# Submission

by

Business|NZ

to the

# Land Transport Safety Authority

on the

# Yellow Draft

# *Land Transport Rule:*

# *Vehicle Dimensions and Mass (Rule 41001)*

**3 September 2001**

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**YELLOW DRAFT**

***LAND TRANSPORT RULE:***

***VEHICLE DIMENSIONS AND MASS (RULE 41001)***

**SUBMISSION BY BUSINESS NEW ZEALAND**

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## 1. Introduction

1.1 This submission is made on behalf of Business New Zealand, incorporating regional employers' and manufacturers' organisations. The regional organisations consist of the Employers and Manufacturers Association (Northern), Employers and Manufacturers' Federation (Central), Canterbury Manufacturers' Association, Canterbury Employers' Chambers of Commerce, and the Otago-Southland Employers' Association. Business New Zealand represents business and employer interests in all manners affecting the business and employment sectors.

1.2 One of Business New Zealand's key goals is to see the implementation of policies that would see New Zealand retain a first world national income and to regain a place in the top ten of the OECD. This ambition is shared by the Government, and was most recently articulated by the Prime Minister to the Knowledge Wave Conference. It is widely acknowledged that consistent growth in real GDP per capita of well in excess of 4% per annum (and probably closer to 7-8%) would be required to achieve this goal. Continued growth of around 2% (our long-run average) would only continue New Zealand's relative decline.

1.3 Business New Zealand therefore strongly supports Transit New Zealand's proposals to increase the mass and dimensions of heavy vehicles and urges the LTSA to incorporate them into the Draft Rule. The national benefits in favour of increasing maximum truck weights and lengths are compelling. The research that has been undertaken by Transit, Infometrics, and Road Transport Forum New Zealand (RTF) indicates that the proposal, by reducing

freight rates, would support business growth and national prosperity. Transit suggests benefit/cost ratios of up to 9, and Infometrics estimates that GDP would increase by 2.2-3.7%. Furthermore, the proposals would appear to be consistent with international best practice and would therefore assist New Zealand's international competitiveness.

1.4 Of course, the road safety implications of allowing heavier and longer vehicles on the roads are critical. We find the adoption of strict performance-based standards, as well as additional compliance and enforcement measures, to be reassuring. Importantly, it is probable that fewer trucks would be needed to transport the same (or greater) amount of freight, so reducing the exposure of private motorists to heavy trucks. These heavier vehicles are also likely to be newer and therefore safer than elements of the existing fleet.

1.5 We accept that New Zealand's terrain and geography make some of our roads challenging and at times dangerous. We therefore support Transit's plans to test all bridges with a view to replacing or strengthen those that are found to be weak, as well as its work to straighten corners and construct more passing lanes. We also agree that longer vehicles should be confined to a network of upgraded routes, as proposed by Transit.

1.6 We note that there are also likely to be environmental benefits from there being fewer trucks, meaning greater fuel efficiency per tonne carried. The use of newer vehicles with more up-to-date technology would be beneficial in terms of fuel efficiency and emissions control.

1.7 The proposed weights and dimensions are operating successfully in other countries, so the technical aspects of vehicle performance requirements are available. While do not wish to comment in depth on the technical detail of the Draft Rule, we would endorse RTF's submission in this respect.

## 2. Support for Transit New Zealand Proposals

2.1 The existing mass and dimension limits for heavy vehicles depend on the number of axles the vehicle has to spread its weight. This is in order to minimise damage to the roads and to maintain safety. The existing limits provide for a maximum weight of 44 tonnes and maximum length of 20 metres.

2.2 We understand that work has been ongoing for many years on investigating whether heavier vehicles should be allowed to operate on New Zealand's roads. Research strongly suggests that heavier trucks would reduce transport costs, assisting the farming, forestry, manufacturing, and distribution sectors to be more efficient, so benefiting the economy and consumers.

