

# Consent Application RM230535, 332 Queen Street, Richmond

## Review of Traffic Effects

7/12/2023

### 1. Scope of this Review

Affirm NZ Ltd has been engaged by Tasman District Council to carry out a review of the traffic matters of a resource consent application by Bekon Media Ltd to install a single sided 18m<sup>2</sup> static billboard on a building at 332 Queen Street in Richmond. This review is intended to provide background information to the Council Planners Report on the consent application.

### 2. Documents Reviewed

For the purpose of this review I have considered the following documents:

1. Assessment of Environmental Effects prepared by Town Planning Group (NZ) Limited on behalf of Bekon Media Ltd, 17 August 2023, (the AEE).
2. Proposed Static Billboard, 332 Queen Street, Richmond - Transportation Matters report of 26 June 2023 prepared by Carriageway Consulting, 9 August 2023 (the Carriageway report).
3. Visual Package (DCM Urban)
4. Urban Design & Visual Impact Assessment (DCM Urban)

### 3. Planning Context

Resource consent is required for a **Restricted Discretionary Activity** under the Tasman Resource Management Plan (TRMP) pursuant to Rule 16.1.4.2. Council's discretion is restricted to:

- (1) Location and legibility in relation to traffic safety.
- (2) Any amenity effect on the surrounding area, including size and duration.

### 4. Carriageway Consulting Report

#### 4.1 Sign Positioning

The billboard will be offset from the respective approaching traffic legs of the intersection (Lower Queen Street southbound and Gladstone Road/ State Highway (SH) 6 eastbound) but more importantly it will be elevated several metres above the carriageway, due to its parapet mounting. Thus, the eyeline for any motorists viewing the sign on these approaching legs would be to the side of and well above their forward roadway.

It is important that a motorist's attention be focussed on the road ahead when approaching the demanding environment of the signalised intersection. Any distraction could be detrimental to their decision-making capacity.

The purpose of roadside advertising, by its own definition, is to capture attention. This is undesirable from a traffic safety perspective as it could result in driver attention being side-tracked from the key driving tasks. Additional roadside distractions are also contrary to the Safe Systems Approach used in New Zealand for traffic and road safety work.

There is no discussion included within the Carriageway report as to any potential adverse traffic safety effects of the sign location and positioning when potentially viewed by approaching motorists.

## 4.2 Vulnerable Road Users

Reference is made in the Carriageway report to the presence of pedestrian crossing facilities at the signalised intersection. However, the report provides no specific assessment of the risk to these road users. There are retirement villages along both Gladstone Road and Lower Queen Street and elderly pedestrians, including those on mobility scooters will be amongst regular users of the intersection.

While there is only one reported crash involving a pedestrian in the cited crash history used in the Carriageway report, there are almost certainly other non-reported near-miss events. There have been two separate news articles on near misses involving pedestrians in 2023 at this intersection that we are aware of.

## 5. Intersection Safety Assessment

The Carriageway report includes a review of the reported crash history at the intersection for the five-year period 2018 – 2022 and 2023 (to date). A brief analysis of the 20 crashes that occurred over this period on the two legs that would have visibility to the proposed billboard is also included in the report. The conclusion made in the Road Safety section on page 6 of the Carriageway report is that *“it does not appear that there are any inherent road safety deficiencies at this location.”*

To provide an overall perspective on the level of risk at the intersection we have carried out an assessment using the procedures outlined in the Waka Kotahi High Risk Intersections Guide. Input data to this analysis was the most recent reported crash history over the period 2019 – 2023 (to date) and the traffic volumes sourced from the Mobile Roads website.

Over the five-year period 2019 – 2023 (to date) there have been eight reported injury crashes at the intersection comprising two serious injury and six minor injury. The traffic volumes used were 20,322 vehicles per day (vpd) for Gladstone Road/ SH6, 9,659 vpd for Lower Queen Street and 9,189 vpd for Queen Street.

