

Local Highway Panels Members' Guide 5 Crossing Facilities



1. Introduction

On the Network where there are sufficient crossing opportunities most individuals are able to cross without provision of a crossing. However, at sites with higher vehicle flows and high pedestrian numbers a formal crossing may be required to help them to cross safely.

The purpose of a crossing is to provide people with a place to cross the road. This includes pedestrians, people with disabilities using electric buggies or in wheelchairs and can include cyclists and horse riders. The type of crossing should be identified from the circumstances on site and the demands and behaviour of road users.



2. Typical Problems

'There is too much traffic. It is not safe to cross'

'It's an accident waiting to happen'

'The traffic comes too fast to cross safely'

These are common complaints to local Members which can lead to requests for both formal crossings (zebras and light controlled pelican/toucan crossings) and informal crossings (dropped kerbs, pedestrian refuge or build outs)

3. Things to Consider

Pedestrian and Vehicle Numbers

Crossings are only provided where there are sufficient numbers of pedestrians and vehicles to meet the County's guidance. This is measured as PV2 (where P = Pedestrians numbers and V = Vehicle numbers). This is a formula that is applied by the engineers once they have the pedestrian and vehicle data for the site.

Needs of different road users

Younger children do not perceive speed and distance accurately and need help to cross the road safely. This may result in requests for crossings especially in the vicinity of schools. Often these new facilities will only be used at the beginning and end of the school day. Would a school crossing patroller or a '20s Plenty' campaign be a more effective solution?

Older or mobility impaired people or those pushing children in prams/pushchairs may request controlled crossings (zebra/toucan).

Wheelchair or disabled buggy users may also lobby for dropped crossings points along well-used routes. These routes are often those into the town centre or to a sheltered housing complex or to the doctors' or library. Information about dropped crossings can be found in the Footways Topic Section.

Collision data

It is very important to get the collision data for the area in question.

While pedestrians may consider a site 'dangerous' they do in fact take extra care and often these are the sites with the least collisions.



Are there any actual collisions happening?

If there are currently no collisions occurring at that location then the introduction of a formal crossing point often results in casualties starting to occur.

The reasons for that happening are varied and can include the following:

- More pedestrians are crossing at the one location.
- Pedestrians make assumptions about when it is safe to cross.
- Drivers focus on the crossing and may not see people crossing just away from it.
- Pedestrians at a light controlled crossing may take a risk and cross late after the driver has started moving.
- Pedestrians may dash out on a zebra crossing without allowing the driver time to stop.

A pedestrian and vehicle count is required and the site has to meet the Pedestrian and Vehicle criteria for a crossing to be considered. It is also important to note that, if there isn't a collision history at the site, a new crossings could result in pedestrian collisions occurring. This increase is well researched and can be for a variety of factors including an increase in pedestrian usage; the pedestrians taking less care when crossing; drivers focusing on the crossing and not noticing people crossing off line; people dashing out. In general there needs to already be two to three pedestrian collisions per year for a formal crossing to be recommended.

3. Things to Consider continued

Desire Line

This is the place where people usually want to cross. In general it will be the shortest point between where they are and where they want to be.



Unfortunately this often means that they want to cross at the point that is not the same as the safest point to put a crossing.

There might be poor visibility due to bend in the road or some street furniture such as a bus stop etc.

Siting a crossing close to a T junction can have inherent risks. Drivers may not be focusing on pedestrians crossing the road and the pedestrians may not recognise that a driver is turning.

Siting a crossing away from the desire line may result in pedestrians crossing away from the crossing and putting themselves at risk. To stop this happening guard railing can be introduced but this is not always advisable as pedestrians are known to get trapped by the guardrails.

Crossings on very busy roads and dual carriageways

There may be some instances where it is not possible to install a pedestrian refuge or a zebra or Puffin/Toucan style formal crossing. This can be a particular issue where there is a request for a crossing over a fast dual carriage way or a road that carries very high volumes of traffic. This will be identified when the request is validated.

Crossings and Speed Limits



Speed limits and actual speeds within an area affect what crossings can be provided. If speed limits are greater than 40 mph then formal crossings cannot be implemented without reducing the speed limit. This requires a formal consultation process and may also require a change in the street lighting.

School Crossing Patrol Sites

A school crossing patrol site must meet the County Council's criteria for the provision of a patrol.

Generally a school crossing patrol site will require signage as a minimum. It may also require 'school keep clear' zig-zags that, ideally, should be accompanied by a Traffic Regulation Order. Some sites may also benefit from wig-wag lights, warning of a school crossing patrol ahead.

Changes to the footway may be necessary to provide sufficient area for pedestrians to wait.

The installation of a school crossing patrol site will require infrastructure costs and confirmation that the revenue budget is available from the School Crossing Patrol Service to support the additional service.

Zebra and Light-Controlled crossings next to residential properties



The continuous flashing Belisha beacons on a Zebra crossing and the flashing lights and beeping noise from a light controlled crossing can result in objections and complaints from local residents especially when a new crossing is installed. There are options to mitigate this but they may still be unpopular.



4. Typical Measures



5. Scheme Investigation

The difficulty of crossing at a site is assessed by looking at the gaps in the traffic flow which may be perceived by pedestrians as being safe to use. This is referred to as gap acceptance. The average gap regarded as acceptable varies according to the age and ability of the pedestrian and all the conditions surrounding the site. In free flow conditions the gaps between successive arrivals are randomly distributed and therefore a relative short time will occur when looking for an acceptable gap. However, in these circumstances speeds are likely to be higher than normal and the length of gap required will also be longer.

The engineer will consider the following when developing a scheme:

- The collision history for the road.
- The volume of pedestrians and vehicles using the route. This is called a PV2 survey and this must be undertaken before a scheme validation can be assessed. The cost of the survey will be charged to the LHP Revenue budget.
- The traffic speeds and the speed limit.
- Current street lighting provision
- The width of the footways.
- The location of bus stops, accesses and junctions in vicinity of the proposed crossing.
- Is there a nearby power supply?
- Is the street lighting adequate?
- Does the footway need to be widened?
- Crossing costs based on two way carriageway 7m wide?
- Is the existing road surface sufficient?
- Is High Friction Surfacing required?
- Does the width require a central refuge?

6. Costs and Timescales

The Essex County Council contract with Ringway Jacobs is a target cost contract and not a fixed price contract. This type of contract was chosen as the best type of contract to deliver savings and efficiencies and also to promote partnering between ECC and Ringway Jacobs.

An explanation of the process and indicative costs and timescales can be found in [Appendix 1](#)

7. Glossary of Terms

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| AVL | Automatic Vehicle Location (similar to RTPI) |
| CMA | Cabinet Member Action |
| CMB | Cabinet Member Briefing |
| EA | Environment Agency |
| ECC | Essex County Council |
| EH | Essex Highways |
| LHP | Local Highways Panel |
| NEPP | North Essex Parking Partnership |
| PP | Parking Partnership |
| RTPI | Real Time Passenger Information |
| S106 | Section 106 (Money provided by a Developer to County Council to implement infrastructure as an obligation of the planning permission) |
| S278 | Section 278 (Infrastructure required to be implemented by the Developer as an obligation of the planning permission) |
| SERP | Safer Essex Roads Partnership |
| SID | Speed Indicating Device |
| SEPP | South Essex Parking Partnership |
| SLO | Speed Limit Order |
| SSSI | Site of Special Scientific Interest |
| TRO | Traffic Regulation Order |
| TSRGD | Traffic Signs Regulations and General Directions |
| VAS | Vehicle Activated Sign |