

**ACG Properties Limited**

**Proposed Luxury Resort  
Te Miko**

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**Transportation Assessment**

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traffic engineering | transport planning



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## 1. Introduction

- 1.1. ACG Properties Limited is seeking resource consents for the establishment and operation of a luxury resort at Te Miko, on the West Coast of New Zealand. The facility will have visitor accommodation cabins, a restaurant and bar / lounge, and a spa.
- 1.2. The application was accompanied by a Transportation Assessment (dated 19 December 2024), which found that the traffic generated by the proposal could be accommodated on the adjacent roading network without capacity or efficiency issues arising, and that there would not be any adverse road safety effects arising. The Transportation Assessment concluded that the proposed development could be supported from a traffic and transportation perspective.
- 1.3. Subsequent to the application being notified, a number of changes were made to the proposal, and these have the effect of changing the traffic generation. In view of the elapsed time from the earlier Transportation Assessment (and to avoid the need to cross-reference between different documents), the approach taken in evaluating the effects of these changes has been to update the earlier Transportation Assessment.
- 1.4. Consequently this Transportation Assessment sets out a detailed analysis of the transportation issues associated with the updated proposed development including changes in travel patterns that are likely to arise. Where potential adverse effects are identified, ways in which these can be addressed are set out. Comparisons are made with the notified proposal where relevant.
- 1.5. This report is cognisant of the guidance specified in the New Zealand Transport Agency's '*Integrated Transport Assessment Guidelines*' and although travel by private motor vehicle is addressed within this report, in accordance with best practice the importance of other transport modes is also recognised. Consequently, travel by walking, cycling and public transport is also considered.

## 2. Site Overview

### 2.1. Location

- 2.1.1. The site is located on the western side of State Highway 6, approximately 2.5km north of Punakaiki. It is zoned as General Rural Zone in the Partially Operative Te Tai o Poutini Plan (**District Plan**).
- 2.1.2. The location of the site in the context of the local area is shown in Figure 1 and in more detail in Figure 2.

