

Appendix B: A217 Reigate to Horley Safer Roads Scheme Description and Rationale of Proposals

Introduction

1. The following paragraphs provide a description of the proposals and the rationale behind them, with reference to the accompanying drawings.

Site 0: Raised Rib Edge of Carriageway Marking

2. It is proposed to introduce raised-rib edge of carriageway markings along both the eastern and western sides of the carriageway from the start of the 40 mph section at Dovers Green all the way to the southern end of the route at Longbridge Roundabout (about 6km). This creates a vibration if vehicles veer too close to the edge of the road as a warning and deterrent to drivers to correct their course to reduce the risk of inadvertently leaving the road.

Site 1: A217 Bell Street to junction with Morrisons Supermarket

3. At the Morrisons Supermarket junction with the A217 Bell Street, there is a large amount of carriageway hatching on the north eastern corner highlighting road space that vehicles do not need to drive into. Therefore it is proposed that the footway is widened into the space occupied by the hatching. This will reduce the width of road for pedestrians to cross the northern arm of the junction and will narrow the road to encourage lower vehicle speeds through the junction.
4. The feasibility of introducing pedestrian countdown signal facilities will also be investigated for implementation across all the arms of the junction. This provides a countdown for pedestrians to inform them how much time is left to cross after the end of the green man period. This is now used extensively throughout London, and increasingly in other local authority areas too. The countdown reduces the uncertainty associated with the standard “black out” period that exists at the end of the green man period at standard signal junctions such as this.
5. It has been observed that pedestrians frequently cross the road between the Bell Street car park on the western side of the A217 Bell Street and the shops, services, restaurants and takeaways on the eastern side. It is thought that pedestrians do not choose to use the signalised pedestrian facilities at the junction with the Morrisons Supermarket as this is too far from this pedestrian desire line. Consequently it is proposed that a pedestrian crossing facility is provided near to the Bell Street car park vehicle entrance consisting of a build out on the eastern side (where there is currently a Domino’s Pizza takeaway) and dropped kerbs and tactile paving on both sides of the road. This will reduce the distance to cross the road and will improve the visibility between pedestrians waiting to cross and oncoming vehicles. The dropped kerbs and tactile paving will assist pedestrians with mobility impairment and those with pushchairs or using mobility scooters. Bollards will be provided on the eastern side to deter vehicles from parking on the footway in the vicinity of the new crossing point.

Site 2: Lesbourne Road Toucan Crossing

6. It is proposed that the footway on the eastern side of the Toucan crossing is extended to provide greater space for cyclists and pedestrians to share the path adjacent to the crossing facility. This will utilise road space that is not currently used by passing vehicles. This would result in a narrowing of the road which will encourage greater compliance with the speed limit.

Site 3: Lesbourne Road to Parkgate Road

7. There is a section of central hatching prior to a right turn lane for northbound vehicles to use to turn right into Lesbourne Road. During congested periods it has been observed that a number of motorists drive over the central hatching illegally to reach the right-turn lane. Therefore it is proposed that the length of the right turn lane is extended further south up to the junction with Parkgate Road to allow vehicles to complete this manoeuvre legally and safely. The right turn lane into Parkgate Road will be protected by a new central island, which will also encourage greater compliance with the speed limit by narrowing the road.

Site 4: Parkgate Road to Park Lane East

8. This section of 30 mph road has wide central hatching throughout with central right turn lanes to facilitate access to Park Lane East, two entrances to Sandhill Road, Lynden Gardens and St Mary's Road. There is a relatively narrow pedestrian refuge just to the south of the junction with Lynden Gardens. There is another more frequently used pedestrian refuge just to the north of the junction with St Mary's Road that provides a crossing point between the housing on the eastern side of the A217, to the footpath on the western side which then leads to the southern corner of Priory Park and onward to Reigate town centre.
9. It is proposed that the frequently used pedestrian refuge island just to the north of the junction with St Mary's Road will be replaced with a signalised crossing. This will make it easier and safer to cross the road at this location. The signalised crossing will retain the central island to narrow the carriageway and encourage greater compliance with the speed limit.
10. It is proposed that an additional central island (not refuge) is implemented within the central hatching to the north of the junction with Lynden Gardens. This will provide protection for right turning vehicles and reduce the carriageway width to encourage greater compliance with the speed limit. It is proposed that the existing pedestrian refuge island just to the south of the junction with Lynden Gardens is increased in width so as to occupy a much greater portion of the central hatching. This will reduce the crossing distance for pedestrians as well as encourage greater compliance with the speed limit.

