

# Memorandum

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To: Waitemata Local Board  
From: Andrew Bell, Strategy and Performance Team Leader  
Michael Brown, Road Safety Engineering Team Leader  
Date: 10 August 2018  
Subject: Auckland Transport's Road Safety and Speed Management programme 2018-21

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## Purpose

1. To update the Waitematā Local Board on Auckland Transport's (AT) Road Safety and Speed Management Programme.

## Executive summary

2. Auckland has a serious problem with people needlessly dying and being seriously injured on our roads and streets. In 2017, 64 people died on our roads and an additional 749 were seriously injured.
3. Road Safety performance in the Waitematā Local Board area has also worsened over the last five years due to various factors. These include economic and population growth, new demands on the unforgiving urban road network, and growth in people walking, cycling and motorcycling.
4. The Tāmaki Makaurau Road Safety Governance Group (TMRSG) has been established to provide leadership for improving safety and reducing the high number of death and serious injuries (DSi) on the Auckland road network. This group has a strong national and regional mandate to drive safety outcomes and the partners include AT, NZ Police, NZ Transport Agency (NZTA), Accident Compensation Corporation (ACC), Auckland Council (AC), Auckland Regional Public Health (ARPH) and Ministry of Transport (MoT).
5. As AT moves to the Vision Zero approach, it is also proposing an ambitious safety infrastructure acceleration programme estimated to reduce DSi by up to 18% over an initial three year period. It will work closely with its partners to deliver on the Vision Zero goal for Auckland. This follows the New Zealand's Government's commitment to deliver a new road safety strategy as outlined in the Government Policy Statement on Land Transport.
6. There is a strong focus on safety at AT. The Board and Executive Leadership Team have recently endorsed an increased three-year investment in road safety engineering, a Speed Management Plan and behaviour change activities to reduce road trauma, including in the Waitematā Local Board area.
7. The Auckland Road Safety Capital Programme 2018-28 is a systemic response to improve road safety outcomes and create a more forgiving road network. Investment will be lifted by an additional \$550 million over ten years.
8. The Regional Fuel Tax will enable this investment to improve a larger number of high-risk intersections and routes through roundabouts, red-light cameras, and segregated facilities. The combined impact of these accelerated programmes is estimated to reduce DSi by 60% over ten years from the 2017 baseline, as well as contribute towards additional congestion reduction benefits and increased health and environment benefits. Our aspiration is to move towards zero deaths or serious injuries on Auckland's roads.

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9. One of the fastest and most cost effective ways to reduce road trauma is to implement speed reduction measures. AT is currently working to identify areas and roads around the Auckland region to set lower speed limits. These roads will be added to the Schedule of Speed Limits and drafted into the bylaw. The bylaw will be consulted on Auckland-wide (consultation on the entire programme of works for the Auckland region at a strategic level). Post-consultation, the bylaw will need to be approved by AT's Board, after which the new lower speed limits will become legally enforceable.

10. The primary road safety focus areas in the Waitemātā Local Board area for the next three years include safe intersections and roads, safe speeds, vulnerable road user safety (people walking, cycling and motorcycling) and sober driving. These areas will be addressed through a combined annual programme of investment in safety engineering, speed management, education and training of road users and enforcement of safe road user behaviour with NZ Police.

## Context

11. Auckland's rapid growth has resulted in a number of challenges including housing, transport and public health. The recent increase in road trauma is both a transport and public health issue for the region with significant economic costs. More important, the after-effects of road trauma on the victims' whānau, friends and community are devastating.

12. AT's long-term goal of Vision Zero is about being more people-centered and emphasises that no loss of life on our road network is acceptable. It is a proven approach from jurisdictions where road designers and operators take greater responsibility in creating forgiving infrastructure that prevents road trauma.

13. The Vision Zero approach also accepts that road users are people who make mistakes and therefore all parts of the transport system need to be strengthened through a safe road environment, safe speeds, safe vehicles and safe road use, so that when mistakes occur, it does not lead to people dying or being seriously injured. These are the four pillars of the Vision Zero / Safe System approach.

