

2022/23 Pedestrian Crossing Review Design and Cost Report

Appendix 1 – Pedestrian Crossing Assessment Framework

1. The framework continues to note the difficulty of crossing and pedestrian demand based on the PV2 surveys, while looking to quantify the expected benefits and impacts of the provision of a formal facility on the local neighbourhood, residents and businesses and on road safety, thus introducing an element of a feasibility assessment early on in the process. The PV2 criteria have been replaced with a points scoring system, reflecting the above considerations; the thresholds have been carefully benchmarked against previous assessments. The recommendations concerning the technical assessment as to what type of facility may be most appropriate for a particular setting remain unchanged, and are based on the agreed guidelines.
2. The framework establishes the thresholds for the consideration of both informal and formal crossing facilities. Scores between 4 and 8 indicate some degree of crossing difficulty which can be eased by informal measures (for example refuges, junction narrowing or build-outs). Scores above 8 indicate that a formal facility (a Zebra, Pelican or Toucan) should be considered. Higher scores, arising from higher traffic speeds and volume, greater crossing difficulty and road safety record, may indicate the need for a higher-end facility (signal controlled crossing). However, the choice of the facility will be predominantly dictated by the road and traffic characteristics as well as pedestrian demand and waiting times and subject to a feasibility, engineering and road safety assessment.
3. Whilst signal controlled crossings are generally more appropriate on busier and faster roads, zebra crossings can provide safe facilities where speeds are lower and can achieve reduced pedestrian delay. Overall, where used appropriately, they have achieved safety records just as good as equivalent light controlled crossings.
4. Typical site characteristics and road conditions for a signal controlled crossings would be:
5. Puffin crossing will generally be preferred for the busiest sites. These will be typically very busy roads where mean traffic speeds exceed 35 mph. Typically, traffic flows will exceed 1000 vehicles per hour and over 70 pedestrian movements in busiest hours, or there would be an indication of suppressed pedestrian demand. At some sites there will be a record of pedestrian injuries. Pedestrian waiting time will generally exceed 1 minute.
6. Zebra crossing will generally be preferred at quieter sites. In some instance other informal measures may be recommended. These will be generally appropriate for medium trafficked roads with flows typically over 700 vehicles per hour in the busiest hour(s) and where mean traffic speeds are below 35 mph. Pedestrian flows will typically exceed 40 in the busiest hours and should exceed those on adjacent sections of road by at least 3:1 thereby demonstrating a clear desire line. Most sites are unlikely to have a pattern of pedestrian casualties. Waiting times up to 30 seconds and occasionally exceeding 1 minute. Some sites at the higher end of the range may be best suited to Puffin crossing control. For sites at the lower end of speed and traffic range zebra crossings will be preferred.
7. For the avoidance of doubt developer funded crossings are considered as part of the planning process and fall outside of the scope of the Annual Pedestrian Crossing Review and associated Crossing Assessment Framework.

PEDESTRIAN CROSSING ASSESSMENT CRITERIA MATRIX

ASSESSOR.....

SITE.....

WEATHER & ROAD CONDITIONS.....

DAY/DAY/TIME.....

Section 1: Site Assessment

| SCORE | -3 | -2 | -1 | 0 | 1 | 2 | 3 | Total |
|--|---|---|---|---|--|--|--|-------|
| Traffic Impact on Locality | | A worsening of condition in both i. Access to frontage property ii. Restrictions on waiting | A worsening of conditions in either: i. Access to frontage property ii. Restrictions on waiting | 10 properties or less benefiting | Whole Street of up to 50 properties benefiting | Local neighbourhood of up to 200 properties benefiting | A whole town, village or district benefiting | |
| Crossing impact on the Locality | A worsening of conditions in ALL of: i) Access to premises made more difficult ii) Passing trade removed iii) Restrictions on waiting iv) Noise/Visual Pollution | A worsening of conditions in any TWO of: i) Access to premises made more difficult ii) Passing trade removed iii) Restrictions on waiting iv) Noise/Visual Pollution | A worsening of conditions in ONE of: i) Access to premises made more difficult ii) Passing trade removed iii) Restrictions on waiting iv) Noise/Visual Pollution | No real impact but maybe a couple of properties benefiting at most (commercial/ industrial) | A parade of 15 shops or business properties benefiting | A small town or village benefiting | A major town centre benefiting | |
| Public Interest | | | | First request in 3 years | Two independent requests in last 12 months | Regular complaint OR Petition | Regular complaint AND petition | |
| Traffic Speed Assessment | | | | Mean speeds within prescribed limit | Reduction of mean speeds up to 10% of prescribed limit | Reduction of mean speeds up to 20% of prescribed limit | Reduction of mean speeds up to 30% of prescribed limit | |
| Highway Assessment | Use Section 2 – Highway Assessment score | | | | | | | |
| Road Safety History | Use Section 3 – Road Safety History score | | | | | | | |
| Traffic/ Pedestrian Surveys | Use Section 4 – Traffic/Pedestrian score | | | | | | | |
| | | | | | | | <u>TOTAL SCORE</u> | |