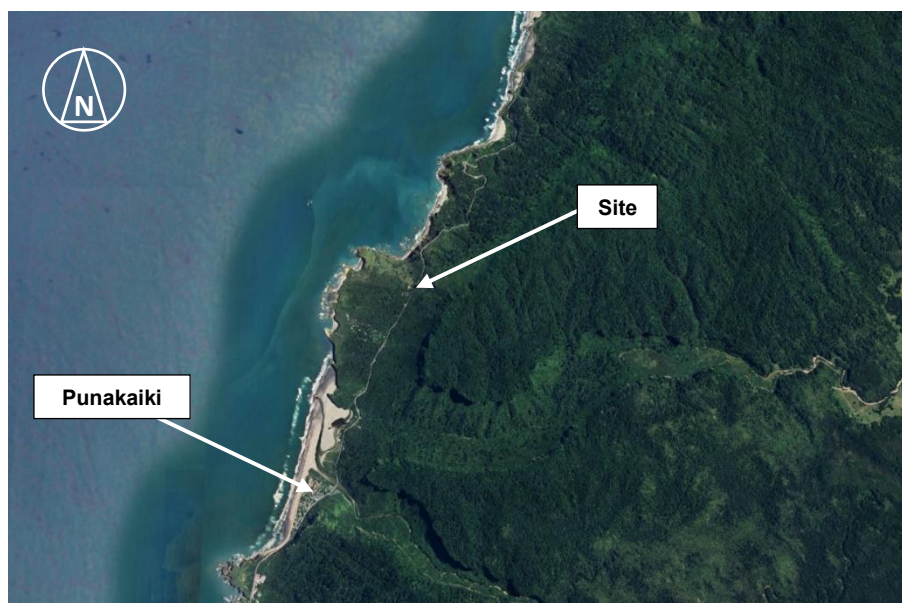


Figure 1: General Location of Site

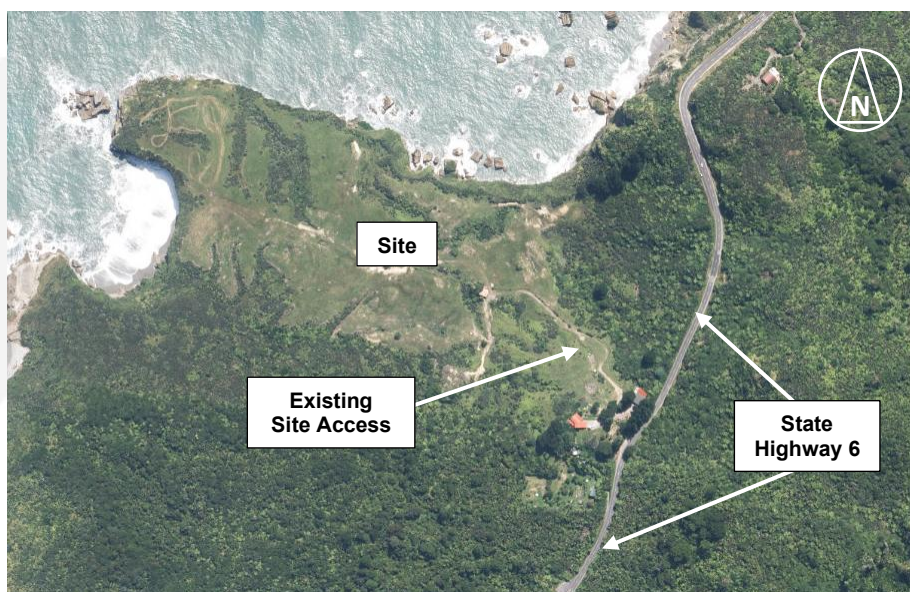


Figure 2: Aerial Photograph of Site and Environs

### 2.2. Road Hierarchy

- 2.2.1. State Highway 6 is a state highway, the highest in the hierarchy and indicating a role of predominantly carrying through traffic.



### 3. Current Transportation Networks

#### 3.1. *Roading Network*

- 3.1.1. State Highway 6 provides one 3m traffic lane in each direction but with minimal shoulder widening on either side. The highway has a slight gradient descending towards the south, and has a number of horizontal curves. Consequently although the posted speed is 100km/h, the highway alignment and narrow carriageway mean that speeds will be lower than this. Speeds recorded in the TomTom database show that the 85<sup>th</sup> percentile operating speed on the section of road including the site access is 75km/h.
- 3.1.2. The existing driveway serving the site is signposted with a 'concealed access' sign. There is also a solid yellow centreline for southbound traffic meaning that vehicles are not permitted to overtake. The site access is presently constructed to Diagram C of the NZTA Planning Policy Manual. Sightlines at the access are presently constrained due to the vegetation.



**Photograph 1: State Highway 6 Looking South Towards Site Access**

#### 3.2. *Non-Car Modes of Travel*

- 3.2.1. The immediate area is characterised by typically rural activities and consequently there are no footpaths or specific infrastructure for cyclists present, nor for buses.

#### 3.3. *Future Changes*

- 3.3.1. There are no major changes in infrastructure proposed within any strategic documents of guides that could materially affect the current infrastructure in the area.



