



**Submission to the Office of Road Safety**

**National Road Safety Strategy 2021-30:  
Consultation Draft**

**23 March 2021**

## Introduction

1. This submission responds to the Consultation Draft of the National Road Safety Strategy 2021-30 (Strategy).<sup>1</sup>
2. NatRoad is Australia's largest national representative road freight transport operators' association. NatRoad represents road freight operators, from owner-drivers to large fleet operators, general freight, road trains, livestock, tippers, car carriers, as well as tankers and refrigerated freight operators. The majority of NatRoad members operate heavy vehicles and accordingly comments are mainly directed to heavy vehicle safety.<sup>2</sup>
3. NatRoad made a call out to all members on the terms of the Strategy as well as consulting with members of a specialist working group, so the Strategy had wide circulation amongst members. Pertinent member comments are included in this submission.

## Targets

4. NatRoad supports endeavours to secure zero road deaths.<sup>3</sup> The targets in the Strategy are supported. The primary goal is zero road deaths by 2050. This ambitious target is preceded by fatalities per capita reduced by 50% to 2030 and serious injury per capita reduced by 30% to 2030.
5. In the meeting of these targets strong member feedback is that heavy vehicles should not be treated as the pariahs of the road. The emphasis in the Strategy on the consequences of a crash with a heavy vehicle rather than on other factors discussed in this submission, has led members to conclude that the Strategy is skewed unfavourably against the sector. That feedback indicates that there has not been a sufficient focus on the positive outcome of road safety efforts by the heavy vehicle industry, including the following finding by the Productivity Commission:

*The rate of heavy vehicle crashes involving injury or death (per billion vehicle kilometres travelled) fell by about 40 per cent between 2009 and 2019.<sup>4</sup>*

## Critical Emphasis on Matters Omitted

6. There are a number of issues not addressed in the Strategy which members believe are key to reaching the Strategy's targets. These are next discussed.
7. Australia needs to embrace a better on-road culture, that respects heavy vehicles have a critically important place on the road. The pandemic has shown that freight must be preferenced. Passenger and light vehicle interaction with heavy vehicles needs a renewed focus by road safety

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<sup>1</sup> <https://www.officeofroadsafety.gov.au/sites/default/files/documents/draft-national-road-safety-strategy.pdf>

<sup>2</sup> Dealt with in short form at note 1 p 16

<sup>3</sup> Expressed in this May 2020 NatRoad media release <https://www.natroad.com.au/news/road-safety-all-road-users>

<sup>4</sup> See Productivity Commission *National Transport Regulation* <https://www.pc.gov.au/inquiries/completed/transport/report/transport.pdf> p147

regulators, with dedicated and separate freight corridors given priority. This could, in part, be addressed through public awareness campaigns and driver education programs for new and existing licence holders. Member feedback is that more emphasis on treatments which separate heavy vehicles from other road users, especially those who are vulnerable, and contemporaneously giving better access to freight vehicles are vital reforms.

8. Instead of this focus it appears that the Strategy concentrates more on seeking to attribute a poor road safety culture to business, for example saying that government should:

*Encourage and support organisations to take responsibility for road and vehicle safety across their operation by taking actions and setting policies that support and enhance the individual responsibility of workers and create a road safety culture.*<sup>5</sup>

9. That road safety culture cannot be fostered where the vast majority of at-fault accidents are caused by light vehicle drivers, a matter discussed further in this submission. In addition, road conditions often affect the approach to road safety.
10. For example, during the return to normality after the COVID-19 restrictions are eased, congestion has and will further increase. The pandemic has had far reaching effects. Social distancing restricts the capacity of business offices and public transport systems. Those factors together with fear of contraction of the virus by using public transport has led to a significant proportion of the population working from home.<sup>6</sup> This has translated to increased home deliveries and related freight activity. During the pandemic, online shopping grew five to six times the level of annual growth in 2019, increasing the last mile freight task (thus increased demand on the industry and accelerating a trend that had been more slowly developing).<sup>7</sup> This has increased congestion and changed the pattern of freight activity, particularly in metropolitan areas.
11. Congestion is a contributor to accidents and congestion is likely to be increased as people reject public transport and use their own vehicles and increasingly rely on home delivery. Congestion is not covered in the Strategy and runs counter to the creation of a “road safety culture” in individual businesses, referred to above. It is a very poorly understood issue, especially in Australia post-COVID with this observation showing the contradictory elements at play:

*While accidents may be expected to increase due to a larger number of vehicles on the road, they may also decrease due to a reduction in speed. The latter was found in the US, Israel, and Germany when only fatal accidents were considered. In Michigan the highest accident rates were observed at the lowest and highest volume to capacity (v/c) ratios; this suggests that accident occurrence may be a function of both speed and number of cars on the road. That is, at low traffic volumes accidents occur frequently as a result of high speeds, while at high volumes, accident rates are higher due to more cars being on the road. Reducing congestion is beneficial in reducing delays, pollution, and stress and increasing productivity and its associated economic benefits. However, the increase of fatal accidents at low levels of congestion creates a conflicting scenario where*

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<sup>5</sup> Above note 1 p 17

<sup>6</sup> The ramifications for transport planning are discussed here <https://imoveaustralia.com/thoughtpiece/working-from-home-reducing-traffic-congestion/>

<sup>7</sup> <https://www.infrastructureaustralia.gov.au/publications/Infrastructure-beyond-COVID> at p86

*congestion and fatalities cannot be reduced together. This emphasizes the importance of improving the understanding of the influences of congestion on accidents.*<sup>8</sup>

One of the recommendations that the Strategy should contain is the study of Australian conditions relating to congestion and its contribution to road accidents. This is important as congestion increases in current circumstances.<sup>9</sup>

12. Suicide is also a problematic issue: “death by truck” is a disturbing and increasing phenomenon. In recent research, 37.5% of fatal truck and car crashes (multi vehicle incidents) in 2017 were indicated or strongly indicated to be suicides by the driver of the car.<sup>10</sup> This is simply tragic, not only for the victim but for those truck drivers who may suffer trauma from such incidents. There needs to be urgent research as to why this is a way in which people increasingly choose to take their own lives. Further, there can be no zero road toll where the opportunity for this kind of behaviour remains, particularly where road incidents are not clearly of the character of suicide. That means that road separation infrastructure should be prioritised as a recommended outcome of the Strategy. Similarly, suicide reduction/prevention measures should be canvassed in the Strategy despite the exclusion of road deaths that are clearly suicides (and other intentional acts like murder) from the road toll statistics.<sup>11</sup> NatRoad does not believe that this issue is for other forums; it is clearly a road transport issue, as well as a general public health issue.

## **Speed Management**

13. NatRoad notes the emphasis on speed management in the Strategy. We believe that this emphasis goes too far, with member feedback that Wramborg’s Model for Fatality does not provide an adequate basis for founding the Strategy. In support of that view, we note in particular the work of Jurewicz et al<sup>12</sup>. This detailed scholarly work indicates in formal terms, the feedback that NatRoad members instinctively provided i.e., that separation and preferencing of heavy vehicles to minimise the probability of road conflicts is more important than speed management per se:

*Safe System performance of road infrastructure cannot be wholly achieved by controlling impact speeds and angles (i.e., geometry and layout), especially where high speeds are desired to meet the mobility function. This means that more weight should be placed on minimising probability of road user conflicts. Road user separation, minimisation of number of conflict points, and greater management of road user movements can all be used to provide solutions supporting the Safe System vision.*

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<sup>8</sup> Retallack and Ostendorf *Current Understanding of the Effects of Congestion on Traffic Accidents* (2019) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6766193/#:~:text=Congestion%20can%20also%20affect%20the,to%20a%20reduction%20in%20speed>.

