

*Horse Road, Still-Water to Maori Gully.*—Six miles fifteen chains. This work was completed and handed over to the province in August, 1874. It is formed 9½ feet wide, and metalled 5 feet wide and 8 inches thick, and includes 471 chains clearing, 495 chains forming, 16 chains drains; one plain bridge, 24 feet; two ditto, 20 feet; one ditto, 15 feet; and 167 lineal feet of culvert covering. Total cost, £1,800, or about £291 per mile.

*Dray Road, Greymouth to Marsden.*—Ten miles two chains. Ninety-two chains of this road has been maintained by the Borough of Greymouth since its completion in January, 1874; the rest by the General Government, by contract, to 23rd June, 1875. It is in fair condition throughout.

*Dray Road, Marsden to Maori Creek.*—Five miles 50·65 chains, widened to 11½ feet with metal 8 feet wide and 8 inches thick; practically completed at date of last annual report, but some heavy slips delayed opening and final completion till July, 1874.

*Horse Road, Pounamu to Lake Brunner.*—Eight miles four chains. Formed 10 feet wide, with metal 5 feet wide and 8 inches thick; completed in March, 1875. Work includes 622 chains clearing, 644 chains of forming, 29 chains drains, 163 lineal feet culvert covering, 13 fords across creeks, 9 box-culverts, 644 chains metalling, 23 turnouts. Cost £2,657 0s. 6d., or about £330 per mile.

*Horse Road, Waimea, Right-hand Branch.*—Bridge 113 feet long and 8 feet wide. This is a plain bridge of four spans, erected near the township called Big Dam on the horse road leading from Goldsbrough to the Christchurch Road; completed in September, 1874. Cost £194 9s.

*Dray Road, Hokitika to Blue Spur.*—Four miles forty-six chains. Formed 12½ feet wide, and metalled 8 feet wide and 8 inches thick. Work let in two contracts, No. 1 completed July, 1874, and No. 2 in December, 1874; both being handed over to the province a month after their completion. Work consists of 296 chains clearing, 11,051 cubic yards earthwork, 98 chains of drains, one lattice bridge 58 feet span, 308 lineal feet culvert covering, 24 box culverts, 366 chains metalling, and 27 turnouts. Cost £2,242 15s., or about £518 per mile.

*Horse Road, Kanieri Forks to Lake.*—Four miles fifty-four chains. Formed 10 feet wide, and metalled 5 feet wide and 8 inches thick; completed and handed over to province June, 1875. Work includes 374 chains clearing, 374 chains forming, 31 chains drains; one bridge, 41 feet span truss; 61 lineal feet culvert covering, 13 fords over creeks, 20 box culverts, 374 chains metalling, 10 turnouts. Cost £1,431 15s., or about £306 per mile.

*Horse Road, Bowen to Okarito.*—The position of this road was generally described in last annual report. Its length will be about 53 miles, of which, at the north end, 13 miles 15 chains have been completed, formed 10 feet wide, metalled 5 feet wide and 8 inches thick; and at the south end, 12 miles 37 chains, formed 10 feet wide, metalled 8 feet wide and 8 inches thick for 7 miles 39 chains; and the remainder the same as the north end; with a branch road to the Mapourika Lake of 3 miles 76 chains long; formed 12 feet wide, and metalled 8 feet wide and 8 inches thick.

The intervening portion, of about 27¼ miles, has been explored, and a line has been cut through-out, of which about 12 miles have been surveyed.

It is desirable that this road should be opened throughout as soon as possible, as the parts already formed offer little real advantage to the general travelling public. The cost of completion might be estimated as follows:—Survey, 15¼ miles at £24, £366; construction, 27¼ miles at £460, £12,262 10s.; bridge and embankment at Okarito, £350; supervision and contingencies, £1,321; total, £14,300. The work done and cost already incurred are as follow, viz.:—At north end, 1,055 chains clearing, 1,055 chains forming, 204 chains drains, one plain bridge 45 feet, 889 lineal feet culvert covering, 13 fords over creeks, 7 box-culverts, 1,055 chains metalling, and 45 turnouts; cost £3,747 15s. 6d., or about £284 a mile. At the south end, 599 chains clearing, 599 chains forming, 601 chains drains, 81 lineal feet culvert covering, 4 fords over creeks, 29 box-culverts, 599 chains metalling, 30 turnouts; cost £4,030 9s. 3d., or about £537 a mile.

*On Branch Dray Road to Mapourika Lake.*—Work completed: 714 chains of clearing, 20,493 cubic yards earthwork, 50 chains formation sideling, 274 chains formation flat, 134 chains drains; one plain bridge, 61 feet; one ditto, 38 feet; two ditto, 20 feet; 126 feet culvert covering, 15 fords, 12 box culverts, 714 chains metalling, 56 turnouts. Cost, £6,568 9s., or about £738 a mile.

In connection with the Westland District, Mr. O'Connor sends the following valuable information as to the comparative cost to make and maintain certain different classes of roads, being the result of actual experience of each, as follows:—Class 1 (in use before road-work was begun under "The Public Works Act, 1870," by General Government), with 10 feet formation, and metal 8 feet wide and 8 inches thick, costing about £650 a mile; maintenance per mile per annum, £120. Class 2 (introduced by General Government), with 17 feet formation, and metal 12 feet wide and 12 inches thick, costing about £1,050 per mile; maintenance per mile per annum, £27,—showing a difference of £93 per mile, and that the extra cost of the more expensive road will be saved in less than five years, the saving beyond that time becoming a clear gain.

Further statistics given in report of Provincial Engineer for 1874 show that seven of the first-named class of roads, afterwards widened to 12 feet, still cost as much as 33 per cent. more to maintain than those constructed 12 feet wide at first: attributed to the fact that the class of work obtained upon the more expensive roads was superior to that obtained on the cheaper roads, which probably had not such care bestowed on them as regards survey and levels and the general requirements of a first-class road. Whatever may be the reasons for the difference in the cost of maintenance, the low cost of it on the wider roads under very heavy traffic speaks well for the manner in which they have been laid out and executed.

#### NELSON SOUTH-WEST GOLD FIELDS.

(A. D. DOBSON in charge.)

The works completed and in progress during the year are as follow, viz.:—Dray road completed in Buller Valley, Christie's to Hughie's, 7 miles 20 chains; horse road, completed widening rock cutting at Hawk's Crag, on Buller Valley Road, 15 chains. The former of these works is a narrow dray road made almost entirely in sideling ground which is of a very slippery nature, and was difficult to make, and maintain when made. No other works have been completed during the year.