



PUBLIC WORKS DEPARTMENT

ADMINISTRATION REPC

OF THE

HIGHWAYS DEPARTME

1951-52

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ADMINISTRATION REPORT OF THE HIGHWAYS DEPARTMENT, 1951-52.

CHAPTER I.

SUMMARY.

1. *Accomplishments.*

During the year under review, the Department continued to pursue its established policy of forming more and more new roads and extending the mileage of improved surfacings. Many hitherto isolated rural areas were thus brought within the net work of the road system of the State, and several stretches of roads passing through built up areas or subjected to heavy traffic were provided with appropriate types of improved surfacings such as cement concrete, bituminous concrete and bituminous macadam. Inadequate funds and shortage of critical materials like steel, cement and bitumen and construction plant, however, continued to hamper the progress towards desirable targets, and nothing but a judicious utilization of available resources and alertness at all levels would have rendered possible even the limited achievements of the year.

With regard to the maintenance of roads, a vigorous policy of providing a higher standard of maintenance by surface dressing with pre-coated chippings according to traffic needs was pursued. The policy was embodied in a 12-year working plan to be operated by the territorial divisions.

In conformity with the policy that all National Highways, Provincial Highways and Major District Roads be taken over by Government from the Local Bodies in order to relieve them of the responsibility of maintaining these categories of roads and to enable them to concentrate their resources on roads of local importance, 65 miles of roads were taken over during the year under report, thus bringing up the total mileage of Government roads to 15,599. The details of roads taken over during the year are given in Appendix 7.

An index of the increasing activities of the Department is furnished by the following figures of total expenditure on all Government and District Board works:—

Year.						Expenditure on Government Roads and District Board Road and Non-Road works.
						RS.
						IN LAKHS.
1946-47	..	..	..	..	..	375
1947-48	..	..	..	..	..	437
1948-49	..	..	..	..	..	627
1949-50	..	..	..	..	..	751
1950-51	..	..	..	..	..	838
1951-52	..	..	..	..	..	881

NOTE.—Roads in the State are divided into groups coming under different authorities—the Union Government for National Highways, State Government for Provincial Highways and a majority of Major District Roads, the District Boards for other District Roads, Village Roads and the balance of Major District Roads. The Highways Department has been executing works on all these roads ensuring uniformity in methods, standards and quality.

A brief summary of accomplishments of the department in 1951-52 is given below:—

Government roads.—Sixty-two miles of roads were cement concreted; 637 miles were black-topped and 49 bridges and culverts were constructed. Besides special repairs were carried out to the extent of Rs. 15 lakhs covering 25 works.

District Board Roads.—One thousand five hundred and twenty-four miles of new roads were formed and 53 bridges and culverts were constructed, besides carrying out special repairs to the extent of Rs. 22 lakhs covering 111 works.

Division-war details of works completed during the year are given in Appendices 22 (ii) and 23 (ii) and the Division-war particulars of roads newly formed or provided with cement-concrete and black-top surfaces by different authorities are shown in the statement in Appendix 6.

Other activities.—A 12-year plan for black-topping about 3,000 miles of roads by earmarking a certain portion of the annual maintenance allotment was finalized.

Work was begun in connexion with the drafting of the Madras Highways Manual and Type Designs.

2. Expenditure.

The particulars of final grant and actual expenditure incurred during the year 1951-52 in respect of Government and District Board works and a comparison with previous years' figures are given below:—

Nature of works.	Final grant for 1951-52.	Expenditure, 1951-52.		Expenditure, 1950-51.	
		Amount.	Percentage of final expenditure to the final grant.	Amount.	Percentage of expenditure to final grant.
	RS. IN LAKHS.	RS. IN LAKHS.	(4)	RS. IN LAKHS.	(6)
Government Roads—					
Capital works including Post-War Road Development.	162.47	156.13	96	163.21	97
Maintenance	407.55	424.13	104	387.74	104
Total, Government Roads ..	570.02	580.26	102	550.95	101
District Board Works—					
Capital works on roads including Post-War Road Development.	130.75	118.64	91	112.86	92
Maintenance	143.26	143.65	100	134.79	93
Non-road works	50.97	38.95	75	39.16	68
Total, District Board works.	324.98	301.24	93	286.81	88
Grand total ..	895.00	881.50	98	837.76	96

Comparison of column (4) with column (6) shows a general improvement in the Department's performance.

of District Board works. However, considering individual items, there have been slight lapses in the final grant for original works of Government and District Boards and a lapse on District Board non-road works which is still fairly large though much less than the previous years. The lapses are attributed to the difficulties which the department continued to experience in the matter of critical materials like steel, cement, etc., and by the failure of monsoon.

The expenditure during the year on Government and District Board Road works classified under different categories of roads is given below:—

		Expenditure in rupees.	
		New constructions.	Maintenance.
		RS.	RS.
Government Roads—			
National Highways		55,29,788	71,11,707
Provincial Highways		32,08,157	93,83,219
Major District Roads		68,29,290	2,46,67,341
Other District Roads		46,291	4,73,404
Maintenance of avenues		..	7,77,168
Total ..		1,56,13,516	4,24,12,839
District Board Roads—			
Major District Roads		30,29,158	54,86,599
Other District Roads		23,49,289	45,40,522
Village Roads		64,85,261	41,55,033
Avenues		..	1,82,722
Total ..		1,18,63,708	1,43,64,876

The following statement shows the cost of establishment as percentage of the expenditure on works during the year 1951-52 with corresponding figures for the previous years for comparison:—

Year.	Expenditure on works inclusive of tools and plant.	Expenditure on establishment.	Percentage cost of establishment of working expenditure.
	RS. IN LAKHS.	RS. IN LAKHS.	
(1)	(2)	(3)	(4)
1946-47	351.71	36.10	10.3
1947-48	467.33	46.50	9.9
1948-49	670.21	46.55	6.9
1949-50	835.56	50.64	6.1
1950-51	958.84	49.94	5.2
1951-52	964.40	49.63	5.01

Column (4) of the statement shows that the downward trend in the cost of establishment in relation to expenditure on works was maintained. Out of the total establishment charges of Rs. 49,62,844, a sum of Rs. 13,01,718. was recoverable from the Union Government towards charges for the works executed by the Department on National Highways and a sum of Rs. 17,07,383 was provisionally marked for being recovered from the District Boards in proportion to the expenditure incurred on District Board works. Thus the net charge on the State on account of

3. *Upkeep.*

A general review concerning the upkeep of Government and District Board Roads in the State is given below :—

Government roads.—Although the maintenance grant for Government roads for 1951-52 was inadequate compared to the minimum requirement for proper maintenance, the roads were generally maintained in a satisfactory condition, by careful distribution of available funds, avoidance of waste, and by prolonging the life of surfacings by timely attention.

With the advent of and steady increase in the number of modern fast passenger cars and heavy trucks, there has been a growing demand for improved surfacings. Apart from this, it has been found that water-bound macadam roads deteriorate rapidly under such fast and heavy traffic. In order to meet this situation, a critical analysis of maintenance expenditure in relation to traffic intensity was made and it was found that about 3,500 miles of roads with intensities of traffic ranging from 1,000 tons to 2,500 tons per day and about 900 miles of roads with over 2,500 tons per day absorbed a large portion of annual maintenance allotment. Experience has shown that improved surfacing is desirable if traffic exceeds 500 tons per day, and quite essential if traffic exceeds 1,000 tons per day. Accordingly a detailed twelve-year-plan for providing improved surfacings with precoated chippings out of the annual maintenance grant was drawn up. The plan gave a clear cut scientific basis and objective to the varied performances of the territorial divisions in the matter of providing a higher standard of maintenance.

District Board Roads.—The slender financial position of some of the District Boards was telling seriously upon the maintenance of the roads left in their charge. The District Boards were able to provide only about Rs. 144 lakhs on the maintenance of these roads against an estimated minimum requirement of about 300 lakhs. In spite of this, the department was doing its best to maintain the roads in a satisfactory condition by a judicious distribution of funds made available.

The needs of maintenance are bound to increase with the construction of more and more new roads, and unless measures are devised to improve the financial condition of the District Boards, the position in respect of the maintenance of the District Board Roads will tend to deteriorate further.

Some facts concerning upkeep.—Certain outstanding facts concerning upkeep which give an insight into the efficiency of maintenance and a general idea of the problems facing some regions are described below :—

National Highways in the State are generally maintained in a very satisfactory condition. There has been considerable improvement in the first circle area. The stretch of the road between miles 43 to 71 of National Highways-9—Sholapur-Hyderabad-Vijayavada road was subject to very heavy traffic and cement concreting of this stretch appeared to be an inescapable necessity.

Visakhapatnam, Srikakulam, East Godavari and West Godavari districts.—The roads were maintained in a satisfactory condition and there were no complaints.

Krishna district.—There was public criticism about the condition of Masulipatnam-Eluru road and Masulipatnam-Vijayavada road in the district. The stretch between Gudivada and Perikoodu of Masulipatnam and due to very heavy vehicular traffic on account of floods in Budameru and due to very heavy vehicular traffic on account of transport of paddy.

It was proposed to cement concrete this portion under Central Road Fund. Subsequently the road has been improved by laying black-top surface under "War-Arrear" renewals.

Anantapur.—Generally, the condition of Government roads was very fair. A portion of Cape Comorin road from Gooty to Anantapur, Madras-Bombay road from M. 291 to 308 and Anantapur-Kalyandrug road from M. 15/0 to 34/2 were not so satisfactory.

Bellary.—With the increased grants under repairs, the condition of Government roads was gradually improving. The Madras-Bombay road M. 348 to 358, Hospet-Kampli road M. 0/0 to 17/2, Guntakal-Tungabhadra road M. 338 to 352/6 and Bellary-Siruguppa road M. 5 to 34/6 were in bad condition due to heavy traffic. Proposals for taking up improved surfacings to suit the traffic intensity on the above roads were considered necessary and steps were taken in this direction.

Chingleput.—The public had a feeling of profound satisfaction on the condition of the roads in the district. A considerable length of important roads subjected to heavy traffic and chronically in bad condition in the past, were upgraded and provided with black-top surfacing.

Chittoor.—All the roads in the district were maintained in a fair condition. The District Board roads could not be maintained to the standards of Government roads due to inadequacy of maintenance allotment.

Cuddapah.—The upkeep of Government roads was fair but the District Board roads required improvement. The maintenance of water-bound-macadam roads was hampered by scarcity of water in all seasons in many parts of the district.

Kurnool district.—All roads were maintained in a satisfactory condition.

North Arcot.—The Madras-Chittoor-Bangalore road and Ranipet-Krishnagiri road were in excellent condition. All the other roads were in very fair condition.

South Arcot.—Most of the Government roads were in fair condition. The bad stretches of Cuddalore-Chidambaram road between Panruti and Madapet and portions of National Highways from Villupuram and Milam were improved by black-top surfacing.

On the District Board side several other District roads were metalled under Post-war Road Development programme. The unmetalled roads in Chidambaram-Vriddhachalam Taluks run in black-clay soil and these roads should be stabilised with sand or gravel to render them fit for traffic. The inadequacy of the allotment of accounts for the generally poor standard of maintenance. A programme for the improvements of the District Board roads has been under the consideration of the District Board.

Tanjore East Division.—The Tanjore-Nagapattinam road was maintained in fair condition and a stretch between Koradacheri and Tiruvarur was up-graded by being converted into a granite metalled surface. All Major District roads were in good condition and five miles of them were provided with black-top surface.

On the District Board side many of the other District roads and Village roads continued to be maintained as earthen roads with many unbridged crossings. Generally, the roads were maintained in a condition free from public complaints.

Tanjore West Division.—All roads were in fair condition and there were no complaints.

Tiruchirappalli Division.—Provision of black-top surfacing on a planned basis by judicious adjustment of maintenance grant was continued during the year and 131 miles of Government roads and 2 miles of district board roads were black-topped. The general upkeep of all the roads was very fair and there were no roads giving room for complaint from the public.

Madurai Division.—Most of the Government roads were in good condition. Thirty-six miles were black-topped during the year. Certain roads were in bad condition including National Highway No. 7 (Benares-Cape Comorin road) M. 303/0 to 305/0 and M. 310 to 312/0 as the water-bound macadam surface did not last for more than 3 months due to heavy intensity of traffic. These roads were expected to be improved with black-top surface in the course of next two years.

Ramanathapuram District.—The general standard of upkeep of the roads under Government and district board was good. Due to climatic conditions and water scarcity, it was proposed to render black-top surface to all important roads out of maintenance grant but on account of bitumen position, only a short length of 22 miles could be black-topped.

Tirunelveli Division.—All Government roads were generally in a fair condition, without giving room for complaints from the public. Roads in and around municipal areas required improved surface to suit the heavy volume of traffic.

The district board roads which were maintained with soft metal were in bad condition and they could not be maintained to the required standard since the allotment sanctioned by the district board was very limited and inadequate.

South Kanara, Malabar, Coimbatore, Salem and the Nilgiris districts.—The standard of maintenance of roads was generally good with due reference to the allotment available and seasonal conditions. Malabar and South Kanara districts called for special attention due to extra heavy monsoonic conditions. In these districts water-bound macadam did not last long with the increased pneumatic tyred traffic and heavy rainfall.

Improved surfacing was taken up on a planned basis and it was being done on several important roads in these districts as far as allotment of funds permitted. Black-topping was done in a good number of built up stretches.

CHAPTER II.

ORGANIZATION.

1. The Administrative set up.

General.—The department which entered its sixth year during 1951-52 after its organization on 1st April 1946 as a separate department continued to function with one Chief Engineer in charge of the department.

The strength of the various administrative and executive posts as on 31st March 1952 is given below:—

Post.	Permanent strength.	Temporary strength.	Total strength.
Chief Engineer	1	..	1
Superintending Engineers	3	..	3
Divisional Engineers	28	12	40
Assistant Engineers	98	61	159
Supervisors (including Mechanical Supervisors and Motor Vehicle Supervisors).	368	220	588

Service Rules.—Though the department was formed from 1st April 1946 the rules governing the conditions of services of the technical subordinates of this department could not be issued for a long time for various reasons. These rules for the Madras Highway Engineering subordinate services were issued at the beginning of this year in G.O. No. 1420, P.W., dated 6th April 1951. As numerous questions such as probation, seniority, confirmation, recruitment of personnel against war reserved posts of supervisors, etc., affecting the services of a large number of technical subordinates of this department were kept pending all along for want of these rules, a special section was formed in Chief Engineer's Office to tackle these questions and the matter was receiving attention.

Bridges Circle.—The Bridges Circle was abolished on 31st March 1951 and the Bridges South Division was designated as Designs Office and was placed under the direct charge of the Chief Engineer (Highways). The set up of the bridges investigation organization was revised and one Assistant Engineer and staff were attached to each territorial Superintending Engineer.

Reorganisation of Transport and Machinery Division.—One of the salient features in the year was the reorganization of the Transport and Machinery division. Experience showed that the previous set up of the division under which the subdivisions at Rajahmundry, Tiruchirappalli and Coimbatore functioned under the centralized control of the Divisional Engineer, Transport and Machinery division, had resulted in delays and bottlenecks. The specialized services of the staff of the Assistant Engineer, Transport and Machinery were not always readily available to the territorial Divisional Engineers to keep their plant moving and the latter had to seek private agencies locally for the necessary overhauling and repairs. This had not been conducive to economy, not to mention the fact that the services of the departmental specialist staff could not be put to full use. In order to remedy this state of affairs, the Transport and Machinery division was reorganized. The three Transport and Machinery subdivisions at Rajahmundry, Tiruchirappalli and Coimbatore together with the Motor Vehicle, and Mechanical Supervisors attached to these subdivisions were transferred from the administrative and technical control of the Divisional Engineer, Transport and Machinery and attached to the territorial divisions at the stations under the administrative and technical control of the Superintending Engineers I, III and IV Circles respectively. The Madras Transport and Machinery subdivision and the Stores subdivision at Madras were however kept under the control of the Divisional Engineer, Transport and Machinery division, to work under the administrative control of the Chief Engineer (Highways).

Soil Research Laboratory.—The Assistant Engineer (Soils) in charge of the Soil Research Laboratory at Guindy was placed directly under the control of the Chief Engineer (Highways).

2. The Chief Engineer and his office.

Sri M. S. Thirumale Ayyangar, B.E., M.I.E. (Ind.), I.S.E., continued as Chief Engineer (Highways), till 3rd September 1951 when he was succeeded by Sri K. K. Nambiar, B.E., M.I.E. (Ind.), F. INST. H.E. (Eng.), M.I. MUN. E. (Eng.), M.A.M.Soc.C.E., M.R.SAN.I. who continued till the end of the year.

Sri K. Ramaswamy Reddy, B.E., A.M.A.M.SOC. C.E., continued as Deputy Chief Engineer till the end of the year.

Sri N. Sambamurthi, B.A., continued as Accounts Officer, till the end of the year.

During the year, a post of Deputy Accounts Officer, was created and Sri K. V. Krishna Iyer, B.A., was appointed to the post from 9th July 1951 and he continued as Deputy Accounts Officer till the end of the year.

Sri D. G. Bhagat continued as Engineer Liaison Officer till 30th June 1951 when he was succeeded by Sri Hardayal who continued till the end of the year.

Sri A. N. Damodaram Naidu continued as Technical Assistant to the Chief Engineer (Highways), till the end of the year.

Sri P. V. Raju continued as Technical Assistant throughout the year, except during the leave period from 26th December 1951 to 4th February 1952 afternoon. During his absence, Sri K. S. Srinivasan was in charge of the work from 10th to 22nd January 1952 and then Sri M. Seshumadhava Rao, from 22nd January to 4th February 1952.

Sri P. G. Nambiar, continued as Technical Assistant to the Chief Engineer (Highways) throughout the year, in charge of compilation of the Madras Highways Manual and Type Designs.

Sri C. V. Padmanabhan joined as Technical Assistant to the Chief Engineer (Highways) on 31st March 1951 and continued as such throughout the year.

Sri K. S. Srinivasan was working as Technical Assistant to the Chief Engineer (Highways) from 22nd January 1952 to the end of the year against the sanction of the post of an Assistant Engineer for scrutinizing the Road Development Fund estimates in the Office of the Chief Engineer (Highways).

A post of Assistant Engineer with necessary staff was sanctioned by the Government to function in the Office of the Chief Engineer (Highways), for the compilation of the Madras Highways Manual and Type designs. The Assistant Engineer has been working since 31st March 1951 afternoon. An Assistant Engineer was sanctioned for the Soils Laboratory at Guindy and he has been working since 8th June 1951 forenoon.

An Assistant Engineer was sanctioned for scrutinizing Road Development Fund estimates in the Office of the Chief Engineer (Highways), and he has been working since 22nd January 1952 afternoon.

3. Superintending Engineers.

I Circle, Kakinada.—Janab N. Durrani, B.Sc., B.E., M.I.E. (Ind.), continued to be in charge from 1st April to 24th August 1951 after-noon continued till the end of the year.

II Circle, Madras.—Sri K. K. Nambiar, B.E., M.I.E. (Ind.), continued to be in charge of the circle from 1st April to 3rd September 1952 forenoon when he was promoted as Chief Engineer (Highways), and the circle was in direct charge of the Chief Engineer as per G.O. No. 3413, P.W., dated 14th August 1951.

III Circle, Tiruchirappalli.—Sri S. C. Nayak, M.I.E. (Ind.), continued to be in charge of the circle from 1st April 1951 to 24th December 1951 forenoon, when he was succeeded by Janab N. Durrani, B.Sc., B.E., M.I.E. (Ind.), who continued till the end of the year.

IV Circle, Coimbatore.—Sri P. T. Narayanan Nair, B.E., continued to be in charge of the circle from 1st April 1951 to 31st March 1952.

Bridges Circle.—Sri M. N. Kamath was in charge of the circle from 1st to 15th April 1951 afternoon when the circle was abolished as per G.O. No. 1314, P.W., dated 30th March 1951.

4. Divisional Engineers.

The following list shows the divisional charges during the year :—

(1) Visakhapatnam North, Chicacole (since changed as Srikakulam).

Sri B. Krishnamoorthy, B.A., B.E., from 1st April 1951 to 31st March 1952.

(2) Visakhapatnam South, Visakhapatnam (since changed as Visakhapatnam).

Sri Basheer Ahamed Sahib, from 1st Apr. 1951 to 31st March 1952.

(3) East Godavari, Kakinada.

Sri P. R. Golikere, B.E., from 1st April to 27th March 1951 forenoon.

Sri N. Seshagiri Rao, B.E., from 27th April 1951 to 31st March 1952.

(4) Agency Division, Rajahmundry.

Sri N. Seshagiri Rao, B.E., from 1st to 27th April 1951 forenoon.

Sri N. Seshagiri Rao, B.E., from 27th April 1951 to 21st May 1951 forenoon (additional charge).

Sri M. Kumaran, A.M.I.E., from 21st May 1951 forenoon to 28th December 1951 afternoon.

Sri M. Raghaviah, from 28th December 1951 to 24th January 1952, forenoon [Assistant Engineer (Highways) in additional charge].

Sri M. A. Thirunavukkarasu, B.A., from 24th January 1952, forenoon to 31st March 1952.

(5) West Godavari, Eluru.

Sri C. Krishna Reddi, from 1st April 1951 to 31st March 1952.

(6) Krishna Division, Masulipatnam.

Sri N. T. Gnanaprakasam, from 1st April to 13th December 1951, forenoon.

Sri Md. Sher Ali, from 13th December 1951, forenoon to 31st March 1952.

(7) Guntur North, Guntur.

Sri H. R. Sayoji Rao, B.Sc. (Lond.), from 1st April to 28th July 1951, forenoon.

Sri C. R. Muniswami Naidu, from 28th July 1951 forenoon to 12th August 1951, forenoon (additional charge).

Sri H. R. Sayoji Rao, B.Sc. (Lond.), from 12th August 1951 forenoon to 31st March 1952.

(8) Nellore Division, Nellore.

Sri P. Radhakrishnaiah Nayudu, B.E., from 1st April to 8th June 1951, afternoon.

Sri B. Satyanarayana, B.A., B.E., M.I.E. (Ind.), from 8th to 28th June 1951 (additional charge).

Sri C. N. Thirupuvanam, from 28th June 1951 forenoon to 31st March 1952.

(9) Kurnool Division, Kurnool.

Sri P. Sivaroma Reddi, B.E., from 1st April 1951 to 31st March 1952.

(10) Bellary Division, Bellary.

Sri M. Srikanta Srouti, B.E., from 1st April to 21st May 1951, afternoon.
Sri P. Veeriah, B.E., from 21st May 1951, afternoon to 31st March 1952.

(11) Anantapur Division, Anantapur.

Sri M. Ramachandra Rao, B.E., from 1st April 1951 to 31st March 1952.

(12) Cuddapah Division, Cuddapah.

Sri Ch. Madhava Rao, B.E., from 1st April 1951 to 31st March 1952.

(13) Chingleput Division, Saidapet.

Sri K. A. Nanjundeswara Chetti, B.E., M.I.E. (Ind.), from 1st April 1951 to 31st March 1952.

(14) Chittoor Division, Chittoor.

Sri Md. Sher Ali, from 1st April to 5th May 1951, afternoon.
Sri P. R. Golikere, B.E., from 5th May 1951, afternoon to 12th December 1951 forenoon.
Sri M. U. Samitha, from 12th December 1951, forenoon to 31st March 1952.

(15) North Arcot Division, Vellore.

Sri A. R. Sivaswami, from 1st April to 26th November 1951, afternoon.
Sri Md. Haneef, Assistant Engineer (Highways), additional charge, from 26th November 1951, afternoon to 19th December 1951, afternoon.
Sri C. R. Munuswamy Naidu, 19th December afternoon 1951 to 31st March 1952.

(16) South Arcot, Cuddalore.

Sri A. S. Anantanarayanan, B.E., from 1st April 1951 to 31st March 1952.

(17) Salem South, Salem.

Sri O. Sivasankara Mudaliar, B.E., from 1st to 6th April 1951, afternoon.
Sri P. Rangaraja Iyengar, 6th April 1951, afternoon to 8th March 1952 forenoon.
Sri V. Govindaswamy Pillai, B.E., 8th March 1952, forenoon to 31st March 1952.

(18) Salem North, Krishnagiri.

Sri P. S. Sivaprakasam, B.E., A.M.I.E., from 1st April 1951 to 31st March 1952.

(19) Tiruchirappalli, Tiruchirappalli.

Sri G. S. Gnanaprakasam, B.E., from 1st April 1951 to 31st March 1952.

(20) Tanjore East, Nagapattinam.

Sri M. Balasubramaniam, B.E., from 1st April 1951 to 31st March 1952.

(21) Tanjore West, Tanjore.

Sri G. S. Ganapathi, from 1st to 10th April 1951, afternoon.
Sri R. Veerappa Mudaliar, B.E., Assistant Engineer (Highways) additional charge, from 10th April 1951, afternoon to 16th April 1951, afternoon.
Sri P. Narayanan, B.E., from 16th April 1951, afternoon to 31st March 1952.

(22) Tirunelveli, Palayamkottai.

Sri S. Kalyanarama Ayyar, from 1st April 1951 to 31st March 1952.

(23) Ramanathapuram Division, Sivaganga.

Sri T. S. Kethara Mudaliar, from 1st April 1951 to 31st March 1952.

(24) Madurai Division, Madurai.

Sri T. M. Veeraraghavan, B.E., A.M.I.E. (Ind.), from 1st April 1951 to 31st March 1952.

(25) Coimbatore North Division, Erode.

Sri P. Narayanan, B.E., from 1st April 1951 to 10th April 1951, a.n.
Sri A. Ramaswamy Pillai, Assistant Engineer (Highways), additional charge 10th April 1951, a.n. to 13th April 1951, f.n.
Sri O. Sivasankara Mudaliar, B.E., 13th April 1951, f.n. to 31st March 1952.

(26) Coimbatore South Division, Coimbatore.

Sri S. R. Nayudu, B.E., A.M.I.E., from 1st April 1951 to 31st March 1952.

(27) The Nilgiris Division, Ootacamund.

Sri K. S. Krishnan, B.E., A.M.I.E., from 1st April 1951 to 10th April 1951, a.n.
Sri P. Kumaran, Assistant Engineer (Highways) (additional charge), from 10th April 1951 a.n. to 15th April 1951, f.n.
Sri G. S. Ganapathy, 15th April 1951, f.n. to 31st March 1952.

(28) Malabar North Division, Kozhikode.

Sri N. J. John, from 1st April 1951 to 31st March 1952.

(29) Malabar South Division, Palghat.

Sri T. P. Gopala Menon, B.A., from 1st April 1951 to 5th January 1952 forenoon.
Sri M. Kumaran, A.M.I.E., from 5th January 1952 forenoon to 31st March 1952.

(30) South Kanara Division, Mangalore.

Sri M. U. Samitha, from 1st April 1951 to 28th September 1951 afternoon.
Sri M. Sreekanta Srouti, B.E., from 28th September 1951 afternoon to 31st March 1952.

(31) Guntur South Division, Ongole.

Sri P. Veeriah, B.E. from 1st April 1951 to 16th May 1951 forenoon.
Sri H. R. Sayoji Rao, B.Sc., (Lond.), from 16th May 1951 forenoon to 25th May 1951 (additional charge).
Sri C. R. Munuswami Naidu, from 25th May 1951 forenoon to 15th December 1951 forenoon.
Sri R. Prabhala, B.E., from 15th December 1951 forenoon to 31st March 1952.

(32) Transport and Machinery Division, Madras.

Sri G. Srirangachari, B.E., M.I.E., from 1st April 1951 to 31st March 1952.

Special Divisions for special works.

(1) Bridges South, Madras.

Sri K. Srinivasan, B.E., A.M.I.E., from 1st April 1951 to 23rd November 1951 forenoon.
Sri B. Jayaraman, Assistant Engineer (Bridges) (additional charge), 23rd November 1951 forenoon to 17th December 1951 forenoon.
Sri P. R. Golikere, B.E., from 17th December 1951 forenoon to 31st March 1952, since then the division is known as Designs Division.

(2) Araku Division, Vizianagaram.

Sri M. L. Narayana, B.E., from 1st April 1951 to 30th September 1951.
The Division was closed as per G.O. Ms. No. 3096, P.W., dated 26th July 1951.

(3) Bharatapuzha Bridge Division, Kuttipuram.

Sri C. N. Tirupuvanam, from 1st April 1951 to 21st June 1951 afternoon.
Sri R. Prabhala, B.E., from 21st June 1951 forenoon to 20th September 1951 forenoon.
Sri Md. Share Ali, from 20th September 1951 forenoon to 3rd December 1951 forenoon.
Sri K. Srinivasan, B.E., A.M.I.E., from 3rd December 1951 forenoon to 31st March 1952.

(4) Pugalur Bridge Division, Velur.

Sri K. Namasivayam, B.E., from 1st April 1951 to 31st March 1952.

(5) Godavari Bridges Division, Kakinada.

Sri R. Ramamohana Rao, B.E., from 1st April 1951 to 31st March 1952.

(6) Coleroon Brigdes, Shiyali.

Sri P. Sirajuddin, from 1st April 1951 to 31st March 1952.

(7) Minimalur Ghat Road Division, Anakapalle.

Sri M. L. Narayanan, B.E., from 1st October 1951 to 17th March 1952 afternoon.
Sri P. Rangaraja Ayyangar, from 17th March 1952 afternoon to 31st March 1952.

(8) Pennar Bridge Division, Nellore.

Sri B. Satyanarayana, B.A., B.E., M.I.E. (Ind.), from 1st April 1951 to 30th April 1951 afternoon.
Sri P. Rathakrishnayya Naidu, B.E., from 30th April 1951 afternoon to 31st May 1951 (additional charge).
Sri B. Satyanarayana, 31st May 1951 to 10 January 1952 afternoon.
Sri C. N. Tiruppuvanan, (additional charge), from 10th January 1952 afternoon to 27th March 1952 afternoon.
Sri M. L. Narayana, B.E., from 27th March 1952 afternoon to 31st March 1952.
One Special Division was formed for the work, viz., Forming Minimalur Ghat Road on 1st October 1951.
The Special Araku Division at Vizianagaram was closed on 30th September 1951.

(5) Subdivisions.

The five (Transport and Machinery) subdivisions continued to function throughout the year but 3 were attached to the respective divisions and the remaining 2 (Madras subdivision and stores subdivision) to the Transport and Machinery Division.

2. Subdivisions of Bridges South [Now Divisional Engineer (Highways) Designs office]:—

Out of five subdivisions under this division, one subdivision at Erode was closed on 15th June 1951 forenoon and the remaining four subdivisions at Kakinada, Madras, Tiruchirappalli and Mangalore were continued. The

headquarters of this subdivision at Mangalore was shifted to Coimbatore on 25th June 1951. The bridge subdivisions are attached to the territorial circles concerned.

3. Besides the 93 permanent subdivisions and 8 temporary subdivisions, the following special subdivisions formed during the previous years were continued throughout the year or till such dates as noted against them:—

Name of subdivision.	Headquarters.	Date of formation.	Remarks.
Godavari Bridges Investigation sub-division.	Alamuru	25 Aug. 1948, f.n.	
Cement concreting subdivision Coimbatore, Mettupalayam Road No. II.	Perianaikanpalayam.	1st Mar. 1947, ..	Closed on 31st July 1951.
Improvements to roads in Chirakkal taluk No. I.	Taliparamba ..	8th May 1948, f.n.	
Improvements to roads in Chirakkal taluk No. II.	Do. ..	9th Aug. 1948, f.n.	Closed on 30th June 1951.
Araku special subdivision No. I.	.. Srungavarapukota ..	5th Mar. 1948, a.n.	Closed on 30th Sep. 1951.
Do. No. II	.. Araku ..	16th June 1948, f.n.	
Nandigama subdivision.	.. ..	27th May 1948, f.n.	It is being treated regular temporary subdivision.
Minamalur Ghat Road No. I	.. Madugole ..	1st July 1948, f.n.	
Cement concreting subdivision	.. Chidambaram ..	26th Sep. 1948, f.n.	Closed on 1st May 1951, f.n.
Cement concreting Anakapalli-Madugole road.	Anakapalle ..	20th Dec. 1948, f.n.	
Grant-in-aid work Guntur District Board.	Repalle ..	19th Mar. 1949, f.n.	Closed on 26th June 1951, a.n.
Cement concreting Cuddalore-Chittoor road.	Cuddalore ..	29th July 1949, a.n.	
Improvements to Dornal Pass road	.. Atmakur ..	9th Aug. 1949, f.n.	Closed on 31st March 1952, a.n.
Cement concreting Koderu-Nallajerla road.	Tadepalligudem ..	21st Sep. 1949, f.n.	Closed on 30th June 1952, a.n.
Pennar Bridge subdivision	.. Nellore ..	1st Dec. 1949, f.n.	Closed on 4th September 1951, a.n.
Special subdivision for Chinnaganjam-Ongole road.	Ongole ..	8th July 1949, f.n.	Closed on 4th July 1951, f.n.
Cement concreting surfacing Benares-Cape Commorin road.	Salem ..	25th Jan. 1950, f.n.	Closed on 30th June 1951, a.n.
Cement concreting Madras-Calcutta road.	Mangalagiri ..	21st Jan. 1950, a.n.	
Pyaswami bridge work	.. Kasaragod ..	11th Feb. 1950, a.n.	
Special subdivision for Ramanathapuram-Mandapam road.	Ramanathapuram ..	17th Feb. 1950, f.n.	
Improvements to roads in Pudukkottai.	Pudukkottai ..	1st April 1950, f.n.	
Kaveripatnam Bridge subdivision formed at Krishnagiri.	.. ..	10th Apr. 1950, f.n.	Closed on 31st Mar. 1952, a.n.
Metalling Nidadavole-Yernagudem road.	Nidadavole and then at Tanuku.	19th April 1950, f.n.	
Cement concreting Madras-Calcutta road.	Madras ..	27th Apr. 1950, f.n.	Closed on 1st Oct. 1951, f.n.
Cement concreting Rajahmundry-Kakinada road.	Dwarapudi ..	20th Apr. 1950, a.n.	
Cement concreting Cape Commorin road.	Omalar ..	26th June 1950, f.n.	Closed on 27th Sep. 1951.
Construction of Cauesway across Pennar.	Sidhout ..	1st July 1950, f.n.	Closed on 31st May 1951, a.n.
Construction of a bridge over Gurpur river at Kulur.	Mangalore ..	8th July 1950, f.n.	
Forming a road from Rampa Chodavaram to Addathigala.	Addathigala ..	5th Aug. 1950, f.n.	
Upputeru bridge work	.. Akivedu ..	14th Sep. 1950, f.n.	
Cement concreting Krishnagiri road	.. Vellore ..	23rd Sep. 1950, f.n.	
Special subdivision for Municipal works in Coimbatore Municipality.	Coimbatore ..	1st Oct. 1950, f.n.	
Special subdivision for Tuticorin-Tiruchendur road.	Tuticorin ..	24th Nov. 1950, a.n.	
Cement concreting Madras-Calcutta road.	Payakaraopet ..	12th Jan. 1951, a.n.	
Champavathi bridge work	.. Nathavalsala ..	24th Jan. 1951, f.n.	
Palar bridge subdivision	.. Chingleput ..	18th Mar. 1951, f.n.	

Name of subdivision.	Headquarters.	Date of formation.	Remarks.
The special subdivisions noted below were formed during the year under report:—			
Construction of a bridge across the river Swarnanathi near Puttige.	Udipi	19th Apr. 1951, <i>f.n.</i>	
Dornal Sreesailam Road Investigation.	Dornal	16th Apr. 1951, <i>f.n.</i>	Closed on 15th Aug. 1951, <i>a.n.</i>
Forming a road on Kollihills area	Salem	4th May 1951, <i>f.n.</i>	Closed on 3rd Nov. 1951, <i>a.n.</i>
Mannarghat to Chinnathadagam road.	Coimbatore ..	17th July 1951, <i>f.n.</i>	
Gatana bridge work	Ambasamudram ..	9th Aug. 1951, <i>f.n.</i>	
Kalavapalli bridge work	Kalyandrug ..	25th Oct. 1951, <i>f.n.</i>	
Minamalur Ghat road No. II subdivision.	Paderu	24th Oct. 1951, <i>f.n.</i>	
Special subdivision for investigation, preparation of plans and estimates.	Chintalapudi ..	3rd Nov. 1951, <i>f.n.</i>	
Forming a road from Elayangudi to Rajasingamangalam.	Paramagudi ..	12th Nov. 1951, <i>f.n.</i>	
Noyyal bridge work	Coimbatore ..	10th Jan. 1952, <i>f.n.</i>	
Constructing causeways and cement concreting works.	Bellary	21st Feb. 1952, <i>f.n.</i>	
Famine works subdivision Cuddappah.	Cuddappah ..	15th Mar. 1952, <i>f.n.</i>	
Famine work subdivision Chittoor district.	Palmaner	22nd Mar. 1952, <i>f.n.</i>	
Famine works No. I subdivision, Anantapur district.	Hindupur	24th Mar. 1952, <i>a.n.</i>	
Famine work subdivision, Chittoor district.	Puthur	24th Mar. 1952, <i>f.n.</i>	

6. Supervisors.

The category of supervisors in the Madras Highways Engineering subordinate service is borne on State basis. For normal maintenance work of the Department 480 posts of supervisors (that is sections) were considered as the minimum but during the year 1951-52 there was sanction of Government only for 385 posts for such work excluding temporary posts of supervisors sanctioned for certain specific works. Exclusively there were eight sections for the maintenance work in the area of ex-States of Pudukkottai, Banganapalle and Sandur merged in the Madras State.

2. In the previous years there was depletion in the strength of qualified supervisors. This has eased and the staff position in regard to the availability of qualified personnel has improved. However some of the posts were manned by ex-local fund unqualified subordinates exempted to hold qualifications absorbed as overseers in the Highways Department, etc., against the sanctioned posts of supervisors and some retired persons re-employed as shown below:—

- (i) Number of retired men re-employed and qualified men exempted. 14
- (ii) Number of overseers employed against the posts of supervisors. 26
- (iii) Number of Supervisors (Temporary) utilized in March 1952.—

Serial number and circle.							Civil Supervisors.	Motor Vehicle Supervisors and Mechanical Supervisors.
1	I Circle	..	..	..	..	..	61	9
2	II Circle	..	..	..	..	..	47	14
3	III Circle	..	..	..	..	..	41	8
4	IV Circle	..	..	..	..	..	32	7
5	Designs Office	..	..	..	..	..	1	..
Total							182	38
Grand total							220	—

As soon as the final year, B.E., students of 1951 were available for appointment as temporary supervisors all the retired men re-employed as supervisors were relieved after being given one month's notice of termination of their re-employment and all the re-employed men were replaced before end of June 1951. Thereafter no retired supervisor was re-employed as a matter of principle.

3. During the year under review, 54 sections were newly formed and six of them were closed before the end of the year. The remaining 48 sections were continued throughout the year. Fifty-three special sections formed during the previous years were closed during the course of the year.

The following were the special sections formed during the previous years for the works noted against each and wound up during the year on the dates noted against each:—

Serial number and name of work.	Date on which wound up.
1 Forming road from Peddavalasa to Katragedda	28th May 1951, <i>a.n.</i>
2 Cement concrete surfacing on the Karathipudy-Narsapur Ferry road, Mile 22/0 to 26/0.	30th September 1951, <i>a.n.</i>
3 Preparation of plans and estimates and the execution of Post War Road Development works of West Godavari District Board.	5th December 1951, <i>a.n.</i>
4 Post-War Road Development work and grant-in-aid works of the Guntur District Board.	26th June 1951.
5 Constructing a bridge on the Nizampatam on the borders of Repalle and Bapatla taluks—A bridge near Nagaram.	6th July 1951, <i>a.n.</i>
6 Providing cement concrete to Mile 0/7-574 to mile 6/3 of the Guntur-Bapatla-Chinnaganjam Road.	30th April 1951, <i>a.n.</i>
7 Construction of bridges on the Nizampatam canal and side channels on the borders of Repalle and Bapatla taluk (Chandole Bridge).	13th July 1951, <i>a.n.</i>
8 Metalling Macherla-Nagarjunakonda Road	2nd July 1951, <i>a.n.</i>
9 Firka Development works—Ongole and Guruvareddipalem ..	30th September 1951.
10 Asphalt concreting Chingleput-Kancheepuram road, Mile 37/7-40/2 and 40/2-42/2.	31st December 1951.
11 Cement concrete works Mile 4/6 to 12/0 of Madras-Calcutta Road (2 sections).	30th September 1951.
12 Dustless surfacing the road from Madanapalle to Madanapalle Railway Station.	8th May 1951.
13 Post-War Road Development works of Kurnool District Board.	23rd November 1951.
14 Constructing a bridge at Mile 45/7 of Kurnool-Guntur Road.	16th January 1952.
15 Formation of a road from Dornal to Srisailam (2 sections) ..	15th August 1951, <i>a.n.</i>
16 Construction of a bridge at Mile 8/1 of Halaharivi-Goshchan Bridge Road	29th June 1951, <i>a.n.</i>
17 Constructing Bridge across the Nandiyar at Mile 18/4 of Tiruchirappalli-Jayamcondam Road.	31st October 1951.
18 Investigation and preparation of plans and estimates of Ramanathapuram District Board.	30th April 1951.
19 Cement concrete works Vijayapuram bazaar street to Netaji road and Vijayapuram bazaar street, in Tiruvarur Municipality.	30th June 1951.
20 Constructing a bridge over Kodavanar at Mile 6/2 Dindigul-Aravankurichi Road.	28th March 1952.
21 Cement concrete works Chidambaram-Bhuvanagiri Road ..	30th April 1951.
22 Famine relief works in Coimbatore North Division	27th August 1951.
23 Post-war Road Development District Board Works in Coimbatore South Division.	22nd April 1951.

S rial number and name of work.	Date on which wound up.
24 Cement concrete Coimbatore-Mettupalayam road (two sections)	31st July 1951.
25 Do. do. (one section) ..	15th December 1951.
26 Construction of Panthavoor bridge at M. 25/1 of Edapal-Kankur road.	11th October 1951.
27 Firka Development works Neeleswar in South Kanara district.	30th September 1951.
28 Constructing a bridge across Yekkar at M. 14/6-7 of Mangalore-Kinnigole road.	1st December 1951.
29 Cement concreting Tiruchirappalli-Salem road	30th June 1951.
30 Do. do.	31st December 1951.
31 Constructing a causeway at M. 13/4 of Dharmapuri-Tiruppur road.	30th June 1951.
32 Cement concreting M. 219/0 to M. 228/50 of N.H. No. 7 (two sections).	31st October 1951.
33 Providing dustless surfacing Mangalore-Baindur road M. 0/0 to 2/1.	25th October 1951.
34 Constructing a bridge at M. 80/2 of Hampasagar-Mylam road and causeway at M. 77/6 of Hampasagar-Mylam road.	31st July 1951.
35 Improvements to Dornal pass road	10th February 1952, a.n.
36 Constructing a bridge across the Kushavathi river at M. 3/6 of Kodrikonda-Amarapuram road and constructing a bridge at M. 8/2-3 of Kadiri-Palasangamudram road.	11th February 1952, a.n.
37 District Board Post-war Road Development works, Gudur ..	10th June 1951, a.n.
38 District Board Post-war Road Development works, Nellore ..	10th June 1951, a.n.
39 Pennar bridge works (one post surrendered)	10th August 1951, a.n.
40 Famine relief works, Sriperumbudur	31st March 1952, a.n.
41 Famine relief works, Acharapakkam	31st March 1952, a.n.
42 Famine relief works, Chingleput	31st March 1952, a.n.
43 District Board Post-war Road Development Works, Srivaikuntam.	28th September 1951, a.n.
44 Improvements to Visakhapatnam-Ananthagiri-Araku road (six posts).	30th September 1951, a.n.

The following are the particulars of special sections formed during the year:—

Name of work for which sections formed.	Date of formation.
1 For work connected with formation of Minimalur Ghat road.	11th September 1951 (Closed on 19th September 1951, f.n.)
2 Reconstructing the bridge over Eluru river near Yerravaram at M. 391/1-3 of G.N.T. Road.	1st May 1951, f.n. (Sections temporarily closed on 14th August 1951, f.n.)
3 Investigation of Maredemulle-Chintar road via Lakkavaram ..	8th December 1951, f.n.
4 Do. ..	30th December 1951, f.n.
5 Preparation of estimates and plans of certain works of Krishna District Board.	11th October 1951, f.n.
6 Preparation of estimates and plans of certain works of Krishna District Board.	13th October 1951, f.n.
7 Post-war Road Development Grant-in-aid works of Guntur district.	1st May 1951, f.n.
8 Construction of a bridge over the Palar river at M. 38/3-5 of Madras-Tiruchirappalli-Dindigul road.	11th April 1951, f.n.
9 Construction of a bridge over the Palar river at M. 38/3-5 of Madras-Tiruchirappalli-Dindigul road.	8th August 1951, f.n.

Name of work for which sections formed.	Date of formation.
10 Construction of a bridge over the Palar river at M. 38/3-5 of Madras-Tiruchirappalli-Dindigul road.	1st February 1952, f.n.
11 Constructing a bridge at M. 0/3 of Tiruvottiyur-Penneri-Panjetty road.	27th February 1952, f.n.
12 Constructing a causeway at M. 13/7-8 of Rajampet-Kadiri road in Cuddapah district.	9th January 1952, f.n.
13 Widening and improving the Kurlighat road in M. 44/4-47/0 of Cuddapah-Velpula road.	28th October 1951, f.n.
14 Constructing a bridge at M. 7/1 of Koilkuntla-Nossam road.	31st August 1951, f.n.
15 Construction of a causeway at M. 20/3 of Adoni-Siruguppa road.	1st February 1952, f.n.
16 Constructing a dispensary building at Kurugode in Bellary district.	4th July 1951, f.n.
17 Constructing a causeway across Chinnahagiri river at M. 21/1-3 of Bellary-Rayadrug road.	16th October 1951, f.n.
18 Constructing a causeway at M. 15/8 of Bellary-Kalyandrug road.	9th February 1952.
19 Constructing a bridge across supply channel of Gotlur taluk in M. 93/3-4 of Rayadrug-Dharmavaram road.	9th April 1951.
20 Constructing a bridge at Kalavalapalli at M. 19/8 of Anantapur-Kalyandrug road.	13th October 1951.
21 Preparation of plans and estimates of District Board (Tiruchirappalli).	7th November 1951, f.n. (Section closed on 2nd February 1952, a.n.)
22 Preparation of plans and estimates of District Board (Tiruchirappalli).	3rd September 1951, a.n.
23 Formation of a road from Ilayangudi to Rajasingamangalam.	22nd November 1951.
24 Firka Development works, Thalanyar in Tanjore district ..	17th September 1951.
25 Reconstructing a bridge over Karuppayar at M. 22/6 of Tenkasi-Madurai road.	1st April 1951.
26 Constructing a bridge across Gatana river at M. 2/3 of Alangulam-Ambasamudram road.	4th October 1951.
27 Certain R.D.F. bridges works on Anamalai-Pulankinar road.	2nd August 1951.
28 Investigation of road from Mannarghat to Chinnathadagam ..	4th September 1951.
29 Do. ..	1st October 1951.
30 Famine relief works in Coimbatore Division	22nd April 1951, a.n. (Closed on 22nd September 1951.)
31 Formation of road in Kolli Hills area	20th May 1951. (Closed on 3rd November 1951.)
32 Do.	27th May 1951. (Closed on 3rd November 1951.)
33 Construction of bridges on Papireddipetta-Malapuram road.	18th December 1951.
34 Construction of a bridge across Swarnanadhi near Puttige ..	12th September 1951.
35 Cement concrete in M. 424/2 to M. 423/0 of the Madras-Calcutta road (National Highways Road No. 5).	23rd April 1951, f.n.
36 Construction of two bridges on Pulleru canal at Peda Ogirala and Chinna Ogirala.	9th April 1951, f.n.
37 Metalling of the road from Avanigadda to Koderu in Krishna district.	11th April 1951, f.n.
38 Cement concreting Guntur-Amaravathi road from M. 0/0 to M. 0/3 and M. 0/4-330 to M. 1/0.	1st May 1951, f.n.
39 Famine relief works, Rayachoti, Cuddapah district	21st March 1952, a.n.

Name of work for which sections formed.	Date of formation.
40 Famine relief works, Yerraguntla, Cuddapah district ..	22nd March 1952 <i>f.n.</i>
41 Famine relief works, Kadiri, Anantapur district ..	29th February 1952, <i>f.n.</i>
42 Famine relief works, Nallamada, Anantapur district ..	25th February 1952, <i>f.n.</i>
43 Famine relief works, Kothacheruvu, Anantapur district ..	1st March 1952, <i>f.n.</i>
44 Famine relief works, Tadapatri, Anantapur district ..	27th February 1952, <i>f.n.</i>
45 Famine relief works, Wandiwash, North Arcot district ..	26th May 1951, <i>f.n.</i>
46 Famine relief works, Tiruvannamalai, North Arcot district ..	19th June 1951, <i>f.n.</i>
47 Famine relief works, Chittoor ..	14th March 1952, <i>f.n.</i>
48 Famine relief works, Kalahasthi, Chittoor district ..	22nd March 1952, <i>f.n.</i>
49 Famine relief works, Madanapalli, Chittoor district ..	21st March 1952, <i>f.n.</i>
50 Cement concrete in M. 26/0 to M. 33/6 of Tanjore-Tiruchirappalli road.	7th January 1952.
51 Constructing a bridge at M. 4/8 of Kozhikode-Balusseri road.	10th December 1951, <i>f.n.</i>
52 Constructing a bridge at M. 19/6 of Hanumatheertham-Kottapatti road.	9th January 1952.
53 For works connected with the formation of Minimalur Ghat road 12 miles and 20 miles of Anakapalli-Madugole road to Paderu (additional section).	1st October 1951.
54 For works connected with the formation of Minimalur Ghat road 12 miles and 20 miles of Anakapalli-Madugole road to Paderu (additional section).	10th October 1951.

CHAPTER III.

WORKS.

1. General.

At the commencement of the year 1951-52, i.e., on 1st April 1951, there were 15,599 miles of Government roads and 24,957 miles of district board roads in charge of the department. In addition to maintaining the above roads, 62 miles of the roads were cement concreted, 655 miles provided with black top, 548 miles metalled and 1,524 miles of new roads formed during the year 1951-52 and 65 miles of roads were taken over from the local bodies. Particulars of roads improved or newly formed and taken over from the local bodies are given in Appendices 6 and 7 respectively. The position as on 31st March 1952, is indicated below :—

	Government.	District board.
	MILES.	MILES.
Cement concrete roads	286	..
Black top roads	1,648	33
Metalled roads	13,380	12,521
Unmetalled roads	285	12,403
Total	15,599	24,957

2. Maintenance.

The expenditure on maintenance of Government and of District Board roads compared with five preceding years is given below :—

Year.	Government roads.	District board roads.
	RS.	RS.
1946-47	1,75,22,582	79,96,937
1947-48	2,62,03,053	91,54,213
1948-49	3,50,15,182	1,15,83,288
1949-50	3,37,91,000	1,29,85,735
1950-51	3,87,73,748	1,33,63,439
1951-52	4,16,35,671	1,41,82,154

The division-war details of expenditure on the maintenance of Government and district board roads during 1951-52 are given in Annexure 11 (i) and (ii).

Cost per mile.—The average cost of maintenance per mile without regard to type of road surface for the past years is furnished in Annexure 2. In the first year of this department, viz., 1946-47, the average cost of maintenance was Rs. 609 per mile and it rose to Rs. 1,229 in 1949-50, Rs. 1,338 in 1950-51 and Rs. 1,376 in 1951-52. The rise in cost of maintenance was due not only to higher cost of labour, transport and materials, but also to the increased tempo of maintenance work dictated by the needs of the more complex traffic with larger number and variety of vehicles, higher speeds and heavier loads. Year after year the cost of maintenance cuts deeper into the highway budget, and allotments for badly needed improvements are curtailed in the interests of day to day maintenance problems.

The division-war classification of maintenance expenditure according to categories of roads is given in Annexure 13 and an abstract for the State worked out in Annexure 3. The average cost of maintenance per mile of various categories of roads without regard to the type of surface is given below :—

Government Roads.					RS.
National Highways	..	..	..	..	3,576
Provincial Highways	..	..	..	..	3,009
Major district roads	..	..	..	..	2,406
Other district roads	..	..	..	..	1,981
District Board Roads.					
Major district roads	..	..	..	..	947
Other district roads	..	..	..	..	590
Village roads	..	..	..	..	362

These figures give a broad indication of the relative standards of the different categories of roads.

The large disparity between the standards of the Government roads on the one hand and the district board roads on the other is also an indication of the relative inadequacy of available funds on the district board side. This statement, however, need be qualified by the fact that the traffic on district board roads is generally much less than that on Government roads.