2.3 Business New Zealand supports Transit's two proposals for incorporation in the Draft Land Transport Rule on Vehicle Dimensions and Mass, described as follows:

- Scenario A: existing vehicles and vehicle combinations allowed to operate on the whole public network (excluding those roads with weight restricted bridges) at mass limits up to 14% higher (to a maximum of 50 tonnes) than currently permitted, but with no increase in vehicle dimensions.

- Scenario B: specific vehicle combinations allowed to operate on a *selected network* of upgraded heavy routes, at increased mass (maximum 62 tonnes) *and* dimensions (up to an overall length of 25 metres).

2.4 We endorse Transit's view that benefits from increased mass and dimension limits would have the potential to significantly improve New Zealand transport cost competitiveness. A study undertaken by Transit indicates that Scenario A

would result in a benefit/cost ratio of 9 and Scenario B, a benefit/cost ratio of 6.

2.5 Meanwhile, Transit also considers that as all vehicles operating at the new limits would be subject to an additional compliance regime, these benefits could be achieved without compromising safety. It is also suggested that permitting heavier trucks would mean fewer trucks on the road to transport the same (or greater) amount of freight, and newer vehicles that are of a higher safety standard than at present. Fewer trucks would provide road safety benefits by reducing the exposure private motorists have to heavy trucks.

2.6 The proposals would also see a reduction in congestion and exhaust emissions as well as an increase in industry-wide fuel efficiency, so providing environmental benefits.

## 3. Economic Benefits

3.1 As part of its work at assessing whether maximum truck weights and dimensions should be increased, Transit undertook a study of the principal costs and benefits that would result from the introduction of heavier vehicles. The study came to the following conclusions:

| **Scenario** | **Total Benefits** | **Total Costs** | **Benefit/Cost Ratio** |
|---|---|---|---|
| Scenario A | $499 million | $56 million | 8.9 |
| Scenario B | $470 million | $82 million | 5.7 |

3.2 The benefits were in the areas of industry economies (i.e., greater efficiency and reduced freight rates), safety, and the environment. The costs were the increased costs of pavement wear, bridge testing and upgrades, and road geometry (i.e., road widening and the straightening of corners).

3.3 A benefit/cost ratio of greater than 1 is regarded as having economic value. It is interesting to note that Transfund New Zealand is currently able to fund roading projects that have benefit/cost ratios of greater than 4. Therefore, it is

clear, even under current resource constraints, that these proposals should be a high priority.

3.4 At a regional level, Transit's research suggests that there would be particularly high benefit/cost ratios (i.e., over 10 for Scenario A) for the Waikato, Bay of Plenty, Hawkes Bay, Wellington, and Canterbury regions.

3.5 Transit's research did not model the flow-on 'macro' benefits to the wider economy. RTF therefore asked Infometrics to model the economy-wide impacts of changes in freight rates that would result from an increase in the productivity of the trucking fleet.

3.6 The road transport industry is characterised by the presence of many small industry players and is widely regarded as being highly competitive. RTF considers that Transit's proposals would result in considerable productivity gains for the road freight industry, and because of its competitive nature, players would pass their gains onto their customers through lower freight rates (as much as 12% for Scenario A and 23% for Scenario B). RTF conservatively estimates a 10% reduction in freight costs across the land transport sector due to rail transport being compelled match the reduction in road freight rates.

3.7 Infometrics concludes that were freight rates to fall by 10% due to an increase in productivity, GDP would increase by 2.2%. Were the effect of lower freight rates on the cost of living taken account in wage setting, the flow-on economic benefits would be enhanced with GDP rising by 3.7%. We endorse the findings of the Infometrics study.

