

BEFORE A HEARING COMMISSIONER

IN THE MATTER of the Resource Management Act 1991 (RMA)

AND

IN THE MATTER of hearing submissions and further submissions in respect
of Matamata-Piako District Council - Plan Change 58 -
Avenue Business Park

**SUPPLEMENTARY STATEMENT OF TARA VANESSA HILLS ON BEHALF
OF WARWICK AND MARION STEFFERT
TRAFFIC/TRANSPORTATION ENGINEERING**

20 FEBRUARY 2024

Introduction

- 1 My full name is Tara Vanessa Hills. My qualifications, experience and agreement to comply with the 'Code of Conduct for Expert Witnesses' are set out in my Evidence in Chief (**EIC**) dated 14 February 2024.
- 2 In this supplementary evidence I provide additional information relevant to pedestrian and cycle paths, which is a matter where I have expressed differences of opinion in my EIC from the transportation peer review prepared by Ms Naomi McMinn.

Expected Pedestrian and Cyclist Volumes

- 3 I have estimated pedestrian and cyclist traffic volumes from counts which I undertook at the Riverlea industrial area, Hamilton, on the 15 February 2024. Riverlea has an area of approximately 19 ha, about twice the PC58 developable area of approximately 10.1 ha, and similar in size to the developable area of PC58 and Stage 1 of the Avenue Business Park combined of approximately 18.3 ha. The Riverlea industrial area has been used to help determine trip rates as trips can be easily measured at this no exit site. It is noted that the Riverlea site provides a conservative estimate of pedestrian and cyclist volumes, as this area provides access to a shared path along the Waikato River, is adjacent to a residential area, and includes some residential dwellings.
- 4 The pedestrian and cyclist count found four pedestrians and one cyclist on Riverlea Road in the am peak hour from 7:30 to 8:30 am. These volumes are expected to reflect the total expected peak hour volumes from the combined PC58 and Stage 1 areas, with half of these volumes (two pedestrians and less than one cyclist) in the PC58 area only.
- 5 If walking and cycling facilities improve within Morrinsville over time, higher numbers of staff will potentially use these modes, with direct industrial trips (such as customers and suppliers) expected to remain as vehicle only trips. It is noted that pedestrian volumes at the site will be limited due to the distance to residential areas. The closest residential area (Snell Street) is approximately 650m from the Stage 1 area and 930m from the PC58 area. The typical distance that people are willing to walk is generally taken to be 400m (a five-minute walk).
- 6 My estimated upper bound for pedestrian trips is twice that observed at Riverlea, giving eight pedestrians for the combined PC58 and Stage 1 areas, and four pedestrians for the PC58 area in the peak hour. Upper bound cycling trips have been estimated from general cycling trip rates in Hamilton of 8%¹. A rate of half this figure is considered to be a reasonable estimate of a maximum cycling rate in the PC58 industrial area. This trip rate of

¹ (2015). *Benchmarking cycling and walking in six New Zealand cities*. University of Otago, New Zealand Centre for Sustainable Cities.

4% could result in upper bound peak hour trips of 10 cyclists for the predicted 256 peak hour vehicle trips in the PC58 area, and approximately twice this figure, 20 cyclists in the combined PC58 and Stage 1 areas. The pedestrian and cyclist trips are expected to have a stronger tidal in:out split compared to that estimated for vehicle trips, which is given in the Integrated Transport Assessment for the PC58 area as being 74:26 in the peak hour.

Facility Requirements

- 7 Pedestrians require a width of 0.61m and cyclists require 1.0m of space (Austroads AGRD Part 6A, provided in **Figure 1**). For two-way flow footpaths need to be a minimum of 1.2m, with 1.8m required for two wheelchairs to pass each other, and cycleways need to be a minimum of 2.0m to allow two cyclists to pass each other.

