 0 7	
Thorpdale–Yarragon Road ..	287 1 8	
Trafalgar–Willowgrove Road	118 7 0	3,182 10 11
NEWHAM AND WOODEND SHIRE—		
Campaspe Road	143 13 7	
Macedon–Village Settlement Road	114 2 7	262 16 2
NEWSTEAD AND MOUNT ALEXANDER SHIRE—		
Glengower–Joyce's Creek Road	67 4 3	67 4 3
NUMURKAH SHIRE—		
Waaia North Road ..	208 1 1	208 1 1
OMEO SHIRE— ..		
Brookville Road	563 17 4	
Little River Road	89 9 8	
Reedy Creek Road	64 12 7	
Sandy Creek Road	482 8 7	
Swift's Creek East Road ..	78 19 10	1,279 8 0
ORBOST SHIRE—		
Bete Bolong–Waygara Road	9 12 5	
Groves Road	23 6 9	
Lower Bemm Road.. ..	367 15 4	
Orbost–Delegate Road ..	357 2 3	757 16 9
OXLEY SHIRE—		
Boggy Creek Road	43 1 3	
Buffalo River Road.. ..	40 1 8	
Carboor–Meadow Creek Road	212 0 0	
Fifteen-Mile Creek Road ..	29 9 8	
King Valley Road	9 16 7	334 19 2
PORTLAND SHIRE—		
Grubbed Road	884 17 6	884 17 6
RIPON SHIRE—		
Modesty Lane	310 18 11	
Trawalla West Road ..	432 14 7	743 13 6
ROCHESTER SHIRE—		
Corop Road	341 8 0	
Echuca West Road ..	89 0 5	
Echuca East Road	50 2 0	480 10 5
RODNEY SHIRE—		
Tatura–Toolamba Road ..	501 0 11	501 0 11
RUTHERGLEN SHIRE—		
Black Swamp Road ..	83 0 0	83 0 0
SEYMOUR SHIRE—		
Highlands Road	1,307 17 10	1,307 17 10
SEYMOUR AND YEA SHIRES (Joint Works)—		
Highlands Road	60 13 8	60 13 8
SOUTH GIPPSLAND SHIRE—		
Chadwick's Road	879 5 2	
Dollar–Foster Road ..	351 17 0	
Dumbalk Road	65 14 9	
Harding–Lawson Road ..	190 0 0	
Turton's Creek Road ..	19 14 6	
Whitelaw's Track	658 7 10	
Woomera Creek Road ..	18 18 0	
Yanakie Road	7 6 0	2,191 3 3
STAWELL SHIRE—		
Marnoo–St. Arnaud Road ..	594 13 7	
Pomonal Road	240 11 1	835 4 8
Carried forward		46,247 3 7

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS, ETC.—*continued.*

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	46,247 3 7
SWAN HILL SHIRE—		
Manangatang–Euston Road ..	177 14 0	177 14 0
TOWONG SHIRE—		
Murray River Valley Road ..	28 12 1	
Shelley–Jingellic Road ..	258 17 5	
Tallangatta Creek Road ..	507 18 8	
Yabba Road	522 18 2	1,318 6 4
TRARALGON SHIRE—		
Callignee Factory Road ..	432 10 6	
Traralgon Creek Road ..	10 0 0	
Traralgon–Jeeralang Road ..	25 0 0	467 10 6
TUNGAMAH SHIRE—		
Boweya Road	325 1 2	
Cobram–Katamatite Road ..	161 0 0	
Katandra Road	435 8 5	
Katandra Estate Road ..	613 0 7	
Wunghnu–Youanmite Road ..	301 1 3	
Yabba South Road ..	40 0 0	
Yarroweyah–Tocumwal Road	349 6 1	2,224 17 6
UPPER MURRAY SHIRE—		
Benambra–Corryong Road ..	383 0 11	
Murray Valley Road ..	176 5 5	559 6 4
UPPER YARRA SHIRE—		
Woori Yallock–Cockatoo Road	540 12 1	540 12 1
VIOLET TOWN SHIRE—		
Fernhills Road	..	
Harry's Creek Road ..	485 10 6	485 10 6
WALPEUP SHIRE—		
Cowangie Road	2 0 0	
Danya North Road	111 0 6	
Kattyong Road	15 0 0	
Linga North Road ..	25 10 6	
Nyang South Road ..	6 0 0	
Ouyen–Kulwin Road ..	92 16 10	252 7 10
WANNON SHIRE—		
Melville Forest Road ..	602 16 6	602 16 6
WANGARATTA SHIRE—		
Peechelba Station Road ..	366 1 5	366 1 5
WARRAGUL SHIRE—		
Bona Vista Road	11 7 10	
Ferndale Road	1,292 9 5	
Lardner's–Tetoora Road ..	1 0 3	
Mountain View Road ..	211 4 0	
Nilma–Shady Creek Road ..	5 0 0	
Telegraph Road	185 0 0	1,706 1 6
WARRNAMBOOL SHIRE—		
Naringle Road	7 17 6	7 17 6
WHITTLESEA SHIRE—		
Eden Park Road	24 15 9	24 15 9
WINCHELSEA SHIRE— ..		
Pennyroyal Road	559 17 1	559 17 1
WODONGA SHIRE—		
Beechworth–Wodonga Road	668 0 8	668 0 8
WOORAYL SHIRE—		
Canavan's Road	734 11 6	
Dollar–Dumbalk Road ..	85 18 1	
Dumbalk Road	369 2 5	
Inverloch–Lower Tarwin Road	242 16 2	
Leongatha–Mirboo Road ..	897 14 10	
Meeniyan–Nerrena Road ..	36 11 8	
Nerrena Road	165 7 7	2,532 2 3
WYCHEPROOF SHIRE—		
Berriwillock–Woomelang Road	4 10 8	
Culgoa–Lalbert Road ..	79 14 0	84 4 8
Carried forward ..	..	58,825 6 0

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	58,825 6 0
YACKANDANDAH SHIRE—		
Kergunyah Road	195 0 9	
Sandy Creek Road	236 2 4	
Woololonga Gap Road ..	4 10 0	435 13 1
YEA SHIRE—		
Flowerdale Road	819 5 4	
Highlands Road	409 2 2	1,228 7 6
Total	..	60,489 6 7

SPECIAL PROVISION.

ALBERTON SHIRE—		
Albert River Road	1,590 0 4	
Binginwarri–Albert River Road	498 7 9	
Binginwarri–Welshpool Road	173 19 10	
Christie's Albert River Road ..	418 0 0	
Madalya Road	109 0 10	2,789 8 9
ALEXANDRA SHIRE—		
Maintongoon Road ..	115 4 10	115 4 10
BASS SHIRE—		
Wonthaggi–Loch Road ..	0 17 5	0 17 5
BERWICK SHIRE—		
Nar-nar-goon–Gembrook Road	1,064 3 4	1,064 3 4
ELTHAM SHIRE—		
Kinglake–Kinglake East Road	1,291 8 8	
Kinglake–Toolangi Road ..	624 10 9	1,915 19 5
HEALESVILLE SHIRE—		
Kinglake–Toolangi Road ..	480 1 11	480 1 11
HEYTESBURY SHIRE—		
Eastern Creek Road ..	913 3 10	
Kennedy's Creek Road ..	323 19 5	
Timboon–Cowley's Creek Road	21 0 0	
Timboon–Curdie's Vale Road	136 4 7	1,394 7 10
MIRBOO SHIRE—		
Allambee–Thorpdale Road ..	822 11 6	822 11 6
MORWELL SHIRE—		
Linklater's Connexion Road ..	266 4 10	
Livingstone Road	43 4 0	
Morwell River Road ..	6 13 8	316 2 6
MORWELL AND TRARALGON SHIRES (Joint Works)—		
Jeeralang West Road ..	1 19 5	1 19 5
NARRACAN SHIRE—		
Allambee–Childers Road ..	1,265 4 1	
Allambee–Thorpdale Road ..	485 2 0	
Childers–Thorpdale Road ..	24 13 3	
Moe–Moondarra Road ..	1,506 4 6	
Sunny Creek Road	501 14 3	
Thorpdale East Road ..	309 0 0	
Willowgrove–Fumina Road ..	1111 2 2	5,203 0 3
NARRACAN AND MORWELL SHIRES (Joint Works)—		
Allambee Estate Road ..	24 1 1	24 1 1
OMEO SHIRE—		
Beloka Road	11 11 2	
Benambra–Corryong Road ..	4 3 9	
Reedy Creek Connection Road	209 0 0	
Swift's Creek–Cassilis Road ..	0 16 9	225 11 8
ORBOST SHIRE—		
Buldah Road	77 10 0	
Deddick River Road ..	120 15 4	
Lower Bendoc Road ..	296 12 10	
Orbost–Delegate Road ..	106 1 7	
Wangrabelle Road	22 14 0	623 13 9
Carried forward ..	..	75,466 10 3

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS, ETC.—*continued.*

Municipality and Road.	Act No. 3662 (3255). Amount.	Total
	£ s. d.	£ s. d.
Brought forward ..	..	75,466 10 3
OTWAY SHIRE—		
Amiet's Track Road ..	730 13 0	
Apollo Bay–Elliott River Road	167 7 4	
Cape Patten Road	23 3 7	
Colac–Beech Forest Road ..	171 16 4	
Dehnert's Road	2 9 11	
Ferguson–Charley's Creek Road	361 17 7	
Gellibrand East Road ..	662 14 3	
Hordern Vale Road ..	237 14 10	
Hordern Vale–Apollo Bay Road	3 16 10	
Kawarren East Road ..	6 19 0	
Kennedy's Creek Road ..	125 7 11	
Lardner's Track Road ..	522 11 1	
Laver's Hill–Chapplevale–Devondale Road ..	2 6 1	
Princetown – Port Campbell Road	17 18 11	
Princetown Road	19 9 0	
Skene's Creek Road ..	655 3 5	
Sunnyside Road	150 1 7	
Wait-a-While Road ..	534 9 9	
		4,396 0 5
OXLEY SHIRE—		
Rose River Road	13 13 11	
Tolmie–Whitfield Road ..	236 4 7	
		249 18 6
ROSEDALE SHIRE—		
Callignee South Road ..	142 4 9	
Merriman's Creek Road ..	150 17 11	
		293 2 8
Carried forward ..	..	80,405 11 10

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	80,405 11 10
SOUTH GIPPSLAND SHIRE—		
Agnes Falls Road	200 7 4	
Boolarra–Foster Road ..	1 13 5	
Foster–Mt. Best Road ..	8 15 0	
Franklin River Road ..	7 13 4	
McCartin's Road	229 9 4	
O'Grady's Ridge Road ..	7 13 5	
Toora–Gunyah Road ..	380 14 8	
Toora–Wonyip Road ..	9 19 8	
Woorarra West Road ..	388 18 2	
		1,235 4 4
TRARALGON SHIRE—		
Callignee Estate Road ..	5 6 3	
Traralgon Creek Road ..	61 8 11	
		66 15 2
TRARALGON AND MORWELL SHIRES (Joint Works)—		
Walker's Road	6 3 4	
		6 3 4
WARRAGUL SHIRE—		
Darnum–Allambee Road ..	144 9 11	
McDonald's Track Road ..	105 0 10	
		249 10 9
WOORAYL SHIRE—		
Leongatha–Yarragon Road ..	3 7 0	
		3 7 0
Total	..	81,966 12 5

APPENDIX E.

COUNTRY ROADS BOARD.

MAIN ROADS.

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED AND MAINTAINED UNDER THE PROVISIONS OF THE COUNTRY ROADS ACT 1928 DURING THE YEAR ENDED 30TH JUNE, 1932

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
UNDER MUNICIPALITIES.			
ALBERTON SHIRE—			
Balook–Yarram Road	Construction of timber bridge over Max Creek near Calrossie	..	..
,, ,, ,,	General maintenance	..	9
Carrajung–Gormandale Road	Construction of timber bridge over Greig's Creek	..	..
,, ,, ,,	Reshaping and sealing metalled section at Reville's Hill, Devon North	..	·34
,, ,, ,,	General patrol maintenance	..	17·5
Foster–Yarram Road	Reshaping and sealing metalled section (Rendell's to Alberton)	..	·64
,, ,, ,,	Resealing tarred section (Gellion's to Rendell's)	..	1·2
,, ,, ,,	General patrol maintenance	..	8
Sale–Yarram Road	Construction of timber bridge at Darriman	..	..
,, ,, ,,	General patrol maintenance	..	27·6
Yarram–Boolarra Road	Double sealing metal section (Tooloonook to Jack River)	..	1·9
,, ,, ,,	General maintenance	..	15
Yarram–Port Albert Road	General maintenance	..	8·9
Yarram–Won Wron Road	Forming and gravelling (Whitford's Hill)	..	·51
,, ,,	General maintenance	..	4
ALEXANDRA SHIRE—			
Cathkin–Mansfield Road	1 mile of gravelling at Yarck	..	1
,, ,, ,,	Patrol maintenance	..	12
Healesville–Alexandra Road	Bitumen sealing, 1·5 miles; resealing, 1 mile	..	2·5
,, ,, ,,	Patrol maintenance	..	18
Upper Goulburn Road	Patrol maintenance	..	27
Yarck Road	Patrol maintenance	..	3
ARAPILES SHIRE—			
Horsham–Hamilton Road	Gravelling and timber bridge opposite allot. 43, parish of Mockinya	·24	..
,, ,, ,,	Gravel construction opposite allots. 16A and 17A, parish of Mockinya	·38	..
,, ,, ,,	General maintenance throughout	..	25
Horsham–Natimuk–Edenhope Road	General maintenance throughout	..	23·5
,, ,,	Gravel and loam construction near Shire boundary, Miga Lake	..	·07
ARARAT BOROUGH—			
Ballarat–Stawell Road	General maintenance and resurfacing with bitumen throughout	..	2·5
ARARAT SHIRE—			
Ararat–Elmhurst Road	New culvert at 7·7 miles from Ararat; and patrol maintenance	..	23
Ararat–Warrnambool Road	Bitumen surfacing	..	3
,, ,, ,,	Patrol maintenance	..	31
Ballarat–Hamilton Road	Bitumen surfacing	..	2
,, ,, ,,	Patrol maintenance	..	21
Maroona–Glenthompson Road	Bitumen surfacing	..	2·5
,, ,, ,,	Patrol maintenance	..	21·5
AVOCA SHIRE—			
Ararat Road	General maintenance	..	6·5
Ballarat–St. Arnaud Road	General maintenance	..	21
Bealiba Road	General maintenance	..	8·5
Landsborough Road	General maintenance	..	2
Maryborough Road	General maintenance	..	4·5
Natte Yallock Road	General maintenance	..	1
Navarre Road	General maintenance	..	1
AVON SHIRE—			
Dargo Road	General maintenance	..	45
Maffra–Sale Road	General maintenance	..	3
Maffra–Stratford Road	General maintenance	..	2
Prince's Highway	General maintenance	..	·75
BACCHUS MARSH SHIRE—			
Ballarat Road	Patrol maintenance	..	1·2
Geelong–Bacchus Marsh Road	Patrol maintenance	..	7·8
Gisborne Road	Patrol maintenance	..	9·8
BAIRNSDALE SHIRE—			
Bulumwaal–Tabberabbera Road	Sheeting, &c., and sealing with bitumen at Wy Yung	..	·27
,, ,,	Resealing bitumen and patrol maintenance	..	16
Prince's Highway	Resealing bitumen and patrol maintenance	..	3·5
BALLAN SHIRE—			
Ballarat Road	General maintenance in Ballan township	..	1
Daylesford Road	Double coat bitumen sealing on macadam surface	..	·19
,, ,,	Single coat bitumen resealing on macadam	..	1·29
,, ,,	Installation of concrete pipe culvert near water channel	..	..
,, ,,	Patrol maintenance	..	12·7
Gordon–Meredith "A" Road	Resheeting with mine tailings between Gordon railway station and Egerton	..	·5
,, ,,	General maintenance	..	4
Gordon–Meredith "B" Road	General maintenance	..	1·5
Mount Wallace Road	Single coat bitumen resealing on macadam	..	1·5
,, ,,	Gravel sheeting over macadam, southerly from Beam Wireless Station	..	2
,, ,,	Patrol maintenance	..	10·7
BALLARAT SHIRE—			
Ballarat–Lexton Road	Patrol maintenance	..	9
Ballarat–Maryborough Road	Scarifying, reforming, gravelling and rolling	..	1·53
,, ,,	Patrol maintenance	..	14
BANNOCKBURN SHIRE—			
Geelong–Ballarat Road	General maintenance	..	23·5
Gordons–Meredith Road	General maintenance	..	3
Inverleigh Road	General maintenance	..	16·5
,, ,,	Resealing near Fyansford	..	2·27
,, ,,	Resealing near Murghebolue	..	·98
,, ,,	Sealing ironstone gravel near Burnside-road, Murghebolue (double coat)	..	·7
,, ,,	Reconditioning with gravel near Murghebolue	..	·89
Shelford–Bannockburn Road	General maintenance	..	6·5
,, ,,	Reconditioning with gravel through Bannockburn	..	2·11
	Carried forward	·62	563·34

