

Assessment of Pedestrian Crossing Facilities - Worked Example

Introduction

This document has been prepared to demonstrate the proposed pedestrian crossing assessment methodology. For the purpose of this exercise, five current crossing requests have been assessed using the new methodology and ranked accordingly.

The five trial locations are:

1. Preston Drove opposite Blakers Park
2. Carlton Terrace (Boundary Road), north of railway crossing)
3. Davey Drive
4. Wilson Avenue
5. Nevill Road

Stage 1 – Pre Qualification

Pedestrian Accidents

Following a request for a new pedestrian crossing, initial investigations will be carried out to determine if there have been any recorded pedestrian collisions within the vicinity of the request area within the last three years. If a pedestrian collision has been recorded then the request will automatically proceed to the detailed assessment phase.

In this case, only site 1 (Preston Drove) has a recorded pedestrian collision in the last three years and will therefore proceed to Stage 2 of the process; detailed assessment.

Sample 1 hour Survey

Those requested sites where no pedestrian collisions are recorded will be subject to a sample 1-hour pedestrian and vehicle count during the busiest hour for that particular location. The result of this 1 hour sample count will be expressed in terms of a PV^2 figure which gives an impartial measure of the need for a pedestrian facility at any site. The results of the 1 hour survey for the 4 remaining sites are shown in table 1 below:

Table 1 – 1 hour sample survey results and corresponding PV^2 Values

Number	Location	Peak hour Ped count	Peak hour Vehicle count	$PV^2 \times 10^8$
2	Carlton Terrace, north of level crossing	124	1015	1.3
3	Davey Drive	36	160	0.01
4	Wilson Avenue/ Henley Road	22	810	0.14
5	Nevill Road /Opposite Greyhound St	26	1250	0.88

Guidance suggests any locations with a PV^2 score equal to or greater than 0.2×10^8 should be taken forward to the Stage 2 detailed assessment. Sample sites 2 and 5 (highlighted) both scored higher than 0.2×10^8 and therefore will be taken forward to stage 3 for a full detailed assessment.

Sites 3 and 4 did not score above the threshold, therefore suggesting that pedestrian and vehicle numbers are insufficient at these sites to warrant a pedestrian crossing at this time. However, these requests will be retained and can be re-assessed at a later date should local circumstances change (i.e. new development).

Stage 2 - Detailed Assessment

Sites with a sample PV^2 above the threshold of 0.2×10^8 , as well as sites where at least one pedestrian casualty has occurred in the last 3 years can now be assessed in greater detail. The detailed assessment will lead to an overall score used to rank the priority of each individual crossing request against the others on the list.

The full assessment includes a full 12 hour pedestrian and vehicle count from 7am – 7pm which is then used to determine the average PV^2 of the four busiest hours. In addition to this there are a further 11 factors including pedestrian casualties, speed limits, road width and access to public facilities etc. All factors considered can be seen in the full assessment scoring sheet at Appendix 1 to the main report.

Once the scores are calculated a final score for a particular site is achieved and this can then be used to determine the priority of that site compared to the others on the waiting list. Table 2 below shows the final priority order of the 3 trial sites that progressed to the detailed assessment stage. The trial shows that Site 2 - Carlton Terrace is the highest priority for a pedestrian crossing facility. This is consistent with what would be expected as it is known that there are high volumes of traffic in this area and also lots of pedestrians crossing the road, largely as a result of Portslade Rail Station.

Table 2 - Pedestrian Crossing Priority List

No.	Location	Average PV counts x 10	Factor score	Overall Score	Priority
2	Carlton Terrace, north of level crossing	106.26	4	110.26	1
1	Preston Drove opposite Blakers Park	22.60	3	67.80	2
5	Nevill Road /Opposite Greyhound St	10.25	5	51.25	3