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18 July 2018

Richard Harford
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Dear Richard

RE: PROPOSED PLAN CHANGE 45 - SIGNS- NZ TRANSPORT AGENCY SUBMISSION

Thank you for the opportunity to provide feedback on proposed Plan Change 45 to the Upper Hutt District Plan.

This submission provides input from the NZ Transport Agency (**Transport Agency**), reflecting its land transport policy role as well as its perspective as the operator of New Zealand's national state highway network. This feedback takes into account the Transport Agency's objectives and statutory obligations, as well as its prior experience with integrated land use planning across the country.

Please find attached our feedback.

Yours faithfully



Aaron Hudson Acting Senior Planner Consents and Approvals

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Pursuant to Clause 6 of the first Schedule of the Resource Management Act 1991

Submission on Operative Upper Hutt City Council District Plan - Proposed Plan Change 45 - Signs

To: Richard Harford

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Dated 18th July 2018

1. This is a submission on:

Proposed Plan Change 45 (PC 45) to the Upper Hutt District Plan; district's objectives, policies and rules.

- 2. **The NZ Transport Agency <u>could not</u>** gain an advantage in trade competition through this submission.
- 3. **The NZ Transport Agency's submission** is in general support but seeks a number of specific amendments, or those to like effect, to better address the Transport Agency's concerns.
 - 3.1. We broadly support the Council's strategy of consolidating the district's signage objectives, policies and rules into a single chapter within the Upper Hutt City District Plan (District Plan). This provides greater clarity and simplicity for plan users.
 - 3.2. We support Council's proposed objectives and policies that seek to manage the design and location of signage throughout the district, including where it faces a road.
 - 3.3. We also support Council's recognition of the safety concerns that digital, moving, illuminated and changing signage creates for road users including cyclists and pedestrians through assessment of such signage as a discretionary activity.

3.4. We seeks amendments to PC45 to ensure the plan provides appropriate performance standards, guidance and assessment criteria for managing the effects of all (including temporary) digital, moving, animated, flashing and illuminated signage. This is to ensure the safety and efficiency of State Highway 2 is maintained at a high level and any risk of driver distraction and/or other traffic safety matters created by adjoining land use development is stringently managed. It is appropriate that PC45 recognises these issues as technological advances in the media industry will increase the prevalence of both temporary and permanent digital signage visible from the state highway and wider roading system.

4. The Transport Agency's submission is that:

4.1. Role of the Transport Agency

The Transport Agency is a Crown entity that takes an integrated approach to transport planning, investment and delivery. The Transport Agency's statutory objective is to undertake its functions in a way that contributes to an affordable, integrated, safe, responsive, and sustainable land transport system.

The Transport Agency has a mandate under the Land Transport Management Act 2003, the Government Roading Powers Act 1989 (GRPA), and the Government Policy Statement on Land Transport 2018/19 – 2027/28 (GPS) to carry out its functions in a way that delivers the transport outcomes set by the Government.

The Government recently released the GPS to be effective from 1st July 2018. This GPS both outlines New Zealand's strategic transport priorities and guides investment. The GPS lays out four new priorities and six objectives, which include safety; improved transport access to economic and social opportunities as well as providing more resilience and choice; better environmental outcomes; and infrastructure which delivers the best value for money.

The priority of safety is particularly relevant to PC45 as the potential impact that poor sign design and location can have of the safe and efficient operation of the land transport system, including State Highway 2.

Within Upper Hutt City, the Transport Agency is the Requiring Authority for the NZTA 1, NZTA 2 and NZTA 3 designations. We also regulate the construction, maintenance and display of signage on or over any part of a state highway through the New Zealand Transport Agency (Signs on State Highways) Bylaw 2010.

4.2. Specific comments applying to Proposed Plan Change 45 -Signs

The Transport Agency's specific submission points are set out in the attached table. Insertions we wish to make are marked in bold and underlined, while recommended deletions are shown as struck out text.