Cost per ton-mile.—The cost of maintenance per ton-mile of traffic for a few roads taken at random is given below :—

ADMINISTRATION REPORT OF THE

Serial number and classification of road.	Name of road and reach.	MILES.	Type of surface.	Maximum intensity per 24 hours.	Maintenance expenditure.		Cost of maintenance per mile.
					Length in miles.	Cost.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	RS. A. P.
Arcoot (North).							
1 N.H. 4 ..	Madras-Chittoor-Bangalore road	62-71	B.T.	4,522	9-0	33,819	0 13 3
2 Do. 43 ..	Rampet-Krishnagiri road	100-105	W.B.M.	1,349	5-0	28,074	4 2 7
3 P.H. ..	Cuddalore-Chittoor road	116 5-118 4	B.T.	3,905	1-6	2,790	0 6 6
4 Do. ..	Do.	100-106	W.B.M.	459	1-0	1,561	3 6 5
5 M.D.R. ..	Arkonam-Kancheepuram road	0/1-9/1	B.T.	2,445	9-0	16,725	0 12 2
6 Do. ..	Arkonam-Ocheri road	0/0-10/0	W.B.M.	1,636	10-0	15,779	0 15 5
7 O.D.R. ..	Arni-Kalambur-Ettivadi road	6/0-11/0	Do.	674	5-0	6,151	1 13 2 *
8 Do. ..	Sholingur-Kaveripauk road	0/7-19/7	Do.	571	1-0	875	1 8 6 †
Arcoot (South).							
1 N.H. ..	Madras-Tiruchirappalli-Dindigul road	64-74/0	B.T. and W.B.M.	1,000	10-0	18,723	1 13 11
2 Do. ..	Do.	140-150	B.T.	574	10-0	15,816	2 12 0
3 P.H. ..	Cuddalore-Chittoor road	0/0-4/2	B.T.	3,940	4-2	30,925	1 13 10
4 Do. ..	Do.	30-42	B.T. and W.B.M.	432	12-0	12,863	2 7 8
5 M.D.R. ..	Pondichery-Cuddalore road	113-118/3	B.T.	2,300	5-3	27,016	2 3 0
6 Do. ..	Vikravandi-Lower Anicut road	110-114	W.B.M.	678	4-0	7,899	2 14 6
7 Do. ..	Markanam-Gingee road	20 2-31/0	Do.	748	10-6	26,460	3 10 7
Coimbatore (North).							
1 N.H. ..	Salem-Cochin road	290/0-293/6	W.B.M.	1,542	3-6	9,490	1 10 3
2 P.H. ..	Tiruchirappalli-Coimbatore road	75-84	Do.	1,192	9-0	9,544	0 14 0
3 M.D.R. ..	Erode-Karur road	2/2-12/0	Do.	673	9-6	26,693	4 1 1
4 Do. ..	Bhavani-Kavandapadi road	0/0-8/3	Do.	782	8-3	8,578	1 5 0
5 Do. ..	Erode-Bhavani road	0/0-7/0	Do.	2,439	7-0	27,333	1 10 0 †
6 Do. ..	Kollegal-Chellampalayam road	24/0-35/0	Earthen	51	11-0	8,570	15 4 3
West Godavari.							
1 N.H. ..	Madras-Calcutta road	309-317	B.T.	3,333	8-0	17,512	0 11 0
2 M.D.R. ..	Koderu-Nallajerla road	24 3-34/0	C.C.	2,645	9-5	13,083	0 8 0
3 Do. ..	Narasapur-Prekhalanka road	34/0-43/7	W.B.M.	8,121	9-7	13,536	0 2 5
4 Do. ..	Eluru-Chintalapudi road	10/0-20/0	Do.	2,618	10-0	22,182	0 13 3

HIGHWAYS DEPARTMENT, 1951-52

1 N.H. ..	G.S.T. Road	251-260/2	B.T.	2,486	8-6	28,883	1 2 0
2 Do. ..	Do.	260/2-267/0	Do.	5,389	6-6	22,458	0 10 0
3 Do. ..	Do.	295/3-300/6	Do.	9,892	5-3	29,995	0 9 0
4 P.H. ..	Tenkasi-Madurai road	64/0-72/0	Do.	6,300	8-0	24,538	0 7 9
5 M.D.R. ..	Madurai-Vattanam road	14/0-22/0	W.B.M.	860	8-0	6,003	0 14 0
6 Do. ..	Madurai-Tirupattur road	10/0-18/0	Do.	2,510	8-0	39,372	1 15 3
7 Do. ..	Vadamadurai-Oddanchatram road	6/0-12/0	Do.	1,705	6-0	10,717	1 0 9
8 Do. ..	Baglundi-Usilampatti-Peraiyur road	16/2-28/0	Do.	523	11-6	33,588	5 7 5
9 Do. ..	Kalligudi-Saptur road	0/0-10/6	Do.	540	10-6	17,807	3 0 0
10 O.D.R. ..	Bodi-Rasingapuram road	0/7-5/0	Do.	527	4-1	13,758	6 5 0
11 Do. ..	Palni-Kolumam road	..	Do.	838	8-0	25,995	3 14 1
12 V.R. ..	Thanjohum-Alanganathur road	0/0-6/2	Do.	500	6-2	13,000	4 2 5
The Nilgiris.							
1 P.H. ..	Ooty-Mettupalayam road	0/4-11/0	B.T.	3,699	10-4	11,035	0 4 7
2 Do. ..	Do.	11/0-22/0	Do.	1,956	11-0	22,829	1 1 0
3 Do. ..	Do.	22/0-31/5	Do.	5,011	8-3	16,430	0 5 6
Rajahmundry.							
1 N.H. ..	Madras-Calcutta road	406-413	W.B.M.	1,479	7-0	19,091	1 13 6
2 Do. ..	Do.	413-424	Do.	1,864	11-0	47,282	2 4 1
3 P.H. ..	Rajahmundry-Kakinada road	0/0-2/4 + 200	C.C.	2,731	2-4	1,850	0 4 0
4 M.D.R. ..	Samalkota-Gonavaram road	0/0-6/0	W.B.M.	2,310	6-0	58,365	4 3 4
5 Do. ..	Samalkota-Pratipadu road	0/0-7/0	Do.	3,737	7-0	27,697	1 0 8
6 Do. ..	Old Madras-Calcutta road	392-402	Do.	1,157	10-0	20,736	1 12 8
Ramanathapuram.							
1 N.H. ..	Benares-Cape Comorin road	324/7-356/1	W.B.M.	2,264	31-2	1,20,326	1 11 2
2 Do. ..	Madurai-Ramanathapuram road	6/5-70/5	Do.	950	64-0	2,64,020	4 5 6
3 P.H. ..	Manamadurai-Tirupattur road	0/1-39/5	Do.	732	39-4	1,10,537	3 13 2
4 Do. ..	Tenkasi-Madurai road	33/1-64/1	Do.	2,500	31-0	81,337	1 0 10
5 M.D.R. ..	Sankaranayinar Koil-Rajapalayam road	46/7-53-3	Do.	1,050	6-4	15,616	2 4 7
6 Do. ..	Virudunagar-Aruppukottai road	0/1-10/4	Do.	2,683	10-3	37,686	1 5 0
Salem (South).							
1 P.H. ..	Tiruchirappalli-Salem road	70/3-71/6	W.B.M.	2,478	1-3	3,725	1 1 5
2 Do. ..	Attur-Bypass road	0/0-1/1	Do.	1,346	1-1	4,112	2 11 6
3 O.D.R. ..	Sankari-Tiruchengode road	0/0-7/2	B.T.	2,974	7-2	3,860	0 2 11
1 M.D.R. ..	Mayuram-Tranquebar road	0/0-16/0	W.B.M.	1,159	16-0	43,669	2 5 8

* Government road.

† District board road.

State Roads	..	..	..	Rs.	245.45 lakhs.
Other Roads	..	..	..	„	130.00 „
Tools and Plant	..	..	..	„	124.55 „
			Total	..	„ 5 crores

These provisions are intended to meet the expenditure on the works in progress in the five year programme of Post-War Road Development and also works that will be selected for execution from that programme subsequently from 1951-52 to 1955-56. The five year plan of the Planning Commission relating to Roads in this State is thus only a continuation of the Post-War Road Development programme which was already under implementation from 1st April 1947.

The expenditure incurred to end of 1950-51 in the first four years of the five year period commencing from 1947-48, amounted to Rs. 4.95 crores. The expenditure incurred during 1951-52 was Rs. 89.88 lakhs on State Roads and Rs. 49 lakhs on Other Roads against the targets of Rs. 105.45 and 45 lakhs, respectively. The expenditure under Tools and Plant was Rs. 51.70 lakhs against the target of Rs. 53.55 lakhs. In all, therefore, against a targetted expenditure of Rs. 204.00 lakhs in the first year, an expenditure of Rs. 190.58 lakhs was incurred in 1951-52.

The provision under other roads, made in the five year plan is for the assistance that the State Government gives to the District Boards as grant-in-aid under Post-War Road Development.

During the year, Government sanctioned full grants to the extent of value of work done to the District Boards, Anantapur, North Arcot, Chingleput, Chittoor, Cuddapah, East Godavari, South Kanara, Kurnool, Malabar, Nellore, the Nilgiris, Ramanathapuram and Tiruchirapalli, in view of their poor financial resources, and half-grants to other District Boards for the execution of the District Board portion of the above plan.

From April 1947, Government of India took up the responsibility for financing the National Highways. In pursuance of the Nagpur Report, a separate five-year plan for the National Highways was chalked out under Post-War Road Development as in the case of State Highways and District Boards, to effect steady progress towards improvement of National Highways; but the Government of India did not accord its approval to this finally. Nevertheless, works were being selected from the proposed list and put into execution after obtaining the approval of Government of India in individual cases. The National Plan of the Planning Commission, which provided for 5 crores for development of roads other than National Highways, has a separate provision of Rs. 25 crores for National Highways all over India. The details of this plan relating to National Highways are being worked out by the Central Government and have not been communicated in 1951-52. However, an expenditure of Rs. 55.18 lakhs on the works already in progress and sanctioned subsequently by the Government of India has been incurred in 1951-52, bringing the total expenditure for 1947-48 to end of 1951-52 to Rs. 143.20 lakhs.

(b) Central Road Fund Schemes.

The Central Road Fund was constituted with the receipts under petrol tax and the proceeds thereof are allocated to the States for utilisation on approved Road Development Schemes. Out of the allocations made under this scheme, this State, besides financing the approved works on their roads, was sanctioning full grants to the District Boards for the execution of original works on District Board Roads, which could not be normally financed by them.

Since the scheme was put into effect, this State had received a total allocation of Rs. 354.04 lakhs to end of 1949-50 including the provisional

allocation of Rs. 15 lakhs during the year 1949-50. In February 1951, a further amount of about Rs. 158 lakhs was allocated to this State for the years 1950-51 and 1951-52, thus making the progressive total allocations to about Rs. 512.04 lakhs. These figures are subject to correction on receipt of final figures of allocation.

Out of this amount, the expenditure incurred to end of 1951-52 was Rs. 283.48 lakhs.

A statement showing the expenditure incurred during the years 1946-47 to 1951-52 is given below :—

Year.	Expenditure incurred on		Total.
	Government works.	District Board works.	
	RS.	RS.	RS.
1946-47	..	..	..
1947-48	..	..	..
1948-49	2,66,247	1,26,351	3,92,628
1949-50	13,28,516	1,75,659	15,04,176
1950-51	16,65,665	5,88,866	22,54,531
1951-52	16,84,817	9,70,782	26,55,599

(c) Grants-in-aid to local bodies under ex-Post-war Reconstruction.

The bulk of original works relating to District Boards are done under Post-war Road Development grants-in-aid. But the small works which do not come under the scope of Post-war Road Development and which are considered essential to the local needs are given aid by the Government under ex-Post-war Reconstruction for their execution which fall under the following sub-heads :—

- (1) Village communications other than Post-war Reconstruction,
- (2) Roads and bridges other than village communications,
- (3) Improved surfacing of roads, and
- (4) Flood damage to roads.

At the time of adverse seasonal conditions, famine, etc., when people were being thrown out of employment in their home districts, the Government have been sanctioning grants under unemployment relief works on the basis of the recommendations of the Collectors of the districts concerned.

Grants thus sanctioned by Government and expenditure incurred thereon are given in the statement below in respect of the sub-heads mentioned above :—

Sub-head.	Accounts, 1950-51.	Revised estimate, 1951-52.
	RS.	RS.
(1) Village communications other than Post-war Reconstruction.	4,55,981	5,84,400
(2) Roads and bridges other than village communications.	6,51,139	4,50,000
(3) Improved surfacing of roads	7,87,904	8,20,000
(4) Flood damage repairs to roads	2,324	50,000
(5) Special grant for road works to relieve unemployment due to failure of monsoon.	7,18,330	13,50,000

Capital Expenditure.

The total expenditure on all capital works during the year and the preceding years is furnished below :—

Year.	Expenditure on Government roads.	Expenditure on District Board roads.
	RS.	RS.
1946-47	45,66,518	14,58,197
1947-48	33,49,405	60,22,963
1948-49	48,33,513	88,56,910
1949-50	1,45,34,000	1,00,97,570
1950-51	1,63,21,126	1,12,85,991
1951-52	1,56,13,516	1,18,63,708

Divisionwise particulars of expenditure are given in Annexures 11 (i) and (ii) and the expenditure classified under the different categories of roads in respect of each division is shown in Annexure 13.

Works completed.

A summary of new constructions and improvements completed during the year is given below :—

(a) Government Works.

Upgrading.—Sixty-two works at a total cost of about Rs. 54,84,421 were completed during the year by which 62 miles of roads were cement concreted and 655 miles provided with black top surfacing.

New formations.—One work costing about Rs. 44,610 was completed during the year.

Bridges and culverts.—Three major bridge works costing Rs. 34,30,777 were completed during the year. The details of works are given in Annexure 22 (ii).

Besides forty-six minor bridges and culverts costing Rs. 9,83,160 on Government roads were also completed during the year—vide Annexure 23 (ii).

Improvements and special repairs.—Nineteen works costing Rs. 13,91,453 were completed during the year.

(b) District Board Works.

New formations.—Ninety-three works to a total cost of Rs. 9,94,320 were completed during the year involving the formation of 1,524 miles of new roads.

Bridges and culverts.—Two major bridges costing Rs. 2,53,894 and fifty-one minor bridges and culverts to a total cost of Rs. 3,46,929 were completed during the year.

Improvements and special repairs.—Ninety-six works costing Rs. 18,45,182 were completed during the year.

Works in Progress.

An abstract of the number and estimated cost of works that were under execution by the Department during the year is shown below :—

(a) Government Roads.

Nature of work.	Number.	Cost. RS.
Works costing over Rupees One Lakh each—		
Cement concrete and black top works ..	42	1,73,73,000
Bridges and culverts	31	2,83,68,500
New formations	11	61,27,300
Improvements and special repairs ..	24	77,59,500
Works costing less than Rupees One Lakh each—		
Cement concrete and black top ..	66	40,11,705
Bridges and culverts	112	48,62,400
New formations	9	3,46,000
Improvements and special repairs ..	73	21,65,200

(b) District Board Roads.

Nature of work.	Number.	Cost. RS.
Works costing over Rupees One Lakh each—		
Cement concrete and black top works ..	4	15,20,000
Bridges and culverts	16	27,21,000
New formations	31	77,02,700
Improvements and special repairs ..		
Works costing less than Rupees One Lakh each—		
Cement concrete and black top ..	8	1,98,600
Bridges and culverts	241	42,55,100
New formations	896	1,28,66,490
Improvements and special repairs ..	217	34,65,530

A detailed review of works costing over Rupees One Lakh each is given in Annexure 22 (i). Divisionwar figures of works costing less than one lakh of rupees each are given in Annexure 23 (i).

A BRIEF SUMMARY OF THE IMPORTANT WORKS UNDER EXECUTION.

Since the inception of the Post-War Road Development Programme in the year 1947 and the National plan in 1951, a large number of works such as construction of major bridges, improvements to roads, etc., was taken up on all categories of roads. Several works were under execution during the year and certain works were completed, and new works were also taken up during the year. A brief survey covering the progress of a few important works is given below :—

(a) Bridge Works.

Constructing bridge across Champavathi river near Nathavalasa in mile 520/3-6 of Madras-Calcutta Road.—The bridge work was sanctioned in G.O. No. 2206, P.W., dated 7th June 1950, under Post-war Road Development at an estimated cost of Rs. 9,35,000 and it was under construction during the year. The bridge will consist of 22 spans with piers and abutments were founded on wells varying from 20' to 40' depth. On completion of this work, the bridge will provide through traffic facilities on Madras-Calcutta Road without interruption.

Constructing bridge across Budmeru at M. 23/4 of Vijayavada-Nuzvid Road.—This is a Post-war Road Development work sanctioned in G.O. No. 3636, P.W., dated 8th September 1948, at an estimated cost of Rs. 1,75,000 and is in progress. It was expected to be completed by December 1952.

This bridge will be great boon to the rural area to the north of Vijaiavada which is often cut off by the backwaters of the river Budameru.

Constructing a bridge across Coleroon river at Anaikaran Chatram on Chidambaram-Sirkali Road.—The bridgework costing Rs. 28.5 lakhs lies on an important inter-district road connecting the two districts of South Arcot and Tanjore and is proposed to be of reinforced concrete bow string girders with 14 spans of 150 feet each. Foundation work was nearing completion. Sinking of wells for nine out of 13 piers had been taken to tentative final depths. An expenditure of Rs. 2,47,412 was incurred during the year bringing the total expenditure to Rs. 7,43,513 to end of the year.

Constructing a bridge near Kalvapalle at M. 19/8 of Anantapur-Kalyandrug Road.—This work was sanctioned under Road Development Fund Scheme at an estimated cost of Rs. 2,70,000. The expenditure incurred during the year was Rs. 69,834 and to end of the year was Rs. 1,40,449. It consists of 12 spans of 35 ft. clear each and the superstructure is of reinforced concrete tee beam. An important feature of the work was the difficulty experienced in laying foundations due to profuse seepage of water. In order to tackle the large quantity of water a 10" pumping set had to be kept at work continuously.

Constructing a bridge at M. 38/5 of G.S.T. Road (N.H. 45) across Palar.—This would be the longest pre-stressed concrete road bridge in the world and the first of its kind to be constructed in India. The estimated cost of the bridge is Rs. 24 lakhs. The wells for the foundation were sunk to a depth of 20 ft. to 28 ft. Casting of all the curbs for wells and casting of 968 r.ft. of wells steining was completed.

Constructing a bridge across Pennar river at Nellore on N.H. 5.—This bridge-work (revised estimate, Rs. 32,00,000) was in progress and an expenditure of Rs. 8,06,157 was incurred during the year and the total expenditure was Rs. 16,26,795. Twenty-two piers out of 32 and both the abutments were built up to bed block-level. Well sinking for the remaining piers was in progress and arrangements were being made for starting the superstructure where piers were completed.

Constructing a bridge across Bharathapuzha at M. 18/2 of Angadipuram-Kuttiapuram Road.—Estimate, Rs. 18,50,000.—The work was in good progress. Foundation for 9 out of 10 piers and for the abutments were completed and masonry work completed up to bed block-level. The work was expected to be completed by the end of June 1953.

Besides the above bridgeworks, there were several other bridges in all the divisions in progress.

(b) Cement Concrete Works.

The following are some of the noteworthy cement concreting schemes which were in progress or completed during the year :—

1. Cement concreting Benares-Cape-Comorin Road, M. 219 to 228—Estimate, Rs. 6,21,000, Salem North Division. The work lies on an important National Highway which is a heavy feeder for traffic to Salem town to Mysore State and Madras and for all the northern taluks of Salem district. Work completed.
2. Cement concreting Madras-Calicut Road, M. 357/7 to 361/1—Estimate, Rs. 2,73,000, Malabar South Division. Work was in progress.
3. Cement concreting Madras-Calcutta Road, M. 247/1-4 to 267/0—Estimate, Rs. 10.5 lakhs. The stretch of road connects two important towns and trade centres, Guntur and Vijayawada, noted for growing industries like cement, ceramics metal, textiles, etc.

4. Cement concreting G.N.T. Road, M. 424 to 443—Estimate, Rs. 13,00,000. The traffic between Tuni and Etikoppaka Sugar factory is very heavy and the water bound macadam surface was unable to withstand the intensity of traffic and cement concrete was proposed under Post-war Road Development. The work was in progress.
5. Cement concreting Ranipet-Krishnagiri Road, M. 87/2 to 90—Estimate, Rs. 2,45,000, North Arcot district. Work completed. The cement concrete pavement has given much relief especially to motorists. This is an important road carrying more than 2,500 tons of traffic a day.
6. Cement concreting G.N.T. Road, M. 4/5 to 13/0, Chingleput district. Work completed.
7. Cement concreting Kancheepuram-Wandiwash Road, M. 1/3 to 2/0, Chingleput district. Do.
8. Cement concreting Nellore-Bombay Road, Work was in good progress. M. 323/5 to 327/4, Cuddapah district.

(c) New Formations.

Apart from the works of bridging and other improvements to roads many works of formation of new roads were also in progress. Certain works of previous years under Government and under District Boards were in progress, besides taking up new works on hand.

The following works were sanctioned under Post-war Road Development with full grant to District Boards as a security measure for maintenance of law and order :—

- (1) Forming and metalling road from Penugolanu to Konjerla (via) Utukuru.
- (2) Metalling Tiruvur-Raghavaram Road.
- (3) Forming an all-weather road from Allipalli to Medisettivaigudem.
- (4) Forming a jeepable road from Zeelugumalli to Allipalli.
- (5) Metalling Vuyyuru-Telaprole Road, M. 3/0 to 6/4.

These works were expected to be completed by 1952-53.

The formation of an all-weather road from Zeelugumalli to Ankampalem Road (estimate Rs. 1,35,000) under Government and forming a road from Halvi to Kuppagal (Rs. 1,35,000), forming Pullala Cheruvu to Mavivemulla-Remidicherla Road (estimate Rs. 1,20,000) and forming Nandyal-Ongole Road to Piligarkgulla Konapalli (via) Madapullala Chevuru (estimate Rs. 1,00,000) under District Boards were taken up during the year as new schemes.

Photographs of a few of the works in progress are shown in Figures III (a) to III (f).

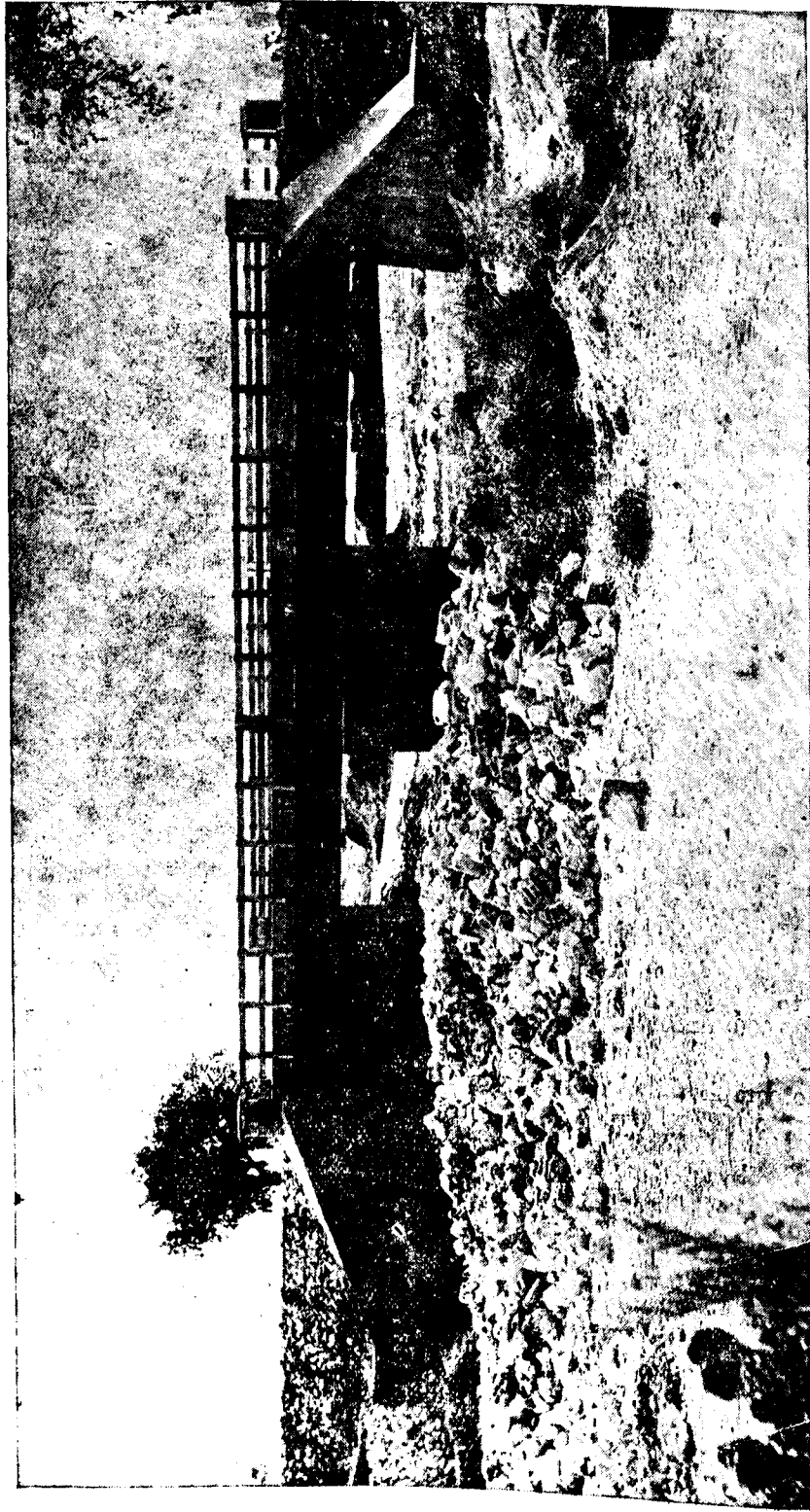


FIG. III (a).—BRIDGE AT MILE 243/5 OF G.N.T. ROAD.

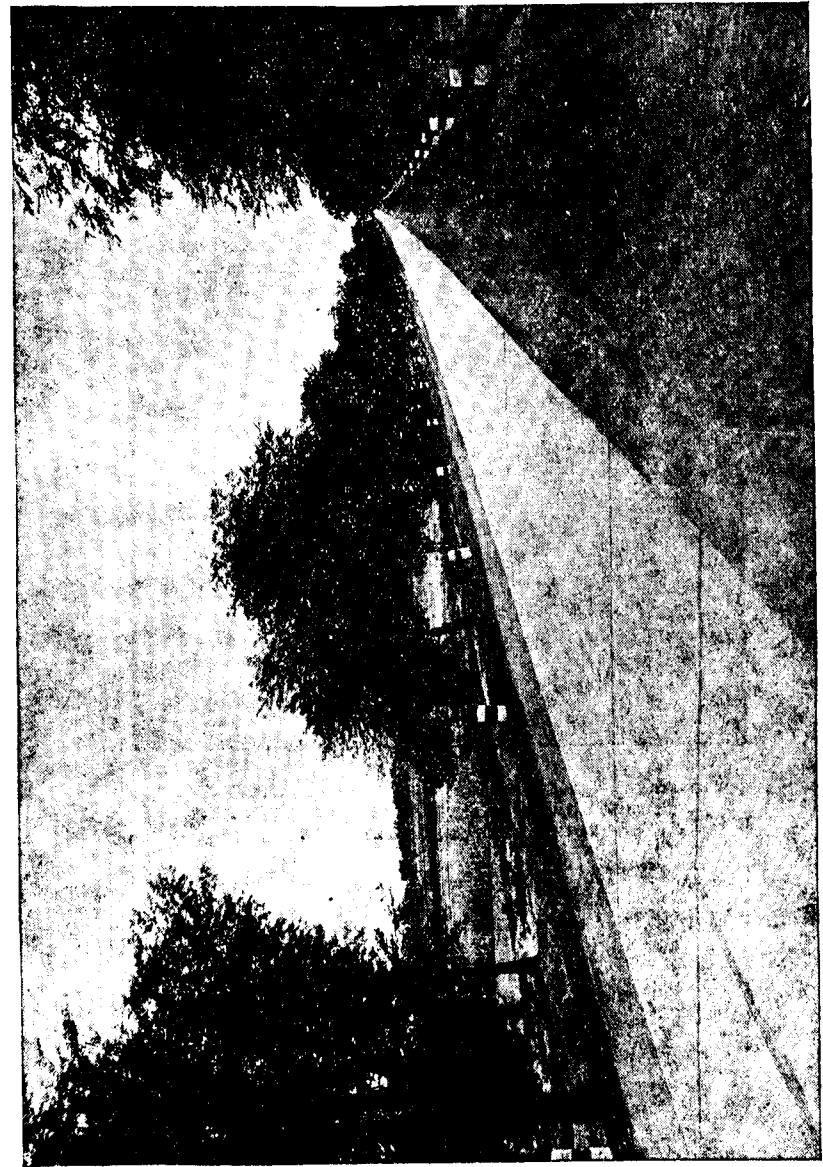


FIG. III (b).—CEMENT CONCRETING RANIPET-KRISHNAGIRI ROAD AT MILE 92/5 AND 6.



FIG. III (c).—BRIDGE ACROSS CHANDRAYYA DRAIN NEAR TAMIRISA, GUDIVADA TALUK, KRISHNA DISTRICT. CENTERING FOR 25 FEET SPAN.

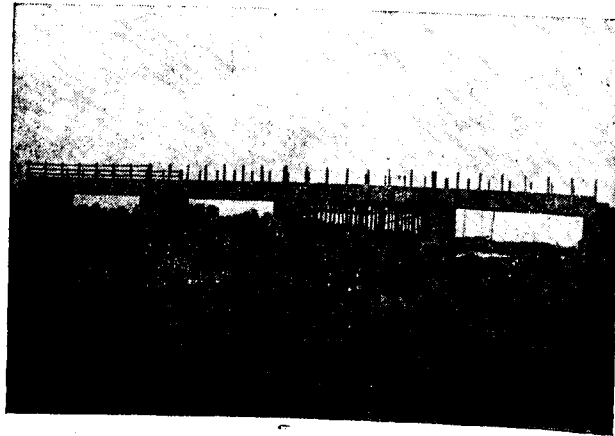


FIG. III (d).—BRIDGE ACROSS CHANDRAYYA DRAIN NEAR TAMIRISA, GUDIVADA TALUK, KRISHNA DISTRICT. FOUR VENTS OF 25 FEET SPAN.

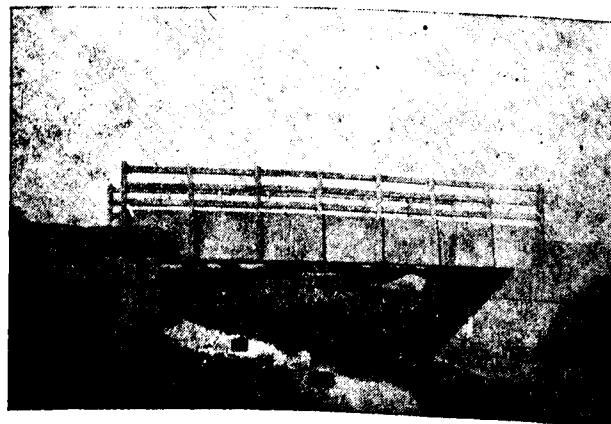


FIG. III (e).—BRIDGE ACROSS GUDIVADA CHANNEL GUDIVADA TALUK, KRISHNA DISTRICT. ONE VENT OF 25 FEET SPAN.



FIG. III (f).—BRIDGE ACROSS NATTAH RIVER AT MILE 10/1 OF KONERIRAJAPURAM VILLAGE ROAD, 4 SPANS OF 15 FEET.



FIG. III (g).—PUMPING ARRANGEMENT FOR DEWATERING TRENCHES AT 13 FEET BELOW BED LEVEL (PIERS 7 AND 8).



FIG. III (h).—SHOWING EXCAVATION IN VIGOROUS PROGRESS.

SUBMERSIBLE BRIDGE AT 25/4 OF ELAYANGUDY-PARAMAKUDY ROAD.



FIG. III (i).—SHOWING THE HEAVY EXCAVATION TO GET AT THE ESTIMATED DEPTH WHICH IS 15 FEET BELOW BED LEVEL (PIER NO. 9).



FIG. III (k).—OPEN CAISSON READY FOR SINKING INTO SANDY SOIL (PIER NO. 17).

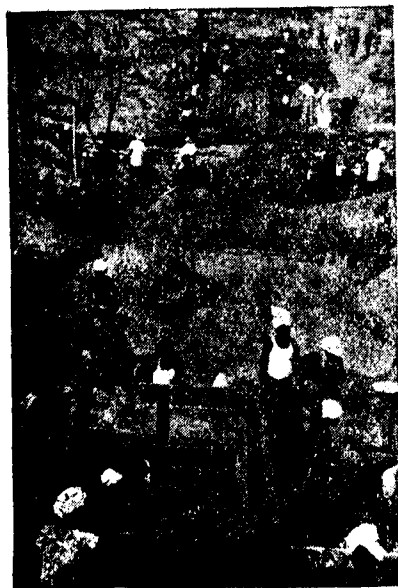


FIG. III (j).—ASSEMBLING AN OPEN CAISSON 20 FEET BELOW BED LEVEL (PIER NO. 20).



FIG. III (l).—RIGHT ABUTMENT LAYING CONCRETE; RAMMING IS IN PROGRESS.

SUBMERSIBLE BRIDGE AT MILE 25/4 OF ELAYANGUDY-PARAMAGUDY ROAD.

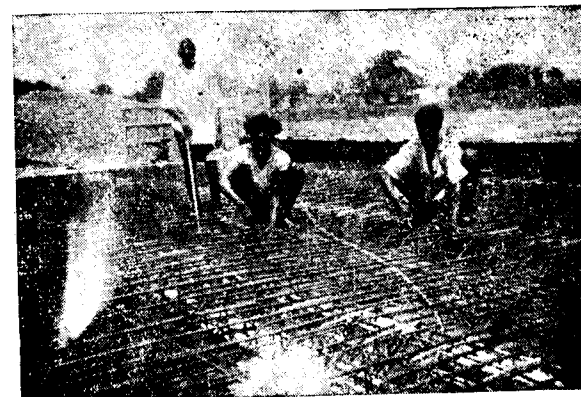
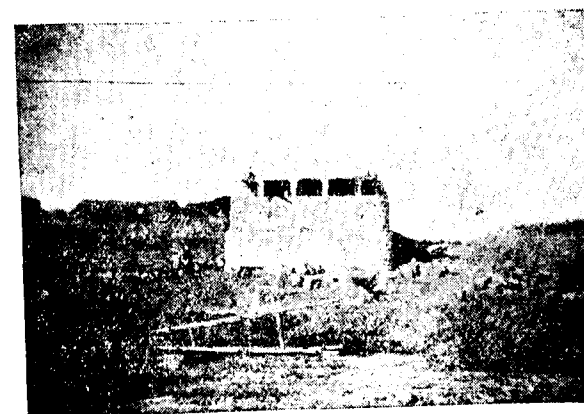


FIG. III (m).—REINFORCEMENT FOR DECK SLAB.



FIG. III (n).—PLACING AND TYING OF REINFORCEMENT FOR T BEAMS.



KALA

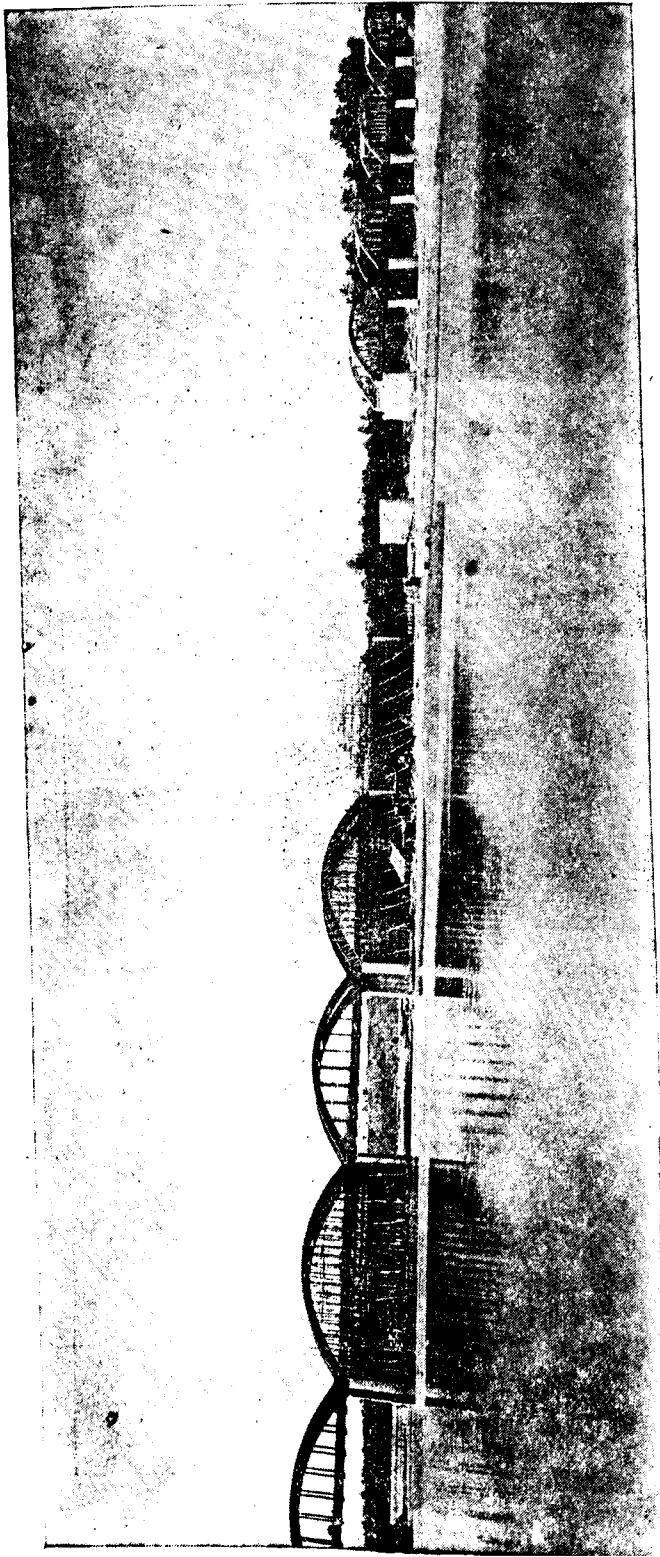


FIG. III (p).—BRIDGE ACROSS BHARATHAPUZHA.

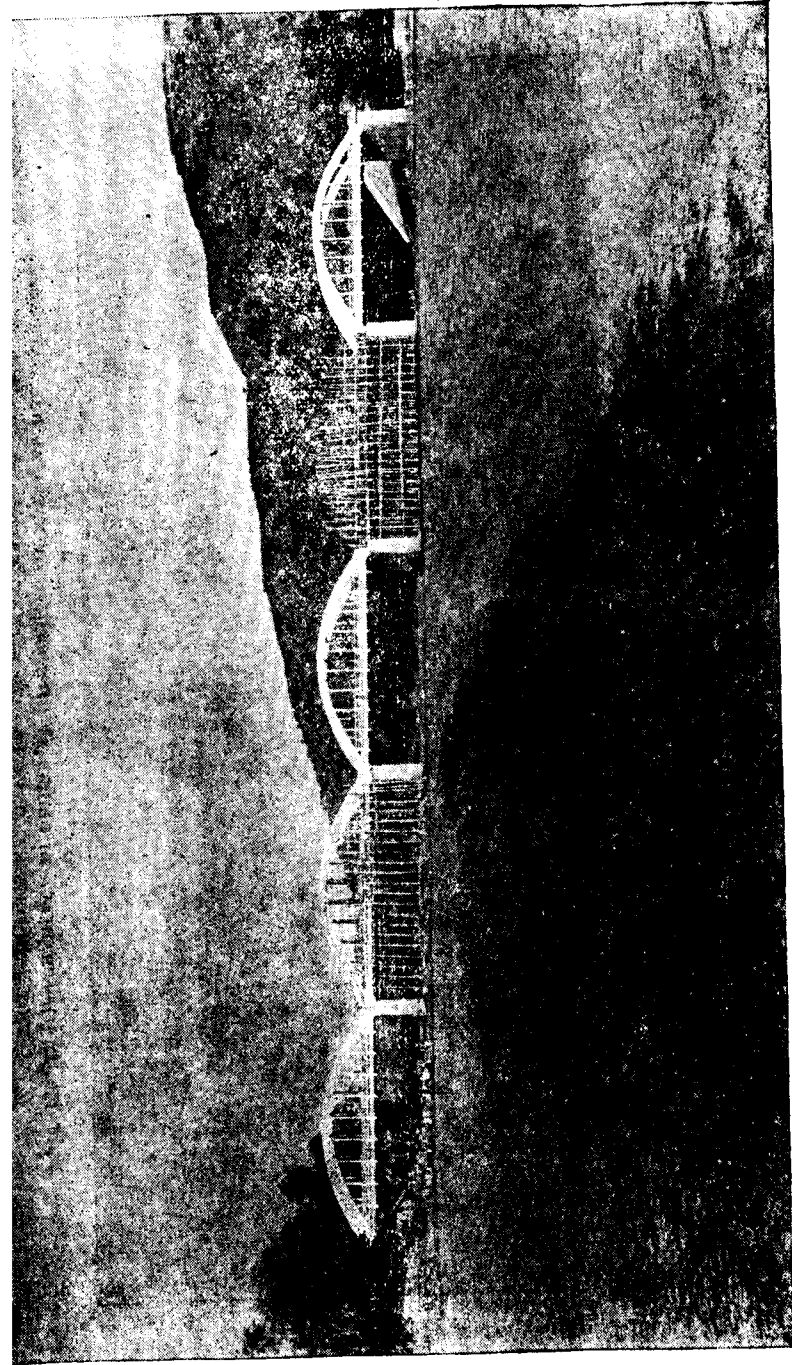


FIG. III (q).—BRIDGE ACROSS PAYASWAMI RIVER.

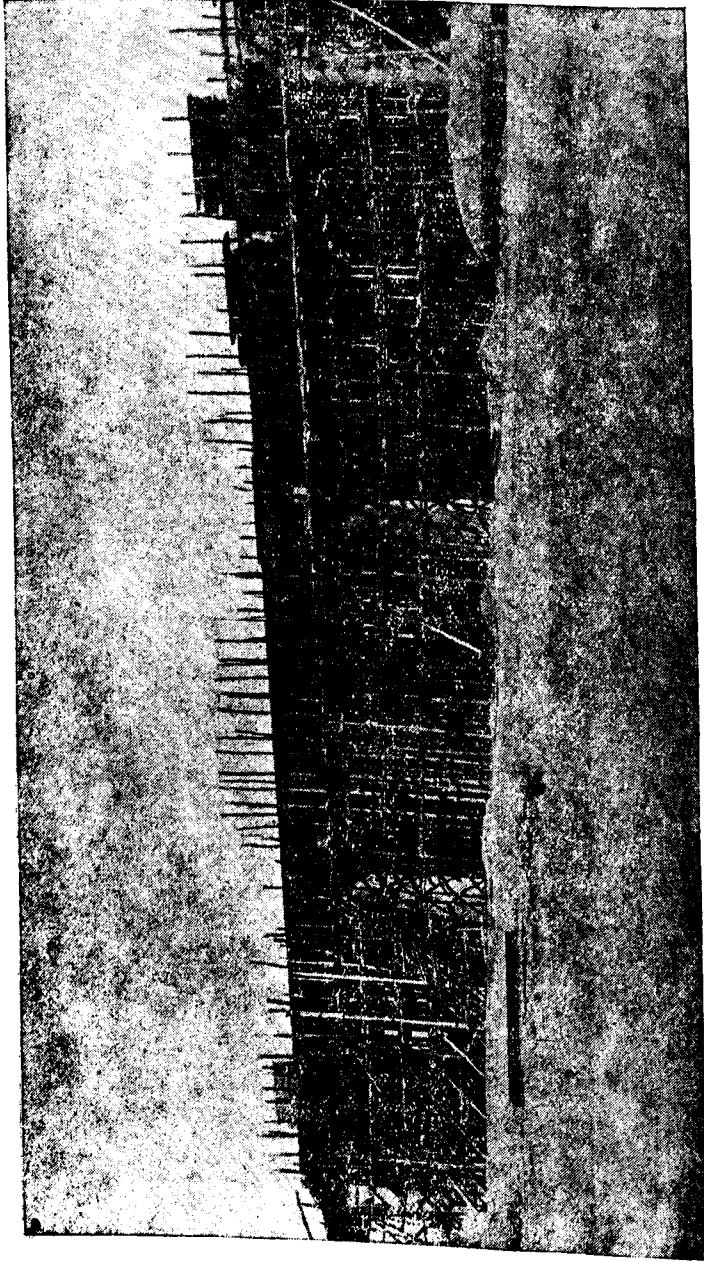


FIG. III (r).—CHAMPAYATHI BRIDGE AT MILE 520/3-6 OF NATIONAL HIGHWAYS NO. 5.
UNIT 7-10 DECKING CONCRETE LAID WITH CONCRETING IN POSITION.

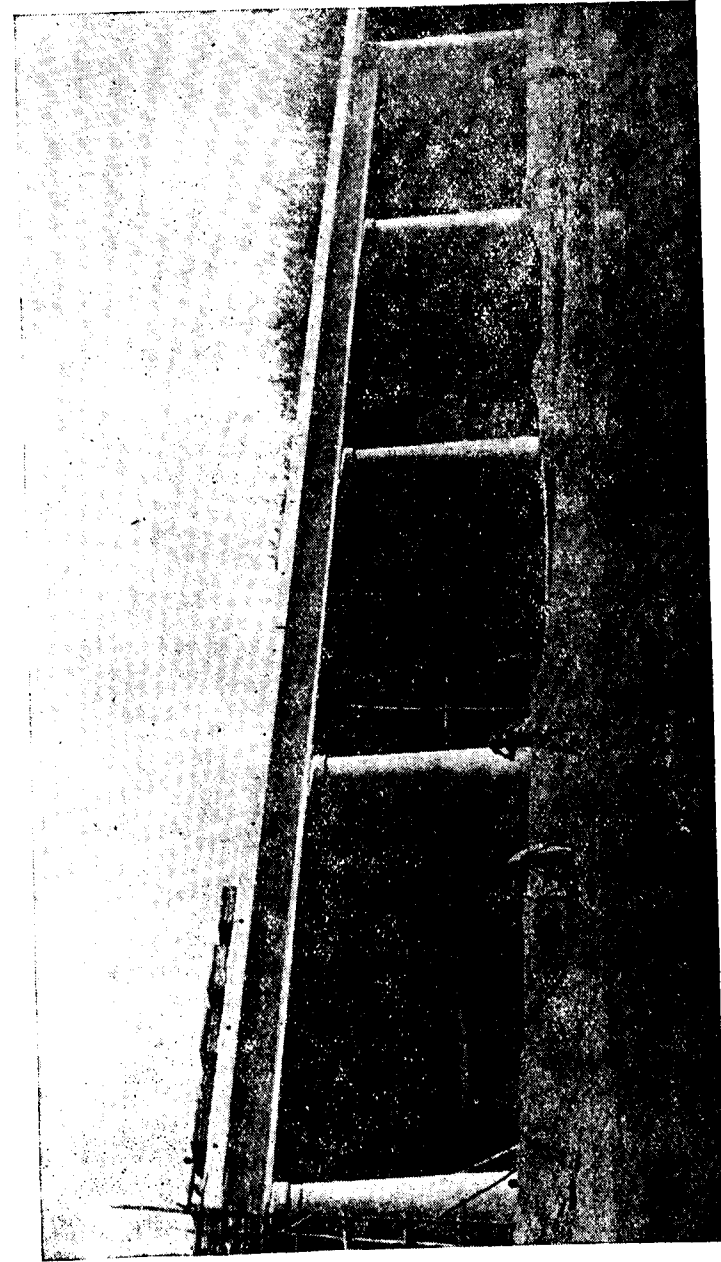


FIG. III (e).—CHAMPAYATHI BRIDGE AT MILE 520/3-6 OF NATIONAL HIGHWAYS NO. 5.
ONE UNIT 3 SPANS OVER PIERS 1-4.

CHAPTER IV.

RURAL WELFARE SCHEMES.

Firka Development.

Under the Rural Development Plan previously known as the "Firka Development Plan" the villagers themselves are encouraged to stand on their feet and to work for the objective of improving their lot. In implementation of this objective, Government originally selected 27 firkas for intensive Rural Reconstruction Work (vide list "A"). In addition to these firkas the intensive Rural Reconstruction Scheme was also launched in seven Khadi centres shown in list "B". Subsequently this scheme was extended to fifty additional firkas (vide list "C").

A sum of Rs. 50,000 was allotted for expenditure on "Village Communications" and a like sum for "Rural Water-supply" for each of the 34 firkas and centres originally selected. These allotments were halved in respect of the fifty additional firkas newly selected. Voluntary contributions of 1/3 or 1/4 of the estimated cost of the work are collected in the shape of money or labour or materials from the villagers by the Collector of the district concerned. A State Rural Welfare Board has been constituted to formulate and frame Rural Uplift Schemes. This Board selects works in consultation with the District Collectors. Works which are not specifically included in the five-year programme of Post-war Road Development alone are taken up under the Rural Welfare Scheme. Such works as come under the first five-year programme are taken up under Post-war Road Development with highest priority if they are within the selected firkas and centres. The execution of works is being entrusted to the villagers themselves and to Grama Seva Sangams, wherever these exist in preference to professional contractors. The contributions to be collected from the villagers are realized and the works executed through the respective Rural Welfare Officers. On completion, the works are handed over to the respective district boards for their future maintenance.

The special supervisors appointed for the supervision of these works continued to be under the administrative control of the respective District Collectors and under the technical control of the Divisional Engineer (Highways) concerned.

During the year under review, a length of 268 miles of roads was formed at a cost of Rs. 4,25,000. In many cases, lands required for road formation were obtained free of cost. These net work of roads serve the purpose of essential rural communications and are of much value to the villages for all round development.

(A) List of twenty-seven firkas and centres selected for Intensive Rural Reconstruction work.

District.	Name of firka.	District.	Name of firka.
1 Anantapur ..	Hindupur.	11 West Godavari	Polavaram.
2 North Arcot ..	Kalasapakkam.	(Agency).	
3 South Arcot ..	Kadambuliur.	12 Guntur ..	Ongole.
4 Bellary ..	Alur.	13 South Kanara ..	Kumbha.
5 Chingleput ..	Tiruvallur.	14 Krishna ..	Vijayavada since transferred to Tiruvur.
6 Chittoor ..	Nagari.		
7 Coimbatore ..	Palladam.	15 Kurnool ..	Kurnool.
8 Cuddapah ..	Proddatur.	16 Madurai ..	Tirumangalam.
9 East Godavari ..	Rajahmundry.	17 Malabar ..	Tellicherry.
10 West Godavari ..	Dendurur.		

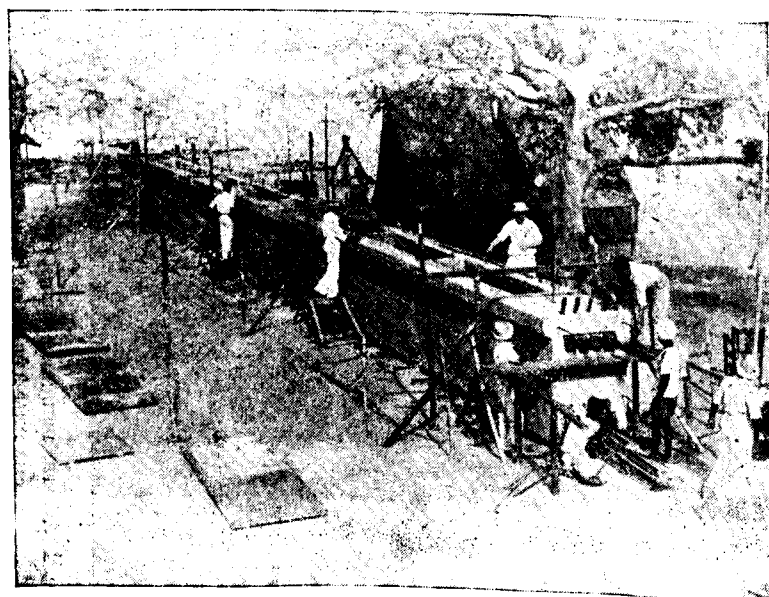


FIG. III (c).—PALAR BRIDGE NEAR CHINGLEPUT. AN AERIAL VIEW SHOWING THE PROCESS OF PRESTRESSING WITH ALL MEASURING INSTRUMENTS IN POSITION.

District.	Name of centro.	District.	Name of centro.
18 Nellore	Karupur.	24 Tiruchirappalli ..	Musiri.
19 The Nilgiris ..	Kundah..	25 Srikakulam ..	Gara.
20 Ramanathapuram.	Malli.	26 Visakhapatnam ..	Pendurthi.
21 Salem	Virapandy.	27 Visakhapatnam	Madugula (Araku
22 Tanjore	Saliyamangalam.	(Agency).	Valley).
23 Tirunelveli ..	Shoranmahadevi		
	since transferred		
	to Pazhamcottai.		

(B) List of seven Khadi centres selected for Intensive Rural Reconstruction work.

Name of district.	Name of firka.	Name of district.	Name of firka.
1 Coimbatore ..	1 Avanashi	4 Visakhapatnam..	5 Kotauratla.
	2 Vellakoil.	5 Malabar	6 Payyanur cum.
2 Kurnool	3 Yerragondapalem.		7 Nileshtar.
3 Guntur	4 Guruvareddipalem	6 South Arcot ..	7 Chinnasalem.

(C) List of fifty additional firkas selected for Intensive Rural Reconstruction work.