14. Speed management is a central part of the Vision Zero approach for reducing speeds to survivable levels for road users, particularly on unforgiving rural roads and in urban streets where there are large numbers of vulnerable road users. For individuals, the risks of a severe crash might seem small, but from a societal point of view there are substantial safety gains from reducing average speeds on streets.

15. Speed management is a low-cost area-wide treatment that will deliver substantial savings including reduced deaths and serious injuries, increased walking, cycling and public transport use, and increased public health benefits. Speed is currently responsible for 30% of all road deaths and serious injuries, and small reductions in average speeds of 1% or a few kilometres per hour can reduce the risk and severity of crashes by up to 4% (Speed and Crash Risk, ITF, 2018).

16. Speed determines both the likelihood of a crash occurring and the severity of the outcome. Regardless of what causes a crash, whether someone walks away or is carried away will depend on the speed vehicles are travelling. For example if hit by a vehicle travelling at 30km/hr, a person walking has a 90% chance of surviving when compared with only a 20% chance of surviving at 50km/hr. Speed also determines the braking or stopping distance and the time it takes for the driver to react to take evasive measures. A small increase in travel speed corresponds to a relatively large change in stopping distance. The higher the speed the longer the braking or stopping time.

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17. AT and its partners have a Road Safety Action Plan (RSAP) in place that identifies key actions from partners for addressing Road Safety Focus Areas in the Waitematā Local Board area, (see table under paragraph 22) including speed management. The RSAP is developed collaboratively by AT, NZ Police, Accident Compensation Corporation and NZTA. It covers the NZ Police districts of Auckland City, Waitematā and Counties Manukau. The document is updated quarterly and a new one for the current financial year is being developed.

18. AT is investing in an ambitious road safety programme including safety engineering, speed management and behaviour change over the next ten years that will contribute towards a 60% reduction in road trauma across Auckland.

## Analysis and advice

19. Auckland’s DSI rates have increased by 67% from 486 in 2013 to 813 in 2017 as outlined in the table below.

Auckland Region	2013	2014	2015	2016	2017
<b>Deaths</b>	48	36	52	46	64
<b>Serious injuries</b>	438	447	568	618	749

20. Waitematā Local Board road deaths and serious injuries (DSi) have increased 26% from 2013 to 2017 and made up 6% of Auckland’s total DSI in 2017. Waitematā Local Board had the 7th highest level of DSI among all local boards in 2017 and the 10th highest rate of serious road injuries per capita, out of all local boards in 2016.

## Local impacts

21. In the Waitematā Local Board area 77% of all DSI involved vulnerable road users. This is the highest percentage among all Local Boards.

22. AT’s Road Safety Action Plan for 2018-19 covers the Waitematā Local Board area. Below is an excerpt from the action plan showing five-year DSI trends from 2013 to 2017 for the Waitematā Local Board area. The primary safety intervention measures include aspects from the Safe Systems approach: improving the safety of the roads and intersections, improving safety for people walking, cycling and motorcycling, speed management and alcohol/drugged driving prevention (shaded in red in the table below). Please note that DSI Focus Areas overlap i.e. one DSI can appear in multiple focus areas.

Road Safety Focus Areas for Waitematā 2018-19									
Focus areas	Five year Road Death and Serious Injury (DSi) trend							Interventions	
Increas	Safe System	2013	2014	2015	2016	2017	Tota	Waitematā Police Road Safety Action Plan.	



