

**BEFORE THE INDEPENDENT HEARINGS COMMISSIONER APPOINTED BY NEW  
PLYMOUTH DISTRICT COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of an application under section 88 of the Act  
by Devon 5 Investments Limited for consent  
to develop five comprehensive townhouses  
and subdivide land at 1-5/196 Mangorei  
Road, New Plymouth

**STATEMENT OF TRAFFIC ENGINEERING EVIDENCE OF IAN DONALD STEELE  
ON BEHALF OF DEVON 5 INVESTMENTS LIMITED**

5 September 2018

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## **INTRODUCTION**

### **Qualifications and Experience**

1. My name is Ian Donald Steele. I hold the qualifications of BE (Hons)(Civil)(2002) and Grad Cert(Infrastructure Asset Management)(2011); and I am a Professional Member of IPENZ (MIPENZ) and registered as a Chartered Professional Engineer (CPEng)(#255539).
2. Over my 17 year career, I have worked as a design engineer (Apex Consultants), mostly working on infrastructure design projects such as stormwater, road renewals, upgrades and road safety projects within Taranaki. I was the Road Network maintenance contract team leader for South Taranaki District (Apex Consultants), responsible for the design and maintenance supervision of the South Taranaki Road network including the role of Traffic Management Co-ordinator (TMC).
3. I have received Road Safety Auditor training, and my role prior to joining BTW Company was as Team Leader (Queensland / NT) - Infrastructure Management with ARRB Group, where I completed numerous project evaluations, road safety audits pavement assessments, road asset management plans and the like.
4. I have been employed by BTW Company since October 2011, currently as the director of Engineering. My role for BTW Company, New Plymouth includes design, supervision and reporting and investigation of various civil projects including many related to road, transport/traffic and site development engineering, specifically including stormwater management.
5. I confirm that I have read, and agree to comply with, the Environment Court's Code of Conduct for Expert Witnesses (Environment Court of New Zealand Practice Note 2014). This evidence I am presenting is within my area of expertise, except where I state that I am relying on the evidence of another person. To the best of my knowledge I have not omitted to consider any material facts known to me that might alter or detract from the opinions I express.

### **ROLE**

6. I was engaged by the applicant in approximately September 2016 to undertake an assessment of the suitability of the site for building platforms. Since that initial work I have also overseen engineering design at the site including management of stormwater and vehicle manoeuvring/parking. I have not undertaken a Traffic Impact Assessment, nor am I aware of one that has been completed in respect of the proposal.

## **SCOPE OF EVIDENCE**

7. In my evidence I will comment on:
  - a) The proposal;
  - b) Submitters issues and expert view on those points.

## **PROPOSAL**

8. The proposal is well covered in the application and also discussed in the Officer's report. My comments below relate specifically to matters around traffic management at the site.
9. The site is adjacent to the Merrilands shopping centre, Stumble Inn café and also residential dwellings. The shopping centre was established by approximately the mid-1970's, and the style of construction of the adjacent dwellings indicate that land development occurred at a similar time.
10. The shopping centre is well established and is an area of high traffic density within the shopping centre and also, at times, on adjacent Mangorei Road and Nevada Drive. Within the shopping centre there are numerous shops, including a pharmacy, salon, bank and supermarket.
11. No specific traffic data was available for the shopping centre, though based on the number of carparks at the shopping centre, and average duration of visit by customers at the shopping centre, it is estimated that total trips into and out of the shopping centre site (via Mangorei Road and Nevada Drive) would total in excess of 1000 VEM per day, with likely greater than 300 VEM per hour in peak times (morning and afternoon).
12. Access to the proposed site is through the existing carpark and entrances.
13. Mangorei Road is classified as an 'arterial road' with a 50 km/h posted speed limit. NPDC traffic count data between Te Mete Terrace and Cumberland Street on Mangorei Road recorded an AADT of 1,504 on both left and right lanes in Feb 2011. The right lane's peak traffic volume was 574 at 8 am and the left lane's peak volume was 488 at 3 pm. Mangorei Road provides an arterial connection to and from State Highway 3 which generates a significant volume of traffic on the road.
14. Nevada Drive is classified as a 'local road' also with a 50 km/h posted speed limit. NPDC traffic count data on Nevada Drive between Cumberland Street and Awanui Street recorded an AADT of 696 on both lanes. The peak traffic volume was recorded at 5pm at 78 ADT.

15. From a traffic engineering perspective, when considering the safety and efficiency of the road network, there are considerations at three levels.

- a) Firstly, within the site itself - in terms of providing suitable parking and manoeuvring. The proposed site has two carparks per dwelling, and the layout provides suitable manoeuvring space for all carparks.
- b) Secondly, consideration of the traffic within the adjacent shopping centre carpark. This is discussed further below.
- c) Thirdly, the effects to the wider network including Mangorei Road, Cumberland Street and Nevada Drive. This is discussed further below.

16. With regard to the safety and efficiency within the shopping centre, the five dwellings will generate light vehicle traffic movements in the order of approximately 45-50 VEM per day, with hourly peaks likely 10-15 per hour. The volume of traffic per hour/day is not considered to create undue delays within the site.

17. The only potential adverse effect is related to familiarity of the internal shopping centre carpark by residents of the proposed dwellings, leading to potentially increased speed of those individual vehicles, particularly when approaching from the Nevada Drive entrance to the site. A simple sign could be installed at the entrance/exit to the development site to remind residents and visitors that they are entering the carpark area, though the effectiveness is likely minimal over the long term, and the variety of the congestion (intensity/timing) within the carpark will act as the most significant deterrent to long term negative driver behaviour. Therefore, I do not believe that the installation of a sign is worthwhile.

18. With regard to the wider road network, both Cumberland Street, Mangorei Road and Nevada Drive have capacity to receive the additional traffic generated by the site. While it is possible that the Mangorei Road entrance would be put under further pressure resulting with some minor additional queuing, the general nature of road users means that it is likely that residents of the dwellings would tend to avoid any specific or existing congestion and adjust their route accordingly – likely meaning use of the Nevada Drive entrance.

## **SUBMISSION AGAINST THE APPLICATION**

19. I have reviewed the submission in opposition against the proposed development. Traffic matters raised within that submission included:

- a) Considers that the Application will result in adverse traffic effects and traffic safety effects and in particular but not limited to, adverse effects resulting from the increased volume of traffic expected to be generated by the Proposal on the right of way through the Merrilands Shopping Centre carpark and the effects on the safe and efficient movement of vehicles; and
- b) Considers that the subdivision is inappropriate and will result in adverse effects from the number and sizes of the allotments which will not enable use in compliance with the required standards for permitted activities and will adversely affect the character and amenity of the surrounding area, stormwater management and the safe and efficient operation of the road transportation network.

20. Having reviewed the submitters comments, I do not have any additional comments beyond my points provided earlier in my evidence (and do not agree that the submitter's concerns will be realised for the reasons I have provided).

## **CONCLUSION**

21. On the basis that the relevant proposed consent conditions as shown in the Officer's report will be imposed if consent is granted, the proposed development will not create new issues, or significant adverse effects, related to the safety and efficiency of the road network.

**Ian Donald Steele**  
**5 September 2018**