Name of district.	Name of firka.	Name of district.	Name of firka.
1 Anantapur ..	1 Madakasira.	14 Kurnool	27 Nandikotkur.
	2 Paragi.		28 Tripurantakam.
2 North Arcot ..	3 Thurinjipuram.	15 Madurai	29 Kallupatti.
	4 Kadaladi.		30 Pannikundu area.
3 South Arcot ..	5 Thirunavalur.	16 Malabar	31 Mattanur.
	6 Vadakkanandal area.		32 Kuthuparamba.
4 Bellary	7 Holagundi.	17 Nellore	33 Sarvepalli.
	8 Chippagiri.		34 Podalakur.
5 Chingleput ..	9 Mappedu.	18 The Nilgiris ..	35 Gudalur.
	10 Pandur.		36 Pandalur.
6 Chittoor	11 Arungolam area.	19 Ramanathapuram	37 Nathampatti.
	12 Narayanavaram area.		38 Edirkottai.
7 Coimbatore ..	13 Tiruppur.	20 Salem	39 Veeraganur.
	14 Kangayam.		40 Talaiwasal area.
8 Cuddapah ..	15 Chapad.	21 Srikakulam ..	41 Srikakulam.
	16 Arakatavemula.		42 Amudalavalasa.
9 East Godavari ..	17 Raghudevapuram.	22 Tanjore	43 Vedaranyam.
	18 Burugupudi.		44 Talainayar.
10 West Godavari ..	19 Dharmajigudem.	23 Tirunelveli ..	45 Niladanallur.
	20 Kamavarapukota.		46 Part of Tiruven-
11 Guntur	21 Ammanabrole.		gadam and part
	22 Doddavaram area.	24 Tiruchirappalli ..	of Sankarankoil
12 South Kanara ..	23 Mulki.		47 Vengalam and
	24 Manjeshwar.		Valikhandapuram.
13 Krishna	25 Nuzvid.		48 Tathiangarpet and
	26 Vissanapeta.	25 Visakhapatnam..	part of Para-
			mathi.
			49 Sabbavaram.
			50 Jallur.

CHAPTER V.

INSPECTIONS.

(a) Inspection of Division offices by the Superintending Engineers (Highways).

As per the standing orders the Superintending Engineers have been inspecting the division offices once in a year. A brief summary of the inspections of division offices done by the Superintending Engineers during the year 1951-52 is given below.

I Circle—Kakinada.

All the divisions in the circle were inspected by the Superintending Engineer (Highways) during 1951-52 on the dates noted against each division in the following statement. There have been some delay in inspecting certain offices beyond the due dates for inspection which was attributed to the General Elections held in the months of December 1951 and January 1952 when the entire staff of the divisions in the circle were drafted for polling duties.

Name of division.	Date due for inspection.	Date of actual inspection.
(1)	(2)	(3)
1 Guntur, South ..	December 1951 ..	25th February 1952.
2 Guntur, North ..	November 1951 ..	15th December 1951.
3 Krishna	March 1952	22nd February 1952.
4 West Godavari ..	March 1952	16th December 1951.
5 Rajahmundry ..	November 1951 ..	21st December 1951.
6 East Godavari ..	March 1952	4th February 1952.
7 Visakhapatnam ..	November 1951 ..	20th August 1951.
8 Srikakulam	February 1952 ..	20th March 1952.
9 Anakapalle Special ..	November 1951 ..	14th March 1952.
10 Godavari Bridges ..	.....	28th November 1951.

As a result of the inspection of the offices of the Divisional Engineers (Highways) annually since 1946-47 the condition of the offices has been improved and it was observed that after the reorganization of the department in 1947, the staff employed in the division offices was inadequate for efficient performance of the office duties and in consequence thereof the offices were falling into arrears especially in accounts and audit work.

II Circle—Madras.

1. *Anantapur.*—The division office was due for inspection in January 1950 and it was actually inspected in March 1951.

2. *Bellary.*—The inspection was not conducted during the year under report.

3. *Chingleput.*—The division office was inspected by the Chief Engineer (Highways) on 16th February 1952.

4. *Chittoor.*—The inspection due on 11th February 1951 was actually done on 29th August 1951 by the Superintending Engineer (Highways), II Circle and it was observed that the condition of the office was fairly satisfactory.

5. *Cuddapah.*—Inspection of division office was not conducted during the year.

6. *Kurnool.*—The division office was inspected by the Chief Engineer (Highways) on 17th July 1952.

7. *Nellore.*—The office was not inspected during the year.

8. *North Arcot.*—Inspection was not done during the year.

9. *Pennar Bridge Division.*—The office was not inspected during the year.

10. *Transport and Machinery Division.*—Last inspected on 19th December 1951.

III Circle—Tiruchirappalli.

The division offices of the following divisions were inspected by the Superintending Engineer (Highways), III Circle, Tiruchirappalli, on the dates noted against each and it was observed that the working of the offices was generally satisfactory :—

Name of division.	Date due for inspection.	Date of actual inspection.
(1)	(2)	(3)
1 South Arcot	13th March 1952 ..	14th and 15th March 1952.
2 Tanjore East	31st October 1951 ..	17th February 1952.
3 Tanjore, West	13th October 1951 ..	11th December 1951.
4 Tiruchirappalli	30th June 1951 ..	30th August 1951.
5 Madurai	30th December 1951 ..	26th and 27th February 1952.
6 Ramanathapuram	28th July 1951 ..	28th and 29th August 1951.
7 Tirunelveli	25th October 1951 ..	19th and 20th October 1951.
8 Coleroon Bridge Division ..	16th June 1951 ..	10th August 1951.
9 Pugalur Bridge Division ..	27th December 1951 ..	20th March 1952.

IV Circle—Coimbatore.

1. *Malabar, North.*—The division office was inspected by the Superintending Engineer (Highways) on 26th October 1951 although the inspection was due on 6th November 1951.

2. *Bharathapuzha.*—The inspection due on 13th June 1951 was conducted on 5th August 1951.

3. *Coimbatore, North.*—The inspection of the division office due on 14th August 1951 was conducted on 27th September 1951.

4. *Malabar, South.*—The inspection due on 31st December 1951 was done on 31st January 1952.

5. *Coimbatore, South.*—Inspection of the division office was postponed to August 1952.

6. *Salem, South.*—The division office was inspected on 16th February 1952 although the inspection was due to be done on 15th January 1952.

7. *Salem, North.*—The division office due to be inspected on 19th November 1951 was inspected on 7th December 1951.

8. *South Kanara.*—The division office was inspected on 12th May 1952 which was due to be done on 26th May 1952.

9. *The Nilgiris.*—The division office due for inspection on 16th May 1952 was inspected on 27th June 1952.

The inspections revealed that the offices were run fairly satisfactorily.

(b) Inspection of Circle offices by the Chief Engineer (Highways).

The circle offices have to be inspected by the Chief Engineer (Highways) once in two years.

1. Accordingly, the office of the Superintending Engineer (Highways), I Circle, Kakinada was inspected by the Chief Engineer (Highways) on 22nd July 1951.

2. The third circle office at Tiruchirappalli was inspected on 8th December 1951.

3. The fourth circle office was inspected on 16th April 1951.

Since the post of Superintending Engineer (Highways), II Circle, Madras was upgraded as Chief Engineer (Highways), the staff of the Second circle office was attached to the Chief Engineer's (Highways) office. Hence the inspection of this office by Chief Engineer (Highways) did not arise.

CHAPTER VI.

STATISTICS.

(a) Tests, Experiments and Research.

The activity of the Soil Research Laboratory for the year 1951-52 was mainly centred around continuance of soil testing and investigation for construction of stabilized soil roads in four places in the State. A few cases of soil investigation for bridges were also taken up.

I. Stabilization work.

1. *Bapatla-Peddandipadu road 10/0 to 18/2, Guntur district.*—This was the first stabilized soil work to be taken up in a typical black cotton soil area subjected to prolonged waterlogging in the sides for a major part of the year.

The stabilized soil foundation consisted of a blanket course of sand 22' x 3" and a base course of sand-gravel mix (2:1) 20' x 5". The wearing course was of water bound macadam 12' x 3" with two sides berm (3' x 3") of gravel-sand mix (1:1) protected with grass edges 2' wide on either ends.

The method of processing of stabilized soil consisted of manual operations of mixing and spreading and compacting with tyre rolling with a grader and power rolling with a three-wheel steam roller. The cost per mile using stabilized soil base was Rs. 29,000 and compared very favourably with that of the conventional method of using stone soling viz., Rs. 38,000.

For the period from March 1951-52 about 3 miles of the above work was completed.

The uneven settlement and other foundation difficulties often noticed in black cotton soil areas are conspicuously absent in the stabilized reaches and the surface is standing extremely well.

2. *Ramnad-Mandapam road M. 0/0 to 21/4, National Highways No. 49—Ramnad district.*—This is the first stabilization work of its kind both in its magnitude, and method to be taken up for execution in the whole of India. Designated as National Highways No. 49, the road is a new formation from Ramnad to Mandapam.

The prevailing soil in the reach 0/0 16/0 is medium sand over a bed of sandy clay varying in depth from 3' to 6'. The sub-grade soil in the reach from 16/0 to 21/4 consists of a top layer of clay soil underlain in most places by a layer of light green sand.

Because of the high lead, the cost of stones is very high. A cost comparison of stone soling (13' x 6") on the one hand and a stabilized sand-clay sub-base (20' x 6") and soil cement base (12' x 3") on the other was favourable to the latter and hence the same was adopted. The wearing course was to be of asphaltic concrete 12' x 1½".

The top sandy layer is stripped from the sides by means of a bull-dozer and the formation made up to proper width and height. The sandy clay

occurring below the sandy layer is dug and spread in suitable quantities on the prepared subgrade. By means of a seaman pulverizer the clay is first pulverized and dry mixed with the sand in required proportions about $1\frac{1}{2} : 1$. The necessary amount of water is then added and the soil material wet mixed. The mixed materials is brought to camber and compacted initially with a sheep's foot roller. It is then recambered with a grader tyre rolled and finally finished with a power roller.

A number of field control tests are conducted as per specifications.

A special feature of this project is that mechanical means were adopted for purposes of and pulverising and mixing operations, unlike in other projects. The seaman pulverizer perhaps the only one of its kind in India, was successfully employed for the processing and other operations.

The total cost per mile for stabilized soil sub-base of $21' \times 6''$ and soil-cement base of $12' \times 3''$ comes to Rs. 15,000 whereas the cost per mile for stone soling for the base $14' \times 6''$ would be Rs. 25,000.

Subgrade stabilization was commenced in August 1950 and $8\frac{1}{4}$ miles were completed by November 1951. Further subgrade stabilization work was stopped in order that the base and wearing courses may also be laid soon after to prevent direct use of the stabilized subgrade by traffic.

Experimental base course of $3''$ soil-cement and $1\frac{1}{2}''$ wearing course $1\frac{1}{2}''$ asphaltic concrete were laid for half a furlong to arrive at a basis for estimating and specification purposes in other stretches.

3. *Dommeru-Lankalakoderu road M. 1/0-5/0—West Godavari district*—This is the second stabilization work taken up for execution in a typical black cotton soil area which is subjected to prolonged water logging. The method of operations, etc., were identical with those mentioned in work 1 above.

The cost of stabilized soil base $20' \times 5''$ was Rs. 19,000 while that of stone soling was to be Rs. 22,000.

The work was commenced in March 1951 and one mile of road was completed during the year 1951-52. The completed reach is standing up very well.

4. *Tuticorin-Tiruchendur road M. 1/4-13/2—Tirunelveli district*.—The road from Tuticorin to Tiruchendur is a new road under formation and runs on a subgrade soil that varies from sand to loam and clay in the different lengths. The clay subgrade in a few miles gets saturated for about two to three months in a year. A comparative cost worked out between conventional stone soling and stabilized soil foundations showed the latter as cheaper and hence was adopted.

The stabilized soil foundations consisted of a base course ($20' \times 5''$) of sand clay mix for the whole reach with a blanket course of sand ($22' \times 3''$) for the clayey portions. The wearing surface was of water-bound macadam $12' \times 3''$ with stabilized berms of $4' \times 3''$ of sand-gravel mix.

The average cost per mile of stabilized soil base $20' \times 5''$ was about Rs. 7,500 and the same for stone soling $13' \times 6''$ was Rs. 14,000.

Work was commenced in November 1950. The formation has been completed and stabilized soil work done from M. 1/5 to 3/2. The work is in progress.

5. *Metalling Chidambaram-Sirkali road M. 29/2 to 30/7—South Arcot district*.—The stretch from M. 29/2 to 30/7 of Chidambaram-Sirkali road is an approach road to the bridge under construction across river Coleroon. The road passes through a clay subgrade from M. 29/2 to 29/6 and a sandy subgrade

from M. 29/6 to 30/7. The old road surface was practically devoid of any metal and required complete rebuilding from foundations.

The stabilized soil foundations consisted of a base course ($20' \times 5''$) of sand-clay mix with a blanket course of sand $22' \times 4''$ for the clay subgrade.

The work was commenced in May 1951 and completed in March 1952. The road is standing very well.

II. Soil Investigation for Deep Foundations.

Certain tests were conducted on undisturbed soil samples taken at the bottom of wells at elevations—20 feet of the left abutment and 32 feet of the first pier of the Upputeru Bridge, West Godavari district for the safe permissible loads on the soils.

The tests conducted were (i) mechanical analysis, (ii) consistency limits, (iii) specific gravity and (iv) direct shear tests, controlled strain type. While these were of a limited number and scope, the analysis of the results helped to show that the safe permissible values on the soils (about 1 ton per sq. ft.) are considerably lower than the design load coming at the given elevations (about 4 tons per sq. ft.). Recommendation was made to effect drastic changes in the estimate provisions.

III. Highway Experimental Research Station.

Even though the existing Soils Research Laboratory was carrying out considerable original work and evolving specifications to utilize local soils with advantage, the need for the formation of a Highways Experimental Research Station for the State embracing all aspects of Highways work was being felt for some time past. The setting up of such a Research Station was therefore proposed by the department and the Government of India accorded approval to the proposal in their Letter No. 55 (9)/52, dated 29th November 1952.

The detailed estimates and plans for the construction and equipment of the proposed Highways Experimental Research Station are under preparation.

B. Investigation of Roads.

During the year under review 972 investigations on Government roads and 2,170 investigations on district board roads were conducted by the department. The comparative figures of investigations conducted since 1946-47 are given in Annexure 21 (i) and the division wise details for the year 1951-52 given in Annexure 21 (ii).

A brief commentary on the investigations done in certain divisions is rendered below:—

West Godavari and East Godavari divisions.—Investigation for the diversion of National Highways in these districts was taken up by the Divisional Engineer (Highways), Godavari Bridges Division and the alignment was proposed along the abandoned bank of Eluru canal in order to avoid acquisition and encroachments on valuable agricultural lands.

This alignment was got surveyed by the students of Engineering College, Kakinada quickly and inexpensively and incidentally affording opportunity to the students to pick up experience in practical surveying.

Anakapalle Special Division.—New alignment of Minimalur ghat road M. 8/0 to 11/0 was fixed after investigation.

Rajahmundry Division.—Investigation of Maredumalli-Chintur road via Lakkavaram was completed for about 13 miles.

Bellary and Chittoor.—The important road works which were investigated during the year were—

(1) Providing cement concrete surface to Hospet-Kampli road M. 0/1 plus 300 to 10/0—Estimate Rs. 7,00,000.

(2) Forming a road from Alur to Molagavalli—Estimate Rs. 2,00,000.

(3) Metalling Kudligi-Hosahalli road—Estimate Rs. 1,74,000.

Chittoor—

(4) Forming a road from Chukkavaripalli-Nayan Pakala.

(5) Forming a road from Nayampet to Pedda Upparapalli.

South Arcot.—Formation of village roads was hampered considerably owing to the unwillingness of villagers to assign their lands for right of way purposes. Consequently compulsory acquisition had to be resorted to in almost all cases involving enormous delay. The soil in most of the taluks of the district was very poor and unsuitable for road making; on account of which initial earth work formation as well as surfacing for the carriageway had to be done simultaneously in cases where roads were to be of immediate use.

Madurai.—Investigation for forming a road from M. 10/3 of Elumalai-Krishnapuram road to Mailadamparai to Silliampalli and forming a road from M. 3/6 of Bodi-Korangani road and Bodimettu was taken up.

The existing bridle paths to Sishampalli (1,525.5 ft. above M.S.L.) and Bodimettu (4,535.64 ft. above M.S.L.) have steep gradients and all the produces and commodities of these places have to be conveyed by head-loads only. After investigation, alignments were proposed covering distances of 11 and 12 miles covering altitudes of 975.0 ft. and 3,328.21 ft. The investigation charges in the latter case were met out of contribution made by the Cardomam Planters' Association which deposited a sum of Rs. 7,000 with the Government.

Salem South Division.—Investigation for the formation of the unformed portions of road to Kolli hills was taken up with a special staff of one Assistant Engineer and two Supervisors.

Coimbatore South and Palghat Divisions.—Investigation for forming a road from Munnarghat to Chinnathadagum was taken up and completed during the year.

(c) Investigation of Bridge Works.

Since the abolition of the bridges circle on 31st March 1951 the investigation of bridge works was being attended to by the Assistant Engineers for bridge investigation attached to the Territorial-Superintending Engineers (Highways).

I Circle—Kakinada.—In Guntur district investigation of three bridge works costing Rs. 1.4 lakhs in Bhattiprolu Panchayat area was completed during the year and estimates were prepared.

The question of constructing the river Gowtami by provision of a guide bank and bridging it for a restricted width of waterway was again taken up in the year. This involved further surveys in the river and study and discussion of data at high level.

II Circle.—The following works were investigated during the year by the bridges subdivisions :—

Chingleput Division.

(1) Constructing a causeway at Tirumangalam.

(2) Constructing a bridge over the back waters of Buckingham canal near Kelambakkam-Covelong road.

(3) Constructing a bridge at M. 13/1 of Nelvay-Tirukalikundram road across Palar river.

(4) Constructing a bridge at M. 10/4 of Pallur-Sogandy road across ambakkal channel.

(5) Constructing a bridge across the Kambakkal drainage stream at M. 0/6 and 1/0 of Edayarpakkam road.

(6) Constructing a bridge at M. 13/6 and 14/2 of Uttiramerur-Kancheepuram road across Palar river.

(7) Constructing a bridge at M. 7/1-2 of Uttiramarur-Kancheepuram road across Cheyyar river.

(8) Constructing a bridge at M. 24/4 of Kortalyar bridge Puttur road across Nandanam channel.

(9) Constructing a bridge at M. 14/0 of Thandalam-Cooum road, North Arcot Division.

(10) Constructing a bridge at M. 32/4 of Katpadi-Venkatagiri road.

Kurnool Division.

(11) Constructing a bridge across Bhavani at M. 1/6 of Atmakur-Dudhala road.

(12) Constructing a submersible bridge at M. 7/1 of Koilkuntla road.

(13) Constructing a submersible bridge at M. 18/3 of Koilkuntla road.

(14) Constructing a submersible bridge at M. 0/6 of Banganapalle-Betula road.

Bellary Division.

(15) Constructing a bridge at M. 11/7 of Adoni-Siruguppa road.

(16) Constructing a bridge at M. 23/2 of Tornagal-Sandur road.

Nellore Division.

(17) Widening and improving the bridge at M. 2/7 of Buchireddipalayam-manda road.

(18) Constructing a causeway across Boggeru river at M. 51/3 of Anigiri-Duttalur-Dornal road.

(19) Constructing a causeway across Uppileru river at M. 11/7 of Angam-Kaligiri-Velativaripalem road.

(20) Reconstructing bridges Nos. 180, 181 at M. 84/7 of Madras-Calcutta road.

(21) Reconstructing bridges Nos. 150 and 157 at M. 85/5 of Madras-Calcutta road.

III Circle.

Ramanathapuram Division.

(22) Submersible bridge at M. 31/1-7 of Karipalli-Kamuthi road near Iruchuli.

South Arcot Division.

(23) Bridge across Ponnaiar at M. 104/2-5 at Madras-Dindigul road H. 45.

Tanjore East Division.

- (24) Bridge across Kaduvayar in Nagapattinam Municipal limits.

Tiruchirappalli Division.

- (25) Constructing a bridge across Cauvery near Tiruchy.

Madurai Division.

- (26) Constructing submersible bridge across river Tambaraparani near Mukkani.

(d) *Costs of Labour and Materials.*

There was no appreciable change in the costs of labour and materials during the year from that of previous year. In the regions surrounding project works such as Tungabhadra Project, Lower Bhavani and in Agency areas, the prices of materials continued to be high.

The conditions of labour and materials in the various divisions and how they influenced the works of the department are dealt with below :—

Godavari Bridge Division.—The cost of essential articles such as food grains, showed no tendency to fall during the year, and the cost of labour also continued to be correspondingly high.

Krishna Division.—The scarcity for skilled labour during transplantation and harvest seasons continued to be intensive in delta areas as a result of which the progress of works during the season was hampered. The cost of labour and materials was high. However there was a sudden fall of prices for all commodities in the local markets in the last week of February 1952 and the first week of March 1952, but they regained the original levels within a fortnight. There was no change in the position with regard to supply of steel and cement.

Visakhapatnam.—The rates in the scheduled area were generally workable. Labour was scarce in Chintapalli, K.D. Peta and Madugole Agencies. The cost of labour near Visakhapatnam area was higher owing to the presence of the Scindia Navigation Company.

Anakapalli Division.—There was acute scarcity of labour for all types of works in the agency areas of Visakhapatnam Division. Even ordinary labour had to be imported from the plains.

Guntur Division.—There was no dearth of unskilled labour but their outturn was considerably poor. Skilled labour was concentrated in a few town centres while unskilled labour was accustomed to an exodus to rural agricultural areas during the harvest season.

Srikakulam.—The cost of labour and materials was very high and labour was scarce with the result that the progress of works could not be maintained as per programme.

West Godavari.—The cost of labour and materials was not uniform throughout the year. There was heavy rise in cost during transplantation season. In upland areas, labour was scarce and there was not much competition amongst contractors in bidding for works.

East Godavari.—Labour was available at the enhanced schedule of rates.

Rajahmundry.—Labour continued to be scarce in the Agency area, resulting in slow progress of works. On account of the high cost of labour and materials, tenders were received at high premium rates in many cases and no tenders at all in some cases.

Ongole Division.—Labour was scarce in deltaic area and in the centres of tobacco industry, as a result of which labour had to be imported now and then.

Anantapur.—The cost of labour was continuously rising up to February 1952.

Bellary.—Dearth of labour continued to be felt particularly in Rayadrug taluk, Hospet and Bellary taluks due to project works and export of iron ore in the localities. In Alur and Adoni taluks the rates of labour showed a downward trend while it was on the increase in Western taluks of the district.

Chingleput.—The conditions of labour and cost of material were fair, and labourers were available.

Chittoor.—The labour and materials were available at the schedule of rates.

Cuddapah.—The cost of materials was not steady and fluctuating from time to time. Due to famine and consequent unemployment, labour was available as per schedule of rates.

Nellore.—The prevailing rates of labour and materials were normal in southern taluks. In other areas, labour was easily available due to adverse seasonal conditions, and the cost of labour and materials fell. Tenders were about 8 per cent lower than estimate rates in these areas.

North Arcot.—Labour charges for skilled and unskilled labourers had considerably increased throughout the district. In Tiruppattur and Gudiyattam taluks, even unskilled labour had to be imported from Salem district. Hence special rates had to be allowed and works were carried out by inviting competitive tenders.

South Arcot.—Labour was generally available but wages were high and outturn not commensurate with the cost. The prevailing famine conditions had in no way induced any abundance of labour for road work. Skilled labour for works in Tirukkoyilur and Kallakurich taluks had to be imported from Salem district.

Tanjore East.—The conditions of labour continued to be unsatisfactory. Even though the outturn and efficiency were very poor, there was dissatisfaction regarding the scale of wages.

Tanjore West.—Labour and materials continued to be costly.

Tiruchirappalli.—There was no appreciable change in the cost of labour and materials.

Madurai.—In Periyakulam and Tirumangalam taluks labour was scarce during harvest season and in other areas little difficulty was felt.

Ramanathapuram.—The general trend in tenders indicated that the rates were below average schedule of rates except in few cases in Sattur subdivision. Monsoon was not favourable and there was dearth of labour.

Tirunelveli.—Scarcity of labour prevailed throughout the year as a result of abnormal rise in the prices of foodgrains and other commodities and due to failure of monsoon. In special localities where agricultural operations could not be done, labour had to be imported from distant places at heavy cost.

Coleroon and Pugalur Bridges Divisions.—There were no difficulties in getting labour and materials.

Malabar district.—There was increase in the cost of labour and materials but this did not affect the execution of works to any appreciable extent.

Salem district.—The cost of labour and materials was on the increase but this did not affect the execution of works.

Coimbatore district.—Owing to adverse seasonal conditions and famine in Dharapuram taluk, there were migration of villagers in search of labour. There was dearth of labour in Erode, Bhavani and Gobichettipalayam taluks due to lower Bhavani project works. In Kollegal even gang coolies could not be secured due to labour scarcity.

South Kanara district.—There was scarcity of semi-skilled labour which resulted in contractors not forthcoming to take up original works at reasonable rates.

(e) *Traffic Census.*

1. The practice of recording the census of traffic on all important roads on a systematic basis throughout the State was introduced for the first time in the year 1937-38 and continued up to 1940-41. This procedure was discontinued owing to war conditions during the years 1942-46, and resumed from the year 1947-48 after the formation of the State Highways Department on 1st April 1946 and it was being continued.

2. Until the year 1948-49, the census used to be recorded twice a year, all through day and night for a week each time, once during April and again during October. From 1949-50 onwards on the suggestion of the Chief Engineer (Highways) the State Government ordered that one census should be recorded during the third week of September throughout the State, and the other during the peak load period for each road or group of roads, and the Superintending Engineers (Highways) were authorized to fix the peak load period taking into consideration all the relevant factors affecting traffic volume.

3. The detailed traffic counts were recorded under four different classifications of motor vehicles and seven types of other vehicles, mostly iron tyred. The details of classifications adopted are shown below :—

Motor vehicles—						Average weight of vehicles.
						TONS.
Exceeding 5 tons	..	..	..	..	..	6
Between 3 and 5 tons	..	..	..	..	..	4
Between 1½ and 3 tons	..	..	..	..	..	2½
Below 1½ tons	..	..	..	..	..	1½
Other vehicles—						
1 Double bullock carts (laden)	..	..	..	..	..	1½
2 Do. (unladen)	..	..	..	..	..	¾
3 Single bullock carts (general)	..	..	..	..	..	¾
4 Jatkas	..	..	..	..	..	½
5 Hand drawn carts (laden)	..	..	..	..	..	1
6 Do. (unladen)	..	..	..	..	..	½
7 Carts with two pneumatic tyres	..	..	..	..	..	2½

This classification was considered to be sufficiently representative of the different units of traffic on our roads and simple enough to be readily understood by enumerators. The traffic counts are subdivided into up and down traffic, and this device would afford a rough and ready method of judging the direction of flow of traffic.

A detailed knowledge of the volume of traffic, its composition and direction of flow, are the data essential for arriving at the best design for a road and for the proper planning of maintenance programmes. Further, a knowledge of traffic trend is quite necessary to assess the needs of the immediate future and take anticipatory improvement measures so that roads may not become obsolete at any time.

During the year under review, census was recorded for a week in all the divisions on all the State roads and on all the important district board roads and municipal roads during the month of September, and also during the peak-load periods in certain divisions, which were severally fixed by the Superintending Engineers (Highways). In the Central Annual Conference of Superintending Engineers (Highways) held at Kodaikanal, it was decided to conduct census once in three years in future. Pending orders of Government, the Divisional Engineers (Highways) have been instructed not to conduct census of traffic for the year 1952-53 both for peak-load as well as normal load periods.

Studies in total traffic trend on a few roads selected at random are shown in Figure 1. The charts show the average daily traffic recorded at specific points on the selected roads during the years 1937-40 and 1947-52. When the charts for the several census points which have been selected on random sampling basis are considered *en masse*, they point to the following broad conclusions :—

(1) The volume of traffic density in the years 1947-52 is much more than the volume during the pre-war years.

(2) On many roads the intensity of traffic during 1951-52 was the heaviest ever recorded.

(3) The post-war increase in traffic is very largely due to increase in motor traffic, especially trucks.

A series of charts showing the composition of traffic on certain roads to illustrate the broad conclusions cited are shown in Figure 2.

A statement showing the number of motor vehicles and of bullock carts in the State during various years and as on 31st March 1951 is given below :—

Year.	Number of motor vehicles.	Number of bullock-carts.
1940-41	20,673	1,241,400
1941-42	19,239	..
1942-43	17,685	..
1943-44	17,320	..
1944-45	18,080	..
1945-46	18,653	1,195,000
1946-47	21,560	..
1947-48	31,690	..
1948-49	33,924	..
1949-50	..	..
1950-51	42,377	1,129,312

NOTE.—Figures for 1949-50 and 1951-52 are not available.

(f) *Transport and Machinery Division.*

The important activities of the Transport and Machinery Division were—

(a) Urgent and major repairs to plant and machinery and manufacture of certain equipments.

(b) Maintenance of central stores.

(c) Inspection and acquisition of approved equipments from Military surpluses and purchase of sanctioned items of plant and machinery.

(d) Distribution of stores.

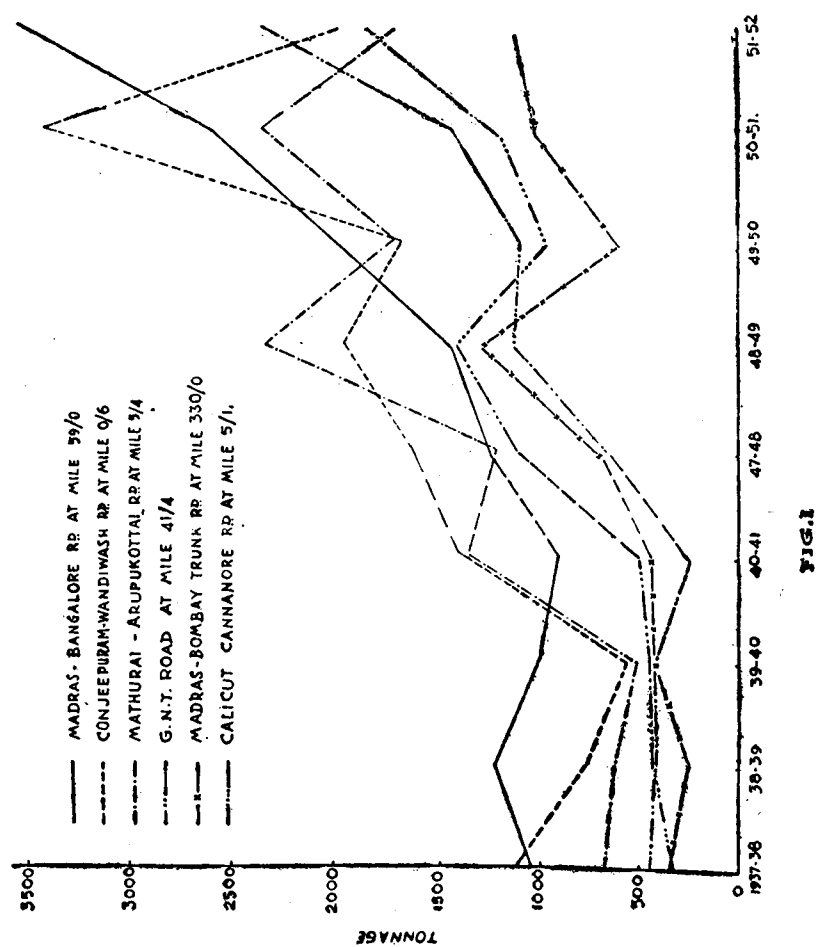
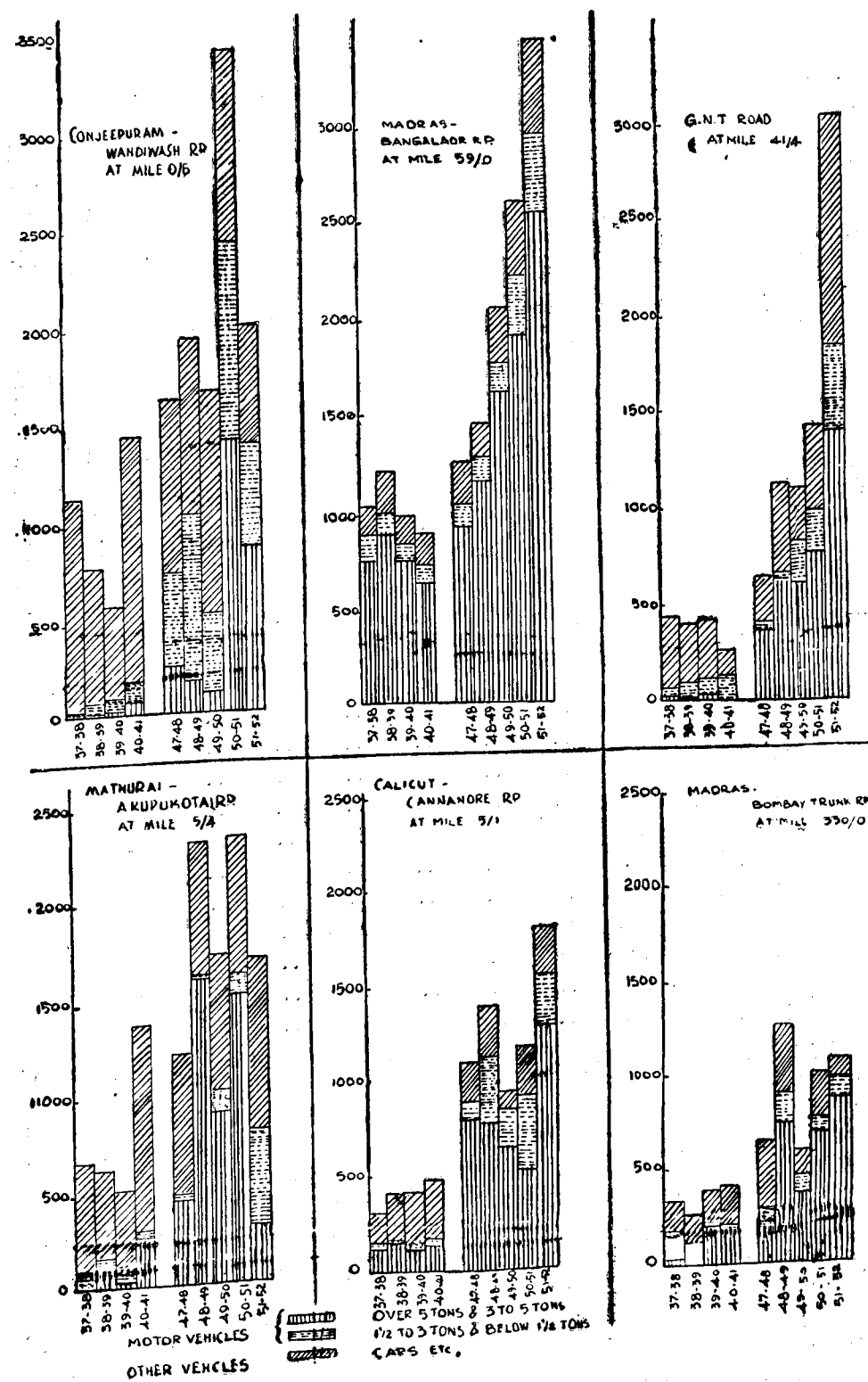


FIG. 1



The Transport and Machinery Division which was functioning with the four repair yards at Coimbatore, Rajahmundry, Tiruchirappalli and Madras attached to it, was re-organized with effect from 1st November 1951 to ensure prompt and satisfactory execution of repairs to the plant and machinery available with this department and located in various divisions. The Transport and machinery repair yards at Coimbatore, Rajahmundry and Tiruchirappalli were attached to the respective territorial divisions to function under the administrative control of the respective Superintending Engineers. The repair yard at Tiruchirappalli was shifted to Pudukkottai and merged with the workshop at Pudukkottai with the Assistant Engineer Transport and Machinery in its charge.

Repairs and manufacture.—The repair yards of the Transport and Machinery Division which started functioning regularly from March 1949 were mainly attending to major and minor repairs to plants and machinery. During the year under review the repair yards were expanded and strengthened and major repairs to one roller and eleven lorries were completed. The question of bringing up all the repair yards to a uniform standard by equipping each of them with the necessary machinery and tools for tackling all sorts of major and minor repairs was being considered.

In addition to major repairs and minor repairs to plant, the repair yards continued to manufacture equipments like diving sets, asphalt mixers, trailer carts, soil testing apparatus, pump sets, gang carts, etc., the items manufactured during the year are detailed below :—

Serial number and description.	Number manufactured.
1 Barrow mixers	12
2 Pump-sets	4
3 Water carts	8
4 Diving sets	5
5 Gang water carts (utility carts)	16
6 Nail drag	1
7 Soil apparatus	4 sets.
8 Channel forms for cement-concrete works	207 R.ft.
9 Cone penetrometer	1
10 Trailer carts	25
11 Water tanks	8

Distribution of Stores.—Spare parts for rollers and 30 other types of machinery worth Rs. 4.15 lakhs were stocked for supply as and when required by regular Highways Divisions in the State. Besides, steel for various bridge works were also stocked and despatched to various divisions. The question of keeping a reserve stock of spares, etc., to the extent necessary in each of the repair yards was being considered.

Central Workshop.—The conversion of the repair yard at Madras into that of a workshop and to introduce the workshop accounting system like the Pudukkotta workshop was under contemplation.

Purchase of plant and machinery.—The purchase of the various items of plant and machinery under the five-year programme approved by Government in G.O. No. 906, P.W., dated 12th March 1949, was proceeded with during the year under review, and plant and machinery costing Rs. 243 lakhs were

purchased to end of 31st March 1952. The remaining items of plant provided in the programme was proposed to be purchased by incurring an expenditure of Rs. 117 lakhs spread over a period of three years ending 1953-54. Besides purchasing the tools and plant under the above programme, a special programme was drawn up for acquiring at a cost Rs. 11.5 lakhs tools and plant like asphalt mixers and tar boilers, etc., for the execution of black-top works and purchases were proceeded with.

Other activities.—To meet the demand for steam and Diesel roller drivers, the Transport and Machinery division continued to conduct training classes for drivers during the year under review also and forty-one Diesel roller drivers were thus trained.

Attention was continued to be paid to the preventive aspects of plant maintenance. Importance of proper plant operation and maintenance of machinery was being propagated among supervisory staff and crew by means of special classes, bulletins, circulars, cinema shows, etc. Newly recruited supervisors were given necessary training in the Madras repair yard.

The average number of days each class of tools and plant such as road rollers, lorries, concrete mixers, tar boilers graders, asphalt mixers, etc., had been used and hire charges earned during the year, and the cost of crew propulsion, etc. of each category are shown below :

Serial number.	Name of plant.	Number available as on 31st March 1952.	Average Number of days each class worked in 1951-52.	Hire charges earned by each category.	Operation cost.			
					Cost of fresh oils.	Cost of crew propulsion.	Expenditure repairs.	Total operation cost.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Power rollers	641	79	21,79,516	5,21,237	4,50,834	2,99,998	12,72,069
2	Transport lorries	198	129	8,22,864	4,07,086	2,76,217	3,89,212	10,72,515
3	Water lorries	5	86	10,553	3,432	2,612	10,051	16,095
4	Graders	11	75	26,818	8,435	6,175	16,375	30,985
5	Concrete mixers	76	67	31,541	4,380	8,482	7,006	19,868
6	Pegson cold mix plant.	4	67	6,964	587	1,929	2,200	4,716
7	Millars Asphalt mixers.	5	66	6,767	294	2,553	1,129	3,976
8	Tar boilers	60	35	9,478	1,290	2,436	9,363	13,089
9	Heat Masters	41	58	14,392	577	3,125	1,737	5,439

g. Contracts.

Statistics showing contracts awarded for Government and District Board works during 1951-52, under different classifications are given below :—

Classification.	Government roads.		District board roads.	
	Number.	Cost.	Number.	Cost.
		RS.		RS.
All maintenance works	3,787	3,10,35,074	5,767	1,65,97,371
All surfacing works	487	63,01,105	481	38,25,215
All bridges, culverts and causeways.	366	51,99,521	392	34,98,002

Comparative figures for the previous years are given in the Statement (i) in Annexure 20 and the division-wise particulars in the Statement (ii).

C laims and Disputes.

The following were the claims put up by the contractors during the year 1951-52 and they were pending disposal at the end of the year.—

Name of division. (1)	Name of contractor. (2)	Nature and details of claims. (3)
South Arcot ..	Sri N. Vadivelu Padayachi ..	Claim for Rs. 6,000 in respect of Government and District Board works in the Principal subordinate Judge Court, Cuddalore.
South Arcot ..	Sri V. M. Muthia Mudaliar ..	Claim for the refund of the amount forfeited from his bill.
Tiruchirappalli ..	Sri P. Veeraswami Naidu ..	Claim to an extent of Rs. 7,000 towards loss incurred on account of monsoon damages in the work of constructing a bridge across Nandiar at M. 18/4 of Tiruchirappalli-Chidambaram road.
Pugalur Bridge Division.	Messrs. Gannon Dunkerly & Co., Limited,	Extra claims for leads for earth work open well foundation and loss incurred due to floods.

Besides, there were certain claims in Tirunelveli and Tanjore East Divisions in respect of refund ordered of the excess payment made at approved rates for the supply of materials collected from unauthorised quarries. All the above were under consideration.

There were also certain claims of the previous years, referred to the Superintending Engineers for arbitration which were not finally settled during the year under report.

Accidents.

During the year under reference there were 11 major accidents of which 9 proved fatal, the other 2 resulted in major injuries. The victims who were mazdoors employed on road works were paid compensation to the tune of Rs. 11,890.

The following are the details of the accidents:—

Serial number and name of districts. (1)	Date and nature of accident. (2)	Name of victim and brief note of the accident. (3)	Award of compensation. (4) RS.	Loss of property. (5)
1 Vellore ..	18 July 1951, fatal.	Krishnaveni—Employed on the work of cement concreting Ranipet-Krishnagiri road M. 87/2 to 90. She fell from the water lorry which was proceeding to fill water tank for rewatering the renewed surface and died.	500	Nil.
2 Chittoor ..	19 Dec. 1951, fatal.	Periaswami—While he was dragging the tar boiler in M. 93/6 a lorry MDJ 569 from Katpadi collided against the boiler. In the accident Periaswami was killed.	200	Nil.
3 Salem ..	15 Oct. 1951, injuries.	Chinnathayee—During consolidation in 0/3 of Puckles road the stone roller dashed against her and injured her.	1,140	Nil.
4 Visakhapatnam ..	3 July 1951, fatal.	Appayamma—Providing bitumen surface on G.N.T. road at M. 489—She wanted to climb the roller as a fancy without the knowledge of the driver while the roller was working and fell under the roller.	200	Nil.

Serial number and name of district. (1)	Date and nature of accident. (2)	Name of victim and brief note of the accident. (3)	Award of compensation. (4) RS.	Loss of property. (5)
5 Vellore ..	1 Sep. 1951, fatal.	Muthu—Employed on the work of loading cement bags into the lorry and to bring them from Railway station. The deceased was standing in the corner of the lorry and when vehicle turned at the junction of a road he accidentally fell and died.	900	Nil.
6 Madurai ..	4 Feb. 1952, fatal.	Ponnu—Laying of blacktop surface in M. 8/4 of Periyakulam-Kumili road. While heating Mexphalt in barrels it spurted out and caught fire. When trying to extinguish the fire, mexphalt splashed all over his body and he died after being admitted into the hospital.	1,200	Nil.
7 Ramanathapuram.	16 Nov. 1951, fatal.	Mariasusai—Employed on the work of spreading work at M. 14 of Madurai-Ramanathapuram road while he was sprinkling water over the left wheel of roller which was doing top rolling work, a private bus passed that road. To give room to that bus the cooly placed his right leg on the roller and got hurt.	1,050	Nil.
8 North Arcot ..	3 July 1951, fatal.	Annamalai—While cutting banyan stem for planting them in connection with the Vanamahotsavam celebration at M. 6/4 of Singarapet-Tirupattur road fell from the tree and died.	900	Nil.
9 Madurai ..	26 June 1951, injury.	Mariappan—Employed on the work of Kodaighat road in M. 1/2. Slipped while the roller was on motion. His right foot just below the ankle was run over by the hind wheel of the roller.	1,470	Nil.
10 Krishnagiri ..	18 Nov. 1951, fatal.	(1) Perumal Boyan and (2) Kali-ammal—Mazdoors employed on the work of consolidation at M. 19/0-1 on Mallikundam-Perumbalai road. The rope which was fixed to the hook of the iron tackle of the roller suddenly gave way and the roller backed away and ran over them.	1,180	Nil.
11 Krishna ..	28 Mar. 1951, fatal.	(1) Valleppe Chinnaya, (2) Valleppe Masamma and (3) Tammi-setti Lachamma—Employed on the work of providing dry stone packing to the existing side drains on the Madras-Calcutta road at M. 269/5. During recess they were taking food in the shade of a compound wall which collapsed.	3,150	Nil.

(j) *Floods and monsoon damages.*

There were very heavy rains and cyclonic weather during the year in the district of Ramanathapuram, East Godavari, Kurnool, Salem, Nellore, West Godavari, Guntur, Krishna, Nilgiris, South Arcot, Anantapur and Malabar.

There were several cases of interruption to traffic. All the important interruptions occurred in the Andhra districts due to heavy rains and cyclonic weather. Prompt action was taken and traffic was restored as early as possible in all these cases.

Details of the roads affected and the nature of damages caused are given below :—

DETAILS OF ROADS AFFECTED.

Serial number and name of district.	Name of work.	Month of occurrence.	Remarks as to cause of interruptions, etc.
(1)	(2)	(3)	(4)
1 Ramanathapuram.	Benares-Cape Comorin road M. 339/4.	Apr. 1951.	Due to floods.
2 Do.	Abiramam-Kamudhi road M. 22 M.D.R.	Do.	By breaching of tank.
3 Do.	Ramanathapuram - Keelakarai road M. 4/6 bridge.	Nov. 1951.	Pier sunk.
4 Do.	Madurai-Aruppukottai road M. 20/8 culvert.	Feb. 1952.	Water over diversion to culvert under reconstruction.
5 East Gadavari ..	G.N.T. road M. 391/1-3 Diversion road for Yerravaram bridge.	Apr. 1951.	Washed away by flood.
6 Da. ..	18/5 Narasapatnam-Tuni road ..	Sep. 1951.	Breached.
7 Do. ..	Madras-Calcutta road M. 413/3 ..	Oct. 1951.	Pampa river in floods.
8 Kurnool ..	Gooty-Pattikonda-Adoni road (M.D.R.).	May 1951.	Floods in Hundri river.
9 Salem ..	Madras-Calcutta road at M. 166/4 N.H.	Do.	Do.
10 Do. ..	Salem-Cuddalore road, P.H., M. 41/8.	Aug. 1951.	Talaivasal bridge diversion unfordable.
11 Krishna ..	Sholapur-Hyderabad-Vijayavada road M. 93/3.	July 1951.	Paleru in floods.
12 Nellore ..	Madras-Calcutta road M. 109 ..	June 1951.	Pennar floods.
13 Do. ..	Do. M. 87/8 ..	Nov. 1951.	Floods.
14 West Godavari ..	G.N.T. road M. 391/1-3 ..	June 1951.	Yeluru floods.
15 Do. ..	Road dam 36/4 Polavaram-Aswarapet road, P.H.	July 1951.	Floods.
16 Do. ..	Eluru-Chintalapudi road ..	Do.	Do.
17 Do. ..	Kandavali-Tadepalligudam road M. 13/1.	Do.	Do.
18 Do. ..	Allipalli road M. 2/2, 2/3, 6/3 M.D.R.	Aug. 1951.	Heavy rains.
19 Guntur ..	Guntur-Pondugula road M. 46/4 P.H.	June 1951.	Do.
20 Nilgiris ..	Ootacamund-Avalanche road M. 8.	July 1951.	Land slip.
21 Do. ..	Ootacamund-Kallakurichi road ..	Do.	Do.

Serial number and name of district.	Name of work.	Month of occurrence.	Remarks as to cause of interruptions, etc.
22. South Arcot ..	Cuddalore-Chittoor road M. 45 ..	Aug. 1951.	Unfordable.
23. Anantapur ..	Culvert at M. 137/6 Benares Cape Comorin road.	Sep. 1951.	Heavy rains.
24. Malabar ..	M. 21/6 Kollengode-Meenkara road M.D.R.	Nov. 1951.	Washed off.

(k) *Avenues.*

During the year under review 183,074 plants on Government roads and 71,936 plants on District Board roads were newly planted. Out of these, 72,339 plants on Government roads and 13,699 plants on District Board roads perished.

Divisionwar particulars of number of trees newly planted number survived, expenditure incurred and revenue derived are given in Annexure 26. The expenditure incurred on the maintenance of avenues on Government roads was Rs. 7,88,599 and on District Board roads Rs. 1,82,722. The income, i.e., revenue realized during the year on Government and District Board avenues was Rs. 6,03,626 and Rs. 1,59,098 respectively.

The concessions in regard to leasing of the right of usufruct of the avenue trees on the basis of the average rental for the preceding five years, was extended for a further period of three years from 1951-52.

Analysis of the figures given in Annexure 26 shows that there are only 76 trees per mile on Government roads and 24 trees on District Board roads whereas the number of trees required per mile is about 300.

(l) *Ferries.*

During this year, 86 ferries were maintained by the department and a sum of Rs. 4,13,238 was realized towards revenue. Divisionwar details are given in Annexure 28.

(m) *Inspection Bungalows.*

Eighty inspection bungalows were in charge of the department. An expenditure of Rs. 20,415 was incurred on their maintenance and a revenue of Rs. 8,307 realized during the year. Details are given in Annexure 29 (ii).

The inspection bungalow at Cherambady in Malabar district taken over with reference to G.O. No. 1796, P.W., dated 2nd May 1951 was transferred to Nilgiris Division—vide Annexure 29 (i).

(n) *Travellers' Bungalows.*

During the year under report, 405 Travellers Bungalows were maintained by the department, an expenditure of Rs. 3,25,011 incurred on their maintenance and a sum of Rs. 44,564 realized towards rents.

Details are given in Annexure 29 (iv).

The Travellers Bungalow at Taranagar in Bellary district was transferred during the year to the Forest Department with reference to G.O. Ms. No. 1642, P.W., dated 23rd April 1951—vide Annexure 29 (iii).

(p) *Encroachments.*

Government roads.—Eleven thousand six hundred and twenty one encroachments were detected during the year, 8,237 numbers licensed, 5,393 numbers were evicted, 8,773 numbers objectionable and 13,773 numbers unobjectionable encroachments were pending at the end of the year.

Districtwar particulars for municipal and non-municipal areas are given in Annexure 27 (i).

District Board roads.—Three thousand five hundred and forty-eight encroachments on District Board roads were detected during the year, 2,559 numbers licensed and 981 numbers evicted. One thousand one hundred and seventy-nine numbers of objectionable and 896 numbers unobjectionable encroachments were pending disposal at the end of the year—vide Annexure 27 (ii).

(q) *Works approved by Government under Post-war Road Development Programme.*

During the year 1951-52, 39 works to a total cost of Rs. 1,69,09,825 on Government roads and 269 works at a cost of Rs. 44,13,837 on District Board roads were approved by Government.—Vide Annexure 15 showing the divisionwar details of works including for those approved to end of the year.

(r) *Work done in the Offices of the Superintending Engineers and Divisional Engineers (Highways).*

Divisionwar particulars of technical sanctions accorded to the estimates, tenders and agreements by the Superintending Engineers (Highways) and Divisional Engineers (Highways) are furnished in the statements in Annexures 16, 17 and 18.

(s) *Work done in the Office of the Chief Engineer (Highways).*

Details of technical sanctions to estimates tenders dealt with and contracts approved are given in Annexure 19.

CHAPTER VII.

ACCOUNTS AND AUDIT.

The special scheme of accounting and audit sanctioned by the Government and the Comptroller and Auditor-General of India for the department continued to function during the year under report. The divisional accounts were rendered monthly to the Accounts Officer by the Divisional Engineers. The accounts were checked and compiled by the Accounts Officer into a monthly account for the Highways Department for submission to Accountant-General without paid vouchers. Detailed audit of vouchers was conducted by the Accounts Officer, and the accounts with vouchers filed in Chief Engineer's Office. A percentage test audit of the accounts and the local inspection of divisional offices were arranged for by the Accountant-General as usual. These were supplemented by inspection of divisions by the Accounts Officer (Highways) and Deputy Accounts Officer (Highways).

2. The benefits anticipated are realized as detailed below :—

(i) Sixteen Divisional Accountants underwent training in Public Works Accounts and Procedure during 1951-52 in the Public Works Divisions, Chief Engineer and Accountant-General Offices. So far 11 out of 53 Divisional Accountants have passed the Divisional Test Examination conducted by Accountant-General.

(ii) The Executive Officers are getting more familiar with the Public Works Procedure being helped by detailed audit notes issued monthly and instructions issued by the Accounts Officer and Accountant-General's Inspection staff during their inspections.

(iii) The following additional advantages which might not have otherwise been possible are also achieved :—

(a) Prompt and full reconciliation between departmental accounts and compiled accounts and treasury accounts.

(b) More accurate accounting of expenditure on National Highways, Post-War Road Development works and prompt adjustment against central funds.

(c) Effective and prompter control of expenditure, better budgetting and compilation of statistical returns.

(d) Advance scrutiny of financial sanctions avoiding post-audit objections.

(e) Enforcement of audit objections with the authority of the Chief Engineer.