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	·62	563·34
BARRABOOL SHIRE—			
Aireys Inlet Road	General maintenance	..	7
Anglesea Road	General maintenance	..	17
Hendy Main Road	General maintenance	..	14
BASS SHIRE—			
Almurta Road	Patrol maintenance	..	5·5
,, ,,	Relaying 3-ft. diameter culvert at Almurta	..	..
Almurta–Grantville Road	Patrol maintenance	..	3·25
Dalyston–Wonthaggi Road	Surfacing with gravel	..	1·3
,, ,, ,,	Repairs to Powlett River bridge	..	..
,, ,, ,,	Patrol maintenance	..	1·63
,, ,, ,,	Reconstruction of subway at Powlett River in modified macadam	..	·24
Korumburra–Wonthaggi Road	Double coat work with bitumen at floodway	..	1·04
,, ,, ,,	Resealing with bitumen at floodway	..	·21
,, ,, ,,	Surfacing with screenings near Glen Alvie	..	1
,, ,, ,,	Patrol maintenance	..	8
,, ,, ,,	Concrete culvert and approaches at floodway	.08	..
Inverloch–Wonthaggi Road	Scarifying and resheeting with crushed rock	..	1·49
,, ,, ,,	Sealing and double coat surfacing	..	1·64
,, ,, ,,	Double coat surfacing	..	1
,, ,, ,,	Patrol maintenance	..	3·75
Main Coast Road	Patrol maintenance	..	18·75
,, ,, ,,	Surfacing with gravel at Anderson	..	1
,, ,, ,,	Reconstruction of timber culvert	..	..
Wonthaggi-Loch Road	Surfacing with bitumen (double coat) at Hicksborough	..	·24
,, ,, ,,	Surfacing with bitumen (double coat) near Powlett River	..	1·51
,, ,, ,,	Surfacing with gravel	..	6
,, ,, ,,	Patrol maintenance	..	10
BASS SHIRE AND WONTHAGGI BOROUGH (Joint Works)—			
Wonthaggi–Loch Road	Resheeting with crushed rock and surfacing with bitural (double coat)	..	·7
,, ,, ,,	Patrol maintenance	..	·7
BEECHWORTH SHIRE—			
Beechworth Road	General maintenance	..	23
Bright Road	General maintenance	..	5·5
Everton-Myrtleford Road	Patrol maintenance	..	3·5
BELFAST SHIRE—			
Hamilton Road	Sealing and general maintenance	..	13·5
Penshurst Road	Resealing	..	2
,, ,,	Sealing and general maintenance	..	7·5
BELLARINE SHIRE—			
Geelong–Portarlington Road	General patrol maintenance, Geelong boundary to Moolap State School	..	2·25
,, ,, ,,	General patrol maintenance, Clifton Lane to Curlewis railway crossing	..	3·25
,, ,, ,,	General patrol maintenance, Curlewis railway crossing to Drysdale Post Office	..	3·5
,, ,, ,,	General maintenance, Drysdale Post Office to Portarlington	..	7
BENALLA SHIRE			
Benalla–Mansfield Road	Patrol maintenance	..	22
Goorambat Road	Resealing 3·17 miles and patrol maintenance	..	11·5
Goorambat–Thoona Road	Patrol maintenance	..	11
Greta Road	Patrol maintenance	..	1·5
Lima Road	Patrol maintenance	..	3
Sydney Road	Resealing 0·71 miles and patrol maintenance	..	2
Tatong–Tolmie Road	Patrol maintenance	..	9
BERWICK SHIRE—			
Beaconsfield–Emerald Road	Sheeting at Beaconsfield Upper	..	·68
,, ,, ,,	General maintenance	..	6·32
Cockatoo–Gembrook Road	General maintenance	..	3
Gembrook Road	General maintenance	..	5·5
Gembrook–Beenak Road	General maintenance	..	2
Hallam–Emerald Road	General maintenance	..	4·5
,, ,, ,,	Outlet to culvert at Green's Crossing	..	..
Nar-Nar-Goon–Longwarry Road	General maintenance	..	11·7
Woori Yallock–Pakenham–Koo-wee-rup Road	Reconstruction in modified macadam north of Cockatoo	..	·43
,, ,, ,,	Deviation at Jones' Corner, 3 miles south of Pakenham	..	·06
,, ,, ,,	Sealing south of Pakenham	..	1·04
,, ,, ,,	General maintenance	..	22·27
BET BET SHIRE—			
Avoca–Bealiba Road	Gravelling opposite allot. 54, parish of Bealiba, and allot 3A, parish of Archdale	..	·61
,, ,, ,,	Gravelling in detached sections through Archdale Pre-emptive Right	..	·51
,, ,, ,,	General maintenance	..	13·7
Betley Road	Forming, grading, &c., through Bromley	..	·57
,, ,,	General maintenance	..	4·5
Dunolly Road	General maintenance	..	6·4
Dunolly–Eddington Road	General maintenance	..	5·2
BIRCHIP SHIRE—			
Donald–Birchip–Sea Lake Road	General maintenance	..	5
Beulah – Birchip – Wycheproof Road	General maintenance	..	2
,, ,, ,,	Formation and gravelling west of Tchum Lake	·95	..
BLACKBURN AND MITCHAM SHIRE—			
Main Healesville Road	Reconstruction at Mitcham in modified macadam between chainages 17,200 and 17,800	..	.19
,, ,, ,,	Resealing balance of road between Middleboro road and Heatherdale-road	..	3.97
BORUNG SHIRE—			
Birchip Road	Reforming opposite Allotments 169B, 114, 167, 168 and 170A, 170B, 109B, parish of Werrigar	..	1.34
,, ,,	General maintenance	..	14
Dimboola Road	General maintenance	..	7.5
Hopetoun Road	Metalling opposite Allotments 109, 111 and 112, parish of Willenabrina, 14 and 64, parish of Warracknabeal, and 125, 138, 126, parish of Werrigar	..	2.17
,,	General maintenance	..	18
Minyip Road	Metalling opposite Allotments 140, 139, 128 and 126, 127, 108, Parish of Kellalac	..	1·26
,,	General maintenance	..	13
Rainbow Road	Limestoning and gravelling opposite Allotments 129, 136 and 161A, 161, Parish of Werrigar, Allotments 80, 28, Parish of Yellangip, and Allotment 175, Parish of Werrigar	..	1·77
,, ,,	General maintenance	..	18
BRAYBROOK SHIRE—			
Ballarat Road	Pre-mixed tar patching and maintenance	..	3·33
BRIGHT SHIRE—			
Bright Road	Repairs to bridges at Myrtleford and Ovens, and patrol maintenance	..	20
Harrietville Road	General maintenance	..	16
Kiewa Valley Road	Sheeting on metalled section and patrol maintenance	..	7·8
,, ,, ,,	Forming and gravelling near Allotment 9F of 1, Parish of Mullindolingong	·42	..
	Carried forward	2·07	1,025·61

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Work.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	2·07	1,025·61
BROADMEADOWS SHIRE—			
Lancefield Road	Bitumen seal coating		2
,, ,,	Reconstruction		·06
,, ,,	Patrol maintenance		4·7
Sydney Road	Surface repairs and patrol maintenance		2
BULLA SHIRE—			
Melbourne–Lancefield Road	General maintenance from Tullamarine to Clarkefield		15
Sunbury Road	General maintenance from junction with Melbourne–Lancefield Road to Sunbury township		2·75
The Gap Road	General maintenance from Sunbury township westerly		1·75
BULN BULN SHIRE—			
Bloomfield Road	General maintenance		·9
Fumina Road	Patrol maintenance		9·7
Loch Valley Road	Patrol maintenance		6·4
Longwarry–Drouin Road	Resheeting and widening in modified macadam (·5 mile), and patrol maintenance	·5	4·7
Main Neerim "A" Road	Scarifying and resurfacing with bitumen and screenings (·62 mile), and patrol maintenance	·62	8·2
Main Neerim "B" Road	Scarifying and resheeting in modified macadam (·5 mile), and patrol maintenance	·5	8·5
Main Neerim "C" Road	Scarifying and resheeting in modified macadam (·25 mile), and patrol maintenance	·25	5·5
Main South Road	Scarifying and bituminous sealing (4 miles), and patrol maintenance		14·75
Neerim East Road	Patrol maintenance		4
Prince's Highway	Patrol maintenance		1·06
Westernport Road	Patrol maintenance		8·25
BUNGAREE SHIRE—			
Daylesford–Ballarat Road	Scarifying, reshaping, and gravelling between Pootilla and Clark's Hill		·75
BUNINYONG SHIRE—			
Ballarat–Rokewood Road	General patrol work		14
Elaine–Mt. Mercer Road	General patrol work		5
Geelong–Ballarat Road	Bitumen patrol repairs between Ballarat and Buninyong		4·3
,, ,, ,,	Bitumen patrol repairs between Bannockburn Shire boundary and Burnt Bridge		8·4
,, ,, ,,	General patrol work between Buniyong and Burnt Bridge		9
CASTLEMAINE BOROUGH—			
Melbourne–Bendigo Road	General maintenance		3·91
,, ,, ,,	Resealing 18 inches wide between chainages 384,450–385,750, 386,850–388,400, and 388,400–389,766		·8
CHARLTON SHIRE—			
Donald Road	Patrol maintenance		12·75
St. Arnaud Road	Patrol maintenance		15
CHELSEA CITY—			
Point Nepean Road	Patrol maintenance from northern to southern end of City of Chelsea		5·66
CHILTERN SHIRE—			
Barnawartha–Howlong Road	Patrol maintenance		5·94
Chiltern–Howlong Road	Patrol maintenance		7·1
Rutherglen–Wodonga Road	Patrol maintenance		6·5
Sydney Road	Sealing short section, and patrol maintenance		1·15
CLUNES BOROUGH—			
Maryborough–Ballarat Road	Sealing with bitumen in Service-street		·2
,, ,, ,,	Patrol maintenance		6·2
COHUNA SHIRE—			
Cohuna–Leitchville Road	General maintenance		2·84
Murray River Valley Road	General maintenance		7·09
COLAC SHIRE—			
Colac–Ballarat Road	Modified macadam construction from Ondit railway station northwards		1·8
,, ,, ,,	Widening and resheeting with fine crushed rock from Eurack Road northwards		4
,, ,, ,,	General maintenance		21·15
Colac–Beech Forest Road	General maintenance		11·25
CORIO SHIRE—			
Ballarat Road	Patrol maintenance		4·5
Fyansford Road	Patrol maintenance		·8
Geelong–Bacchus Marsh Road	Patrol maintenance, including Hovell's Creek (·37 mile), modified macadam reconstruction (10·22 miles), double coat sealing (2·04 miles), and single coat sealing		20·2
CRANBOURNE SHIRE—			
Kooweerup–Pakenham Road	General maintenance		5·5
Lang Lang–Nyora Road	General maintennace		4·17
Main Coast Road	Modified macadam surfacing from Cranbourne station to Bullarto Road		2·15
,, ,, ,,	Forming and gravelling between Lang Lang and Jetty Lane		2·09
,, ,, ,,	Bitumen sealing between Bullarto Road and 5 ways		4
,, ,, ,,	Double coat bitumen surfacting of sand road from 5 ways to the Sherwood		2
,, ,, ,,	General maintenance		38
Westernport Road	General maintenance		9
CRESWICK SHIRE—			
Castlemaine–Ballarat Road	Scarifying, rolling, and resheeting		·5
,, ,, ,,	Patrol maintenance		12·38
Daylesford–Ballarat Road	Scarifying, rolling, and resheeting		·85
,, ,, ,,	Patrol maintenance		8·9
DANDENONG SHIRE—			
Cheltenham Road	General maintenance from Prince's Highway to Shire boundary		6
Dandenong–Frankston Road	General maintenance from Prince's Highway to Shire boundary		6
Prince's Highway	General maintenance through town of Dandenong		2
DAYLESFORD BOROUGH—			
Ballan Road	Patrol maintenance		1·6
Ballarat Road	Patrol maintenance		1·05
Castlemaine Road	Patrol maintenance		·65
Hepburn Road	Reconditioning in modified macadam		1·14
Malmsbury Road	Patrol maintenance		1·42
DEAKIN SHIRE—			
Kyabram–Nathalia Road	Gravelling north from Shire boundary		·76
,, ,, ,,	Gravel construction between Allotments 35 and 36A, Parish of Wyuna, and 15, 16, Parish of Taripta	·53	
Kyabram–Tongala Road	Gravelling between Allotments 5, 8, 9, 9A, and 77, 78, 119, Section C, Parish of Tongala		1·25
DIMBOOLA SHIRE—			
Horsham Road	Double seal coat of tar and bitumen in Dimboola township		·57
Rainbow Road	Regrading and double coat bitumen work about 3 miles north of Dimboola		·75
,, ,,	Limestone rubble road constructed over sand hills with bitumen coated waterways—about 4 miles south of Rainbow		·47
,, ,,	Construction of loam formations, with metalled inverts—between Jeparit and Antwerp		3
Rainbow Rises Road	Limestone rubble resheeting between Rainbow and Pella Bridge		·23
Warraeknabeal Road	Resheeting with limestone rubble and Stawell gravel near Dimboola		·28
,, ,,	Single coat resealing with bitumen on Clements' Hill		·46
,, ,,	Single coat resealing with bitumen about 3 miles north-east of Dimboola		1·13
DONALD SHIRE—			
Donald–Charlton Road	General maintenance		14
Donald–Minyip Road	General maintenance		2·5
Marnoo Road	General maintenance		5
St. Arnaud–Birchip Road	General maintenance		28·5
	Carried forward	4·47	1,474·42