We look forward to working with Council during the subsequent development phases of PC 45.

5. The Transport Agency does wish to be heard in support of this submission and we may wish to have a joint submission with other parties that have a similar submission.



Aaron Hudson

Acting Senior Planner

Pursuant to a delegation from the Chief Executive of the NZ Transport Agency.

Dated at Wellington the 18th day of July 2018.



Submission Number	Plan Provision	Submission/Comments	Relief Sought
1	8A.3.1 Introduction to Signs	We support in part section 8A.3.1 of PC45. Firstly we support the guidance for plan users to ensure any signage complies with other legislation and regulations such as the New Zealand Transport Agency (Signs on State Highways) Bylaw 2010 and the Upper Hutt City Council Control of Advertising Signs Bylaw 2005. Secondly we support guiding plan users to ensure signage	Support and retain 8A.3.1 - Introduction to Signs as drafted with the following amendment to the third paragraph (below) to ensure PC45 aligns with the New Zealand Transport Agency (Signs on State Highways) Bylaw 2010.
		complies with these bylaws which apply beyond the provisions of the district plan, including any signs located on or over a state highway.	Relief Sought:
		For clarity we seek a minor amendment to the third paragraph of section 8A.3.1 to ensure the text aligns with the application of the New Zealand Transport Agency (Signs on State Highways) Bylaw 2010. The third paragraph of section 8A.3.1 is drafted as follows -refer recommended relief for the amendment sought by the Transport Agency.	This chapter recognises the role of signs in communicating information for businesses and the community. It provides a framework to manage the effects of signs in the different zones across the district, while recognising the purpose, character and amenity of these zones, and transport safety matters.
		For signs located in road corridors, approvals may be needed from the Road Controlling Authority (including the Council), or the New Zealand Transport Agency for signs on <u>or over</u> the State Highway. These approvals may need to be sought regardless of whether the sign complies with the provisions of the District Plan.	Outside of the District Plan, there is other legislation and regulations that manage signs, for example New Zealand Transport Agency regulations and Council by-laws. For signs located in road corridors, approvals may be needed from the Road Controlling Authority (including the Council), or the New Zealand Transport Agency for signs on the State Highway. These approvals may need to be sought regardless of whether the sign complies with the provisions of the District Plan.
			For signs located in road corridors, approvals may be needed from the Road Controlling Authority (including the Council), or the New Zealand Transport Agency for signs on <u>or over</u> the State Highway. These approvals may need to be sought regardless of whether the sign complies with the provisions of the District Plan
2	8A3.2.1(b) Objectives	We support Objective 8A3.2.1 (b) in part. While it is important that signage maintain local character and amenity, fundamentally the intent of	Support and retain Objective 8A3.2.1(b) with the following amendment:
	Objectives	signage is to regulate, warn and advise people including road users, cyclists and pedestrians, including providing clear wayfinding. In practice a sign that satisfies good amenity may not promote good safety design and location. Where signs face the road network, cycle ways and/or footpaths, it is important that signage is designed and located to promote clear messaging and minimise distraction for users.	
		The Transport Agency therefore seeks an amendment to Objective 8A3.2.1(b) to provide greater emphasis on the need to ensure all signage maintains the safe and efficient functioning of the transport network and encourages the appropriate design.	



