

There is a class of road-work for which we get little credit, and that is the engineering surveys necessary to arrive at quantities, &c., on the co-operative works. Mr. H. M. Smith has done the necessary engineering on the Waikare-moana works, and the District Surveyor those at Poverty Bay, and other officers have been engaged taking cross-sections, computing quantities, preparing drawings, specifications, &c.

Other Work.—Under this heading I have included all works of a miscellaneous nature which cannot be brought under the classes given in schedule. The total is £983 13s. 10d. Of this amount, £804 16s. 11d. will be carried forward to next year, being the cost of surveys in hand the field-work of which is partly completed, but not mapped, and therefore cannot be returned. Field inspections, surveying bush felled on improved-farm settlements, and various inspections which were necessary to be made are also included.

Field Inspections.—Seventeen field-checks have been made of Native Land Court and Land Transfer surveys. I am glad to be able to report that generally the work is satisfactory, but regret to say that there has also been some very incorrect work sent in, particulars of which have been reported on.

Proposed Operations, 1897-98.—We have every prospect of a busy year, the Native Land Court having awarded to the Crown some large areas, which have to be cut out, roaded, and sectionised for settlement, the principal being Tahora No. 2 Block, 121,694 acres; Tiratu, 918 acres; Nga-paeruru, 33,900 acres; Waikopiro, 1,696 acres; and Tamaki Block, 34,100 acres: total, 192,308 acres.

Of these, I propose that Mr. Roddick shall complete the survey of Tahora No. 2, Mr. Hay shall survey Tiratu, Nga-paeruru, and Waikopiro, and Mr. Carroll should complete the survey of the Tamaki Block, which he has now in hand; the Government portion of it has to be roaded and sectionised on the completion of his subdivisional survey. The roading to open up these blocks and to put them in connection with the existing roads will be a work of some magnitude.

Of the road surveys at present in hand, Mr. Mout has twenty-five miles engineering survey of the Gisborne-Rotorua Road to complete. Mr. Stevenson has explored the road from Norsewood to Te Apiti, distance about twenty miles, and has now to make the engineering survey. He has also to survey and subdivide for settlement 600 acres of Crown land situated on the said road. Mr. Llewellyn Smith is instructed to make a reconnaissance of the country between Ngatapa and Rua-tahuna, with a view of getting a stock-road from Poverty Bay to Rotorua *via* that route. We have also to make an engineering survey of the Waikare-moana Road, which at present is only surveyed two miles beyond the termination of the construction now being carried out by co-operative labourers. There will also probably be some estates acquired under the Land for Settlements Acts which will require roading, &c., before selection. If all the works I have mentioned require to be carried out, an increase in the present field staff will be necessary to enable me to overtake the work.

Office Work.—Office work in all its branches shows a large increase on last year; and extra work has also been thrown on the office this year in preparing plans required under the Government Valuation of Land Act of last year, and the demand has only been met by the employment of extra draughtsmen.

ERIC C. GOLD-SMITH, Chief Surveyor.

TARANAKI.

Major Triangulation.—An area of 750,000 acres has been completed by Mr. Skeet, at a total cost of £781 18s. 6d. or an average of $\frac{1}{4}$ d. per acre, giving a good connection with the Wellington system of triangulation, and bringing the minor triangulation in the south-eastern portion of this district into harmony with the northern. So far the differences in polygons vary from 0.03 link to 0.6 link per mile. Running between the Waitara and Hawera base-lines, and as shown by new work, the difference works out 0.55 per mile. Taking the means, and working the triangles eastward, the closures against Wellington are 1.9 link and 1.8 link per mile less; while by another series of Wellington triangles (evidently derived from a different base) the difference is 1.5 link per mile more. This work will be of great utility in future connections, and will furnish reliable data for checking inaccuracies in the smaller triangles near the Wanganui River. The further extension of this work is referred to in "Work for ensuing year." The past season was not a favourable one for trig. sights, although in several instances while waiting for clear weather Mr. Skeet was able to take up other work adjoining.

Minor Triangulation (without Topography).—The total area scheduled under this heading comprises 68,215 acres; total cost, £391 17s. 1d., or an average of $1\frac{2}{10}$ d. per acre. This includes work completed in the field last year but then unplotted, and consists mostly of breaking down from larger triangles, and is necessary for controlling current sectional work.

Rural and Suburban Section Surveys.—In this class of work 47,698 acres have been laid out in 181 sections, at a total cost of £5,537 9s. 2d., during the year, or at an average of 2s. $3\frac{2}{10}$ d. per acre, all being in heavy bush: a further area of 29,449 acres being well in hand; indeed, 5,000 acres of it is completed in field, but plans are yet unfinished. The recurrence of another wet season has prevented the completion of a considerably larger area. With one exception, the average cost per acre is very satisfactory, considering the difficulty of access and cost of provisions. The cost of this work includes the grading and surveying of eighty-nine miles of roads, with attendant trial-lines necessary in broken bush-country. I am pleased to note that, among other improvements, the new issue of "Survey Regulations" gives a greater degree of latitude to the surveyor in pegging sides of roads in this class of country.

Road and Railway Surveys.—The thirty-nine miles of roads scheduled as completed, at a total cost of £503 15s. 8d., or mean of £12 18s. 4d. per mile, consists in surveys of deviations of the