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	4·47	1,474·42
DONCASTER AND TEMPLESTOWE SHIRE—			
Doncaster Road	General maintenance	..	6·2
,, ,, ...	Resealing from western boundary to Victoria-street	..	2·4
,, ,, ...	Resurfacing with modified macadam from corner Blackburn-road easterly ..	..	·9
Heidelberg–Warrandyte Road ..	Surfacing with bitumen from top of Ruffey's Hill easterly	..	·5
,, ,, ,, ..	Resurfacing with modified macadam from Warrandyte township easterly ..	..	·5
,, ,, ,, ..	Resurfaeing with modified macadam on curves	..	·15
,, ,, ,, ..	General maintenance	..	9·93
Warrandyte-Ringwood Road ..	Sealing (double coat) Holmes' Gully deviation	..	1·12
,, ,, ,, ..	Patrol maintenance	..	3
DUNDAS SHIRE—			
Hamilton-Dunkeld Road ..	Construction in modified macadam opposite Allotments 5 and 6, Section 2, Allotments 3 and 4, Section 27, Allotment 1, Section 28, Parish of Warrayure	..	1·37
Hamilton-Horsham Road ..	Construction in modified macadam opposite Allotment 3, Section 1, and Allotments 2A, 2B1, and 3A, Section 2, Parish of Jerrywarook	..	1·17
,, ,, ,, ..	Priming and sealing with bitumen and cold tar opposite Kenilworth Pre-emptive Right and Allotment B, Parish of Jerrywarook, and in township of Cavendish	..	1·08
,, ,, ,, ..	Sheeting with gravel opposite Allotment 5, Section 1, Parish of Cavendish, and Allotment 3, Parish of Bepcha	..	·45
Hamilton-Mount Gambier Road	Construction in modified macadam opposite Allotments 3 and 4, Section 18, 6 and 7, Section 12, and in the Township of Redruth, Parish of Bochara	..	1·82
Hamilton–Port Fairy Road ..	Construction in modified macadam opposite Sections 1 and 2, Allotments 1A, 2A, 4A, Section X.1A, and Allotments 2, 3A, 4A, 5A, Section 9, Parish of Monivae	..	3·08
Hamilton–Portland Road ..	Construction in modified macadam opposite Allotments 7, 8, 10, and 13, Section 23, Parish of South Hamilton	..	·83
Hamilton–Warrnambool Road ..	Construction in modified macadam opposite Allotment 1, Section 13, and Allotments 1 and 2, Secton 16, Parish of South Hamilton, and Allotment G, Section 1 Parish of Croxton West	..	1·34
DUNMUNKLE SHIRE—			
Horsham–Murtoa Road ..	General patrol maintenance	..	5·4
Minyip–Donald Road ..	General patrol maintenance	..	3·2
Rupanyup–Murtoa Road ..	General patrol maintenance	..	9·25
Stawell–Warracknabeal Road ..	General patrol maintenance	..	28·5
EAST LODDON SHIRE—			
Dingee Road	Repairing gravel and metal surfaces west of Dingee, and gravelling old formation at Bullock Creek	..	1·71
Mitiamo Road	Repairing gravel and metal surfaces west of Mitiamo	..	1
Prairie Road	Repairing gravel and metal surfaces west of Prairie, and general maintenance ..	..	·5
ECHUCA BOROUGH—			
Echuca–Cornella Road ..	Double coat bitumen surfacing from junction with Echuca–Wyuna Road to railway crossing	..	·56
Echuca–Wyuna Road ..	Double coat bitumen surfacing easterly and south-easterly from junction with Echuca–Cornella Road	..	·56
ELTHAM SHIRE—			
Eltham–Yarra Glen Road ..	Bitumen surfacing between Research and Kangaroo Ground	..	1·2
,, ,, ,, ..	Resurfacing with gravel, replacing decayed timber culverts with reinforced concrete pipes and general maintenance repairs between Lower Plenty and Yarra Glen	..	19·8
Hurstbridge–Kinglake Road ..	Bitumen surfacing between Hurstbridge and Cottle's Bridge	..	1·04
,, ,, ,, ..	Erection of a timber bridge and approaches over the Caledonia Creek, Queenstown	.05	..
,, ,, ,, ..	Resurfacing with gravel, replacing decayed timber culverts with reinforced concrete pipes, and general maintenance repairs between Wattle Glen and Kinglake	..	15
Whittlesea–Kinglake Road ..	General maintenance repairs between Kinglake and Shire boundary	..	5
Yarra Glen–Glenburn Road ..	Resurfacing with gravel, general maintenance repairs between Yarra Glen and Mt. Slide	..	8
EUROA SHIRE—			
Arcadia Road	Patrol maintenance	..	4
Avenel–Longwood Road ..	Patrol maintenance	..	3
Euroa–Arcadia Road	Patrol maintenance	..	16
Euroa–Mansfield Road ..	Gravelling at Euroa Township boundary	..	·09
,, ,, ,, ..	Patrol maintenance	..	20
Murchison–Shepparton Road ..	Patrol maintenance	..	6
Strathbogie Road	Patrol maintenance	..	18
FERNTREE GULLY SHIRE—			
Belgrave–Emerald Road ..	Widening pavement between Selby and Aura	..	1
,, ,, ,, ..	Patrol maintenance	..	6·73
Emerald Road	Patrol maintenance	..	3·25
Main Ferntree Gully Road ..	Patrol maintenance	..	10·81
,, ,, ,, ..	Raising Ashley's Flat, Scoresby, near Dandenong Creek	..	·3
Monbulk Road	Patrol maintenance	..	5
Olinda Road	Patrol maintenance	..	6·25
FLINDERS SHIRE—			
Hastings–Flinders Road ..	Forming and gravelling at Kennedy's Corner	..	·66
,, ,, ,, ..	General maintenance	..	17
Mornington–Flinders Road ..	Metalling and double coat sealing near "Four Winds"	..	·15
,, ,, ,, ..	Widening and sanding at foot of White Hill	..	·25
,, ,, ,, ..	General maintenance	..	12
Point Nepean Road	General maintenance	..	21·5
Stony Point Road	General maintenance	..	4
FRANKSTON AND HASTINGS SHIRE—			
Frankston–Dandenong Road ..	Single coat bitumen resealing of margins for an average width of 6 feet on both sides from railway crossing in north-easterly direction	..	2·4
,, ,, ,, ..	Patrol maintenance	..	5·5
Frankston–Flinders Road ..	Single coat sealing 18 feet wide from Point Nepean Road easterly 1.5 miles, from ·4 miles south of Somerville 1·3 miles in southerly direction, and from .3 miles south of Tyabb 1·2 miles in southerly direction	..	4
,, ,, ,, ..	Patrol maintenance	..	14
Point Nepean Road	Single coat sealing 18 feet wide from Kackeraboite Creek southerly	..	1
,, ,, ,, ..	Patrol maintenance	..	7·5
GISBORNE SHIRE—			
Bacchus Marsh Road ..	General maintenance	..	9·7
Gisborne Station Road ..	General maintenance	..	1·2
GLENELG SHIRE—			
Coleraine–Casterton Road ..	Surfacing in modified macadam at Casterton	..	1·47
,, ,, ,, ..	Patrol maintenance	..	7
Dergholm Road	Sheeting with crushed rock at Nangeela	..	·4
,, ,, ...	Construction of culvert and approaches at McIntyre's Corner	.22	..
,, ,, ...	Patrol maintenance	..	22
Mount Gambier Road ..	Surfacing in modified macadam at Casterton	..	·79
,, ,, ,, ..	Timber bridge at Nine Mile Creek	..	..
,, ,, ,, ..	Patrol maintenance	..	30
Portland–Casterton Road ..	Surfacing in modified macadam between Casterton and Sandford	..	·72
,, ,, ,, ..	Patrol maintenance	..	20
Wando Vale Road	Surfacing in modified macadam near Wando Bridge	..	.66
,, ,, ,, ...	Patrol maintenance	..	6·5
,, ,, ,, ...	Forming and gravelling from junction with Coleraine–Casterton Road	.95	..
	Carried forward	5·69	1,901·81

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	5·69	1,901·81
GLENLYON SHIRE—			
Ballan Road	General maintenance	..	4·45
Ballarat Road	General maintenance	..	3·5
Castlemaine–Daylesford Road ..	General maintenance	..	13
Daylesford–Hepburn Road ..	Surfacing in modified macadam	..	·13
,, ,, ,, ..	Resealing with bitural	..	·13
,, ,, ,, ..	General maintenance	..	1
Malmsbury–Daylesford Road ..	General maintenance	..	15·12
GOULBURN SHIRE—			
Avenel–Longwood Road ..	General maintenance	..	·3
Goulburn Valley Road ..	General maintenance	..	22
Murchison–Shepparton Road ..	General maintenance	..	·5
Vickers Road	General maintenance	..	·1
GRENVILLE SHIRE—			
Ballarat–Hamilton "A" Road	Surfacing with modified macadam south from end of bitumen (Ballarat end) ..	..	2
,, ,, ,,	Patrol maintenance	..	10·5
Ballarat–Hamilton "B" Road	Surfacing with modified macadam east from Shire boundary	..	2
,, ,, ,,	Patrol maintenance	..	13·5
Cressy Road	Patrol maintenance	..	9·8
Lismore Road	Patrol maintenance	..	10
Pitfield Road	Patrol maintenance	..	12.6
HAMILTON TOWN—			
Ararat Road	Sealing	..	·34
,, ,, ...	Resurfacing with fluxed bitumen	..	·36
,, ,, ...	Patrol maintenance	..	·88
Coleraine Road	Sealing penetration	..	·23
,, ,, ...	Resurfacing with fluxed bitumen	..	·86
,, ,, ...	Grading side tracks	..	·75
,, ,, ...	Patrol maintenance	..	1·3
Hamilton–Warrnambool Road	Surfacing with modified macadam	..	·2
,, ,, ,,	Resurfacing with fluxed bitumen	..	·18
,, ,, ,,	Patrol maintenance	..	·5
Port Fairy Road	Surfacing with modified macadam	..	·16
,, ,, ...	Resurfacing with fluxed bitumen	..	·17
,, ,, ...	Patrol maintenance	..	·33
Portland Road	Sealing gravel	..	·5
,, ,, ...	Patrol maintenance	..	·5
HAMPDEN SHIRE—			
Camperdown–Ballarat Road ..	General maintenance	..	51·72
Caramut–Lismore Road ..	General maintenance	..	16
Lismore–Cressy Road ..	Reshaping and sealing (2.9 miles) and general maintenance	..	18·7
Terang–Mortlake Road ..	Reconstruction in modified macadam (½ mile) and general maintenance	..	7
Prince's Highway ..	Resealing and general maintenance	..	2·64
HEIDELBERG SHIRE—			
Greensborough–Hurst Bridge Road	Widening metal to 20 feet between Rosanna and Macleod	..	1·31
,, ,, ,,	Widening metal to 20 feet between Greensborough and Diamond Creek	..	1·94
,, ,, ,,	Surfacing with bitumen and resealing where necessary various portions over whole length of road	..	9·15
,, ,, ,,	Patrol maintenance	..	9·15
Heidelberg–Warrandyte Road ..	Patrol maintenance	..	·48
Main Heidelberg–Eltham Road	Widening metal to 20 feet between Heidelberg Township and Shire boundary ..	..	3·2
,, ,, ,, ,,	Surfacing with bitumen and screenings between Heidelberg Township and Shire boundary	..	3·2
,, ,, ,, ,,	Patrol maintenance	..	7·64
Main Whittlesea Road ..	Resealing	..	1·19
,, ,, ..	Patrol maintenance	..	1·19
HEYTESBURY SHIRE—			
Camperdown–Cobden Road ..	Bitumen surfacing	..	2
,, ,, ,, ..	Patrol maintenance	..	4·8
Cobden–Port Campbell–Princetown Road	Resealing	..	1
,, ,, ,,	Patrol maintenance	..	24
Timboon–Port Campbell Road	Resealing with bitumen, and patrol maintenance	..	5·5
HORSHAM BOROUGH—			
Dimboola Road	Sealing from Dooen Road to West boundary	..	1·08
Dooen Road	Modified macadam surfacing to north-eastern boundary	..	·3
,, ,, ...	Sealing from Hamilton Road to Borough boundary	..	1·55
Hamilton Road	Sealing from Firebrace-street to Stawell Road	..	·82
Natimuk Road	Modified Macadam surfacing Kalimna Park	..	·15
,, ,, ...	Sealing from Wilson-street to Kalimna Park	..	·54
HUNTLY SHIRE—			
Bendigo–Echuca Road ..	General maintenance	..	2 25
Elmore–Heathcote Road ..	General maintenance	..	1
INGLEWOOD BOROUGH—			
Bendigo–Charlton Road ..	Single coat resealing (detached sections)	..	·37
,, ,, ,, ..	General maintenance	..	1·55
KARA KARA SHIRE			
Avoca–St. Arnaud Road ..	Construction of reinforced concrete bridge and approaches at Carapooee West ..	..	·4
,, ,, ..	General maintenance	..	23
Charlton Road	General maintenance	..	11
Navarre Road	General maintenance	..	24
St. Arnaud–Donald Road ..	Resealing north of Cope Cope	..	1·53
,, ,, ,, ..	Two coat surfacing at Swanwater	..	1·08
,, ,, ,, ..	Forming at Cope Cope	..	·5
,, ,, ,, ..	General maintenance	..	18
KARKAROOC SHIRE—			
Hopetoun–Rainbow Road ..	Patrol maintenance	..	24
Hopetoun–Warracknabeal Road	Patrol maintenance	..	20
Hopetoun–Woomelang–Sea Lake Road	Patrol maintenance	..	30
Rainbow–Beulah–Birchip Road	Construction between Allotments 35, Parish of Beulah and 2 and 35, Parish of Kallery	..	·52
,, ,, ,, ,,	Patrol maintenance	..	39
KEILOR SHIRE—			
Melbourne–Bendigo Road ..	Reconstruction in modified macadam near commencement of Calder Highway ..	..	·18
,, ,, ,, ..	Patrol maintenance	..	1·1
KERANG SHIRE—			
Koondrook Road	General maintenance	..	1
KILMORE SHIRE—			
Heathcote Road	Patrol maintenance	..	3·56
,, ,, ...	Resheeting with gravel north from Burke's Bridge and near Bowers'	..	·62
,, ,, ...	Resheeting with granitic gravel at Boran's Bridge and near Pearce's	..	·18
,, ,, ...	Installation of pipe culverts at Allens, Old School, Nicols, and Boundary Flat ..	..	..
Lancefield–Kilmore Road ..	Patrol maintenance	..	1·29
,, ,, ,, ..	Resheeting with gravel east from Durger's Corner	..	·5
	Carried forward	5·69	2,412·58

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	5·69	2.412·58
KILMORE AND PYALONG SHIRES (Joint Works)—			
Heathcote Road	Patrol maintenance	..	2·99
KILMORE AND ROMSEY SHIRES (Joint Works)—			
Lancefield–Kilmore Road ..	Patrol maintenance	..	2·28
KOROIT BOROUGH—			
Koroit–Warrnambool Road ..	Resealing	..	·75
,, ,, ,, ..	Sealing and general maintenance	..	5·45
KORONG SHIRE—			
Borung–Hurstwood Road ..	General maintenance	..	7
Charlton–Bendigo Road ..	Single coat resealing (commencing at north boundary of Township of Wedderburn)	..	·37
,, ,, ,, ..	General maintenance	..	1·2
Serpentine Road	General maintenance	..	10·5
KORUMBURRA SHIRE—			
Bena–Poowong Road ..	Reconditioning and bitumen surfacing from chainage 1·6 to 2·73	..	1·13
,, ,, ,, ..	General maintenance	..	6·01
Korumburra–Drouin Road ..	General maintenance	..	4·7
Korumburra–Leongatha Road ..	General maintenance	..	4·84
Korumburra–Warragul Road ..	General maintenance	..	13
Korumburra–Wonthaggi Road ..	Construction of bridge and approaches at Kongwak	·08	..
,, ,, ,, ..	Reconditioning and bitumen surfacing commencing at 1½ and 3¾ miles from Korumburra (two sections)	..	1·88
,, ,, ,, ..	General maintenance	..	12·5
Lang Lang–Nyora Road ..	Scarifying and gravel surfacing	..	3·5
,, ,, ,, ..	General maintenance	..	5
Loch–Wonthaggi Road ..	General maintenance	..	4·64
Nyora–Poowong Road ..	Reconditioning and bitumen surfacing commencing ¼ mile from Poowong ..	..	1
,, ,, ,, ..	Scarifying and gravel surfacing	..	4·28
,, ,, ,, ..	General maintenance	..	5·99
Poowong–Ranceby Road ..	General maintenance	..	4·15
KOWREE SHIRE—			
Booroopki Road	Gravel construction near Booroopki and near "Pleasant Banks"	·35	..
,, ,, ...	Patrol maintenance	..	13·5
Booroopki–Francis Road ..	Gravel construction with culverts in various sections between Booroopki and South Australian Border	..	·7
,, ,, ,, ..	Patrol maintenance	..	18
Edenhope–Goroke Road ..	Patrol maintenance	..	28
Hamilton–Edenhope–Apsley Road	Loam construction between Harrow and Edenhope	·42	..
,, ,, ,,	Culverts with gravelled approaches (·07 miles) and patrol maintenance ..	..	39
KYNETON SHIRE—			
Daylesford Road	Resheeting with metal and pitching at Malmsbury	..	·12
Melbourne–Bendigo Road ..	General maintenance	..	1·5
Redesdale Road	Resheeting, scarifying, and remetalling at Kyneton	..	·25
Trentham Road	Scarifying and remetalling south from Kyneton Railway Station	..	·8
Tylden–Woodend Road ..	General maintenance	..	5
LAWLOIT SHIRE—			
Broughton Road	Resheeting with limestone between 1.5 and 1.8 miles	..	.3
,, ,, ...	Patrol maintenance	..	9·9
Lillimur South Road	Sealing macadam sections between .37 and .56 miles and 1.6 and 2 miles ..	..	.57
,, ,, ...	Patrol maintenance	..	6·5
Nhill–Kaniva–Border Road ..	Widening existing pavement and resealing with bitumen	..	1
Yearinga Road	Sealing macadam section between 0 and .2 miles	..	·2
,, ,, ...	Resheeting with limestone between 5.05 and 5.2 miles	..	·15
,, ,, ...	Patrol maintenance	..	9·7
LEIGH SHIRE—			
Ballarat–Rokewood Road ..	General maintenance	..	8
Cressy–Inverleigh Road ..	General maintenance and reconditioning	..	11·25
Cressy–Rokewood Road ..	General maintenance	..	11
Inverleigh–Shelford Road ..	General maintenance and resheeting with gravel	..	6
Shelford–Bannockburn Road ..	General maintenance and reconditioning	..	6·75
Shelford–Rokewood Road ..	General maintenance and reconditioning	..	17
Werneth Road	General maintenance and resheeting with gravel	..	2·25
LEIGH AND COLAC SHIRES (Joint Works)—			
Cressy–Inverleigh Road ..	General maintenance	..	2·5
LEXTON SHIRE—			
Avoca–Ararat Road	Patrol maintenance	..	8·5
Avoca–Ballarat Road ..	Patrol maintenance	..	19·12
,, ,, ..	Scarifying, reshaping and spreading gravel 3 miles from Waubra	..	1
LILLYDALE SHIRE—			
Evelyn–Lillydale Road ..	Patrol maintenance	..	3
Main Healesville Road ..	Patrol maintenance	..	17·6
Main Warburton Road ..	Patrol maintenance	..	9·25
Monbulk Road	Patrol maintenance	..	8·2
Mount Dandenong Road ..	Patrol maintenance	..	11·8
Yarra Glen Road	Patrol maintenance	..	4·6
LOWAN SHIRE—			
Dimboola–Kaniva Road ..	Patrol maintenance	..	2·2
Goroke Road	Patrol maintenance	..	6·7
Lorquon West Road	Forming and metalling between Allotments 133 and 132, Parish of Woorak ..	.24	..
,, ,, ,, ...	Forming and gravelling between Allotments 129 and 130, Parish of Woorak ..	..	·27
,, ,, ,, ...	Clay forming between Allotments 107 and 108, Parish of Woorak	..	·35
,, ,, ,, ...	Patrol maintenance	..	19
Yanac Road	Forming and gravelling between Allotments 20A and 26, Parish of Yanac ..	.15	..
,, ,, ...	Forming and gravelling between Allotments 59A and 51, Parish of Yanac ..	.19	..
,, ,, ...	Forming between Allotments 21 and 52, Parish of Yanac	..	.19
,, ,, ...	Patrol maintenance	..	18
MAFFRA SHIRE—			
Boisdale–Briagalong Road ..	General maintenance	..	6
Bushy Park–Valencia Creek Road	General maintenance	..	7
Briagalong–Dargo Road ..	General maintenance	..	6
Licola Road	General maintenance	..	40
Maffra–Sale Road	General maintenance	..	7
Stratford–Maffra Road ..	Bitumen surfacing and general maintenance	..	3
Tinamba–Boisdale Road ..	General maintenance	..	14
Tinamba–Newry Road ..	Bitumen surfacing and general maintenance	..	3
Traralgon–Maffra Road ..	Bitumen surfacing and general maintenance	..	7
MALDON SHIRE—			
Baringhup Road	Patrol maintenance	..	9
Castlemaine–Maldon Road ..	Reconditioning at McKenzie's Hill, Castlemaine	..	·5
,, ,, ,, ..	Patrol maintenance	..	10
Castlemaine–Newstead Road ..	Reforming and gravelling	..	·33
Maldon–Eddington Road ..	Forming, metalling, &c., at Goodridge's Corner, at Marong Shire boundary ..	..	·25
,, ,, ,, ..	Sealing High-street, Maldon	..	·5
,, ,, ,, ..	Patrol maintenance	..	14
Newstead Road	Repairing stone crossing at Nevill's and patrol maintenance	..	5
	Carried forward	7·12	2.978·04