## 4. Current Transportation Patterns

### 4.1. Traffic Flows

- 4.1.1. NZTA has a series of traffic counters located on the state highway network around the country. The closest NZTA traffic counter to the site is located some 14km to the south of the site (counter id:00600398) but given the very limited extent of development in the area, it is very likely that these volumes are the maximums that will be passing the site. The most recent data recorded by the counter shows an Annual Average Daily Traffic of 1,117 vehicles per day (two-way) in 2025 (the most recent year for which the data is available). This is almost the same as recorded in 2024 (1,105 vehicles).
- 4.1.2. The highway has very strong seasonality with far more traffic in summer compared to winter with the December volume being 90% higher than the July volume (1,362 vehicles per day compared to 718 vehicles per day). The average peak traffic volume over the course of 2025 was 109 vehicles (two-way) but the average peak hour during December was 133 vehicles (two-way) with occasional maximums of more than 200 vehicles per hour being recorded.
- 4.1.3. The counter recorded that 8.7% of observed vehicles were heavy vehicles. This equates to 118 heavy vehicle movements (for the busier flow of 1,362 vehicles), and 12 heavy vehicle movements in the busiest hour (133 vehicles).
- 4.1.4. However even the higher traffic flows are modest and well within the capacity of the highway.
- 4.1.5. Annual traffic growth on the highway in this location for the five-year period between 2015 and 2019 (that is, prior to any distortions due to travel restrictions associated with the Covid-19 pandemic) was 1.4%, expressed as a percentage of the 2019 figure. In subsequent years, traffic volumes have remained at, or below, the volumes recorded in 2016, 2017, and 2018.
- 4.1.6. Traffic volumes on the roading network are modest, and traffic growth does not suggest that the volumes could be expected to increase significantly in future. The Austroads Guide to Traffic Management Part 3 ('Traffic Studies and Analysis') sets out thresholds regarding the need for detailed traffic analyses at intersections, and the traffic flows below which detailed analyses of unsignalised intersections are unnecessary. An extract from this is set out below.

Major Road Type	Traffic Volumes (Vehicles Per Hour)	
	Major Road	Minor Road
Two lane road	400	250
	500	200
	600	100

**Table 1: Extract from Table 6.1 of Austroads Guide to Traffic Management Part 3 (Intersection Volumes below which Capacity Analysis is Unnecessary)**

- 4.1.7. It can be seen that even the absolute highest hourly volume recorded on State Highway 6 (249 vehicles (two-way)) falls below these thresholds. Accordingly, no analysis has been carried out at the current site access, rather, the traffic volumes indicate that the access will operate under 'free flow' conditions where delays to vehicles will arise from negotiating the access geometry, rather than due to the presence of other vehicles.



## **4.2. Non-Car Modes of Travel**

- 4.2.1. Given that the area around the site is largely rural, it can reasonably be expected that it will be infrequently used by pedestrians and cyclists. As such the absence of footpaths and cycling infrastructure is to be expected.
- 4.2.2. The highway is used by longer distance bus services including a shuttle bus that runs once a day (one trip in each direction) the Intercity bus which operates once per day. There are no formal stops in the vicinity of the site.

## **4.3. Road Safety**

- 4.3.1. The NZTA Crash Analysis System has been used to establish the location and nature of the recorded traffic crashes on State Highway 6, over a distance of 500m to the north and south of the site access. Due to the low traffic flows on the highway, the past ten years has been considered (2016 to 2025 plus the partial record for 2026).
- 4.3.2. This shows that three crashes have been reported. One occurred directly adjacent to the site, when a southbound truck driver lost control of their vehicle after over-running the edge of the carriageway and the vehicle tipping over. The crash did not result in any injuries.
- 4.3.3. The other two crashes both occurred around 450m to the south of the site, and occurred when drivers attempted to negotiate curves. In one case the driver lost control and left the road and in the other instance the driver cut the corner and struck another vehicle head-on. One crash resulted in minor injuries and the other crash resulted in no injuries.
- 4.3.4. Overall it is not considered that the crash record indicates that this section of the highway network has an inherent road safety deficiency.

## 5. Proposal

- 5.1. The proposal is for a visitor accommodation complex. As this is slightly different to what was notified, a comparison between the notified and now proposed activities is set out below:

Activity	Notified	Now Proposed
Visitor accommodation	9 cabins for 2 people 6 cabins for families/groups	8 cabins for 2 people 4 cabins for families/groups
Restaurant and Bar/Lounge	Max capacity for 140 diners Functions can be held	Max capacity for 54 diners Functions not permitted
Spa	Capacity for 8 people	Capacity for 12 people