(f) More effective control of rush of expenditure during the last days of the month including March.

3. Government having decided that training in accounts of the clerks of the department should be arranged to be given by the Accounts Officer and the special staff working under him. Four batches were given the training on the lines of programme approved in G.O. No. 1250, Finance, dated 30th December 1948. The primary object of training is to achieve efficiency in proper accounting and submission of bills and account returns, etc., correctly.

4. The following is the analysis of the items of objection outstanding on 31st March 1952 :—

	Items over three years.		Items over one year.		Items less than one year.	
	Number.	Amount. RS.	Number.	Amount. RS.	Number.	Amount. RS.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(a) Want of estimate ..	86	3,76,852	367	1,43,06,160	968	90,54,703
(b) Excess over estimate ..	68	7,50,516	280	26,69,116	596	25,20,334
(c) Want of appropriation. ..	..	..	..	..	2	(—) 7,645
(d) Excess over appropriation. ..	..	..	..	..	7	21,830
(e) Want of vouchers ..	42	26,975	96	1,66,100	301	7,37,635
(f) Miscellaneous irregularities	17	16,590	52	49,047	135	54,776
Total ..	213		795		2,009	

There is a decrease in the number of outstanding objections as compared with last year. These are being got cleared by issue of special letters urging the officers for regularizing the objections.

CHAPTER VIII.

COMMITTEES AND CONFERENCES.

(a) *The Board of Communications, Madras.*

The Board of Communications met on the 20th April 1951 under the Presidentship of the Hon'ble Minister for Public Works Department in the year 1951-52. The following were the members of the Board :—

President.

The Hon'ble Minister for Public Works.

Secretary.

The Deputy Chief Engineer (Highways).

Members.

- 1 The Hon'ble Minister for Local Administration.
- 2 The Secretary to Government, Public Works Department.
- 3 The Secretary to Government, Local Administration Department.
- 4 The Chief Engineer (Highways).
- 5 The Commanding Royal Engineer, Madras Area.
- 6 The Inspector-General of Police.
- 7 The Director of Agriculture.
- 8 The Chief Engineer (Irrigation).
- 9 Sri L. C. Pais, B.A., B.L., M.L.A., Chairman, Municipal Council, Mangalore.
- 10 Sri N. Chenchurama Naidu, President, District Board, Nellore.
- 11 Sri T. Pulla Reddy, B.A., B.L., President, District Board, Cuddapah.
- 12 Sri S. O. S. P. Odayappa, President, District Board, Ramanathapuram.
- 13 Sri V. K. Palaniswami Goundar, President, District Board, Coimbatore.

(Numbers 9 to 13 representatives of local bodies.)

14. Mr. C. W. Spencer, O.B.E., c/o Messrs. Gannon Dunkerley and Company, Limited, "Mehtab", Boag Road, Thyagarayanagar, Madras (Representative of the Indian Roads and Transport and Development Association).

15. Mr. W. A. Griffiths, c/o The Burmah Shell-Oil Storage and Distributing Company of India, Limited, Madras (Representative of the Madras Chamber of Commerce).

16. Sri M. M. Rawal, Indo-Ceylon Dental and Surgical Co., Ltd., No. 218, Netaji Subhas Chandra Bose Road, Madras (Representative of the Southern India Chamber of Commerce).

17. Sri M. V. Venkataraman, c/o Sri Rama Vilas Service, Limited, 202/3, Mount Road, Madras (Representative of the Madras Trades Association).

18. Sri D. C. Kothari, Messrs. Kothari and Sons, Oriental Buildings, Armenian Street, Madras (Representative of the United Planters' Association of Southern India).

19. Mr. K. L. Grawford, Chief Commercial Manager, Madras and Southern Mahratta Railway, Park Town, Madras (Representative of the Madras and Southern Mahratta Railway).

20. Sri K. R. Ramanujam, General Manager, South Indian Railway, Tiruchirappalli (Representative of the South Indian Railway).

21. Sri S. K. Ahmed Meeran, M.P., Advocate, No. 17, Vijayaraghavachari Road, Thyagarayanagar, Madras-17 (Co-opted Member).

22. Sri P. Kunhiraman, M.P., Advocate, near District Court, Tellicherry (Co-opted Member).

23. Sri V. M. Obaidulla, M.P., No. 9, Anjuman Street, Vellore (Fort), North Arcot district (Co-opted Member).

24. Sri Kallangi Rajagopal Chetty, Piece-goods and General Merchant, Sullurpet, Nellore district (Representative of the Andhra Chamber of Commerce).

25. Sri A. Mohammed Ubaidulla, G.D.A., R.A., No. 5, Markaya Labbai Street, Georgetown, Madras-1 (Representative of the Muslim Chamber of Commerce, South India).

The subjects discussed and the decisions arrived at the meeting are detailed below :—

1. *Finances of Local Bodies—Improvement.*—After thorough discussion it was decided to defer this to the next meeting and the members were requested to give concrete suggestions then.

2. Improving the road surfaces to meet the increasing needs of traffic.

3. Subject proposed by Mr. C. W. Spencer regarding taking up of cement and asphalt concrete surfacing scheme on a loan amortisation scheme.

Items 2 and 3 above were taken up for discussion together. The scheme under item 2 was for doing certain improvement works meeting the cost from maintenance allotments while the scheme in item 3 was for floating loans. After some discussion the Board agreed that the policy of raising loans may be accepted though this may not be feasible now and that the Chief Engineer's suggestion under item 2 may be recommended to Government. [Orders of Government agreeing to the recommendations of the Chief Engineer (Highways) have subsequently been received.]

4. Constitution of Highway Engineering Experimental Station in Madras.

The Board approved the proposal.

5. List of original works on Government roads each costing over Rs. 10,000 proposed to be taken up in 1951-52.

After some discussion the Board approved the list.

6. The Board also approved a list of further roads proposed for transfer from the control of the local bodies to Government.

7. The Board also approved the list of works proposed to be carried out from out of the unspent balance of the State allocation of Central Road Fund.

(b) Central Annual Conference.

The Third Annual Conference was held at Kodaikanal on 5th June 1951 and attended by the Chief Engineer (Highways), Deputy Chief Engineer (Highways), Superintending Engineers (Highways) I, II, III, and IV Circles, Accounts Officer and two Technical Assistants to Chief Engineer (Highways).

The following subjects were discussed :—

- (1) Review of progress of the resolution passed at the last conference.
- (2) Improving the working of lorries.
- (3) Delegation of certain powers to Presidents, District Boards.
- (4) Special Works—Allowance policy.
- (5) Fixed Travelling Allowance to Supervisors with and without conveyances.
- (6) Introduction of fixed deposit system.
- (7) Jeeps—Supply of.
- (8) Upgrading of roads.
- (9) Traffic Census.
- (10) Avenues and survey field books.
- (11) Land acquisition—Old and new procedures.
- (12) Abolition of Gang Cooly System.

(c) Regional Conference.

The Regional Conferences concerned in each circle in previous years with reference to G.O. No. 745, P.W., dated 3rd March 1949, were discontinued in view of the enhanced powers granted to the Presidents of District Boards which enable them to have closer contact with the officers of this Department. The discontinuance of these conferences has had the approval of Government contained in G.O. Ms. No. 2679, P.W., dated 27th June 1951.

(d) Monthly Conference.

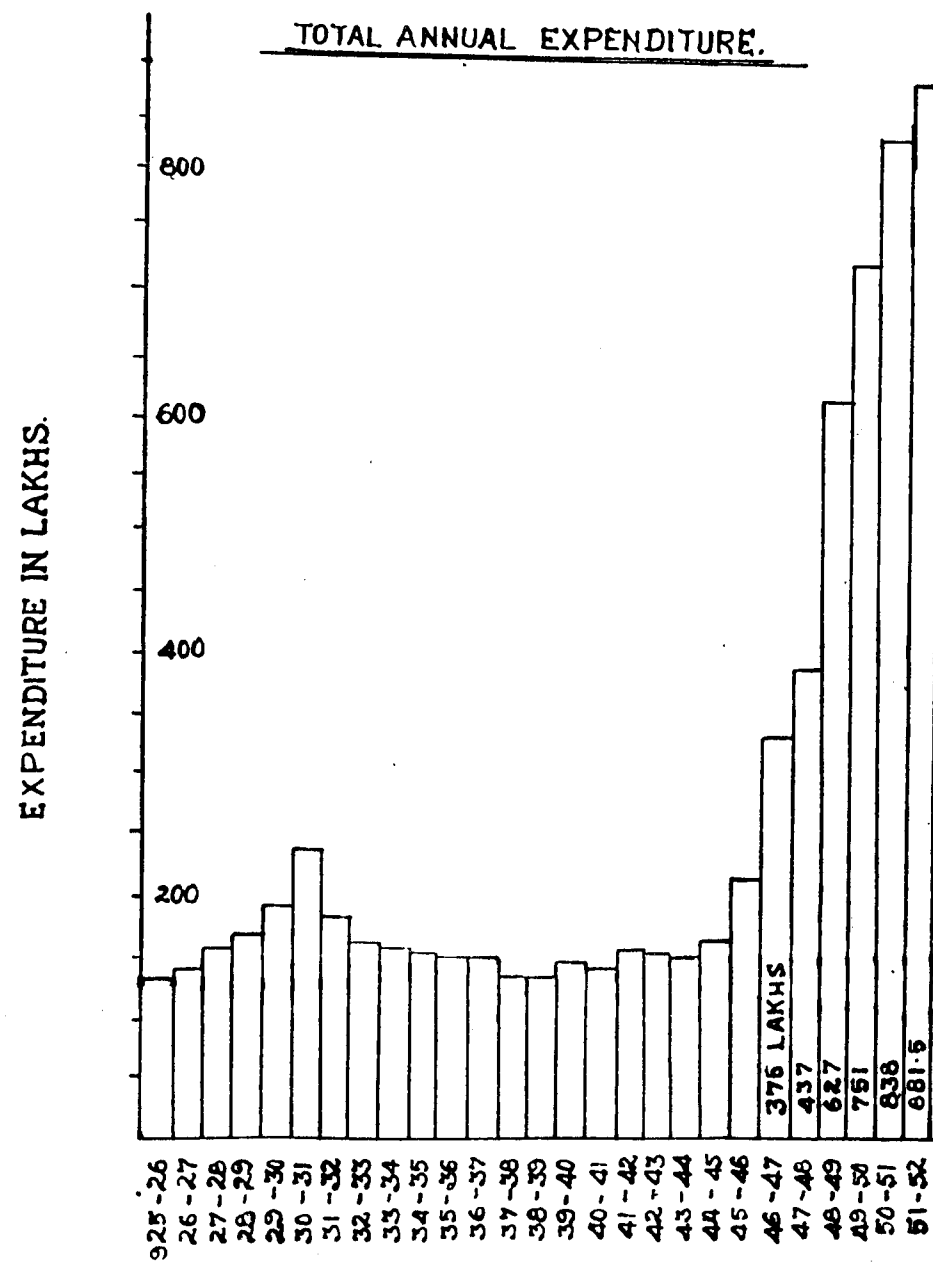
During the year under report, two conferences were held, one on 31st May 1951 and the other on 1st December 1951. The subjects discussed are detailed below :—

(Conference held on 31st May 1951.)

1. Land Acquisition for construction of Highway Engineering experimental station in Madras State.
2. Sanction of additional staff for Chief Engineers (Highways) Office consequent on the abolition of the office of the Superintending Engineer (Bridges), Madras.
3. Discontinuance of holding of Regional conference with Presidents, District Boards.
4. Investing Highway Officers with Forest Officers' powers in dealing with avenue offences and draft circular called for by Government in this connexion.
5. Additional accommodation required for Highway Office in Chepauk Buildings.

(Conference held on 1st December 1951.)

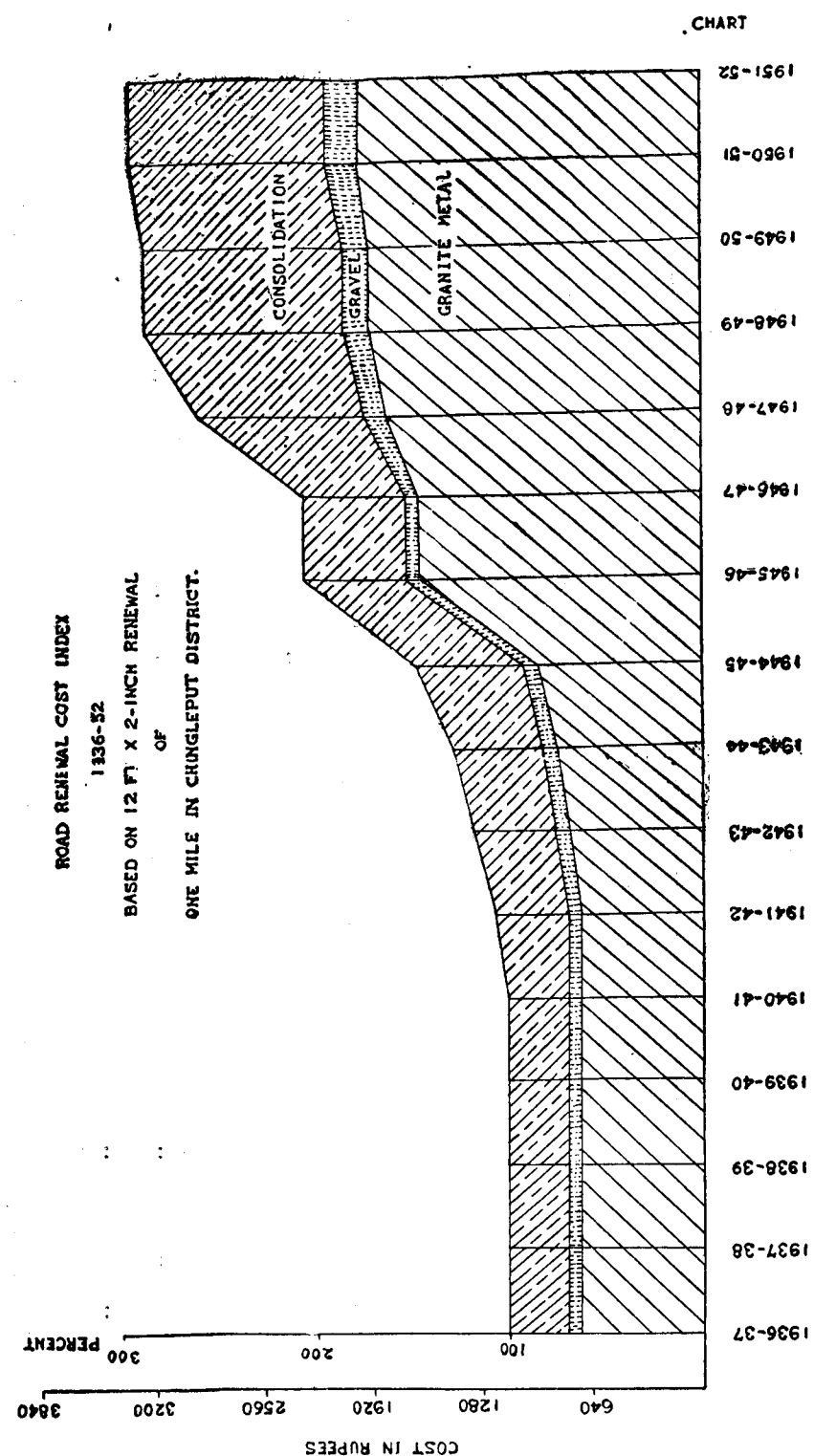
1. Communications—Malabar District—Trunk Roads Highways—Maintenance—Ways and Means.



GROWTH OF ROADS IN THE STATE MAINTAINED BY THE

DEPARTMENT AS ON 31-3-52.

1846	3,100 MILES.
1880-81	19,500
85-86	19,650
90-91	21,600
95-96	21,600
1900-01	23,800
05-06	25,100
10-11	26,000
15-16	26,500
20-21	26,500
25-26	28,700
30-31	32,700
35-36	36,000
40-41	37,900
45-46	37,900
46-47	37,900
47-48	37,900
48-49	37,974
49-50	38,047
50-51	38,971
51-52	40,556



ANNEXURE 1.

i) STATEMENT SHOWING MILEAGE OF AND EXPENDITURE ON EXTRA-MUNICIPAL ROADS MAINTAINED BY PUBLIC AUTHORITIES ("EXTRA-MUNICIPAL" MEANS OUTSIDE THE AREA OF JURISDICTION OF A MUNICIPALITY, A CITY/IMPROVEMENT/PORT TRUST OR CORPORATION OR LIKE URBAN BODY) YEAR ENDING 31ST MARCH 1951.

Maintained by Public Works Department or other Government department [see note maintained by Local Bodies (see Note 2).]

State and type of road.	Mileage.			Expenditure (rupees in lakhs).			Mileage.			Expenditure (rupees in lakhs).			Total mileage columns (4) plus (10).	Total expenditure columns (7) plus (13).	Unbridged mileage (see Note 3).	Remarks (see Note 4).
	As on 31st March 1950.	Change since last report plus or minus on column (2).	Total as on 31st March 1951 column (2) plus (3).	New construction.	Maintenance.	Total columns (5) plus (6).	As on 31st March 1950.	Charge since last report plus or minus on column (8).	Total as on 31st March 1951 column (8) plus (9).	New construction.	Maintenance.	Total columns (11) plus (12).				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. Bituminous—																
(a) Surface dressed with Tar Bitumen or asphalt hot or in form of cut backs or emulsion.	670 + 272	942	1249	3617	4836	5 + 6	11	0.32	0.13	0.45	953	4911	6	134-5*		
(b) Grouted, sheet asphalt or any base, asphaltic concrete or macadam, tar, concrete or macadam including carpets, one inch thick or more.	29 + 4	33	177	235	412	..	..	..	..	..	..	..	33	412	..	7-5
2. Concrete—																
(a) Cement concrete	119 + 118	237	6136	046	6182	1 ..	1	0.02	0.02	0.02	238	6184	..	23-5		
(b) Cement bound macadam	5 - 2	3	074	003	077	..	..	0.12	0.12	0.12	3	089	..	2-5		
3. Water bound macadam—																
(a) Broken rock metal	12,028 + 369	12,397	7079	31434	38413	6359 + 1,170	7,529	5278	7378	12656	10,926	52069	1,366	201-0		
(b) Kankar, Latelite, or brick metal ..	1,876 - 220	1,656	563	3210	3778	4,920 - 765	4,155	1499	2191	3680	5,811	7463	736	2-1		
4. Lower types—																
(a) Using artificially admixed granular material, gravel, moorum, etc., on the natural soil.	688 - 406	277	116	148	264	4722 - 132	4,590	1649	1518	3167	4,867	3431	614	..		
(b) Natural soil, motc																

(c) Natural soil, unmotorable	133 + 14	147	151	018	169	2496 + 124	2,619	446	719	1165	2766	1334	551	..		
Total (all types)	16,216 + 55	16,271	16455	38820	55275	22587 + 824	23,411	11286	13479	24765	89682	80040	4,347	371-5		

NOTE.—1. Name the Departments, other than Public Works Department or Highways Departments, here.

2. The figures in columns (2) to (7) may include roads in Municipal areas maintained by the Public Works Department only if the data for such roads cannot be separated easily. To indicate where such data is or is not included in this statement, please cut out one or the other of the words—YES/NO.

3. "Not fully bridged" [column (16)] means there are interruptions to traffic for periods each exceeding twelve hours on more than six occasions in the year. The mileage of the entire section affected between two important stations (and not merely the part of the section affected) should be included in the figures in column (16).

4. Where trackways are included in the figures given (against any of the types) in the main statement, please give the mileage of these TRACKWAYS in the REMARKS column against the relevant entries in the statement.

This information is required to be collected in good time so that it may be submitted by the Head of the State Department concerned with roads by the first March of the year following that to which the information relates.

* The mileage of Municipal reaches maintained by this department, included in column (14) are separately shown under this column.

(ii) EXPENDITURE INCURRED ON EXTRA-MUNICIPAL ROADS MAINTAINED BY PUBLIC AUTHORITIES DURING YEAR ENDING 31st MARCH 1952.

("Extra-Municipal" means outside the area of jurisdiction of a Municipality, Town/City Corporation or like urban body.)

STATE

(Figures to be rounded off to the nearest thousand rupees)

Class of Expenditure. (1)	Expenditure.		
	State. (2)	Local body. (3)	Total. (4)
	RS.	RS.	RS.
1. Maintenance, Repairs and Minor improvements	38,820	13,479	52,299
2. New construction and improvements debited to Original Works (included improvements of surfaces except surface painting with tar or bitumen-first and subsequent treatment).	16,455	11,286	27,741
3. Administration and other expenses—			
(a) Establishment	4,383	1,649	6,032
(b) Tools and Plant	12,109	142	12,251
(c) Others (see note below)	..	..	..
Total (excluding loan charges) ..	71,767	26,556	98,323
Loan charges—			
Interest	..	..	..
Repayment	..	..	..
(Principal or sinking fund.)			
Total (including loan charges) ..	71,767	26,556	98,323
Outstanding Highway DEBIT at the end of the financial year—			
The amount of GRANTS from State revenues to Local Bodies for Roads.	..	6,370	..
[This amount is not included in column (2) as expenditure but expenditure out of the grants is included in column].			

NOTE.—Where the Engineering staff of Public Works Department and Local Bodies are also employed on works other than roads, it is impossible to allocate "Administration and other expenses" accurately. In such cases, these charges may be estimated on the basis of a percentage and the percentage indicated on both maintenance and original works.

(iii) SOURCES OF EXPENDITURE INCURRED ON ROAD WORKS FOR THE YEAR ENDING 31st MARCH 1952.

STATE.

(Figures to be rounded off to the nearest thousand rupees.)

Source of Expenditure. (1)	Expenditure.		
	State. (2)	Local Body. (3)	Total. (4)
	RS.	RS.	RS.
1. Central Road Fund	1,666	585	2,251
2. State Revenues	58,153	6,370	64,523
3. Local Funds	..	19,601	19,601
4. Loans	..	..	..
5. Any other source to be specified here— Government of India for expenditure on National Highways.	11,948	..	11,948
Total ..	71,767	26,556	98,323

ANNEXURE 2.

Statement showing the cost of maintenance of roads since 1946-47.

Year.	Total mileage Government and District Board. MILES.	Total expenditure, Government and District Board. RS.	Cost per mile. RS.
1946-47	14,958	1,75,22,582	
	22,076	79,96,937	
	37,034	2,55,19,519	609
1947-48	15,024	2,62,03,053	
	22,025	91,54,213	
	37,049	3,53,57,266	954
1948-49	15,780	3,50,15,182	
	22,194	1,15,83,288	
	37,974	4,65,98,470	1,227
1949-50	15,460	3,37,91,000	
	22,587	1,29,85,735	
	38,047	4,67,76,735	1,229
1950-51	15,560	3,87,73,748	
	23,411	1,33,63,439	
	38,971	5,21,37,187	1,338
1951-52	15,599	4,16,35,671	
	24,957	1,41,82,154	
	40,556	5,58,17,825	1,376

ANNEXURE 3.

Classified cost of maintenance for the year 1951-52.

Classification. (1)	Government roads.			District Board roads.		
	Mileage. (2)	Maintenance expenditure. (3)	Cost per mile. (4)	Mileage. (5)	Maintenance expenditure. (6)	Cost per mile. (7)
	MILES.	RS.	RS.	MILES.	RS.	RS.
National Highways ..	1,939	71,11,707	3,576	..	..	..
Provincial Highways ..	3,118	93,83,219	3,009	..	..	..
Major District Roads ..	10,253	2,46,67,341	2,406	5,795	54,86,599	947
Other District Roads ..	239	4,78,404	1,981	7,698	45,40,522	590
Village Roads	..	..	..	11,464	41,55,093	362
Total ..	15,599	4,16,35,671	2,669	24,957	1,41,82,154	568

ANNEXURE 4.

Statement showing the length of roads maintained during 1951-52 as on 31st March 1952.

Serial number.	Name of division.	Highways Department.					District Board roads.				Works Department roads.	Grand total.
		National Highways.	Provincial Highways.	Major District roads.	Other District roads.	Total.	Major District roads.	Other District roads.	Village roads.	Total.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
I Circle.												
1	Guntur, South	64	77	231	7	379	225	63	67	455	6	1,738
2	Guntur, North	35	31	222	..	288	165	45	331	541	..	1,738
3	Krishna	94	78	286	6	464	158	209	484	851	31	1,554
4	West Godavari	47	47	418	..	512	93	124	362	579	17	1,210
5	Rajahmundry	18	2	415	..	435	45	253	46	349	..	1,824
6	East Godavari	51	18	190	..	259	131	145	323	599	11	1,824
7	Visakhapatnam (South)	129	..	356	..	485	53	100	263	421	..	1,115
8	Anakapalli Special	..	..	64	..	64	..	..	..	..	..	985
9	Visakhapatnam (North)	134	38	349	8	529	101	143	150	394	..	985
II Circle.												
10	Anantapur	106	252	212	..	570	331	126	275	732	..	1,367
11	Bellary	221	336	336	..	893	282	197	133	612	109	1,278
12	Chingleput	133	396	129	..	658	56	279	744	1,079	6	1,803
13	Chittoor	54	121	560	..	735	23	431	550	1,909	..	1,787
14	Cuddapah	..	159	265	..	424	300	227	69	596	..	1,068
15	Kurnool	54	327	231	..	612	256	306	33	595	..	1,812
16	Nellore	186	102	366	..	654	305	321	128	754	5	1,406
17	North Arcot	104	74	482	..	660	107	392	518	1,017	1	1,855
18	Madras City	..	..	..	..	..	..	..	..	..	3	530
19	Transport and Machinery Division.	..	..	..	..	..	..	..	..	..	..	..
III Circle.												
20	South Arcot	86	90	385	..	561	316	507	644	1,467	102	2,246
21	Tanjore, East	..	28	251	..	279	112	386	615	1,113	..	3,422
22	Tanjore, West	..	73	323	..	396	266	255	450	971	409	2,544
23	Tiruchirappalli	180	191	454	..	725	237	547	776	1,560	89	2,615
24	Madurai	110	67	480	..	657	245	158	753	1,156	..	2,084
25	Ramanathapuram	95	71	298	..	464	265	302	323	890	..	1,537
26	Tirunelveli	85	98	277	..	460	478	130	354	962	..	1,571
27	Coleroon Bridge	..	..	2	..	2	..	..	..	..	..	2
IV Circle.												
28	Colombatore South	50	131	366	6	553	204	254	609	1,067	3	3,782
29	Colombatore North	27	57	406	7	497	251	384	802	1,437	..	3,782
30	Salem South	81	62	239	9	391	165	354	276	795	..	2,614
31	Salem North	124	296	296	2	422	253	336	276	865	..	735
32	The Nilgiris	..	107	83	17	207	9	66	311	386	..	1,533
33	South Kanara	..	266	395	28	689	115	253	410	773	..	2,194
34	Malabar (South)	42	145	420	..	607	43	211	247	501	9	2,194
35	Malabar (North)	..	185	149	20	354	200	189	137	526	..	..
36	Bharathapuzha	..	..	..	..	..	..	..	..	..	..	..
Total		1,989	3,118	10,253	239	15,599	5,795	7,093	11,464	24,957	169	45,151

ANNEXURE 5.

Statement showing the various types of roads in the Madras State as on 31st March 1952.

Serial number and name of district.	Cement concrete roads.					Black-top surface roads.					Metalled roads.					Unmetalled roads.					
	Highways Department.	District Boards.	Public Works Department.	Municipal Councils.	Total.	Highways Department.	District Board.	Public Works Department.	Municipal Councils.	Total.	Highways Department.	District Boards.	Public Works Department.	Municipal Councils.	Total.	Highways Department.	District Boards.	Public Works Department.	Municipal Councils.	Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
I Circle.																					
1 Guntur, South	28	..	1	6	30	9	..	..	6	17	356	210	..	121	1,155	14	145	5	36	536	1,738
2 Guntur, North	15	..	1	6	22	52	..	..	6	58	383	263	..	87	733	13	589	30	109	741	1,554
3 Krishna	8	..	..	1	9	32	..	..	6	38	447	248	17	65	777	25	331	..	30	386	1,210
4 West Godavari	3	..	..	..	3	2	..	..	..	2	350	137	..	..	487	81	212	..	..	293	785
5 Rajahmundry	13	..	..	4	17	32	..	..	11	43	214	359	6	107	686	..	239	5	49	293	1,039
6 East Godavari	12	..	..	8	20	37	..	..	34	71	436	310	..	91	837	..	111	..	12	123	1,051
7 Visakhapatnam, South	..	..	..	..	..	..	..	..	..	..	41	..	..	..	41	23	..	..	..	23	64
8 Anakapalle, Special	1	..	..	..	1	1	..	..	..	1	526	291	..	24	841	..	104	..	18	122	965
9 Visakhapatnam, North	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
II Circle.																					
1 Anantapur	8	..	..	1	1	56	1	..	3	60	514	616	..	32	1,162	..	115	..	29	144	1,367
11 Bellary	28	..	..	1	29	205	6	..	11	48	517	525	..	80	1,122	..	87	..	15	102	1,278
12 Chingleput	1	..	..	1	2	74	1	..	2	213	425	226	5	38	694	..	847	..	20	867	1,803
13 Chittoor	10	..	..	1	12	13	..	..	3	78	660	285	..	21	966	..	722	..	18	740	1,787
14 Cuddapah	1	..	..	2	3	4	..	..	8	16	397	511	..	32	940	4	85	..	11	100	1,068
15 Kurnool	9	..	..	3	12	20	..	..	..	..	691	382	..	32	1,075	..	213	..	20	233	1,312
16 Nellore	13	..	1	2	16	61	..	..	8	28	572	626	3	33	1,234	3	128	1	..	132	1,406
17 North Arcot	..	..	..	3	16	..	..	..	7	68	586	416	1	86	1,089	..	601	..	81	682	1,855
18 Madras City	..	..	..	20	20	..	..	2	388	391	..	..	1	87	88	..	..	..	31	31	580

Statement showing the various types of roads in the Madras State as on 31st March 1952—cont.

ADMINISTRATION REPORT OF THE																					
Serial number and name of district.	Cement concrete roads.				Black-top surface roads.				Metalled roads.				Unmetalled roads.				Grand Total.				
	Highways Department.	District Boards.	Public Works Department.	Municipal Councils.	Total.	Highways Department.	District Board.	Public Works Department.	Municipal Council	Total.	Highways Department.	District Boards.	Public Works Department.	Municipal Council.	Total.						
III Circle.																					
South Arcot ..	9	..	..	..	9	72	2	..	4	78	453	417	1	95	966	27	1,048	101	17	1,193	2,246
Tanjore, East ..	2	..	..	..	10	5	..	..	4	48	259	131	2	116	1,375	13	981	405	130	1,989	3,422
Tanjore, West ..	3	..	..	..	..	33	5	..	..	..	341	526	..	..	..	19	441	..	..	..	..
Tiruchirappalli ..	9	..	..	..	3	254	4	..	49	307	511	836	16	69	1,432	..	721	73	70	864	2,615
Madurai ..	25	..	..	..	5	88	1	..	51	140	518	543	..	115	1,176	26	612	..	100	738	2,084
Ramanathapuram ..	6	..	..	..	7	42	1	..	5	48	416	379	..	85	880	..	510	..	86	596	1,537
Tirunelveli ..	14	..	..	..	36	7	1	..	4	12	439	717	..	52	1,203	..	244	..	61	305	1,575
Coleroon ..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	..	..	..	..	2
IV Circle.																					
Coimbatore, South ..	43	..	..	3	46	137	1	..	41	224	344	591	3	123	2,052	31	563	..	58	1,386	3,782
Coimbatore, North ..	..	..	..	..	..	22	..	..	..	..	475	703	..	..	..	8	305	..	57	649	2,614
Salem, South ..	18	..	..	17	44	57	4	..	22	108	345	490	..	45	1,814	..	284	..	22	256	735
Salem, North ..	9	..	..	..	..	57	..	..	..	..	356	578	..	..	..	..	..	..	..	..	..
The Nilgiris ..	..	..	..	3	3	174	5	..	43	222	33	147	..	74	254	..	234	..	22	256	735
South Kanara ..	..	..	..	..	..	15	..	..	8	23	674	340	..	46	1,060	..	438	..	12	450	1,533
Malabar, South ..	..	..	..	..	..	49	1	..	9	94	552	269	9	82	1,560	..	231	..	103	529	2,194
Malabar, North ..	2	..	..	3	11	35	..	..	..	..	317	331	..	..	..	..	195	..	..	..	..
Grand total ..	286	..	4	142	432	1,648	38	3	729	2,413	13,380	12,521	64	1,838	27,803	285	12,403	620	1,195	14,503	45,151

ANNEXURE 6.

Statement showing the lengths of various classes of roads improved or newly formed during 1951-52.

Serial number and name of division.	Cement concrete roads.					Black-top roads.					Metalled roads.					Unmetalled roads.					Total.
	Highways Department.	District Boards.	Public Works Department.	Municipalities.	Total.	Highways Department.	District Boards.	Public Works Department.	Municipalities.	Total.	Highways Department.	District Boards.	Public Works Department.	Municipalities.	Total.	Highways Department.	District Boards.	Public Works Department.	Municipalities.		
I Circle.																					
1 Guntur, South ..	10	..	..	1	11	8	..	..	1	12	13	76	..	15	104	..	62	..	1	63	
2 Guntur North ..	..	..	..	..	3	13	..	..	..	13	24	..	..	1	25	..	17	..	1	18	
3 Krishna ..	5	..	..	..	5	13	..	..	3	16	23	..	..	1	29	..	7	..	9	16	
4 Godavari, West ..	..	..	..	..	..	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	
5 Rajahmundry ..	..	..	..	..	..	2	..	..	..	2	..	..	..	2	2	..	20	..	3	23	
6 Godavari, East ..	8	..	..	1	9	2	..	..	..	2	..	5	..	1	6	..	18	..	..	18	
7 Visakhapatnam, South ..	6	..	..	1	7	20	..	..	5	25	..	..	..	..	..	..	..	..	..	..	
8 Anakapalli, Special ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
9 Visakhapatnam, North ..	..	..	..	..	..	1	..	..	..	1	..	4	..	..	4	..	1	..	..	1	
II Circle.																					
10 Anantapur ..	..	..	..	..	..	25	..	..	1	29	..	1	..	1	2	..	21	..	..	21	
11 Bellary ..	8	..	..	..	8	23	..	..	1	28	..	83	..	1	84	..	14	..	..	14	
12 Chingleput ..	1	..	..	..	1	71	3	..	..	74	..	12	..	1	13	..	141	..	..	141	
13 Chittoor ..	..	..	..	1	1	14	1	..	1	16	..	17	..	..	17	..	59	..	1	60	
14 Cuddapah ..	1	..	..	2	3	9	..	..	..	9	..	7	..	..	7	..	39	..	..	39	
15 Kurnool ..	..	..	..	1	1	..	..	..	..	..	..	15	..	..	15	..	4	..	1	5	
16 Nellore ..	8	..	1	1	10	16	..	..	2	13	..	3	..	..	3	..	3	..	..	3	
17 North Arcot ..	12	..	..	2	14	16	..	..	3	19	..	19	..	..	19	..	15	..	..	15	
18 Pennar Bridge Division ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
19 Madras City ..	..	..	..	..	..	..	..	..	31	31	..	..	..	35	35	..	..	..	..	..	

Statement showing the lengths of various classes of roads improved or newly formed during 1951-52—cont.

Serial number and name of division.	Cement concrete roads.				Black-top roads.				Metalled roads.				Unmetalled roads.			
	Highways Department.	District Boards.	Public Works Department.	Municipalities.	Total.	Highways Department.	District Boards.	Public Works Department.	Municipalities.	Total.	Highways Department.	District Boards.	Public Works Department.	Municipalities.	Total.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
III Circle.																
20 South Arcot ..	1	..	..	..	1	25	1	..	2	28	2	10	..	1	13	..
21 Tanjore East ..	..	..	..	..	..	4	5	..	..	36	..	10	..	9	28	..
22 Tanjore West ..	..	..	..	..	..	25	..	..	..	..	..	9	..	3	111	..
23 Tiruchirappalli ..	..	..	..	1	1	131	..	..	11	142	38	70	..	7	31	292
24 Madurai ..	..	..	..	2	2	36	..	..	4	40	..	24	..	2	14	262
25 Ramanathapuram ..	..	..	..	2	2	22	..	..	..	22	..	12	..	1	11	188
26 Tirunelveli ..	..	..	..	4	4	..	1	..	..	1	2	10	..	..	2	50
27 Caleroon Bridge Division ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28 Pugalur Bridge Division ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV Circle.																
29 Coimbatore, North ..	..	..	..	..	..	73	..	..	16	89	..	20	..	9	29	100
30 Coimbatore, South ..	..	..	..	..	..	20	2	..	9	58	..	5	..	1	32	66
31 Salem, South ..	..	..	..	3	10	27	5	..	..	26	..	26	..	..	..	55
32 Salem, North ..	..	..	..	..	..	13	..	..	3	21	..	..	..	..	3	8
33 The Nilgiris ..	..	..	..	..	..	15	..	..	1	16	3	..	..	..	..	17
34 South Kanara ..	..	..	..	1	1	8	..	..	8	11	..	..	..	..	..	12
35 Malabar, South ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
36 Malabar, North ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
37 Bharathapuzha ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	62	..	1	27	90	637	18	..	99	754	110	438	..	92	640	1,524

ANNEXURE 7.

Statement showing the length of roads taken over from the District Boards and Municipalities during 1951-52.

Serial number and name of division.	Cement Concrete and Black-top road.	Metalled road.	Unmetalled road.	Total length.	Authority for taking over and remarks.
		M. F. FT.		M. F. FT.	
I Circle.					
Krishna	..	..	13 4 440	13 4 440	A length of M. 5-4-4, on Kaikalur to Eluru road (Krishna district limits) taken over on 1st September 1951 as per G.O. No. 2340, P.W. dated 5th June 1951. The balance of 8 miles relates to Avanigadda-Kodur road of Public Works Department.
2 West Godavari	..	11 1 256	2 0 0	13 1 256	Taken over from District Board, West Godavari on 26th July 1951 as per G.O. No. 2340, Public Works dated 5th June 1951.
II Circle.					
3 North Arcot	..	0 7 40	..	0 7 40	Taken over from the District Board as per G.O. No. 2211, L.A., dated 21st November 1951. In exchange of the above stretch, 7 furlongs 24 feet of Tiruvathipuram-Arni road has been transferred to North Arcot District Board from Highways Department.
4 Chingleput	..	85 7 303	..	35 7 330	Taken over from the District Board as per G.O. No. 3013, Public Works, dated 19th July 1951.
III Circle.					
5 Tirunelveli	..	1 1 0	..	1 1 0	Taken over as per G.O. Ms. No. 4738, Public Works, dated 22nd November 1951.
6 Tanjore, East	..	4 4 0	2 6 107	7 2 107	Taken over M. 4-4-0 from District Board and M. 2-6-10 from Revenue Department as per G.O. No. 2340, Public Works, dated 5th June 1951.
7 Tanjore, West	..	1 4 0	..	1 4 0	Taken over from the District Board and the matter is under correspondence.
8 Ramanathapuram	..	5 0 0	..	5 0 0	Taken over as per G.O. No. 2340, Public Works, dated 5th June 1951.
IV Circle.					
Nil.					
Total length of roads taken over	..	60 0 626	4 6 107	64 7 73	

ANNEXURE 8.

Road Mileage Analysis as on 31st March, 1952—Government and District Boards.

Classification.	Mileage (to the nearest mile).									
	Cement concrete roads.		Black top roads.		Metalled roads.		Unmetalled roads.		Total.	
	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.
National Highways ..	41	94	163	381	13	1,305	..	..	217	1,780
Provincial Highways ..	27	66	86	420	43	2,487	..	1	156	2,974
Major District Roads ..	8	50	207	414	82	14,507	..	785	297	15,756
Other District Roads ..	..	..	2	4	..	5,253	..	2,650	2	7,907
Village Roads ..	..	..	..	4	..	2,211	..	9,252	..	11,467
Total ..	76	210	458	1,223	138	25,763	..	12,683	672	39,884

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ADMINISTRATION REPORT OF THE

ANNEXURE 9.

Statement showing in abstract Appropriation and Expenditure
in 1951-52.

Finance heads.	Original appropriation.	Final appropriation.	Actual expenditure.
(1)	(2)	(3)	(4)
	RS.	RS.	RS.
50. Civil Works—Union—			
Works and Repairs	62,90,500	70,96,600	70,96,600
Buildings and Roads—Works and Reports	..	..	..
50. Civil Works—State—			
Scheduled Areas—			
Excluding Post-War Reconstruction	6,99,700	6,22,900	5,67,915
Post-war Reconstruction	7,66,400	6,02,300	6,39,598
Ordinary Areas—			
Excluding Post-War Reconstruction	3,40,58,000	3,59,21,200	3,68,78,026
Post-War Reconstruction	97,78,400	43,33,100	84,45,794
Total, Civil Works—State	..	..	4,65,31,333
Ordinary Establishment—			
50. Civil Works—State—			
Scheduled Areas	1,22,500	1,43,100	1,64,346
Ordinary Areas	48,67,400	41,73,200	47,98,498
Charges in England	..	..	..
Total, Establishment	..	..	49,62,844
Tools and Plant—			
50. Civil Works—State—			
Scheduled Areas	2,000	49,600	34,933
Ordinary Areas	81,29,000	91,95,100	84,22,040
Total, Tools and Plant	..	..	84,56,973
Suspense	— 13,71,000	— 13,08,000	— 36,87,140
81. Capital Outlay—Union Works	40,00,000	59,20,500	59,03,831
Grand total—Highways—State and Union	..	..	6,92,64,441

ANNEXURE 10.

Statement showing the appropriation and the outlay during 1951-52 under all heads
of Civil Works.

Service heads.	Original works.		Repairs.		Total.	
	Appropriation.	Outlay.	Appropriation.	Outlay.	Appropriation.	Outlay.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	RS.	RS.	RS.	RS.	RS.	RS.
Union—						
50. Civil Works—						
Communications	..	..	70,96,600	70,96,600	70,96,600	70,96,600
State—						
50. Civil Works—						
Scheduled areas excluding						
Post-War Reconstruction—						
Communications	28,100	19,254	5,96,809	5,48,661	6,22,900	5,67,915
Post-War Reconstruction—						
Communications	6,02,300	6,39,598	..	..	6,02,300	6,39,598
Establishment	..	..	..	..	1,43,100	1,64,346
Tools and Plant	..	..	..	..	49,600	34,933
Total—50. Civil Works—Scheduled	..	..	..	..	..	14,06,792
Ordinary Areas—						
Excluding Post-War Reconstruc-						
tion—						
Communications	21,27,000	18,98,978	3,37,94,200	3,49,79,048	3,59,21,200	3,68,78,026
Post-War Reconstruction—						
Communications	42,43,400	83,48,518	89,700	97,276	43,33,100	84,45,794
Establishment	..	..	..	..	41,73,200	47,98,498
Charges in England	..	..	..	..	..	..
Tools and Plant	..	..	..	..	91,05,100	84,22,040
Suspense	..	..	..	..	— 13,08,000	— 36,87,140
Total—50. Civil Works—Ordinary	..	..	..	..	..	5,48,57,218
State						
Total—50. Civil Works—Highways—	..	..	..	..	..	5,62,64,010
81. Civil Works—						
Union—						
Communications	59,20,500	59,03,831	..	..	59,20,500	59,03,831
Grand total	..	..	..	..	..	6,92,64,441

ANNEXURE II.

(1) Statement showing the Divisional Particulars of Expenditure on Government Roads (State and Union).

Name of division.	Expenditure on original works.										Expenditure on repairs.										Tools and plant.	Total.
	Ex-P.W.R.					P.W.R.					Ex-P.W.R.					Avenues.						
	N.H.	P.H.	M.D.R.	O.D.R.	N.H.	P.H.	M.D.R.	O.D.R.	N.H.	P.H.	M.D.R.	O.D.R.	N.H.	P.H.	M.D.R.	O.D.R.	N.H.	P.H.	M.D.R.	O.D.R.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	
Visakhapatnam, North	..	..	296	..	..	..	..	..	3,42,509	75,063	5,34,023	9,568	4,693	57,094	10,23,846	..	..	..	..	..	..	
Visakhapatnam, South	..	..	9,900	..	6,15,511	..	1,39,053	..	4,96,217	..	8,09,367	..	13,897	59,773	21,37,718	..	..	..	..	..	..	
East Godavari ..	..	9,600	37,903	..	..	3,42,187	98,940	..	2,50,877	45,530	8,68,822	..	12,755	41,737	17,08,351	..	..	..	..	..	..	
West Godavari ..	..	24,683	66,801	..	1,447	..	13,18,487	..	3,92,531	1,09,908	18,09,803	..	17,216	1,97,739	39,38,670	..	..	..	..	..	..	
Rajahmundry ..	..	..	21,905	..	79,482	221	2,23,425	..	69,374	1,850	8,43,064	..	3,920	60,578	13,09,319	..	..	..	..	..	..	
Godavari special	..	..	..	..	83,768	..	..	..	..	..	..	..	..	24,802	1,08,570	..	..	..	..	..	..	
Krishna ..	11,435	73,396	36,785	..	..	86,197	1,73,562	..	4,40,330	6,66,585	10,80,825	8,466	84,535	1,45,553	28,11,674	..	..	..	..	..	..	
Guntur, North ..	..	11,549	27,898	..	5,10,099	10,435	3,36,718	..	1,44,618	94,990	9,24,974	..	12,831	41,414	21,15,524	..	..	..	..	..	..	
Guntur, South ..	..	..	85,645	..	..	9,539	48,364	..	2,74,666	1,39,212	6,85,328	4,278	44,489	65,497	13,57,018	..	..	..	..	..	..	
Anakapalli special	..	..	..	..	..	..	4,88,012	..	..	..	1,00,086	..	918	68	5,89,084	..	..	..	..	..	..	
Nellore ..	..	..	..	..	14,522	88,935	15,357	..	6,53,879	2,01,884	4,84,554	..	6,147	83,854	15,49,182	..	..	..	..	..	..	
Kurnool ..	..	..	..	..	..	3,47,413	44,701	..	1,64,634	7,42,024	5,08,324	..	34,317	84,930	19,26,893	..	..	..	..	..	..	
Bellary ..	..	22,861	3,024	..	..	1,97,322	83,774	..	..	6,67,554	5,39,438	..	11,574	71,974	15,97,571	..	..	..	..	..	..	
Anantapur ..	..	15,252	1,00,897	..	..	18,573	39,224	..	2,04,482	5,07,627	3,39,249	..	8,335	33,564	12,67,203	..	..	..	..	..	..	
Cuddapah ..	..	..	..	..	..	66,526	1,04,081	..	..	4,65,604	5,08,470	..	..	57,899	12,02,580	..	..	..	..	..	..	
Chingleput ..	..	..	713	..	4,93,239	..	3,55,528	..	6,46,908	..	11,71,208	2,35,827	74,331	1,23,935	31,01,639	..	..	..	..	..	..	
Chittoor ..	2,298	52,616	17,941	..	..	4,220	1,49,978	..	1,06,360	3,13,487	8,56,484	..	66,792	97,893	16,68,569	..	..	..	..	..	..	
North Arcot ..	..	13,084	80,501	..	7,33,950	..	51,263	..	3,09,579	1,44,932	8,69,235	6,526	42,820	69,193	23,21,026	..	..	..	..	..	..	
Ponnar Bridge ..	..	..	..	..	8,06,157	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Transport and machinery Division.	..	..	..	..	78,546	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
South Arcot ..	..	26,099	13,368	..	..	2,02,305	79,759	..	2,01,012	2,07,798	9,47,172	13,190	51,078	72,096	18,11,381	..	..	..	..	..	..	
Tiruchirappalli ..	..	72,659	33,684	..	12,876	18,463	1,91,305	..	4,23,020	9,02,043	9,64,179	..	6,619	67,850	2,00,419	..	..	..	..	..	..	
Tanjore, East ..	..	20,305	1,227	..	..	89,326	96,290	..	..	2,60,401	11,48,542	29,922	8,578	55,440	17,10,026	..	..	..	..	..	..	
Tanjore, West ..	..	..	201	..	..	..	..	..	..	1,34,146	9,39,897	..	16,817	41,652	11,32,713	..	..	..	..	..	..	
Madurai ..	..	..	1,35,573	..	1,74,393	6,910	17,642	..	3,87,308	2,21,207	12,93,405	54,941	3,374	1,59,292	24,54,045	..	..	..	..	..	..	
Ramanathapuram ..	..	53,864	18,379	..	1,153	2,180	..	..	3,84,346	1,88,874	10,36,328	..	14,001	1,43,217	18,47,347	..	..	..	..	..	..	
Tirunelveli ..	..	53,260	..	..	..	9,861	86,336	..	3,12,849	3,00,675	7,56,034	4,840	20,631	81,602	16,31,533	..	..	..	..	..	..	

Pagalur Bridge Division	245	..	..	..	11,89,172	..	..	..	1,104	..	..	..	..	496	52,140	12,42,157	..	..	..	..	..	..
Coleroon Bridge Division	..	..	..	..	..	..	8,01,145	..	..	..	1,968	..	..	43	5,361	3,08,517	..	..	..	..	..	..
Salem, North ..	..	..	1,42,465	..	4,50,550	..	70,929	..	3,22,011	..	3,86,411	18,945	55,558	74,802	15,21,871	..	..	..	..	..	..	..
Salem, South ..	..	24,123	..	..	2,63,119	52,163	70,502	1,721	1,63,640	1,74,233	3,22,683	6,026	42,826	68,930	11,89,966	..	..	..	..	..	..	..
Bharatapuzha Division ..	..	..	..	..	..	6,68,988	3,97,933	..	..	..	..	..	..	814	4,794	10,72,529	..	..	..	..	..	..
Coimbatore, North ..	..	10,681	..	..	..	26,274	74,985	..	84,794	1,21,324	8,48,277	2,561	39,434	94,075	13,02,405	..	..	..	..	..	..	..
Coimbatore, South ..	..	18	60,463	..	10,807	50,851	57,111	..	1,42,529	7,23,800	10,10,105	4,072	6,416	1,77,135	22,42,807	..	..	..	..	..	..	..
The Nilgiris ..	..	..	20,397	..	..	1,88,601	..	6,612	..	2,11,392	2,74,059	16,149	..	..	46,534	7,95,088	..	..	..	..	..	..
Malabar North ..	..	..	528	..	..	27,825	1,04,467	..	..	8,09,257	3,60,241	22,668	1,851	82,503	14,91,481	..	..	..	..	..	..	..
Malabar South ..	..	..	17,801	..	..	21,762	35,276	..	1,86,080	5,15,053	8,86,804	14,036	6,183	99,578	18,24,352	..	..	..	..	..	..	..
South Kanara ..	..	..	15,620	..	..	42,800	6,31,342	..	..	4,36,711	5,58,432	28,008	1,653	81,228	18,02,668	..	..	..	..	..	..	..
Total ..	11,932	6,30,337	9,49,913	44,570	55,17,796	25,77,920	58,79,377	1,721	71,11,707	93,83,219	2,46,67,341	4,73,404	7,77,168	84,22,040	6,64,43,395	..	..	..	..	..	..	..

(2) Statement showing the Division war Expenditure on District Board road and non-road works.