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	7·12	2,978·04
MANSFIELD SHIRE—			
Euroa-Merton Road	General maintenance	..	4·4
Mansfield Road	General maintenance	..	42·7
Mansfield-Tolmie Road ..	General maintenance	..	5·75
Mansfield-Woods Point Road ..	General maintenance	..	18·5
MARONG SHIRE—			
Bendigo-Bridgewater Road ..	Construction of pipe culvert at flood crossing and patrol maintenance, Marong Township	..	1·24
Bendigo-Eddington Road ..	Scarifying, reshaping and resheeting with gravel at West Shelbourne	..	·45
,, ,, ,, ..	Scarifying, reshaping and resheeting with metal at East Shelbourne	..	·31
,, ,, ,, ..	Forming and constructing flood crossings east of Laanecoorie	..	1·63
,, ,, ,, ..	Forming and constructing flood crossings at Laanecoorie	..	·28
,, ,, ,, ..	Patrol maintenance	..	25
Bendigo-Serpentine Road ..	Construction of two pipe culverts at Myers Flat	..	..
,, ,, ,, ..	Patrol maintenance	..	8·5
MARYBOROUGH BOROUGH—			
Avoca Road	Bitumen sealing	..	1·2
Ballarat Road	General maintenance	..	1·4
Castlemaine Road	General maintenance	..	1·6
Eddington Road	General maintenance	..	1·2
MELTON SHIRE—			
The Gap Road	Gravelling and general maintenance	..	·75
Toolern Road	Gravelling and sheeting and general maintenance	..	6
METCALFE SHIRE—			
Kyneton-Redesdale Road ..	Construction of pipe culverts, sealing open crossings with bitumen, and general maintenance	..	12·2
MILDURA SHIRE—			
Deakin Avenue	Resealing from 14th to 15th Street	..	·6
Irymple Road	Resealing, backing up metal, &c., from Deakin Avenue to Ginquam Avenue, and general maintenance	..	4·87
Melbourne Road	Sealing with bitural and general maintenance	..	1
Wentworth Road	Penetrated bitumen construction on 17th Street between Riverside and Dyar Avenues	·66	..
,, ,, ...	Resealing, &c., between 15th Street and Abbotsford Bridge, and general maintenance	..	8·03
MILDURA TOWN—			
Deakin Avenue	Patching of bitumen surface	..	1
Punt Road	Patching of bitumen surface	..	·48
MINHAMITE SHIRE—			
Hamilton-Macarthur-Port Fairy Road	Sealing with bitumen	..	1·25
,, ,, ,,	Patrol maintenance	..	17
Warrnambool-Hawkesdale-Penshurst Road	Patrol maintenance	..	22
MIRBOO SHIRE—			
Allambee East-West Tarwin Road	Patrol maintenance	..	4
Allambee East Road	Patrol maintenance	..	6
Boolarra South Road ..	Patrol maintenance	..	4·5
Leongatha-Mirboo Road ..	Patrol maintenance	..	4
Mardan Road	Metalling (one course)	·38	..
,, ,, ...	Patrol maintenance	..	5
Mirboo South Road	Sealing with bitumen	..	·12
,, ,, ,, ...	Patrol maintenance	..	9·5
MOORABBIN SHIRE—			
Centre Dandenong Road ..	Resealing with bitumen from Moorabbin Road to Boundary Road	..	2·05
Point Nepean Road	Reconstruction in modified macadam immediately south of Moorabbin Railway gates	..	·05
,, ,, ,, ...	Resealing with bitural 10 feet wide on west side from Station Street to Wickham Road	..	·75
,, ,, ,, ...	Resealing with bitumen from Chesterville Road to Latrobe Street, Cheltenham ..	..	·92
MORDIALLOC CITY—			
Point Nepean Road	Widening and resheeting, including concrete kerbing	..	·33
,, ,, ,, ...	Patrol maintenance	..	3
MORTLAKE SHIRE—			
Caramut-Lismore Road ..	Double coat bitumen surfacing on widened portions of existing 12 feet bitumen road, and resealing centre 12 feet bitumen from Mortlake towards Darlington 2.59 miles, and from Mortlake towards Hexham 5 miles	..	7·59
Mortlake-Ararat Road ..	Double coat bitumen surfacing on widened portions of existing 12 feet bitumen road, and resealing centre 12 feet bitumen from Mortlake	..	1·24
,, ,, ,, ..	Double coat bitural surfacing on reconditioned macadam road 16 feet wide from 9 miles 61 chains to 13 miles 30 chains from Mortlake	..	3·61
,, ,, ,, ..	Widening existing 12 feet gravel road to 15 feet and reconditioning with gravel from 23 chains from Woorndoo towards Bolac	..	3
Mortlake-Warrnambool Road ..	Double coat bitumen surfacing on widened portions of existing 12 feet bitumen road, and resealing centre 12 feet bitumen from Mortlake	..	1·3
,, ,, ,, ..	Double coat bitural surfacing on reconditioned macadam road 16 feet wide from 9 miles 65 chains to 11 miles 5 chains from Mortlake	..	1·25
Terang-Mortlake Road ..	Double coat bitumen surfacing on widened portions of existing 12 feet bitumen road, and resealing centre 12 feet bitumen from Mortlake towards Terang	..	1·48
,, ,, ,, ..	Widening existing 12 feet bitumen road to 16 feet with scoria from 1 mile 55½ chains from Mortlake towards Terang	..	1
MORWELL SHIRE—			
Boolarra-Foster Road ..	General maintenance	..	5
Boolarra-Morwell Road ..	Bitumen surfacing at Yinnar	..	3
,, ,, ,, ..	General maintenance	..	13
Boolarra-Welshpool Road ..	Sanding at Budgeree	·95	..
Jeeralang-West Road ..	General maintenance	..	17
Prince's Highway	General maintenance	..	1·5
MOUNT ROUSE SHIRE—			
Ballarat-Hamilton Road ..	Construction with crushed rock in three sections	..	1·63
,, ,, ,, ..	Sheeting with gravel	..	1
Hamilton-Dunkeld Road ..	Construction in crushed rock	..	·35
Hamilton-Penshurst Road ..	Construction in modified macadam in two sections	..	1
,, ,, ,, ..	Sheeting with scoria	..	·38
Penshurst-Caramut Road ..	Construction in modified macadam in three sections	..	·97
MULGRAVE SHIRE—			
Ferntree Gully Road	Resealing	..	2.25
,, ,, ,, ...	Patrol maintenance	..	6
MCIVOR SHIRE—			
Heathcote-Elmore Road ..	Forming and gravelling and construction of inverts	..	·06
Heathcote-Redesdale Road ..	Gravel and metal sheeting and general maintenance	..	1.5
Kilmore-Heathcote-Bendigo Road	Gravel sheeting and general maintenance	..	1·3
	Carried forward	9·11	3,284·01

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	8·11	3,284·01
NARRACAN SHIRE—			
Moe–Yallourn Road	General patrol maintenance	..	2
Prince's Highway	General patrol maintenance	..	1·75
Trafalgar–Thorpdale Road	General patrol maintenance	..	8·5
Trafalgar–Willowgrove Road	General patrol maintenance	..	3
Walhalla Road	General patrol maintenance	..	8
Yarragon–Leongatha Road	General patrol maintenance	..	12·75
Yarragon–Shady Creek Road	General patrol maintenance	..	2·5
NEWHAM AND WOODEND SHIRE—			
Lancefield Road	General maintenance	..	9
Tylden Road	Regrading Harper's Hill	·27	..
" "	General maintenance	..	3·2
NEWHAM AND WOODEND AND KYNETON SHIRES (Joint Works)—			
Tylden Road	General maintenance	..	1·2
NEWSTEAD AND MOUNT ALEXANDER SHIRE—			
Castlemaine–Daylesford Road	Sealing and patrol maintenance	..	8
Castlemaine–Maryborough Road	Sealing and patrol maintenance	..	10
Creswick Road	Sealing and patrol maintenance	..	10
Maldon Road	Patrol maintenance	..	4
NUMURKAH SHIRE—			
Echuca–Picola Road	Construction of timber bridge near Gallaway's	..	—
Nathalia–Kyabram Road	Tarring and painting eight bridges between Nathalia and McCoy's Bridge	..	—
" "	Resheeting with gravel south from Racecourse Bridge	..	·35
Nathalia–Picola Road	Forming and gravelling three sections on creek near Neald's	..	·79
Numurkah–Tungamah Road	Forming and gravelling west from Kupke's Bridge	·4	..
Shepparton–Numurkah–Cobram Road	Reforming and reshaping south from Katunga School	..	3
OAKLEIGH CITY—			
Ferntree Gully Road	General maintenance Prince's Highway to Box Hill Road	..	·48
Prince's Highway	General maintenance Warrigal Road to Box Hill Road	..	1·12
OMEO SHIRE—			
Benambra Road	Patrol maintenance	..	14
Bright–Omeo Road	Reforming and widening, provision of culverts, &c., and general maintenance	..	26
Day Avenue	Patrol maintenance	..	1·5
ORBOST SHIRE—			
Cann Valley Road	Patrol maintenance	..	29
Genoa–Gipsy Point Road	Patrol maintenance	..	7
Marlo Road	General maintenance	..	9
Prince's Highway	General maintenance	..	1.32
Wangarabelle Road	General maintenance	..	15
OXLEY SHIRE—			
Bright Road	Forming and gravelling at Whorouly East	·5	..
" "	General maintenance	..	25
Greta–Glenrowan Road	Construction of pipe culverts, reconditioning, gravelling, &c.	..	8
Oxley Road	General maintenance	..	7
PHILLIP ISLAND SHIRE—			
Newhaven Road	Formation, gravelling, and general maintenance	..	7·75
Phillip Island Road	Sheeting with sand and general maintenance	..	2·5
Ventnor Road	Sheeting with sand and general maintenance	..	4·5
PORT FAIRY BOROUGH—			
Hamilton Road	Repairs to seal coat	..	1.4
Prince's Highway–Warrnambool Road	Repairs to seal coat	..	2.6
Prince's Highway–Portland Road	Rescaling, and repairs to seal coat	..	1.56
PORTLAND SHIRE—			
Heath Road	Patrol maintenance	..	9
Portland–Casterton Road	Patrol maintenance	..	21
Portland–Hamilton Road	Patrol maintenance	..	28
PRESTON CITY—			
Epping Road	Reconstruction from peg 00 feet to 1,500 feet, and resealing from peg 2,000 feet to 7,485 feet	..	1.04
" "	General maintenance	..	1.42
Whittlesea Road	Rescaling from 7,144 feet to 14,359 feet	..	1·34
" "	General maintenance	..	2·74
PYALONG SHIRE—			
Kilmore–Heathcote–Bendigo Road	Patrol maintenance	..	11·34
" " "	Resheeting with gravel in sections between High Camp Railway Station and Percival's Bridge	..	1·25
" " "	Installation of pipe culverts in lieu of open crossings at High Camp and near Walter's Road	..	..
QUEENSCLIFF BOROUGH—			
Main Geelong Road	General maintenance, including scaling new curve on Borough boundary	..	3·22
RINGWOOD BOROUGH—			
Main Healesville Road	Widening, rescaling, and general maintenance	..	3·25
Mount Dandenong Road	Rescaling and general maintenance	..	1·75
Ringwood–Warrandyte Road	Rescaling and general maintenance	..	2
RIPON SHIRE—			
Ballarat–Ararat Road	Resealing with bitumen and patrol maintenance	..	1·4
Ballarat–Hamilton Road	Reshaping and surfacing with scoria	..	2·66
" "	Patrol maintenance	..	16
Skipton Road	Resheeting with quartz and rescaling with bitumen	..	1·6
" "	Reshaping and surfacing with scoria	..	2·25
" "	Patrol maintenance	..	18
ROCHESTER SHIRE—			
Bendigo–Echuca Road	Sealing portion through Township of Rochester	..	·35
Rochester–Bamawm–Prairie Road	Forming and gravelling between Lockington and Tennyson	2.36	..
" " "	Scarifying and reconditioning metal between Rochester and Lockington	..	5·15
" " "	Patrol maintenance on gravel portions between Rochester and Tennyson	..	5·15
Timmering Road	Sealing portion through Township of Rochester	..	·33
RODNEY SHIRE—			
Kyabram–Nathalia Road	Modified macadam reconstruction north of Kyabram	..	·58
" "	Patrol maintenance	..	1
Kyabram–Tongala Road	Rescaling with bitumen	..	·75
" "	Patrol maintenance	..	1
Mooroopna–Undera Road	Resealing with bitumen between Mooroopna and North-West Mooroopna	..	4·4
" "	Patrol maintenance	..	8
Tatura–Byrneside–Kyabram Road	Resealing with bitumen west of Lancaster Corner	..	1·5
" "	Resealing with bitumen from Wilson's to Byrneside	..	2·5
" "	Modified macadam reconstruction in Merrigum Township	..	·38
" "	Patrol maintenance	..	16·5
Tatura–Murchison Road	Gravelling with local stone south of Tatura	..	1·62
" "	Gravelling with local stone north of Murchison	..	·66
" "	Resealing with bitumen south of Tatura	..	1·78
" "	Patrol maintenance	..	13
Shepparton–Tatura Road	Modified macadam reconstruction westerly through Ardmona	..	1·14
" "	Resealing with bitumen from Wilson's to Simpson's Corner	..	4
" "	Reconditioning existing metalled road, north of Tatura	..	1·8
" "	Patrol maintenance	..	10
	Carried forward	12·64	3,747·63