3.8 RTF also recently undertook an informal survey of transport costs as a percent of turnover for a major retail chain. It found that whereas transport costs were a small percentage of turnover in Auckland, they were much higher elsewhere:

| Location | Transport costs as proportion of turnover (where Auckland = 1.0) |
|---|---|
| Wellington | 2.8 |
| Masterton | 2.8 |
| Napier | 3.0 |
| New Plymouth | 3.6 |
| Christchurch | 3.6 |
| Waihi | 4.0 |
| Te Aroha | 4.0 |
| Whakatane | 5.4 |
| Dunedin | 6.2 |
| Invercargill | 8.5 |

3.9 The Government has put a high political priority on regional development. Clearly, greater efficiency gains and reduced freight rates would be particularly beneficial for businesses and consumers in the regions.

## 4. International Comparisons

4.1 The following table compares New Zealand limits to those in selected overseas jurisdictions.

| Country | Maximum Weight | Maximum Length | Maximum Weight on a Tandem Axle |
|---|---|---|---|
| Australia | 62.5 tonnes | 25 metres | 16.5 tonnes |
| Canada | 62.5 tonnes | 23 metres | 17 tonnes |
| Finland | 60 tonnes | 24 metres | 18 tonnes |
| Netherlands | 50 tonnes | 22 metres | 18 tonnes |
| **New Zealand** | **44 tonnes** | **20 metres** | **15 tonnes** |
| Sweden | 60 tonnes | 25 metres | 18 tonnes |
| United States (Alaska, Idaho, Michigan, North & South Dakota, Wyoming states) | Up to 66 tonnes | Up to 23 metres | Up to 16.8 tonnes |

Note: The Netherlands is currently reviewing maximum truck weights and dimensions with a view to adopting 60 tonnes and 25 metres respectively.

4.2 The table shows that New Zealand's maximum weights and dimensions are considerably lower than best international practice. New Zealand's rugged topography and terrain means that our road conditions are different from many of those jurisdictions listed above. However, within Australia, the states of Tasmania and Victoria in particular have very similar topography, terrain, road characteristics, and traffic volumes to New Zealand, yet they allow larger heavy vehicles *and* have significantly better road safety records.

4.3 New Zealand has relatively few competitive advantages but many competitive disadvantages, most notably the fact that we are a geographically isolated, sparsely populated country, a long distance away from our major export markets. New Zealand businesses therefore must spend a relatively high proportion of resources on transportation – both internal and external. In fact, out of sheer necessity, transport has been one of New Zealand's faster growing sectors over the past decade.

4.4 With internal transport being such a key component for our international competitiveness and economic well being, New Zealand's cause is not helped by the existing weight and dimension limits. It can be argued that they act as a drag on growth and competitiveness.

## 5. Safety Issues

5.1 Although the economic arguments in favour of increasing truck weight and dimension limits are compelling, concerns have been expressed by some private motorists who have fears about the safety of larger trucks on poor or congested roads. While understandable, much of the argument against the proposals appears to have been based on emotion rather than reason.

5.2 It is at least partly in response to existing concerns about truck safety, that the LTSA is introducing performance-based standards to the current fleet that aim

to reduce the risk of crashes in the form of the draft Rule. Transit has suggested that if heavier trucks were to be allowed to operate in the new environment they ought to meet even tougher standards than those being introduced for the existing fleet. Business New Zealand endorses this approach and we believe that considerable safety benefits would result.

5.3 We understand that Transit would develop the appropriate standards, and that it has already submitted details of new standards covering power/weight performance at higher mass limits to the LTSA. These standards would ensure that heavier vehicles are able to perform safely at urban intersections and railway level crossings, as well as maintain acceptable speeds on uphill grades.

5.4 If more productive trucks were to be permitted to operate in New Zealand, it is likely that they would progressively replace older vehicles, so improving the quality of the fleet over time. The new vehicles would comply with the latest international safety and stability standards and would feature the most up to date technology.