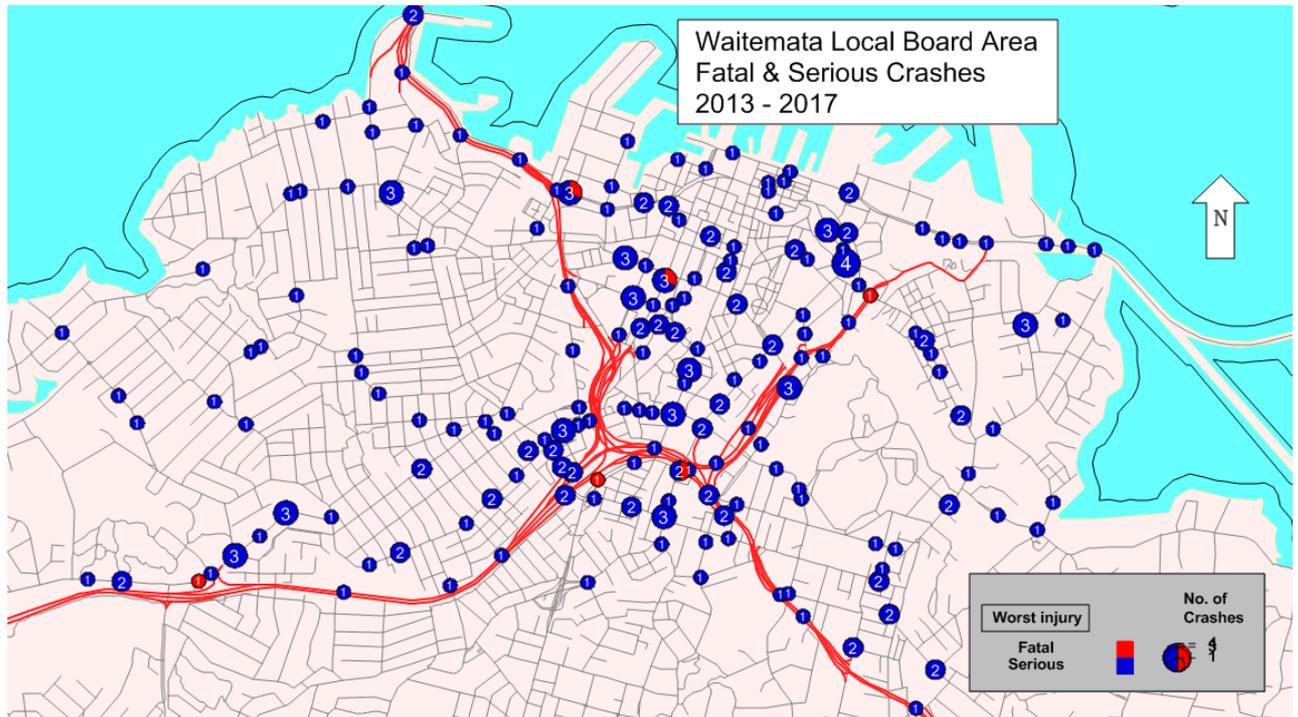
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e Focus	Management	I						
	Safe Intersections	21	21	29	29	23	123	Safety engineering, enforcement and campaigns.
	Safe Roads	37	37	55	52	43	224	Safety engineering, enforcement and campaigns.
	Pedestrian Safety	19	13	19	17	13	81	Travelwise schools, walking school bus routes, safe crossings and Safer communities.
	Motorcycle Safety	7	14	16	13	15	65	Safety engineering, checkpoints, enforcement and campaigns.
	Safe Speed	2	3	10	6	8	29	Speed management, education and enforcement campaigns.
Maintain Focus	Alcohol/Drugged Driving	1	7	7	10	9	34	Education and enforcement campaigns.
	Young Drivers	0	2	3	1	4	10	Young driver training, education and enforcement campaigns.
	Cycle Safety	8	7	12	13	5	45	School cycle training.
Emerging Focus	Restraints	1	1	1	3	2	8	Restraint education and enforcement, including child restraints.
	Older Road Users	4	4	4	4	4	20	Development of a 2018-21 programme.
	Distraction and Fatigue	3	4	8	8	4	27	Safe travel stop education and enforcement campaigns.
	Maori	3	1	3	3	3	13	Marae-based learner license workshops, speed management Hui.

23. The table also highlights how AT and its partners combine their resources and programmes to address high-risk areas and road user groups through a combination of safety engineering, speed management, education, training and enforcement activities. While a majority of these activities are planned, the action plan is revised quarterly to be more responsive to emerging trends.

24. Road crashes are investigated by NZ Police and then mapped by NZTA across the Waitemātā Local Board. The map highlights locations of Waitemātā fatal and serious crashes from 2013 to 2017.