Serial number and division.	Expenditure on original works.—Road works.										Total.		
	Ex-post-war Reconstruction.					Post-war Reconstruction.							
	Major district roads.		Other district roads.		Village roads.		Major district roads.		Other district roads.			Village roads.	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		(12)	(13)
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	
1 Visakhapatnam, North ..	18,274	..	32,279	21,058	23,510	88,062	55,041	46,570	1,532	76,668	3,73,516		
2 Visakhapatnam, South ..	..	..	15,962	..	38,549	64,967	65,267	1,94,516	..	89,973	5,85,841		
3 East Godavari ..	26,116	..	..	..	4,023	32,825	94,347	3,40,952	2,140	71,622	6,38,971		
4 West Godavari ..	1,86,880	1,98,872	1,47,106	77,007	1,54,779	50,054	1,33,932	1,04,313	3,049	1,92,492	13,70,052		
5 Rajahmundry ..	56,154	46,701	8,046	24,137	43,967	..	89,557	51,609	794	13,167	5,12,397		
6 Krishna ..	1,34,925	1,60,153	3,80,475	2,64,294	1,14,267	1,56,950	1,09,154	1,74,325	16,189	2,31,435	19,00,234		
7 Guntur, North ..	4,567	11,315	1,84,888	4,63,656	49,266	2,01,875	89,501	59,755	1,269	45,924	11,17,361		
8 Guntur, South ..	8,963	..	57,169	97,959	1,09,407	39,668	99,167	36,793	3,254	46,653	5,01,593		
9 Nellore ..	..	..	75,176	..	..	2,87,707	1,98,837	1,93,642	3,092	91,967	9,18,752		
10 Kurnool ..	..	21,236	..	12,117	1,42,653	..	1,09,110	1,14,832	..	63,643	4,63,646		
11 Bellary ..	..	..	11,345	1,47,850	57,054	77,166	1,12,788	1,34,838	..	42,785	5,84,426		
12 Anantapur ..	36,445	..	6,828	53,587	64,446	69,732	1,23,721	29,104	4,927	1,19,661	6,02,482		
13 Chittoor ..	..	..	..	1,23,118	55,127	1,86,424	2,27,011	88,135	..	54,071	7,45,100		
14 Chingleput ..	27,787	11,680	8,76,077	41,265	15,034	63,173	71,021	42,631	7,684	1,57,180	9,45,954		
15 Chittoor ..	2,654	35,502	3,32,826	20,933	65,435	27,211	13,429	1,11,862	14,074	53,947	7,33,609		
16 North Arcot ..	..	19,705	1,32,621	20,504	8,834	2,29,177	84,311	2,46,255	6,000	1,85,376	10,35,977		
17 South Arcot ..	36,922	6,376	35,129	42,631	72,114	77,210	2,95,391	1,61,174	1,44,900	1,10,018	9,92,974		
18 Tiruchirappalli ..	..	..	1,08,085	..	..	3,13,194	1,84,520	3,58,728	30,652	2,63,198	15,81,008		
19 Tanjore, East ..	59,948	74,944	71,925	1,539	32,598	70,284	1,96,122	2,10,826	8,710	1,31,866	10,11,987		
20 Tanjore, West ..	75,104	71,335	37,140	1,27,606	38,609	1,22,522	4,81,128	2,20,864	7,442	2,22,142	15,35,953		
21 Madurai ..	12,165	9,231	8,11,928	..	..	3,84,585	4,90,658	1,76,322	..	2,08,059	19,89,32		
22 Ramanathapuram ..	11,927	7,071	2,46,015	68,120	12,193	1,33,076	3,38,626	2,31,870	16,748	85,582	13,24,261		
23 Tirunelveli ..	47,950	13,444	1,08,453	3,62,767	57,329	52,530	5,09,195	64,917	8,105	1,18,399	15,50,493		
24 Coleroon Bridge Division ..	..	..	..	2,12,006	..	..	..	..	..	..	2,12,006		
25 Salem, North ..	23,917	1,13,761	1,13,373	24,313	8,168	91,011	1,82,917	2,65,231	2,924	56,844	9,68,900		
26 Salem, South ..	..	..	21,332	..	..	1,12,807	1,49,386	2,46,068	20,238	43,567	7,25,434		
27 Coimbatore, North ..	19,283	6,596	1,44,482	38,292	..	70,727	3,23,160	2,12,899	5,639	3,48,530	15,66,774		
28 Coimbatore, South ..	..	..	81,406	6,687	..	1,41,298	1,95,044	2,47,050	2,757	3,09,507	12,57,815		
29 The Nilgiris ..	..	53,282	10,831	10,219	91,710	12,318	10,732	45,522	..	28,822	4,17,704		

* Includes Rs. 17,548 incurred on Public Health.

30 Malabar, North ..	277	12,577	1,07,654	17,967	42,305	62,673	2,16,622	1,39,553	35,559	2,301	66,782	7,04,270
31 Malabar, South ..	..	6,989	..	..	1,41,526	..	1,30,639	2,13,832	..	2,548	2,99,751	7,95,305
32 South Kanara ..	..	3,585	..	24,804	23,623	81,250	* 74,016	79,604	95,142	45	67,596	4,49,695
Grand total ..	7,40,253	8,84,610	31,58,551	22,88,900	14,64,679	33,26,710	..	54,86,599	45,40,522	1,82,722	38,95,227	3,01,24,8

(3) Five-Year Plan of the Planning Commission—Road Development Schemes—Roads other than National Highways—
Progress achieved during the year 1951-52.

Serial number and name of Division.	State Highways.										Other Roads.										Remarks.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Cement concreting.			Black top surfacing.			New formation (including land acquisition and widening of roads).				Metalling.			Major bridges.			Minor bridges, culverts and improvements to bridges and culverts.			New formation (including land acquisition and widening of roads).			Metalling.			Major bridges.			Minor bridges, culverts and improvements to bridges and culverts.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.			RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.	Quantity.		RS. IN LAKHS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	M. F.	(2)		(3)	(4)		(5)	(6)		(7)	(8)		(9)	(10)		(11)	(12)		(13)	(14)			(15)	(16)		(17)	(18)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1 Visakhapatnam, North	..	..	..	..	..	..	0.06	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

23 Kananthapuram	..	..	..	..	..	..	..	..	..	..	60 6	1.32	17 4	0.36	0.44	..
24 Tirunelveli	..	..	..	..	..	..	..	..	..	..	37 0	4.73	8 0	0.63	0.51	..
25 Coleroon Bridge Dn.	..	..	..	..	..	..	..	..	..	..	26 2	0.96	..	..	0.23	0.05
26 Salem, North	..	..	..	..	..	..	..	..	..	..	4 7	0.05	6 1	0.02	..	0.59
27 Salem, South	..	..	..	..	..	..	..	..	..	..	40 1	0.70	{ 4 6 0.05 } 1 4 0.17†	..	..	0.36
28 Coimbatore, North	..	..	..	..	..	..	..	..	..	..	30 0	0.98	3 2	0.7	0.27	..
29 Coimbatore, South	..	..	..	..	..	..	..	..	..	..	..	0.39	{ 6 4 0.12 } 2 2 0.50	0.13	..	..
30 The Nilgiris	..	..	..	..	..	..	..	..	..	..	13 2	1.02	0 7	0.05	..	0.13
31 Malabar, North	..	..	..	..	..	..	..	..	..	..	2 4	0.51	26 0	1.31	1.45	0.35
32 Malabar, South	..	..	..	..	..	..	..	..	..	..	16 0	1.42	..	..	..	..
33 South Kanara	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
34 Bharathapuzha	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total achievement for the State for the year 1951-52.	32 3	20.85	42 3	7.023	14 7	9.31	100 3	22.56	13.38	11.594	1,014 4	35.27	296 4	25.02	6.33	5.17
Plan for the State for the year 1951-52.	40 0	29.03	20 0	6.11	80 0	12.31	65 0	13.64	37.10	7.21	240 0	19.57	50 0	9.78	5.87	9.78

* Conhalt surfacing.

† Asphaltic concreting.

‡ B. T. surfacing.

ANNEXURE 12.

Statement showing the figures under "XXXIX—Civil Works—Rents and Miscellaneous, 1951-52—Highways only".

Heads of accounts.	Actuals. RS.
XXXIX. Civil Works—State —	
Rents	54,061
Miscellaneous —	
Contribution towards leave salary of officers lent to foreign service ..	4,986
Other receipts	3,66,874
Total	4,25,921

N.B.—1. The figures include treasury transactions also.
2 (a) "Rents" represents recoveries of rent for occupation of Inspection Bungalow and residential buildings.
(b) "Other receipts" includes rent for lease of land and road margins, value of stores found surplus, fines realised, lapsed deposits and all other transactions which are not appropriately classifiable under other heads.

ANNEXURE 13.

Statement of expenditure on works classified according to categories of roads.

District/category.	Government roads.				District board works.			
	Capital works.		Repairs.	Total.	Capital works.		Repairs.	Total.
	Ex-P.W.R.	P.W.R.			Ex-P.W.R.	P.W.R.		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1 Visakhapatnam, North—								
National Highways ..	..	..	3,42,509	3,42,509	..	..	..	..
Provincial Highways ..	..	..	75,063	75,063	..	..	..	..
Major District Roads ..	296	..	5,34,319	5,34,319	18,274	5,522	88,062	1,11,858
Other District Roads ..	..	..	9,568	9,568	..	21,058	55,041	76,099
Village Roads	..	..	..	..	32,279	28,510	46,570	1,07,359
Total	296	..	9,61,163	9,61,459	50,553	55,090	1,89,673	2,95,316
2 Visakhapatnam, South—								
National Highways ..	..	6,15,511	4,96,217	11,11,728	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	9,900	1,39,053	8,03,367	9,52,320	..	..	64,967	64,967
Other District Roads ..	..	..	..	..	..	38,549	65,267	1,03,816
Village Roads	..	..	..	..	15,962	1,16,607	1,94,516	3,27,085
Total	9,900	7,54,564	12,99,584	20,64,048	15,962	1,55,156	3,24,750	4,95,868
3 East Godavari—								
National Highways ..	..	..	2,50,877	2,50,877	..	..	..	..
Provincial Highways ..	9,600	3,42,187	45,530	3,97,317	..	..	..	..
Major District Roads ..	37,903	98,940	8,68,822	10,05,665	26,116	..	32,825	58,941
Other District Roads ..	..	..	..	..	..	4,023	94,347	98,370
Village Roads	..	..	..	..	..	66,946	3,40,952	4,07,898
Total	47,503	4,41,127	11,65,229	16,53,859	26,116	70,969	4,68,124	5,65,209

Statement of expenditure on works classified according to categories of roads—cont.

District/category.	Government roads.				District board works.			
	Capital works.		Repairs.	Total.	Capital works.		Repairs.	Total.
	Ex-P.W.R.	P.W.R.			Ex-P.W.R.	P.W.R.		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
4 West Godavari—								
National Highways ..	..	1,447	3,92,531	3,93,978	..	..	..	..
Provincial Highways ..	24,688	..	1,09,908	1,34,596	..	..	..	..
Major District Roads ..	66,801	13,18,487	18,09,803	31,95,091	1,36,880	77,007	1,33,932	3,47,819
Other District Roads ..	..	..	..	..	1,98,872	1,54,779	1,71,568	5,25,219
Village Roads	..	..	..	..	1,47,106	50,054	1,04,313	3,01,473
Total	91,489	13,19,934	23,12,212	37,23,605	4,82,858	2,81,840	4,09,813	11,74,511
5 Agency Division—								
National Highways ..	..	79,482	69,874	1,49,356	..	..	..	..
Provincial Highways ..	..	221	1,850	2,071	..	..	..	..
Major District Roads ..	21,905	2,23,425	8,48,064	10,93,394	56,154	24,137	89,557	1,69,848
Other District Roads ..	..	..	..	..	46,701	43,967	1,78,265	2,68,933
Village Roads	..	..	..	..	8,046	..	51,609	59,655
Total	21,905	3,03,128	9,19,788	12,44,821	1,10,901	68,104	3,19,431	4,98,436
6 Godavari Special—								
National Highways ..	..	83,768	..	83,768	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	..	..	..	..	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..	..
Village Roads	..	..	..	..	..	..	..	..
Total	..	83,768	..	83,768	..	..	..	..
7 Krishna—								
National Highways ..	11,435	..	4,40,330	4,51,765	..	..	..	..
Provincial Highways ..	78,396	85,197	6,66,585	8,30,178	..	..	..	..
Major District Roads ..	36,785	1,73,562	10,80,825	12,91,172	1,34,925	2,64,294	1,69,154	5,68,373
Other District Roads ..	..	..	8,466	8,466	1,60,158	1,14,267	98,062	3,72,487
Village Roads	..	..	..	..	3,80,475	1,56,950	1,74,325	7,11,750
Total	1,26,616	2,58,759	21,96,206	25,81,581	6,75,568	5,35,511	4,41,541	16,52,610
8 Guntur, North—								
National Highways ..	..	5,10,099	1,44,618	6,54,717	..	..	..	..
Provincial Highways ..	11,549	10,435	94,990	1,16,974	..	..	..	..
Major District Roads ..	27,896	3,36,718	9,24,974	12,89,588	4,567	4,63,656	89,501	5,57,724
Other District Roads ..	..	..	..	..	11,315	49,266	5,845	65,926
Village Roads	..	..	..	..	1,84,888	2,01,875	59,755	4,46,518
Total	39,445	8,57,252	11,64,582	20,61,279	2,00,770	7,14,797	1,54,601	10,70,168
9 Guntur, South—								
National Highways ..	..	..	2,74,666	2,74,666	..	..	..	..
Provincial Highways ..	..	9,539	1,39,212	1,48,751	..	..	..	..
Major District Roads ..	85,645	48,364	6,85,328	8,19,337	8,963	97,959	99,167	2,06,089
Other District Roads ..	..	..	4,278	4,278	..	1,09,407	36,798	1,46,205
Village Roads	..	..	..	..	57,169	39,668	2,555	99,392
Total	85,645	57,903	11,03,484	12,47,032	66,132	2,47,034	1,38,520	4,51,686
10 Anakapalle Special—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	..	4,88,012	1,00,086	5,88,098	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..	..
Village Roads	..	..	..	..	..	..	..	..
Total	..	4,88,012	1,00,086	5,88,098	..	..	..	..

Statement of expenditure on works classified according to categories of roads—cont.

District/category.	Government roads.				District board works.			
	Capital works.		Repairs.	Total.	Capital works.		Repairs.	Total.
	Ex-P.W.R.	P.W.R.			Ex-P.W.R.	P.W.R.		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
11 Nellore—								
National Highways ..	..	14,522	6,53,879	6,68,401	..	..	..	..
Provincial Highways ..	..	88,985	2,01,884	2,90,869	..	..	..	..
Major District Roads ..	..	15,357	4,84,554	4,99,911	..	..	1,98,837	1,98,837
Other District Roads ..	..	..	..	..	..	..	1,93,642	1,93,642
Village Roads ..	..	..	..	..	75,176	2,87,707	68,331	4,31,214
Total ..	..	1,18,864	13,40,317	14,59,181	75,176	2,87,707	4,60,810	8,23,693
12 Kurnool—								
National Highways ..	..	..	1,64,684	1,64,684	..	..	..	..
Provincial Highways ..	..	3,47,413	7,42,024	10,89,437	..	..	..	..
Major District Roads ..	..	44,701	5,08,824	5,53,525	..	12,117	1,09,110	1,21,227
Other District Roads ..	..	..	..	..	21,286	1,42,658	1,14,832	2,78,776
Village Roads ..	..	..	..	..	..	..	..	..
Total ..	..	3,92,114	14,15,532	18,07,646	21,286	1,54,775	2,23,942	4,00,008
13 Bellary—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	22,861	1,97,322	6,67,554	8,87,737	..	..	..	..
Major District Roads ..	3,024	83,774	5,39,488	6,26,286	..	1,47,850	1,12,788	2,60,638
Other District Roads ..	..	..	..	..	..	57,654	1,34,838	1,92,492
Village Roads ..	..	..	..	..	11,345	77,166	..	88,511
Total ..	25,885	2,81,096	12,07,042	15,14,023	11,345	2,82,670	2,47,626	5,41,641
14 Anantapur—								
National Highways ..	..	..	2,04,482	2,04,482	..	..	..	..
Provincial Highways ..	15,252	18,573	5,07,627	5,41,452	..	..	..	..
Major District Roads ..	1,00,897	39,224	3,39,249	4,79,370	36,445	53,587	1,23,721	2,13,753
Other District Roads ..	..	..	..	..	..	64,446	29,244	93,650
Village Roads ..	..	..	..	..	6,828	69,732	94,031	1,70,591
Total ..	1,16,149	57,797	10,51,358	12,25,304	43,273	1,87,765	2,46,856	4,77,894
15 Cuddapah—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	..	66,526	4,65,604	5,32,130	..	..	747	747
Major District Roads ..	..	1,04,081	5,08,470	6,12,551	..	1,23,118	2,27,011	3,50,129
Other District Roads ..	..	..	..	..	..	55,127	88,135	1,43,262
Village Roads ..	..	..	..	..	..	1,86,424	11,214	1,97,638
Total ..	..	1,70,607	9,74,074	11,44,681	..	3,64,669	3,27,107	6,91,776
16 Chingleput—								
National Highways ..	..	4,93,239	6,46,908	11,40,147	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	713	3,55,523	11,71,203	15,27,449	27,787	41,265	71,022	1,40,073
Other District Roads ..	..	..	2,35,827	2,35,827	11,680	15,034	42,631	69,345
Village Roads ..	..	..	..	..	3,76,077	63,173	1,17,422	5,56,672
Total ..	713	8,48,767	20,53,943	29,03,423	4,15,544	1,19,472	2,31,074	7,66,090
17 Chittoor—								
National Highways ..	2,298	..	1,06,860	1,09,158	..	..	..	..
Provincial Highways ..	52,616	4,220	3,13,487	3,70,323	..	..	..	..
Major District Roads ..	17,941	1,49,973	8,56,484	10,24,403	2,654	20,933	13,429	37,016
Other District Roads ..	..	..	..	..	35,502	65,435	1,11,862	2,12,799
Village Roads ..	..	..	..	..	3,32,826	27,211	56,736	4,15,873
Total ..	72,856	1,54,193	12,76,831	15,08,884	3,70,982	1,13,579	1,81,027	6,65,688

Statement of expenditure on works classified according to categories of roads—cont.

District category.	Government roads.				District board works.			
	Capital works.		Repairs.	Total.	Capital works.		Repairs.	Total.
	Ex-P.W.R.	P.W.R.			Ex-P.W.R.	P.W.R.		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
18 North Arcot—								
National Highways ..	..	7,33,950	3,09,579	10,43,529	..	..	..	..
Provincial Highways ..	13,084	107	1,44,982	1,57,959	..	..	..	..
Major District Roads ..	80,501	51,263	8,69,235	10,00,999	..	20,504	84,311	1,40,815
Other District Roads ..	..	..	6,526	6,526	19,705	8,834	2,46,255	2,74,794
Village Roads ..	..	..	..	..	1,32,621	2,29,177	1,23,194	4,84,992
Total ..	93,585	7,85,106	13,30,322	22,09,013	1,52,326	2,58,515	4,53,760	8,64,601
19 Pennar Special—								
National Highways ..	..	8,06,157	..	8,06,157	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	..	..	..	..	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..	..
Total ..	..	8,06,157	..	8,06,157	..	..	..	..
20 Transport and Machinery Division—								
National Highways ..	..	78,546	..	78,546	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	..	..	..	..	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..	..
Total ..	..	78,546	..	78,546	..	..	..	..
21 South Arcot—								
National Highways ..	1,996	..	2,01,012	1,99,016	..	..	..	..
Provincial Highways ..	26,099	2,03,305	2,07,798	4,36,202	..	..	..	..
Major District Roads ..	13,363	79,759	9,47,172	10,40,299	36,922	42,631	2,95,891	3,75,444
Other District Roads ..	..	..	13,190	13,190	6,376	72,114	1,61,174	2,39,664
Village Roads ..	..	..	..	..	35,129	77,210	1,44,900	2,57,239
Total ..	37,471	2,82,064	13,69,172	16,88,707	78,427	1,91,955	6,01,965	8,72,347
22 Tiruchirappalli—								
National Highways ..	..	12,376	4,28,020	4,40,896	..	..	..	..
Provincial Highways ..	72,659	18,463	9,02,048	9,93,170	..	..	..	..
Major District Roads ..	33,684	1,91,305	9,64,179	11,89,168	..	..	1,84,520	1,84,520
Other District Roads ..	..	..	6,619	6,619	..	..	3,58,728	3,58,728
Village Roads ..	..	..	..	..	1,08,085	3,13,194	3,22,631	7,43,910
Total ..	1,06,343	2,22,644	22,87,628	26,16,615	1,08,085	3,13,194	8,65,879	12,87,158
23 Tanjore East—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	..	..	1,34,146	1,34,146	..	..	..	..
Major District Roads ..	201	..	9,39,897	9,40,098	59,948	1,539	1,96,122	2,57,609
Other District Roads ..	..	..	..	..	74,944	32,598	2,10,826	3,18,368
Village Roads ..	..	..	..	..	71,925	70,284	1,53,225	2,95,434
Total ..	201	..	10,74,043	10,74,244	2,06,817	1,04,421	5,60,173	8,71,411
26 Tanjore West—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	20,305	89,326	2,60,401	3,70,032	..	..	..	..
Major District Roads ..	1,227	96,290	11,48,542	12,46,059	75,104	1,27,006	4,81,128	6,83,838
Other District Roads ..	..	..	29,922	29,922	71,335	38,609	2,20,864	3,30,808
Village Roads ..	..	..	..	..	37,140	1,22,522	1,29,061	2,88,723
Total ..	21,532	1,85,616	14,38,866	16,46,013	1,83,579	2,88,737	8,31,058	13,03,369

Statement of expenditure on works classified according to categories of roads—cont.

District category.	Government roads.				District board works.			
	Capital works.		Repairs.	Total.	Capital works.		Repairs.	Total.
	Ex-P.W.R.	P.W.R.			Ex-P.W.R.	P.W.R.		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
25 Madurai—								
National Highways ..	..	1,74,393	3,87,308	5,61,701	..	..	..	..
Provincial Highways ..	..	6,910	2,21,207	2,28,117	..	..	..	..
Major District Roads ..	1,35,573	17,642	12,93,405	14,46,620	12,165	..	4,90,653	5,02,823
Other District Roads ..	..	..	54,941	54,941	9,231	..	1,76,322	1,85,553
Village Roads ..	..	..	..	..	3,11,928	3,84,585	3,96,373	10,92,886
Total ..	1,35,573	1,98,945	19,56,861	22,91,379	3,33,324	3,84,585	10,63,353	17,81,262
26 Ramanathapuram—								
National Highways ..	..	1,158	3,84,346	3,85,504	..	..	..	..
Provincial Highways ..	58,864	2,180	1,88,874	2,49,918	..	..	..	..
Major District Roads ..	18,379	..	10,36,328	10,54,707	11,927	68,120	3,38,626	4,18,673
Other District Roads ..	..	..	..	..	7,071	12,193	2,31,870	2,51,134
Village Roads ..	..	..	..	..	2,46,015	1,33,076	1,73,033	5,52,124
Total ..	77,243	3,338	16,09,548	16,90,129	2,65,013	2,13,389	7,43,529	12,21,931
27 Tirunelveli—								
National Highways ..	..	..	3,12,849	3,12,849	..	..	..	..
Provincial Highways ..	58,260	9,861	3,00,675	3,68,796	..	..	..	..
Major District Roads ..	..	86,836	7,56,034	8,42,870	47,950	3,62,767	5,09,195	9,19,912
Other District Roads ..	..	..	4,840	4,840	13,644	57,329	64,917	1,35,890
Village Roads ..	..	..	..	..	1,08,453	52,530	2,07,204	3,68,187
Total ..	58,260	96,697	13,74,398	15,29,355	1,70,047	4,72,626	7,81,316	14,23,939
28 Pugalur Bridge Division—								
National Highways ..	245	11,88,172	1,104	11,89,521	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	..	..	..	..	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..	..
Total ..	245	11,88,172	1,104	11,89,521	..	..	..	..
29 Coleroon bridge Division—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	..	3,01,145	1,968	3,03,113	..	2,12,006	..	2,12,006
Other District Roads ..	..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..	..
Total ..	..	3,01,145	1,968	3,03,113	..	2,12,006	..	2,12,006
30 Salem, North—								
National Highways ..	..	4,50,550	3,22,011	7,72,561	..	..	..	..
Provincial Highways ..	..	..	..	..	..	..	..	..
Major District Roads ..	1,42,465	70,929	3,86,411	5,99,805	23,917	24,313	1,82,917	2,31,147
Other District Roads ..	..	..	18,945	18,945	1,13,761	8,168	2,65,281	3,87,210
Village Roads ..	..	..	..	..	1,13,373	91,011	86,391	2,90,775
Total ..	1,42,465	5,21,479	7,27,367	13,91,311	2,51,051	1,23,492	5,34,589	9,09,132
31 Salem, South—								
National Highways ..	..	2,63,119	1,63,640	4,26,759	..	..	..	..
Provincial Highways ..	24,123	52,163	1,74,233	2,50,519	..	..	..	..
Major District Roads ..	..	70,502	3,22,683	3,93,185	..	..	1,94,936	1,49,986
Other District Roads ..	..	1,721	6,028	7,747	..	..	2,46,068	2,46,068
Village Roads ..	..	..	..	..	21,332	1,12,807	1,31,486	2,65,625
Total ..	24,123	3,87,505	6,66,582	10,78,210	21,332	1,12,807	5,27,490	6,61,629

Statement of expenditure on works classified according to categories of roads—cont.

District/category.	Government roads.				District board works.			
	Capital works.		Repairs.	Total.	Capital works.		Repairs.	Total.
	Ex-P.W.R.	P.W.R.			Ex-P.W.R.	P.W.R.		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
Bharathapuzha Division—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	..	6,68,988	..	6,68,988	..	..	..	..
Major District Roads ..	..	3,97,933	..	3,97,933	..	..	..	..
Other District Roads ..	..	..	..	..	..	..	..	..
Village Roads ..	..	..	..	..	..	..	..	..
Total ..	..	10,66,921	..	10,66,921	..	..	..	..
Coimbatore, North—								
National Highways ..	..	..	84,794	84,794	..	..	..	..
Provincial Highways ..	10,681	26,274	1,21,324	1,58,279	..	..	..	..
Major District Roads ..	..	74,985	8,48,277	9,23,262	19,283	33,292	3,23,160	3,80,735
Other District Roads ..	..	..	2,561	2,561	6,596	..	2,12,899	2,19,495
Village Roads ..	..	..	..	..	1,44,482	70,727	3,97,166	6,12,375
Total ..	10,681	1,01,259	10,56,956	11,68,896	1,70,361	1,09,019	9,33,225	12,12,605
Coimbatore, South—								
National Highways ..	..	10,807	1,42,520	1,53,336	..	..	..	..
Provincial Highways ..	18	50,351	7,23,800	7,74,169	..	..	..	..
Major District Roads ..	60,463	57,111	10,10,105	11,27,679	..	6,687	1,95,044	2,01,731
Other District Roads ..	..	..	4,072	4,072	..	..	2,47,050	2,47,050
Village Roads ..	..	..	..	..	81,406	1,41,293	2,84,071	4,65,770
Total ..	60,481	1,18,269	18,80,506	20,59,256	81,406	1,47,980	7,26,165	9,14,551
The Nilgiris—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	(—) 2	1,88,601	2,11,392	3,99,991	..	..	..	..
Major District Roads ..	20,397	(—) 6,612	2,74,059	2,87,844	..	10,219	10,732	20,954
Other District Roads ..	44,570	..	16,149	60,719	53,282	91,710	45,522	1,90,514
Village Roads ..	..	..	..	..	10,831	12,318	1,54,268	1,77,417
Total ..	64,965	1,81,989	5,01,600	7,48,554	64,113	1,14,247	2,10,522	3,88,882
Malabar, North—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	82,641	27,325	8,09,257	9,19,223	..	..	..	..
Major District Roads ..	528	1,04,467	3,60,241	4,65,236	277	17,967	2,16,623	2,34,866
Other District Roads ..	..	..	22,668	22,668	12,577	42,305	1,39,553	1,94,435
Village Roads ..	..	..	..	..	1,07,654	62,678	85,559	2,05,886
Total ..	83,169	1,31,792	11,92,166	14,07,127	1,20,508	1,22,945	3,91,734	6,35,187
Malabar, South—								
National Highways ..	..	..	1,86,080	1,86,080	..	..	..	..
Provincial Highways ..	41,779	21,762	5,15,053	5,78,594	..	..	..	..
Major District Roads ..	17,801	35,276	8,36,804	9,39,881	..	..	1,30,639	1,30,639
Other District Roads ..	..	..	14,036	14,036	6,989	1,41,526	2,13,852	3,62,367
Village Roads ..	..	..	..	..	..	..	..	..
Total ..	59,580	57,038	16,01,973	17,18,590	6,989	1,41,526	3,44,491	4,93,006
33 South Kanara—								
National Highways ..	..	..	..	..	..	..	..	..
Provincial Highways ..	6,864	42,800	4,36,711	4,86,375	..	..	17,548	17,548
Major District Roads ..	15,620	6,31,342	5,58,432	12,05,394	..	24,804	56,408	81,272
Other District Roads ..	..	..	28,008	28,008	..	23,623	79,604	1,03,227
Village Roads ..	..	..	..	..	..	3,585	95,142	1,80,007
Total ..	22,484	6,74,142	10,23,151	17,19,777	3,585	1,29,707	2,48,762	3,82,054

ANNEXURE 13 (a).

Total Expenditure incurred on both Original and Repair Works under Government and District Boards.

Serial number and name of division.	National Highways.			Provincial Highways.		
	(1)	Government.		Government.		Total.
		(2)	(3)	(5)	(6)	
		RS.	RS.	RS.	RS.	RS.
1. Visakhapatnam, North	..	..	..	75,063	..	75,063
2. Visakhapatnam, South	..	..	..	..	..	..
3. East Godavari	..	..	..	3,97,317	..	3,97,317
4. West Godavari	..	..	..	1,34,596	..	1,34,596
5. Rajahmundry	..	..	..	2,071	..	2,071
6. Godavari Special	..	..	..	..	..	..
7. Krishna	..	..	..	8,30,178	..	8,30,178
8. Guntur, North	..	..	..	1,16,974	..	1,16,974
9. Guntur, South	..	..	..	1,48,751	..	1,48,751
10. Anakapalle	..	..	..	..	..	..
11. Nellore	..	..	..	2,90,869	..	2,90,869
12. Kurnool	..	..	..	10,89,437	..	10,89,437
13. Bellary	..	..	..	8,87,737	..	8,87,737
14. Anantapur	..	..	..	5,41,452	..	5,41,452
15. Cuddapah	..	..	..	5,32,130	747	5,32,877
16. Chingleput	..	..	..	..	..	..
17. Chittoor	..	..	..	3,70,323	..	3,70,323
18. North Arcot	..	..	..	1,57,959	..	1,57,959
19. Pennar Bridge Division	..	..	..	..	..	..
20. South Arcot	..	..	..	4,36,202	..	4,36,202
21. Tiruchirappalli	..	..	..	9,93,170	..	9,93,170
22. Tanjore, East	..	..	..	1,34,146	..	1,34,146
23. Tanjore, West	..	..	..	3,70,032	..	3,70,032
24. Madurai	..	..	..	2,28,117	..	2,28,117
25. Ramanathapuram	..	..	..	2,49,918	..	2,49,918
26. Tirunelveli	..	..	..	3,68,796	..	3,68,796
27. Pugalur Bridge Division	..	..	..	..	..	..
28. Coleroon Bridge Division	..	..	..	..	..	..
29. Salem, North	..	..	..	..	..	..
30. Salem, South	..	..	..	2,50,519	..	2,50,519
31. Bharathapuzha	..	..	..	6,68,988	..	6,68,988
32. Coimbatore, North	..	..	..	1,58,279	..	1,58,279
33. Coimbatore, South	..	..	..	7,74,169	..	7,74,169
34. The Nilgiris	..	..	..	3,99,991	..	3,99,991
35. Malabar, North	..	..	..	9,19,223	..	9,19,223
36. Malabar, South	..	..	..	5,78,594	..	5,78,594
37. South Kanara	..	..	..	4,86,375	17,548	5,03,923
38. Transport and Machinery Division	..	..	..	..	..	..
Total	..	1,26,41,485	..	1,25,91,376	18,295	1,26,09,671

Total expenditure incurred on both Original and Repair works under Government and District Board—cont.

Serial number and name of division.	Major District Roads.			Other District roads.			Village roads.		
	Government.		Total.	District Board.		Total.	Government.		Total.
	(8)	(9)		(10)	(11)		(12)	(13)	
	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.
1. Visakhapatnam, North	5,34,319	1,11,858	6,46,177	9,568	76,099	85,667	1,07,359	1,07,359	1,07,359
2. Visakhapatnam, South	9,52,320	64,967	10,17,287	..	1,03,816	1,03,816	3,27,085	3,27,085	3,27,085
3. East Godavari	10,05,665	58,941	10,64,606	..	98,370	98,370	4,07,898	4,07,898	4,07,898
4. West Godavari	31,95,091	3,47,819	35,42,910	..	5,25,219	5,25,219	3,01,473	3,01,473	3,01,473
5. Rajahmundry	10,98,394	1,69,848	12,68,242	..	2,63,933	2,68,933	59,655	59,655	59,655
6. Godavari Special	..	..	..	..	..	..	..	..	..
7. Krishna	12,91,172	5,68,373	18,59,545	8,466	3,72,437	3,80,903	7,11,750	7,11,750	7,11,750
8. Guntur, North	12,89,588	5,57,724	8,47,312	..	65,926	65,926	4,46,518	4,46,518	4,46,518
9. Guntur, South	8,19,337	2,06,039	10,25,376	4,278	1,46,205	1,50,483	99,392	99,392	99,392
10. Anapalle	5,88,098	..	5,88,098	..	..	..	..	..	..
11. Nellore	4,99,911	1,98,837	6,98,748	..	1,93,642	1,93,642	4,31,214	4,31,214	4,31,214
12. Kurnool	5,53,525	1,21,227	6,74,752	..	2,78,776	2,78,776	..	..	..
13. Bellary	6,26,286	2,60,638	8,86,924	..	1,92,492	1,92,492	..	..	..
14. Anantapur	4,79,370	2,13,753	6,93,123	..	98,550	98,550	88,511	88,511	88,511
15. Cuddapah	6,12,551	3,50,129	9,62,680	..	1,43,262	1,43,262	1,70,591	1,70,591	1,70,591
16. Chingleput	15,27,449	1,40,073	16,67,522	2,35,327	69,345	1,48,262	1,97,638	1,97,638	1,97,638
17. Chittoor	10,24,403	37,016	10,61,419	..	2,12,799	2,12,799	5,56,672	5,56,672	5,56,672
18. North Arcot	10,00,999	1,04,815	11,05,814	6,528	2,74,794	2,81,320	4,15,773	4,15,773	4,15,773
19. Pennar Bridge Division	..	..	..	..	..	..	4,84,992	4,84,992	4,84,992
20. South Arcot	10,40,229	3,75,444	14,15,673	13,190	2,39,604	2,52,794	..	..	..
21. Tiruchirappalli	11,89,168	1,84,520	13,73,688	(—) 6,619	3,58,728	3,52,109	2,57,239	2,57,239	2,57,239
22. Tanjore, East	9,40,098	2,57,609	11,97,707	..	3,18,368	3,18,368	7,43,910	7,43,910	7,43,910
23. Tanjore, West	12,46,059	6,83,838	19,29,897	29,922	3,30,808	3,60,730	2,95,434	2,95,434	2,95,434
24. Madurai	14,46,620	5,02,823	19,49,443	54,941	1,85,553	2,40,494	2,88,723	2,88,723	2,88,723
25. Ramanathapuram	10,54,707	4,18,673	14,73,380	..	2,51,134	2,51,134	10,92,886	10,92,886	10,92,886
26. Tirunelveli	8,42,370	9,19,912	17,62,282	4,840	1,35,890	1,40,730	5,52,124	5,52,124	5,52,124
27. Pugalur Bridge Division	..	..	..	..	..	..	3,68,187	3,68,187	3,68,187
28. Coleroon Bridge Division	8,03,113	2,12,006	10,15,119	..	..	..	..	..	..
29. Salem, North	5,99,805	2,31,147	8,30,952	18,945	3,87,210	4,06,155	2,90,775	2,90,775	2,90,775
30. Salem, South	3,93,185	1,49,936	5,43,121	7,747	2,45,061	2,52,808	..	..	..
31. Bharathapuzha	3,97,339	..	3,97,339	..	..	..	..	..	..
32. Coimbatore, North	9,23,262	3,80,735	13,03,997	2,561	2,19,495	2,22,056	6,12,375	6,12,375	6,12,375
33. Coimbatore, South	11,27,979	2,01,731	13,29,710	4,072	2,47,050	2,51,122	5,06,770	5,06,770	5,06,770
34. The Nilgiris	2,87,844	20,951	3,08,795	60,719	1,90,514	2,51,233	1,77,417	1,77,417	1,77,417
35. Malabar, North	4,65,236	2,34,866	7,00,102	22,668	1,94,435	2,17,103	2,05,886	2,05,886	2,05,886
36. Malabar, South	9,39,881	1,30,639	10,70,520	14,036	3,62,387	3,76,403	..	..	..
37. South Kanara	12,05,394	81,272	12,86,666	28,003	1,06,312	1,34,320	1,76,422	1,76,422	1,76,422
38. Transport and Machinery Division	..	..	..	..	..	..	..	..	..
Total	3,14,96,631	84,93,209	3,99,94,840	5,19,665	68,89,811	74,09,506	1,06,40,294	1,06,40,294	1,06,40,294

ANNEXURE 13 (b).

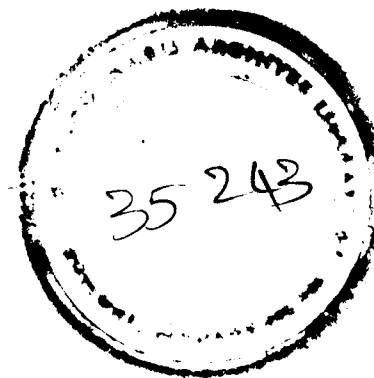
Statement showing Division-wise Expenditure and Lapses of Grant on Government Roads.

Serial number and name of division.	Original works.			Maintenance works.		
(1)	Final allotment.	Expenditure.	Lapse.	Final allotment.	Minimum allotment required for proper maintenance of road.	Lapse.
	RS.	RS.	RS.	RS.	RS.	RS.
1 Visakhapatnam, North	..	..	..	..	..	..
2 Visakhapatnam, South	..	..	..	..	..	..
3 East Godavari	..	..	..	..	..	..
4 West Godavari	..	..	..	..	..	..
5 Rajahmundry	..	..	..	..	..	..
6 Godavari Special	..	..	..	..	..	..
7 Krishna	..	..	..	..	..	..
8 Guntur, North	..	..	..	..	..	..
9 Guntur, South	..	..	..	..	..	..
10 Anakapalle Special	..	..	..	..	..	..
11 Nellore	..	..	..	..	..	..
12 Kurnool	..	..	..	..	..	..
13 Bellary	..	..	..	..	..	..
14 Anantapur	..	..	..	..	..	..
15 Cuddapah	..	..	..	..	..	..
16 Chingleput	..	..	..	..	..	..
17 Chittoor	..	..	..	..	..	..
18 North Arcot	..	..	..	..	..	..
19 Pennar Special	..	..	..	..	..	..
20 South Arcot	..	..	..	..	..	..
21 Tiruchirappalli	..	..	..	..	..	..
22 Tanjore, East	..	..	..	..	..	..
23 Tanjore, West	..	..	..	..	..	..
24 Madurai	..	..	..	..	..	..
25 Ramanathapuram	..	..	..	..	..	..
26 Tirunelveli	..	..	..	..	..	..
27 Pugalur Bridge Division	..	..	..	..	..	..
28 Coleroon bridge Division	..	..	..	..	..	..
29 Salem, North	..	..	..	..	..	..
30 Salem, South	..	..	..	..	..	..
31 Bharathapuzha Division	..	..	..	..	..	..
32 Coimbatore, North	..	..	..	..	..	..
33 Coimbatore, South	..	..	..	..	..	..
34 The Nilgiris	..	..	..	..	..	..
35 Malabar, North	..	..	..	..	..	..
36 Malabar, South	..	..	..	..	..	..
37 South Kanara	..	..	..	..	..	..
38 Transport and Machinery Division	..	..	..	..	..	..
39 Public Works Department Circles	..	..	..	..	..	..
Total	1,62,46,400	1,56,13,516	14,57,207	4,07,55,000	5,03,11,688	4,38,419

ANNEXURE 13 (c).

Statement showing Division-wise Expenditure and Lapses of Grant on District Board Roads.

Serial number and name of division.	Original works.			Maintenance works.		
	(1)	(2)	(3)	(4)	(5)	(6)
		Final allotment.	Expenditure.	Lapse.	Final allotment.	Minimum allotment required for proper maintenance of roads.
		RS.	RS.	RS.	RS.	RS.
1 Visakhapatnam, North	..	2,37,000	1,05,643	1,21,357	2,02,500	1,89,673
2 Visakhapatnam, South	..	1,64,000	1,71,118	..	3,50,000	3,24,750
3 Rajahmundry	..	2,39,000	1,79,005	59,995	2,86,000	3,19,431
4 East Godavari	..	1,07,309	97,085	10,224	5,50,975	4,68,124
5 West Godavari	..	20,07,800	7,64,698	12,43,102	5,09,500	4,09,813
6 Krishna	..	12,33,000	12,11,069	21,931	5,01,000	4,41,541
7 Guntur, North	..	9,20,000	9,15,567	4,433	1,54,602	1,54,601
8 Guntur, South	..	3,56,300	3,13,166	43,134	1,45,550	1,38,520
9 Nellore	..	2,97,714	3,62,883	..	3,00,000	4,60,810
10 Kurnool	..	1,53,400	1,76,061	..	3,51,150	2,23,942
11 Bellary	..	2,53,880	2,94,015	..	3,00,000	2,47,626
12 Anantapur	..	3,22,286	2,31,038	91,248	2,64,000	2,46,856
13 Cuddapah	..	4,97,003	3,64,669	1,32,334	3,50,000	3,26,360
14 Chingleput	..	6,11,955	5,35,016	76,939	3,50,150	2,31,074
15 Chittoor	..	4,17,700	4,84,561	..	3,52,000	1,81,027
16 North Arcot	..	3,92,176	4,10,841	..	4,50,000	4,53,760
17 South Arcot	..	3,40,050	2,70,382	69,668	5,72,770	6,01,965
18 Salem, North	..	3,87,800	3,74,543	13,257	5,47,900	5,34,589
19 Salem, South	..	1,33,952	1,34,139	..	5,46,380	5,27,490
20 Tiruchirappalli	..	2,84,514	4,21,279	..	8,02,830	8,65,879
21 Tanjore, East	..	2,04,880	3,11,238	..	5,54,250	5,69,173
22 Tanjore, West	..	2,67,200	4,72,316	..	7,08,850	8,31,053
					Not finalised.	
24 Ramanathapuram	..	3,60,104	4,78,402	..	7,18,780	7,43,529
25 Tirunelveli	..	7,61,630	6,42,673	1,18,957	7,96,000	7,81,316
26 Coimbatore, North	..	2,74,965	2,79,380	..	9,28,100	9,33,225
27 Coimbatore, South	..	4,94,000	2,29,386	2,64,614	7,15,800	7,26,165
28 The Nilgiris	..	1,54,441	1,78,360	..	2,00,000	2,10,522
29 Malabar, North	..	2,98,505	2,43,453	55,052	3,45,500	3,91,734
30 Malabar, South	..	3,30,582	1,48,515	1,82,067	3,19,666	3,44,491
31 South Kanara	..	1,72,535	1,33,292	39,243	2,52,200	2,48,762
32 Coleroon bridge Division	..	..	2,12,006	..	..	..
Total	..	1,30,75,681	1,18,63,708	25,47,555	1,43,26,453	1,41,82,154
						8,46,843



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Financial Statement of all disbursements.

Serial number and name of division.	(1)	Total expenditure—Government and District Board.		Tools and Plant—Expenditure (New Supplies and Repairs.)		Pay of establishment.		Percentage of establishment charges to works expenditure including T. & P.		Contingencies.			Total.								
		(2)	RS.	(3)	RS.	(4)	RS.	(5)	RS.	(6)	RS.	(7)		RS.	(8)	RS.	(9)	RS.	(10)	RS.	(11)	RS.
I Circle.																					
1 Guntur, South	..	17,93,144	65,497	68,073	39,492	26,983	9.3	2,725	12,236	..	20,08,120										
2 Guntur, North	..	31,91,471	41,414	49,470	30,880	16,380	3.9	5,932	4,078	..	33,39,625										
3 Krishna	..	45,66,350	1,45,558	68,073	39,492	26,983	3.6	4,509	10,495	..	48,61,460										
4 West Godavari	..	51,10,933	1,97,789	77,542	37,494	26,731	..	3,250	12,092	..	54,65,831										
5 Rajahmundry	..	17,61,138	60,578	66,409	29,490	22,798	3.4	5,164	8,439	..	19,54,016										
6 East Godavari	..	23,05,585	41,737	49,148	30,860	18,714	8.4	4,236	12,087	..	24,62,367										
7 Visakhapatnam	..	26,63,786	59,773	71,756	35,605	21,585	5.4	3,309	9,803	..	28,65,617										
8 Srikakulam	..	13,39,668	57,694	56,990	28,372	17,410	6.1	2,802	8,669	..	15,11,605										
9 Anakapalle Special	..	5,89,016	68	44,516	18,718	11,893	9.5	1,936	4,775	..	6,70,922										
10 Godavari Bridge Special	..	83,768	24,802	20,155	9,648	8,305	16.5	1,709	3,675	..	1,52,062										
11 Circle Office	..	..	..	37,778	29,295	12,503	44.0	..	15,374	..	94,950										
Total		2,34,04,829	6,94,910	6,09,910	3,29,346	2,10,285	6.1	35,572	1,01,723	..	2,57,20,446										
Dearness Allowance and House Rent for the entire Circle disbursed during the year.																					
12 Anantapur	..	18,36,121	33,564	52,927	27,172	19,579	6.8	5,503	6,667	..	19,81,533										
13 Bellary	..	21,10,023	71,974	52,805	27,154	16,322	5.7	3,200	9,080	..	22,90,558										
Total		..	..	..	..	..	..	..	..	..	..										
II Circle.																					
14 Chingleput	..	39,26,708	1,23,935	37,617	79,019	27,642	3.5	1,463	18,421	..	42,14,805										
15 Chittoor	..	23,04,285	97,893	41,706	28,523	18,138	4.8	15,650	1,31,724	..	26,37,919										
Total		..	..	..	..	..	..	..	..	..	..										
16 Cuddapah	..	18,89,081	57,899	41,122	87,903	16,490	7.4	3,581	7,666	..	20,50,371										
17 Kurnool	..	23,05,609	84,930	56,058	28,505	12,038	4.4	3,229	7,403	..	24,97,772										
18 Nellore	..	23,84,080	83,854	56,933	38,511	23,840	4.8	3,926	9,331	..	26,00,475										
19 North Arcot	..	32,87,810	69,193	64,999	38,754	27,788	3.9	4,354	12,649	..	35,05,547										
20 Pennar Bridge Division	..	8,06,157	— 1,345	7,745	7,735	1,923	2.2	1,508	1,834	..	8,25,557										
21 Transport and Machinery Division	..	78,546	55,64,435	81,954	26,191	17,358	2.2	3,776	9,260	..	57,81,520										
22 Circle office	..	..	..	8,818	31,599	3,257	..	2,803	6,288	..	52,765										
Total		2,09,28,420	61,86,332	5,02,684	4,21,066	1,84,375	4.4	48,993	2,20,323	..	2,85,76,501										
III Circle.																					
23 South Arcot	..	27,32,759	72,096	76,887	42,235	26,054	6.7	8,057	7,429	249	29,65,766										
24 Tanjore, East	..	21,03,048	41,652	40,506	34,053	16,344	5.5	3,976	11,201	55	22,50,835										
25 Tanjore, West	..	31,87,539	55,440	40,668	34,846	17,820	3.7	5,857	3,866	..	33,46,036										
26 (a) Tiruchirappalli	..	42,65,473	2,00,419	73,411	38,819	24,319	3.9	9,022	10,261	..	46,21,724										
(b) Workshops	..	..	..	6,242	12,178	1,479	..	983	224	..	21,106										
(c) Investigation and Planning	..	..	..	1,820	5,416	2,827	..	..	1,556	..	11,619										
27 Madurai	..	42,84,074	1,59,292	61,033	42,254	23,519	3.8	87,268	8,686	..	46,66,126										
28 Ramanathapuram	..	30,28,391	1,43,217	55,429	34,701	24,745	4.6	5,711	14,525	..	33,06,719										
29 Tirunelveli	..	31,00,479	81,602	54,400	32,180	24,578	4.4	3,198	9,699	..	33,06,136										
30 Coleroon	..	5,15,162	5,361	17,101	7,948	3,379	7.2	698	1,798	..	5,51,447										
31 Pugalur Bridge	..	11,90,017	52,140	14,008	7,539	693	2.4	943	717	..	12,66,057										
32 Circle Office	..	..	..	31,994	19,499	8,239	..	..	5,347	..	65,079										
Total		2,44,06,942	8,11,219	4,73,499	3,11,668	1,73,996	4.9	1,25,713	75,309	304	2,66,59,267										
D.A. and O.C.A. for the entire circle disbursed during the year.																					
Total		..	..	..	..	..	..	..	..	..	..										

* Doerness allowances and other Commensatory allowances disbursed during the year.

Financial Statement of all disbursements—cont.

Serial number and name of division.	(1)	Total expenditure—Government and District Board.	(2)	Tools and Plant—Expenditure (New Supplies and Repairs.)	Pay of Establishment.				Percentage of establishment charges to works excluding T. & P.				Contingencies.		Litigations.	Total.	
					(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)				
IV Circle.																	
3 Salem, North ..	..	24,15,769	..	74,802	50,404	..	54,812	25,904	5-2	4,138	..	9,057	..	26,34,886	..	26,34,886	
4 Bharathapuzha ..	..	10,67,735	..	4,794	11,506	..	19,984	15,529	4-4	756	..	2,082	..	11,22,386	..	11,22,386	
5 Malabar, South ..	..	25,20,079	..	99,578	44,601	..	59,950	19,510	4-7	3,789	..	8,312	..	27,55,819	..	27,55,819	
6 South Kanara ..	..	21,71,125	..	81,228	56,697	..	34,647	21,606	5-0	4,231	..	7,014	..	23,76,548	..	23,76,548	
7 Coimbatore North ..	..	27,75,104	..	94,075	54,312	..	32,447	55,896	4-9	5,809	..	8,293	..	30,25,936	..	30,25,936	
8 Salem, South ..	..	18,46,470	..	68,930	47,067	..	57,292	21,257	6-5	5,034	..	6,520	..	20,52,570	..	20,52,570	
9 Coimbatore, South ..	..	33,23,487	..	1,77,135	81,585	..	80,636	13,551	5-0	2,312	..	1,222	..	36,79,928	..	36,79,928	
10 The Nilgiris ..	..	11,66,258	..	46,534	36,184	..	31,967	14,233	6-7	214	..	2,785	..	13,98,175	..	13,98,175	
1 Malabar, North ..	..	21,13,248	..	82,503	22,447	..	52,723	20,474	5-7	2,686	..	8,185	..	22,02,266	..	22,02,266	
2 Circle Office ..	..	..	..	..	15,513	..	28,229	19,907	..	2,395	..	4,484	..	70,528	..	70,528	
Total ..	..	1,93,99,275	..	7,29,579	4,20,316	..	4,52,687	2,27,867	5-4	31,364	..	57,954	..	2,13,10,042	..	2,13,10,042	
Chief Engineer's Office †	..	..	..	..	52,421	..	1,83,667	1,04,474	..	..	..	34,999	..	3,75,561	..	3,75,561	
Total ..	..	8,81,50,166	..	84,22,040	20,58,430	..	16,98,434	9,00,997	5-01	2,41,642	..	4,90,308	304	10,18,98,650	..	10,18,98,650	
														* 6,98,796		* 6,98,796	
														10,25,97,446		10,25,97,446	

NOTE.—The establishment charges shown in columns 4, 5 and 6 do not include D.A. and O.C.A. disbursed during the year in respect of I and III Circles and their percentage to works expenditure of the Divisions was worked out with the exception of these allowances.

* Dearness allowances and other compensatory allowances disbursed during the year.

† The figures in respect of Chief Engineer's office are adopted from the appropriation accounts of 1951-52.

ANNEXURE 15.

Statement showing the works approved by Government under Post-War Road Development programme during and to end of the year 1951-52.

Serial number and name of division or circle.	Government roads.				District Board roads.			
	During the year.		To end of the year.		During the year.		To end of the year.	
	Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	RS.		RS.		RS.		RS.	
1 Anantapur ..	..	..	2	56,570	6	1,25,000	20	4,91,830
2 North Arcot ..	..	..	34	41,57,875	57	4,26,880	135	15,70,430
3 South Arcot ..	..	..	48	21,02,201	41	4,93,000	116	22,79,760
4 Bellary ..	..	..	18	24,75,000	15	6,42,900	43	23,65,900
5 Chingleput ..	..	..	28	50,09,200	2	9,950	40	7,37,450
6 Chittoor ..	..	..	28	14,41,600	1	2,500	59	11,80,200
7 Coimbatore ..	..	..	76	26,82,115	35	5,45,150	167	18,32,975
8 Cuddapah ..	..	..	10	11,45,300	28	4,81,500	98	14,52,950
9 Godavari, East ..	..	..	27	1,20,36,350	..	..	16	6,95,000
10 Rajahmundry ..	..	..	11	68,97,000	..	..	13	4,90,000
11 Godavari, West ..	..	..	37	30,65,000	1	25,000	83	24,78,590
12 Guntur, ..	..	..	43	30,64,900	1	1,00,000	162	83,83,025
13 South Kanara ..	..	..	67	52,16,255	..	..	44	5,89,670
14 Krishna ..	..	..	12	10,99,120	5	8,51,500	81	34,66,170
15 Kurnool ..	..	..	20	15,68,080	10	3,69,000	27	10,77,300
16 Madurai ..	..	..	80	19,21,900	..	..	114	17,38,940
17 Malabar ..	..	..	36	18,10,520	1	65,000	65	14,30,971
18 Nellore ..	..	..	30	12,22,310	6	2,10,600	66	15,49,070
19 The Nilgiris ..	..	..	13	27,29,060	..	..	23	3,89,050
20 Ramanathapuram ..	..	..	86	23,31,200	..	..	105	21,01,750
21 Salem ..	..	..	51	64,16,810	2	59,400	130	15,12,670
22 Srikakulam ..	..	..	1	3,00,000	10	4,83,700	148	21,65,700
23 Tanjore ..	..	..	20	40,81,182	17	4,06,950	86	17,54,670
24 Tiruchirappalli ..	..	..	53	10,82,285	95	6,69,250	198	16,54,400
25 Tirunelveli ..	..	..	17	10,76,000	..	..	53	21,04,000
26 Visakhapatnam ..	..	..	30	77,09,360	..	..	144	8,01,905
27 Godavari Bridges ..	..	..	1	4,80,000	..	..	..	..
28 Pennar Bridge ..	..	..	1	23,00,000	..	..	..	..
29 Coleroon Bridge ..	..	..	6	35,45,750	..	..	..	..
30 Pugalur ..	..	..	1	26,00,000	..	..	..	..
Total ..	24	1,40,14,250	891	9,16,22,943	333	57,07,280	2,236	4,62,44,876

ANNEXURE 16.