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	12·64	3,747·63
RODNEY SHIRE AND SHEPPARTON BOROUGH (Joint Works)—			
Shepparton–Tatura Road ..	Rescaling with bitumen	..	1·8
,, ,, ,, ..	Patrol maintenance	..	1·8
ROMSEY SHIRE—			
Lancefield–Kilmore Road ..	Sheeting with gravel at High Park	..	·64
,, ,, ,, ..	General maintenance	..	9·07
Melbourne–Lancefield Road ..	Sheeting with gravel at Monegeetta and Bolinda	..	1·14
,, ,, ,, ..	Reconstruction in crushed rock at Clarkefield	..	·95
,, ,, ,, ..	General maintenance	..	13·76
Woodend–Lancefield Road ..	General maintenance	..	5·62
ROSEDALE SHIRE—			
Prince's Highway	Sealing (double coat), and patrol maintenance	..	·91
Sale–Yarram Road	Sealing (donble coat)	..	·82
,, ,, ...	Patrol maintenance	..	13·8
Seaspray Road	Patrol maintenance	..	14·9
Traralgon–Gormandale Road ..	Patrol maintenance	..	4·53
Willung Road	General maintenance	..	8
ROSEDALE AND ALBERTON SHIRES (Joint Works)—			
Carrajung–Gormandale Road ..	Patrol maintenance	..	·75
RUTHERGLEN SHIRE—			
Barnawartha–Howlong Road ..	Patrol maintenance	..	1·59
Chiltern–Howlong Road ..	Scarifying, reshaping, and rolling	..	·81
,, ,, ,, ..	Patrol maintenance	..	4·6
Rutherglen–Wahgunyah Road ..	Resealing with bitumen, Rutherglen Township	..	·38
,, ,, ,, ..	Patrol maintenance	..	6·21
Springhurst–Rutherglen Road ..	Rescaling with bitumen, Rutherglen Township	..	·16
,, ,, ,, ..	Patrol maintenance	..	7·8
Wodonga Road	Rescaling with bitumen, Rutherglen Township	..	·23
,, ,, ...	Patrol maintenance	..	10·7
Yarrawonga Road	Patrol maintenance	..	10·6
RUTHERGLEN AND WANGARATTA SHIRES (Joint Works)—			
Yarrawonga Road	Forming near Ovens Bridge	..	.26
,, ,, ...	Forming and gravelling near Ovens Bridge	..	·18
,, ,, ...	Cutting, grading, and gravelling approach to Ovens Bridge	..	·09
,, ,, ...	Patrol maintenance	..	4·15
SALE TOWN—			
Prince's Highway	General maintenance between Wurruk Bridge and Sale Post Office	..	1
Sale–Longford Road	General maintenance between Sale Post Office and Swing Bridge	..	3
SEBASTOPOL BOROUGH—			
Ballarat–Rokewood Road ..	Resealing existing bituminous surface	..	1·69
SEYMOUR SHIRE—			
Avenel–Longwood Road ..	General maintenance	..	5·5
Goulburn Valley Road ..	General maintenance	..	8·8
Seymour–Yea Road	General maintenance	..	·5
Upper Goulburn Road ..	General maintenance	..	11·4
SHEPPARTON SHIRE—			
Dookie–Nalinga Road ..	General maintenance	..	8
Pine Lodge Road	Reconditioning old road and sealing with bitumen east from Cannery	..	·96
,, ,, ...	General maintenance	..	2
Shepparton–Nagambie Road ..	General maintenance	..	10
Shepparton–Nalinga Road ..	General maintenance	..	18
Shepparton–Numurkah Road ..	General maintenance	..	13
SHEPPARTON BOROUGH—			
Shepparton–Mooroopna Road ..	Patrol maintenance	..	·04
Shepparton–Nagambie Road ..	Scarifying, partially resheeting and widening flanks between railway and Guthrie's Bridge	..	·87
,, ,, ,, ..	Rescaling between High Street and railway	..	·25
,, ,, ,, ..	Patrol maintenance	..	·75
Shepparton–Nalinga Road ..	Patrol maintenance	..	1
,, ,, ,, ..	Resealing between High Street and railway	..	·45
Shepparton–Numurkah Road ..	Resealing between Nixon Street and north boundary of Borough	..	·25
,, ,, ,, ..	Patrol maintenance	..	1
Shepparton–Tatura Road ..	Patrol maintenance	..	·12
SOUTH BARWON SHIRE—			
Barwon Heads Road	Bitumen surfacing (double coat)	..	3
,, ,, ,, ..	Bitumen surfacing (single coat)	..	6
,, ,, ,, ..	General maintenance	..	12
Prince's Highway	Bitumen surfacing from Barwon Bridge to Settlement Road	..	1·32
Torquay Road	Construction in modified macadam between 9 and 10 mile posts	..	1
,, ,, ...	Bitumen surfacing (single coat)	..	1·25
,, ,, ...	General maintenance	..	11
SOUTH GIPPSLAND SHIRE—			
Boolarra–Foster Road ..	General maintenance	..	12
Boolarra–Welshpool Road ..	General maintenance	..	11·4
Falls Road	General maintenance	..	5
Foster–Yarram Road ..	General maintenance	..	18
Main South Gippsland Road ..	General maintenance	..	14
Stony Creek–Dollar Road ..	General maintenance	..	8
Toora–Gunyah Road	General maintenance	..	10
ST. ARNAUD BOROUGH—			
Avoca–St. Arnaud Road ..	Resealing	..	1
,, ,, ..	General maintenance	..	1·5
Charlton Road	General maintenance	..	1·3
Navarre Road	Two-coat bitumen surfacing	..	1
,, ,, ...	General maintenance	..	1
St. Arnaud–Donald Road ..	Resealing	..	·3
,, ,, ..	General maintenance	..	2
STAWELL BOROUGH—			
Ararat–Stawell Road	Resealing with bitumen	..	·75
Glenorchy Road	Resealing with bitumen	..	·5
Grampians Road	General maintenance	..	·75
STAWELL SHIRE—			
Grampians Road	General maintenance	..	18
Marnoo Road	Gravelling between Callawadda and Marnoo	..	1·25
,, ,, ...	General maintenance	..	25
Navarre Road	General maintenance	..	21
Stawell – Glenorchy – Horsham Road	Gravelling north of Glenorchy and north-west of Deep Lead	..	1·21
,, ,, ,,	General maintenance	..	25
Stawell–Warracknabeal Road ..	General maintenance	..	9
STRATHFIELDSAYE SHIRE—			
Bendigo–Heathcote Road ..	Scarifying, rolling, gravelling, reshaping, and general maintenance	..	12·5
Mandurang Road	Scarifying, rolling, gravelling, reshaping, and patrol maintenance	..	7
Strathfieldsaye Road	Scarifying, rolling, reshaping, gravelling, and general maintenance	..	9
	Carried forward	12·64	4,215·49

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	12·64	4,215·49
SWAN HILL SHIRE—			
Euston Road	Construction in modified macadam at Swan Hill	..	·94
,, ,, ...	General maintenance	..	60
Nyah–Ouyen Road	General maintenance	..	10
Swan Hill Road	General maintenance	..	15
Ultima Road	General maintenance	..	20
TALBOT SHIRE—			
Maryborough–Avoca Road ..	Patrol maintenance	..	1
Maryborough–Ballarat Road ..	Scarifying, reshaping, rolling, and gravelling between Brasaschi's Hill and Clunes	..	1
,, ,, ..	Patrol maintenance	..	15
TAMBO SHIRE—			
Bairnsdale–Bruthen Road ..	Resealing with bitumen	..	·15
,, ,, Road ..	General maintenance	..	1·5
Bruthen–Omeo Road ..	General maintenance	..	1
Mossiface Road	General maintenance	..	2
Nowa Nowa–Buchan–Gelantipy Road	General maintenance	..	34
TOWONG SHIRE—			
Murray Valley Road	Reconditioning and gravelling westerly from Talgarno Hall	..	2·65
,, ,, ...	Patrol maintenance	..	45
Omeo Road	Sealing with bitumen in Main Street, Tallangatta	..	·63
,, ,, ...	Patrol maintenance	..	1·5
TRARALGON SHIRE—			
Prince's Highway	General maintenance (including patrol)	..	1·5
Traralgon–Balook Road ..	Sheeting with sand on "Sawpit Gully Section"	..	3·3
,, ,, ..	General maintenance (including patrol)	..	12·25
Traralgon–Gormandale Road ..	Double seal bituminous surfacing on metal and gravel	..	1·53
,, ,, ..	General maintenance (including patrol)	..	6·9
Traralgon–Jeeralang Road ..	Shouldering and general maintenance (including patrol)	..	8
Traralgon–Maffra Road ..	Reforming and gravelling	.57	..
,, ,, ,, ..	Double seal bituminous surfacing on gravel	..	·27
,, ,, ,, ..	General maintenance (including patrol)	..	3
TULLAROOP SHIRE			
Avoca Road	Sealing (double coat)	..	3
,, ,, ...	Regrading and shouldering	..	3
Ballarat Road	Patrol maintenance	..	4
Dunolly Road	Draining	..	·4
Eddington Road	Patrol maintenance	..	14
Natte Yallock Road	Patrol maintenance	..	8
TUNGAMAH SHIRE—			
Cobram–Katamatite Road ..	Patrol maintenance	..	1·02
Cobram South Road	Reforming, boxing, gravelling, culverts, &c., opposite Allotments 27, 29, and 30, Parish of Yarroweyah	·68	..
,, ,, ,, ...	Patrol maintenance	..	4·36
Cobram–Strathmerton Road ..	Patrol maintenance	..	6·32
Numurkah – Tungamah – Wilby Road	Gravelling opposite Allotments 46, 47, 48, Parish of Tharanbegga, and Allotments 8, 7A Parish of Youarang	..	3·5
,, ,, ,,	Spreading maintenance gravel opposite Allotments 13, 18A, 17, 17A, and 20, Parish of Tharanbegga, and Allotments 24, 22, 21, 20, 18, 17, and 17A, Parish of Pelluebla	..	6
,, ,, ,,	Patrol maintenance	..	30·7
St. James Road	Patrol maintenance	..	8·98
Yarrawonga–Cobram Road ..	Reforming, boxing, gravelling, &c., in Township of Cobram	..	1·22
,, ,, ,, ..	Patrol maintenance	..	14·6
UPPER MURRAY SHIRE—			
Corryong Road	Forming, grading, and gravelling between Allotments 1, Section H, and 1, Section G, Parish of Towong	.31	..
,, ,, ...	Tarring granitic sand formation	..	·2
,, ,, ...	Patrol maintenance	..	16·3
Tintaldra Road	Patrol maintenance	..	14·5
UPPER YARRA SHIRE—			
Warburton Road	Resealing between Launching Place and Wesburn	..	4·26
,, ,, ...	Resealing at Warburton	..	·25
,, ,, ...	General maintenance	..	16
Don Road	General maintenance	..	1·15
VIOLET TOWN SHIRE—			
Shepparton Road	Patrol maintenance	..	4
Violet Town–Dookie Road ..	Patrol maintenance	..	18
WANGARATTA BOROUGH—			
Beechworth Road	Patrol maintenance	..	1
Sydney Road	Patrol maintenance	..	5·5
WANGARATTA SHIRE—			
Beechworth Road	Repairs to tarred metal section adjoining Allotments 1C to 1G, Parish of Wangaratta North	..	·5
,, ,, ...	Patrol maintenance	..	11
Peechelba–Yarrawonga Road ..	Repairs to bridges	..	..
Rutherglen Road	Patrol maintenance	..	3·5
Wangaratta–Myrtleford Road ..	Patrol maintenance	..	6·5
Yarrawonga Road	Patrol maintenance	..	11·5
WANGARATTA AND BEECHWORTH SHIRES (Joint Works)—			
Beechworth Road	Patrol maintenance	..	1
WANNON SHIRE—			
Coleraine–Harrow–Apsley Road	Resealing with bitumen	..	·25
,, ,, ,, ,,	Reforming, grading, and gravelling	..	1·27
,, ,, ,, ,,	Resheeting with gravel	..	3
,, ,, ,, ,,	Patrol maintenance	..	35
Hamilton – Coleraine – Casterton Road	Resheeting with gravel	..	5
,, ,, ,, ,,	Resealing with bitumen	..	2·4
,, ,, ,, ,,	General maintenance	..	18
Wannon Bridge Road ..	Resheeting with gravel	..	2
,, ,, ,, ..	Patrol maintenance	..	6
WARANGA SHIRE—			
Colbinabbin–Elmore Road ..	Spreading gravel 1 mile west of Colbinabbin	..	·5
Murchison–Rushworth Road ..	Spreading gravel 1 mile west of Rushworth	..	·5
WARRAGUL SHIRE—			
Bloomfield Road	Resheeting and construction in modified macadam	.4	..
,, ,, ...	Patrol maintenance	..	8
Brandy Creek Road	Resheeting, widening from 12 feet to 15 feet, and construction in modified macadam	.53	..
,, ,, ,, ...	Resealing with bitumen	..	3·56
,, ,, ,, ...	Patrol maintenance	..	8·2
Darnum–Allambee Road ..	Scarifying reshaping and resealing with tar and bitumen	..	1
,, ,, ,, ..	Patrol maintenance	..	8
Prince's Highway	General patrol maintenance	..	1·05
Warragul–Korumburra Road ..	Double seal coat of tar and bitumen on sand road	..	1·31
,, ,, ,, ..	Patrol maintenance	..	15·5
Warragul–Leongatha Road ..	General patrol maintenance	..	9
	Carried forward	15·13	4,817·41