<sup>9</sup> <https://www.natroad.com.au/news/congestion-expected-worsen-commuters-avoid-public-transport>

<sup>10</sup> <https://www.cilta.com.au/news-ta-2019-ntarc-suicide-by-truck-figures-a-shock>

<sup>11</sup> Discussed here <https://www.nrspp.org.au/2020/04/30/nrspp-commences-delivery-of-austroads-collaborative-suicide-in-road-transport-project/>

<sup>12</sup> Jurewicz, Sobhani, Woolley, Dutchske and Corben *Proposed vehicle impact speed - severe injury probability relationships for selected crash types* (2015) [https://digital.library.adelaide.edu.au/dspace/bitstream/2440/98594/3/hdl\\_98594.pdf](https://digital.library.adelaide.edu.au/dspace/bitstream/2440/98594/3/hdl_98594.pdf)

14. More emphasis on the factors mentioned in the last sentence of the above extract should be covered in the Strategy. Plus, the issue of deterrence against speeding via the current fines system is moot. Many members (and members of the community) view speeding fines as revenue raising. Feedback is strong in relation to the issue of fines that are disproportionate to risk and feedback is clear many petty infringement notices are issued that are disconnected from actual safety issues. This sentiment has become manifest recently in the decision of the NSW Government to remove warning signs about mobile speed detection units.<sup>13</sup>
15. With respect, the Strategy is out-of-touch with this community feeling especially as reflected in this extract from the Strategy which has been considered patronising in the feedback received from members (especially the indication of a lack of community “appreciation”):

*Community attitude surveys show a level of understanding of how speed relates to risk on the roads and good general support for speed enforcement; however many also think speed enforcement (particularly speed cameras) is as much about revenue-raising as safety, and do not appreciate how crash risks compound with even small increases in speed.<sup>14</sup>*

16. Instead of this reliance on speed enforcement under current conditions, the issue of better road design and road characteristics being a positive influence on speed and accident occurrence is supported as foundational. This is reflected in the Strategy in respect of an action set out under the “Risky Road Use” heading in the Strategy as follows:

*Work towards the notion of ‘self-explaining’ roads leading road users into compliance.<sup>15</sup>*

17. Self-explaining roads (SER) are, we believe, essentially those constructed to trigger ‘correct’ behaviour. These roads aim to regulate speed through design. We note that one researcher has found that “current methods for classifying and instructing drivers on correct speeds are not always in line with driver expectations. This leads drivers to choose an inappropriate speed. By applying SER treatments, the researchers aimed to introduce ‘inherent safety’.<sup>16</sup>
18. This area of research needs more attention and, in the view of NatRoad members, reinforces wherever possible the separation of designated and clearly allocated freight routes/corridors from other road users. More discussion on this issue is required, as in Australia many roads send mixed messages about speed and

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<sup>13</sup> <https://www.caradvice.com.au/924157/speed-cameras-are-nothing-more-than-cynical-revenue-raisers/>

<sup>14</sup> Above note 1 at p19

<sup>15</sup> Id at p18

<sup>16</sup> I Chowdhury (2014) *A User-Centered Approach to Road Design: Blending Distributed Situation Awareness with Self-Explaining Roads* <https://core.ac.uk/download/pdf/77035706.pdf> p18

compliance, especially roads that have variable and changing speed limits for heavy vehicles as opposed to other vehicles.

19. The essence of NatRoad's concern about speed management as an overriding priority is, however, one of misplaced priority given the acknowledged need to simplify/change road design so that users are led into compliance. This is summed up by Williamson<sup>17</sup> where she says:

*Unfortunately, there is considerable evidence that simply setting lower speed limits is a poor approach to safety as compliance often presents problems for drivers. Compliance is especially difficult when roads communicate conflicting information about appropriate speeds to drivers. To be effective, speed limits need to be creditable to drivers.*<sup>18</sup>

20. The NatRoad feedback is therefore that enforcement must be credible and speed limits creditable. Again, as summed up by Williamson:

*In summary, the problems for drivers in managing speed suggests that speed limits must be compatible with the characteristics of the road system and be credible. **Road safety problems should not be solved by only reducing speed limits but must be accompanied by modifications to the road system such as traffic calming and self-explaining roads.** These signal to drivers that a slower speed is needed and, even better, encourages them to do so as they naturally drive at lower speeds and do not require constant checking of speedometer.*<sup>19</sup>

21. In this context we believe that the core of member feedback on speed management and its inappropriate centrality to the Strategy has been encapsulated in this comment received from a member:

*The continuing reliance on speed enforcement as the primary manageable influence in safety outcomes is disappointing. Increasingly this is nothing more than a revenue raising scheme 'harvesting' the traffic flow with disproportionate fines for minor over-speeds. Contributing to this is the plethora of speed limit changes on an otherwise consistent stretch of highway; in the absence of GPS speed limit monitoring, it is remarkably easy to lose track of the prevailing speed limit, and point to point cameras embracing multiple speed zones with no indication of what the target travel time or average speed set for the section leaves drivers unsure of what they should be doing. This leads to inconsistent speeds as each driver tries to guess whether they are compliant or not.*

22. On a positive note, the sort of work announced by the Deputy Prime Minister on 4 March 2021<sup>20</sup> is exactly as required, particularly where work will encompass matters that affect road design:

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<sup>17</sup> A Williamson *Why do we make safe behaviour so hard for drivers?* Journal of Road Safety Vol 32, 1 2021 24 36

<sup>18</sup> Id at p 27

<sup>19</sup> Ibid our emphasis

<sup>20</sup> <https://minister.infrastructure.gov.au/mccormack/media-release/more-400-million-road-safety-funding-en-route-nsw>

*That's why we are rolling out this funding to deliver lifesaving upgrades including shoulder sealing, rumble strips to alert drivers when they are moving out of their lane, median upgrades to prevent head-on collisions and barriers to prevent run-off-road crashes and protect against roadside hazards.<sup>21</sup>*

## **Heavy Vehicle Safety as a Priority**

23. The Strategy contains discussion of heavy vehicle safety as one of the nine priority areas where actions are proposed.<sup>22</sup>

24. The introduction to this priority area ignores fault and says:

*Regardless of fault, the greater mass of these vehicles contributes a considerable amount of kinetic energy to a crash, with the other vehicle or vulnerable road user in the collision often enduring the worst of the impact.*

25. That comment has evoked concerned member feedback. In a system that is moving to zero harm, setting aside fault is believed to be misconceived. Vehicle mass and consequence of injury or death from a collision appear to be the motivator of suicide related fatalities mentioned above. That cannot be a matter that is affected by any of the proposed actions set out in the Strategy. Fault cannot be set aside, as was made clear in the Productivity Commission report mentioned earlier in this submission.

26. Members are concerned that in the face of the below finding and recommendation the Strategy must embrace the same issues:

### *FINDING 6.2 – RESPONSIBILITY FOR HEAVY VEHICLE FATALITIES*

*In 2017, most multi-vehicle fatal crashes involving a heavy vehicle were not the fault of the heavy vehicle driver. The driver of the other vehicle was at fault 83 per cent of the time. For serious, non-fatal, multi-vehicle crashes involving a heavy vehicle, the heavy vehicle driver was at fault 65 per cent of the time.<sup>23</sup>*

*Recommendation 6.1 – education and enforcement to improve road safety State and Territory governments should introduce new programs or continue with existing programs of education and enforcement to improve road users' understanding of driving safely around heavy vehicles.<sup>24</sup>*

27. It is only with the educative function expressed in the Productivity Commission's recommendation 6.1 that the cultural change that the Strategy promotes will eventuate. In fact, one cogent member comment in this context is his observation thus:

*While new personal, light vehicles continue to excel in the development of safety features, the drivers remain unaware of the skills and obligations that will keep them alive on the road.*

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<sup>21</sup> Ibid

<sup>22</sup> Above note 1 at p 16

<sup>23</sup> Above note 4 p23

<sup>24</sup> Id p24

## Safety Technology

28. The member comment in the prior paragraph is also relevant for the first action proposed under the Actions component of the heavy vehicle safety policy. The first action is to “regulate for and promote heavy vehicle safety technologies.”
29. NatRoad supports increased use of engineering outcomes to assist with safety. It is axiomatic that relying on behavioural change is not as effective in controlling risk as controls applied through engineering solutions or isolation. But there are cost and regulatory burdens associated with the uptake of safety technology in heavy vehicles.
30. Governments should do more to lower costs associated with the purchase of new heavy vehicles. This is particularly the case having regard to the low profit margins operating in the industry. A 2020 survey of the industry found:

*Average net profit (after tax) margins have fallen to around three per cent of revenue, increasing the pressure many fleets face when it comes to modernising their transport equipment.<sup>25</sup>*

31. Recently NatRoad addressed the issue of how Government should approach the issue of the uptake of Euro VI emissions technology fitted to new heavy vehicles (which are more likely to contain better safety technology.) In the NatRoad submission<sup>26</sup> on the issues raised by the potential mandating of Euro VI vehicles, we addressed better regulation practices and incentives to reduce costs of purchase, saying:

*At the least, we **recommend** that State and Territory Governments should waive stamp duty requirements on new registrations of Euro VI vehicles and consider ongoing concessions. This would be a 3% saving. Heavy vehicles are already too expensive in this country and adding another 3% to their cost at the time of registration via the application of stamp duty makes no sense. We ask that the Transport Ministers consider this request when they next convene.*

*NatRoad strongly **recommends** that the policy options should be designed to maintain the productivity of vehicles and improve the incentives to heavy vehicle operators to use Euro VI vehicles, for example by increasing steer axle mass limits and increasing vehicle length as we have set out in this submission. Current considerations to increase heavy vehicle width to 2.55 metres (or potentially up to 2.6 metres) should also form part of the reconsideration of vehicle design. This would make Euro VI vehicles more likely to be purchased and adds to our submission that with these proposed changes mandating Euro VI may not be required.<sup>27</sup>*

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<sup>25</sup> <https://www.isuzu.com.au/media/1253002/isuzu-future-of-trucking-report-the-road-ahead.pdf> at p 17

<sup>26</sup> NatRoad submission dated 24 February 2021 to the Department of Infrastructure, Transport, Regional Development and Communications on *Heavy Vehicle Emissions Standards for Cleaner Air: Draft Impact Regulation Statement*

<sup>27</sup> Id para 43 and 44



32. These recommendations remain relevant in the current context. Costs must be reduced and design considerations better linked with major exporting countries' technical specifications (especially relating to width) as precursors to the wider take up of safety technology.

33. The other consideration relevant to the discussion of safety technology is to ensure that it supports drivers. Technology must be tested so that it is capable of being used to advance road safety. We note that Williamson has also addressed this issue, saying:

*The common problem with new technologies is that they are assumed to be assistive and safer and are introduced into vehicles on that basis alone. Evaluation of effectiveness focusses only on demonstrating that the technology works as intended and does not include how drivers interact with it in use.<sup>28</sup>*

34. The Williamson research contains some important examples which we commend for consideration in the regulation and promotion of safety technologies.

### **Strengthen national heavy vehicle operational regulation**

35. The Fact Sheet<sup>29</sup> published with the Strategy relating to heavy vehicles contains a statement that indicates the current Heavy Vehicle National Law Review (HVNL) will consider road safety issues:

*Heavy vehicle safety is a key consideration of the HVNL Review currently being conducted by the National Transport Commission, with policy options from the review expected to be considered by Australian transport ministers in 2021.*

36. NatRoad notes that there are fundamental and systemic issues with the HVNL that must be addressed but which appear currently not to be part of the focus of reform: derogations, prescriptiveness of the law, a strong paper and administration focus, the law is unresponsive, and change is difficult, the law adopts a one size fits all approach, the law is not risk-based or proportionate and the law has not achieved its original goals. We therefore do not believe that the notion of a strengthening of the law is apposite. That should be replaced with the word "reform."

37. We are concerned that the idea that the law needs to be strengthened would increase prescriptive constraints rather than assist with a transition to better focused, more risk based regulation. There is also member concern that more prescriptive legislation will be applied in relation to the mechanical and vehicle condition standards of heavy vehicles as a "strengthening." The relevant statistics do not support such a move.

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<sup>28</sup> Above note 17 at p32

<sup>29</sup> <https://www.officeofroadsafety.gov.au/nrss/resources-fact-sheets/heavy-vehicle-safety>

38. The statistics show a very small proportion of fatalities relate to mechanical failure. NTI in its 2020 road safety report<sup>30</sup> said:

*One of the key findings in the previous edition of this report series was the proportion of NTI's mechanical failure large loss events that resulted from steer tyre failures. Between 2015 and 2017 there was a jump in the generally small proportion of losses caused by mechanical failures from 3.5% to 6.5%. In 2019 this dropped to 4%, returning to a level more consistent with prior years.<sup>31</sup>*

39. This finding accords with NatRoad member feedback that mechanical failure is very infrequently associated with road incidents and any “strengthening” in this area is not warranted. This reinforces that reform not strengthening is the correct concept to apply when considering the regulatory framework.