5.5 We also note that Transit's benefit/cost analysis that suggests Scenario A would result in annual net benefits of +$88 million and Scenario B +$4 million. Both scenarios are therefore expected to result in positive road safety outcomes. We respectfully urge the LTSA, the Ministry of Transport, and the Minister of Transport to consider the proposals objectively on their merits, which we believe have been soundly worked through, rather than make an emotive decision based on the level of 'noise' made by opponents.

5.6 Over recent years, New Zealand has quite rightly sought to emulate the experience of the Australian state of Victoria, which has significantly improved its road safety performance since the 1970s and 1980s. Many Victorian road safety initiatives have been adopted by New Zealand, and, as a result, our fatal accident rates have reduced from 3.6 fatalities per 10,000 vehicles in 1989 to 2.1 in 1999 (LTSA crash statistics). However, Victoria's fatal accident rate remains considerably lower, at 1.3 fatalities per 10,000 vehicles (Vic

Roads crash statistics). This divergence is despite the two jurisdictions having similar terrain and topography, similar roads, and similar people. New Zealand still has much to do to improve its road safety record, and we believe that the LTSA should consider Victoria's experience, where the introduction of heavier and larger vehicles is acknowledged to have helped in reducing the road toll.

## 6. Enforcement and Compliance

6.1 Closely related to safety is the issue of enforcement and compliance. Vehicles operating at higher limits would be subject to an enhanced regime covering mass and route compliance.

6.2 Business New Zealand notes that Transit has indicated its willingness to assist the industry in developing systems to manage compliance and has already presented an outline strategy to the LTSA covering mass compliance systems. The use of Global Positioning Systems (GPS) could be considered for New Zealand as well as traditional enforcement and compliance tools.

6.3 We believe that if operators persistently fail to comply with the standards they should be exited from the industry.

## 7. Environmental Impacts

7.1 Research indicates that, as fewer trucks would be required to carry the same (or more) freight, there would be environmental benefits from reduced fuel consumption and lower exhaust emission levels for each tonne carried. New, more efficient trucks would also be required to meet international exhaust emission standards, which are higher than those applying to older vehicles.

7.2 At a local level, an improvement in congestion and air quality should be evident. Furthermore, more efficient road transport could also help reduce greenhouse gas emissions, so assisting New Zealand in meeting its climate change obligations at less cost to the economy.

## 8. Bridges

8.1 Transit estimates that 2% of State Highway and 14% of local road bridges would require some sort of strengthening or replacement to safely handle the heavier limits proposed. It recommends that a national bridge-testing programme should be introduced covering all bridges. We support the bridge-testing proposal, although we urge that it be completed as a high priority so that the benefits of the proposals may be realised as soon as possible.

## 9. Road Surfaces

9.1 With regard to Scenario A, Transit believes that there is likely to be little impact (i.e., less than 2% increase) on road wear. This is because of the relatively small increases in proposed axle loadings.

9.2 Meanwhile, Scenario B would result in greater road wear (8-15%). Transit suggests that trucks operating under this scenario should be fitted with 'road-friendly suspension' to reduce road wear and improve vehicle stability. This would be in line with international trends and would be beneficial for both the road surface and road safety. We support this approach.

9.3 The trucking industry will meet the costs of the extra road wear through road user charges (RUC). As RUC is paid by axle-weight and distance travelled, the industry will pay more for using heavier trucks.

## 10. Road Geometry

10.1 Under Scenario B, longer vehicles would require more space for cornering safely in rural areas. Transit estimates that it would cost $40 million over three years to widen over 800 corners. In urban areas, work would need to be carried out at intersections to adjust for the wider 'sweep' of these vehicles. This work would also have wider safety benefits for motorists.

10.2 Additional passing lanes have already been identified as a priority by Transit. We believe that more passing lanes are a 'must do' if motorists are to accept these proposals.

10.3 Business New Zealand does not agree, however, that any improvements made to the roading network to cater for heavier and longer vehicles should be paid only by the road transport industry. We understand that trucks already pay a disproportionately and increasingly high proportion of roading revenue through the RUC system. To get the trucking industry to pay even more would be unfair, particularly as private motorists would also reap the benefits of straightened corners, better bridges, and more passing lanes.