Section 2: Highway Assessment

| | | | |
|---|----------------------|----------------------------|----------------------------------|
| Road character: Two way single carriageway, Dual Carriageway, etc | Type of Road | Road Classification | Direction of flow (2 way) |
| Carriageway width: *Between islands or central reserve for dual carriageways | Overall Width | Lane 1*. | Lane 2*. |
| Other road features (presence of alternative crossings, refuges islands, traffic calming, TROs etc):- | | | |
| Other road factors (adjacent junctions, accesses etc):- | | | |
| Frontage (✓ any) | Shops | Residential | School |
| Other (hospital, day centre etc.):- | | | |
| Bus services/stops proximity:- | | | |
| Visual check of crossing opportunities (circle one): (0) Very easy - no difficulty within a few seconds (0) Easy - short wait up to 30 seconds (1) Moderate difficulty - wait of up to one minute (2) Difficult - more than a one minute wait (3) Very difficult - long wait of two minutes or more (3) Impossible - after waiting several minutes for an opportunity Judgement should be based on normal walking pace WITHOUT having to walk fast or run to cross in safety. | | | |

Section 3: Road safety history

| | | | |
|--------------------------|---------------------|------------------------|--------------------------------|
| Accidents: | 5 year period from | | |
| Severity | slight | serious | fatal |
| Adult pedestrian | | | |
| Child pedestrian | | | |
| Others | | | |
| Other factors:- | | | |
| -1 | 0 | 1 | 2 |
| Risk potential increased | No effect on safety | Risk potential reduced | Some accident savings possible |

Note: Recorded for 50 metres either side of study site.

Section 4: Traffic/Pedestrian Surveys

| | | | |
|-----------------------------------|---------------|----------------|---------------------|
| Traffic/Ped surveys: | 12 hours | Busiest hour | Second busiest hour |
| Flow:- | _____to_____ | _____to_____ | _____to_____ |
| All vehicles | | | |
| Adult pedestrians (all) | | | |
| Child pedestrians | | | |
| Elderly people | | | |
| Other relevant groups 1. 2. | | | |
| Other details:- | | | |
| Speed Limit | 85 percentile | Average (mean) | |
| | | | |

