

Appendix: Accidents at driveways

1. Summary

Analysis of the 1987-91 injury accidents for all New Zealand shows 10.1% of urban and 6.1% of rural accidents occurred at driveways, i.e. are coded with junction type = D driveway in the Ministry of Transport accident database.

In urban areas nearly half of the accidents involved two vehicles on the frontage road, nearly one quarter vehicles from the driveway crossing or merging with the frontage road traffic and about one tenth vehicles manoeuvring (mainly reversing) at a driveway. Only 6% involved pedestrians. Of those involving two vehicles on the frontage road, two thirds were turning v same direction (G movement type) and one third right turn against (L movement type). Most involved right turn movements into driveways.

In rural areas over half involved two vehicles on the frontage road, 15% vehicles from the driveway crossing or merging with the frontage road traffic and 7% vehicles manoeuvring at a driveway. Less than 2% involved pedestrians. Of those involving two vehicles on the frontage road, most involved right turn movements into a driveway. As with the urban accidents, about two thirds of these were turning v same direction and one third right turn against movements.

Analysis of the injury accidents coded with special codes to indicate the development being served shows over half were at private house/farm driveways and about one quarter at non specified commercial activities.

2. Introduction

This appendix presents an analysis of the reported injury accidents for all New Zealand for the 1987-91 five year period. Accidents at driveways have been selected as those accidents coded with junction type = D (driveway).

In 1991 the Ministry of Transport introduced special codes to indicate the type of development vehicles were entering or leaving when accidents occurred at junction type = D. In the Ministry of Transport's southern region the accident data back to 1988 was reviewed to ensure accidents with junction type = D had the relevant special code added or, if the driveway was not relevant to the accident, the junction type = D removed. This checking and back coding has not been done in the central or northern regions. These codes have been analysed to show the developments served for 1991 national and 1988-91 southern region data.

3. Overall accident analysis

The following table shows an analysis of the national 1987-91 injury accidents with junction type = D. This gives a breakdown of the accidents by accident numbers, road type, vehicle type, movement type and natural light conditions.

Table 2: All New Zealand 1987-91 injury accidents with junction type = D (driveway)

		Urban		Rural	
		Number	%	Number	%
Accident numbers	All 1987-91 injury accidents	42,675		19,525	
	1987-91 injury accidents with junction = D	4,326	10.1	1,192	6.1
Road type	Accidents at driveways on state highways	479	11.1	685	57.5
	Accidents at driveways on local roads	3,847	88.9	507	42.5
Vehicle type	(As % of vehicles in driveway accidents)				
	Cars/vans/taxis		77.3		76.7
	Motorcycles		18.5		13.5
	Trucks		3.6		8.7
	Buses		0.4		0.2
	Other		0.2		1.0
Movement type	(Letters are first letter of movement code)				
	G turning v same direction	1,358	31.4	487	40.9
	L right turn against	661	15.3	202	17.0
	M manoeuvring (mainly MD driveway manoeuvres)	497	11.4	80	6.7
	H, J, K crossing or merging	969	22.4	182	15.3
	N, P pedestrian	267	6.2	17	1.4
	Other	576	13.3	223	18.7
Natural light conditions					
	Daylight	3,234	74.8	932	78.3
	Dark	1,086	25.2	258	21.7
Casualty type	(Types of road user killed or injured)				
	Driver (car/van/taxi)	1,916	35.7	844	44.7
	Passenger (car/van/taxi)	853	15.9	557	29.5
	Heavy vehicle	50	0.9	51	2.7
	Motorcyclist	1,491	27.8	349	18.5
	Pedestrian	283	5.3	28	1.5
	Cyclist	757	14.1	53	2.8

Note: Further analysis of the G turning v same direction movement type above shows most of these involved right turn movements into the driveways (73% of the urban and 90% of the rural G movement type).