3	8A.3.3.3(d) Policies	We support Policy 8A.3.3.3(d) as it recognises the need to manage moving, digital or changing signage and illuminated signage to protect both road safety and amenity. As the cost of this digital technology reduces, it is anticipated that advertisers will increasingly look to utilise digital media signage ¹ . As digital signage provides the ability to easily transition images there is increased risk of driver distraction particularly on State Highways which provide greater traffic through flow at higher speeds. For illuminated signs it is important to stringently manage glare. Glare can distract or blind road users including cyclists and pedestrians therefore adversely affecting the visibility of the road, traffic, access ways, intersections and official signs. Policy 8A.3.3.3(d) is therefore supported as recognition that the design and location of digital and illuminated signage needs to be stringently controlled.	Support, retain as drafted or with words to similar effect.
4	8A.3.3.39(e)(ii) Policies	We support, in part, policy 8A.3.3.39(e)(iii), but seek an amendment to recognise that it is important to maintain both the safety and the efficiency of the region's land transport system. We note that the current policy seeks to protect safety or efficiency from the effects of remote location. However poor sign location and design can effect both safety and efficiency, particularly where road users including cyclists and pedestrians are either distracted by a sign or a legibility results in traffic slowing to comprehend a sign. The Transport Agency therefore seeks for Policy 8A.3.3.39(e)(iii) to be amended to recognise remote signage location can effect both safety and efficiency. As part of this submissions we also alert Council to a minor typographical error in the numbering for this policy.	Support in part 8A.3.3.39(e)(ii) and retain as drafted with the following amendments: 8A.3.3.39(e)(ii) (iii) Any adverse effects on transport safety and/or efficiency, or transport benefits in providing for the sign to be located away from the site, or adverse effects on transport safety or efficiency, or transport benefits in providing foA.3.3r the sign to be located away from the site.
5	8A.3.3.5 Policies	We support Policy 8A.3.3.5. The Transport Agency seeks to ensure all signage is stringently designed and located to maintain road corridor and state highway safety and to minimise the risk or distraction or confusion to road users, cyclists and pedestrians.	Support Policy 8A3.3.5 and recommend that this policy be retained as drafted (or similar).
6	8A.3.4 Exemptions (d)	We support the Exemption for official regulatory or traffic signs. Such signs are otherwise approved the Land Transport Rules to meet best practice standard for signage design to ensure road users including cyclists and pedestrians	Support exemption (d) as seek for Council to retain this provision as drafted.
7	8A.3.4.1 Rule	We oppose rule 8A.3.4.1. We note that Council seeks to promote any health and safety sign as a permitted activity. However we are concerned that, the rule as drafted, implies that all health and safety signs are of an approved design that will comply with best practice signage design standards. The Transport Agency is concerned that poorly designed and located health and safety signs visible from State Highway 2 or any other local road could distract or confuse road users, including cyclists and pedestrians. Distraction and/or confusion could result in unsafe traffic manoeuvres as the road user's core task is significantly interrupted. The Transport Agency seeks for Council to provide greater clarity around what is a permitted and/or approved health and safety sign or amend the rule to ensure any health and safety sign needs to comply with the permitted activity standards.	Oppose Rule 8A3.4.1. The Transport Agency seeks for all health and safety signage visible from State Highway 2 to be permitted only where the proposed sign complies with permitted performance standards 8A.3.4.8 to 8A.3.4.13.

¹ Roberts P, Boddington K, Rodwell L, 2013, *Impact of Roadside Advertising on Road Safety,* Austroads Ltd Sydney



8A.3.4.6 Rule We support Rule 8A3.4.6 in part.

We support Council requiring any proposed permanent digital sign to be assessed as a discretionary activity. However it is also appropriate that Council similarly assesses temporary digital signage as a discretionary activity. As digital media becomes increasingly affordable the prevalence of temporary and permanent digital signs will increase. Given the statutory life the district plan signage rules once operative, it is appropriate that the Council recognises the need to manage the increased prevalence of digital advertising technology. The Transport Agency opposes digital signage on motorways, expressways and seeks to stringently control their design and location on all other state highways. This is because the ability to transition images on a digital sign diverts the driver's attention away from the 'eyes forward' position and therefore away from the core driving task.² This concern is linked to the typically higher traffic volumes, number of heavy vehicles and strategic through flow function of the national state highway system.

Furthermore while the Council propose to assess permanent digital signage as a discretionary activity, Plan Change 45 provides no guidance or best practice standards that must be achieved to mitigate the adverse effects of dwell times, luminance, transition time between static images, animation or flashes, and fail safe methods in the event of a digital sign malfunction. The Transport Agency has serious concerns regarding the effect of poorly designed and/or regulated digital signage on traffic safety. It is critical that Proposed Plan Change 45 recognises anticipated changes in technology and increasing ease of access to digital media, particularly over the statutory life of the signage provisions of the Upper Hutt District Plan.