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25. Road death and serious injury locations are also analysed to identify high-risk intersections and routes that have a high collective crash-risk (number of DSI per km or intersection) and personal crash-risk (rate of DSI per vehicle kilometres travelled). This methodology identifies a small percentage of the network carrying a large percentage of the road trauma.

26. Within the Waitematā Local Board boundaries there are 24 high-risk intersections and 26 high-risk routes (based on 2012 to 2016 data), of which 28 are also high-risk for motorcycles or Active road users.

<b>High risk intersections in the Waitematā Local Board area</b>				
Ranked in the top 100 high risk intersections in the Auckland Region (2012-2016 data)				
<b>Regional Ranking</b>	<b>Route Name</b>	<b><sup>1</sup>Collective Crash Risk</b>	<b><sup>2</sup>Active Road User Collective Crash Risk</b>	<b>Motorcycle Collective Crash Risk</b>
2	Karangahape Road / Mercury Lane	High	High	Medium
3	Upper Queen Street / Karangahape Road	High	High	High

<sup>1</sup>Collective Crash Risk = total number of fatal and serious crashes or estimated deaths and serious injuries within 50metres of an intersection or within 1kilometre of a corridor in a 5-year crash period

<sup>2</sup>Active Road Users (ARU) = Pedestrians and Cyclists

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7	Great North Road / Bullock Track	High	Medium	Medium High
13	Tangihua Street / Tinley Street	High	Medium High	Medium High
17	Tamaki Drive / Ngapipi Road	High	High	Medium
18	Symonds Street / Grafton Bridge	High	High	Medium
23	Symonds Street / Newton Road	Actual High	Medium High	Medium
27	Newton Road / Great North Road	High	Medium High	Low Medium
28	Gundry Street / Karangahape Road	Actual High	Low Medium	High
32	Fanshawe Street / Halsey Street	High	Low Medium	High
33	Short Street / Anzac Avenue	Actual High	High	Low
48	Symonds Street / Wellesley St East	High	High	Medium High
49	Symonds Street / City Road	High	Medium High	Medium High
55	Symonds Street / St Martins Lane	High	Medium High	Medium High
63	Vincent Street / Hopetoun Street	High	Medium High	Low Medium
64	Cook Street / Hobson Street	High	Medium High	Low Medium
68	Franklin Road / Ponsonby Road	High	Medium High	Low
74	Victoria Street West / Hardinge Street	High	Medium High	Medium High
83	Wellesley Street West / Sale Street	Actual High	Medium High	Medium High
84	Wellesley Street West / Albert Street	Medium High	Medium High	Low Medium
85	Vincent Street / Cook Street	Medium High	Medium High	Medium
87	Cook Street / Nelson Street	Medium High	Medium	Medium High
92	East Street / Karangahape Road	Medium High	Medium High	Medium

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98	Victoria Street West / Queen Street	Medium High	High	Low
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High risk routes in the Waitematā Local Board area				
Ranked in the top 100 high risk routes in the Auckland Region (2012-2016 data)				
Regional Ranking	Location	<sup>3</sup> Collective Crash Risk	<sup>4</sup> Active Road User Collective Crash Risk	Motorcycle Collective Crash Risk
1	Karangahape Road	High	High	High
3	Queen Street	High	High	High
4	Symonds Street	High	High	High
7	Hobson Street	High	High	Medium High
8	Great North Road (Ponsonby Rd to SH 16)	High	Medium High	High
9	Broadway	High	High	High
11	Victoria Street West	High	High	High
12	Ponsonby Road	High	High	High
15	Mount Eden Road (Symonds St to Boston Road)	High	High	High
18	Beach Road	High	High	High
21	Albert Street	High	High	High
24	Wellesley Street West	High	High	High
35	College Hill	High	Medium High	High
41	Nelson Street	High	Medium High	High
44	Anzac Avenue	Medium High	High	High
48	New North Road (Symonds St to Albert-Eden Boundary (Ian McKinnon Dr)	Medium High	Medium	High
56	Park Road	Medium High	Medium High	High
57	Khyber Pass Road	Medium High	Medium High	High
61	Symonds Street	Medium High	High	Medium
64	Ian McKinnon Drive	Medium High	Medium	Medium

