

## **BILLBOARD BEST PRACTICE**

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**Abstract:** *Outdoor advertising companies seek to maximise the profile of billboards by locating billboards with maximum exposure to the public. In the past 10 years or more, the effect of billboards on road safety has received considerable attention from road safety professionals. Lately, the discussion regarding the location and content of billboards on sites alongside various roads in Christchurch has received increasing interest. Given that billboard installations will continue, and demand for new sites will probably increase, the Christchurch City Council (Council) commissioned Abley Transportation Engineers Limited (ATEL) to provide a Billboard Best Practice Guide. An assessment methodology has been developed to evaluate the road safety related aspects of billboard resource consent applications.*

## INTRODUCTION

A billboard is a large outdoor advertising structure that is usually found in high traffic areas such as highways, major roads and their intersections. Billboards present advertisements to road users that usually attract attention often by using large, witty slogans and distinctive visuals. Outdoor advertising companies seek to maximise the profile of billboards by locating billboards with maximum exposure to the public.

Outdoor advertising also has an influence on visual amenity and the natural and built heritage. In the past 10 years or more, the effect of billboards on road safety has received considerable attention from road safety professionals. The last literature review undertaken by the Christ Church City Council was some 7 years ago and noted that *“There is a significant amount of research that indicates that roadside advertising does not have an adverse effect on road safety”*.

Lately, the discussion regarding the location and content of billboards on sites alongside various roads in Christchurch has received increasing interest. Given that billboard installations will continue, and demand for new sites will probably increase, the Christchurch City Council (Council) commissioned Abley Transportation Engineers Limited (ATEL) to provide a Billboard Best Practice Guide. Specifically ATEL was asked to review and update the earlier Council literature review that sought to review scientific research on the effects of roadside advertising on road safety. A secondary purpose of this guidance was to aid Council when assessing the road safety related aspects of billboard resource consent applications. An assessment methodology has been developed to evaluate the road safety related aspects of billboard resource consent applications and a sample list of resource consent conditions proposed for all billboard sites so Council has the opportunity to review the advertising on the billboard.

## BACKGROUND

A billboard is considered as a type of “roadside advertising”. The definition of a billboard varies from one country to another although the Land Transport Safety Authority’s (now New Zealand Transport Agency) ‘Advertising signs and road safety: design and location guidelines’ (1993), defines a ‘Billboard’ as ***“An industry term for a sign, often freestanding, consisting of a number of standard-sized poster panels. Types of billboards in New Zealand are bulletins (3 metres by 1.5 metres), posters (6 metres by 3 metres), supasites (12 metres by 3 metres) and spectaculars (vary in size but greater than 12 metres by 3 metres).”***

The Christchurch City Council ‘Outdoor Advertising Guide’ that was produced by Council’s Urban Design and Heritage Team in February 2004 defines a billboard implicitly as ***“The advertising industry has adopted a standard size of 6 x 3 metres (18m<sup>2</sup>) for their adverts”***. Billboards differ from other types of roadside advertising signs such as sandwich boards and banner displays because of their size and design. It appears that Council has adopted the term ‘billboard’ to reflect the standard size of 18m<sup>2</sup>, although the Land Transport Safety Authority has introduced other types of billboards sizes. **For consistency, this technical note considers all billboard sizes and their relationship to road safety** rather than just the standard billboard size 6m x 3m.

## LITERATURE REVIEW

A review of the international and national literature on roadside advertising and any linkage with road safety was undertaken. However, it still cannot be concluded that billboards are either “safe” or “unsafe”. While several research studies have focused on using the correlational study method to determine the effect of roadside advertising on road safety, such methodologies **cannot draw a solid conclusion that advertisements alongside the**

### road will cause a reduction in road safety.

What the literature review does indicate though, is billboards or roadside advertisements influence motorists' driving ability depending on several factors. These main factors include:

1. The condition of the road environment. For example, the amount of traffic, type of intersection controls, road location i.e. urban or rural, and traffic proportions (Finnish Road Administration, 2004; Wallace, 2003).
2. The location of the billboards. For example, placed on a sharp bend or at an intersection, and their location above the street (Ady,1967; Crunall et al., 2006; Wallace, 2003).
3. The types of billboards. For example, sizes and colours, advertising contents, placement angles and distances, static or dynamic (Smiley et al., 2005).
4. Driver age – attention and visual processing speed degrade with age, particularly for drivers of over 55 years old (Finnish Road Administration, 2004).
5. Visual clutter including other signage, sign size etc and the influence of the billboard if it is located amongst other signs (Wallace, 2003).