### **Promote and reduce barriers to the uptake of safe new heavy vehicles**

40. This topic is very similar to the first topic of promotion of heavy vehicle safety technologies. Australian sales of heavy vehicles comprise less than 1% of global truck production each year.<sup>32</sup> Australia is largely a technology taker. Currently the approximate split of new trucks sold in Australia by region of origin is Europe 35%, Japan 48%, USA 2% and locally manufactured 15% (noting that locally manufactured trucks predominantly use Euro specification engines with some USA specification engines).<sup>33</sup>
41. Because of this overseas reliance Government should wherever possible adopt overseas standards about heavy vehicle dimensions. This should not be a slavish process but one where experience with Australian conditions should be a primary consideration. The adoption of uniformity with overseas standards should be the primary stance but where unique Australian conditions can be researched and applied this would be an optimal outcome.
42. The effects of the federal Government’s instant asset write-off incentive, announced in the October 2020 Budget, has not had time to show in new truck sales to date, due to the lead-time from truck order to truck delivery. But member feedback is that this new incentive will stimulate growth in sales of new vehicles. It is these kinds of incentives that will achieve the objective of promoting the uptake of newer, safer vehicles.

### **Conflicts with construction vehicles**

43. The fourth action point for heavy vehicles in the Strategy is:

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<sup>30</sup> <https://partner.nti.com.au/getmedia/599392ad-0053-41de-a5e0-b980259d7745/2020-NTARC-Report.pdf>

<sup>31</sup> Id p 30

<sup>32</sup> Email communication Truck Industry Council

<sup>33</sup> Ibid

*Protect all road users from conflicts with construction vehicles through state/territory government construction contract requirements such as requiring inclusion of safety technologies.<sup>34</sup>*

44. The action point assumes a high level of accidents/incidents involving other road users and construction vehicles. It would be appreciated if the source of these statistics/concerns is shared with industry as it is not a measure that members were aware of in the lead up to the publication of the Strategy.

45. We note that in the consultation summary<sup>35</sup> that accompanies publication of the Strategy, the following is said in connection with the discussion of vulnerable road users:

*Significant construction work in urban areas results in increased interactions between construction associated traffic, including heavy vehicles and pedestrians. There are a number of ways to understand and address this issue to improve safety, including through encouraging/regulating contractual requirements around road safety, education, traffic management and vehicle technology.<sup>36</sup>*

46. Sharing of the empirical basis for any resultant accidents/incidents that have arisen from the construction related increase in traffic movements (and any quantification of those movements) would be appreciated so that industry is better able to understand the basis of this recommendation. NatRoad notes that tippers are involved in NTI recorded large losses thus:

*In 2019 the frequency of Rolled While Tipping losses remained essentially consistent at 4.8% of large losses, compared to 5% in 2017.<sup>37</sup>*

47. If the statistics on which the Office relies relate to incidents/accidents not connected with tip trucks, it would be worthwhile for the evidence to be shared so that the intent and expected outcomes of this element of the Strategy were made more palpable.

## **Conclusion**

48. NatRoad supports the development of the Strategy. We do not believe, however, that some of the foundational elements of the Strategy are correctly framed. Members have remarked on the need for education of light vehicle drivers when driving in proximity with heavy vehicles. That is a strategy that should be applied as a priority, inclusive of commencing education at schools so that cultural change is able to be made.

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<sup>34</sup> Above note 1 at p16

<sup>35</sup> <https://www.officeofroadsafety.gov.au/sites/default/files/documents/consultation-summary-priorities-for-the-national-road-safety-strategy-2021-30.pdf>

<sup>36</sup> Id at p9

<sup>37</sup> Above note 30 at p 35

49. We would be happy to workshop further feedback with Office personnel.