**Table 2: Comparison of Notified and Now-Proposed Development**

- 5.2. It can be seen that the spa is slightly larger than notified, but the visitor accommodation, restaurant and bar/lounge are smaller.
- 5.3. Access to the site will continue to be provided via the existing driveway, although this will be improved in respect of width and gradient (as discussed in more detail below).
- 5.4. The vehicle crossing onto the state highway will be improved through the introduction of a right-turn bay, as shown on drawings produced by East Cape Consulting Limited (which are understood to form part of the application).
- 5.5. Parking will be accommodated on the site via a central car park, and it is understood that the parking areas will be sufficient for up to 22 cars (albeit noting that the large site area means that numerous areas are available for overflow parking as/if required). The cabins will be provided with their own car parks, with these located in the immediate vicinity of the cabins.



**Figure 3: Layout of Restaurant and Health Spa (Extract from Ground Up Studio Drawing)**



## 6. Traffic Generation and Distribution

### 6.1. Traffic Generation

- 6.1.1. The traffic generation will arise from each of the three activities on the site, although not all will coincide at the same time.
- 6.1.2. Visitor accommodation typically generates peak traffic volumes in the morning, when guests check out (since check-out time is usually a fixed time. Conversely guest check-in occurs over a longer time period, meaning that traffic generation rates are lower. In view of the location, it is likely that guests will select the accommodation because they are seeking to stay somewhere more remote than an urban area, and therefore their extent of trip-making will be reduced. However simply adopting the median value of NZTA Research Report 453 ('Trips and Parking Relating to Land Use') the 12 cabins will generate approximately 10 vehicle movements if they are all fully occupied.
- 6.1.3. It is unlikely that the maximum capacity of 54 people in the restaurant will occur on each day, but for a robust analysis, the peak occupancy has been allowed for. If an allowance is made for half of the people staying on the site to use the restaurant, then this would equate to 27 diners travelling from off-site. With a rate of 0.5 trips per seat, this would equate to 14 vehicle movements.
- 6.1.4. It can be anticipated that the spa will be used by those staying on-site, and in fact would be a reason why guests would choose this location over others. As such, a proportion of guests will already be within the site and so would not generate any traffic. However some customers will travel to the site from further afield. Allowing for 50% of spa users to travel from off-site locations, this could generate 6 vehicle movements per hour.
- 6.1.5. The peak traffic generation of the different activities will not coincide, and the busiest period is likely to be when guests check out and the spa is also operating. In that case there would be 16 vehicle movements. This compares to 17 vehicle movements calculated for the notified proposal in the same time period.
- 6.1.6. When the daily traffic generation is considered, applying standard rates indicates that the cabins would generate a total of 20 vehicle movements. The restaurant can be expected to generate 35 vehicle movements per day. The daily traffic generation of the spa depends on the times it is open, and the proportion of people using it that are already within the site. Allowing for 15 off-site guests to use it, plus staff travel, this equates to 33 vehicle movements per day. For clarity these volumes allow for staff travel and delivery/service vehicles (these typically do not occur in the peak hours as staff are busy with guests).
- 6.1.7. Overall then, the maximum traffic generation of the site is expected to be 88 vehicles per day, for visitors and staff. This is slightly lower than the peak daily traffic generation of the notified application, where a maximum of 99 vehicles per day was expected (largely due to the potential for a large event to be held).
- 6.1.8. The scale of development means that coaches are highly unlikely to visit. However, the site is likely to receive a small proportion of larger vehicles, such as for delivery of gas cylinders, food, and linen. Again though, the limited scale of development means that these will not be frequent. The access arrangements and gradients will also limit the types of vehicles that can visit the site and it is anticipated that the operators of the site will make suitable arrangements with service providers to only use vehicles that are of a suitable size to negotiate the access.



## 6.2. *Trip Distribution*

- 6.2.1. The distribution of these vehicles will depend on the location of guest staying elsewhere. However as the largest settlement in the immediate area is at Punakaiki, it is likely that all movements would be to and from this direction.





