



### Non-signalised crossings

Zebra crossings	Pedestrian priority – in line with hierarchy of transport modes (whereas for a signalised crossing, pedestrians wait for motor traffic).
Informal crossings	Traffic islands, pavement build-outs, drop kerbs with buff tactiles. Median strips eg buff-surface central strip or central planted islands (eg Whiteladies Road)

### Design specifics

Tactile cones on Puffin crossings	For visually impaired, at bottom of push-button unit Usually the right-hand button unit, but in future possibly on all units. More recent versions vibrate too, and self-report if faulty
Phasing control at cross-roads	Variations depending on traffic conditions: - pedestrian phase on all roads at same time (with bleeper) - side roads only (no bleeper, to avoid confusion) - 'walk with traffic' (no bleeper, to avoid confusion)
Two-stage crossings and traffic islands	There is a move towards single-stage crossings where possible, eg on Prince Street by Thunderbolt Square There is a move away from protective railings in most places
Continuous pavements	Using a 'raised table' so that the pavement level continues across a side junction. Promoted by BWA, following Jess Read's work in 2017 Design details to be resolved, including whether or not to use tactile paving. The intention is that pedestrian movements are prioritised so none are needed, but there is concern this leaves vulnerable users exposed to inconsiderate drivers and there is nothing to tap along. BCC Road safety audits consistently raise concerns that raised table located at junctions present a hazard for bikes and motor bikes turning into the junction.
Sharing crossings with bikes	There is a move from shared crossings to parallel crossings, especially in busy locations eg Anchor Road (signalised) and Baldwin Street (zebra). The approaches to the crossings are as important as the crossing themselves
Layouts and crossing times	It is possible to improve crossing times by banning motor vehicle turns. Green man time is calculated by measuring the width of the road (formula: 2/3 of width / 1.2)
Demonstrating the need for a crossing	The design manual for roads and bridges provides a formula for assessing the 'degree of conflict' between pedestrians and motor vehicles. It is determined by $PV^2$ where V is the flow of motor vehicles and P is the flow of pedestrians. However in an urban area there are a number of factors that also affect this, which can include: Desire lines, accident statistics, planning constraints, proximity to schools

### How is policy for pedestrian crossings set ?

National policy	DfT <a href="#">LTN 1/95</a> and <a href="#">LTN 2/95</a> . Currently under review. (Highways England's Design Manual for Roads and Bridges will be subsumed in DfT policy.)
Council policy	There is no council policy overlay to national policy guidance.

### How are council decisions made about pedestrian crossings (location, design etc) ?

- accident/collision data
- professional judgement based on site-specific conditions
- in context of scheme (eg cycle or bus scheme, maybe in future a min-Holland/Healthy Streets scheme), interplay between professionals (reps of council departments)
- road safety review by Mark Sperduty (Mark manages the area engineering team, which historically includes road safety.)
- QA (quality assurance) Board review

### Council capacity for making changes

The current allocation of capital funding for traffic signals is specifically for the refurbishment of 'life expired' equipment. For new crossings or to upgrade existing signals (outside of capital refurbishments) additional resource will need to be sourced. This might be from capital projects or grants, including Safe Routes to Schools.

### Questions and answers

vandalism	more recent buttons are more vandal-proof
new housing developments	Housing Infrastructure Fund provides funding for traffic measures including crossings
response times	In some circumstances, pushing the button has no effect. Under SCOOT, this may apply in rush hour times, but not at other times of the day. Some people walk across anyway if there is no response and motor traffic is clear – that's OK if it's safe, and is not against the law.
displaying times	A trial of pedestrian countdown timers is proposed at one of the new crossings in the Temple Circus scheme. The countdown displays when the red man will appear, which enables users to identify whether they feel they have enough time to cross the road once the green man has expired. Display of time to wait (more pedestrian-friendly, used in other countries) requires fixed phase periods which may compromise optimising flows, and is not planned.
balance between motor vehicles and pedestrians	It is possible to shift the balance when under SCOOT. It is being trialled on Church Road. In some places, the only way of shifting the balance towards pedestrians is by reducing the number of motor vehicles or making vehicles wait longer. This would often include making public transport wait longer, which reduces its attractiveness as an alternative to driving, so it is a difficult balance.
air pollution	Sometimes traffic islands are very polluted places. It may be possible to hold traffic back to improve air quality at a hotspot, eg Parson Street gyratory. However this would need further investigation and consultation before any work commences.
reducing motor traffic	BCC has been reducing motor traffic through the city centre over the past 30 years via a series of changes. eg The road changes at the Centre (both the changes in 2000 and the latest changes) have reduced motor traffic significantly and prioritised buses.. Whilst seeking to remove general through traffic though we still have to facilitate deliveries and servicing to enable the city to function.
language	"Traffic" is used to mean motor traffic, but pedestrians are traffic too. It covers people movements by all modes. It matters: language affects the way we think and changes behaviours. We should use the word "traffic" correctly. The Traffic Management Act 2004 requires the Council to manage "traffic" flows. This includes <u>all</u> modes, not just motor traffic.

collision statistics	Stats are on Pinpoint, but only for one site at a time, not as a 'heat map'. Go to <a href="https://maps.bristol.gov.uk/pinpoint/">maps.bristol.gov.uk/pinpoint/</a> and tick traffic accidents under Transport and streets
distance between crossings	If crossings are too far apart, it discriminates against the frail. Guidance states that standalone signalised crossings should have at least 50m of separation. Crossings costs a lot, so the answer may be more informal crossing points
cost of crossings	A signalised crossing costs c£45k A zebra crossing with beacons costs c£25K

#### Changes under consideration

- along Church Road, reviewing SCOOT-controlled crossings to improve the balance in favour of pedestrians
- incorporating pedestrian traffic in motor traffic models (Siemens in discussion with TfL)
- for someone with a mobility or visual impairment, using a mobile phone instead of using push-button – see <https://www.neatebox.com/button-user/>

#### Suggested changes

- online reporting pedestrian crossing issues (and other site-specific walking issues) on a map. Like <https://bristolbugbears.commonplace.is/>, only permanently, perhaps for walking separately from cycling, and with feedback.