The Transport Agency supports Rule 8A3.4.6 in so far as it requires digital signage to be assessed as a discretionary activity. However it is appropriate for Council to include best practice standards and guidance that any proposed digital signage (including temporary) visible from a state highway (and local road) is subjected to. Being typically more transient in nature, temporary signs are likely to not be afforded the same design attention as permanent signs and as such also need to be fully assessed to ensure they do not adversely affect the safety and efficiency of the region's land transport system.

Transport Agency seeks for Council to adopt and insert standards for assessing all digital signage within PC45. As relief we recommend that Council adopts permitted activity performance standards for assessing all digital signs that are consistent (or similar) with Rules 4.5.7.1 and 6.7.3 of the Proposed Dunedin District Plan as provided below These standards are consistent with the Transport Agency's Traffic Control Devices Manual Part 3: Advertising signs.

4.5.7.1 General

- Temporary signs visible from a public place must meet all of the following performance standards:
- Temporary signs must not be illuminated (internally or externally), digital, or projected;
 and
- Signs must also comply with:
 - o Rule 6.7.2; and
 - o Rule 6.7.3, where visible from the road.

Rule 6.7.3 Signs Visible from Roads

- The minimum letter height of signs designed to be read by passing motorists must be:
- 120 mm where the speed limit is less than 70km per hour; and
- 160mm where the speed limit is greater than 70km per hour.
- No sign shall be of a design or form such that it resembles or conflicts with traffic signs.
- Illuminated and digital signs must:
- have the sign's light source shielded so that its glare does not extend beyond the sign;
- have all floodlights or concealed lighting directed solely on the sign;
- not use images that are flashing or animated;
- have a minimum display time of 10 seconds per image; and
- have a maximum luminance (cd/m²) of:
- 2000 where the sign has an illuminated area of up to 0.5m²;
- 1600 where the sign has an illuminated area of above 0.5m² to 2m²;
- 1200 where the sign has an illuminated area of above 2m² to 5m²;

² Roberts P, Boddington K, Rodwell L, 2013, *Impact of Roadside Advertising on Road Safety*, Austroads Ltd Sydney



			 1000 where the sign has an illuminated area of above 5m² to 10m²; and 800 where the sign has an illuminated area above 10m². In addition to the above recommended standards, The Transport also seeks for the following (or similar) good practice performance standards to be included within PC45. The dwell time must be a minimum of 15 seconds between images and appropriate for the applicable road environment. Dwell times should also be set to ensure that approaching motorists are not exposed to more than one transition of an image; Transition time between static images must be 0.5 seconds; Image content must be static and not include any animation or flashes; Include an automatic diming system based on an ambient light level sensor to achieve the above luminance requirements;
			 Image content must be static and not include any animation or flashes; Include an automatic diming system based on an ambient light level sensor to achieve the
9	8A.3.4	We support the advice note, particularly whereby it alerts plan users to the need to obtain the	
10	Advice Notes 8A.3.4.8 Rule	express permission of the Transport Agency for any sign located within the state highway corridor. We oppose in part Rule 8A.3.4.8. This is because PC45 provides no guidance or best practice standard for any digital temporary signs that contain moving images and/or any illumination. Through PC45, Council aims to set permissive standards for temporary signs in all zones across Upper Hutt City and relies on the Upper Hutt City Council Control of Advertising Signs Bylaw 2005. Where a sign breaches PC 45 Rule 8A.3.4.8 it must be assessed as a restricted discretionary activity with Council limiting their assessment criteria to transport safety and temporary signs. Neither assessment criteria 8A3.4.15 nor 8A3.4.16 however contain any guidance or best practice standards on dwell times, luminance, transition time between static images, animation or flashes, and fail safe methods in the event of a digital sign malfunction. Comparably the Section 7(d) of Bylaw does not provide this technical guidance or best practice standard but does prevent signs that <i>Give rise to</i>	Relief sought: we recommend Council adopt best practice standards consistent with the Proposed Dunedin District Plan as provided as suggested relief through submission point 11 above.
		excessive levels of glare, use flashing or revolving lights or use reflective materials that may interfere with road users vision. ³ As noted in our submission point 11, technological advancement combined with reducing costs will make digital signage increasingly more attractive. As such its prevalence should be expected to increase over at least the next 10 years or the life of the Council's district plan signage rules.	

