

(3) CLASSIFICATION OF STATE HIGHWAYS (RURAL SECTIONS) AT 31ST MARCH, 1939.

			State Highways.	Class Three.	Class Four.	Class Five.	Total Classification.
			Miles.	Miles.	Miles.	Miles.	Miles.
North Island	..	..	2,112	1,215	869	..	2,084
South Island	..	..	1,648	1,521	..	..	1,521
Totals	..	..	3,760	2,736	869	..	3,605

In the North Island 57 per cent. of the State highway mileage is classified in Class Three and 41 per cent. in Class Four. The sections which remain in Class Four lie in the North Auckland Peninsula and in the central part of the Island where the foundations generally are weak and where there is a scarcity of good-quality surfacing-material.

However, several sections of the State highway system which were formerly classified in Class Four have been reclassified during the year in Class Three following the improvement of the standard of construction. As soon as a length of Class Four highway is reconstructed to a higher standard steps are taken to raise the classification accordingly. Generally in rural districts a maximum classification of Class Three will permit of economic transport, and at the same time provide an adequate degree of protection to the road surfaces. This class allows for gross loads up to 7 tons or, in the case of multi-axled vehicles, a maximum weight per axle of $4\frac{1}{2}$ tons.

In the South Island 92 per cent. of the total length of State highways is classified in Class Three, and none of the system is classified in a lower class.

In general the unclassified lengths on the State highway system are adjacent to the larger industrial centres where the surfaces have been constructed to a higher standard than that which is usually provided on rural highways.

B. TRAFFIC CENSUS.

(1) INTRODUCTORY.

The second national census of traffic using the main-highway system was conducted by the Main Highways Board during 1937-38. A previous census was taken in 1934-35, when the nature and volume of traffic was recorded for one week during the winter and a further week in the summer. In the first census some 370 tally stations were selected, and during the last census these same stations were adhered to as far as possible, but the number was increased to 444 to obtain records at certain important points where the traffic was not tallied previously. The census again extended over a period of one week in the winter and another in the summer at dates corresponding to those selected originally. The total mileage of main highways at the time of the first census was 11,176, and there was, on an average, one tally station for thirty miles. In 1937-38 the mileage of the system had increased to 11,710, and the stations were spaced at twenty-six-mile-average intervals. In practice the great proportion of the stations were allotted to the arterial highways, and in many instances no tally was taken on the less-important highways. On the State highway system, comprising 3,761 miles of the total of 11,710, there were 254 stations, or one every fifteen miles. At 91 representative stations the tallies were taken continuously over the whole twenty-four hours each day for the period of seven days. At the majority of stations, however, the daily period extended from 6 a.m. to 10 p.m.

While the traffic census over the main-highway system is of undoubted value, particularly to the Main Highways Board in determining the relative merits and economics of highway improvement proposals, it relates only to 22 per cent. of the road mileage of the Dominion, and is therefore very incomplete so far as a national road traffic census is concerned. However, in the absence of a comprehensive census of traffic over the whole of the national system of roads and streets, it has been found possible to determine approximately the proportions of traffic carried on the other divisions of the roading system by reference to the national petrol-consumption figures and to the results of traffic surveys carried out in a number of comparable States in the United States of America. Table A shows that while the main-highway system represents only 22 per cent. of the road mileage of the Dominion it carries about 60 per cent. of the total traffic. The urban roads constitute 8 per cent. of the road mileage and carry about 30 per cent. of the traffic. The rural roads other than main highways provide a considerable mileage—70 per cent. of the total—but are estimated to carry only 10 per cent. of the total traffic. While these figures are of necessity only estimates, they are nevertheless based upon sound data and experience elsewhere, and are probably fairly near the mark.

TABLE A.—THE NATIONAL ROADING SYSTEM: MILEAGE AND TRAFFIC CARRIED ON URBAN ROADS, MAIN HIGHWAYS, AND OTHER RURAL ROADS.

Classification of Road System.				Mileage of System.	Proportion of Total Mileage.	Estimated Amount of Traffic carried.	Estimated Proportion of Total Traffic carried.	Estimated Average Traffic Density.
				Miles.	Per Cent.	Millions of Vehicle- miles per Annum.	Per Cent.	Motor- vehicles per Day.
Urban roads	..	..	..	4,201	8	442.6	30	289
Main highways	..	..	..	11,710	22	885.3	60	207
Other rural roads	..	..	..	36,699	70	147.5	10	11
All roads	..	..	..	52,610	100	1,475.4	100	77