Statement showing the technical sanctions to estimates during 1951-52.

(i) Government works.

Serial number and name of Circle or Division.	Original works.		Repairs.		T. & P. S & Repairs.		Avenues.		Total cost.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)	(10)	(11)
		Number of works for which estimates were sanctioned.	RS.	Number.	Cost.	Number.	Cost.	Number.	Cost.	number.	RS.
1 I. Circle office	..	4	2,31,761	..	..	8	27,100	..	..	12	2,58,861
2 Guntur, South	..	43	1,84,450	102	13,77,510	25	1,32,730	26	53,440	196	17,53,130
3 Guntur, North	..	..	..	82	13,14,000	27	1,36,540	28	1,53,130	135	16,08,670
4 Krishna	..	15	2,66,750	140	30,74,395	44	3,91,650	60	1,28,550	259	38,61,375
5 Godavari West	..	6	51,300	350	41,07,050	44	2,42,300	20	40,375	420	44,41,025
6 Rajahmundry	..	..	..	94	11,28,634	35	1,34,834	9	7,455	138	12,70,923
7 Kakimada	..	1	21,000	125	27,62,000	15	38,000	31	27,700	172	28,49,700
8 Visakhapatnam	..	..	..	110	17,94,050	23	95,030	24	18,245	157	19,07,325
9 Srikakulam	..	3	28,700	151	16,30,280	23	80,200	14	6,370	191	17,45,550
10 Anakapalli Special	..	11	1,34,760	19	1,49,100	36	1,86,680	1	1,500	67	4,72,040
11 Godavari Bridge	..	1	73,350	..	..	3	24,000	..	..	4	97,350
12 II. Circle office	..	5	2,99,500	9	42,950	22	2,34,647	..	..	36	5,77,097
13 Anantapur	..	..	..	174	7,83,370	31	1,50,120	10	11,850	215	9,45,340
14 Bellary	..	..	..	199	20,24,553	24	87,050	10	82,000	233	21,93,603
15 Chingleput	..	..	..	202	34,83,860	60	2,26,980	63	3,06,710	332	39,67,550
16 Chittoor	..	6	1,08,250	195	22,79,359	55	1,40,776	61	1,00,320	317	26,23,705
17 Kurnool	..	..	..	218	27,23,440	49	2,85,900	55	59,290	322	30,68,630
18 Nellore	..	2	5,42,000	240	29,51,010	1	100	30	14,660	273	35,07,670
19 Arcot, North	..	4	16,919	171	17,70,330	46	1,26,531	19	40,170	240	19,53,950
20 Cuddapah	..	8	49,100	146	12,56,190	21	1,43,220	10	7,300	185	14,55,810
21 Pennar Bridge Division	..	..	..	..	..	2	10,900	..	..	2	10,900
22 Transport and Machinery Division.	..	..	..	..	..	59	1,11,411	..	..	59	1,11,411
23 III. Circle office	..	13	5,48,660	..	..	..	..	..	..	13	5,48,660
24 Arcot, South	..	5	1,930	159	25,84,620	42	1,78,610	42	71,230	243	28,36,440
25 Tanjore, East	..	20	24,399	141	13,80,435	9	23,800	23	24,315	193	14,57,940
26 Tanjore, West	..	7	28,200	192	24,45,200	10	17,250	16	69,910	225	25,60,560
27 Tiruchirappalli	..	2	810	238	80,83,623	54	2,77,800	74	98,040	363	34,55,273
28 Madurai	..	..	..	210	38,61,253	44	2,60,300	11	12,420	265	41,33,973
29 Ramanathapuram	..	32	34,630	104	25,19,695	53	2,22,000	17	15,660	206	27,91,385
30 Tirunelveli	..	..	..	173	13,45,600	41	67,610	80	26,550	294	14,39,760
31 Pugalur Bridge	..	11	8,945	3	1,230	6	4,535	2	3,180	22	17,890
32 Coleroon Bridge	..	5	9,175	1	500	17	22,330	..	..	23	32,005
33 IV Circle office	..	18	12,74,100	1	16,100	11	50,486	..	..	30	13,40,686
34 Salem, North	..	2	49,300	107	11,35,670	63	1,75,527	19	32,240	191	13,92,737
35 Bharatpuzha	..	5	30,755	..	..	5	15,700	1	1,300	11	47,755
36 Malabar, South	..	10	24,420	155	22,92,675	39	1,77,263	..	8,820	217	25,03,173
37 South Kanara	..	22	86,180	204	19,12,486	26	1,16,186	5	1,600	257	21,16,452
38 Coimbatore North	..	6	27,660	143	19,85,230	41	1,58,985	23	1,19,290	213	22,91,145
39 Salem, South	..	2	4,000	127	12,57,450	32	1,40,830	26	56,015	187	14,58,295
40 Coimbatore, South	..	..	..	232	25,60,732	65	2,94,800	12	21,600	359	28,77,242
41 The Nilgiris	..	1	876	60	7,77,562	43	1,65,890	..	..	104	9,44,323
42 Malabar, North	..	..	..	147	17,22,477	29	1,17,743	2	1,450	173	18,41,670
Total	..	273	41,56,921	5,131	6,54,84,679	1,233	55,00,414	335	16,27,785	7,569	7,65,69,799

(ii) District Board works.

Serial number and name of Circle or Division.	Original works.			Repairs.		T. & P. S. and Repairs.		Avenues.		Non-Road Works.		Total cost.
	Number of works for which estimates were sanctioned.	(2)	(3)	Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
		RS.		RS.		RS.		RS.		RS.		RS.
1 I Circle Office	7	5,72,700	..	..	..	..	..	..	8	4,38,000	15	10,10,700
2 Guntur, South	19	5,88,000	20	1,04,000	..	..	3	8,500	26	43,700	68	7,41,200
3 Guntur, North	25	7,76,000	98	5,15,900	..	..	..	..	11	25,560	134	13,17,460
4 Krishna ..	82	14,16,300	460	11,56,080	..	..	35	51,000	93	5,95,660	670	32,19,040
5 Godavari, West	11	2,29,600	182	14,25,735	..	..	2	1,500	30	39,426	225	16,96,311
6 Rajahmundry	25	3,65,280	366	8,77,640	..	..	1	500	2	860	394	12,44,260
7 Godavari, East	..	..	415	11,14,000	..	..	..	..	..	..	415	11,14,000
8 Visakhapatnam	22	2,75,650	180	6,90,855	..	..	..	..	122	2,97,850	324	12,60,355
9 Srikakulam	11	80,750	328	9,64,080	..	..	5	2,690	..	..	342	10,47,530
10 II Circle office	15	6,82,120	..	..	..	..	..	..	3	2,52,500	18	9,34,620
11 Anantapur	11	3,86,300	98	31,36,253	..	..	4	400	13	18,108	126	35,44,031
12 Bellary ..	23	4,90,050	109	4,04,000	..	..	..	..	27	90,150	159	9,84,200
13 Chingleput	106	9,55,520	283	5,91,335	3	900	6	6,900	18	3,05,055	416	18,59,810
14 Chittoor ..	94	9,29,550	194	11,86,905	..	..	24	39,300	107	1,17,253	419	22,72,990
15 Cuddapah	49	4,88,060	221	13,24,300	..	..	20	4,630	49	1,13,790	339	19,30,880
16 Kurnool ..	2	35,000	71	3,08,150	..	..	3	1,800	78	3,83,612	154	7,28,562
17 Nellore	18	3,22,650	183	5,22,135	6	2,660	80	41,730	..	..	237	8,89,175
18 North, Arcot	76	5,60,695	278	6,29,039	..	..	5	1,770	183	98,454	542	12,89,958
19 Pennar Bridge division	..	..	..	..	..	..	..	..	..	..	..	..
20 III Circle Office	12	5,22,800	..	..	..	..	..	..	..	..	12	5,22,800
21 South, Arcot	39	4,75,100	896	19,83,311	..	..	27	15,250	214	1,54,367	1,176	26,23,028
22 Tanjore, East	53	4,70,255	313	4,21,805	..	..	13	9,352	129	97,635	508	9,99,047
23 Tanjore, West	70	7,81,600	442	9,14,290	..	..	14	12,590	281	5,89,845	807	22,98,385
24 Tiruchirappalli	136	9,85,660	390	13,33,600	2	18,000	32	28,375	142	3,23,210	702	26,88,845
25 Madurai	54	5,57,675	483	35,62,079	..	..	3	3,285	30	5,15,300	570	46,89,339
26 Ramanathapuram	22	3,31,510	177	8,44,335	2	12,500	2	7,010	96	35,590	299	12,30,945
27 Tirunelveli	45	1,56,000	208	8,54,000	..	..	13	11,750	165	2,46,000	431	12,67,750

28 IV Circle Office	..	..	..	..	..	..	..	..	..	..	..	..
29 Salem, North	23	10,42,100	1	66,000	..	..	..	..	..	..	24	11,08,100
30 Bharatapuzha	42	4,06,240	4	14,200	..	..	..	..	..	..	108	4,52,240
31 Malabar, South	..	..	..	..	..	..	..	..	..	..	..	..
32 South Kanara	..	..	..	..	..	..	..	..	..	..	..	..
33 Coimbatore, North	..	..	..	..	..	..	..	..	..	..	..	..
34 Salem, South	..	..	..	..	..	..	..	..	..	..	..	..
35 Coimbatore, South	..	..	..	..	..	..	..	..	..	..	..	..
36 The Nilgiris	..	..	..	..	..	..	..	..	..	..	..	..
37 Malabar, North	..	..	..	..	..	..	..	..	..	..	..	..
Total	1,221	1,63,13,345	8,183	2,95,45,762	16	53,080	326	3,13,772	2,831	64,19,185	12,577	5,26,44,644

Statement showing the technical sanctions to estimates during 1951-52—cont.

(iii) Statement showing the technical sanctions to estimates for Municipal and Panchayat works accorded by the Divisional Engineers (Highways) and Superintending Engineers (Highways) during 1951-52.

Serial number and name of Circle and Division.	Municipal Works.		Panchayat Works.	
	Number.	Total cost.	Number.	Total cost.
		RS.		RS.
1 Circle Office	21	10,73,000	3	84,300
2 Guntur, South	6	95,376	32	1,60,079
3 Guntur, North	..	..	88	6,92,600
4 Krishna	36	86,160	108	3,97,450
5 West Godavari	25	71,440	69	10,55,180
6 Rajahmundry	1	1,100	26	2,27,435
7 East Godavari	..	..	50	2,50,070
8 Visakhapatnam	..	..	12	75,850
9 Srikakulam	..	..	95	1,33,904
10 II Circle Office	6	1,56,500	1	31,000
11 Anantapur	9	39,417	61	2,34,150
12 Bellary	28	1,08,270	..	..
13 Chingleput	..	..	..	..
14 Chittoor	14	28,240	17	34,560
15 Cuddapah	4	9,900	18	78,500
16 Kurnool	..	..	42	1,18,619
17 Nellore	..	..	52	92,700
18 North Arcot	..	..	81	1,76,871
19 III Circle Office	15	4,57,500	..	..
20 South Arcot	26	80,860	14	60,460
21 Tanjore, East	12	36,645	30	77,410
22 Tanjore, West	3	16,200	71	1,35,930
23 Tiruchirappalli	9	31,550	53	2,00,400
24 Madurai	14	59,190	13	58,670
25 Ramanathapuram	106	1,86,680	64	65,540
26 Tirunelveli	40	1,01,480	24	75,480
27 IV Circle Office	22	7,31,250	2	38,600
28 Salem, North	..	..	20	58,080
29 Bharatapuzha	..	..	..	..
30 Malabar, South	12	15,415	2	7,500
31 South Kanara	3	13,850	13	63,624
32 Coimbatore, North	9	33,300	60	1,50,000
33 Salem, South	8	25,130	53	1,60,050
34 Coimbatore, South	34	70,885	57	2,44,641
35 The Nilgiris	5	25,260	21	77,633
36 Malabar, North	28	63,340	13	96,550
Total ..	496	36,17,938	1,265	54,03,836

ANNEXURE 17.

Statement showing the number of tender cases approved by the Superintending Engineers (Highways) and Divisional Engineers during 1951-52.

Serial number and name of division.	Government roads.			District Board works.			Municipal works.		Grand total.
	by	by	Number sent up to Chief Engineer.	by	by	Number sent up to Chief Engineer.	by	by	
	Number approved Divisional Engineer.	Number approved Superintending Engineer.		Number approved Divisional Engineer.	Number approved Superintending Engineer.		Number approved Divisional Engineer.	Number approved Superintending Engineer.	
<i>I Circle.</i>									
1 Guntur, South	33	17	..	14	9	1	..	3	77
2 Guntur, North	44	18	1	65	12	..	..	2	142
3 Krishna	17	59	1	316	21	4	..	6	424
4 West Godavari	44	7	..	53	11	4	..	..	119
5 Rajahmundry	51	25	1	96	19	..	..	9	201
6 East Godavari	27	45	1	173	15	..	..	15	276
7 Visakhapatnaam	77	4	3	..	..	..	..	12	96
8 Srikakulam	12	20	32	98	13	..	..	15	190
9 Anakapalle Special	4	3	..	..	..	..	..	..	7
10 Godavari Bridges	1	1	..	..	..	..	..	..	2
<i>II Circle.</i>									
11 Anantapur	37	41	..	103	11	..	..	..	192
12 Bellary	62	19	74	67	11	34	..	..	267
13 Chingleput	187	..	6	91	3	..	228	9	474
14 Chittoor	119	31	..	56	14	..	..	..	220
15 Cuddapah	109	17	4	135	..	8	..	..	273
16 Kurnool	12	74	..	63	..	..	..	..	149
17 Nellore	92	..	..	120	1	..	..	..	213
18 Arcot, North	130	20	3	361	12	..	..	..	526
19 Pennar Bridge Division	..	..	1	..	..	..	..	..	1
20 Transport and Machinery Division.	..	..	..	..	..	..	..	..	..
<i>III Circle.</i>									
21 Arcot, South	72	30	6	123	43	..	..	3	277
22 Tanjore, East	108	14	..	391	24	..	..	7	544
23 Tanjore, West	95	23	..	151	32	..	..	3	304
24 Tiruchirappalli	230	15	..	1,041	13	..	1	2	1,302
25 Madurai	141	33	2	325	21	..	..	3	525
26 Ramanathapuram	64	43	..	175	34	1	..	..	317
27 Tirunelveli	116	36	..	258	14	2	..	..	426
28 Pugalur	1	..	..	..	..	..	..	..	1
29 Coleroon	4	..	..	..	..	..	..	..	4
<i>IV Circle.</i>									
30 Salem, North	53	9	..	193	5	1	..	..	261
31 Malabar, South	38	73	1	99	43	..	..	..	254
32 South Kanara	58	45	..	97	27	..	..	..	227
33 Coimbatore, North	120	..	..	476	2	..	..	..	598
34 Salem, South	45	23	1	5	15	1	2	..	92
35 Coimbatore, South	143	2	..	206	..	..	3	..	359
36 The Nilgiris	31	16	2	16	6	1	..	..	72
37 Ma labar, North	38	23	3	129	12	..	..	..	205
38 Bharatapuzha	..	..	..	..	..	..	..	..	..
Total ..	2,370	786	142	5,496	443	57	234	89	9,617

ANNEXURE 18.

(i) Statement showing the number of agreements accepted by the Superintending Engineers and Divisional Engineers for Government Works.

Serial number and name of division.	Accepted by Divisional Engineer.		Accepted by Superintending Engineer.		Total.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.
		RS.		RS.		RS.
<i>I Circle.</i>						
1 Guntur, South	123	10,12,000	29	6,68,935	157	16,80,935
2 Guntur, North	140	10,17,735	10	3,18,882	150	13,36,617
3 Krishna	170	13,79,956	25	7,49,418	195	21,29,374
4 Godavari, West	480	20,99,840	5	3,65,715	485	24,65,555
5 Rajahmundry	115	8,09,947	14	3,54,175	129	11,64,122
6 Godavari, East	61	10,85,000	4	2,61,892	65	13,46,892
7 Visakhapatnam	161	1,16,375	5	11,45,077	166	12,61,452
8 Srikakulam	109	7,02,230	11	3,53,637	120	10,55,867
9 Anakapalle Special	177	3,25,703	5	1,69,701	182	4,95,404
10 Godavari Bridges Special	9	25,539	..	..	9	25,539
<i>II Circle.</i>						
11 Anantapur	330	8,46,450	..	..	330	8,46,450
12 Bellary	137	8,76,845	13	6,54,802	150	15,31,647
13 Chingleput	192	7,65,509	2	1,89,628	194	9,55,137
14 Chittoor	320	10,31,066	2	1,72,549	322	12,03,615
15 Cuddapah	194	7,84,716	8	6,55,698	202	14,40,414
16 Kurnool	258	8,01,696	2	74,838	260	8,76,534
17 Nellore	339	12,24,976	..	..	339	12,24,976
18 North Arcot	411	12,87,623	3	3,49,234	414	16,36,857
19 Pennar Bridge Division	8	35,330	2	12,91,479	10	13,26,809
20 Transport and Machinery Division	..	..	..	..	..	..
<i>III Circle.</i>						
21 South Arcot	217	12,04,533	2	76,828	219	12,81,361
22 Tanjore, East	119	8,77,176	..	..	119	8,77,176
23 Tanjore, West	223	10,74,448	3	2,86,256	226	13,60,704
24 Tiruchirappalli	385	13,64,616	1	1,90,273	386	15,54,889
25 Madurai	405	19,69,520	6	3,13,103	411	22,82,623
26 Ramanathapuram	91	12,38,427	1	71,594	92	13,10,021
27 Tirunelveli	149	14,70,284	..	..	149	14,70,284
28 Coleroon Bridge Division	11	50,767	..	..	11	50,767
29 Pugalur Bridge Division	6	2,247	..	..	6	2,247
<i>IV Circle.</i>						
30 Salem, North	117	6,03,543	18	1,44,382	135	7,47,925
31 Bharatapuzha	1	5,105	..	..	1	5,105
32 Malabar, South	180	12,31,076	9	1,87,071	189	14,18,147
33 South Kanara	179	12,41,663	..	..	179	12,41,663
34 Coimbatore, North	241	11,01,043	1	41,616	242	11,42,659
35 Salem, South	120	5,69,612	3	68,568	123	6,38,180
36 Coimbatore, South	365	16,68,862	5	3,42,011	370	20,10,873
37 The Nilgiris	67	4,83,513	1	9,528	68	4,93,041
38 Malabar, North	87	7,37,439	22	8,23,223	109	15,60,667
Total	6,702	3,81,22,419	212	1,03,30,118	6,914	4,34,52,537

(ii) Statement showing the number of agreements accepted by the Superintending Engineers and Divisional Engineers for District Board Works.

Serial number and name of division.	Accepted by Divisional Engineer.		Accepted by Superintending Engineer or President, District board.		Total.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.
		RS.		RS.		RS.
<i>I Circle.</i>						
1 Guntur, South	53	5,10,100	..	..	53	5,10,100
2 Guntur, North	139	3,69,499	..	..	139	3,69,499
3 Krishna	210	4,56,600	..	..	210	4,56,600
4 Godavari, West	108	7,64,912	..	..	108	7,64,912
5 Rajahmundry	139	3,77,100	..	..	139	3,77,100
6 Godavari, East	195	9,10,000	..	..	195	9,10,100
7 Visakhapatnam	187	5,19,990	..	..	187	5,19,990
8 Srikakulam	144	4,02,581	..	..	144	4,02,581
9 Anakapalle, Special	..	..	..	..	..	..
<i>II Circle.</i>						
10 Anantapur	147	5,87,951	..	..	147	5,87,951
11 Bellary	101	1,94,024	5	2,86,855	106	4,80,879
12 Chingleput	126	2,69,643	..	..	126	2,69,643
13 Chittoor	243	6,50,743	..	..	243	6,50,743
14 Cuddapah	158	5,37,784	..	..	158	5,37,784
15 Kurnool	111	4,71,063	..	..	111	4,71,063
16 Nellore	110	4,80,708	..	..	110	4,80,708
17 North Arcot	411	9,60,392	..	..	411	9,60,392
18 Pennar Bridge Division	..	..	..	..	..	..
19 Transport and Machinery Division	..	..	..	..	..	..
<i>III Circle.</i>						
20 South Arcot	429	8,81,390	..	..	429	8,81,390
21 Tanjore, East	754	9,39,679	..	..	754	9,39,679
22 Tanjore, West	172	10,67,500	..	..	172	10,67,500
23 Tiruchirappalli	595	22,17,343	..	..	595	22,17,343
24 Madurai	234	9,89,992	..	..	234	9,89,992
25 Ramanathapuram	204	9,79,098	..	..	204	9,79,098
26 Tirunelveli	327	14,88,649	..	..	327	14,88,649
27 Pugalur Bridge Division	..	..	..	..	..	..
28 Coleroon Bridge Division	..	..	..	..	..	..
<i>IV Circle.</i>						
29 Salem, North	167	6,13,153	..	..	167	6,13,153
30 Malabar, South	236	5,18,850	..	..	236	5,18,850
31 South Kanara	146	2,70,305	..	..	146	2,70,305
32 Coimbatore, North	476	9,71,804	..	..	476	9,71,804
33 Salem, South	178	7,25,903	..	..	178	7,25,903
34 Coimbatore, South	325	8,36,223	..	..	325	8,36,223
35 The Nilgiris	99	4,53,043	..	..	99	4,53,043
36 Malabar, North	155	5,19,384	264	20,80,051	419	25,99,435
37 Bharatapuzha	..	..	..	..	..	..
Total	7,038	2,19,36,306	269	23,66,006	7,357	2,43,03,212

ANNEXURE 19.

Work done in the office of the Chief Engineer (Highways).

1. Tenders—

A. Government Roads—

	Number.	Cost in RS.
1. Total cost of works for which tender proposals were approved by the Chief Engineer (Highways).	65	11,20,195
2. Total cost of works for which tender proposals were recommended to Government and approved by them.	24	11,37,298
Total ..	89	22,57,493

B. District Board Roads—

1. Total cost of works for which tender proposals were approved by the Chief Engineer (Highways).	15	7,02,143
2. Total cost of works for which tender proposals were recommended to Government and approved by them.	20	14,29,877
Total ..	35	21,32,020

2. Estimates.—One hundred and forty-three estimates to a total cost of Rs. 5,16,94,185 lakhs were dealt with during the year 1951-52 against 101 estimates totalling to Rs. 414.5 lakhs in 1950-51.

	Number of works.	Amount. RS.
I Road works	70	2,59,68,692
II Bridges and culverts	60	2,42,84,600
III Other works	3	9,55,000
IV Tools and plant	10	4,85,893
Total ..	143	5,16,94,185

The details of the estimates are given below:—

Serial number and date.	Description of work.	Estimate cost.
	<i>Road works.</i>	RS.
1 April 1951 ..	Thandikudi Ghat road 3/5 to 19/0 mile	2,20,000
2 Do. ..	Widening Kathipudi Narasapuram ferry road from Razole to Narasapuram ferry in miles 68/0 to 83/4.	1,01,000
3 Do. ..	Cement-concreting the stretch mile 424/2 to 443/0 of Madras Calcutta road in Visakhapatnam.	13,00,000
4 May 1951 ..	Conphalting Vizagapatnam-Anantagiri-Araku road mile 2/0 to 3/3 in Visakhapatnam Municipal limits.	1,53,000
5 Do. ..	Providing dustless surfacing to Mudanoor-Jammalamadugu road mile 1/4 to 8/0.	1,47,000
6 June 1951 ..	Widening and reverting the canal slopes of Narasapur Prakilanka road Section II from mile 7/0 to 14/0.	1,07,000
7 Do. ..	Constructing the unformed link in Cape Comorin-Bombay road (via.) Vellore and Karivellore.	3,33,000
8 Do. ..	Cement concreting Nellore road in Tenali Municipality.	1,20,000
9 Do. ..	Formation of a road from Alur to Mulagavalli	1,50,000
10 Do. ..	Forming a road from Kuppagal-Kowtharam road to Halvi ..	1,30,000
11 Do. ..	Raising the road from Thiruvottiyur level crossing to Thiruvottiyur bridge.	76,000
12 July 1951 ..	Metalling unmetalled portion of Cuddalore-Vridhachalam road mile 51/0 to 73/0.	1,90,000
13 Do. ..	Improving Raipur Vijayanagaram-Modavalasa road	1,64,500
14 Do. ..	Providing asphaltic concrete surface to stretches 37/7 to 40/0 plus 122 to 42/2 of Chingleput-Conjeevaram road.	1,60,000

Serial number and date.	Description of work.	Estimate cost.
	<i>Road works—cont.</i>	RS.
15 July 1951 ..	Forming a road from mile 7/0 to 8/0 of Minimalur Ghat Road.	97,000
16 Do. ..	Black-top surfacing Nellore-Bombay road mile 327/4 to 332/0.	1,90,000
17 August 1951 ..	Metalling Yelur-Neduruodu-Kowtharam road mile 0/0 to 6/0 ..	2,82,000
18 Do. ..	Forming a road from Ramanathapuram to Mandapam mile 0/0 to 21/4 (N.H. 49).	1,98,000
19 Do. ..	Providing rehabilitation in the stretch of Madurai-Dhanuskodi road in Ramanathapuram division.	1,06,000
20 Do. ..	Ranipet-Krishnagiri road mile 90/0 to 100/0	8,00,000
21 Do. ..	Forming a road from Chepparapadavu to Kuttur	2,39,000
22 Do. ..	Diversion in Eastern and Western division of Madras-Calcutta road—Estimate for forming a road from Kalkaram to Chebrol.	82,000
23 Do. ..	Cement concrete pavement in mile 180/0 to 182/0 G.N.T. road.	1,50,000
24 Do. ..	Forming and metalling the road from Peddavalasa to Katragetta.	3,80,000
25 Do. ..	Improvements to Dornal pass road mile 54/0 to 69/0	5,93,000
26 Do. ..	Forming a road from Polukonda to Puthalaseruvu railway station—Soil stabilization	1,80,000
27 Do. ..	Cement concreting the stretches from mile 39/5 + 354 feet to 41/0 + 115 of Masulipatam Hyderabad road in Vijayavada Municipal limits.	1,30,000
28 Do. ..	Providing cement concrete surfacing to Hospet-Kampli road mile 0/1 + 330 feet to 10/0.	7,00,000
29 Do. ..	Forming road from Yedapal-Kanniharamalugu via Aelina-cherla.	2,60,000
30 September 1951 ..	Improvements to Yercaud Ghat road	2,12,000
31 Do. ..	Improvements to V.A.A. road mile 38/2 to 79/2	17,84,000
32 October 1951 ..	Cement concreting Madras-Calicut road mile 443/0 to 444/7 within Kozhikode Municipal limits (P.H.).	2,57,000
33 Do. ..	Forming a road from 0/0 of Polavaram to Singanapalli opposite to Devipatnam.	1,37,192
34 Do. ..	Forming a road to Kolli hills	24,00,000
35 Do. ..	Cement concreting Rajahmundry-Kakinada road from mile 0/0 to 10/0.	5,24,000
36 November 1951 ..	Cement concreting Chittoor-Kurnool road mile 102/5 to 108/6.	4,20,000
37 Do. ..	Cement concreting Pollachi-Meenkarai road mile 1/5 to 5/0 ..	2,75,000
38 Do. ..	Cement concreting Yeluru-Jangareddigudem road from mile 0/0 to 10/0.	10,50,000
39 Do. ..	Forming a road from Jillugumalli to Ankambalam	1,23,000
40 Do. ..	Cement concreting Guntur-Pondugala mile 0/1 to 7/0 ..	7,30,000
41 Do. ..	Cement concreting Nehru road in Tenali Municipal limits ..	1,37,000
42 Do. ..	Cement concreting Koderu-Nallajeerla road mile 24/0 to 34/0.	12,25,000
43 Do. ..	Widening and metalling the right bank of Aganda Kowthami from Kovur to Thallapudi.	6,70,000
44 December 1951 ..	Masulipatam-Thiruvur road mile 23/0 to 32/0 C.C.	10,52,000
45 Do. ..	Metalling Uttiramerur-Kamalampoondi-Acharapakkam road ..	52,000
46 Do. ..	Metalling Thirupporur-Mahabalipuram road mile 0/0 to 7/5 ..	1,00,000
47 Do. ..	Formation of Banganapalli-Bethamcherla road	3,07,000
48 Do. ..	Cement-concreting mile 122/0 to 126/3 of Cuddalore-Chittoor road.	4,50,000
49 Do. ..	Cement concreting Madras-Calicut road in Palghat Municipal limits mile 357/7 to 361/1.	2,73,000
50 Do. ..	Shell-creting Cuddalore-Chittoore road mile 118/5 to 119/2 ..	80,000
51 January 1952 ..	Improvements to Thalaiparamba-Irutti road	40,000
52 Do. ..	Forming road from Gravagal to Miduthur road	1,80,000
53 Do. ..	Providing cement concrete surfacing to Nellore-Bombay road mile 325/3 to 327/4 + 330.	2,54,000
54 Do. ..	Formation of a road from Mangarai to Anaikatti	1,11,500
55 Do. ..	Metalling Nidadavole-Yarnagudem road	9,15,000
56 Do. ..	Forming and metalling road from Macherla to Yettipattala via Thellapalli.	1,92,000
57 Do. ..	Forming Kothapadi-Kundakadavu road	2,13,000
58 Do. ..	Formation of Chepparapadavu-Thadikadavu road	2,04,000
59 Do. ..	Cement concreting Anantapur-Tadpatri road mile 32/2 to 34/3 in Tadpatri Municipal limits.	1,98,000

Serial number and date.	Description of work.	Estimate cost. RS.
<i>Road works—cont.</i>		
60 February 1952 ..	Improvements to surface over Chittoor-Cuddalore road in mile 118/5 to 119/2 in Vellore Municipal limits.	18,000
61 Do. ..	Forming a road from the foot of Ghat to Pederu mile 8/0 to 9/0.	97,500
62 Do. ..	Cement concreting Tanjore-Tiruvadi road mile 5/0 to 8/4 ..	3,70,000
63 Do. ..	Providing cement-concrete surfacing Dindigul-Palni road mile 32/0 to 34/6.	2,20,000
64 Do. ..	Cement-concrete surfacing Cuddalore-Chittoor road mile 0/0 to 1/6 + 330 feet within Cuddalore Municipal limits.	1,86,000
65 Do. ..	Cement concreting Masulipatam-Hyderabad road mile 31/0 to 34/0.	3,40,000
66 March 1952 ..	Providing conphalt surfacing to V.A.A. road mile 0/7 + 560 to 2/0 in Visakhapatnam Municipal limits.	1,10,000
67 Do. ..	Providing a wearing surface to Ramnad-Mandapam road (N.H.).	10,93,000
68 Do. ..	Cement concreting Tiruchy-Chidambaram road mile 120/0 to 124/5.	9,15,000
69 Do. ..	Cement concreting Salem to Salem Bye pass road mile 1/4 to 3/4.	1,65,000
70 Do. ..	Providing bitumen semi grout for certain lanes in Coimbatore Municipality.	1,50,000

Bridges and culverts.

1 April 1951 ..	Constructing a bridge across Kootlangadi at mile 411/5 of Madras-Calicut road.	47,000
2 Do. ..	Constructing a bridge at mile 31/8 of Hospet-Mysore Frontier road (P.H.).	1,10,000
3 Do. ..	Constructing a bridge at mile 50/2 and 52/8 of Kannangad-Cheruvathur road across Nileswar and Haridakadudahole.	9,30,000
4 Do. ..	Strengthening and widening bridge at mile 166/4 of Benares-Cape Comerin road.	2,45,000
5 Do. ..	Constructing a pipe vented causeway across river Cooum in Tirumangalam.	32,000
6 Do. ..	Reconstructing Patchmugar bridge at mile 5/5 of Mudabidri-Buntual road.	2,64,000
7 Do. ..	Constructing a bridge at mile 27/5 of Thirumashisi-Satyavedu road.	2,60,000
8 Do. ..	Constructing a bridge at mile 75/8 of Vizagapatam-Anantagiri-Araku road.	1,24,000
9 May 1951 ..	Constructing a bridge across Kuthikole at mile 5/8 of Balaiapatam-Thaliparamba road.	98,500
10 Do. ..	Widening narrow culverts in mile 12/3 and 15/8 of Rajahmundry-Kakinada road.	1,22,700
11 Do. ..	Constructing bridge across Coleroon at Anaikaran Chatram ..	26,00,000
12 Do. ..	Reconstructing a bridge at mile 57/8 of Paluru-Palacole road (M.D.R.).	2,42,000
13 Do. ..	Bridge over Bharathapuzha river at mile 18/2 of Angadipuram-Kuthipuram-Cochin Frontier road.	18,50,000
14 Do. ..	Constructing a bridge at mile 23/6 of Bisli Ghat road ..	36,000
15 Do. ..	Constructing a bridge across Swarnanadhi near Puthigi ..	4,00,000
16 Do. ..	Constructing a bridge across Kavvayi river at mile 2/6 of Vallur-Karivallur section of Cape Comorin-Bombay road.	70,000
17 Do. ..	Constructing a bridge across river Agavalam in mile 13/2 of Arakonam-Ocheri road.	2,00,000
18 Do. ..	Construction of bridge in mile 36/3 of Palamcottah-Nagalapuram road.	2,00,000
19 Do. ..	Kaveri Causeway at mile 13/5-6 of Penukonda-Madakaseri road.	1,12,000
20 Do. ..	Constructing bed level causeway across Cooum in Thirumangalam cart track (V.R.).	22,000
21 June 1951 ..	Constructing a bridge across Payyaswami river at Tekkil in mile 53/5 of Kaladakka-Kannangad road—Constructing a 'T' beam bridge at chainage 2,615 on Bevinji side approach road.	10,10,000
22 Do. ..	Constructing a bridge at mile 0/6 of Vittal-Kaladakka road ..	16,000
23 Do. ..	Widening and redecking of the Pullahalli bridge at mile 177/7 of Madras-Calicut road.	35,000
24 Do. ..	Constructing a submersible bridge at mile 1/1 of Markanam-Dindivanam road.	2,75,000
25 Do. ..	Bridge across Vaigai at mile 25/4 of Ilayangudi and Paramagudi road.	3,85,000

Serial number and date.	Description of work.	Estimate cost. RS.
<i>Bridges and culverts—cont.</i>		
26 June 1951 ..	Providing underverts to existing road dam at mile 2/5 of Coimbatore-Satyamangalam road.	76,000
27 Do. ..	Constructing a bridge over Koduvanar in mile 6/1 of Dindigul-Arayakurichi road.	1,55,000
28 July 1951 ..	Constructing a bridge across Thirur river at mile 26/3 of Pooraparamba-Thirur road.	50,000
29 Do. ..	Constructing a bridge across Roonalla at mile 0/8 of Banganapalli-Bethamcherla road.	2,43,000
30 Do. ..	Constructing a bridge over Yenamaderu drain in mile 51/3 of Pamarole-Palacole road.	87,000
31 August 1951 ..	Construction of a bridge at mile 6/5 of Villari-Perambara road.	1,70,000
32 Do. ..	Reconstructing a bridge at mile 0/4 of Malpi-Udipti-Karkai road.	1,80,000
33 Do. ..	Constructing a bridge across Gostanadhi river in mile 6/8-5 of Vijanagaram-Kothavalasa road.	4,40,000
34 Do. ..	Constructing a bridge at mile 66/7 of Calicut-Mysore Frontier road.	1,25,000
35 Do. ..	Constructing a bridge over Panamaram river at mile 10/2 of Mannangadi-Panamaram road.	4,50,000
36 September 1951 ..	Constructing a bridge over Gosthanadhi in mile 14/6 of Vijanagaram-Bowdara road.	3,00,000
37 Do. ..	Constructing a bridge on Baliapatam-Thaliparamba section in Bombay-Cape Comorin road.	4,97,000
38 Do. ..	Bridge across Palar near Chingleput on Madras-Tiruchy-Dindigul road (N.H.).	23,00,000
39 Do. ..	Constructing a bridge across Narthalli in mile 29/2 of Dornagal-Sandur road.	1,00,000
40 Do. ..	Constructing a bridge over Nallibada tank in mile 7/7 of V.C.P. road.	50,000
41 Do. ..	Constructing a bridge at mile 7/7 of Mangalore-Kannangod road across Thallapadi river.	2,00,000
42 October 1951 ..	Constructing a bridge across Noyyal at mile 331/5 of Madras-Calcutta road (N.H.).	2,00,000
43 Do. ..	Constructing a causeway across Cheyyar in 6/1-2 of Arani-Chetput road.	71,000
44 Do. ..	Constructing a causeway at mile 13/4 of Dharmapuri-Thirupathur road.	1,40,000
45 November 1951 ..	Constructing a bridge across Moriyar at mile 84/4 of Pondicherry-Salem road.	48,900
46 Do. ..	Constructing a causeway at mile 8/7-8 of Ambur-Satgur road.	1,07,800
47 Do. ..	Constructing a R.C. beam cum slab bridge across Pennar near Kalavapalli village at mile 19/8 of Anantapur-Kalyadurg road.	3,80,000
48 Do. ..	Constructing a submersible bridge across Agniar in mile 6/4 of Pattukottai-Aranthangi road.	2,75,000
49 Do. ..	Constructing a causeway at mile 19/6 of Devakottai-Devipattanam road.	2,00,000
50 December 1951 ..	Constructing a bridge over Gurpur river in mile 4/7-8 of Mangalore-Balindur road.	5,90,000
51 Do. ..	Constructing a causeway across Pennar at mile 10/4 and 11/2 of Mudanur-Jammalamadugu road.	1,62,000
52 Do. ..	Constructing a bridge over Gadilam mile 110/2 of Vikravandi lower anicut road.	2,06,000
53 January 1952 ..	Constructing a submersible bridge across Maharaja Samudram in mile 8/4 of Orthanad-Thiruvonam road.	82,000
54 Do. ..	Constructing a bridge across Kaveri at mile 2/2 Ayyampet-Ullacalai road.	1,50,000
55 Do. ..	Reconstructing Shakkale bridge at mile 38/2 of Mangalore-Agumbe road.	46,000
56 February 1952 ..	Constructing a bridge at mile 11/7 of Adoni-Siruguppa road across Karigavenka.	1,02,500
57 Do. ..	Constructing a R.C. beam cum slab bridge at mile 4/8 of Kozhikode-Balusseri road.	1,10,000
58 March 1952 ..	Widening and strengthening the bridge at mile 1/3 of Thirupattur-Singarapetta road.	70,500
59 Do. ..	Constructing a submersible bridge at mile 15/1 of Balsley Ghat road.	2,58,000
60 Do. ..	Constructing a bridge across Noyyal at mile 27/1 of Erode-Karur road.	2,70,000

Serial number and date.	Description of work.	Estimate cost. RS.
<i>Other works.</i>		
1 June 1951 ..	Improvements to Panagudi quarry and providing facilities and conveyance.	4,05,000
2 October 1951 ..	Constructing district board office building at Eluru	3,80,000
3 March 1952 ..	Construction of a new board high school building at Wandiwash.	1,70,000
<i>Tools and plants.</i>		
1 September 1951 ..	Purchase of paint spraying units (in 4 sets.)	26,000
2 October 1951 ..	Supply of office furniture for Puthugi bridge work	750
3 November 1951 ..	Estimate for payment of hire charges to M.E.S. for road rollers.	38,420
4 January 1952 ..	For purchase of new furniture to Salem (South) division ..	13,500
5 February 1952 ..	Purchase of lorry No. MDH. 299	2,805
6 Do. ..	Compensation to District Board-Anantapur towards the small tools and plants taken over by Highways Department.	21,646
7 Do. ..	Furniture taken over by Highways Department from Anantapur District Board.	5,457
8 Do. ..	Revised estimate for purchase of stone crushers drill sharpeners and oil furnaces.	3,46,000
9 Do. ..	Estimate for the forced accounts of 1946-47 for booking the expenditures incurred for the maintenance of plants and machinery of the Highways Department.	30,760
10 March 1952 ..	Purchase of 3 teak wood racks for Anantapur Division ..	555

ANNEXURE 20.

(i) Statement showing the contracts awarded since 1946-47.

Year.	Government.					
	Maintenance.		Surfacings.		Bridges culverts and causeways.	
	Number.	Cost.	Number.	Cost.	Number.	Cost.
	(2)	(3)	(4)	(5)	(6)	(7)
	RS.		RS.		RS.	
1946-47 ..	2,087	1,03,91,377	36	6,16,240	80	1,86,825
1947-48 ..	3,516	1,85,83,686	72	6,07,192	324	6,33,520
1948-49 ..	3,569	2,37,90,402	90	20,94,744	163	30,19,713
1949-50 ..	3,631	2,96,01,947	169	66,75,229	372	28,11,250
1950-51 ..	3,888	3,18,93,090	405	79,42,106	514	52,12,011
1951-52 ..	3,787	3,10,35,074	487	63,01,105	366	51,99,521

Year.	District Board.						Total.	
	Maintenance.		Surfacings.		Bridges, culverts and causeways.		Num-ber.	Cost.
	Num-ber.	Cost.	Num-ber.	Cost.	Num-ber.	Cost.	(14)	(15)
	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	RS.		RS.		RS.		RS.	
1946-47 ..	3,908	63,57,633	29	3,23,805	131	2,52,845	6271	1,81,28,725
1947-48 ..	4,611	83,95,396	114	12,06,933	274	5,64,000	8911	2,99,90,727
1948-49 ..	4,945	1,10,18,993	89	12,38,877	403	9,21,674	9259	4,20,84,603
1949-50 ..	5,067	1,84,98,933	220	34,55,378	269	22,59,252	9728	5,83,01,989
1950-51 ..	5,333	1,49,00,947	237	34,43,615	332	35,01,012	10714	6,68,92,781
1951-52 ..	5,767	1,65,97,371	481	38,25,215	392	34,98,002	11280	6,64,56,288

Divisionwar particulars for the year 1951-52 are given in Statement (ii).

[(ii) Statement showing the contracts awarded during 1951-52.]

Serial number and name of division.		Government roads.										District Board roads.										Total cost.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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1	Guntur, South	188	15,34,400	8	39,000	11	46,000	37	2,03,953	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	

ANNEXURE 21.

(i) Statement showing the number of investigations since 1946-47.

Year.	Number of investigations.		
	Government.	District Board.	Total.
1946-47	61	60	121
1947-48	179	489	668
1948-49	262	288	550
1949-50	263	399	662
1950-51	116	428	544
1951-52	91	506	597
Total	972	2,170	3,142

NOTE.—Division-war particulars for the year 1951-52 are given in Statement (ii).

(ii) Statement showing the number of investigations in 1951-52.

Serial number and name of division.	Number of investigations.		
	Government.	District Boards.	Total.
1 Guntur, South	..	8	8
2 Guntur, North	..	1	1
3 Krishna	20	47	67
4 West Godavari	1	3	4
5 Rajahmundry	1	..	1
6 East Godavari	..	1	1
7 Visakhapatnam, South	1	1	2
8 Visakhapatnam, North	..	1	1
9 Anakapalle Special	..	..	..
10 Godavari Bridges	6	7	13
11 Anantapur	..	4	4
12 Bellary	2	17	19
13 Chittoor	..	2	2
14 Chingleput	21	..	21
15 Cuddapah	1	1	2
16 Kurnool	..	9	9
17 Nellore	..	14	14
18 North Arcot	..	70	70
19 Pennar Bridge Division	..	..	..
20 Transport and Machinery Division	..	..	..
21 South Arcot	6	39	45
22 Tanjore, East	..	13	13
23 Tanjore, West	..	..	..
24 Tiruchirappalli	2	108	110
25 Madurai	20	31	51
26 Ramanathapuram	1	..	1
27 Tirunelveli	..	4	4
28 Assistant Engineer (Bridges Division)	2	17	19
29 Salem, North	..	54	54
30 Bharathapuzha	..	..	..
31 Malabar, South	1	6	7
32 South Kanara	2	5	7
33 Coimbatore, North	..	12	12
34 Salem, South	4	23	27
35 Coimbatore, South	..	7	7
36 The Nilgiris	..	1	1
37 Malabar North	..	..	..
Total	91	506	597

ANNEXURE 22.

(i) Review of works costing over Rs. 1 lakh in progress.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
	RS.	RS.	
A. GOVERNMENT WORKS.			
I. Bridges and culverts.			
1 Reconstructing the bridge over Yeleru river in M. 391/1-2 of G.N.T. road. (Estimate Rs. 6,50,000) Ex-P.W.R. (Rajahmundry Division).	12,663	20,198	The work was ordered to be stopped. Fresh estimate for constructing a new bridge is under preparation.
2 Reconstructing the collapsed bridge in M. 413/1-2 of G.N.T. road over the river Pampa. Job No. 393 M.D. 5. (Estimate Rs. 2,50,000). Sanctioned in Government Memo. No. 1803/50/5, dated 21st September 1950. P.W.R. (Rajahmundry Division).	79,482	1,15,585	Work is in brisk progress and will be completed in 1952-53.
3 Constructing a bridge across Champa-vati river near Nathavala M. 520/3-6 Job No. 374 M.D. 5. G.O. No. 2206, P.W., dated 7th June 1950. (Estimate Rs. 9,35,000) (P.W.R. (Visakhapatnam Division).	3,26,563	3,91,816	Work in progress.
4 Constructing a bridge across Gowtami branch of Godavari river Job No. 266 M.D. 5. (Estimate Rs. 1,03,50,000) P.W.R. (Godavari Bridges Division).	51,118	6,77,788	Preliminary work of marginal revetment was executed in 1951-52. The main bridge work has not been started pending settlement of the tenders.
4-A Investigation and preparation of plans and estimates for Godavari bridge. (Estimate Rs. 2,00,000) P.W.R. (Godavari Bridge Division).	17,972	1,56,900	....
5 Constructing a bridge across Budameru at M. 23/4 of Vijayavada-Nuzvid road. G.O. No. 3673, P.W., dated, 8th September 1948. (Estimate Rs. 1,75,000) P.W.R. (Krishna Division).	20,476	63,796	Work is in progress and will be completed by December 1952.
6 Constructing a bridge across Upputeru at Someswaram on Gudivada-Bhimavaram road. G.O. No. 623, P.W., dated 24th February 1948 and G.O. No. 2716, P.W., dated 20th July 1949. (Estimate Rs. 3,55,000) P.W.R. (Eluru Division).	1,47,015	2,13,488	Work is in progress.
7 Constructing a bridge over Nakkala drain at M. 6/4 of Palacole-Achanta road. (Estimate Rs. 1,30,000) (P.W.R. (Eluru Division).	10,622	1,15,347	Work completed. Revised estimate is awaiting sanction and final bill is to be paid.
8 Constructing a bridge near Kalavapalli at M. 19/8 of Anantapur-Kalyandrug road. (Estimate Rs. 2,70,000) R.D.F. (Anantapur Division).	69,834	1,40,449	....
9 Constructing a causeway at M. 20/3-4 of Adoni-Siruguppa road. (Estimate Rs. 2,30,000) P.W.R.D. (Bellary Division).	27,167	27,167	The work is in good progress.
10 Constructing a causeway at M. 15/8 of Bellary-Kalyandrug road. (Estimate Rs. 1,76,000) P.W.R.D. (Bellary Division).	37,144	37,144	Do.
11 Constructing a causeway at M. 32/2 of Bellary-Kalyandrug road. (Estimate Rs. 1,80,000) P.W.R.D. (Bellary Division).	10,080	10,080	Do.
12 Constructing a causeway at M. 13/7-8 of Rajampet-Kadiri road. (Estimate Rs. 1,65,000) P.W.R.D. (Cuddapah Division).	5,381	5,381	....
13 Constructing a causeway at M. 10/4 and 11/2 of Muddanur-Jammalamadugu road. (Estimate Rs. 1,62,000) R.D.F. (Cuddapah Division).	2,786	42,447	....
Constructing a bridge at M. 7/1 of Rollikuntla-Nosdam road. (Estimate Rs. 1,50,000) (Kurnool Division).	24,172	52,650	....

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.		
A. GOVERNMENT WORKS—cont.			
I. Bridges and culverts—cont.			
15 Constructing a bridge across Agavalam river at M. 13/2 of Arkonam-Ocheri road. (Estimate Rs. 2,00,000) P.W.R. (North Arcot Division).	118	118	Work is in progress.
16 Constructing a bridge across Pennar river at Nellore on N.H. 5. (Estimate Rs. 32,00,000) R.E. P.W.R. (Pennar Bridge Division).	8,06,157	14,76,157	Twenty-two piers out of 32 were built up to bed block level. Well sinking is in progress for the remaining piers.
17 Constructing a bridge at M. 6/2 of Dindigul-Aravakurichi road. (Estimate Rs. 1,65,000) Job. 338 M.D. 7 P.W.R.D. (Madurai Division).	1,62,793	1,80,052	Work completed but final payment has not been made pending approval to certain rates of items.
18 Constructing a bridge over Coleroon river at Anaikaran Chatram on Chidambaram-Sirkali road. (Estimate Rs. 28,50,000) P.W.R.D. (Coleroon Bridge Division). G.O. No. 3674, P.W., dated 10th September 1948.	2,47,412	7,43,513	This is a contribution work from South Arcot and Tanjore District Boards in the ratio of 8:4:14. Well sinking is in progress and most of the wells taken to tentative depth and test load conducted.
19 Constructing a bridge across Nandiyar river at M. 18/4 of Tiruchirappalli-Chidambaram road. (Estimate Rs. 2,20,000) P.W.R.D. G.O. No. 1354, P.W., dated 20th April 1948 (Tiruchirappalli Division).	1,26,514	2,54,119	Work completed and opened for traffic on 17th November 1951. Additional claims from contractor for flood damage are pending settlement.
20 Constructing a bridge across Bharatapuzha at M. 18/2 of Angadipuram-Kuttiapuram - Cochin Frontier road. (Estimate Rs. 18,50,000) P.W.R.D. (Bharatapuzha Division).	3,82,238	11,06,142	The work is in good progress. Foundations for 9 out of 10 piers and for abutments completed.
21 Constructing a bridge across Payaswami river at M. 53/0 of Kalladka-Kanhangad road. (Estimate Rs. 10,10,000) P.W.R.D. (Bharatapuzha Division).	3,52,732	4,93,337	Foundation for all piers have been completed. The work is in good progress.
22 Redecking the railway bridge over Ballapatnam river. (Estimate Rs. 5,96,774) P.W.R.D. (Bharatapuzha Division).	1,61,332	4,75,826	The work was carried out by Railway authorities and the cost debited to Highways Department.
23 Constructing a bridge across the river Noyyal at M. 331/1 of Madras-Kozhikode road. (Estimate Rs. 2,00,000) P.W.R.D. (Coimbatore Division).	10,807	10,939	Work is in progress.
24 Reconstructing the bridge at M. 4/8 of Kozhikode-Balusseri road. (Estimate Rs. 1,90,000) P.W.R.D. (Malabar North Division).	40,713	53,678	Work is in progress and is expected to be completed in 1952-53.
25 Constructing a bridge at M. 4/7 and 8 of Mangalore-Balindoor road over Gurpur river near Kulur (Estimate Rs. 5,90,000). P.W.R.D. (Mangalore Division).	4,02,708	5,93,504	Work is in progress.
26 Constructing a bridge across Sewarnandhi at Puttuge at M. 13 of Malpe-Hebri-Agumbe-Shimoga road (Estimate Rs. 4,00,000). P.W.R.D. (Mangalore Division).	84,253	93,924	Do.
27 Constructing a bridge over Yekkar river at M. 14/6 of Mangalore-Kinnigipi road. (Estimate Rs. 1,25,000). P.W.R.D. (Mangalore Division).	74,510	95,722	Do.
28 Constructing a causeway at M. 13/4 of Dharmapuri-Tirupattur road (Estimate Rs. 1,40,000) R.D.F. (Salem North Division).	8,800	1,00,950	The work is in progress and nearing completion.
29 Constructing a bridge at mile 33/5 of G.B.T. road. (Estimate Rs. 19,00,000) P.W.R.D. (Chingleput Division).	3,15,694	3,73,964	Well sinking for foundation in progress.
30 Constructing a causeway at M. 7/1-2 of Uthiramerur-Kancheepuram road (Estimate Rs. 1,96,000). R.D.F. (Chingleput Division).	762	762	Foundation stone laid. Tenders not settled.
31 Bridge across the Bahada Nadi at M. 49/7 of Kurnool-Chittoor Trunk Road (Estimate Rs. 1,63,500). R.D.F. (Chittoor Division).	..	16,042	...

