BEFORE THE CENTRAL HAWKE'S BAY DISTRICT COUNCIL

220003

IN THE MATTER OF	the Resource Management Act 1991
AND	An application by Paoanui Point Limited for a resource consent to subdivide land at Pourerere (being Part of Lot 1 DP 27067 and contained in Record of Title HBW3/400)

STATEMENT OF EVIDENCE OF MATHEUS FELIPE BOARETTO

28 June 2023

MAY IT PLEASE THE COUNCIL

1 My full name is Matheus Felipe Boaretto.

Qualification

2 I hold the position of Senior Transport Engineer at Urban Connection Limited, a transportation consultancy firm based in Hawke's Bay.

3 I hold a Graduate Diploma in Engineering (Highways) from the New Zealand Institute of Highway Technology (NZIHT) in partnership with the Western Institute of Technology at Taranaki and a Bachelor of Civil Engineering from the Assis Gurgacz University Centre in Brazil.

4 My work experience includes 15 years in highway design, traffic engineering and road safety, working both in New Zealand and Brazil. In New Zealand, my work experience totals four and a half years.

5 During this time, I have been responsible and part of a wide range of transport projects and developments, both for transport agencies and developers. Examples of developments include residential, hospitals, film studios, and commercial and industrial. I have also been responsible for a range of safety assessments for the Waka Kotahi New Zealand Transport Agency, including road safety audits, safe system audits, assessments and designs for the speed management panel.

Code of Conduct and Conflict of Interest Declaration

6 I have read the Environment Court's Code of Conduct for Expert Witnesses 2023, and I agree to comply with it. I confirm that the issues addressed in this brief of evidence are within my area of expertise, except where I state I am relying on what I have been told by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

7 I have no commercial relationship with the applicant, save in my role as an expert in relation to this application.

Introduction

8 In December 2021, UCL undertook an assessment of the level of traffic that was likely to be generated by the proposed rural-residential development (Stage 3) and the likely effect that this would have on the surrounding network. The UCL assessment also included an assessment of road safety issues and the ability of the site to accommodate the overall access demands.

9 In response to the s92 request, UCL prepared an addendum dated 29 March 2023 which addressed the matters raised.

10 The purpose of this evidence is to confirm the UCL assessment in respect of the transportation effects arising from the proposal, including updates to the proposal since the time of the original assessment and address transport matters raised in the submissions received to date.

My evidence

Technical Report – Traffic Effects

11 The UCL report 'Punawaitai Road Subdivision – Stage 3, Transport Impact Assessment' dated December 2021 and the addendum 'Punawaitai Road Subdivision, 220003 Section 92 (Request #2) Response' dated 29 March 2023 are attached in Attachment 1 of the Section 42A Report.

12 Stage 3 includes 48 new residential lots, served by a road extension off Punawaitai Road. There is no new intersection or accessway.

13 The expected traffic generation of the proposed development given by the TIA is 394 vehicles per day (vpd) and 60 vehicles per hour (vph). The trip rates used are conservative for the predominantly recreational use of the residential lots and the environment in which the development is located. The conservative assessment of trip generation provides a more robust assessment of the potential traffic effects.

14 In reality, a likely more accurate trip generation for the proposed development would be based on trip generation rates for recreational homes. Recreational homes are usually second homes used by the owner periodically or rented on a seasonal basis.

15 Based on daily and peak-hour rates for recreational homes provided by the Trip Generation Manual 10th Edition of the Institute of Transportation Engineers, the daily trip generation on weekdays for the site is expected to typically be 167 vpd and 15 vph in the peak hour. Peak hour trips could be expected to increase during the weekend, reaching approximately 58 vph in the PM peak hour on Fridays. The hourly trip generation on Friday evenings is similar to the figure used in the TIA.

16 I have reviewed the assessment of traffic effects since the TIA was produced in 2021. This aims to reflect potential traffic growth to 2023.

17 The annual average daily traffic (AADT) on Pourerere Road from MobileRoad in July 2021 is estimated to be 230 vpd. This results in a growth of approximately 19% (or 6.3% per year) over the 2018 figure used on the TIA. Applying this yearly growth rate, an AADT of 260 vpd would be expected in 2023. Additionally, applying a very conservative seasonality factor of 100%, it could be expected that daily volumes on Pourerere Road would reach approximately 520 vpd.

18 A peak hour factor of 15% of the AADT has been applied to the TIA, which is again conservative in nature. This results in peak hour flows of approximately 78 vph in the peak hour on Pourerere Road, equating to approximately 1 vehicle at every 46 seconds on average.

19 While the site will represent an increase in traffic volumes on Pourerere Road and the peak hour traffic flows at the site are likely to coincide with the surrounding network peak, the gap opportunities on Pourerere Road are significantly higher than the critical gaps required for vehicles to turn to and from the site. Therefore, it is assessed that there is ample capacity for vehicles to turn at the Pourerere Road and Punawaitai Road intersection.

20 The expected effects from the traffic to be generated by the site on the surrounding intersections are considered relatively low and assessed as no more than minor, and traffic effects beyond these intersections are assessed as negligible.

Technical Report – Road Safety

21 I updated the road safety assessment given by the TIA to the present year. Still, no crashes have been recorded on Punawaitai Road and within 500 m radial from the intersection with Pourerere Road in the last 10 years.

22 This indicates no underlying safety issues in the vicinity of the site.

Technical Report – Internal Layout and Visibility

23 The internal roading layout for Stage 3 is similar to the road formation approved for Stages 1 and 2. The roading layout complies with the requirements of the Central Hawke's Bay Operative District Plan for rural zones, with a 6.2 m wide sealed carriageway and 18.5 m wide legal road width.