Site 5: Park Lane East to Woodhatch Road

11. This section of 30 mph road has two narrow (1.5m wide) central islands to protect the right turn lanes that facilitate access to the parallel residential service road on the western side of the A217 and the Canon Offices on the eastern side. It is proposed that these two islands are increased in size (to 2m wide) to occupy a much greater portion of the 2.5m wide central hatching in the centre of the road on the approaches to the right turn lanes. The increased size of these islands will provide greater protection to the right turn lanes and will encourage greater compliance with the 30 mph speed limit by providing a narrowing of the main running lanes.
12. It is proposed that "bus cage" carriageway markings are introduced to highlight the presence of the bus stops on this section of road and to discourage buses from stopping on the zig zag lines on the exit from the nearby signalised pedestrian crossing.

Site 6: Woodhatch Road to Lonesome Lane

13. The A217 Dovers Green Road becomes quite wide (10m at the widest point) from the junction with Woodhatch Road to the junction with Lonesome Lane. It is proposed that the existing signalised pelican crossing between the southern corner of Woodhatch Park on the east and the shopping parade on the west, will be enhanced by providing a central island and additional signal heads and by upgrading to a puffin or pedestrian countdown type crossing.
14. There is an uncontrolled informal crossing point using a gap in the hedging between Brandsland that runs parallel to the A217 on the eastern side that coincides with a gap in the hedging and steps down to the residential housing service road that runs parallel to the A217 on the western side. Therefore it is proposed to introduce central hatching to reduce the running width of the road and to provide a pedestrian refuge within the central hatching to enhance the pedestrian crossing facilities at the existing informal crossing point. The combination of the central hatching and pedestrian refuge will encourage greater compliance with the speed limit too.
15. Antiskid road surfacing will be introduced on both the northbound and southbound approaches to Lonesome Lane to reduce the risk of skidding on the approaches to this comparatively busy side road junction.

Site 7: Lonesome Lane to 30/ 40 mph Terminal Signs, Dovers Green

16. For northbound vehicles this section of road begins with a change to a 30 mph speed limit that extends all the way into Reigate town centre. However the initial section of 30 mph speed limit road up to the junction with Dovers West is rural in nature and does not look and feel like a typical urban 30 mph speed limit area. Speed surveys conducted in March 2017 about 70m to the north of the junction with Castle Drive have highlighted that there is poor compliance with the 30 mph speed limit. (The mean speed was 32.1 mph northbound and 36.6 mph southbound. The 85th percentile speed was 40.1 mph and 42.6 mph respectively). Consequently the police have undertaken enforcement using speed camera vans from time to time on this stretch of road over recent years.
17. It is proposed therefore to enhance the existing 30 mph speed limit terminal signing to provide a more prominent speed limit gateway with "Welcome to Reigate" signing. A substantial cut back of foliage will be commissioned to ensure the enhanced signing on the eastern side is visible. Central hatching alternating with edge of carriageway hatching will be implemented between the 30 mph speed limit gateway to the junction with Dovers West to change the appearance of this stretch of road to help encourage greater compliance with the speed limit. There is an existing solar powered vehicle activated sign that is beyond economic repair and will be removed and replaced with two new vehicle activated signs mounted on lamp columns (one for northbound, one for southbound vehicles).

Site 8: Dovers Green to Sidlow

18. Approximately 200m north of Sidlow Bridge there is a bend in the road. This was the site of a fatal collision involving a motorcyclist travelling towards queuing vehicles on the approach to temporary traffic signals in 2013. It is proposed to introduce enhanced bend signing and marker posts to improve the delineation of the bends to approaching drivers. The central double white lining will be renewed and the cats-eyes will be replaced with reflective road studs. Raised-rib edge of carriageway markings would also be introduced throughout this stretch. There will also be a substantial cut back of foliage which currently encroaches into the edge of the carriageway. This will improve the forward visibility around the bend and will ensure the enhanced signing and marker posts are not obscured.
19. Further to the south the A217 becomes very wide (9.9m) adjacent to the vehicle service garage at the Sidlow Bridge over the River Mole. It proposed that the width of the road through this section is reduced through the use of central hatching to encourage greater compliance with the 40 mph speed limit and separation of vehicle flows. It is also proposed that the kerb line is adjusted to narrow the road to allow room for crash barrier to be implemented on both sides of the road in front of the stone and brick parapets of the Sidlow Bridge. This would help to reduce the risk of injury to motorists if their vehicle inadvertently leaves the road.
20. At Sidlow there is also a junction with the side road called Irons Bottom alongside a vehicle servicing garage, opposite the Emmanuel Church. It is proposed that street lighting consisting of four lamp columns are provided to highlight the presence of the side road junction and buildings at night time.
21. For northbound drivers the speed limit reduces from 50 mph to 40 mph just to the south of Sidlow and extends northwards as far as Dovers Green. A 40 mph carriageway roundel will be introduced alongside the upright signs to enhance the indication to the drivers of this reduction in speed limit.