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
II. Cement-concrete and black-top works.			
1 Cement concrete surfacing M. 1/0 to 7/0 of Guntur-Pondugula road, R.D.F. (Estimate Rs. 7,30,000).—G.O. No. 4121, P.W., dated 11th October 1951—Guntur District.	11,549	11,549	Collection of materials was in progress.
2 Forming and providing cement concrete G.B.C. road, M. 10/7 to 16/3 (Estimate Rs. 4,60,000), R.D.F.—Guntur district.	27,896	3,24,776	Work nearing completion. The work of shouldering the berms in progress.
3 Cement concrete surfacing M. 31/0 to 34/0 of Masulipatnam-Hyderabad road (Estimate Rs. 3,60,000), R.D.F.—G.O. No. 4121, P.W., dated 11th October 1951—Krishna Division.	25,279	25,279	Work is in progress.
4 Cement concrete surfacing M. 23/0 to 32/0 of Masulipatnam-Tiruvur road (Estimate Rs. 10,27,000), R.D.F.—G.O. No. 4121, P.W., dated 11th October 1951—Krishna Division.	53,117	53,117	Do.
5 Cement concreting Eluru-Jangareddigudem road, M. 0/0 to 10/0 (Estimate Rs. 18,10,000), R.D.F.—G.O. No. 4121, P.W., dated 11th October 1951—East Godavari Division.	24,688	24,688	Do.
6 Cement concreting M. 247/1 and 250/3 to 267/0 of G.N.T. road, Job No. 209 M.D. No. 5, (Estimate Rs. 1,50,000), P.W.R.—G.O. No. 135, P.W., dated 20th January 1949—Guntur Division.	4,85,869	9,63,646	The work is being done departmentally and has reached final stage of execution. Cement concrete pavement over the portion of bridges and culverts only remains to be done.
7 Cement concreting appropriate reaches between M. 424/2 to 443/0 of G.N.T. road, Job No. 362, M.D. No. 5 (Estimate Rs. 13,00,000)—G.O. No. 1126, P.W., dated 21st March 1951—Visakhapatnam Division.	2,77,203	3,19,114	Work is in progress.
8 Cement concreting Masulipatnam-Hyderabad road, M. 39/5-354 to 41/0-115 in Vijayavada Municipal limits (Estimate Rs. 1,22,000), P.W.R.—G.O. No. 1614, P.W., dated 27th October 1950—Krishna Division.	98	98	Work just commenced and the token grant utilized.
9 Providing cement concrete surfacing M. 1/1 to 3/3 of Rajahmundry-Dowlaiswaram road (Estimate Rs. 1,86,000) P.W.R.—G.O. No. 23, P.W., dated 4th January 1949—Rajahmundry Division.	221	2,05,052	Work completed but the accounts were not closed pending some adjustments.
10 Cement concreting Kakinada road including strengthening of culverts, M. 0/0 to 10/3 from Dowlaiswaram to Kakinada (Estimate Rs. 5,23,000), P.W.R.—G.O. No. 23, P.W., dated 4th January 1949—Kakinada Division.	3,42,187	5,34,137	Cement concrete pavements and shoulders completed. The progress was held up for want of supply of cement.
11 Conphalt surfacing Guntur-Amaravathi road, M. 0/0 to 1/0 (Estimate Rs. 1,07,400), P.W.R.—G.O. No. 1556, P.W., dated 21st October 1950—Guntur Division.	1,07,640	1,19,400	This is taken up on one-fourth contribution from municipality. Work is nearing completion. Black-topping is in progress.
12 Cement concreting Koderunnalla-Jerla road, M. 24/3 to 34/0 (Estimate Rs. 11,04,000), P.W.R.—G.O. No. 23, P.W., dated 4th January 1949—West Godavari Division.	4,42,478	10,78,974	Work is in progress.
13 Providing improved surfacing between M. 361/3 to 363/1 of G.N.T. road (old) (Estimate Rs. 1,35,000), P.W.R.—G.O. No. 2554, P.W., dated 8th July 1949—Rajahmundry Division.	39,938	1,16,414	Work is in progress and is likely to be completed by July 1952.
14 Cement concreting M. 22/8 to 26/0 of Kathipudi-Narzapuram Ferry road (Estimate Rs. 4,60,000), P.W.R.—G.O. No. 2292, P.W., dated 3rd September 1949—Kakinada Division.	89,942	3,09,998	Work could not be pushed through for want of supply of cement.
15 Cement concreting Anakapalle-Madugole road, M. 0/7 to 7/5 (Estimate Rs. 5,03,000), P.W.R.—G.O. No. 2607, P.W., dated 20th July 1948—Visakhapatnam Division.	61,982	2,07,522	Work is in progress.

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
II. Cement-concrete and black-top works—cont.			
16 Providing conphalt surfacing M. 2/0 to 3/3 of Visakhapatnam-Pendurthi road (Estimate Rs. 1,14,000), P.W.R.—G.O. No. 23, P.W., dated 4th January 1949—Visakhapatnam Division.	82,001	1,29,829	Work is in progress.
17 Cement concreting Anantapur-Tad-patri road, M. 32/2 to 34/2. (Estimate Rs. 1,98,000), R.D.F.—Anantapur Division.	7,976	7,976	Tenders for a second time had been called for in May 1952.
18 Providing cement concrete surface to Nellore-Bombay road, M. 323/5 to 325/3 (Estimate Rs. 1,90,000), P.W.R.D.—Bellary Division.	69,161	70,383	Work is in progress.
19 Cement concreting Nellore-Bombay road, M. 325/3 to 327/4 + 300. (Estimate Rs. 2,30,000), P.W.R.D.—Bellary Division.	1,06,077	1,53,636	Work is nearing completion.
20 Cement concreting Chittoor-Kurnool road, M. 102/5 to 108/6 (Estimate Rs. 3,62,000), P.W.R.D.—Cuddapah Division.	18,972	3,69,343	..
21 Cement concreting Yerragudla-Prod-datur road, M. 0/4 to 4/0 (Estimate Rs. 2,35,000), P.W.R.D.—Cuddapah Division.	46,777	1,82,441	..
22 Black-top surfacing M. 87 to 93/2 of Chittoor-Kurnool road (Estimate Rs. 1,16,000), P.W.R.D.—Cuddapah Division.	997	997	..
23 Black-top surfacing Muddanur-Jammalamadugu road, M. 1/4 to 3/0. (Estimate Rs. 1,47,000), P.W.R.D.—Cuddapah Division.	5,000	5,000	..
24 Cement concreting Ranipet-Krishnagiri road, M. 90 to 100 (Estimate Rs. 8,00,000), P.W.R.D.—North Arcot Division.	5,54,556	6,75,791	Work is in progress.
25 Cement concreting Cuddalore-Chittoor road M. 122 to 126/3 (Estimate Rs. 4,50,000), R.D.F.—North Arcot Division.	9,978	9,978	Do.
26 Cement concreting Cuddalore-Chittoor road M. 0/0 to 1/6 (Estimate Rs. 2,10,000), P.W.R.D.—G.O. No. 4121, P.W., dated 11th October 1951—Tiruchirappalli Division.	15,690	15,690	Collection of materials made through piece-workers.
27 Cement concreting Cuddalore-Chittoor road, M. 10/0 to 17/0 (Estimate Rs. 5,69,000), P.W.R.D.—Tiruchirappalli Division.—G.O. No. 4121, P.W., dated 11th October 1951.	10,409	10,409	Do.
28 Cement concreting Tanjore-Tiruvadi road, M. 5/0 to 8/4 (Estimate Rs. 3,70,000), P.W.R.D.—G.O. No. 4121, P.W., dated 11th October 1951—Tanjore Division.	20,305	20,305	Collection work is in progress.
29 Cement concreting Tiruchirappalli-Tanjore road M. 26/0 to 33/6 (Estimate Rs. 5,70,000), P.W.R.D.—G.O. No. 4121, P.W., dated 11th October 1951—Tiruchirappalli Division.	72,569	72,569	..
30 Cement concreting M. 33/0 to 44/0 of Madurai-Tenkasi road (Estimate Rs. 13,20,000), P.W.R.D.—Ramanathapuram Division.	20,305	20,305	Collection of materials made through piece-workers.
31 Cement concreting Cuddalore-Chittoor road, M. 1/6 to 10/0 (Estimate Rs. 6,56,000), P.W.R.D.—G.O. No. 23, P.W., dated 4th January 1949—South Arcot Division.	2,02,305	5,30,108	Work is in progress.

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
II. Cement-concrete and black-top works—cont.			
32 Cement concreting Tanjore-Tiruvadi road, M. 3/1-160 to 5/0 for a width of 12 feet (Estimate Rs. 1,14,000), P.W.R.D.—G.O. No. 605, P.W., dated 12th February 1951—Tanjore Division.	78,659	78,659	Work is in progress.
33 Cement concreting Dindigul-Palni road, M. 32/0 to 34/6 (Estimate Rs. 1,75,000), P.W.R.D.—G.O. No. 2302, P.W., dated 1st June 1951—Madurai Division.	2,646	2,646	Work not yet commenced. Expenditure incurred on supply of cement.
34 Cement concreting Chidambaram-Bhuvanagiri road, M. 0/6 to 3/5 and 25/2 to 26/0 (Estimate Rs. 6,40,000), P.W.R.D.—South Arcot Division.	20,396	5,74,952	Work completed except for a gap of 72 feet half width at M. 3/3 of the road.
35 Black-top surfacing Thandigudi-Ghat road, (Estimate Rs. 2,00,000), P.W.R.D.—G.O. No. 2302, P.W., dated 1st June 1951—Madurai Division.	27,554	27,554	Work is in progress.
36 Providing dustless surfacing to Mangalore-Baindur Coast road (Estimate Rs. 1,08,000), P.W.R.D.—Mangalore Division.	6,014	48,809	Do.
37 Cement concreting Coimbatore-Mettupalayam road, M. 0/3-652 to 22/6 (Estimate Rs. 21,00,000), P.W.R.D.—Ootacamund Division.	1,85,759	20,20,091	Excepting the gap at M. 6-4, cement concrete of entire road has been completed. Work is in progress.
38 Providing 2 inches thick asphaltic concrete surfacing to Kozhikode-Cannanore road at M. 41/3 to 43/4 (Estimate Rs. 1,45,000), P.W.R.D.—Malabar North Division.	45,484	53,068	Work is in progress.
39 Cement concreting road from Salem junction to Salem bye-pass road, M. 1/4 to 3/5 (Estimate Rs. 1,65,000), R.D.F.—Salem South Division.	24,123	24,123	Work is in fair progress.
40 Cement concreting Madras-Kozhikode road, M. 357/7 to 361/1 (Estimate Rs. 2,78,000), R.D.F.—Malabar South Division.	5,126	5,126	Work is in progress.
41 Cement concreting Tellicherry-Coorg road, M. 0/1-225 to 1/7 + 5 (Estimate Rs. 2,30,000), R.D.F.—Malabar North Division.	5,148	5,148	Do.
42 Providing asphaltic concrete surfacing to and other improvements to Chingleput-Kancheepuram road, M. 40 to 42 (Estimate Rs. 1,87,000), P.W.R.D.	85,111	2,17,334	Work nearing completion.
III. New formations.			
1 Forming a road from Chinaganjam to Ongole, M. 53/0 to 71/5 (Estimate Rs. 4,40,000), R.D.F.—G.O. No. 103, P.W., dated 10th January 1949—Ongole Division.	35,219	2,41,584	Formation of the road is completed. Estimate is under revision making provision for bridges and causeways on Gundlakamma Bomperu drains.
2 Forming Minimalur Ghat road, M. 20/1 of Anakapalle-Madugole road to the foot of Minimalur Ghat (Estimate Rs. 2,57,000), P.W.R.—G.Os. No. 1585, P.W., dated 5th May 1948 and No. 754, P.W., dated 3rd March 1949—Anakapalle Special Division.	58,099	1,73,805	Earth-work formation was completed for the full length of 6 miles, 2 furlongs. Soling was also completed up to M. 5/2. Work is in progress.
3 Forming all-weather road from Jeelugumalli to Ankampalam road (Estimate Rs. 1,35,000), P.W.R.—G.O. No. 285, P.W., dated 19th January 1951—Eluru Division.	42,219	42,219	....
4 Forming Minimalur Ghat road from M. 20/1 to Anakapalle-Madugole road to Padern (Ghat Section) (Estimate Rs. 13,05,000), P.W.R.—G.Os. No. 1588, P.W., dated 5th May 1948, and No. 754, P.W., dated 3rd March 1949.	1,24,650	2,15,094	Earth-work formation up to M. 9/0 completed and formation in remaining miles is in progress.

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimated cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.		
A. GOVERNMENT WORKS—cont.			
III. New formations—cont.			
5 Forming a road from Chodavaram to Rampa Addatigala to Cheruvu-Kommupalam (Estimate Rs. 6,80,000), P.W.R.—G.O. No. 1510, P.W., dated 23rd April 1949—Rajahmundry Division.	1,53,372	2,61,734	Work is nearing completion.
6 Forming a road from Rampa Chodavaram to Bhadrachalam (via) Maredumalli and Lakkavaram (Estimate Rs. 1,00,000), P.W.R.—G.O. No. 2802, P.W., dated 1st June 1951—Rajahmundry Division.	2,924	2,924	Investigation of 13 miles length completed.
7 Forming Chitvel-Rapur road (Estimate Rs. 2,45,000), R.D.F.—Cuddapah Division.	1,00,011	1,00,723	....
8 Forming approach road to the railway bridge at Ballapatam between Azhikkal and Talliparamba (Estimate Rs. 1,18,300), P.W.R.D.—Bharathapuzha Division.	31,792	76,250	....
9 Constructing a road from Velur to Karivellur of Cape Comorin-Bombay road (Estimate Rs. 2,24,000), P.W.R.D.—Bharathapuzha Division.	60,060	2,26,686	Work is in progress.
10 Forming unformed portion of road to Kollu hills (Estimate Rs. 24,00,000), P.W.R.D.—Salem Division.	2,288	2,288	Work has not yet been commenced. The expenditure incurred for investigation work only. Estimate for the work not yet sanctioned.
11 Forming road from Banganapalli to Bethamcherla (Estimate Rs. 2,43,000), C.R.F.—Memo. No. 36249/48-20, P.W., dated 31st March 1950.	52,008	91,089	....
IV. Improvements and special repairs.			
1 Metalling Bapatla-Pedanandipadu road, M. 12/0 to 18/1 (Estimate Rs. 2,60,000), R.D.F.—G.O. No. 2736, P.W., dated 30th July 1948—Ongole Division.	42,524	2,56,000	Sub-soil work is in progress.
2 Metalling Iluru-Nidumolu-Kowtaram road, M. 0/0 to 6/0 (Estimate Rs. 2,23,500) R.D.F.—G.O. No. 103, P.W., dated 10th January 1949—Krishna Division.	36,785	2,65,165	Work completed but cost of acquisition of land remains to be adjusted.
3 Improvements to Velegapalli-Kamavarapukota road by metalling from M. 3/1 to 8/4 (Estimate Rs. 1,15,000), R.D.F.—G.O. No. 202, P.W., dated 1st June 1949—Eluru Division.	10,677	1,57,677	Work is in progress.
4 Metalling and construction of two bridges and ten culverts on Rajamundry Maredumalli road, M. 7/0 to 49/2 (Estimate Rs. 1,74,600), R.D.F.—Rajahmundry Division.	..	..	Formation of road metalling and construction of culverts completed. Two bridge works remain to be executed for which administrative sanction is awaited.
5 Metalling Chintapalligudem road, M. 33/2-270 to 42/0 (Estimate Rs. 1,98,000), R.D.F.—G.O. No. 831, L.A., dated 3rd March 1942—Visakhapatnam Division.	913	99,151	Work is in slow progress, being situated in highly malarial and agency areas where the labour is quite scarce.
6 Metalling Macherla-Nagarjunakonda road (Estimate Rs. 2,05,000), P.W.R.—G.O. No. 1352, P.W., dated 20th April 1948—Ongole Division.	8,225	1,45,423	Metalling of the road was completed. Road dams and culverts have to be constructed.
7 Metalling the road from Duggirala to Pedavadiapudi on Tenali-Pedavadiapudi road, M. 7/0 to 12/1 (Estimate Rs. 1,46,000), P.W.R.—G.O. No. 1614, P.W., dated 27th April 1950—Guntur Division.	63,317	63,417	Collections are in progress. Soling was completed in four miles.

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
IV. Improvements and special repairs—cont.			
8 Metalling the road from Tenali to Ananthavaram (Estimate Rs. 2,40,000)—G.O. No. 1854, P.W. dated 20th April 1948, P.W.R.—Guntur Division.	86,744	2,11,927	Metalling is completed in first three miles. Work is in progress in the remaining portions.
9 Metalling Avanigadda-Koderru road (Estimate Rs. 2,93,000), P.W.R.—G.O. No. 2443, P.W., dated 14th September 1949—Krishna Division.	1,49,592	1,49,592	Work is in progress.
10 Widening Narasapur-Prakkilanka road, M. 7/0 to 14/0 (Estimate Rs. 2,25,000), P.W.R.—G.Os. No. 3973, P.W., dated 6th October 1948 and No. 1240, P.W., dated 29th March 1950—Eluru Division.	14,000	1,05,084	Do.
11 Metalling the road from Niddavole to Vernagudem, M. 9/0 to 14/0 (Estimate Rs. 4,50,000), P.W.R.—G.O. No. 1510, P.W., dated 28th April 1947—Eluru Division.	1,26,063	3,80,807	Do.
12 Metalling the road from Devulapalli to Dubacherla (Estimate Rs. 5,37,500), P.W.R.—G.O. No. 1610, P.W., dated 28th April 1949—Eluru Division.	1,89,545	2,93,435	Do.
13 Widening and metalling Godavari flood bank from Kovur to Tallapudi, M. 6/3 to 15/4 (Estimate Rs. 4,66,000), P.W.R.—G.O. No. 3140, P.W., dated 23rd August 1949—Eluru Division.	1,99,942	4,65,718	Do.
14 Improvements to Visakhapatnam-Anantagiri-Araku road, M. 33/2 to 79/2 (Estimate Rs. 15,10,000), P.W.R.—G.O. No. 4946, P.W., dated 23rd December 1947—Anakapalle Special Division.	3,05,263	15,08,027	Out of 13 bridges, 12 numbers completed and for the one at M. 75/8 R.C.T. beam and deck slab have been laid. Work is in progress.
15 Improvements and special repairs to strategic roads from Uravakonda to Thungabhadra (via) Alur and Adoni (Estimate Rs. 8,06,900), Ex-P.W.R.—Anantapur Division.	2,876	28,663	Only final payments made in this division.
16 Widening and improving Kurli Ghat road (Estimate Rs. 1,65,000), R.D.F.—Cuddapah Division.	1,25,012	1,25,397	....
17 Improvements to Dornai pass road (Estimate Rs. 3,88,000)—Kurnool Division, P.W.R.D.—G.O. No. 3706, P.W., dated 13th September 1948.	2,29,081	4,46,329	....
18 Metalling Kolluntala-Erragudi road (Estimate Rs. 1,70,000)—Kurnool Division.	27,507	58,347	....
19 Widening the metalled width of Periakulam-Kumilli road (Estimate Rs. 2,30,000), R.D.F.—Government Memorandum No. 4393q/47-28, P.W., dated 3rd June 1950—Madurai Division.	99,061	1,55,992	Work is in progress.
20 Metalling the gravelly portion of Vikravandi Lower Anicut road (Estimate Rs. 1,65,000), R.D.F.—G.O. No. 3615, P.W., dated 27th September 1949—South Arcot Division.	3,072	1,12,194	Main work was completed in 1950-51. Petty works have been taken up for execution out of savings in the main estimate.
21 Improvements to Yercaud Ghat road (Estimate Rs. 2,12,000), P.W.R.D.—Salem Division.	41,666	1,88,716	The work has been almost completed except side pavements to drains.
22 Strengthening and widening the bridge at M. 166/4 of Benares-Cape Comorin road (Estimate Rs. 2,45,000), P.W.R.D.—Salem North Division.	2,25,023	8,78,991	This bridge is on an important road with huge volume of traffic from Jolarpet to Salem and is a main bridge between Madras and Mysore State. The work was completed on 31st March 1952 and opened for traffic on 2nd April 1952 but accounts are to be finally settled.

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
	RS.	RS.	

A. GOVERNMENT WORKS—cont.

IV. Improvements and special repairs—cont.

23 Providing dustless surfacing in mile 39-48 of G.S.T. road. Estimate Rs. 1,30,000. Chingleput Division.	86,870	86,870	Work almost completed.
24 Special repairs to G.S.T. road mile 50-64. Estimate Rs. 2,04,000. Chingleput Division.	1,02,822	1,02,822	Work is in progress.

B. DISTRICT BOARD WORKS.

I. Bridges and culverts.

1 Constructing a causeway across Pennar near Sidhout. Estimate Rs. 6,45,000. R.D.F. Cuddapah Division.	1,07,957	3,05,098	....
2 Constructing a submergible bridge across Vaigai river at M. 25/4 of Elayangudi-Paramakudi road. Estimate Rs. 3,85,000. R.D.F. (G.O. No. 4121, P.W., dated 11th October 1951.) Ramanathapuram Division.	38,665	38,665	Foundation stone was laid on 26th November 1951 and earth work for approaches done and materials collected. Work is in good progress.
3 Constructing a bridge across Kodamurutti at M. 1/1 of Vullikadai road. Estimate Rs. 1,40,000. R.D.F. (G.O. No. 4121, P.W., dated 11th October 1951.) Tanjore West Division.	14,512	17,290	Collection of materials in progress.
4 Constructing a bridge at M. 2/3 of Ambasamudram, Alangulam road. Estimate Rs. 3,50,000. P.W.R.D. (G.O. No. 1634, L.A., dated 25th September 1947.) Tirunelveli Division.	33,313	57,420	Work is in progress.

II. Cement-concreting and black-top works—Nil.

III. New formations.

1 Forming a road connecting Inkolu to Muppavaram on G.N.T. road. Estimate Rs. 1,34,000. Ongole Division.	12,178	17,486	Work is in progress.
2 Forming an all weather road from Allepalle to Medisettivarigudem. Estimate Rs. 1,50,000. Eluru Division.	1,13,807	1,13,940	Do.
3 Forming a jeepable road from Jeelugumalli to Allepalle. Estimate Rs. 1,39,000. Eluru Division.	10,171	10,171	Work is in progress.
4 Forming a road from Alur to Molagavalli. Estimate Rs. 2,00,000. P.W.R.D. Bellary Division.	48,569	43,679	Land acquisition being done. Work is in progress.
5 Forming a road from Halvi to Kuppagal. Estimate Rs. 1,35,000. P.W.R.D., Bellary Division.	9,446	9,446	Do.
6 Forming a road from Rajasingamangalam to Elayangudi road. Estimate Rs. 2,40,000. R.D.F. (G.O. No. 2190, L.A., dated 24th October 1949.) Ramanathapuram Division.	63,785	1,13,371	Most of major and 13 minor culverts are completed and drainage works done. Progress is held up for non-receipt of supply of cement.
7 Forming and gravelling road from Tuticorin to Tiruchendur. Estimate Rs. 4,08,000. P.W.R.D. (G.O. No. 2263, L.A., dated 27th November 1950.) Tirunelveli Division.	1,81,088	2,03,696	Work is in progress.
8 Forming a road from Elayirampennai to Guhanparai. Estimate Rs. 1,22,000. P.W.R.D. (G.O. No. 1634, L.A., dated 25th September 1947.) Ramanathapuram	8,302	43,112	Work is expected to be completed in 1952-53.

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimate cost (classification and division.)	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
	RS.	RS.	

B. DISTRICT BOARD WORKS—cont.

III. New formations—cont.

9 Forming a road from Taliparamba-Kanhirangad — Chapparayadavu Naduvil road. Estimate Rs. 2,04,000. P.W.R.D., Malabar North Division.	24,510	1,59,014	Work is in progress.
10 Forming a road from Padiochal to Pulingome. Estimate Rs. 1,54,000. Ex. P.W.R.D., Malabar North Division.	3,289	1,05,522	Do.
11 Forming a branch road from Cannanore-Irukkur road to Mayil Kayaalam. Estimate Rs. 2,63,000. Ex. P.W.R.D., Malabar North Division.	30,079	91,559	Do.
12 Forming a road from Chapparayadavu to Kuttur. Estimate Rs. 2,39,000. Ex. P.W.R.D., Malabar North Division.	27,061	1,15,418	Do.
13 Forming Ullalacheruvu Mavivemulu-Remidicherla road. Estimate Rs. 1,20,000. G.O. No. 2263, L.A., dated 27th November 1950. P.W.R.D., Kurnool district.	..	220	....
14 Forming a road Nandyal-Ongole road to Pitigayagulla Korrapalli (via) Madapullala Cheruvu. Estimate Rs. 1,00,000. P.W.R.D. (G.O. No. 2263, L.A., dated 27th November 1953). Kurnool district.	15	15	....
15 Forming a road from Kanigiri to Darsiguntapeta via Mogallur, Gogulapalli and Chandrasekharpuram. Estimate Rs. 1,22,000. Nellore district.	20,304	31,013	....

IV. Improvements and special repairs.

1 Metalling unmetalled portion of Narasapur-Bheemavaram road. M. 11/2 to 13/7. Estimate Rs. 1,51,000. R.D.F., Eluru Division.	6,044	52,765	Work is nearing completion.
2 Forming and metalling road from Polukonda to Putlacheruvu Railway Station. Estimate Rs. 3,22,000. R.D.F., Krishna Division.	91,955	91,955	Work is in progress.
3 Metalling Thukur-Thadikonda road. Estimate Rs. 2,50,000. Ex. P.W.R., Guntur Division.	384	13,835	Collection of materials is in progress.
4 Metalling road from Pedavadlapudi crossing to Pedapalem crossing. Estimate Rs. 1,17,000. P.W.R., Guntur Division.	5,224	8,268	Do.
5 Metalling Adavula-Deevi village road including construction of bridges and culverts. Estimate Rs. 3,50,000. P.W.R., Guntur Division.	37,674	2,23,225	Metalling was completed. Culverts at M. 0/5, 3/1 and bridge at M. 6/6 are in progress and are held up for want of steel.
6 Metalling road from Repalle to Thurumella. Estimate Rs. 4,00,000. P.W.R., Guntur Division.	88,622	2,41,835	Metalling was completed for a length of 5 miles out of 9 miles.
7 Metalling the road from Arepalli to Pudivada and on to meet M. 12/2 of Repalle-Pittalavaripalam road. Estimate Rs. 1,14,000. P.W.R., Guntur Division.	7,540	31,682	Work is in progress.
8 Metalling the road from M. 19/6 of Guntur-Hanumanulapalem to Vallabhapuram. Estimate Rs. 2,40,000. P.W.R., Guntur Division.	..	299	The alignment of the road is still undecided. The matter is pending with President, District Board.
9 Metalling Ponnur-Pandarapadu road. Estimate Rs. 3,30,000. P.W.R., Guntur Division.	60,248	1,35,758	Metalling is in progress.
10 Forming and metalling of road from Kondamudi to Nizampatam canal. Estimate Rs. 1,20,000. P.W.R., Guntur Division.	33,244	46,946	One mile of road was formed and materials are being collected in rest of stretches.

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(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number name of work and estimate cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
B. DISTRICT BOARD WORKS—cont.			
IV. Improvements and special repairs—cont.			
11 Metalling M. 6/2 to 12/3 of Repalli-Pittalavripalem road. Estimate Rs. 3,18,000. P.W.R., Guntur Division.	20,268	1,71,147	Metalling has been done for three miles.
12 Metalling road from Pudivada to Pittalavripalem and Khajipalem road M. 12/3 to 19/0. Estimate Rs. 3,08,000. P.W.R., Guntur Division.	81,566	1,27,328	Metal was laid from M. 14/6 to 15/6. Soling was laid from M. 12/3 to 18/5.
13 Metalling the road from Pedapuri to Bhattiprolu (via) Peravadiapalem, Peravole and Chavali. Estimate Rs. 4,56,000. P.W.R., Guntur Division.	1,43,042	2,07,543	Out of 9 miles 3 furlongs, metal was laid on 4 miles 1 furlong.
14 Metalling Pusulur to Kommur road. Estimate Rs. 1,36,000. P.W.R., Ongole Division.	13,437	75,212	Work is in progress.
15 Metalling Soorareddipalem to Madamur (via) Itamukkala. Estimate Rs. 4,00,000. P.W.R., Ongole Division.	43,811	1,00,169	Do.
16 Metalling road from Komali to Allur. Estimate Rs. 2,96,000. P.W.R., Ongole Division.	52,812	81,967	Do.
17 Metalling Bettur to Appikatla-Buddam road. Estimate Rs. 3,10,000. P.W.R., Ongole Division.	6,173	28,475	Do.
18 Metalling road from Chandrapalem to Peruntalagudem road. Estimate Rs. 1,42,000. P.W.R., Kakinada Division.	16,119	1,36,105	Do.
19 Metalling Vuyyur-Telaprolu road, M. 3/0 to 6/4. Estimate Rs. 2,70,000. P.W.R., Krishna Division.	38,106	1,68,555	Do.
20 Metalling Kodali-Ghantasala road, M. 0/0 to 3/4. Estimate Rs. 2,63,000. P.W.R., Krishna Division.	28,296	2,27,530	Do.
21 Metalling Dosapadu-Jonnapadu-Kudava village road. Estimate Rs. 3,50,000. P.W.R., Krishna Division.	57,137	1,67,401	Do.
22 Forming and metalling road from Penugolanu to Korihera (via) Vutukur. Estimate Rs. 2,00,000. P.W.R., Krishna Division.	26,846	87,987	Do.
23 Metalling road from Kovvalli to Jogannapalem (via) Dundulur up to M. 7/7 of Eluru-Jangareddigudem road. Estimate Rs. 1,50,000. P.W.R., Eluru Division.	18,005	1,02,899	Work is nearing completion.
24 Metalling Dommennu-Lankalakoderu road. Estimate Rs. 5,51,000. P.W.R., Eluru Division.	74,637	3,82,441	Do.
25 Metalling the road from Rajanagaram to Gangavaram (via) Kathunga-Podagatlapalle-Ithokota Ganti. Estimate Rs. 1,77,000. P.W.R., Rajahmundry Division.	24,137	80,048	Work is almost completed.
26 Metalling Kudligi-Hosahalli road. Estimate Rs. 1,74,000. P.W.R.D., Bellary Division.	6,174	6,174	Out of 20 miles proposed for metalling, work is in progress in 5 miles only and for the remaining portion no reasonable tenders are received.
27 New metalling Kalva-Gadivamula road. Estimate Rs. 1,00,000. Kurnool Division.	18,679	64,048	....
28 New metalling Kowlur-Gonavaram road. Estimate Rs. 2,50,000. Kurnool Division.	35,849	94,560	....
29 Metalling road from Thogur to Ayam-pet M. 0/5 to 7/0. Estimate Rs. 1,07,700. P.W.R.D. (G.O No. 2263,	79,153	86,650	Work is nearly completed.

(i) Review of works costing over Rs. 1 lakh in progress—cont.

Serial number, name of work and estimated cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	

B. DISTRICT BOARD WORKS—cont.

IV. Improvements and special repairs—cont.

30 New metalling Kalva-Gadivemula road. Estimate Rs. 1,00,000. P.W.R.D. (G.O. No. 2410, L.A., dated 30th November 1949), Kurnool district.	18,677	64,046	....
31 New metalling Kowlur-Gonavaram road, M. 6/3. Estimate Rs. 2,50,000. P.W.R.D. (G.O. No. 2410, L.A., dated 30th November 1949), Kurnool district.	37,849	96,560	....

(ii) Review of works costing over Rs. 1 lakh each completed during the year 1951-52.

A. GOVERNMENT WORKS.

I. Bridges and culverts.

1 Constructing a causeway across Goddar river at M. 8/7 and 8 of Amubur-Satghur road. Estimate Rs. 1,07,300. R.D.F., North Arcot Division.	19,013	1,05,886	The bridge is situated in an important major District Road. This causeway provides facilities to convey foodstuffs and other agricultural produce to Ambur.
2 Constructing a bridge across the Cauveri river at Pugalur. Job No. 188. M.D. 7. Estimate Rs. 28,50,000. P.W.R.D., Pugalur Bridge Division.	11,08,763	31,75,878	Work completed and opened for traffic on 23rd December 1951.
3 Remodelling the girder bridge at M. 41/7-8 of Salem-Cuddalore road. Estimate Rs. 1,71,000. P.W.R.D., Salem South Division.	37,373	1,49,013	Work completed in February 1952.

II. Cement concrete and black-top works.

1 Laying cement concrete surfacing on G.N.T. road from M. 271/3-104 to 276/3-104. Estimate Rs. 3,43,000. R.D.F. (G.O. No. 266, L.A., dated 8th December 1949), Krishna Division.	11,436	3,10,730	....
2 Cement-concreting M. 34/0 to 39/5-354 of Masulipatnam-Hyderabad road. Estimate Rs. 4,64,000. P.W.R. (G.O. No. 504, P.W., dated 15th February 1949), Krishna Division.	85,522	5,66,460	....
3 Providing black-top surface to Nellore-Bombay road, M. 327/4 plus 300 to 332/0. Estimate Rs. 1,90,000. P.W.R.D., Bellary Division.	9,257	1,83,397	....
4 Cement-concreting Ranipet-Krishnagiri road, M. 87/2 to 90. Estimate Rs. 2,45,000. P.W.R.D., North Arcot Division.	1,64,215	2,17,270	Prior to laying cement concrete the road was in a very bad condition subject to public criticisms. The cement-concrete pavement has given much relief especially to motorists. This road is an important trunk road carrying more than 2,500 tons of traffic a day.
5 Cement-concreting M. 290/0 to 295/4 of N.H. 7, Job 227, M.D. 7. Estimate Rs. 5,28,000. P.W.R.D., Madurai Division.	11,600	4,95,525	The work was completed in 1950-51. Final bill was paid during this year and completion report sent.
6 Cement-concreting Tanjore-Tiruvadi road, (a) Tanjore Railway Station and 0/1-1/3; (b) Tanjore Railway Station M. 1/1 to Tanjore Municipal limits. Estimate Rs. 1,04,000. P.W.R.D., Tanjore West Division.	3,438	80,021	Work executed with 25 per cent contribution from Tanjore Municipality.
7 Cement-concreting 8 miles of Tuticorin-Palayamkottai road. Estimate Rs. 3,72,000. P.W.R.D., Tirunelveli Division.	430	3,48,907	The work was completed in 1950-51. Accounts of the work finally closed during the year.

(ii) Review of works costing over Rs. 1 lakh each completed during the year 1951-52—cont.

Serial number, name of work and estimated cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
A. GOVERNMENT WORKS—cont.			
II. Cement concreting and black-top works—cont.			
8 Cement-concreting Benares-Cape Camorin road, mile 219 to 228. Estimate Rs. 6,21,000, P.W.R.D., Salem North Division.	2,23,339	5,58,479	Work was completed and opened for traffic on 26th August 1951 and it lies on an important trunk road which is a heavy feeder for traffic to Salem town from Bangalore and to all northern taluks of Salem district.
9 Improving and providing cement concrete in miles 71/0 to 81/4 of Trichirappalli-Salem road. Estimate Rs. 9,53,000, P.W.R.D., Salem South Division.	2,63,119	8,00,072	Work completed in March 1952.
10 Cement-concreting G.N.T. road mile 4/5 to 13/0. Estimate Rs. 5,50,000, P.W.R.D., Chingleput Division.	1,61,808	5,37,810	Work completed.
11 Providing asphaltic concrete surfacing and other improvements to Chingleput-Kancheepuram road, mile 37 to 40. Estimate Rs. 1,75,000, P.W.R.D., Chingleput Division.	37,353	1,42,546	Do.

III. New formations—Nil.**IV. Improvements and special repairs.**

1 Widening and metalling canal slopes of N.P. road, M. 14/0 to 23/3. Estimate Rs. 2,25,000. Ex. P.W.R., Eluru Division.	43,729	2,24,978	....
2 Metalling the road from Tirumolla to Chandole. Estimate Rs. 1,60,000, P.W.R. (G.O. No. 4102, P.W., dated 19th October 1948), Guntur Division.	14,921	1,58,812	....
3 Metalling Repalli-Nizampatam road, M. 5/0 to 5/7. Estimate Rs. 3,80,000, P.W.R., Guntur Division.	7,994	3,88,882	....
4 Improvements to the causeway across Vaigai river in Madurai Municipal limits. Estimate Rs. 1,50,000, P.W.R.D., Madurai Division.	(—) 11,728	1,57,989	Work executed with 25 per cent contribution from Madurai Municipality.
5 Metalling Tiruchirappalli-Pudakottai road. Estimate Rs. 1,42,000, P.W.R.D., Tiruchirappalli Division.	62,313	1,30,325	Work completed in February 1952.

B. DISTRICT BOARD WORKS.**I. Bridges and culverts.**

1 Constructing a bridge across Bandar canal near Vurutur. Estimate Rs. 1,30,000, R.D.F., Krishna Division.	72,894	1,14,350	....
2 Constructing Punthavoor bridge at M. 25/1 of Edappal-Kanhur road. Estimate Rs. 1,63,000, R.D.F., Malabar South Division.	73,319	1,39,535	Work completed and Revised estimate submitted for sanction.

II. Cement-concreting and black-top works—Nil.**III. New formations.**

1 Extending Thadagam-Mangarai road to Analkatty-Mannarghat. Estimate Rs. 1,14,000, R.D.F., Coimbatore Division.	17	1,16,946	Work completed in 1950-51, but final payment not made for want of sanction to Revised estimate.
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(ii) Review of works costing over Rs. 1 lakh each completed during the year 1951-52—cont.

Serial number, name of work and estimated cost (classification and division).	Expenditure during the year.	Expenditure to end of the year.	Remarks.
(1)	(2)	(3)	(4)
RS.	RS.	RS.	
B. DISTRICT BOARD WORKS—cont.			
IV. Improvements and special repairs.			
1 Metalling the road from Kollur to Vellatur. Estimate Rs. 1,66,520, P.W.R., Guntur district.	267	1,60,680	....
2 Metalling road from Amarthalur to Panchalapuram (via) Gudavali. Estimate Rs. 1,14,000, P.W.R., Guntur district.	34,476	1,30,560	....
3 Metalling road from Gudivada to Polukonda. Estimate Rs. 1,54,000, P.W.R., Krishna Division.	68,423	1,80,027	....
4 Metalling Vuyyur-Telaprolu road, miles 3/0 to 6/4. Estimate Rs. 1,90,000, P.W.R., Krishna Division.	4,271	1,34,720	....
5 Metalling Dondapadu village road. Estimate Rs. 1,44,000, P.W.R., Krishna Division.	1,000	1,32,778	....

ANNEXURE 23.

(i) Review of works costing less than Rs. 1 lakh each in progress during 1951-52.

Serial number and name of division.	Government works.			District Board works.			Remarks.	Total number of works.	Total cost.		Remarks.
	(1)	(2)	(3)	(4)	(5)	(6)			(7)	(8)	
			RS.	RS.	(5)	(6)			RS.	RS.	(9)
<i>I. Bridges, culverts and causeways.</i>											
1 Guntur, South	..	4	3,57,500	1,15,000	....	10	1,99,000	50,000	....	....	....
2 Do. North	..	5	2,71,600	1,76,178	....	13	5,31,300	3,33,330	....	....	....
3 Krishna	..	1	6,100	3,494	....	2	1,01,000	25,060	....	....	....
4 West Godavari	..	6	1,29,400	85,800	....	5	6,200	5,330	....	....	....
5 Rajahmundry	..	1	12,000	859	....	5	88,800	39,160	....	....	....
6 East Godavari	..	4	31,950	41,012	....	15	1,77,220	1,21,133	....	....	....
7 Visakhapatnam	..	5	3,21,000	1,38,497	....	..	..	..	....	....	....
8 Srikakulam	..	1	4,200	1,554	....	3	92,900	87,900	....	....	....
9 Anantapur	..	3	2,09,000	1,50,863	....	1	89,000	31,511	....	....	....
10 Bellary	..	1	22,500	15,612	....	16	3,00,650	1,30,320	....	....	....
11 Chingleput	..	2	1,05,500	93,433	....	5	1,17,000	38,434	....	....	....
12 Chittoor	..	3	1,42,700	1,32,972	....	3	79,500	38,599	....	....	....
13 Cuddapah	..	1	85,000	978	....	3	1,87,500	35,253	....	....	....
14 Kurnool..	..	5	2,86,000	1,00,370	....	5	2,70,200	47,068	....	....	....
15 Nellore ..	..	1	64,500	32,343	....	5	43,650	26,950	....	....	....
16 North Arcot	..	7	3,73,450	1,52,762	....	4	1,14,600	39,065	....	....	....
17 South Arcot	..	5	2,87,300	61,353	....	10	96,120	3,910	....	....	....
18 Tanjore, East	..	..	..	..		51	1,67,000	97,867	....	....	....
19 Tanjore, West	..	6	92,300	69,443	....	2	1,24,000	8,553	....	....	....
20 Tiruchirappalli	..	..	..	..		..	..	..			
21 Madurai ..	..	..	..	..		..	..	..			
22 Ramanathapuram	..	..	..	..		..	..	..			
23 Tirunelveli	..	3	2,27,000	1,00,365	....	12	1,54,420	87,217	....	....	....
24 Salem, North	..	11	7,59,700	4,41,843	....	14	4,30,850	1,69,113	....	....	....
25 Bharathapuzha	..	..	..	..		..	..	..			
26 Malabar, South	..	9	1,24,200	20,228	....	12	41,700	49,879	....	....	....
27 South Kanara	..	7	3,71,500	34,361	....	4	24,080	2,362	....	....	....
28 Coimbatore, North	..	3	37,500	20,902	....	12	51,210	34,443	....	....	....
29 Salem, South	..	8	16,500	10,879	....	15	5,66,100	64,802	....	....	....
30 Coimbatore, South	..	..	..	..		7	20,000	19,162	....	....	....
31 The Nilgiris	..	3	1,10,000	18,111	....	4	74,050	20,370	....	....	....
32 Malabar, North	..	7	3,64,000	21,955	....	3	1,05,600	35,173	....	....	....
Total	..	112	48,62,400	21,51,472	....	241	42,55,100	15,94,224	....	....	....

II. Cement-concrete and black-top works.

Serial number and name of division.	Government works.			District Board works.			Remarks.	Total number of works.	Total cost.		Remarks.
	(1)	(2)	(3)	(4)	(5)	(6)			(7)	(8)	
			RS.	RS.	(5)	(6)			RS.	RS.	(9)
<i>II. Cement-concrete and black-top works.</i>											
1 Guntur, South	..	..	..	..		..	..	..	..	..	
2 Do. North	..	..	..	..		..	..	..	..	..	
3 Krishna	..	..	..	..		..	..	..	..	..	
4 West Godavari	..	..	..	..		..	..	..	..	..	
5 Rajahmundry	..	..	..	..		..	..	..	..	..	
6 Visakhapatnam	..	..	..	..		..	..	..	..	..	
7 East Godavari	..	14	3,39,005	1,45,559	....	..	..	..	..	..	....
8 Srikakulam	..	12	4,63,000	1,90,412	....	1	88,000	19,144	....	....	....
9 Anantapur	..	..	..	..		..	..	..	..	..	
10 Bellary	..	..	..	..		..	..	..	..	..	
11 Chingleput	..	2	1,20,000	80,562	....	..	..	..	..	..	....
12 Chittoor	..	..	..	..		..	..	..	..	..	
13 Cuddapah	..	1	97,500	62,790	....	..	..	..	..	..	....
14 Kurnool	..	..	..	..		..	..	..	..	..	
15 Nellore	..	..	..	..		..	..	..	..	..	
16 North Arcot	..	1	80,000	2,037	....	..	..	..	..	..	....
17 South Arcot	..	3	15,91,000	2,27,652	....	..	..	..	..	..	....
18 Tanjore, East	..	..	..	..		..	..	..	..	..	
19 Do. West	..	2	93,900	1,01,231	....	2	14,300	2,834	....	....	....
20 Tiruchirappalli	..	8	8,23,800	1,86,385	....	..	..	..	..	..	....
21 Madurai	..	..	..	..		..	..	..	..	..	
22 Ramanathapuram	..	..	..	..		..	..	..	..	..	
23 Tirunelveli	..	2	1,08,000	59,306	....	..	..	..	..	..	....
24 Salem, North	..	11	6,21,000	2,23,339	....	..	..	..	..	..	....
25 Bharathapuzha Division	..	..	..	..		..	..	..	..	..	
26 Malabar, South	..	8	99,500	3,11,212	....	..	..	..	..	..	....
27 South Kanara	..	1	52,000	4,233	....	..	..	..	..	..	....
28 Coimbatore, North	..	..	..	..		..	..	..	..	..	
29 Salem, South	..	..	..	..		..	..	..	..	..	
30 Coimbatore, South	..	1	28,000	11,550	....	1	19,000	6,791	....	....	....
31 The Nilgiris	..	..	..	..		4	38,800	49,890	....	....	....
32 Malabar, North	..	..	..	..		..	..	..	..	..	
Total	..	66	40,11,705	16,06,318	....	8	1,98,600	78,659	....	....	....

(i) Review of works costing less than Rs. 1 lakh each in progress during 1951-52—cont.

Serial number and name of division.	Government works.			District Board works.		
(1)	Total number of works. (2)	Total cost. (3)	Total expenditure. (4)	Remarks. (5)	Total number of works. (6)	Total cost. (7)
		RS.	RS.			RS.
III. New formations.						
1 Guntur, South	..	..	..		58	34,12,000
2 Do. North	..	..	..		18	8,43,100
3 Krishna ..	..	..	..		8	3,42,800
4 West Godavari	..	..	..		10	29,050
5 Rajahmundry	..	..	..		4	98,200
6 East Godavari	1	27,000	8,317	....	3	50,000
7 Visakhapatnam	..	..	..		16	1,94,850
8 Srikakulam	..	..	..		5	1,72,500
9 Anantapur	..	75,600	71,593	....	22	2,91,950
10 Bellary	2	..	..	....	12	5,30,000
11 Chingleput	..	..	..		9	1,29,750
12 Chittoor	2	32,400	17,505	....	16	1,68,000
13 Cuddapah	..	..	..		30	5,26,100
14 Kurnool	..	..	..		..	..
15 Nellore	..	..	..		39	7,20,530
16 North Arcot	..	45,000	26,203	....	114	8,59,150
17 South Arcot	1	..	..	....	8	64,700
18 Tanjore, East	..	..	..		32	1,35,000
19 Do. West	..	..	..		37	3,59,110
20 Tiruchirappalli	..	..	..		94	6,40,750
21 Madurai	1	99,000	10,719	....	99	5,50,900
22 Ramanathapuram	..	..	..		83	3,13,793
23 Tirunelveli	..	..	..		39	7,05,800
24 Salem, North	..	..	..		46	4,75,000
25 Bharathapuzha	..	..	..		..	..
26 Malabar, South	..	..	..		..	..
27 South Kanara	..	..	..		..	..
28 Coimbatore, North	2	67,000	37,403	....	8	84,000
29 Salem, South	..	..	..		46	8,65,160
30 Coimbatore, South	..	..	..		20	2,18,772

31 The Nilgiris	..	..	..	....	1	20,000
32 Malabar, North	..	..	..	....	15	5,56,850
Total	9	3,46,000	1,72,300	....	896	1,28,66,490
						37,87,477

IV. Improvements and special repairs.

1 Guntur, South	2	1,28,000	49,000	....	8	3,75,000
2 Do. North	3	19,200	14,035	....	21	12,69,400
3 Krishna ..	16	5,06,220	2,70,357	....	12	4,80,000
4 West Godavari	2	1,54,000	1,66,950	....	14	1,10,100
5 Rajahmundry	4	58,100	25,354	....	8	1,63,900
6 East Godavari	7	1,24,650	61,212	....	7	79,700
7 Visakhapatnam	..	..	..	....	20	4,90,000
8 Srikakulam	15	1,44,650	96,946	....	8	3,89,300
9 Anantapur	3	64,800	34,579	....	6	39,000
10 Bellary	..	..	..	....	7	3,34,370
11 Chingleput	..	..	..	....	8	2,01,100
12 Chittoor	2	57,200	41,711	....	3	60,000
13 Cuddapah	4	1,21,100	58,898	....	3	1,00,500
14 Kurnool	..	..	..	....	8	2,87,500
15 Nellore	..	..	..	....	19	5,01,800
16 North Arcot	1	75,500	72,103	....	6	1,32,750
17 South Arcot	2	3,86,000	10,616	....	15	64,400
18 Tanjore, East	..	..	..	....	25	1,48,000
19 Do. West	..	..	..	....	9	2,83,400
20 Tiruchirappalli	..	..	..	....	..	..
21 Madurai	1	42,000	24,442	....	2	31,250
22 Ramanathapuram	..	..	..	....	5	25,300
23 Tirunelveli	..	..	..	....	..	..
24 Salem, North	..	..	..	....	7	87,700
25 Bharathapuzha	..	..	..	....	..	..
26 Malabar, South	..	..	..	....	3	78,100
27 South Kanara	4	1,58,800	55,117	....	15	3,45,360
28 Coimbatore, North	6	75,000	38,093	....	1	21,000
29 Coimbatore, South	..	..	..	....	..	..
30 The Nilgiris	..	..	..	....	6	1,27,000
31 Malabar, North	1	50,000	43,834	....	2	43,000
Total	73	21,65,220	10,59,687	....	217	54,65,530

(ii) Review of works costing less than Rs. 1 lakh each completed during the year 1951-52.

Serial number and name of division.	Government works.				District Board works.			
(1)	Number of works.	Total cost.	Total expenditure.	Remarks.	Number of works.	Total cost.	Total expenditure.	Remarks.
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		RS.	RS.			RS.	RS.	
<i>I. Bridges, culverts and causeways.</i>								
1 Guntur, South	..	..	..	Nil.	..	..	..	Nil.
2 Krishna...	..	..	..	..	..	..	..	..
3 Rajahmundry ..	..	..	..	..	..	..	..	..
4 Visakhapatnam ..	..	..	..	..	..	..	..	..
5 Srikakulam ..	..	..	..	..	..	..	..	..
6 Guntur, North	1	81,800	74,005	....	2	8,500	6,982	....
7 West Godavari	4	80,400	72,174	....	..	..	..	....
8 East Godavari	1	2,950	2,842	....	7	92,470	91,152	....
9 Anantapur ..	..	..	..	....	..	..	..	....
10 Bellary ..	2	84,900	74,939	....	..	..	..	....
11 Chingleput ..	1	32,700	23,103	....	1	6,900	5,780	....
12 Chittoor ..	..	..	..	....	1	14,000	8,393	....
13 Cuddapah ..	2	26,350	27,049	....	2	9,400	10,343	....
14 Kurnool ..	..	..	..	....	..	..	..	....
15 Nellore ..	..	..	..	....	..	..	..	....
16 North Arcot ..	9	3,20,000	3,11,974	....	2	27,700	24,556	....
17 South Arcot ..	..	..	..	....	1	440	46	....
18 Tanjore, East ..	..	..	..	....	18	34,850	19,505	....
19 Tanjore, West ..	1	1,200	1,227	....	..	..	..	....
20 Tiruchirappalli ..	5	1,34,770	1,37,845	....	6	42,000	29,441	....
21 Madurai ..	..	..	..	....	..	..	..	....
22 Ramanathapuram ..	..	..	..	....	2	51,300	52,565	....
23 Tirunelveli ..	3	95,500	78,106	....	3	81,100	80,043	....
24 Salem, North ..	..	..	..	....	..	..	..	....
25 Bharathapuzha ..	..	..	..	....	..	..	..	....
26 Malabar, South ..	3	79,800	40,587	....	3	7,200	7,200	....
27 South Kanara ..	2	31,400	33,829	....	1	3,000	2,887	....
28 Coimbatore, North ..	1	18,000	15,542	....	1	5,000	890	....
29 Salem, South ..	2	30,500	25,665	....	..	..	..	....
30 Coimbatore, South ..	..	..	..	....	..	..	..	....
31 The Nilgiris ..	3	36,000	20,198	....	1	10,000	7,168	....
32 Malabar, North ..	6	81,800	743,937	....	..	..	..	....
Total ..	46	11,37,770	9,33,160	....	51	3,96,860	3,46,929	....

II. Cement concreting and black-top works.

Serial number and name of division.	Government works.				District Board works.			
(1)	Number of works.	Total cost.	Total expenditure.	Remarks.	Number of works.	Total cost.	Total expenditure.	Remarks.
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		RS.	RS.			RS.	RS.	
<i>II. Cement concreting and black-top works.</i>								
1 Guntur, South	..	..	..	Nil.	..	..	..	Nil.
2 Guntur, North ..	..	..	..	..	..	..	..	..
3 Krishna ..	..	..	..	..	..	..	..	..
4 West Godavari ..	..	..	..	..	..	..	..	..
5 Rajahmundry ..	..	..	..	..	..	..	..	..
6 Visakhapatnam ..	..	..	..	..	..	..	..	..
7 Srikakulam ..	..	..	..	..	..	..	..	..
8 East Godavari ..	..	..	..	..	..	..	..	..
9 Anantapur ..	2	78,800	54,945	....	..	..	..	..
10 Bellary ..	..	..	..	....	..	..	..	..
11 Chingleput ..	1	48,500	54,435	....	..	..	..	..
12 Chittoor ..	..	..	..	....	..	..	..	..
13 Cuddapah ..	..	..	..	....	..	..	..	..
14 Kurnool ..	..	..	..	....	..	..	..	..
15 Nellore ..	..	..	..	....	..	..	..	..
16 North Arcot ..	..	..	..	....	..	..	..	..
17 South Arcot ..	1	35,200	8,853	....	..	..	..	..
18 Tanjore, East ..	..	..	..	....	..	..	..	..
19 Tanjore, West ..	..	..	..	....	..	..	..	..
20 Tiruchirappalli ..	44	10,20,000	10,09,640	....	..	..	..	..
21 Madurai ..	..	..	..	....	..	..	..	..
22 Ramanathapuram ..	..	..	..	....	..	..	..	..
23 Tirunelveli ..	1	63,000	71,821	....	..	..	..	..
24 Coimbatore, North ..	1	5,100	5,146	....	..	..	..	..
25 Salem, South ..	1	51,000	38,364	....	..	..	..	..
26 Salem, North ..	..	..	..	....	..	..	..	..
27 Bharathapuzha ..	..	..	..	....	..	..	..	..
28 Malabar, South ..	..	..	..	....	..	..	..	..
29 South Kanara ..	..	..	..	....	..	..	..	..
30 Coimbatore, North ..	..	..	..	....	..	..	..	..
31 Coimbatore, South ..	..	..	..	....	..	..	..	..
32 The Nilgiris ..	..	..	..	....	..	..	..	..
33 Malabar North ..	..	..	..	....	..	..	..	..
Total ..	51	13,00,800	12,43,204	....	..	..	..	....