## **7. Effects on the Transportation Networks**

### **7.1. Rooding Network Capacity**

- 7.1.1. The addition of up to 16 vehicle movements to the state highway network in the peak hour will have an imperceptible effect on efficiency. It equates to an average of one additional vehicle movement every 3-4 minutes, which is insufficient to materially alter the level of service provided even if these flows were to arise during the peak hours on the highway.
- 7.1.2. Similarly, the site access will continue to operate under free-flow conditions.
- 7.1.3. Accordingly, it is not considered that adverse capacity-related issues will arise on the rooding network due to the operation of the site.

### **7.2. Non-Car Modes of Travel**

- 7.2.1. It is highly unlikely that the proposed activities will generate significant volumes of walking and cycling in the area, and therefore it is not considered that any additional infrastructure is required to support pedestrian or cyclists.
- 7.2.2. The nature and scale of development is not sufficient that a new public transport service is justified.

### **7.3. Road Safety**

- 7.3.1. The crash history in the vicinity of the site does not indicate that there are any particular features or factors that would be affected by the proposed development. Only three crashes have recorded over the past ten years, and these occurred in different locations and/or under different circumstances.
- 7.3.2. The site access will be upgraded from the current a Diagram C layout (as per the NZTA Planning Policy Manual) by the addition of a right-turn bay. This is discussed in more detail below.
- 7.3.3. At the same time, the opportunity will be taken to remove landscaping (either within the legal highway or within the site) to improve the sightline available. Applying the NZTA Planning Policy Manual for an operating speed of 75km/h (splitting the difference from Table 8-1) then sightlines of 166m are required in each direction. The drawings provided (East Cape Consulting) show a 181m sight distance based on a conservative 80km/h operating speed. These show that the expected 166m distance can be achieved.
- 7.3.4. For completeness, any areas within the site which the sight line crosses over will be required to be kept clear of any obstruction (fences, vegetation and the like) that could restrict the sight distance provided.

### **7.4. Additional Matters**

#### *Driveway Gradient*

- 7.4.1. The District Plan sets out that the maximum gradient for a driveway or right-of-way is 1 in 5. The indicative drawings show the following gradients:



- Up to 10% (1 in 10) for the first 10m;
  - 21.8% (1 in 4.6) for the next 35m or so;
  - 23.2% (1 in 4.3) for a further 40m; and
  - 17.0% (1 in 5.9) for most of the remaining length.
- 7.4.2. The first 10m of the access provides a shallow gradient for drivers that are approaching the intersection. However for the next 75m, the access is steeper than expected in the District Plan.
- 7.4.3. The current change of level equates to 13.05m, and so revising the gradient to achieve a maximum of 1 in 5 would mean that 1.5m of fill was required at the 'downhill' end of this steeper section. However the next section of the existing access is 17.0%, and this therefore could be steepened to 1 in 5. In other words, it is considered that there is an engineering solution whereby the initial steeper section of the access is flattened, and the flatter section is steepened, such that the overall driveway gradient is not greater than the expected maximum of 1 in 5.
- 7.4.4. The drawings show that the accessway has cut or batter slopes on either side over much of its length, and so it is likely that retaining structures would be needed in order to accommodate the earthworks to address the gradients. There are no known reasons at this time which mean such structures could not be constructed.
- 7.4.5. The drawings also show that the driveway is 5.5m wide over its whole length. This would mean that vehicles will need to cross the centre of the driveway to traverse the curves in the horizontal alignment, and this may present a road safety hazard for oncoming vehicles. This can be resolved through implementing localised widening of up to 1m at the curves, or alternatively, short sections of the driveway could be designated as one-lane sections only with drivers giving way to any vehicle travelling towards them (this is a potential solution due to the light traffic flows which mean the scenario of one vehicle meeting another will occur only infrequently).
- 7.4.6. Overall then, it is considered that there are engineering solutions that mean the driveway can be upgraded / improved to achieve compliance with the relevant guides and standards.