## ASSESSMENT METHODOLOGY

A billboard assessment methodology was developed where, on the basis of known literature and specific elements that may potentially effect road safety, such as location, surrounds and design; various sample billboards were assessed against a 5-points scoring system. A 5-star indicates a very good example of billboard practice with no expected road safety risk. On the other hand, a 1-star indicates an example of very poor billboard practice, with a major expected road safety risk. This scoring system is illustrated in Table 1.

**Table 1 Illustration of the Scoring System**

Scoring System		
Pass	★ ★ ★ ★ ★	Very good example with no expected road safety risk
	★ ★ ★ ★	Good example with less than minor expected road safety risk
	★ ★ ★	Satisfactory example with minor expected road safety risk
Fail	★ ★	Bad example with several expected road safety risks
	★	Very bad example with major expected road safety risks

### Current Practice Examples

The following are Christchurch examples of existing billboard practice. Each example is assessed holistically against the elements that are expected to significantly affect road safety. Comments written in 'italics' represent the good elements of the billboard; whereas comments written in 'plain' represent bad elements. A very good example of an existing billboard practice in Christchurch is illustrated in Figure 1 and a satisfactory example illustrated in Figure 2; while a very bad example is illustrated in Figure 3.

Rating	★★★★★
<ul style="list-style-type: none"> <li>• Good orientation relative to the road, at right angles to and clear of the road.</li> <li>• The font is large and simple</li> <li>• The billboard is located mid block</li> <li>• The company logo is large and clear</li> </ul>	<ul style="list-style-type: none"> <li>• The message is easily understood</li> <li>• The icon is simple</li> <li>• The billboard is placed in isolation</li> <li>• Contrasting colours</li> </ul>

**Figure 1 Barbadoes St (southbound) between Cashel and Tuam Streets**

Rating	★★★
<ul style="list-style-type: none"> <li>• Good orientation relative to the road, at right angles to and clear of the road.</li> <li>• The font is large and simple</li> <li>• The lettering is simple and distinctive</li> <li>• Contrasting colours</li> </ul>	<ul style="list-style-type: none"> <li>• The message is clearly understood</li> <li>• Placement is too close to the intersection – excess demand</li> <li>• Small icons require in-depth observation</li> <li>• The company logo is too small</li> </ul>

**Figure 2 Colombo St (northbound) between Salisbury and Dorset Streets**



\*Billboard sized advertisement – painted mural on wall

**Figure 3 Lincoln Rd (eastbound) between Hazeldean Road and Moorhouse Ave**

### Do Billboards Affect Road Safety?

It is very difficult to demonstrate a causal relationship between the presence of billboards and crashes. However it has been proven that roadside advertising including billboards may directly distract or confuse road users if they are cluttered, disordered, poorly located, and the character of the individual sign is too distracting.

More specifically, there are three major factors in which the presence of billboards could increase the risk of road users being involved in crashes:

1. **Location:** The potential road safety impact on road users varies depending on the location in which a billboard is placed. For example, since signalised intersections have shorter headways and more variable traffic speeds compared to mid-block locations, the risk of road users getting involved in rear-end crashes is expected to be significantly higher.
2. **Surrounding:** Billboards placed amid multiple outdoor advertising signs may result in visual clutter. The more visual clutter there is, the more likely drivers are to be distracted and fail to notice important traffic or information signs.
3. **Design:** This may relate to a billboard’s advertising content: length of the message, colours, and size of the font. It is evident that drivers’ fixation duration on the billboard will vary depending on the advertising content/design being displayed.

### CONCLUSION

The problem of managing billboard advertisement content alongside roads has been discussed for many years. A literature review of previous research indicates the causal relationship between billboards and crashes could not be proved statistically significant. This does not mean that a relationship does not exist; rather it is very difficult to prove.

Have due regard to the literature it is the opinion of ATEL that a precautionary approach for the approval of roadside advertising should be applied. The three major factors in which the presence of billboards could increase the risk of road user getting involved in crashes are the location, surroundings and design of the billboard. Consequently these three elements should be at the forefront of any assessment regarding resource consent for advertising.

## RECOMMENDATIONS

*Abley Transportation Engineers* recommend that:

- Council promote Council's document 'Guide to Outdoor Advertising', Land Transport Safety Authority's RTS7 'Advertising signs and road safety: design and location guidelines 1993', and Transit New Zealand's brochure 'Can I put up an advertising sign alongside a state highway?' to advertising practitioners. This will assist practitioners to better understand the elements that effect road safety.
- Council should monitor the content of various billboards and compliance with the conditions stated in LTSA's RTS7. Variance from these conditions might constitute road safety effects that are greater than minor and hence a review of the conditions of consent under Section 128 of the Resource Management Act 1991.
- Council should monitor the success of the recommended conditions of consent. If the standard conditions are not assisting road safety then Council could provide more prescriptive conditions, such as that used by Transit New Zealand.

## REFERENCES

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