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	15·13	4,817·41
WARRNAMBOOL SHIRE—			
Allansford–Nirranda Road	Resealing bitumen surface	..	3
" " "	Patrol maintenance	..	17
Framlingham Road	Resheeting and spraying	..	·5
" "	Patrol maintenance	..	5
Garvoc–Laang Road	Resheeting	..	·75
" " "	Resealing	..	1
" " "	Patrol maintenance	..	4·5
Mortlake Road	Widening metal	1	..
" "	Resealing bitumen surface	..	1·5
" "	Patrol maintenance	..	15·5
Peterborough Road	Forming and gravelling	..	1·1
" "	Patrol maintenance	..	9
WERRIBEE SHIRE—			
Geelong–Bacchus Marsh Road	Patrol maintenance	..	2·37
Prince's Highway (Werribee Town Section)	Patrol maintenance	..	·99
WHITTLESEA SHIRE—			
Epping Road	Patrol maintenance of sealed surface from Thomastown to Woodstock	..	10·5
Main Whittlesea Road	Patrol maintenance of sealed surface, Bundoora to Whittlesea Station	..	14
WIMMERA SHIRE—			
Dooen Road	Construction in modified macadam and shouldering west of Allotments 9 and 24, Parish of Dooen	..	·6
" "	Repairs to side track	..	1
Horsham–Murtoa Road	Forming earth roads with machine	..	3·02
" "	Dragging and patching gravel	..	1·62
Horsham–Wal Wal Road	Construction of approaches to Middle Bridge	..	·01
Natimuk Road	Construction between Allotments 241 and 243, Parish of Vectis East	·37	..
" "	Forming and loaming between Allotments 240 and 227, Parish of Vectis East	..	3·11
" "	Experimental gravelling on black soil	..	·31
" "	General maintenance	..	6·48
WIMMERA AND ARAPILES SHIRES (Joint Works)—			
Horsham–Hamilton Road	Scarifying, reshaping, and shouldering northerly from Bungalally	..	2·46
WIMMERA AND ARAPILES SHIRES, AND HORSHAM BOROUGH (Joint Works)—			
Horsham–Hamilton Road	Covering bituminous surface	..	·18
WINCHELSEA SHIRE—			
Birregurra–Forrest Road	General maintenance	..	10
Lorne Road	General maintenance	..	17·5
WODONGA SHIRE—			
Kiewa–Wodonga Road	Patrol maintenance	..	1·1
Sydney Road	Patrol maintenance	..	1·4
Tallangatta Road	Patrol maintenance	..	·88
Wodonga–Yackandandah Road	Patrol maintenance	..	3·25
WONTHAGGI BOROUGH—			
Loch–Wonthaggi Road	Resealing with bitumen	..	·84
Wonthaggi–Inverloch Road	Resealing with bitural—Loch Road to railway	..	·4
" " "	Modified macadam construction in "burnt stone" east from railway	..	·95
" " "	Patrol maintenance west from Borough boundary	..	1
Wonthaggi–Korumburra Road	Patrol maintenance	..	·57
WOORAYL SHIRE—			
Farmers Road	Patrol maintenance	..	13·5
Inverloch–Leongatha Road	Patrol maintenance	..	16
Inverloch–Wonthaggi Road	Patrol maintenance	..	2·5
Leongatha–Yarragon Road	Patrol maintenance	..	13
Lower Tarwin Road	Patrol maintenance	..	12·5
Main South Gippsland Road	Patrol maintenance	..	17·5
Mardan Road	Patrol maintenance	..	10
Turtons Creek Road	General maintenance	..	6·75
Warragul–Leongatha Road	Patrol maintenance	..	7
Wild Dog Valley Road	General maintenance	..	9
YACKANDANDAH SHIRE—			
Dederang Road	Patrol and general maintenance and placing pipe culverts	..	28
Gundowring Road	Forming and gravelling near Allotments 1 of II. and 1A of VI., Parish of Gundowring	·89	..
" "	Patrol and general maintenance, and placing pipe culverts	..	20·1
Kiewa East Road	Patrol and general maintenance	..	3·2
Kiewa–Wodonga Road	Patrol and general maintenance, and raising flood crossing	..	6
Yackandandah–Wodonga Road	Patrol and general maintenance	..	15·75
YARRAWONGA SHIRE—			
Peecheiba Station Road	General maintenance	..	1
Tungamah–Wilby Road	General maintenance	..	1·25
Yarrawonga–Cobram Road	General maintenance	..	10
Yarrawonga–Rutherglen Road	General maintenance and bridge repairs	..	1
Yarrawonga–Wangaratta Road	General maintenance	..	22
YEA SHIRE—			
Upper Goulburn Road	Patrol maintenance	..	24
Yea–Glenburn Road	Patrol maintenance	..	29·5
	Total	17·39	5,228·35
	UNDER DIRECT SUPERVISION OF BOARD.		
ALBERTON SHIRE—			
Boolarra–Welshpool Road	Patrol maintenance	..	13.5
AVOCA SHIRE—			
Ballarat–St. Arnaud Road	Construction of r.c. super-structure near Redbank	.01	
BALLARAT AND BUNGAREE SHIRES—			
Ballarat–Creswick Road	Patrol maintenance	..	5.75
BELLARINE SHIRE—			
Geelong–Queenscliffe Road	Resealing and semi-penetration at Geelong City Boundary	1.04	..
" " "	Resealing sealed sand at Leopold	..	1.38
" " "	Resealing sealed sand at Queenscliffe Borough Boundary	..	·28
" " "	Regulating waterbound macadam and resheeting with sand and double coat sealing between Moolap and Leopold	2.03	..
" " "	General maintenance	..	14·56
Geelong–Portarlington Road	Regulating waterbound macadam and resheeting with sand between Leopold and Drysdale	6.8	..
" " "	Regulating waterbound macadam and resheeting with sand between Cemetery Road and Portarlington	.9	..
" " "	General maintenance	..	7.6
BROADFORD SHIRE—			
Main Sydney Road	General maintenance through the Township of Broadford	..	1·5
	Carried forward	10·78	44·57

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF BOARD—*continued.*		
	Brought forward	10·78	44·57
BRAYBROOK SHIRE—			
Main Geelong Road	Experimental pen. macadam and penolithic macadam east of Brooklyn railway crossing	.3	..
,, ,, ,, ...	Resheeting with crushed rock from Brooklyn to Highway boundary	.8	..
,, ,, ,, ...	General maintenance	..	3·13
FLINDERS SHIRE—			
Point Nepean Road	Widening, resheeting, and sealing at Dromana	2.25	..
HEALESVILLE SHIRE—			
Marysville Road	Shouldering and surfacing waterbound macadam with crushed rock between St. Fillans and Marysville	1.1	..
HEYTESBURY SHIRE—			
Cobden–Port Campbell-Princetown Road	Sealing waterbound macadam immediately south of Newfield	.5	..
KILMORE SHIRE—			
Main Sydney Road	General maintenance through Township of Kilmore	..	1·6
MANSFIELD SHIRE—			
Mansfield–Woodspoint Road ..	General maintenance	..	40
NARRACAN SHIRE—			
Walhalla Road	Construction of three timber bridges in Township of Walhalla	.01	..
,, ,, ...	General maintenance	..	12
OMEO SHIRE—			
Bright-Omeo Road	General maintenance	..	28
OTWAY SHIRE—			
Beech Forest–Laver's Hill Road	Patrol maintenance	..	12·5
Beech–Forest–Apollo Bay Road	Patrol maintenance	..	19
Beech Forest–Mount Sabine Road	Patrol maintenance	..	12.5
Cape Patten Road	Patrol maintenance	..	10
Forrest-Apollo Bay Road ..	Patrol maintenance	..	25
Gellibrand–Carlisle	Patrol maintenance	..	11
Laver's Hill–Glenaire Road ..	Patrol maintenance	..	2
Princetown Road	Patrol maintenance	..	15
QUEENSCLIFFE BOROUGH—			
Point Lonsdale Road ..	Regulating waterbound macadam and resheeting with sand, whole length ..	1.47	..
,, ,, ,, ..	General maintenance	..	1·47
ROSEDALE SHIRE—			
Prince's Highway	Double coat seal of gravel in Township of Rosedale	1.04	..
Sale-Yarram Road	Double coat seal on gravel at Longford	.82	..
SEBASTOPOL BOROUGH—			
Ballarat–Rokewood Road ..	Patrol maintenance	..	2·25
,, ,, ,, ..	Sealing of bituminous macadam	1.7	..
SEYMOUR SHIRE—			
Main Sydney Road	Resealing bituminous macadam at Seymour	..	1·6
.. ..	General maintenance	..	1·6
SOUTH GIPPSLAND AND MORWELL SHIRES—			
Boolarra–Foster Road ..	General maintenance from Boolarra South to Gunyah Junction	..	8·5
Boolarra–Welshpool Road ..	General maintenance from Greenwood to Southern boundary of Shire	..	16·1
TAMBO SHIRE—			
Prince's Highway	Double coat seal on gravel at Lakes Entrance	.16	..
TULLAROOP SHIRE—			
Castlemaine–Maryborough Road	From Joyce's Creek to Maryborough. General maintenance	..	14
WANGARATTA BOROUGH—			
Sydney Road	Widening and banking of curve south of Wangaratta at Wangaratta Cemetery ..	·07	..
	Total	21	281·82

APPENDIX F.

COUNTRY ROADS BOARD.

DEVELOPMENTAL ROADS.

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED UNDER THE PROVISIONS OF THE COUNTRY ROADS ACT 1928, DURING THE YEAR ENDED 30TH JUNE, 1932.

Name of Municipality and Road.	Nature and Locality of Works.	Works Constructed.
		Miles.
	UNDER MUNICIPALITIES.	
ALBERTON SHIRE—		
Albert River Road	Construction of bridge near Egan's	..
,, ,,	Gravelling between Egan's and Montgomery's	1
,, ,,	Gravelling near Stacey's Bridge	·6
,, ,,	Earthworks eastward from Ridge Road	2·1
Binginwarri–Albert River Road	Gravelling between Binginwarri and Allotment 22, Parish of Binginwarri	1·05
Binginwarri–Welshpool Road	Gravelling near Allotment 13, Parish of Binginwarri	·9
Blackwarry–Yarram Road	Earthworks near Allotment 27, Parish of Bulga	·65
Christies–Albert River Road	Earthworks from Allotment 60C to Allotment 59A, Parish of Binginwarri	2·2
Madalya Road	Earthworks from Allotment 54E to Allotment 71C, Parish of Binginwarri	1·7
Whitelaw's Track Road	Earthworks in McLeod's Cutting	·75
ARAPILES SHIRE—		
Miga Lake–Gymbowen Road	Gravelling and loaming opposite Allotment 8, Parish of Kalingur	·65
AVON SHIRE—		
Bengworden Road	Forming and gravelling near Perry River	·61
BAIRNSDALE SHIRE—		
Calulu–Boggy Creek Road	Clearing, forming, gravelling and fencing deviations at Tost's Hill	·98
Lindenow–Meerlieu Road	Clearing, forming, and gravelling in Parish of Bengworden	1·68
BASS SHIRE—		
Dalyston–Glen Forbes Road	Reforming and crushed rock surfacing at Archies Creek	·88
Glen Alvie Road	Reforming and crushed rock surfacing at Glen Alvie	·43
Loch–Wonthaggi Road	Reconstruction of road at Wilson's Landslip, Krowera	·08
,, ,,	Reconstruction of road at Gane's Landslip, Krowera	·12
BENALLA SHIRE—		
Molyullah–Tatong Road	Forming and gravelling near Molyullah	·46
BERWICK SHIRE—		
Beaconsfield–Emerald Road	Sanding Shanks's Deviation, Dewhurst	1·26
Tynong–Toniinbuk Road	Sanding northerly from the Prince's Highway	·53
BORUNG SHIRE—		
Boolite–Sheep Hills Road	Metalling and gravelling opposite Allotments 36 and 37, Parish of Nullan	·58
Galaquil West Road	Limestone metalling north of Allotment 42, Parish of Willenabrina	·49
BRIGHT SHIRE—		
Buffalo River Road	Forming and gravelling near Allotments 2B, 5 and 6, Section 17, Parish of Eurandelong	1·08
Happy Valley Road	Forming and gravelling near Allotments 4C and 4F, Section XX. and Allotments 1 and 2, Section B., Parish of Barwidgee	·55
BULN BULN SHIRE—		
Mountain View–McDonald's Track Road	Reforming and sanding from Allotment 25 to Allotment 17, Parish of Poowong East	·73
CHARLTON SHIRE—		
Glenloth Road	Grubbing, clearing and forming from end of gravelling to end of road	1·88
COHUNA SHIRE—		
Mead Road	Forming and gravelling opposite Allotments 9 and 13, Parish of Macorna	·76
COLAC SHIRE—		
Cundare–Duverney Road	Forming and gravelling with fine crushed rock commencing from Junction Creek Bridge	·72
CRANBOURNE SHIRE—		
Pearcedale Road	Forming, grading, and gravelling opposite Allotments 13 and 57, Parish of Lang-Warrin	·54
DEAKIN SHIRE—		
Echuca East Road	Gravelling opposite Allotments 26E, 26F, 26G and 27H, Parish of Echuca North	·19
Girgarre East Road	Gravelling opposite Allotments 9 and 10, Parish of Girgarre	·61
DIMBOOLA SHIRE—		
Detpa–Hindmarsh Road	Forming and sandstone sheeting south of Lake Hindmarsh school	·37
ELTHAM SHIRE—		
Cottles Bridge–Strathewan Road	Forming and metalling near Strathewan	·43
EUROA SHIRE—		
Strathbogie Road	Gravelling near Strathbogie Township	·6
FERNTREE GULLY SHIRE—		
Emerald–Monbulk Road	Gravelling between Monbulk and Fairy Dell	·55
FLINDERS SHIRE—		
Bonco Road	Forming and gravelling two sections from Allotment 6 to Allotment 16, Parish of Fingal	1·86
Bittern-Dromana Road	Construction of three-cell reinforced concrete pipe culvert and approaches at Dunn's Creek	·07
GLENELG SHIRE—		
Dergholm–Elderslie Road	Forming and gravelling at Poolaijelo	·81
GLENLYON SHIRE—		
Bullarto South Road	Forming and gravelling at west end of road	·41
Daylesford–Trentham Road	Grading, forming and gravelling at Musk	·36
HAMPDEN SHIRE—		
Cundare–Duverney Road	Forming and metalling in two sections at Poliah South	·27
HEYTESBURY SHIRE—		
Devil's Gully Road	Metalling and gravelling through Allotments 79 and 74A, Parish of Jancourt	1·8
South Ecklin Road	Metalling near Township of Elingamite	.8
Timboon–Cowley's Creek Road	Metalling through Timber Reserve and Allotments 75 and 75E, Parish of Timboon	1
Timboon–Scott's Creek Road	Metalling near Township of Corriejong	·8
KERANG SHIRE—		
Murrabit Road	Forming and culverts from Allotment 16 to Pine Hills Pre-emptive Right, Parish of Murrabit West	1·65
KORONG SHIRE—		
Borung West Road	Gravelling in Borung Township	·13
,, ,,	Forming and grading from Allotment 48 to Allotment 69, Section V., Parish of Borung	1·26
Woolshed Road	Forming and grading from Allotment 32A to north of Timber Reserve, Section V., Parish of Borung	1·18
KORUMBURRA SHIRE—		
Bena–Kongwak Road	Reforming and metalling through Allotments 41C and 45C, Parish of Jumbunna East	·59
Korumburra South Road	Reforming and gravelling opposite Allotments 33B, 33C, 34B and 34D, Parish of Kongwak	1·96
Poowong Estate Road	Reforming and metalling through Allotments 35 and 36, Parish of Jeetho	·79
Sheepways Road	Reforming and metalling through Allotment 63A, Parish of Jumbunna	·32
KOWREE SHIRE—		
Edenhope–Natimuk Road	Gravelling between Bate's Lake and Miga Lake	·34
Miga Lake–Gymbowen Road	Gravelling between Gymbowen and Ampt's deviation	·44
Minimay Road	Gravelling between Minimay and Little Desert Road	·18
LAWLOIT SHIRE—		
Miram West Road	Forming and metalling opposite Allotments 22 and 23, Parish of Miram	1·27
	Carried forward	46·46

