

Cranbrook Road Crossing by Cairns Road – Options

Concerns have been raised by residents over the safety of crossing Cranbrook Road by the junction with Cairns Road and Harcourt Hill, and as such a request to fund a crossing has been submitted to the Area Committee. This note briefly covers the options that have been suggested and whether these are likely to be viable or not.

1. Signalising the junction.

A design for signalising the whole junction was put together 15 years ago to see if this was viable. Whilst this could provide dedicated signal controlled pedestrian crossings on all arms, and could slow traffic down as they would need to be able to react to this, it would need significant loss of parking and many of the mature trees in the area to ensure that the various turns could take place with traffic queuing on the opposite arms, or visibility of the traffic signals. It would also cost somewhere in excess of £200k.

Therefore, this option is not thought to viable or likely to be acceptable locally at this time.

2. Puffin Crossing across Cranbrook Road

As with the full signalised option, a design was put together for a stand-alone signal controlled crossing around 15 years ago. This design located the crossing to the north west of the junction as this was deemed to be the safest and most achievable location. However, it still required the loss of a number of mature trees and a significant loss of parking in order to ensure any traffic signals or people waiting to cross can see or be seen. It would also need footway buildouts at the crossing point to narrow the crossing width and improve visibility further.

Given the nature of signalised crossings, these would need to be set 20m away from any junction to ensure turning vehicles can stop at a red light if they have turned out from an unsignalised junction. This then has to take into account other local constraints such as driveways and so locating a crossing on the pedestrian desire line would be difficult to achieve. The same constraints and difficulties exist on the south east of the junction.

When this type of crossing was proposed previously, it was not supported by local residents due to the reasons set out above.

If a crossing was possible then it would be likely to cost in excess of £80k.

Therefore, a puffin crossing is not considered viable at this moment.

3. Zebra Crossing on Cranbrook Road

This option would be very similar to a puffin crossing in terms of location, constraints, loss of parking and trees. It is not likely to be supported locally because of this.

There would also be a concern that if the crossing point is that busy with children at the start and finish of the day, then it may not operate safely as drivers do get frustrated and start taking risks if they have to wait too long at a zebra crossing.

A zebra crossing is likely to cost in excess of £50k.

Therefore, a zebra crossing is not considered viable in this location.

4. Crossing using a pedestrian refuge island on Cranbrook Road.

A pedestrian refuge island effectively separates crossing the road into two separate stages, and provides a safe refuge for people in the middle of the road after crossing half way. As there is no requirement for vehicles to stop at these refuge islands then they can be positioned closer to side roads than puffin or zebra crossings, and can therefore, be closer to the pedestrian desire line. However, their precise location does have to take into account the space needed for vehicles to turn at the junction.

They can act as a traffic calming feature in their own right as they break up the drivers line of sight and can encourage lower speeds, although this depends on the overall layout of the road. In this instance it should have a speed reducing effect.

A refuge island in this location would probably need the footways to be built out a little so that people can see/be seen around parked vehicles. It may also need the loss of some parking to ensure they operate safely and to enable larger vehicles to get through the narrower lane width. We would also need to ensure a suitable width is provided to ensure that cyclists are safe travelling through the refuge and are not placed in any danger by cars squeezing past them.

There is more build in the middle of the road in a refuge island than the options above and so this does depend on the presence of any underground services in the road. The bus stop to the south east of the junction would need to be shortened or relocated (if it is still used) in order to create the space for the island to operate safely.

A refuge island is likely to cost around £40k, depending on the size of the footway buildouts and the impact on road drainage.

This is considered the most viable option, although there are still a number of unknowns (underground services) and uncertainties (acceptance of the loss of parking) that means that there is still a risk that it may not be viable.

5. Traffic Calming Cranbrook Road with speed tables or speed cushions.

The width of the road, 20mph speed limit, presence of parked cars and the general type of traffic that use Cranbrook Road, would mean that traffic calming using tables or cushions could be beneficial as this could slow traffic down in line with the speed limit. However, the steepness of Cranbrook Road would make the ramps on either option severe and in excess of what would be considered safe. Ramps on steep roads like this can be a danger for motorcyclists and cyclists. Therefore this option would not be considered viable in this location.

Other forms of traffic calming would be viable, such as the central island and hatching that exists just downhill of this junction. This could reduce the effective width of the road to make traffic slow down. However, questions have already been raised about the effectiveness of the existing island, and by itself does not provide a safer crossing of Cranbrook Road. Therefore, this option is not considered likely to achieve the desired outcome of a safe crossing of Cranbrook Road.

When installing traffic calming you consider a route rather than just a single location as you try to reduce traffic speeds and keep them at that level throughout that route. Therefore, measures would need to be considered further along Cranbrook Road.

A traffic calming scheme could cost in the region of £50k to £200k depending on the extent of the scheme and the constraints at different points along the route.

Therefore a traffic calming scheme is not considered viable.

6. Planters and patterns painted on the road.

Wooden planters have been installed in other locations around the City as a trial of lower cost measures to reduce traffic volumes and speeds. These routes have been carefully considered and takes into account their nature and the type of traffic using them. Due to the steepness and alignment of Cranbrook Road, it's width, the presence of parked cars and trees blocking visibility, planters are not likely to offer any significant traffic calming effect and could be a hazard in their own right. Therefore, these are not considered a viable option on Cranbrook Road itself. These may be viable on Cairns Road or Harcourt Hill but they are not going to help achieve the desired outcome of a safe crossing of Cranbrook Road.

Painting patterns on the road surface would be similar. There would be some concern (although less) that painting a pattern on Cranbrook Road could hinder rather than help safety. This is because with the junction, trees and parked cars the driver is already trying to take into account a lot of visual information and pattern on the road is likely to be missed. In designing any pattern on the road, care also has to be taken that the right message is given, i.e. not implying a pedestrian has right of way if this is not clear to a driver. This situation can make the situation less safe for all. Patterns on the road are also only temporary interventions as they are not maintained and will not be replaced if they fade or are removed by road works. As with planters, they would be better placed on Cairns Road or Harcourt Hill instead of Cranbrook Road.