Based on this input information, the assessment gives an estimated Death and Serious Injury (DSI) equivalent of 1.13 in 5 years and an estimated DSIs per 100 million vehicle kilometres travelled through the intersection of 17.7. These figures classify the intersection as having a **Medium-High risk for both Collective Risk and Personal Risk**.

The resulting Level of Safety Service (LoSS) provides a comparison to other signalised urban crossroads intersections nationally. The combination of reported injury crashes and traffic volumes at the intersection give an LoSS result on the margin between LoSS III and LoSS IV. That means the observed injury crash rate at the intersection is close to the worst 30% of similar intersections nationally, or in other words the crash rate is higher (worse) than that of 70% of similar intersections.

As this analysis indicates that there is currently a higher level of risk at the intersection in comparison to similar intersections nationally, we disagree with the conclusion made in the Carriageway report that *“it does not appear that there are any inherent road safety deficiencies at this location.”*

## 6. Austroads Research Report AP-R420-13

While the transportation matters report doesn't directly reference the Austroads Research Report AP-R420-13, "Impact of Roadside Advertising on Road Safety", 2013, there are some useful aspects in that report that are pertinent to this application. In referring to this document it is acknowledged that it is a research report and so doesn't have the same status as Austroads guides that are typically given more weight in traffic engineering.

Section 6 of the Austroads report “Best Practice Principles” provides some principles that should be considered when formulating guidelines for the approval and placement of roadside advertising. Some of these relevant to this application are quoted as excerpts below, with bold emphasis added:

*Sign Offset - Roadside advertising should not be substantially offset from the travel lane it is desired to be viewed from **as this could move gaze direction away from the forward roadway.***

*Elevation - Roadside advertising should not be elevated to the extent that it **draws gaze away from the forward roadway.***

*Driving Demand - Aspects of the driving environment other than visual clutter are likely to increase mental workload and decrease capacity to process task-irrelevant material such as roadside advertising. **In particular, intersections, decision-making points and merge points are likely to be demanding of attention. This suggests that in these and similarly demanding driving environments roadside advertising should not be visible.***

*Road Environment - A final consideration is the existing safety profile of the road environment in question. **For example, a road with an existing high crash rate would probably be a poor choice for installation of roadside advertising. By the same token, a road rated as risky by any of the road assessment methods (e.g. AusRAP) would also be an environment in which roadside advertising probably should not be introduced.***

Crash Rate Assessment - **Black spot locations should not be sites for roadside advertising**, especially where crash types are likely to be exacerbated by distraction (e.g. rear end).

Reviewing the proposed billboard location and positioning, along with the assessed existing intersection level of risk against these best practice principles indicates that in our view this is an unsuitable location for a billboard.

## 7. Summary and Recommendations

### 7.1 Conclusions

The proposed sign will be visible to traffic approaching the traffic signals on two legs of the Gladstone Road (SH6)/ Queen Street intersection. The sign location and positioning is such that the eyeline for any motorists viewing the sign on these approaching legs would be to the side of and well above their forward roadway. This has the potential to distract motorists attention and be detrimental to their decision making capacity in what is a demanding environment of the signalised intersection.

Using on the most recent reported crash history the intersection is shown to have an existing level of collective and personal risk in the medium-high category, This places the intersection close to the worst 30% of similar signalised crossroads intersections nationally in terms of the observed injury crash rate.

Based on this, we disagree with the conclusion of the Carriageway report that *“the operation of a south-facing digital billboard at 186 Queen Street will not present any particular road safety concerns.”*

And for the same reasons we disagree with the conclusion in Section 5.4 of the AEE that *“any potential for adverse effects can be appropriately avoided, remedied, or mitigated, and will be less than minor in the context of the receiving environment”.*

### 7.2 Recommendations

It is recommended that the consent application for the static billboard to be installed on a building at 332 Queen Street in Richmond be declined due to potential for adverse effects on traffic safety that will be more than minor.

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