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Names of Municipality and Road.	Nature and Locality of Works.	Works Constructed.
		Miles.
	UNDER MUNICIPALITIES—*continued.*	
	Brought forward	46·46
LOWAN SHIRE—		
Diapur–Yanac Road	Forming and gravelling opposite Allotment 147, Parish of Tarranginnie	·17
,, ,, ...	Forming and gravelling opposite Allotment 147, Parish of Tarranginnie	·16
Netherby Road	Forming and metalling opposite Allotment 23, Parish of Lorquon	·34
,, ,, ...	Forming and metalling opposite Allotment 23, Parish of Warraquil	·15
,, ,, ...	Forming and metalling opposite Allotment 23, Parish of Warraquil	·32
,, ,, ...	Forming and metalling opposite Allotment 38, Parish of Warraquil	·19
Yanac Road	Forming and gravelling opposite Allotment 29, Parish of Yanac	·37
MAFFRA SHIRE—		
Bundalaguah Road	Forming and gravelling	·5
MARONG SHIRE—		
Newbridge–Shelbourne Road ..	Forming and gravelling south of Laanecoorie	·59
,, ,, ...	Forming and gravelling between Shelbourne and Eastville	·64
Yarraberb Road	Forming and construction of flood crossings westerly from Yarraberb Woolshed ..	1·77
,, ,, ...	Forming and gravelling between the railway line and Yarraberb Homestead	·21
,, ,, ...	Forming and gravelling between the railway line and Yarraberb Homestead	·38
MELTON SHIRE—		
Exford Road	Grading and metalling near Werribee River and Toolern Creek	.28
MILDURA SHIRE—		
Red Cliffs East Road ..	Foundation course of limestone gravel between Red Cliffs Township and Railway Station	.25
Red Cliffs West Road	Foundation course of limestone gravel between Red Cliffs Township and Cardross ..	.25
MIRBOO SHIRE—		
Allambee–Thorpdale Road ..	Timber bridge and approaches over Tarwin River	.2
Mirboo–Boolarra Road ..	Earthworks and sanding	1.04
Mirboo North–Thorpdale Road	Sanding two sections opposite Allotment 113, Parish of Narracan and opposite Allotment 149, Parish of Mirboo	.68
McIVOR SHIRE—		
Baynton Road	Forming and gravelling from Allotment 23C to Allotment 24A, Parish of Glenhope ..	.54
Lancefield–Tooborac Road ..	Forming and gravelling opposite Allotment 6, Parish of Dalhousie	.13
,, ,, ,, ..	Construction of a single span timber bridge over Doctor's Creek	..
NARRACAN SHIRE—		
Mirboo North–Thorpdale Road	Reforming and sanding southerly from Allotment 69, Parish of Allambee East	.66
NEWHAM AND WOODEND SHIRE—		
Campaspe Road	Reforming and metalling north of Allotment 5, Section C., Parish of Woodend	1.06
NEWSTEAD AND MT. ALEXANNER SHIRE—		
Glengower–Joyce's Creek Road	Forming, gravelling, &c.	.09
NUMURKAH SHIRE—		
Waaia North Road	Reforming, grading and gravelling north from railway crossing at Waaia	.52
ORBOST SHIRE—		
Orbost–Delegate Road ..	Gravelling and installing culverts northwards from Orbost Township	1.43
OTWAY SHIRE—		
Gellibrand East Road ..	Gravelling commencing at Lardner's Creek	1
Hordernvale–Apollo Bay Road	Clearing and forming at Aire River Bridge	.8
Lardner's Track Road ..	Crushed rock surfacing commencing at chainage 3,500	.8
Princetown Road	Forming and gravelling in Princetown Township	.26
OXLEY SHIRE—		
Buffalo River Road	Forming, grading and culverts at Buffalo River South	.5
Carboor–Meadow Creek Road ..	Regrading, gravelling, culverts, &c., opposite Allotments 6A and 8, Parish of Carboor ..	.5
PORTLAND SHIRE—		
Grubbed Road ..	Reforming and gravelling in 4 sections east of Thrip Road Junction	2.21
RIPON SHIRE—		
Modesty Lane Road	Gravelling opposite Allotment 1, Section 7 and Allotment 10, Section 3, Parish of Brewster	.92
Trawalla West Road	Surfacing with scoria opposite Allotments 37 and 42, Trawalla Estate, Parish of Lillirie	.93
ROCHESTER SHIRE—		
Corop Road	Extension of gravelling to the north boundary of Parish of Corop	1.34
Echuca West Road	Extension of gravelling opposite Allotment 63, Parish of Millewa	.75
Kotta East Road	Extension of gravelling to Allotment 36, Parish of Torrumbarry	1.28
RODNEY SHIRE—		
Tatura–Toolamba Road ..	Gravelling with local stone four miles east of Tatura	.52
,, ,, ..	Gravelling with local stone at Toolamba end of road	.44
RUTHERGLEN SHIRE—		
Black Swamp Road	Forming and sanding near south boundary of shire	.45
SOUTH GIPPSLAND SHIRE—		
Agnes Falls Road	Reforming and gravelling commencing from junction with Chadwick's Road	.7
Chadwick's Road	Reforming and gravelling commencing from Agnes River to Agnes Falls turn-off ..	.57
Harding–Lawson Road ..	Bridge and approaches over Amber Creek	.1
McCartin's Road	Reforming and gravelling commencing from junction with Turton's Creek Road	.75
Whitelaw's Track Road ..	Reforming and gravelling between Falls Road and Main South Gippsland Road ..	.8
Woorarra West Road ..	Reforming and gravelling commencing from junction with Foster-Boolarra Road ..	1.27
STAWELL SHIRE—		
Marnoo–St. Arnaud Road ..	Gravelling near Marnoo	.5
Pomonal Road	Forming and granitic sanding near Stawell	1.26
TOWONG SHIRE—		
Shelley–Jingellic Road ..	Forming and gravelling in Water Reserve at Jingellic Bridge, Section 1, Parish of Walwa	.25
Tallangatta Creek Road ..	Forming and gravelling opposite Allotment 6 and opposite Allotment 35A, Parish of Keelangie	.56
Yabba Road	Boxing and gravelling from Allotment 10B, Section VII., to Allotment 4, Section X., Parish of Yabba	1.24
TRARALGON SHIRE—		
Callignee Factory Road ..	Widening, including reforming and regrading opposite Allotment 9A, Parish of Callignee	.73
TUNGAMAH SHIRE—		
Bowcya Road	Reforming, boxing, sanding and culverts opposite Allotment 28C, Parish of Karrabumet	.27
,, ,, ...	Reforming, boxing, sanding and culverts opposite Allotments 21E and 28C, Parish of Karrabumet	.95
Katandra Road	Reforming, boxing, gravelling and culverts in two sections opposite Allotments 17A and 17B, Parish of Yabba Yabba	.69
Katandra Estate Road ..	Reforming, boxing, gravelling and culverts from Allotment 70 to Allotment 73, Parish of Katandra	2.04
Wunghnu–Youanmite Road ..	Reforming, boxing, gravelling and culverts opposite Allotment 45, Parish of Yonarang and Allotment 21, Parish of Youanmite	.72
,, ,, ,,	Reforming, boxing, gravelling and culverts opposite Allotment 24, Parish of Youanmite ..	.53
Yabba South Road	Reforming, boxing, gravelling and culverts opposite Allotment 53A, Section C., Parish of Yabba Yabba	.97
Yarroweyah–Tocumwal Road ..	Reforming, boxing, gravelling and culverts opposite Allotment 9, Parish of Yarroweyah ..	.76
UPPER MURRAY SHIRE—		
Benambra–Corryong Road ..	"Pioneer Type" timber bridge and approaches over Nariel Creek in the Township of Nariel	.15
VIOLET TOWN SHIRE—		
Harry's Creek Road	Reforming and gravelling Hammond's deviation	.5
WANGARATTA SHIRE—		
Peechelba Station Road ..	Clearing, forming, and gravelling adjoining Allotment 75B, Gould's pre-emptive section, and Allotments 76 and 74, Parish of Boorhaman	·7
WANNON SHIRE—		
Melville Forest Road	Clearing, forming and gravelling in two sections opposite Allotment 117, Parish of Bil Bil Wyt	.95
,, ,, ,, ..	Clearing, forming and gravelling in sections in Parishes of Gritjurk and Carrak	1.18
WARRAGUL SHIRE—		
Ferndale Road	Reforming and sanding from Allotment 64 southerly to Allotment 67, Parish of Allambee ..	.47
,, ,, ...	Reforming and sanding from junction with Ferndale-Strezlecki Road to Allotment 66E, Parish of Allambee	.6
Mountain View Road ..	Reforming and sanding from Allotment 6, Parish of Poowong East, north-westerly through Allotments 7B and 6, Parish of Allambee	.39
Telegraph Road	Trimming and crushed rock spreading north-easterly from Allotment 20, Parish of Neerim	.56
	Carried forward	93·24

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Works Constructed.
		Miles.
	UNDER MUNICIPALITIES—*continued.*	
	Brought forward	93·24
WHITTLESEA SHIRE—		
Eden Park Road	Forming deviation at Eden Park	1
WINCHELSEA SHIRE—		
Pennyroyal Road	Gravelling through Crown Portion A., Parish of Murroon and Allotment 45A2, Parish of Bambra	.99
WODONGA SHIRE—		
Beechworth–Wodonga Road ..	Forming and gravelling from Allotment 8A, Section 8, Parish of Wodonga to Allotment 10A, Section 26, Parish of Wodonga	.95
,, ,, ..	Forming and gravelling from Allotment 1A to Allotment 2B, Section X., Parish of Baranduda	.44
WOORAYL SHIRE—		
Canavan's Road	Gravelling alongside Wilkur Creek	.69
,, ,, ...	Sanding opposite Allotments 50 and 51C, Parish of Koorooman	.77
Dumbalk Road	Metalling opposite Allotments 29D and 37, Parish of Dumbalk	.38
Inverloch–Lower Tarwin Road ..	Gravelling on Cuttriss's Hill	.28
Leongatha–Mirboo Road ..	Gravelling opposite Allotment 95, Parish of Koorooman	.21
YACKANDANDAH SHIRE—		
Sandy Creek Road	Forming and gravelling near Allotments 27A and 27B, Section VI., Parish of Tangambalanga	.18
YEA SHIRE—		
Flowerdale Road	Forming, gravelling and culverts, &c., in five sections opposite Allotments 7A, 3, 9, 8 and 50, Parish of Flowerdale	.68
,, ,, ...	Forming and gravelling opposite Allotments 38 and 11B, Parish of Kinglake	.47
	Total	100·28
	UNDER DIRECT SUPERVISION OF THE BOARD.	
BERWICK SHIRE—		
Nar-nar-goon–Gembrook Road ..	Clearing, forming, and reforming from Allotment 25, Parish of Gembrook, south-easterly	1·7
ELTHAM SHIRE—		
Toolangi–Kinglake Road ..	Reforming, sanding, and gravelling between Toolangi and Mount Slide	·94
Kinglake–Kinglake East Road ..	Reforming, sanding, and gravelling near Kinglake	1·35
HEALESVILLE SHIRE—		
Toolangi–Kinglake Road ..	Forming, grading, and gravelling, reforming and gravelling near Toolangi	·63
HEYTESBURY SHIRE—		
Eastern Creek Road	Reforming and gravelling easterly from junction with Cobden–Port Campbell Road ..	·5
Cobden–Kennedy's Creek Road	Clearing and forming from north-west corner of Allotment 4, Parish of Jancourt, to immediately east of Scott's Creek Bridge	2
MORWELL SHIRE—		
Linklater's Road	Forming, clearing, &c., from Allotments 22–23 north-westerly to Allotments 19–20, Parish of Jumbuk	1·1
NARRACAN SHIRE—		
Moe–Moondarra Road ..	Reforming in sections near Watson Railway Station	1·81
,, ,, ,, ..	Clearing from bridge over Tyers River at Gould north-easterly through Allotment 22B ..	1·2
,, ,, ,, ..	Forming, &c., between Gould and Moondarra	2·45
Allambee–Thorpdale Road ..	Reforming and sanding northerly from Shire Boundary in Parish of Allambee east ..	2·4
Sunny Creek Road	Clearing, forming, and sanding 1 mile from Township of Trafalgar through western boundaries Allotments 160–162, Parish of Moe	·44
Allambee–Childers Road ..	Reforming and sanding from junction with Childers Settlement Road to north-westerly from Childers State School	3·85
,, ,, ,, ..	Reforming and sanding near Childers Hall	·95
ORBOST SHIRE—		
Lower Bendock Road ..	Construction of r.c. culvert over Bendock River	·01
OTWAY SHIRE—		
Amiet's Road	Reforming and gravelling south-west from junction with Beech Forest–Laver's Hill Road	·38
,, ,, ...	Forming and clearing Allotments 12, 13, 14, Parish of Barwongemoong	1·08
Gellibrand East Road ..	Forming and clearing 4 miles from Gellibrand	1·1
Wait-a-While Track	Forming and clearing south of Wyelangta	1·63
OXLEY SHIRE—		
Tolmie–Whitfield Road ..	Forming and clearing from Allotment 12 southerly to Allotment 95, Parish of Whitfield South	2·94
	Total	28·46

APPENDIX G.

COUNTRY ROADS BOARD.

STATE HIGHWAYS.

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED AND MAINTAINED UNDER THE PROVISIONS OF THE COUNTRY ROADS ACT 1928 DURING THE YEAR ENDED 30TH JUNE, 1932.

Name of Highway and Section.	Nature and Locality of Work.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD.		
PRINCE'S HIGHWAY WEST—			
Section 1	Construction of stock crossing at Kororoit Creek, Shire of Werribee. Day labour	·03	
,, ...	Construction of salamander shoulders to asphaltic concrete near Kororoit Creek, Shire of Werribee. Day labour	·16	..
,, ...	Construction of shoulders in penetration macadam to bituminous macadam road, and grouting of bank near Skeleton Creek, Shire of Werribee. Day labour	·11	..
,, ...	Widening and modifying camber in crushed rock of sealed waterbound macadam 24M–26M, east of Little River, Shire of Corio. Day labour	1·6	..
,, ...	Resheeting with modified macadam of sealed waterbound macadam 26M–27M, east of Little River, Shire of Corio. Day labour	1·48	..
,, ...	Modifying camber by heavy seal coat in screenings on sealed waterbound macadam, just west of Little River, Shire of Corio. Day labour	·5	..
,, ...	Reconstruction of areas of failure in bituminous macadam near Moriac, Shire of Barrarbool. Day labour	·15	..
,, ...	Resealing bituminous macadam, in sections, between Moriac and Winchelsea, Shires of Barrarbool and Winchelsea. Day labour	6·25	..
Section 2	Resealing penetration macadam from Armytage to Winchelsea-Colac Shire boundary, Shire of Winchelsea. Day labour	4·75	..
,, ...	Resealing penetration and semi-penetration macadam between Weerite and Camperdown, Shire of Hampden. Day labour	5·6	..
Section 3	Resealing penetration macadam between Camperdown and Gnotuk, Shire of Hampden. Day labour	2·1	..
,, ...	Resealing penetration macadam between Boorcan and Terang and between Terang and Garvoc, Shire of Hampden. Day labour	12·2	..
,, ...	Repairs to timber bridge over Hopkins River at Allansford, Shire of Warrnambool. Day labour	·01	..
,, ...	Repairs and reconstruction of timber bridge over Merri River at Dennington, Shire of Warrnambool. Day labour	·01	..
,, ...	Resealing waterbonnd macadam between Tower Hill and Killarney, Shire of Belfast. Day labour	2·65	..
Section 4	Resealing waterbound macadam Port Fairy to Yambuk, Shire of Belfast. Day labour	10	..
,, ...	Widening shoulders and reforming between Bolwarrah and Heywood, Shire of Portland. Day labour	1	..
,, ...	Resealing sealed buckshot gravel at Heywood. Shire of Portland. Day labour	.11	..
,, ...	Searifying and reforming in waterbound macadam between Tyrendarra and Bolwarrah, Shire of Portland. Day labour	6	..
Section 5	Widening shoulders and reforming between Heywood and Greenwald, Shire of Portland. Day labour	1·8	..
,, ...	Widening with limestone rubble between Winnap and Dartmoor, Shire of Portland. Day labour	2	..
,, ...	Widening with limestone rubble and surfacing with limestone crushed rock between Dartmoor and South Australian border, Shire of Portland. Day labour	2·3	..
,, ...	Resealing semi-penetration tar macadam, 3 miles from South Australian border, Shire of Portland. Day labour	1	..
,, ...	Scarifying, reforming, rolling, and binding in limestone between Winnap and the South Australian border, Shire of Portland	16	..
Sections 1 to 5	General maintenance	..	300
PRINCE'S HIGHWAY EAST—			
Section 1	Sealing asphaltic concrete near Springvale, Shire of Dandenong. Day labour	·6	..
,, ...	Widening with crushed rock and spraying widened portions near Hallam, Shire of Berwick. Day labour	·6	..
,, ...	Surfacing with crushed rock and spraying near Berwick, Shire of Berwick. Day labour	·8	..
,, ...	Superelevating of curve with crushed rock at Beaconsfield, Shire of Berwick. Day labour	·1	..
,, ...	Resealing of bituminous macadam between Nar Nar Goon and Tynong, Shire of Berwick. Day labour	2·8	..
,, ...	Surfacing with crushed rock mixed in place near Garfield, Shire of Berwick. Day labour	·5	..
,, ...	Resealing granitic sand at Bunyip River, Shire of Berwick. Day labour ..	·3	..
,, ...	Resealing bituminous macadam west of Drouin, Shire of Buln Buln. Day labour	·9	..
,, ...	Superelevating two curves with crushed rock at Robin Hood, Shire of Buln Buln. Day labour	·2	..
Section 2	Construction of R.C. culvert east of Warragul, Shire of Warragul	·01	..
,, ...	Widening and surfacing with modified macadam east of Warragul, Shire of Warragul. Day labour	·7	..
,, ...	Reconstruction in modified macadam at Nilma, Shire of Warragul. Day labour	·1	..
,, ...	Resealing bituminous macadam between Trafalgar and Moe, Shire of Narracan. Day labour	5·9	..
,, ...	Resealing bituminous macadam just west of Trafalgar, Shire of Narracan. Day labour	·3	..
,, ...	Resealing bituminons macadam just west of Yarragon, Shire of Narracan. Day labour	·3	..
,, ...	Shouldering, superelevating and gravelling on Haunted Hills Section, Shires of Narracan and Morwell. Part day labour	3·5	..
,, ...	Double coat seal on gravel between Yallourn and Morwell, Shire of Morwell ..	4 14	..
,, ...	Resealing metal from Morwell-Traralgon Shire boundary to Traralgon township, Shire of Traralgon. Day labour	4·55	..
,, ...	Double coat seal on gravel from Traralgon township easterly to railway crossing, Shire of Traralgon. Day labour	·46	..
,, ...	Reseal on metal between railway crossing and Loy Yang, Shire of Traralgon. Day labour	1·91	..
	Carried forward	106·48	300

