Corner section is completed, except for the Lochiel Deviation, with the reconstruction of 10 miles 43 chains and the sealing of 10 miles 25 chains. In this section a 20-ft.-span bridge has been widened from 12 ft. to 24 ft. in timber, and the Winton Channel Bridge is being similarly widened to take the heavy industrial and general traffic that is now using the highway.

As a start in the improvement of the Gore–Croydon section of the Gore–Lumsden State Highway, dangerous curvature has been eliminated and sight distance improved over 2 miles 60 chains.

In the Riverton Borough and adjacent county section of the Riverton–Tuatapere State Highway 60 chains have been reconstructed and widened from 12 ft. road width to 24 ft. width. The Waimeamea Bridge of 68 ft. length collapsed, and was replaced by a Bailey bridge until the original structure was rebuilt.

On the Lumsden – Te Anau – Milford Sound Highway timber bridges totalling 530 lineal feet and two Baileys each 80 ft. long were erected in place of decayed log bridges. Extensive deferred maintenance in the way of scrub-cutting and reshaping the road has been carried out on the 11-mile section from Homer to Milford to make good the climatic damage during and since the war.

The reconstruction and sealing of the Riverton–Rocks highway was completed for its length of 1 mile 15 chains, while 1 mile 23 chains of reconstruction and sealing in Ohai Township on the Winton–Ohai–Orawai highway were also completed. The local bodies completed the reconstruction and sealing of 1 mile 28 chains of main highways in five townships.

HIGHWAY ENGINEERING AND DESIGN

Details have been given to show just how striking has been the growth of the road transport industry, particularly in the direction of introducing the heaviest classes of vehicles up to the limits which are permitted on highways. With increase in weight-carrying capacity there is naturally increase in size, and vehicles are being built longer and wider, up to the maximum dimensions permitted by law.

Simultaneously, with the increase of vehicle capacity, there has been continued improvement in the travelling performance of all types from motor-cars to the heaviest combinations. Our roads and highways must therefore not only provide for a growing traffic volume, but also for an increasing number of heavier and larger vehicles all moving generally with increased speeds.

The basic problem facing a roading authority is to economically provide the facilities over which efficient automotive transportation can be conducted. The ideal to be aimed at is to provide a road design which will automatically carry traffic safely and fluently at a rate which, because it is in harmony with vehicle performance, will not be unduly restrictive.

Where facilities lag behind the development and performance of traffic units, restraint is imposed on operation, to the detriment of road safety. Under these conditions accidents readily occur when the human element fails.

Exigencies of the time will, of course, require some modification of the ideal in roading policy. Within its resources the Board must meet immediate demands, and at the same time provide for modern trends and guide the sound development of our highway system. In the present effort to extend dustless surfacing, particularly in the closing of unsealed gaps on the more densely trafficked arterial highways, therefore, the Board cannot always undertake the extent of reconstruction which may ultimately be desirable. The policy adopted is that where there appears to be little possibility of improving a section of highway to its lastingly acceptable standard within the next few years, a low-cost dust-laying seal coat is being applied with only such minor improvements to the existing condition of the road as will ensure soundness of the work. Such improvements are usually limited to the correction of drainage deficiencies, the strengthening of the metal courses, reshaping of the road, particularly to provide superelevation on curves, and limited corner improvements to provide two-way width.