(ii) Review of works costing less than Rs. 1 lakh each completed during the year 1951-52—cont.

Serial number and name of division.	Government works.			District board works.		
(1)	Number of works. (2)	Total cost. (3) RS.	Total expenditure. (4) RS.	Remarks. (5)	Number of works. (6)	Total cost. (7) RS.
III. New formations.						
1 Guntur, North...	..	..	..	..	2	66,500
2 West Godavari ..	..	..	..	..	2	6,500
3 East Godavari ..	..	..	..	..	3	50,000
4 Guntur, South ..	..	..	..	..	..	..
5 Krishna ..	..	..	..	..	..	..
6 Rajahmundry ..	..	..	..	..	..	..
7 Visakhapatnam ..	..	..	..	..	..	..
8 Srikakulam ..	..	..	..	..	..	..
9 Anantapur ..	..	..	..	..	..	..
10 Bellary ..	..	..	..	..	..	..
11 Chingleput ..	..	..	..	..	..	..
12 Chittoor ..	..	..	..	..	..	..
13 Cuddapah ..	..	..	..	..	..	..
14 Kurnool ..	1	57,000	44,610	..	5	1,30,700
15 Nellore ..	..	..	..	..	1	26,500
16 North Arcot ..	..	..	..	..	12	98,550
17 South Arcot ..	..	..	..	..	1	4,940
18 Tanjore, East ..	..	..	..	..	6	38,080
19 Tanjore, West ..	..	..	..	..	..	..
20 Tiruchirappalli ..	..	..	..	..	10	97,000
21 Madurai ..	..	..	..	..	10	40,000
22 Ramanathapuram ..	..	..	..	..	..	..
23 Tirunelveli ..	..	..	..	..	5	1,44,000
24 Coimbatore, North ..	..	..	..	..	15	1,20,800
25 Salem, North ..	..	..	..	..	..	..
26 Bharatpur ..	..	..	..	..	..	..
27 Raigarh, South ..	..	..	..	..	..	..
28 Salem, South ..	..	..	..	..	..	..
29 Coimbatore, South ..	..	..	..	..	..	..
30 The Nilgiris ..	..	..	..	..	..	..
31 Malabar, North ..	..	..	..	..	..	..
Total	1	57,000	44,610	..	92	10,91,260
						8,77,374

Nil.

Nil.

IV. Improvements and special repairs.

Serial number and name of division.	Government works.			District board works.		
(1)	Number of works. (2)	Total cost. (3) RS.	Total expenditure. (4) RS.	Remarks. (5)	Number of works. (6)	Total cost. (7) RS.
1 Guntur, South ..	..	..	..	..	5	3,01,700
2 Rajahmundry ..	..	..	..	..	8	3,42,800
3 Visakhapatnam ..	..	..	..	..	2	38,500
4 Guntur, North ..	..	..	..	..	3	87,200
5 Krishna ..	1	93,000	88,600	..	3	1,49,000
6 West Godavari ..	4	40,250	35,696	..	..	..
7 East Godavari ..	..	..	..	..	..	..
8 Srikakulam ..	..	..	..	..	..	..
9 Godavari Bridges ..	1	73,350	5,469	..	..	..
10 Anantapur ..	..	..	..	..	..	..
11 Bellary ..	1	52,800	52,469	..	..	..
12 Chingleput ..	3	1,14,800	93,448	..	8	2,10,380
13 Chittoor ..	2	51,400	21,116	..	4	1,62,000
14 Cuddapah ..	1	14,500	2,398	..	1	22,500
15 Kurnool ..	1	33,000	45,885	..	4	92,000
16 Nellore ..	..	..	..	..	2	37,900
17 North Arcot ..	..	..	..	..	6	34,400
18 South Arcot ..	..	..	..	..	4	29,700
19 Tanjore, East ..	..	..	..	..	29	1,71,980
20 Tanjore, West ..	..	..	..	..	..	..
21 Tiruchirappalli ..	..	..	..	..	..	..
22 Madurai ..	..	..	..	..	..	..
23 Ramanathapuram ..	..	..	..	..	..	..
24 Tirunelveli ..	..	..	..	..	..	..
25 Coleroon ..	1	44,000	44,318	..	..	..
26 Salem, North ..	..	..	..	..	..	..
27 Bharatpur ..	..	..	..	..	..	..
28 Malabar, South ..	..	..	..	..	..	..
29 South Kanara ..	1	2,550	405	..	2	25,900
30 Coimbatore, North ..	..	..	..	..	20	88,210
31 Salem, South ..	..	..	..	..	..	..
32 Coimbatore, South ..	..	..	..	..	..	..
33 The Nilgiris ..	3	56,500	28,601	..	3	28,000
34 Malabar, North ..	1	31,000	29,024	..	2	25,200
Total	20	6,07,150	4,47,429	..	106	18,27,380
						14,83,744

Nil.

Nil.

Inventory of plant and machinery as on 31st March 1952—cont.

Serial number, name of plant and machinery.	Number available.	Serial number, name of plant and machinery.	Number available.
II CIRCLE.			
<i>Anantapur.</i>		<i>Transport and Machinery Division—cont.</i>	
1 Rollers	11	7 Vibrators	1
2 Heat-master	1	8 Heat masters	2
3 Lorries	2	9 Bull dozers	3
<i>Bellary.</i>		10 Dodge tipplers	1
1 Rollers	15	11 Workshop van	1
2 Lorries	5	12 Cinema vans	2
3 Stone-crusher	1	13 Pile-driving sets	2
4 Concrete-mixers	2	<i>Cuddapah.</i>	
5 Heat sprayer	1	1 Transport lorries	2
6 Pump-set	1	2 Water lorry	1
7 Barrow mixers	3	3 Power rollers	10
<i>Chingleput.</i>		4 Tar boilers	2
1 Rollers	24	5 Concrete mixer	1
2 Transport lorries	5	6 Steam road rollers	2
3 Concrete mixers	6	<i>Kurnool.</i>	
4 Grader	1	1 Rollers	10
5 Tar boilers	5	2 Lorries	9
6 Pump-sets diesel engine	5	3 Concrete mixer	1
7 Water lorry	1	4 Jeep	1
8 Diesel mack lorry	1	5 Land rover	1
9 Jeep	1	<i>Nellore.</i>	
10 Bull-dozer	1	1 Rollers	19
11 Laboratory van	1	2 Lorries	10
12 Air compressor	1	3 Tar boilers	2
13 Heat-masters	6	4 Heat-masters	2
14 Pegson cold-mixing plant	1	5 Barrow mixers	6
15 Millers asphalt mixer	1	6 Concrete mixers	3
16 Hand-operated mixing drums.	6	<i>North Arcot.</i>	
17 Hand pumps	11	1 Rollers	16
18 Barrow mixers	36	2 Lorries	3
<i>Chittoor.</i>		3 Concrete mixers	4
1 Rollers	15	4 Vibrator	1
2 Lorries	3	5 Pump-sets	2
3 Concrete mixers	2	6 Tar boiler	1
4 Tar boilers	6	7 Heat-masters	3
5 Jeeps	2	8 Barrow mixers	7
<i>Transport and Machinery Division.</i>		9 Drum mixers	4
1 Lorries	7	<i>Pennar Bridge Division.</i>	
2 Jeeps	3	1 Stone crusher	1
3 Rollers	141	2 Lorry	1
4 Tar boilers and sprayers	4	3 Air compressors	2
5 Graders	4	4 Mixers	5
6 Tractors	5	5 Jeep	1
		6 Pumps	5

Inventory of plant and machinery as on 31st March 1952—cont.

Serial number, name of plant and machinery.	Number available.	Serial number, name of plant and machinery.	Number available.
III CIRCLE.			
<i>South Arcot Division.</i>		<i>Ramanathapuram.</i>	
1 Power rollers	20	1 Power rollers	27
2 Transport lorries	8	2 Transport lorries	10
3 Jeep	1	3 Jeep	1
4 C.C. road channel forms	648 r.ft.	4 C.C. road channel forms	342 r.ft.
5 Tar boilers	3	5 Tar boilers	2
6 Hand-operated mixing drums.	16	6 Heat-masters	2
7 Barrow mixers	4	7 Hand-operated mixing drums	11
8 Concrete mixers	4	8 Barrow mixers	5
9 Pumps (Petrol-driven)	3	9 Concrete mixers	3
10 Pumps (Diesel engine)	1	10 Pumps (Petrol-driven)	2
11 Hand-pumps	2	11 Pumps (Diesel engine)	3
12 Pontoons	5	12 Hand pumps	5
13 Trailer wagons	8	13 Pontoons	6
14 Water tanks	5	14 Trailer wagons	19
15 Graders	1	15 Double Nissen shed	1
16 Stone-crusher	1	16 Water tank	1
17 Single Nissen shed	1	17 Motor grader	1
18 Bully blocks	1	<i>Tirunelveli.</i>	
19 Vibrators	2	1 Power rollers	15
20 Water carts	5	2 Transport lorries	7
21 Ramped cargo lighter	1	3 Tar boilers	1
<i>Tanjore East.</i>		4 Heat-master	1
1 Power rollers	13	5 Concrete mixers	2
2 Transport lorries	2	6 Pumps	4
3 Jeeps	2	7 Hand-pumps	2
4 Tar boiler	1	8 Pontoons	4
5 Heat-masters	1	9 Water tanks	5
6 Hand-operated mixing drums	4	10 Grader	1
7 Barrow mixers	6	11 Water carts	2
8 Concrete mixer	1	12 Jeep	1
9 Pump (Petrol driven)	2	<i>Coleroon Bridge Division.</i>	
10 Hand-pumps	2	1 Transport lorry	1
11 Pontoons	4	2 C.C. road channel forms	810 r.ft.
12 Water tanks	8	3 Concrete mixers	2
13 Tar mixing rotary drums	2	4 Pumps (Diesel engine)	3
14 Single cylinder and two-men hand pumps.		5 Pontoons	20
<i>Madurai Division.</i>		6 Bully blocks	6
1 Power rollers	27	7 Vibrators	2
2 Transport lorries	11	8 Ramped cargo lighter	1 part.
3 Jeeps	3	9 Tractor	1
4 Tar boilers	2	10 Tram lines	1½ miles.
5 Barrow mixers	6	11 Tipping trucks	15
6 Concrete mixers	4	12 Air compressors	7
7 Pumps (Diesel engine)	2	13 Crabs	6
8 Dodge trapper	1	14 Winches	6
9 Land Rover	1	15 Sheet steel piles	30

Inventory of plant and machinery as on 31st March 1952—cont.

Serial number, name of plant and machinery.	Number available.	Serial number, name of plant and machinery.	Number available.
III CIRCLE—cont.			
<i>Pugalur Bridge Division.</i>		<i>Tiruchirappalli.</i>	
1 Double Nisson shed	1	1 Power rollers	21
2 Ramped cargo lighter	1	2 Transport lorries	9
3 Clay driggers	2	3 Jeep	1
4 Boring set	1	4 Tar boiler	1
<i>Tanjore, West.</i>		5 Heat-masters	4
1 Power rollers	14	6 Hand-operated mixing drums	60
2 Transport lorries	4	7 Barrow mixers	6
3 Tar boilers	2	8 Concrete mixers	2
4 Heat-master	1	9 Pumps (Diesel engine)	2
5 Barrow mixer	1	10 Double Nisson sheds	2
6 Concrete mixers	2	11 Vibrator	1
7 Double Nisson shed	1	12 Land Rover	1
8 Water-carts	9	13 Water lorries	2
9 Asphalt mixer	1	IV CIRCLE.	
10 Jeep	1	<i>Salem, North.</i>	
<i>Salem, North.</i>		<i>Salem, South.</i>	
1 Rollers	10	1 Rollers	15
2 Tar boilers	3	2 Tar boilers	2
3 Concrete mixers	6	3 Concrete mixer	1
4 Pump-sets	2	4 Lorries	4
5 Lorries	4	5 Jeep	1
6 Jeep	1	6 Barrow mixers	9
<i>Malabar, South.</i>		7 Heat master	1
1 Rollers	19	<i>Coimbatore, South</i>	
2 Tar boilers	2	1 Rollers	22
3 Concrete mixture	1	2 Lorries	15
4 Lorries	8	3 Jeeps	2
5 Jeeps	2	<i>The Nilgiris Division.</i>	
6 Barrow mixers	12	1 Rollers	10
7 Heat-master	1	2 Lorries	3
<i>South Kanara.</i>		3 Jeeps	2
1 Rollers	14	4 Stone-crusher	1
2 Tar boiler	1	<i>Malabar, North.</i>	
3 Lorries	6	1 Rollers	13
4 Heat-masters	2	2 Tar boilers	2
<i>Coimbatore, North.</i>		3 Concrete mixers	2
1 Rollers	18	4 Pump-sets	2
2 Lorries	7	5 Lorries	6
3 Jeeps	2	6 Jeeps	2
4 Barrow mixers	4	7 Barrow mixers	4
5 Heat-masters	2	8 Heat-master	1

ANNEXURE 26.

Statement of Avenues.

Serial number and name of division.	Government roads.					
	Total mileage.	Number of avenues.	Number newly planted during the year.	Number of new plantations that have survived.	Expenditure.	Income.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
I CIRCLE.						
1 Guntur, South	379	44,241	5,780	5,780	44,489	11,723
2 Guntur, North	288	40,949	4,532	3,453	28,657	14,169
3 Krishna	464	38,194	4,413	4,002	84,535	13,715
4 West Godavari	512	12,449	7,466	5,076	33,500	3,781
5 Rajahmundry Division	435	45,864	1,295	1,239	7,239	4,835
6 East Godavari	259	14,843	1,063	1,010	12,755	4,606
7 Visakhapatnam, South	485	95,099	3,700	1,700	13,897	7,710
8 Visakhapatnam, North	529	51,278	7,030	4,980	4,693	2,380
9 Anakapalle Special	64	550	800	550	917	21
II CIRCLE.						
10 Anantapur	570	20,214	5,916	5,916	8,335	11,483
11 Bellary	557	17,834	1,696	967	11,574	1,730
12 Chingleput	658	64,767	8,216	8,216	74,925	18,974
13 Chittoor	735	51,821	13,907	12,561	66,792	16,867
14 Cuddapah	424	19,895	1,834	1,262	..	1,449
15 Kurnool	662	9,261	4,988	3,862	35,317	4,476
16 Nellore	604	1,600	50,000	3,000	6,146	1,377
17 North Arcot	660	88,603	13,800	11,098	47,841	69,231
III CIRCLE.						
18 South Arcot	563	62,898	7,155	5,944	51,078	34,751
19 Tanjore, East	279	37,983	7,403	4,267	16,817	18,738
20 Tanjore, West	396	37,600	4,888	2,863	8,573	27,143
21 Tiruchirappalli	775	99,005	2,942	2,510	67,852	83,691
22 Madurai	657	1,065	2,740	1,390	3,374	32,571
23 Ramanathapuram	464	51,266	1,754	1,486	14,001	11,908
24 Tirunelveli	460	15,089	1,979	1,698	20,631	19,274
IV CIRCLE.						
25 Salem, North	422	48,534	565	524	25,574	61,073
26 Bharathpuzha	..	448	..	..	814	..
27 Malabar, South	607	9,060	1,126	624	6,093	45,775
28 South Kanara	689	43,643	2,794	2,700	1,653	6,269
29 Coimbatore, North	497	22,159	4,796	4,796	39,434	4,350
30 Salem, South	391	29,504	..	..	42,826	43,258
31 Coimbatore, South	553	11,580	2,602	1,367	6,416	17,820
32 The Nilgiris	207	63	..	..	..	..
33 Malabar, North	354	17,705	5,894	5,894	1,851	8,488
Total	15,599	1,195,064	183,074	110,735	* 7,88,599	6,03,626

* The amount includes expenditure incurred towards development of avenue in Guntur North, West Godavari, Rajahmundry, Chingleput, North Arcot, Salem North and Malabar South Divisions.

Statement of Avenues—cont.

	District Board roads.					
	Total mileage.	Number of avenues.	Number newly planted during the year.	Number of new plantations that have survived.	Expenditure.	Income.
	(8)	(9)	(10)	(11)	(12)	(13)
					RS.	RS.
I CIRCLE.						
1 Guntur, South	355	20,229	3,221	3,221	3,254	..
2 Guntur, North	541	5,617	4,501	4,373	1,269	..
3 Krishna	851	15,027	3,023	2,807	16,189	1,106
4 West Godavari	579	6,397	5,065	4,644	3,049	957
5 Rajahmundry Division..	349	8,992	443	337	794	604
6 East Godavari	599	10,227	333	315	2,140	2,455
7 Visakhapatnam, South ..	421	18,436	..	..	..	1,519
8 Visakhapatnam, North ..	394	9,342	901	544	1,532	552
9 Anakapalle Special	..	..	..	..	..	..
II CIRCLE.						
10 Anantapur	732	10,507	3,292	3,292	4,927	4,884
11 Bellary	612	2,929	..	..	..	1,833
12 Chingleput	1,079	24,689	4,274	4,274	7,684	1,754
13 Chittoor	1,009	18,011	3,011	2,472	14,074	3,467
14 Cuddapah	596	3,302	2,006	1,010	..	668
15 Kurnool	595	2,984	695	695	..	1,304
16 Nellore	754	2,100	4,000	2,000	3,092	875
17 North Arcot	1,017	56,401	4,189	2,853	6,000	21,040
III CIRCLE.						
18 South Arcot	1,467	59,896	5,364	4,419	10,609	27,265
19 Tanjore, East	1,113	36,054	2,386	1,610	8,710	13,558
20 Tanjore, West	971	34,053	6,514	4,417	7,442	11,718
51 Tiruchirappalli	1,560	40,131	2,723	2,000	30,652	23,310
22 Madurai	1,156	860	2,370	1,220	..	7,049
23 Ramanathapuram	890	31,773	1,419	1,200	16,748	2,719
24 Tirunelveli	962	8,977	1,514	1,213	8,105	8,185
IV CIRCLE.						
25 Salem, North	865	38,047	286	270	2,924	..
26 Bharathpuzha	..	..	..	..	..	..
27 Malabar, South	501	26,672	571	489	2,548	5,564
28 South Kanara	778	19,146	1,500	1,300	45	1,588
29 Coimbatore, North	1,437	16,906	2,587	2,587	5,639	5,733
30 Salem, South	795	15,537	4,110	3,110	20,238	..
31 Coimbatore, South	1,067	6,335	673	600	2,757	..
32 The Nilgiris	386	69	..	..	..	..
33 Malabar, North	526	31,101	965	965	2,301	9,391
Total	24,957	580,747	71,936	58,237	1,82,722	1,59,098

ANNEXURE 27.

Statement showing the particulars of encroachments detected and disposed of during the year 1951-52.

Serial number and name of district.	(i) Government Roads.									
	Number of encroachments pending disposal at the commencement of the year.		Number of encroachments detected during the year.		Number of objectionable encroachments evicted during the year.		Number of objectionable encroachments pending disposal at the end of the year.		Unobjectionable.	
	Municipal Non-municipal area.		Municipal Non-municipal area.		Municipal Non-municipal area.		Municipal Non-municipal area.		Municipal Non-municipal area.	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1 Visakhapatnam North	..	185	..	28	..	8	..	3	..	15
2 Visakhapatnam South	2,366	17	750	11	249	..	1,373	23	1,419	75
3 East Godavari	329	200	273	311	297	..	243	32	62	227
4 West Godavari	..	1,637	..	31	..	..	..	1	..	209
5 Guntur	..	..	..	..	..	..	..	..	..	..
6 Krishna	654	1,059	978	457	953	815	161	83	133	422
7 Nellore	855	746	..	851	96	..	7	..	5	831
8 Kurnool	10	..	..	..	..	..	..	..	10	..
9 Bellary	25	283	213	292	5	73	25	387	34	25
10 Anantapur	161	..	446	45	385	..	46	..	38	45
11 Cuddapah	..	29	22	124	..	..	..	..	22	135
12 Chittoor	39	..	9	..	3	..	2	..	..	..
13 North Arcot	1,411	2,584	506	331	639	536	152	632	777	461
14 Chingleput	..	..	..	..	..	..	..	..	..	..
15 South Arcot	418	321	345	659	312	7	35	157	7	563
16 Salem	2,307	663	89	352	81	6	123	143	78	772
17 Coimbatore	283	733	31	608	3	384	2	198	..	348
18 Tiruchirappalli	21	1,362	..	278	..	54	..	395	21	492
19 Tanjore	161	365	1,538	223	429	70	713	56	604	168
20 Madurai	98	596	209	135	1	..	89	152	16	205
21 Ramanathapuram	1,283	27	1,210	..	1,649	27	74	..	250	..
22 Tirunelveli	775	2,234	..	37	..	1,013	..	24	..	4
23 The Nilgiris	46	..	..	32	..	..	..	1	..	94
24 South Kanara	58	128	64	59	60	25	4	50	7	108
25 Malabar	..	21	10	25	..	7	..	8	10	16
Total	11,290	13,275	6,820	4,801	5,162	3,075	3,049	2,344	3,493	5,280
										4,740
										9,083

NOTE.—The particulars in respect of Chingleput and Guntur districts were not received.

Statement showing the particulars of encroachments detected and disposed of during the year 1951-52—cont.

(ii) District Board Roads.

Serial number and name of district.	Number of encroachments pending disposal at the commencement of the year.		Number of encroachments detected during the year.		Number of unobjectionable encroachments licensed during the year.		Number of objectionable encroachments evicted during the year.		Number of encroachments pending disposal at the end of the year.									
	(2)	Non-municipal area.	(3)	(4)	Non-municipal area.	(5)	(6)	(7)	(8)	Non-municipal area.	Objectionable.		Non-municipal area.					
											Municipal area.	(10)		Municipal area.	(11)			
(1)																		
1 Guntur, South	..	..	..	..	13	..	..	1	..	..	..	..	12	..	..	..	..	..
2 Guntur, North	..	..	..	..	107	..	..	19	..	5	..	..	41	..	..	..	42	..
3 Krishna	..	..	37	..	94	..	..	29	..	55	..	..	19	..	..	..	28	..
4 West Godavari	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 Rajahmundry	..	..	4	..	61	..	..	7	..	..	..	..	10	..	..	..	48	..
6 East Godavari	..	..	422	..	356	..	..	395	..	383	..	..	..	..	..	..	..	..
7 Visakhapatnam	..	..	34	..	5	..	..	..	..	9	..	..	30	..	..	..	1	..
8 Srikakulam	..	..	13	..	278	..	..	..	..	..	..	..	290	..	..	..	4	..
9 Anantapur	..	..	86	..	25	..	..	..	..	21	..	..	86	..	..	..	143	..
10 Bellary	..	..	52	..	140	..	..	..	..	40	..	..	..	..	..	..	250	..
11 Chingleput	..	..	279	..	77	..	..	..	..	..	..	..	126	..	..	..	..	..
12 Chittoor	..	..	34	..	21	..	..	..	..	31	..	..	24	..	..	..	..	..
13 Cuddapah	..	..	17	..	49	..	..	2	..	1	..	..	63	..	..	..	73	..
14 Kurnool	..	..	56	..	28	..	..	5	..	6	..	..	..	..	..	..	22	..
15 Nellore	..	..	85	..	5	..	..	40	..	28	..	..	..	..	..	..	4	..
16 North Arcot	..	..	3	..	15	..	..	6	..	8	..	..	..	..	..	..	51	..
17 South Arcot	..	..	75	..	130	..	..	9	..	40	..	..	105	..	..	..	..	..
18 Tanjore, East	..	..	33	..	14	..	..	6	..	18	..	..	23	..	..	..	65	..
19 Tanjore, West	..	..	37	..	139	..	..	48	..	13	..	..	50	..	..	..	20	..
20 Tiruchirappalli	..	..	105	..	269	..	..	120	..	144	..	..	90	..	..	..	..	..
21 Madurai	..	..	34	..	22	..	..	..	..	16	..	..	40	..	..	..	..	..
22 Ramanathapuram	..	..	358	..	1,337	..	..	1,684	..	..	..	..	..	..	..	..	11	..
23 Tirunelveli	..	..	60	..	213	..	..	147	..	47	..	..	40	..	..	..	39	..
24 Salem, North	..	..	90	..	10	..	..	12	..	18	..	..	25	..	..	..	45	..
25 Malabar, South	..	..	..	6	3	..	5	..	..	2	..	..	..	..	1	..	1	..
26 South Kanara	..	..	47	..	26	..	..	8	..	27	..	..	30	..	..	..	..	..
27 Coimbatore, North	..	..	57	..	39	..	..	9	..	25	..	..	30	..	..	..	33	..
28 Salem, South	..	3	1	7	..	..	..	..	..	8	..	..	3	..	..	..	..	..
29 Coimbatore, South	..	..	30	..	17	..	..	..	..	18	..	..	29	..	..	..	..	..
30 The Nilgiris	..	..	10	..	6	..	2	5	..	..	..	..	8	..	..	6	..	..
31 Malabar, North	..	..	4	..	36	..	..	..	..	9	..	..	30	..	..	1	..	..
Total	..	3	2,063	13	3,535	7	2,552	..	..	981	..	..	1,179	1	..	..	894	..

ANNEXURE 28.

Statement of Ferries maintained by the department.

Name of division.	Serial number and name of ferry.	Boats available.	Revenue (lease amount)
(1)	(2)	(3)	(4)
			RS.
Guntur, South ..	1. Pendugula ..	No departmental boats ..	..
Guntur, North ..	2. Kollur ..	Do.	705
	3. Dharanikota ..	Do.	280
Krishna ..	4. Ilur ..	One "A" class ballacut ..	1,090
	5. Someswaram ..	Do.	2,250
	6. Lingala ..	1 Paddle boat ..	380
West Godavari ..	7. Madhavayapalem ..	No departmental boats.	24,044
	8. Doddipatla ..	Do.	2,303
	9. Prakkilanka ..	Do.	3,903
	10. Koduru ..	Do.	6,743
Rajahmundry ..	11. Rajahmundry and Bobber-lanka.	Steamer "Hellen" ..	22,500
	12. Devipatnam ..	No Government boats ..	400
	13. (Kunavaram) Sabari ..	Iron punt with wooden deck.	2,970
	14. Taliperu ..	No Government boats.	50
	15. Palemvagu ..	Bandy crossing ballacut ferry without tools.	..
East Godavari ..	16. Kotipalli ..	12 Country boats ..	41,100
	17. Kapileswarapuram ..	4 Do. ..	4,810
	18. Yedurilanka ..	2 Do. ..	4,000
	19. Bodaskerru ..	8 Do. ..	14,000
	20. Pasuvullanka ..	2 Do. ..	4,000
Visakhapatnam, North.	21. Sankili ..	1 Paddle boat ..	1,025
	22. Calingapatnam ..	Do. ..	350
	23. Navagam ..	Do. ..	32
Cuddapah ..	24. Ferry across River Pennar at M. 108/7 to 109/1 of Chittoor-Kurnool road.	..	2,280
	25. Ferry across River Pennar at M. 10/4 to 11/2 of Muddanur-Jammalamadugu road.	..	209
	26. Ferry on Yerraguntla-Prodatur road i.e. Potladurthi ferry.	..	30
Nellore ..	27. Ferry across Pennar ..	..	648
South Arcot ..	28. Ferry at M.1/1 of Markanam-Tindivanam road.	Ramped cargo lighter ..	7,053
Tanjore, East ..	29. Gopalsamudram across Cole-roon.	1 boat of 18' x 4' x 3' ..	361
	30. Elangudi across Odambokiar.	Do.	25
	31. Engan ..	Do.	56
Tanjore, West ..	32. Sundaraperumal Koil.	1 boat 10' diameter x 3' ..	300
	33. Parithikudi ..	1 boat 12' x 4' x 3' ..	38
Tiruchirappalli ..	34. Kamanaickenpalayam ..	4 of 12' diameter ..	8,195
	35. Velur (Pugalur) ..	6 Do. ..	13,125
	36. Manapalli (Nanniyur) ..	3 Do. ..	3,999
	37. Kulitalai (Musiri) ..	8 Do. ..	12,500
	38. Tirumanur (Lalgudi) ..	6 Do. ..	7,500
	39. Thirumalavadi, Vythinatham-pettai.	4 Do. ..	4,505
Madurai ..	40. Narikalpatty ..	1 boat 7' x 5' x 1' 6" ..	16
	41. Perichipalayam ..	1 Do. ..	12
	42. Manurghat ..	1 Do. ..	15
Ramanathapuram ..	43. Kottagudi ..	1 boat 20' x 8' x 1 1/2' ..	208
Tirunelveli ..	44. Vilathikulam ..	1 boat 32' x 4 1/2' x 1' 3" ..	52

Statement of Ferries maintained by the department—cont.

Name of division.	Serial number and name of ferry.	Boats available.	Revenue (lease amount.)
(1)	(2)	(3)	(4)
			RS.
Salem, North ..	45. Eramathur ..	..	..
	46. Hanumatheertham ..	..	6
Malabar, South ..	47. Thirthala Varanthankutti Kadavu.	2 boats of 20' x 3 1/2' x 1 1/2'.	22,240
	48. Nhangattiri Kadavu ..	Do.	
	49. Chamravattam Kadavu ..	Do.	
	50. Mallan alias Chattampara Kadavu.	Do.	
	51. Karimpuzha ..	Do.	
	52. Shunankadavu ..	Do.	25
South Kanara ..	53. Bolar ..	6 boats of 27' x 2 1/2' x 2' ..	
	54. Kulur ..	8 Do. ..	
	55. Pavanje ..	8 Do. ..	
	56. Mulky ..	8 Do. ..	
	57. Chandragiri ..	5 Do. ..	2,960
	58. Shiri ..	5 Do. ..	676
	59. Kariangot ..	2 Do. ..	1,600
	60. Chittar ..	2 Do. ..	1,030
	61. Mogral ..	2 Do. ..	780
	62. Uppala ..	2 Do. ..	211
	63. Kanipura ..	2 Do. ..	1,400
	64. Bekal ..	2 Do. ..	1,100
	65. Kallathkare ..	2 Do. ..	5,500
	66. Thekkil ..	2 boats of 24' x 2' x 1 1/2'.	1,200
	67. Hosmat ..	2 boats of 27' x 2 1/2' x 2'.	1,056
	68. Mabukal ..	10 Do. ..	6,057
	69. Badragiri (Kalyanpur) ..	10 Do. ..	7,000
	70. Udayavar ..	10 Do. (Plus one motor boat to be provided.)	27,867 (Three years lease.)
	71. Puttige ..	2 boats of 27' x 2 1/2' x 2'.	1,505
	72. Halady ..	2 boats of 24' x 2 x 1 1/2'.	1,100
	73. Gangolli ..	7 boats of 27' x 2' x 2'. (Plus one motor boat provided.)	4,538
	74. Hangarkota ..	2 boats of 27' x 2 1/2' x 2'.	15,095
	75. Kandlur ..	Do. ..	995
	76. Wandse ..	Do. ..	1,050
	77. Jadal ..	1 boats of 24' x 2' x 1 1/2'.	185
	78. Pucha Mogar ..	2 boats of 24' x 2' x 1 1/2'.	538
	79. Malpe ..	Do. ..	2,600
	80. Sonda ..	2 boats of 27' x 2 1/2' x 2'.	695
Malabar, North ..	81. Ballapatam ferry ..	2 jangadams and 3 boats of (25' x 4 1/2' x 2 1/2').	52,906
	82. Kuppam ferry ..	1 jangadam and 3 boats of 25' x 4 1/2' x 2 1/2'.	
	83. Kutticole ..	1 jangadam and 2 boats of 25' x 4 1/2' x 2 1/2'.	
	84. Panamaram ..	1 jangadam and 1 boat of 30' x 4 1/2' x 2 1/2'.	
	85. Chaleyanpuza ..	1 jangadam and 2 boats of (25' x 4 1/2' x 2 1/2').	
	86. Perumbalji ferry ..	1 jangadam and 3 boats of 25' x 4 1/2' x 2 1/2'.	

ANNEXURE 29.

(i) Statement showing the names of Inspection Bungalows taken over during the year 1951-52.

I Circle, Kakinada ..	Nil.
II Circle ..	Nil.
III Circle, Tiruchirappalli ..	Nil.
IV Circle, Coimbatore ..	....

The Nilgiris Division.—The inspection bungalow at Cherambady in Malabar North Division ordered to be taken over by this Department in G.O. No. 1796, P.W., dated 2nd May 1951, was subsequently transferred to Nilgiris division from Malabar North Division with reference to Public Works Department Memorandum No. 97611-A/51, dated 26th December 1951.

(ii) Statement showing the Inspection Bungalows maintained by the department during 1951-52.

Serial number and name of division.	Class I.	Class II.	Class III.	Rest houses.	Revenue.	Cost of maintenance.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
1 Guntur, South ..	..	..	..	..	..	..
2 Guntur, North ..	..	..	..	..	..	..
3 Krishna ..	..	..	..	..	..	..
4 West Godavari ..	..	5	..	..	38	2,108
5 Rajahmundry ..	..	5	..	2	195	737
6 East Godavari ..	..	..	..	..	..	..
7 Visakhapatnam ..	..	..	..	..	..	..
8 Srikakulam ..	..	1	..	..	43	742
9 Anakapalli ..	..	2	..	..	213	736
10 Anantapur ..	..	..	..	..	..	..
11 Bellary ..	..	..	..	..	..	..
12 Chingleput ..	..	..	..	..	..	..
13 Chittoor ..	..	1	..	..	6	374
14 Cuddapah ..	..	..	..	..	..	..
15 Kurnool ..	..	4	..	19	1,906	7,953
16 Nellore ..	..	..	..	..	..	..
17 North Arcot ..	..	..	..	..	..	..
18 South Arcot ..	..	..	..	..	..	..
19 Tanjore, East ..	..	..	..	..	..	..
20 Tanjore, West ..	..	..	..	..	..	..
21 Tiruchirappalli ..	..	..	..	..	..	..
22 Madurai ..	..	1	..	..	25	521
23 Ramanathapuram ..	..	..	..	..	..	..
24 Tirunelveli ..	..	..	..	..	..	..
25 Pugalur Bridge Division.	..	1	..	..	221	1,104
26 Salem, North ..	..	..	..	..	..	..
27 Malabar, South ..	..	2	..	..	44	875
28 South Kanara ..	..	25	..	..	4,850	..*
29 Coimbatore, North ..	..	..	..	..	..	..
30 Salem, South ..	..	1	..	..	297	2,290
31 Coimbatore, South ..	..	2	..	..	126	164
32 The Nilgiris ..	..	2	..	..	20	1,820
33 Malabar, North ..	..	1	6	..	633	991
Total ..	2	57	..	21	8,307	20,415

* The maintenance cost of inspection bungalows is included in the amount shown against the Division in the Statement IV.

(iii) Statement showing the names of Travellers' Bungalows taken over during the year 1951-52.

I Circle, Kakinada ..	..	..	..	..	..	Nil.
II Circle ..	..	..	..	..	..	..
Bellary district.—Travellers' Bungalow at Taranagar was transferred to Forest department with reference to G.O. Ms. No. 1642, P.V., dated 23rd April 1951.						
III Circle, Tiruchirappalli ..	..	..	..	..	..	Nil.
IV Circle, Coimbatore ..	..	..	..	..	..	Nil.

(iv) Statement showing the Travellers' Bungalows maintained by the department during 1951-52.

Serial number and name of division.	Class I.	Class II.	Class III.	Rest houses.	Revenue.	Cost of maintenance.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
					RS.	RS.
1 Guntur, South ..	..	22	..	..	1,360	5,535
2 Guntur, North ..	..	11	..	..	..	809
3 Krishna ..	..	20	1	..	1,862	19,999
4 Godavari, West ..	..	16	..	..	805	15,413
5 Rajahmundry ..	..	8	..	..	812	4,443
6 Godavari, East ..	..	1	..	..	69	508
7 Visakhapatnam ..	1	11	10	..	2,954	26,428
8 Srikakulam ..	..	31	..	..	2,868	21,072
9 Anantapur ..	..	2	..	..	377	1,983
10 Bellary ..	..	4	..	..	215	2,269
11 Chingleput ..	2	2	..	2	541	6,403
12 Chittoor ..	..	4	16	..	3,070	6,485
13 Cuddapah ..	..	3	..	..	..	..
14 Kurnool ..	..	..	..	..	..	..
15 Nellore ..	..	..	..	..	..	..
16 North Arcot ..	..	3	4	4	312	5,173
17 South Arcot ..	2	6	..	5	3,828	13,171
18 Tanjore, East ..	..	1	2	2	559	3,886
19 Tanjore, West ..	..	2	..	8	615	5,291
20 Tiruchirappalli ..	..	2*	9	8	9,122	26,259
21 Madurai ..	2	10	4	..	3,563	16,932
22 Ramanathapuram ..	7	7	..	2	4,310	5,552
23 Tirunelveli ..	2	4*	..	4	1,756	4,189
24 Salem, North ..	1	11	..	3	†	7,966
25 Malabar, South ..	..	22	..	5	3,482	66,172
26 South Kanara ..	7	10	15	..	†	23,775
27 Coimbatore, North ..	3	5	..	8	..	..
28 Salem, South ..	..	9	..	2	†	6,710
29 Coimbatore, South ..	..	9	..	9	†	15,753
30 The Nilgiris ..	..	..	..	..	..	..
31 Malabar, North ..	1	14	4	..	2,084	13,835
Total ..	28	250	65	62	44,564	3,25,011

* Travellers' bungalows at Pudukalayan and Samayapuram in Tiruchirappalli district were ordered to be closed by the President, District Board, while the Travellers' Bungalow at Kayathar in Tirunelveli District was handed over to the District Board for running District Board School as per orders of President, District Board.

† Figures not available.

ANNEXURE 30.

Intensity statistics.

Serial number and name of division.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Area (square miles)	Miles of road.	Area/mile of road.	Population as per 1951 census.	Population per mile of road.	Number of vehicle.	Number of vehicle per mile of road.	Expenditure on roads.	Expenditure per mile.	Land revenue and cesses.	Revenue per mile.
1 Visakhapatnam, North	..	9,107	923	5	4,177,518	4,526	53,012	57	13,20,694	RS. 1,431	RS. 18,96,499	2,055
2 Visakhapatnam, South	..	..	970	4	..	..	2,598	3	32,22,870	3,322	11,98,275	1,235
3 East Godavari	..	6,322	1,642	4	2,405,352	1,465	117,941	72	41,92,819	2,554	81,55,904	4,967
4 West Godavari	..	2,434	1,091	2	1,697,392	1,556	66,574	61	51,16,230	4,089	66,24,992	6,072
5 Krishna	..	3,469	1,315	3	1,779,760	1,358	11,354	9	44,80,473	3,407	61,76,653	4,697
6 Guntur	..	5,795	1,563	4	2,542,244	1,624	55,817	35	49,98,919	3,194	84,77,306	5,423
7 Nellore	..	7,942	1,353	6	1,793,774	1,321	574,616	423	31,80,779	2,342	30,03,954	2,212
8 Kurnool	..	7,893	1,257	5	1,264,154	1,003	66,765	54	23,26,896	1,851	31,26,999	2,488
9 Bellary	..	5,872	1,169	5	1,240,988	1,061	1,230	1	21,39,212	1,830	30,61,522	2,618
10 Anantapur	..	6,734	1,302	5	1,360,727	1,045	..	..	17,50,024	1,345	15,70,647	1,211
11 Cuddapah	..	5,923	1,020	6	1,161,713	1,139	571	..	18,93,609	1,856	13,06,024	1,230
12 Chingleput	..	3,104	1,737	2	3,269,891	1,883	..	..	38,75,463	2,231	17,55,440	1,011
13 Chittoor	..	5,951	1,744	3	1,808,725	1,037	..	..	23,48,231	1,346	9,42,231	540
14 North Arcot	..	4,671	1,677	3	2,862,155	1,707	48,532	29	31,91,627	1,908	31,42,723	1,374
15 South Arcot	..	4,201	2,030	2	2,766,468	1,363	92,200	45	32,15,360	1,584	69,99,076	3,448
16 Salem	..	7,073	2,473	3	3,374,234	1,356	102,539	41	43,05,560	1,741	47,96,233	1,939
17 Tiruchirappalli	..	5,514	2,355	2	2,942,225	1,264	154,730	68	54,44,851	2,332	64,71,885	2,772
18 Tanjore,	..	3,738	2,759	1	2,979,754	1,080	129,352	47	50,33,671	1,824	1,15,21,890	4,176
19 Madurai	..	4,883	1,819	3	2,894,994	1,591	46,771	25	42,35,307	2,336	42,29,270	2,884
20 Ramanathapuram	..	4,851	1,354	4	2,078,750	1,535	37,455	27	30,86,026	2,279	10,33,645	763
21 Tirunelveli	..	4,342	1,422	3	2,447,949	1,721	84,130	59	30,63,632	2,154	40,05,393	2,817
22 Coimbatore	..	7,121	3,554	2	3,294,849	927	70,782	20	57,11,764	1,607	48,27,012	1,353
23 Nilgiris	..	989	593	2	3,12,172	526	2,232	4	11,83,970	1,995	3,08,198	312
24 Malabar	..	5,790	1,988	3	4,758,886	2,419	51,147	25	55,21,404	2,777	62,85,036	3,161
25 South Kanara	..	4,045	1,467	3	1,746,118	1,190	..	..	21,84,757	1,489	37,98,311	2,899

26 Transport and Machinery Division.

..	..	..	..	..	..	..	..	56,42,981	..	..	..
Total	127,764	40,586	3	56,982,392	1,379	1,769,398	43	9,65,73,206	2,361	* 10,49,81,568	2,583

* The total amount includes revenue of Rs. 2,66,440 in Madras District.

NOTE.—1. Figures in column (7) include motor vehicles and all other types of vehicles, bullock-carts, etc.
2. Figures in column (11) were adopted from the statistics furnished by the Board of Revenue.

ANNEXURE 31.

Statement showing the numerical strength of employees in the department
as on 31st March 1952.

Serial number and name of division or circle office.	Number of employees in each category.										Total.
	Administrative.	Engineering.	Ministerial.	Inferior.	Menials paid from contingencies.	Plant operators.	Workshops.	Petty supervisors.	Other work-charged establishments.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
<i>I Circle.</i>											
1 Circle Office	1	10	20	7	3	..	..	..	..	41	
2 Guntur, South	23	21	33	9	32	..	..	99	337	554	
3 Guntur, North	20	27	19	6	32	..	..	68	239	411	
4 Krishna	27	27	47	13	62	..	..	129	476	781	
5 West Godavari	30	23	52	19	60	..	..	113	430	727	
6 Rajahmundry	33	24	36	12	49	25	..	83	291	553	
7 East Godavari	24	22	33	19	25	..	..	76	254	453	
8 Godavari Bridges Division	9	8	9	4	14	..	..	6	..	50	
9 Visakhapatnam	29	24	40	21	32	..	..	124	426	696	
10 Anakapalli, Special	16	9	19	11	17	..	..	18	27	117	
11 Srikakulam	21	15	36	13	25	..	..	98	369	577	
<i>II Circle.</i>											
12 Circle Office	5	15	3	..	..	..	..	..	..	23	
13 Anantapur	18	18	37	9	24	..	..	87	400	573	
14 Bellary	20	32	24	16	36	..	..	72	383	583	
15 Chingleput	35	47	39	12	61	..	..	177	1,054	1,425	
16 Chittoor	16	31	32	8	45	..	..	130	855	1,117	
17 Cuddapah	19	32	25	16	30	..	..	94	300	516	
18 Kurnool	25	36	26	6	41	..	..	100	540	774	
19 Nellore	28	37	29	20	70	1	..	103	562	850	
20 North Arcot	33	42	31	11	43	..	..	138	..	298	
21 Pennar Bridge Division	4	7	4	5	8	..	..	14	1	43	
22 Transport and Machinery Division*	..	..	..	..	..	..	..	..	..	..	
<i>III Circle.</i>											
23 Circle Office	1	8	18	7	3	..	..	..	..	37	
24 South Arcot	36	47	37	15	48	3	..	167	825	1,178	
25 Tanjore, East	24	33	24	8	23	..	..	101	298	511	
26 Tanjore, West	23	33	24	5	36	3	..	138	690	952	
27 Tiruchirappalli	40	47	35	6	66	89	..	140	922	1,345	
28 Mathurai	32	47	33	8	86	..	..	169	560	935	
29 Ramanathapuram	30	39	27	10	70	7	..	106	708	997	
30 Tirunelveli	29	35	26	4	58	..	..	128	650	930	
31 Pugalur Bridge	5	7	4	3	..	..	..	18	9	46	
32 Coleroon Bridge	5	8	4	3	4	..	..	7	5	36	
33 Assistant Engineer (Bridges)	4	..	6	..	..	..	..	..	..	10	
<i>IV Circle.</i>											
34 Circle Office *	1	..	..	..	..	..	..	..	..	1	
35 Salem, North	17	37	22	10	25	..	..	105	827	1,043	
36 Bharathapuzha	7	11	7	2	..	..	..	..	14	41	
37 Malabar, South	21	32	22	9	49	..	..	..	520	653	
38 South Kanara	31	26	46	9	28	..	..	88	..	223	
39 Coimbatore, North	21	26	44	10	52	..	..	108	659	920	
40 Salem, South	21	30	23	7	31	..	..	89	500	701	
41 Coimbatore, South	33	45	34	7	35	..	..	..	172	326	
42 The Nilgiris	12	19	13	1	2	..	..	37	122	206	
43 Malabar, North	23	27	22	8	34	1	..	80	..	195	
44 Chief Engineer's Office	1	33	89	25	..	..	..	..	..	148	
Total	4	900	1,173	1,066	361	1,353	129	3,190	14,425	22,601	

* Figures not available.

NOTE.—(a) The particulars furnished against Chief Engineer's (Highways) office do not include one Accounts Officer (Highways), Deputy Accounts Officer (Highways) and the Ministerial staff of 32 members, and five peons.

(b) Figures in column (4) include all technical personnel from Divisional Engineers (Highways) down to tracers.

(c) Column (10) "Petty supervision" represents mostly maistres.

(d) Column (11) "Other work-charged establishments" are mainly gang coolies.

ANNEXURE 32.
Districtwar Statistics for the year 1951-52.

Serial number and name of district.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1 Visakhapatnam, North	9,107	53,012	4,177,518	2,598	1	3	14	2,164	2,319	19	5	3	529	394
2 Visakhapatnam, South	..	2,598	117,941	..	1	7	25	..	..	..	..	..	421	..
3 East Godavari	6,322	2,405,352	1,697,892	66,574	3	9	35	1,117	812	23	4	3	549	304
4 West Godavari	2,434	1,779,760	1,135,4	11,354	1	5	25	141	587	20	3	4	512	421
5 Krishna	3,469	2,542,244	55,817	55,817	2	5	25	240	761	18	3	3	454	579
6 Guntur	7,942	1,793,774	574,616	574,616	1	4	25	614	959	24	5	4	667	851
7 Nellore	7,983	1,264,154	66,765	66,765	1	3	17	195	671	10	1	3	804	896
8 Kurnool	5,872	1,240,938	1,230	1,230	1	4	18	338	635	13	2	4	662	595
9 Bellary	6,734	1,360,727	1,360,727	1,360,727	1	5	18	269	647	14	3	3	557	612
10 Anantapur	5,923	1,161,713	571	571	1	4	13	357	563	11	4	3	570	596
11 Cuddapah	3,104	3,269,881	3,269,881	3,269,881	1	6	29	1,093	1,096	14	3	3	658	1,079
12 Chingleput	5,951	1,808,725	1,808,725	1,808,725	1	5	16	1,179	1,438	10	2	3	735	1,009
13 Chittoor	4,671	2,362,155	2,362,155	2,362,155	1	4	21	577	1,438	19	8	3	660	1,017
14 North Arcot	4,201	2,766,468	2,766,468	2,766,468	1	6	23	504	1,749	13	4	4	563	1,467
15 South Arcot	7,073	10,253,9	10,253,9	10,253,9	2	6	26	374	1,140	16	4	3	813	1,600
16 Salem	5,514	2,942,295	154,730	154,730	1	5	41	374	1,140	16	4	3	775	1,360
17 Tiruchirappalli	3,788	2,970,754	129,352	129,352	3	6	32	864	1,573	23	6	3	675	2,084
18 Tanjore	4,383	2,884,994	45,771	45,771	1	5	22	270	811	20	6	3	637	1,156
19 Madurai	4,351	2,078,750	37,455	37,455	1	6	32	1,096	1,200	27	7	3	464	890
20 Ramanathapuram	4,342	2,447,949	84,130	84,130	1	8	17	171	835	31	4	3	460	962
21 Tirunelveli	7,121	3,294,849	70,782	70,782	2	9	41	154	946	22	8	5	1,050	2,504
22 Coimbatore	989	312,172	2,282	2,282	1	2	7	7	51	3	2	3	207	386
23 The Nilgiris	5,790	4,758,386	51,147	51,147	3	6	36	244	969	14	5	4	961	1,027
24 Malabar	4,045	1,746,118	..	..	1	6	19	59	755	7	2	3	689	775
25 South Kanara	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	127,764	56,952,332	1,769,398	1,769,398	35	130	610	12,669	23,683	409	95	84	15,599	24,957

NOTE.—(a) Figures in column (5) are on the basis of particulars obtained from the Divisional Engineers (Highways), and include all types of vehicles.

(b) Figures in columns (6) and (10) are based on 1941 census.

(c) Revenue of district.—Column (22) adopted from the statistics furnished by the Board of Revenue.

(d) Figures in column (23) have been worked out at Rs. 2½ a rupee of the revenue of the district.

Districtwise Statistics for the year 1951-52—cont.

Serial number and name of district.	Average rate per mile.											
	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
	Total length of all roads.	Length of National Highways.	Length of Provincial Highways.	Length of Major district roads (Government, district board).	Length of other district road.	Length of village roads.	Revenue of the district.	Land-cum payable to district board.	Minimum allotment for Government roads.	Average rate per mile.	Minimum allotment for district board	Average rate per mile.
1 Visakhapatnam, North	923	134	38	450	151	150	18,96,499	2,96,328	19,14,455	2,074		
2 Visakhapatnam, South	970	120	20	473	100	288	11,98,275	1,87,280	17,46,048	1,800		
3 East Godavari	1,642	69	20	781	403	369	81,55,904	12,74,368	80,01,718	1,950		
4 West Godavari	1,091	47	47	511	124	362	66,24,992	10,35,155	18,40,978	1,687		
5 Krishna	1,315	94	78	444	215	484	61,76,658	9,65,102	30,24,398	2,800		
6 Guntur	1,563	186	108	843	115	398	84,77,806	13,24,720	30,35,168	1,947		
7 Nellore	1,358	90	102	571	321	128	30,08,954	4,69,368	14,34,269	1,057		
8 Kurnool	1,257	54	327	537	306	83	31,23,999	4,85,594	19,44,741	1,547		
9 Bellary	1,169	..	159	518	197	183	30,61,622	4,65,863	16,08,489	1,376		
10 Anantapur	1,302	106	282	543	126	275	15,76,647	2,46,351	15,51,115	1,191		
11 Cuddapah	1,920	183	121	555	227	69	13,06,024	2,02,816	11,72,627	1,150		
12 Chingleput	1,737	164	121	452	408	744	17,55,440	2,74,288	23,30,456	1,842		
13 Chittoor	1,744	104	74	588	431	550	9,42,231	1,47,224	17,04,128	977		
14 North Arcot	1,677	86	90	589	392	518	31,42,723	4,91,150	16,33,846	974		
15 South Arcot	2,093	205	90	701	507	644	69,99,076	10,93,606	19,55,492	698		
16 Salem	2,473	130	182	953	701	552	47,96,233	7,49,266	17,25,072	698		
17 Tiruchirappalli	2,335	130	101	691	547	776	64,71,886	10,11,282	13,04,431	559		
18 Tanjore	2,639	110	101	952	641	1,065	1,15,21,890	18,00,420	28,78,423	1,043		
19 Madurai	1,613	..	67	725	158	753	42,29,270	6,60,821	17,22,078	1,050		
20 Ramanathapuram	1,354	95	71	563	302	823	10,33,645	1,61,507	15,69,698	1,169		
21 Tirunelveli	1,422	85	98	755	130	354	40,05,393	6,25,843	11,63,219	1,318		
22 Coimbatore	3,554	77	188	1,227	651	411	48,27,012	7,54,221	37,16,730	1,946		
23 The Nilgiris	593	..	107	92	83	311	3,08,198	45,156	5,90,191	1,985		
24 Malabar	1,988	42	330	812	420	384	62,85,036	9,82,037	42,87,618	2,157		
25 South Kanara	1,467	..	266	510	281	410	37,98,311	5,93,486	14,56,552	995		
Total	40,556	1,989	3,118	16,048	7,987	11,464	*10,49,81,558	1,63,49,044	5,03,11,688	1,940		

* Total revenue includes an amount of Rs. 2,66,440 towards revenue for Madras district.

Not finalised.