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Nature and Locality of Works.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	106·48	300
PRINCE'S HIGHWAY EAST—*continued.*			
Section 2	Reseal on gravel between Sandy Creek and Flynn, Shire of Traralgon. Day Labour	1	..
,, ...	Single and double coat on gravel between Flynn's Creek and township of Sale. Shire of Rosedale	17·75	..
Section 3	Resealing sealed gravel at Montgomery, Shire of Avon. Day labour	1·11	..
,, ...	Construction of R.C. Bridge and removal of widening timber at 164M. between Delvine and B.R.C. Hotel, Shire of Bairnsdale. Part day labour	·01	..
Section 4	Double coat seal on gravel at Lucknow, Shire of Bairnsdale. Day labour ..	·5	..
,, ...	Shouldering and gravelling between Lucknow and Nicholson, Shire of Bairnsdale. Day labour	4	..
,, ...	Shouldering and gravelling between Swan Reach and Kalimna, Shire of Tambo. Day labour	3	..
,, ...	Double coat seal on gravel at Jemmy's Point, Shire of Tambo. Day labour..	·62	..
Section 6	Widening and superelevating between Maramingo and N.S.W. border, Shire of Orbost. Day labour	·25	..
Sections 1 to 6	General maintenance	..	244
WESTERN HIGHWAY—			
Section 1	Reconstruction of areas of failure in penetration macadam, just east of Djerriwarrh Creek, Shire of Melton. Day labour	·08	..
,, ...	Double coat sealing in gravel of gravel deviation at Pyke's Creek Bridge, Shire of Ballan. Day labour	·57	..
,, ...	Reconstruction area of failure, in sealed waterbound macadam, Llandeilo, Shire of Ballan. Day labour	·06	..
,, ...	Resealing of penetration macadam, Anthony's Cutting to Gordon, Shires of Bacchus Marsh and Ballan. Day labour	21·6	..
Section 2	Resealing of asphaltic macadam from Ballarat to Cardigan, Shire of Ballarat. Day labour	4·53	..
,, ...	Resealing asphaltic macadam from Burrumbeet to Trawalla, Shires of Ballarat and Ripon. Day labour	8·02	..
,, ...	Resealing bituminous surfaced macadam from Middle Creek to Buangor, Shires of Ripon and Ararat. Day labour	3·23	..
,, ...	Resealing Mt. Mistake section, Shire of Ararat. Day labour	3·3	..
,, ...	Resealing sprayed waterbound macadam between Mt. Mistake and Dobie's, Shire of Ararat. Day labour	2·74	..
,, ...	Resealing between Dobie's and Ararat, Shire of Ararat	2·98	..
Section 3	Regrading of curve in gravel at Armstrong's, Shire of Stawell	·11	..
,, ...	Reforming and gravelling between Great Western and Stawell, Shire of Stawell. Day labour	2	..
,, ...	Construction of R.C. culvert 1½ miles west of Great Western, Shire of Stawell..	·01	..
,, ...	Construction of floodway at Kuhn's, between Burnt Creek and Horsham, Shire of Wimmera. Day labour	·06	..
,, ...	Resealing penetration macadam between Burnt Creek and Horsham, Shire of Wimmera. Day labour	2·08	..
,, ...	Reconstruction in modified macadam, east of Horsham, Shire of Wimmera. Day labour	·75	..
,, ...	Resealing between Deep Lead and Dadswell, Shires of Stawell and Wimmera Day labour	6·02	..
,, ...	Forming and gravelling at Green Lake, Shire of Wimmera	·19	..
,, ...	Forming unmade sections between Wal Wal and Horsham, Shire of Wimmera	·51	..
,, ...	Forming unmade sections near Drung Drung, west of Dimboola, Shires of Wimmera and Dimboola	·5	..
Section 4	Spraying sand clay between Horsham and Pimpinio, Shire of Wimmera. Day labour	6·42	..
,, ...	Forming and grading between Horsham and Pimpinio, Shire of Wimmera ..	·25	..
,, ...	Spraying limestone section between Pimpinio and Wail, Shire of Wimmera Day labour	3·5	..
,, ...	Spraying clay formation between Wail and Dimboola, Shires of Wimmera and Dimboola. Day labour	2	..
,, ...	Spraying limestone section between Wail and Dimboola. Day labour ..	2	..
,, ...	Reshaping existing metal east of Dimboola Township, Shire of Dimboola. Day labour	·5	..
,, ...	Spraying limestone section west of Dimboola Township, Shire of Dimboola. Day labour	·78	..
,, ...	Spraying limestone section between Dimboola and Kiata, Shire of Dimboola. Day labour	·5	..
,, ...	Forming, grading and gravelling between Lochiel and Kiata, Shire of Dimboola. Day labour	3	..
Sections 1 to 4	General maintenance	..	201
CALDER HIGHWAY—			
Section 1	Reconstruction of areas of failures in gravel on Adeney's Hill Shire of Bulla. Day labour	·1	..
,, ...	Resealing penetration macadam in gravel between Taradale and Castlemaine, Shire of Metcalfe. Day labour	7·85	..
Section 2	Experimental regulating seal on sealed waterbound macadam at Harcourt, Shire of Maldon. Day labour	·5	..
,, ...	Resealing bituminous penetration between Big Hill and Bendigo, Shire of Marong. Day labour	4·12	..
,, ...	Reconstruction and gravelling shoulders on penetration macadam at Specimen Hill, Shire of Marong. Lay labour	·95	..
,, ...	Construction of stormwater drains between Specimen Hill and Marong, Shire of Marong. Day labour	·01	..
,, ...	Reconditioning and sealing of gravel between Specimen Hill and Bridgewater, Shire of Marong. Day labour	16	..
,, ...	Reconstruction and sealing of gravel at Derby, Shire of Marong. Day labour ..	·19	..
,, ...	Construction of invert between Derby and Bridgewater, Shire of Marong. Day labour	·05	..
,, ...	Construction of R.C. culvert, just west of Bendigo, Shire of Marong	·01	..
Section 3	Construction and sealing of inverts between Wedderburn and Charlton, Shire of Charlton. Day labour	·34	..
,, ...	Resealing of penetration macadam between Woosang and Barrakee Hill, Shire of Charlton. Day labour	6·31	..
,, ...	Reconditioning and sealing of gravel at Barakee Hill, Shire of Charlton. Day labour	·31	..
,, ...	Widening and resheeting with gravel between Charlton and Teddywaddy, Shire of Charlton. Day labour	1·75	..
,, ...	Reconditioning and sealing of gravel south of Teddywaddy, Shire of Charlton. Day labour	·9	..
,, ...	Resealing of sealed gravel north of Teddywaddy, Shire of Charlton. Day labour	4·05	..
,, ...	Sealing existing inverts from Teddywaddy to Wycheproof, Shire of Wycheproof. Day labour	·08	..
Section 5	Forming and limestone rubbling at East Nunga, Shire of Walpeup. Day labour	·5	..
,, ...	Forming and limestone rubbling at South Ouyen, Shire of Walpeup. Day labour	·62	..
Section 6	Forming and limestone rubbling at North Ouyen, Shire of Walpeup. Day labour	·74	..
,, ...	Forming and limestone rubbling at Trinita, Shire of Walpeup. Day labour ..	·7	..
Section 1—Parts 2, 3, 5, and 6 ..	General maintenance	..	167
	Carried forward	259·09	912

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Nature and Locality of Works.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	259·09	912
HUME HIGHWAY—			
Section 1	Partial re-construction and heavy levelling seal coat in crushed rock near Somerton, Shire of Broadmeadows. Day labour	·2	..
,, ...	Construction of heavy levelling seal coat on bituminous macadam near Craigieburn, Shire of Broadmeadows. Day labour	1·1	..
,, ...	Super-elevating curve with gravel on bituminous macadam, North of Broadford, Shire of Broadford. Day labour	·1	..
,, ...	Resealing bituminous macadam south from Tallarook, Shire of Seymour. Day labour	2·1	..
Section 2	Resheeting on Sandy loam, North of Avenel, Shire of Goulburn. Day labour ..	·09	..
,, ...	Construction of R.C. culvert near Seymour, Shire of Seymour	·01	..
,, ...	Construction of R.C. culvert near Avenel, Shire of Seymour	·01	..
,, ...	Construcion of 11 R C. culverts between Euroa and Violet Town	·01	..
,, ...	Widening and resheeting old metal and gravel between Euroa and Faithful's Creek Bridge, Shire of Euroa. Day labour	2·73	..
,, ...	Widening and resheeting old gravel on cobblestones between Faithful's Creek and Violet Town township, Shires of Euroa and Violet Town. Day labour	3·79	..
,, ...	Construction of rolled concrete floodway with gravelled approaches, cobblestone sub-grade removed, at Balmattum, Shire of Euroa. Day labour	·2	..
,, ...	Construction of R.C. culvert south of Violet Town township, Shire of Violet Town	·01	..
,, ...	Resheeting on old metal and ironstone gravel between Baddaginnie and Benalla, Shire of Benalla. Day labour	·11	..
Section 3	Widening and resheeting granitic sand between Glenrowan and South Wangaratta, Shires of Benalla and Wangaratta. Day labour	4·4	..
,, ...	Construction of R.C. culvert near Glenrowan, Shire of Benalla	·01	..
,, ...	Construction of penetration macadam open crossing on sand between Winton and Glenrowan. Day labour	·04	..
,, ...	Construction of R.C. culvert between Glenrowan and Wangaratta, Shire of Benalla. Day labour	·01	..
,, ...	Construction of experimental heavy seal on old waterbound macadam between South Wangaratta and Wangaratta, Shire of Wangaratta. Day labour	·68	..
,, ...	Reforming and resheeting with granitic sand south of Springhurst, Shire of Wangaratta	·62	..
,, ...	Forming and gravelling and reforming and resheetiug with gravel, from railway level crossing between Chiltern and Barnawartha, Shire of Chiltern	4.74	..
,, ...	Construction of R.C. culvert between Barnawartha and Wodonga, Shire of Chiltern	·01	..
,, ...	Construction of timber bridge over House Creek, Shire of Wodonga	·02	..
Sections 1 to 3	General maintenance	..	161
NORTHERN HIGHWAY—			
Section 1	Forming and gravelling between Epsom and Huntly, Shire of Huntly. Part day labour	1·45	..
,, ...	Sheeting with gravel between Bagshot and Wellsford, Shire of Huntly. Day labour	1·07	..
,, ...	Sheeting with gravel at Goornong, Shire of Huntly. Day labour	·48	..
,, ...	Sheeting with gravel north of Goornong, Shire of Huntly. Day labour ..	1·48	..
,, ...	Construction and sealing of invert at Goornong, Shire of Huntly. Day labour ..	·08	..
,, ...	Reconstruction and gravelling between Avonmore and Elmore, Shire of Huntly	2·66	..
,, ...	Reconditioning and sealing of gravel at North Elmore, Shire of Huntly. Day labour	·72	..
,, ...	Reconditioning and sealing of gravel between Elmore and Rochester, Shires of Huntly and Rochester. Day labour	6·3	..
,, ...	Widening and resheeting with gravel of waterbound macadam in two sections north of Rochester, Shire of Rochester. Day labour	3·06	..
,, ...	Reconditioning and sealing of gravel at South Echuca, Shire of Rochester. Day labour	2·73	
,, ...	General maintenance	..	48
OMEO HIGHWAY	Double coat seal on gravel, Shire of Bairnsdale. Day labour	1·51	..
,, ,, ...	General maintenance	..	33
	Totals	301·62	1,154
	UNDER MUNICIPALITIES.		
INGLEWOOD BOROUGH—			
Calder Highway—Section 2 ..	Patrol maintenance	..	·88
KORONG SHIRE—			
Calder Highway—Section 2 ..	General maintenance	..	2·87
,, ,, ,, 3 ..	Double coat sealing from north boundary of Wedderburn Township to Allotment 17, Parish of Wedderburn	..	1·1
,, ,, ,, 3 ..	Double coat sealing from near Allotment 11B to Allotment 9, Parish of Woosang	..	1·2
,, ,, ,, 3 ..	General maiutenance	..	25
LAWLOIT SHIRE—			
Western Highway—Section 5 ..	Forming and gravelling from chainage 1,431,840 to chainage 1,435,090 ..	·61	..
,, ,, ,, 5 ..	Reshaping blue metal from chainage 1,379,730 to chainage 1,385,330 ..	1·06	..
,, ,, ,, 5 ..	Forming and gravelling from chainage 1,412,535 to chainage 1,414,305 ..	·33	..
,, ,, ,, 5 ..	Forming and gravelling in two sections from chainage 1,437,490 to chainage 1,438,890, and from chainage 1,439,160 to chainage 1,440,260	·47	..
,, ,, ,, 5 ..	Patrol maintenance	..	29·2
LOWAN SHIRE—			
Western Highway—Section 4 ..	Sealing gravel with bitural from chainage 1,210,148 to chainage 1,214,108 ..	..	·75
,, ,, ,, 4 ..	Patrol maintenance	..	3·4
,, ,, ,, 5 ..	Resealing gravel with bitumen from chainage 1,246,568 to chainage 1,248,548..	..	·38
,, ,, ,, 5 ..	Patrol maintenance	..	9·8
MILDURA SHIRE—			
Calder Highway—Section 6 ..	Resheeting on Landrook Plain in the Parish of Mournpool	2·1	..
,, ,, ,, 6 ..	Resheeting between the Landrook Plain and the south boundary of the Mildura Shire at Trinita	2·5	..
,, ,, ,, 6 ..	Penetrated wearing coat of limestone metal between Irymple and Red Cliffs Yatpool boundary	1·47	..
,, ,, ,, 6 ..	Foundation course of limestone north of and adjoining the Red Cliffs-Yatpool boundary	·66	..
,, ,, ,, 6 ..	Patrol and general maintenance	..	51·33
OMEO SHIRE—			
Omeo Highway—Section 1 ..	General maintenance, including sheeting, super-elevating, and widening curves and culverts	..	17·2
,, ,, ,, 2 ..	General maintenance, ineluding sheeting, super-elevating and widening curves, culverts, and bridge repairs	..	46·7
,, ,, ,, 3 ..	General maintenance, including sheeting, super-elevating and widening curves, culverts, and bridge repairs	..	56
TOWONG SHIRE—			
Omeo Highway—Section 3 ..	Patrol maintenance	..	27
,, ,, ,, 3 ..	Bridge and approaches over Little Snowy Creek, Eskdale Township	..	·03
,, ,, ,, 4 ..	Bituminous surfacing from south of Allotment 3, Section 3, Parish of Tallandoon, to north of Allotment 5c, Section XVI., Parish of Noorongong	2·65	..
,, ,, ,, 4 ..	Bituminous surfacing from Allotment 1, Section IX., Parish of Beethang, to north-east corner of Allotment 6, Section VIA., Parish of Beethang	2·08	..
,, ,, ,, 4 ..	Completion of Hume Weir Deviation at Huon Railway Station	1·76	..
,, ,, ,, 4 ..	Patrol maintenance	..	38
	Carried forward	15·69	310·84

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Nature and Locality of Works.	Works Re-Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	15·69	310·84
WALPEUP SHIRE—			
Calder Highway—Section 5 ..	Allotments 5, 6, and 4, 7, Parish of Woornack	1·01	..
,, ,, ,, 5 ..	Allotments 10, 15, and 11, 14, Parish of Woornack	.7	..
,, ,, ,, 5 ..	Patrol maintenance	..	23
,, ,, ,, 6 ..	Patrol maintenance	..	14
WODONGA SHIRE—			
Omeo Highway—Section 4 ..	Shaping, sheeting, and sealing easterly from north-west corner of Allotment 40, Section VII., Parish of Bonegilla	.96	..
,, ,, ,, 4 ..	Patrol maintenance	..	11·5
WYCHEPROOF SHIRE—			
Calder Highway—Section 4 ..	From Warne Bridge towards Culgoa, west of Allotment 2, Parish of Nullawil, west of Allotments 33 and 37, Parish of Toort	2·31	..
,, ,, ,, 4 ..	Between Culgoa and Berriwillock, west of Allotments 14, 13, 10, 9, Parish of Kaneira, west of Allotments 43 and 37, Parish of Perit Perit	2·8	..
,, ,, ,, 4 ..	Between Berriwillock and Boigbeat, west of Allotments 72, 70, 58, Parish of Boigbeat	1·89	..
,, ,, ,, 4 ..	Between Sea Lake and Berriwillock, in sections	..	2.5
,, ,, ,, 5 ..	North of Sea Lake, north of Allotments 2 and 3, Parish of Bourka	·75	..
,, ,, ,, 5 ..	East of Nandaly, north of Nandaly Cemetery	·75	..
,, ,, ,, 5 ..	South of Mittyack, thence westerly	..	3·75
,, ,, ,, 5 ..	North of Sea Lake, east of Allotments 6 and 21, Parish of Burupga ..	..	1·22
	Total	26·86	366·81

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