Figure 3.5: Cyclist design envelope

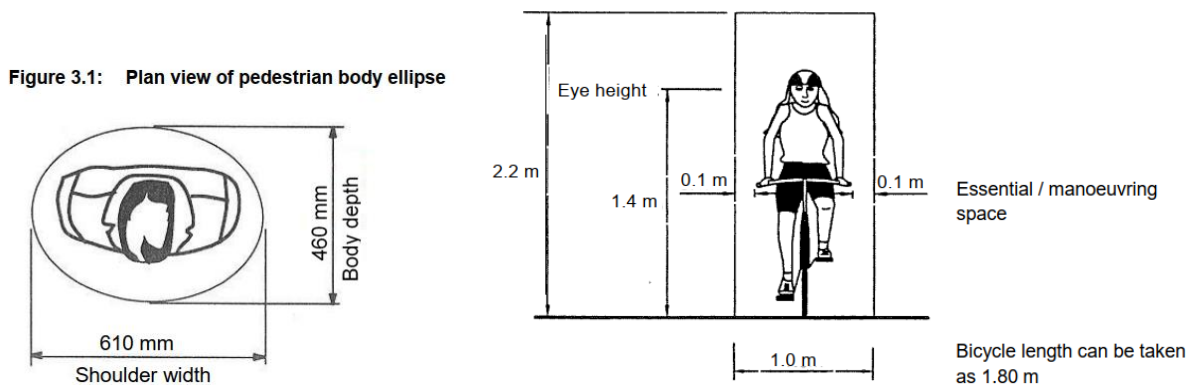


Figure 5.2: Minimum pedestrian path widths

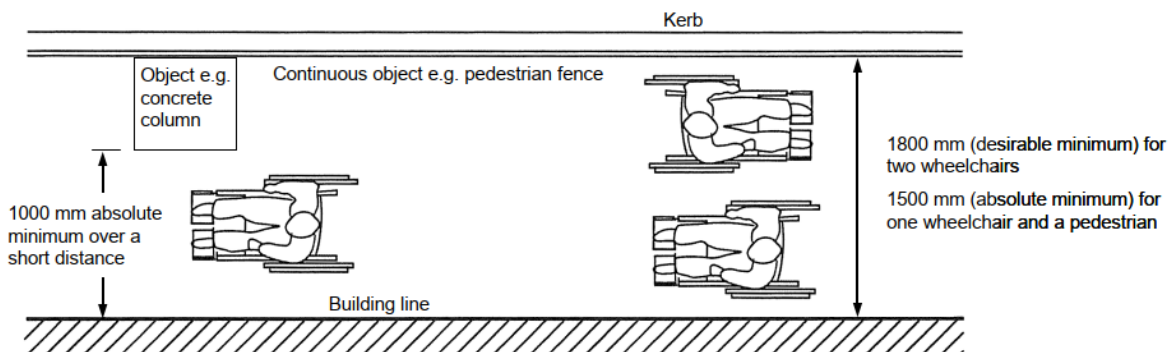


Figure 1: Pedestrian and cyclist width requirements

- 8 Cyclists passing each other is expected to be a relatively rare occurrence, with a maximum of 10 cyclists predicted in the peak hour within the PC58 site, and 20 within the combined PC58 and Stage 1 area, and a tidal directional split expected to be close to 100% in or out in the am:pm peak hours. That is because most cycle movements will be staff travelling in

the same direction (i.e. in to work in the am peak hour and home from work in the pm peak hour).

- 9 The proposed 1.8m width for paths on new roads within the PC58 site will safely allow a pedestrian to pass a cyclist. On the rare occasion that two cyclists have to pass each other the 1.8m width will allow them to do so at a controlled speed or by using road berms and vehicle entrances. The recently constructed 1.5m width path on Magistrate Avenue will require cyclists passing pedestrians to use the berm and vehicle entrances. I consider this to be acceptable given the existing nature of this path and the relatively low numbers of cyclists and pedestrians predicted at the site.
- 10 While shared path widths are typically wider than that proposed (2.0 to 3.0m width), these facilities typically accommodate large numbers of trips, with minimum widths accommodating up to 50 pedestrians or 550 cyclists per hour (Austroads AGRD Part 6A). For the relatively low number of pedestrian and cyclist trips expected at the PC58 site a first principles approach of actual width required is considered to be appropriate.
- 11 The provision of paths on both sides of the road is generally required in residential and commercial areas. In these areas there are significant safety benefits obtained through reducing the number of road crossings pedestrians (in particular children/elderly/disabled pedestrians) have to undertake. Residential and commercial areas also have a much greater number of pedestrians and cyclists using these facilities to appreciate these safety benefits. In the PC58 area the number of pedestrians and cyclists will be much less than in a residential or commercial area, with significantly less disadvantaged path users such as children or elderly. For these reasons the provision of a path on one side of the road only is considered to be appropriate.

Dated 20 February 2024