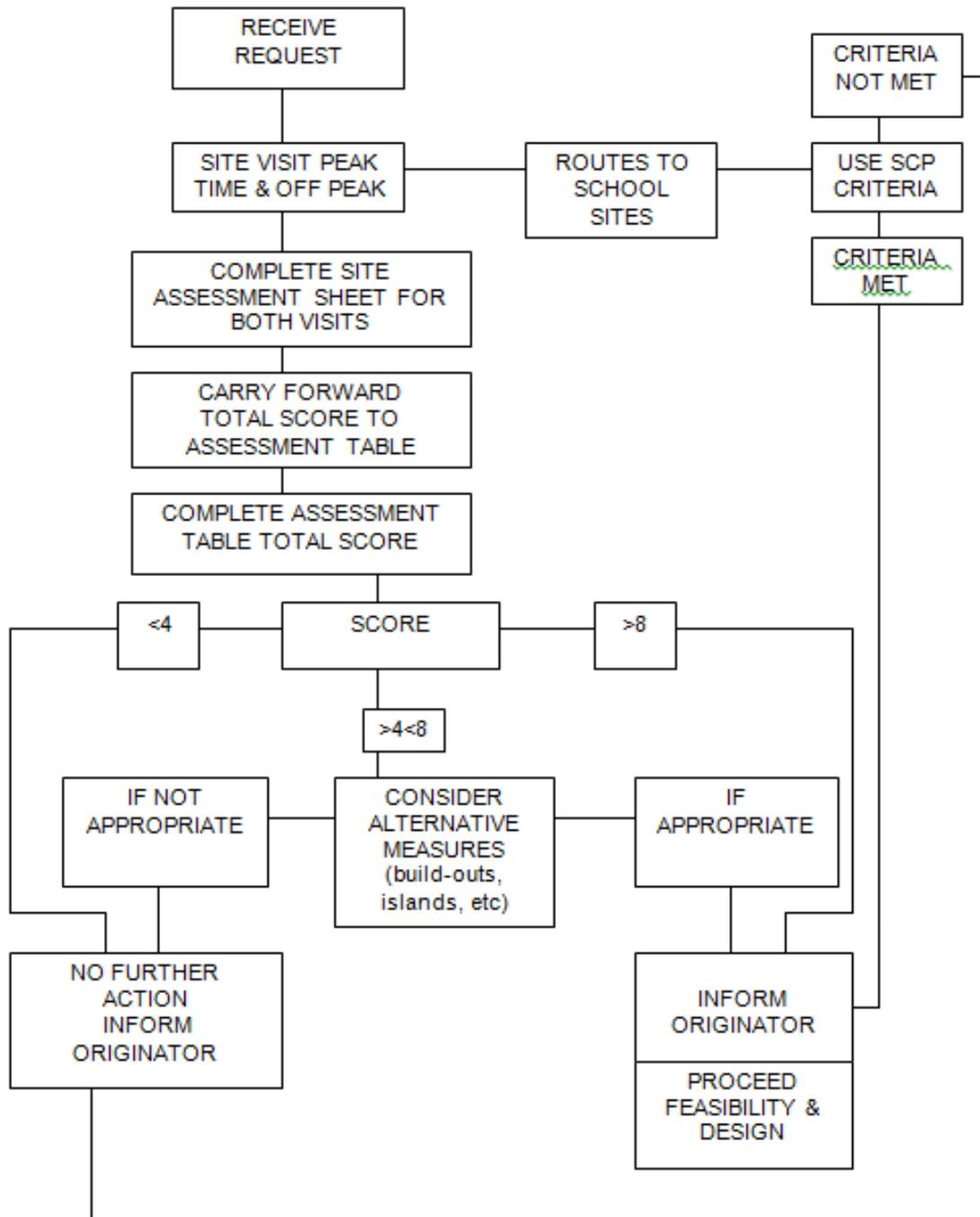
Pedestrian volumes per hour at busiest hours:

25 – 50 = 1 point, 50 – 75 = 2 points, >75 = 3 points.

High volume of child/ elderly pedestrians + 1 point

Conclusions/ recommendations:

PEDESTRIAN CROSSING CRITERIA FLOW CHART



Guidance notes

1) The purpose of this assessment framework is to ensure that the Council fulfils the requirements of LTN 1/95 “The assessment of pedestrian crossings” when considering requests for pedestrian crossings. The framework considers the difficulty of crossing and existing pedestrian demand as well as overall benefits and disbenefits of the potential provision for pedestrians and local residents and businesses, as well as impact on road safety.

2) This approach is a development of the previous process approved by the Director of Highways and Transportation in 2002 (revised 2006) and has been benchmarked against previously approved crossings.

3) The first approach to all requests is an initial site inspection followed by a desk top study of the available accident and traffic data. As a rule this will be followed up by a 12 hour pedestrian and traffic survey. The survey will help determine the busiest times for both pedestrians and traffic and this in turn will inform the best periods for site observation.

4) The site visit should note the following;

- a) Any community facilities that are present (shops, library, school, community centre, pubs, bus stops, surgeries, PO, etc)
- b) Current parking arrangements (driveways, on-street parking)
- c) Presence of any passing trade (foot and motorised)
- d) Any pedestrian desire lines/ attractors
- e) Any observed crossing difficulties and contributing factors (age, disability, highway characteristics, parking)
- f) Any nearby features that facilitate crossing

5) The appropriate information needs to be entered into the assessment sheet, including data from the desktop study (speeds, accidents, pedestrian and vehicles volumes and pedestrian profile).

6) For sites which receive the score of >8 a formal crossing is recommended – the exact type of the facility to be determined by the nature of the road, traffic and pedestrian flows and vehicular speeds, as per Pedestrian Crossing Site Assessment Guidelines.

7) In making recommendations, the assessor should be seeking to examine the most effective and economic means of ensuring that the observed volume of pedestrian traffic can cross the road in safety. In essence the objective is to provide measures which allow pedestrians the time they need to cross, either by a formal crossing, or where numbers or traffic flow does not justify it, the appropriate informal measures such as refuge islands, promontories etc.

8) For the avoidance of doubt developer funded crossings are considered as part of the planning process and fall outside of the scope of the Annual Pedestrian Crossing Review and associated Crossing Assessment Framework.