³ Upper Hutt City Council, 2005, *Upper Hutt City Council Control of Advertising Signs Bylaw 2005*, updated November 2017

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		The Transport Agency therefore seeks for the Council to treat all digital signage including temporary					
		signage the equally as a discretionary activity. And as per submission point 11, the Transport Agency					
		seeks for Council to insert best practice standards as guidance for how Council will assess any digital					
		signage to ensure it mitigates adverse effects including distraction, startling or blinding of road user					
		including cyclists and pedestrian.					
11	8A.3.4.13	We support in part Rule 8A.3.4.13.	The Transport Agency broadly sup	oports Rule 8A.3.4.13 but seeks f	for Council to insert the following (or		
	Rules	The Transport Agency supports this rule as a mechanism for managing the design and location of	similar) new sub rule to disallow a		_		
		all permanent signage to ensure that signs do not adversely affect traffic safety or confuse road	,	, 3 3	3 , 3		
		users including cyclists and pedestrians. We further support Rule 8A.3.4.13(f) which recognises that	Insert new rule				
		signs visible from a highway needs to consider the higher traffic volumes, the greater number of	of 8A.3.4.13(g) No sign shall include any flashing and/or revolving lights				
		heavy vehicles, higher speed limits and the strategic through flow function of the state highway					
		system.					
		System					
		However the Transport Agency seeks for the Council to broaden Rule 8A.3.4.13 to ensure no signage					
		contains any flashing and/or revolving lights. This is because flashing and/or revolving lights can					
		distract road users including cyclists and pedestrians. Flashing and/or revolving lights can also be					
		mistaken for emergency vehicles or road works and result in a driver incorrectly taking evasive action					
		which could create an adverse traffic safety effect on the road environment.4	and crasive action				
		,					
		The Transport Agency's submission seeks for Council to insert a new sub rule within Rule 8A.3.4.13					
		that disallows signs that contain any flashing and/or revolving lights.					
12	8A.3.4.13	We support in part Rule 8A.3.4.13.	Relief sought:				
	Rules	The Transport Agency generally supports this rule as a mechanism for managing the design and	t traffic safety or no best practice of signage needs and signage visible from a road should be designed, installed and maintained to ensure the luminance standards in table 6.1 are not exceeded.				
		location of all permanent signage to ensure that signs do not adversely affect traffic safety or			stalled and maintained to ensure they		
		confuse road users including cyclists and pedestrians. However PC45 provides no best practice					
		standard to restrict the luminance and glare of signage. The illumination and glare of signage needs					
		to be stringently controlled to avoid blinding and/or distracting road users. Signage that is too) of illuminated advertising devices		
		bright typically causes an eye to fixate on a bright point which in practice diverts a driver's eye away	Illuminated Areas (m ²)	Areas with street lighting	Areas without street lighting		
		from the core driving task. ⁵	up to 0.5	2000	1000		
			0.5 to 2.0	1600	800		
		The Transport Agency therefore seeks for Council to broaden Rule 8A.3.4.13 to ensure all	2.0 to 5.0	1200	600		
		illuminated and/or digital signage is stringently controlled to ensure the luminance is consistent	5.0 to 10	1000	600		
		with best practice standards.	Over 10.0	800	400		
					!		
		Our submission seeks for Council to insert a new sub rule within Rule 8A.3.4.13 that sets maximum	Further technical information on the brightness and luminance of signs can be found in the following publication: <i>Brightness of illuminated advertisements</i> , The Institution of Lighting Engineers, 1991.				
		luminance standards for all illuminated and/or digital signage.					
		The Transport Agency broadly supports Rule 8A.3.4.13 but seeks for Council to insert the					
		illuminance standards within Rule 6.73 (refer submission point 11 above) of the Proposed Dunedin	Jource. Tuble 6:1, NZ Transport Agency Traine Control D		evice Manual Part 3; Advertising signs, 2011		
		District Plan. These standards are consistent with Table 6.1 of the NZ Transport Agency's Traffic					
		Control Devices Manual Part 3: Advertising signs.					