<sup>3</sup>Collective Crash Risk = total number of fatal and serious crashes or estimated deaths and serious injuries within 50metres of an intersection or within 1kilometre of a corridor in a 5-year crash period

<sup>4</sup>Active Road Users (ARU) = Pedestrians and Cyclists



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	(Upper Queen Street to Dominion Road Overpass)			
65	Kitchener Road	Medium High	Medium	High
70	Tamaki Drive (The Strand to Orakei Boundary)	Medium High	Medium High	Medium High
76	Gillies Avenue	Medium High	Low Medium	High
81	Grafton Road	Medium High	Medium	High
84	Quay Street	Medium High	Medium	High
94	Parnell Road	Medium High	Medium High	High

27. AT has embarked on a bold programme to reduce the incidence of death and serious injury by 60% in a 10-year period. The initial three-year target is to reduce the incidence of death and serious injury by up to 18% from the 2018-19 financial year.

28. The tables below highlight some of the engineering improvements, speed management changes, and behaviour change activities that will be delivered in the Waitemata Local Board area in 2018-19 as part of the 2018-21 AT programme.

## Safety engineering improvement projects 2018-19

Cook Street	Pedestrian crossing facilities (including Drake Street, Sale Street and Cook Street).
Great North from Crummer to Ponsonby Rd	Safety improvements as part of cycling and bus priority project.
Gladstone / The Strand intersection - NZTA intersection to co-fund	Intersection safety improvements.
Hobson Street between Wellseley and Cook	Signalised mid-block crossing for pedestrians.
Ponsonby and Pompallier Terrace Intersection	Pedestrian zebra crossing.
Ponsonby and Pompallier Terrace Intersection	Pedestrian zebra crossing.
Ponsonby and Pompallier Terrace Intersection	Pedestrian zebra crossing.
119 Parnell Road, Parnell	Pedestrian zebra crossing.
215 Parnell Road, Parnell	Pedestrian zebra crossing.
167 Parnell Road, Parnell	Pedestrian zebra crossing.

## Other safety improvement projects 2018-19

Shelly Beach Rd Pedestrian	Relocation of existing pedestrian refuge.
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Refuge Relocation	
St Marys College - College Hill and New Street signalised crossing	College Hill mid-block pedestrian signal and parking and bus stop changes on New Street.
Khyber Pass Road signalised mid block	Mid-block signalised crossing between York Street and Kingdon Street.
Princes Street - Eden Crescent intersection	New raised zebra crossings with kerb build-outs.
St Georges Bay Rd Pedestrian Facility	Pedestrian facility to get across busy end of St Georges Bay Road.

## Pedestrian safety and shared path network expansion 2018-21

Wellesley Street E footpath	New footpath from Princes Street to Grafton Road.
Marmion Street shared space	New shared space between Queen Street to White Street.
Western Springs shared path	New shared path and raised crossings between Ivanhoe Road to Western Springs Road.
Tamaki Drive	Construction programmed to begin 2018-19.
K Road Cycleway	Construction programmed to begin.
Herne Bay to Westhaven	Construction programmed to begin.
Westhaven to CBD	Construction programmed to begin.
City Centre and Fringe	Investigations.
Waitematā Safe Routes	Construction programmed to begin 2019-20.
Great North Rd Cycleway	Construction programmed to begin.
Victoria St	Construction programmed to begin.
Pt Chev to Herne Bay	Construction programmed to begin.
Parnell Rd to Tamaki Drive	Construction programmed to begin.

## Speed management investigations 2018-19

Newmarket Town Centre – 30km/hr speed limit with engineering measures to reduce traffic speeds and make it safer for vulnerable road users

City Centre – 30km/hr within an area approximately bounded by the motorways

## Road safety and school travel behaviour activities 2018-19

12 active Travelwise school programmes and 14 active walking school buses, along with re-engaging inactive Travelwise schools and walking school buses.

Driver distraction campaign and checkpoints with NZ Police.

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Motorcycle and scooter safety workshops.

Safe speed awareness campaign.

Red light running campaign and Educational events with NZ Police.

Deliver a learner license community programme.

Cycle training and bikes in schools.