24 A 1.5 m wide footpath is proposed to be provided on one side of the road within the site. A 2.5 m wide footpath also proposes to surround the site, allowing further recreational walking. The footpaths are to be linked to an existing path

that connects to the beach, allowing direct access to the site's residents to this main leisure point in Pourerere.

25 The visibility at the Pourerere Road and Punawaitai Road intersection is assessed as satisfactory and exceeds the requirements of the Central Hawke's Bay District Plan for a 100 km/h posted speed limit area.

Technical Report – S92 Request

26 It is noted that the review of the application by the Central Hawke's Bay District Council Land Transport team only raised one matter in relation to traffic in their memo dated 27 March 2023. Specifically;

- Advise whether any of the expert advice, provided with the application documents requires any further updating and amendments since lodgement (in particular any traffic evidence or engineering evidence), particularly following the extreme weather events of Cyclone Gabrielle.

27 A site visit was undertaken on 26 June 2023. I confirm that the cyclone has not changed the road environment in the vicinity of the site. Therefore, the considerations contained in the TIA are unchanged. This also applies to the content provided in this Statement of Evidence.

RESPONSE TO MATTERS RAISED IN THE SECTION 42A REPORT AND TRANSPORT TECHNICAL MEMORANDUM

28 The Section 42A report prepared by Mr Ryan O'Leary is generally in agreement with the recommendations of the Transport Technical Memorandum prepared by Mr Chris Rossiter, consisting of the following:

(a) The Applicant implements speed management controls that physically constrain vehicle speeds to below 30 km/h throughout the subdivision;

(b) The Applicant constructs a 2 metre wide footpath on the Punawaitai Road extension through the Stage 1-2 subdivision site to connect with the path to the beach;

(c) The Applicant supplies plans indicating all road signs, markings and guidance proposed for the new roads. The details should be assessed as part of the Engineering Approval for the new roads. Specific consideration should be given to road edge markings and protection of steep batter slopes;

(d) The Applicant submits a Detailed Design Stage Safe System Audit for the subdivision roads as part of the Engineering Approval for the new roads;

29 In relation to (a) above, I agree that managing vehicles' speeds up to 30 km/h is important throughout the site. However, the site's proposed horizontal alignment consists of an oval shape with small straight segments limited to approximately 150 m followed by moderate to tight curves, which naturally manage vehicles' speeds. Vehicles are unlikely to exceed 30 km/h on such short straight segments while preparing to negotiate the corner ahead. I consider that this is sufficient to address this matter.

30 However, on a conservative basis, it is recommended that an operating speed survey is undertaken once the site is fully developed to ensure that vehicles' operating speeds are up to 30 km/h. If required, additional speed management measures can be adopted at appropriate locations if operating speeds exceed this threshold.

31 In relation to (b) above, a 1.5 m wide footpath is sufficient to accommodate up to 50 pedestrians per minute on local roads in residential areas, according to NZ Transport Agency Pedestrian Planning and Design Guide. Pedestrian volumes within the subdivision will be well below this threshold. The guide also states that this width allows a wheelchair and a pram to pass each other. Therefore, I consider the 1.5 m footpath suitable for this site.

32 In relation to (c) to (d) above, the recommendations are reasonable and should be included in the resource consent conditions.

33 Furthermore, the S42A report and Transport Technical Memorandum mention a potential increase in conflicts between pedestrians and vehicles on Pourerere Road with the site's development and that speed management measures on this road should be extended to Punawaitai Road.

34 The availability of the path that connects the site straight to the beach indicates that the site's residents are unlikely to walk along Pourerere Road due to the significantly longer path to be walked. The path from the site to the beach results in a walking distance of approximately 1 km, while the walking distance along Pourerere Road is approximately 1.95 km to the beach or almost double the distance. Using a comfortable walking speed of 1.3 m/s, the path along Pourerere Road results in approximately 12 extra minutes compared to the path from the site straight to the beach (25 minutes against 13 minutes).

35 Furthermore, no key destination points that could generate walking trips from the site are provided throughout Pourerere Road, such as dairy shops, cafés or similar. Once again, this further indicates that no pedestrian trips from the site are likely to occur along Pourerere Road.

36 Therefore, the site's development is unlikely to change existing pedestrians versus vehicles risk on Pourerere Road, with a very unlikely probability of conflicts between these different road user categories due to low traffic and pedestrian volumes. No interventions along Pourerere Road are considered required.

RESPONSE TO MATTERS RAISED IN SUBMISSIONS

37 The submissions related to transport generally express concerns about the following:

(a) Potential impacts of the increase in traffic volumes and lack of consideration of busy holiday periods;

(b) Safety concerns for pedestrians on Pourerere Road due to the lack of footpath;

(c) Increased parking demand at the beach;

(d) Excessive vehicles speeds due to the lack of speed suppression;

38 In response to (a) above, I refer to sections 16 to 20. Although it is anticipated an increase in traffic volumes, the traffic generation from the site is considered relatively low, with less than minor adverse effects at adjacent intersections and roading network;

39 In response to (b) above, I refer to sections 34 to 36. The site's residents are expected to walk to the main destination point, the beach, through the path that connects straight to the site;

40 In response to (c) above, I consider that the path that connects the site to the beach will significantly reduce motorised vehicle use. Site residents are expected to park their cars at their properties and walk to the beach using this path. Therefore, parking demand at the beach is not expected to be significantly affected by the site's development.

41 In response to (d) above, I refer to section 29. The proposed horizontal alignment on Punawaitai Road is expected to naturally suppress the vehicle's speeds.

CONCLUSIONS AND RECOMMENDATIONS

42 Accordingly, it is concluded that the traffic associated with the proposed development is able to be accommodated on the adjacent road network and can be safely supported from a transportation perspective.

Dated this 28 June 2023

Matheus Felipe Boaretto