## 11. Route Network for Scenario B

11.1 Under Scenario A, heavier vehicles would be allowed on all public roads, with the exception of those where bridges are weight restricted. Because Scenario B involves even heavier vehicles (which are also longer) Transit has proposed that these vehicles should only be permitted to operate on selected routes.

11.2 We note that this network would link all major cities and most provincial centres, with the exception of Gisborne (presumably because the Napier-Gisborne road is not considered to be suitable for the heaviest and longest vehicles). Short sections of local road connections in urban areas would also be included. Business New Zealand agrees with the Scenario B network, although we note that some stretches of road are likely to need improvements (e.g., around Kaikoura (SH1), Buller (SH6), and Awakino (SH3)). This has been allowed for in Transit's analysis of the benefits and costs of its proposals.

11.3 Route compliance would initially be enforced through paper-based permits (similar to Australian experience when it introduce 62.5 tonne 'B-Doubles' on selected routes). In the longer term, GPS-based systems are favoured once the technology has been proven and can be successfully applied. We endorse this approach.

## 12. Funding

12.1 We understand that Transit would apply to Transfund New Zealand for funding to cover the national bridge-testing programme. Road controlling authorities (Transit and local authorities) would undertake any subsequent strengthening or replacement of weaker bridges under the usual subsidy arrangements with Transfund. This is appropriate, and, as discussed above, we believe that the cost of the improvements should be shared equally between the road transport industry and private motorists.

## 13. Rail

13.1 Some of those concerned at Transit's proposals have used the argument that rail would be 'unfairly' disadvantaged and that instead more freight should be encouraged onto rail. In reality, however, road and rail only compete for a very small proportion of the overall freight market at the margin. Most freight travels by road for the following reasons:

- Rail is generally unsuitable for short hauls and 80% of freight travels less than 100 kilometres;
- Just-in-time deliveries over the longer haul are also less likely to be able to go by rail.
- The rail network comprises of 3,900 kilometres of track compared to 10,600 kilometres of State Highways and a further 81,500 kilometres of local roads. The rail network cannot reach number of destinations (particularly in rural and provincial New Zealand), and even if a destination is served by rail, services are often less frequent and cannot always follow the most direct route.

13.2 However, rail is very competitive for certain types of freight over longer distances and we believe that it is unlikely that the proposals would result in rail losing much of its existing business. Rail's market share has remained at a constant 20% for nearly a decade despite freight rates having fallen substantially since deregulation.

13.3 In terms of the environment, rail does not offer the much claimed fuel efficiency benefits over road transport for journeys of less than 400 kilometres. This is due to rail freight requiring more handling, yard shunting boosting overall fuel use, and rail's lower utilisation with fewer backloads. New Zealand's narrow gauge rail network, difficult topography and the use of older, inefficient locomotives and rolling stock further reduces its fuel efficiency compared to international best practice.

13.4 Finally, it should not be forgotten that Tranz Rail is also one of New Zealand's major road carriers. The reality, in our view, is that Tranz Rail's principal pro-rail and 'public interest' arguments are in fact window dressing for its more self-interested agenda of resisting impacts on the company's existing rail and road freight revenue yields that would result from reduced freight rates.

## 14. Conclusion

14.1 Business New Zealand strongly supports Transit's proposals to increase the mass and dimensions of heavy vehicles. The economic arguments in favour of increasing maximum truck weights and lengths are compelling and would be achievable without detrimental impacts on road safety or the environment. Furthermore, the proposals would be consistent with international best practice and would assist our international competitiveness.

## 15. Recommendation

15.1 Business New Zealand recommends that the Land Transport Safety Authority should incorporate Transit New Zealand's proposals into the draft Vehicle Dimensions and Mass Rule.