29. Speed has an impact on both the likelihood of a crash occurring and the severity of injury, should a crash occur.

30. Therefore, one of the fastest and most cost effective ways to reduce road trauma is to implement speed reduction measures. Research shows that there is a very strong relationship between speed and road safety. It is difficult to think of any other risk factor that has a more powerful impact on crashes or injuries than speed.

31. A Vision Zero or Safe System speed is defined as the maximum survivable speed upon impact where the chance of death is less than 10%.

32. Speeds of 30 km/h are the maximum any vulnerable or unprotected road user (pedestrians and people on bikes) can withstand without sustaining death or serious injuries. Although this speed is common on local roads in Europe, it is uncommon in New Zealand.

33. Speeds over 50km/h dramatically increases the chances of death and serious injury in the event of a crash between two vehicles at an intersection.

34. Contrary to popular belief, the majority of Auckland road deaths and serious injuries occur on 50km/h urban roads, involving vulnerable road users.

35. Many people fear that reducing the speed limit in urban areas will dramatically increase journey times. However, research shows that lower speed limits only marginally increased journey times. An NZTA study tracked travel times along six different routes in New Zealand. It found that when driving at the maximum posted speed limit wherever possible, drivers arrived at their destination as little as 1.08 minutes faster than when they drove 10km/h slower.

## Māori impact

36. AT is committed to meeting its responsibilities under Te Tiriti o Waitangi, and its broader legal obligations in being more responsible or effective to Māori.

37. Māori residents in Auckland experience a much higher risk of road traffic injury than other ethnicities, across all age groups.

38. Māori are also over-represented in road deaths and serious injuries related to speed, making up 22% of all speed-related DSi.

39. The Te Ara Haepapa Road Safety programme is AT's response to reduce death and serious injuries involving Māori and Rangatahi Māori. The programme is intended to focus delivery through whānau, hapū, iwi, and marae, kohanga reo, kura kaupapa Māori and Māori communities.

40. Waitemātā Local Board area has seen an upward trend in Māori-related DSi and some Māori communities will be engaged with the Te Ara Haepapa Road Safety programme.

## Next steps



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41. AT welcomes input from the Waitematā Local Board to help address the road safety challenge that is generating such a significant burden on road users and their families.
42. Getting aligned with our partners and stakeholders (Local Boards, Councillors, Ministers, MoT, NZ Transport Agency, NZ Police, AA, Walk Auckland, Bike Auckland, Road Freight Association to name a few) is imperative for the success of the AT road safety and speed management programme in the Waitematā Local Board area.
43. Aucklanders and Local Boards have indicated their support for an increased road safety and speed management programme in the recent Regional Land Transport Programme (RLTP) consultation, to help address Aucklanders' concerns concerning increase in road trauma.
44. The RLTP has committed to investing in an accelerated speed management programme, of which the first year will include treatment on 800km of the network. This will require expedient delivery by AT and a more efficient process for changing speed limits.
45. Reducing speed limits is a sensitive topic, with expectations from some stakeholders that AT should deliver rapid changes to speed limits across Auckland, while others in the community may not like the speed limit reductions and speed calming measures. For individuals, the risks of a severe crash might seem small, but from a societal point of view there are substantial safety gains from reducing average speeds on streets.
46. AT will do this by talking about the unacceptable loss of human life and focus on road safety with our communities, stakeholders and the media.
47. This will include running a publicity awareness campaign followed by a consultation process on the Speed Limit Bylaw. The campaign will aim to change the road safety conversation by educating Aucklanders that lower speeds provide survivable crash outcomes as well as enabling our kids to walk and cycle to school, a more liveable streets environment, and many health and environmental benefits.
48. Before and during the awareness campaign, AT will engage with our key stakeholders (NZTA, NZ Police, AA) to identify roads that will be affected by the speed limit changes.
49. The bylaw will be consulted on Auckland-wide (consultation on the entire programme of works for the Auckland region at a strategic level). Due to the urgent imperative to reduce, the number of deaths and serious injuries AT will in many cases not consult on each individual element of the safety improvement plan.
50. Once the bylaw has been approved by AT's Board, then the speed limits become legally enforceable.