Funded by UK Government

South Gloucestershire Council

Delivering for you

A4174 improvements

Design summary

Design summary

To provide improved facilities for buses and people walking, cycling and wheeling, we are proposing the following:

- **A 2-way cycleway with separate footway** on the southern side of the road to be constructed by widening the existing shared use path
- **A new westbound bus stop west of the Wick Wick roundabout** with a new footway connecting the bus stop with the existing shared use path
- **Improved crossing facilities** to provide safety of pedestrians and cyclists
- **Extension of the westbound high occupancy vehicle lane** towards Wick Wick roundabout
- **Reduction of speed limits for Westbound traffic from Bromley Heath roundabout to Abbey Wood Roundabout.** This aims to improve safety and support increased walking, cycling and wheeling
- **Additional left turn lane to Coldharbour Lane** to reduce delays for left turning traffic

Further details are provided in the following sections:

Bus infrastructure improvements

We are proposing to provide a new westbound bus stop, west of Wick Wick roundabout, which will be connected to the existing shared use path by a new footway. The bus stop will be located at the existing layby while leaving sufficient room for vehicles to stop at the layby. A bus stop is required at this location to connect local residents to bus services, improving access to Bromley Heath and Emersons Green. The existing westbound high occupancy traffic lane will be extended east to connect with the bus stop which will reduce bus journey times especially during peak traffic periods. A bus shelter and real time information will be provided at the new bus stop. Appropriate kerbs will also be provided to meet accessibility requirements.

Junction improvements

We are proposing to provide an additional left turn lane at the Coldharbour Lane junction. The additional lane will be provided by extending the road southwards into the verge. This will reduce delay for westbound traffic, especially left-turning traffic, therefore reducing journey times for general traffic including buses.

Walking, cycling and wheeling improvements.

We are proposing to provide a two-way cycleway with a separate footway on the southern side of the road. The location of this facility provides easy accesses to residences and businesses which are mainly located south of the A4174. New or improved high quality crossings have also been proposed at key locations to improve safety for people walking, cycling and wheeling.

The proposed cycling, walking and wheeling facilities have been designed to meet the standards set out in the Cycle Infrastructure Design guidance (LTN1/20). The existing shared use path will be widened to accommodate a 3-metre two-way cycleway and 2metre footway. The cycleway will be separated from the footway by a demarcation kerb, therefore separating cyclists' movements from pedestrians. At locations where pedestrians

need to cross the cycleway, a zebra crossing has been proposed to provide safety. For example, a zebra crossing provided at a bus stop bypass allows pedestrians to safely cross the cycleway and access the bus shelter. A bus stop bypass is where a protected cycle track is routed behind a bus shelter or passenger boarding area at a bus stop. This feature has been proposed at the existing westbound bus stop east of the Hambrook junction.

In some sections, we will maintain the existing shared use path or widen the path to accommodate pedestrians and cyclists safely. This is mainly along sections where there is insufficient width to provide a separate footway and cycleway and, in some cases, where we have proposed toucan crossings.

Toucan crossings are signal-controlled crossings shared between pedestrians and cyclists with no separation between them. A shared use path is suitable on either side of these crossings to avoid conflict among users. We are proposing a new toucan crossing north of the Wick Wick roundabout and upgrading the existing toucan crossing south of Bromley Heath roundabout.

We are also proposing signalised parallel crossings south of the Hambrook junction at Bristol Road and at the rear entrance of Holiday Inn Bristol-Filton Hotel. Signalised parallel crossings are signal-controlled crossings where pedestrians and cyclists are separated. We are proposing a parallel crossing at the Filton Road junction with Coldharbour Lane. A parallel crossing consists of a zebra crossing with a parallel cycle crossing. This type of crossing gives pedestrians and cyclists priority at crossings, improving their safety.

We are proposing a reduced speed limit from 50mph to 40mph for westbound traffic from Bromley Heath roundabout to Abbey Wood roundabout. This will be needed to meet the recommended minimum horizontal separation to be provided between cycle tracks and the carriageway shown in Figure 1. This separation improves safety and support increased walking, cycling and wheeling.

Table 6-1: Minimum recommended horizontal separation between carriageway and cycle tracks*

Speed limit (mph)	Desirable minimum horizontal separation (m)	Absolute minimum horizontal separation (m)
30	0.5	0
40	1.0	0.5
50	2.0	1.5
60	2.5	2.0
70	3.5	3.0

*Separation strip should be at least 0.5m alongside kerbside parking and 1.5m where wheelchair access is required.

Figure 1: Minimum recommended horizontal separation between carriageway and cycle tracks according to the Cycle Infrastructure Design guidance (LTN 1/20)