

APPENDIX A

Council Report – 15 February 2016 Safe Pedestrian Crossing Massey Avenue Reservoir

APPENDIX A – Calculations to determine the most appropriate pedestrian crossing treatment

This appendix considers the different types of available crossing treatment to determine the best fit solution to suit the community in a cost effective way.

Measured Variables to use for the Assessment

The hourly vehicle volumes over the school peak traffic times exceed 1000 vehicles per hour.

The pedestrian volume in the busiest hour is 6 adults + 20 accompanied children + 8(x2) unaccompanied children (unaccompanied children count for two pedestrians) = 42 pedestrians per hour.

Traffic Engineering Manual – Warrant Guidelines

The VicRoads Traffic Engineering Manual (TEM) guidelines for various types of crossings state:

- a) Pedestrian (zebra) crossing with flashing lights require pedestrian volumes of ≥ 60 /hour and vehicles volumes of 500/hour (same hour).
- b) Pedestrian (zebra) crossing without flashing lights require pedestrian volumes of ≥ 20 /hour and vehicles volumes of 200/hour (same hour).
- c) Children's crossing (School Crossing) require pedestrian volumes of ≥ 20 /hour and vehicles volumes of 50/hour (same hour).
- d) Pedestrian operated signals (where primarily used for primary school children) require pedestrian volumes of ≥ 50 /hour and vehicles volumes of 500/hour (same hour) and the product of these figures to also exceed 25,000.

Based on the above guidelines and survey information, a pedestrian 'zebra' crossing without flashing lights (b) and children's crossing (c) could be implemented.

While the guideline for the number of pedestrians is not met for pedestrian operated signals (d), the TEM notes that *where the guidelines for a children's crossing are met but the road has a high traffic volume, pedestrian operated signals may be appropriate*. Therefore, pedestrian operated signals could be installed based only on the survey details and allowances in the TEM.

However, VicRoads does not recommend installing pedestrian operated signals less than 20 metres from roundabout intersections rendering the installation of signals off the desire-line less than ideal.