#### *Vehicle Crossing Layout*

- 7.4.7. The vehicle crossing connects onto a state highway, and it is therefore appropriate that it is constructed in a way which meets the provisions of the NZTA Planning Policy Manual. Accesses onto the highway are based on the volume of light and heavy vehicles using it, and the volume of traffic using the highway.
- 7.4.8. The initial proposal for the vehicle crossing was for a Diagram D layout, which includes widened shoulders on either side of the movement lanes of the highway. However this has now been revised and an auxiliary right-turn bay is proposed instead. The warrants for the right-turn bay are not met when the layout is assessed under the Austroads Guide, but the arrangement will provide an enhanced level of service and road safety because it physically separates southbound through traffic from vehicles turning into the site, whereas shoulder widening relies to a greater degree on drivers positioning their vehicles correctly and driving appropriately. In that regard it also provides an increased level of service compared to an NZTA Diagram E layout.



## 8. District Plan Matters

### 8.1. Introduction

8.1.1. The District Plan sets out a number of transportation-related Rules with which any development is expected to comply. An assessment of the proposal against these has been undertaken and the results are summarised below.

### 8.2. **TRN-R1: Establishment of accessways, vehicle crossings, parking spaces, loading spaces, queuing and standing spaces**

8.2.1. The vehicle crossing does not meet the sight distance specified in TRN Table 1 but this is because the highway does not operate at the posted maximum speed limit. Rather, the sight distance provided is appropriate for the operating speed.

8.2.2. The separation to the nearest vehicle crossing is less than the 200m expected under this Rule (and also under the NZTA Planning Policy Manual) but in view of the proposed upgrade to the site access, it is not considered that there will be any confusion between the accesses.

8.2.3. The layout of the site access also does not meet TRN Table 4 because a layout is proposed that exceeds the layout that is required under this Rule.

8.2.4. The site can provide for appropriate turning facilities (TRN-S2) and as set out previously, the gradient of the driveway can be amended to achieve a maximum 1 in 5 gradient (TRN-S3).

8.2.5. The site is large and the appropriate amount of car parking and cycle parking can be provided plus suitable manoeuvring areas (TRN-S4 to S8, S10, S11, S12). The driveway provides for suitable queuing space (TRN-S9) and the appropriate width (TRN-S13).

### 8.3. **TRN – R6: Trip Generation Activities**

8.3.1. The proposal is expected to generate less than 100 vehicles per day, but this Transportation Assessment has been prepared to fully evaluate the roading efficiency and road safety effects of the development.



## 9. Conclusions

- 9.1. This report has identified, evaluated and assessed the various transportation matters of a proposed visitor accommodation complex at Te Miko, north of Punakaiki.
- 9.2. Overall it is considered that the traffic generated by the proposal can be accommodated on the adjacent roading network without capacity or efficiency issues arising. Even if the worst case scenario is considered of the highest traffic generation of the site and the peak hours on the highway coinciding, the total traffic volumes remain low. The site access will continue to operate under 'free flow' conditions.
- 9.3. The crash history in the vicinity of the site does not indicate that there would be any adverse safety effects from the proposal.
- 9.4. The indicative driveway design for the site does not currently meet relevant guides/standards for gradients but this can be addressed through an improvement scheme. Localised widening at the curves on the driveway may also be required. It appears that these can all be achieved within the land available.
- 9.5. The site access intersection with the highway will also be improved with an auxiliary right-turn bay being provided. This will provide a better level of service than a design that simply widens the shoulders of the highway. Sight distances suitable for the operating speed of the highway can be achieved.
- 9.6. The proposed has a number of non-compliances with the transport aspects of Te Tai o Poutini Plan, but each of these has been assessed and it is not considered that these would lead to adverse transportation-related effects.
- 9.7. Overall, and subject to the preceding comments, the proposed development can be supported from a traffic and transportation perspective.

Carriageway Consulting Limited  
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**CARRIAGEWAY**  
**CONSULTING**

traffic engineering | transport planning

A. PO Box 29623, Riccarton, Christchurch, 8440 P. 03 377 7010 E. [office@carriageway.co.nz](mailto:office@carriageway.co.nz)