

27½ chains of 18 ft.; 2,856 cubic yards of earth-excitation; 460 cubic yards of metal-quarrying; 3 chains of river-deviation; 150 cubic yards of shingle; and twelve culverts, aggregating in length 284 ft., and of the following dimensions—ten 12 in. by 12 in., one 18 in. by 12 in., and one 24 in. by 12 in. Besides this work, which has been assisted by the above subsidy, the local body has erected a 24 ft. span bridge in place of one that was burnt. Protective works have also been constructed in the Wainui River, to prevent the road from being undermined.

*Mangatoro Valley Road.*—2,218 cubic yards of slips have been cleared, 515 cubic yards of rock excavated, 2 chains of embankments formed, and 8½ chains of fencing erected. This dray-road has been maintained for a distance of seven miles, 1 mile 22 chains of which has been metalled 10 ft. wide during the year. During the late calamitous bush-fires a platform forming a portion of this road was destroyed, and it was considered expedient to replace it by a stone retaining-wall of upwards of a chain in length.

*Towai Road.*—The following works have been carried out during the year: 74 chains of road-line has been felled and cleared of scrub, 1 mile 38 chains formed 16 ft. wide, 1 mile 38 chains widened from 6 ft. to 16 ft., 1 mile 4 chains metalled 10 ft. in width, 994 cubic yards of slips have been cleared, 4,486 cubic yards of rock excavated, 1 chain of embankments formed, and three miles of the road grassed; ten culverts (seven 10 in. by 12 in. and three 12 in. by 12 in.), of a total length of 197 ft., have been laid. The length of road maintained is five miles.

*Towai Road (Rising Sun Association).*—The maintenance of this road extends over one mile, besides which 4 miles 20 chains has been graded and pegged, 2 miles 31 chains felled and cleared of bush, 1 mile 2 chains formed 6 ft. wide, and 304 cubic yards of slips removed; fourteen culverts (one 12 in. by 8 in., four 12 in. by 12 in., and nine 9 in. by 9 in.) have been laid. The engineering work for the remainder of this road to the junction of the Waihi Valley Road is well in hand, and formation will shortly be started.

*Upper Makuri Valley Road.*—As in my last report, ten miles of this road has been maintained during the year, involving the removal of 953 cubic yards of slips. Besides this 1½ chains of drains has been cut and 4 chains of river protective works constructed.

*Alfredton-Weber Road.*—During the period a very considerable amount of work has been done on this road, the details of which are as follows: 1 mile 28 chains of road-line has been graded and pegged, 60 chains of bush felled and cleared, 18 chains formed 15 ft. wide and 7 chains 18 ft., 34 chains widened to 15 ft. and 2 miles 60 chains to 16 ft., 57 chains have been metalled with burnt papa rock to a width of 10 ft., 31,867 cubic yards of slips removed and 8,266 cubic yards of rock excavated, 1 mile 17 chains of corduroying has been laid, 1 mile 30 chains of drains cut, 54½ chains of embankments formed, 51,124 ft. of timber sawn and 43,100 ft. hauled, fifty-five culverts (one 9 in. by 9 in., thirty-four 12 in. by 12 in., two 18 in. by 24 in., four 24 in. by 24 in., four 9 in. by 12 in., one 18 in. by 24 in., one 48 in. by 48 in., two 36 in. by 36 in., two 18 in. by 18 in., and one 48 in. by 36 in.) have been laid and three 9 in. pipe culverts have been bedded, seven truss bridges (of an aggregate length of 227 ft.) and one temporary one (25 ft. long) have been erected. The Easter flood of last year caused the Akitio River to encroach on several parts of the road, and considerably strained and otherwise damaged the Waihi Bridge. As the water was running 2 ft. deep on the decking I deemed it advisable to raise the bridge 6 ft., and construct two land spans (33 ft.), in order to secure the structure against similar floods. Contracts are at present in progress which, when completed, and one bridge erected, will connect this road with the Weber Road. Metalling, however, will be required to make it available for regular traffic, good material for which can be obtained from the Akitio River bed and from some places on the road. The total length of road maintained is 27½ miles, and the cost is extremely heavy, owing to the continuously heavy landslips.

*Waihi-Akitio Road, Pahiatua No. 3 (Akitio Improved-farm Settlement).*—During the year 53 chains of roadway 6 ft. wide has been formed, 1,278 cubic yards of slips removed, 189 cubic yards of rock excavated, 4½ chains of corduroy laid, 11 chains of drains cut, 4 chains of embankment formed, 3,325 ft. of timber hauled, and 1 mile 50 chains of road-line grassed; one truss bridge, 50 ft. long, has been erected; and three 12 in. by 12 in. culverts, 34 ft. in length, laid. This road is now completed to the junction of the Waihi Valley Road, and is maintained for four miles and a half.

*Mount Arthur and Waihi-Akitio Roads, Pahiatua No. 3 (Flood-damages).*—In March of this year the sum of £240 was authorised for expenditure, out of which amount repairs are at present being executed.

*Akitio Road, Pahiatua No. 3 (Akitio Improved-farm Settlement).*—Work was commenced on this road in February last, since when 4 chains of bush has been felled and cleared, and 63 chains of road-line formed and road maintained, 6 ft. wide.

*Pukewhinau Road.*—This is a road in the Akitio Improved-farm Settlement, and last year I had to report an engineering survey of 72 chains as having been made, since when nothing further has been done.

*Mount Arthur Road (Akitio Improved-farm Settlement).*—This 6 ft. horse-road has been graded and pegged 57 chains and formed 1 mile 51 chains, 1,463 cubic yards of slips cleared, 474 cubic yards of rock excavated, and 61 chains of drains cut; six culverts (two 24 in. by 24 in., one 18 in. by 24 in., one 18 in. by 18 in., and two 12 in. by 12 in.), of a total length of 160 ft., have been laid; and one bridge 16 ft. long, with a 6 ft. roadway, has been erected; 19,062 ft. of timber has been sawn, and 21,642 ft. hauled; 399 ft. of 12 in. by 12 in. piles and 700 ft. 8 in. by 5 in. have been driven; and 50 chains of roadway grassed. The formation of the road is now completed to within a few chains of the lower river-crossing, involving a maintenance of two miles and a half. A 54 ft. span bridge was in course of construction over the Akitio River at the time of the Easter floods, but as the level proved to be too low it was deemed advisable to raise it. The time necessary to procure the extra timber caused such delay that it was impossible owing to the condition of the roads to get it hauled to the site. If this road were widened for dray traffic it would be a great benefit to the surrounding settlers, by giving them an opening to Dannevirke, Weber, and the East Coast.