⁴ NZ Transport Agency, 2011, *Traffic Control Devices Manual: Part3 Advertising Signs*, First Edition January 2011 ⁵ NZ Transport Agency, 2011, *Traffic Control Devices Manual: Part3 Advertising Signs*, First Edition January 2011



13	8A.3.4.13(a) & 8A.3.4.13(c) Rules	The Transport Agency supports Rules 8A.3.4.13(a) and 8A.3.4.13(c) in part. We recognise the PC45 seeks to ensure the location of any signage does not obstruct or block the visibility of traffic signs, signals and or any intersection. However Rules 8A.3.4.13(a) and 8A.3.4.13(c) as drafted provide no guidance on the best practice safe separation distances between signage and traffic signs, signals and/or intersections. Without providing appropriate guidance, the application of Rules 8A.3.4.13(a) and 8A.3.4.13(c) could be subjective and in practice result in signage located outside of the recommended best practice safety standards for the separation of signage from official signs, signals and/or intersections. The location of signage is critical to ensuring the safe and efficient operation of the region's land transport system, including State Highway 2. Poorly located signs can distract and/or confuse road users including cyclists and pedestrians on the approaches to intersections and/or regulatory warning signage, curves in the road and pedestrian crossings for example. This may result in road users misinterpreting or failing to see important signage which can result in significant adverse traffic safety effects. Section 5.5 of the Transport Agency's Traffic Control Devices Manual Part 3: Advertising signs provides best practice guidance on the location of signs relative to traffic signs, signals, intersections, curves in the road and pedestrian crossings. The Transport Agency therefore seeks for Council to insert a new sub rule within Rule 8A.3.4.13 to provide a standard for the safe separation distance between signs and traffic signs, signals, intersections, curves in the road and pedestrian crossings.		within road environments with a posted speed limit of < 70 km/h no signs shall be located 100m from an intersection and/or a permanent regulatory or warning or advisory sign and/or traffic signal, and/or pedestrian crossing Within road environments with a posted speed limit of ≥ 70km/h No signs shall be located 200m from an intersection and/or pedestrian crossing Within road environments with a posted speed limit of ≥ 70km/h No signs shall be located 200m from an intersection and/or a permanent regulatory or warning or advisory sign and/or traffic signal, and/or pedestrian crossing
14	8A.3.4.13 Advice Note	We support Advice Note 8A.3.4.13 but for completeness seek for the Council to also include an advice note to reference their own bylaw – Upper Hutt City Council Control of Advertising Signs Bylaw 2005. We consider this appropriate to ensure plan users are explicitly aware that signage within Upper Hutt City is subject to the district plan and relevant bylaw controls.	<u>It is also ac</u>	port Agency seeks for Council to insert new advice note as follows: dvised to check the Upper Hutt City Council Control of Advertising signs Bylaw 2005 to ensure omply with Council's specific requirements.
15	8A.3.4.15 Matters of discretion	We support the Matters of discretion 8A.3.4.15.	-	port Agency submits in support of 8A.3.4.15 and seeks for the Council to retain these Matters on as drafted.

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⁶ NZ Transport Agency, 2011, *Traffic Control Devices Manual: Part3 Advertising Signs*, First Edition January 2011, p5–5