Site 9: Sidlow to Westvale Housing Development Roundabout

22. There is a bend within this section where it is proposed that the signing and marker posts are replaced with an enhanced bend signing and marker post arrangement. The existing foliage will be substantially trimmed to the back of the highway boundary so that the new signs and posts are not obscured. The central white line system will be renewed and the existing cats-eyes will be replaced with reflective road studs. Together these measures will improve the delineation of the bends to the approaching drivers. Raised-rib edge of carriageway markings would also be introduced throughout this stretch.

Site 10: Westvale Housing Development Roundabout to Mill Lane

23. For northbound vehicles this stretch of road begins with a 40 mph speed limit at the southern end and then increases to a 50 mph speed limit just to the north of the junction with the side road called Horse Hill. The 50 mph speed limit extends for about 1.4km before reducing back to 40 mph on the approach to the new roundabout access to the Westvale housing development. The new roundabout was implemented in 2015. One week automatic speed surveys were undertaken on this 50 mph stretch of road in March 2017 and this showed that halfway along the existing 50 mph section (just to the north of the junction with Crutchfield Lane) the mean speed was 45.8 mph northbound and 46.2 mph southbound. The 85th percentile speeds (the speed above which the fastest 15 per cent were travelling) were 51.7 mph and 52.1 mph respectively. This shows that the vast majority of drivers comply, and are well within the existing 50 mph speed limit.
24. Surrey County Council's existing speed limit policy advises that a new lower 40 mph speed limit could be introduced successfully in these circumstances so long as the existing mean speeds are 46 mph or less. Therefore it is proposed that the existing 50 mph speed limit be reduced to 40 mph along with two supporting vehicle activated signs that will illuminate to drivers to remind them of the speed limit and to slow down if they are approaching too fast. An existing solar powered vehicle activated sign that is beyond economic repair will be removed. This proposal would promote consistency of speed limit for the whole of this length of road between Hookwood and Westvale roundabouts, and would encourage slower speeds along a stretch that has a number of accesses to private dwellings, as well as junctions with Crutchfield Lane and the Britannia Crest waste recycling depot. Raised-rib edge of carriageway markings would also be introduced on this stretch.

Site 11: Mill Lane to Tesco Roundabout, (Including Hookwood Roundabout)

25. The section road between Mill Lane and Hookwood Roundabout has a 40 mph speed limit (this speed limit was reduced from 50 mph in November 2014) and has benefitted already from a safety scheme implemented in March 2014. This consisted of the removal of an acceleration lane for vehicles turning left from Mill Lane and a road narrowing on the southbound carriageway. The aim of this was to discourage illegal u-turns and encourage slower speeds in support of a reduction in the speed limit from 50 mph to 40 mph. This has resulted in a reduction from four u-turn collisions in the three years prior to the scheme (including two resulting in serious injury) to one slight injury u-turn collision in the 3 year period after the scheme.
26. It is proposed that central hatching carriageway marking is introduced between the junction with Mill Lane and the Hookwood Roundabout to provide a narrowing of the running lanes to encourage greater compliance with the 40 mph speed limit and separation of the opposing vehicle flows. It is also proposed to introduce raised-rib edge of carriageway markings.
27. At the Hookwood Roundabout it is proposed that the existing pedestrian crossing facility that provides a route across the roundabout via the central island would be enhanced alongside improved carriageway markings to encourage safer entry, exit and circulatory speeds and lane discipline by drivers travelling through the roundabout. Anti-skid road surfacing will be installed to reduce skidding on the southbound and westbound approaches to the roundabout. The missing chevron signing on the central island facing the southbound vehicles entering the roundabout will also be replaced.
28. The section of 40 mph speed limit road between Hookwood Roundabout and Tesco Roundabout (this speed limit was reduced from 60 mph in November 2014) also has a very wide carriageway, but unlike the section to the east of the Tesco Roundabout, already has an area of central hatching. Therefore it is proposed to introduce raised-rib edge of carriageway markings.

Site 12: Tesco Roundabout to Longbridge Roundabout

29. It has been observed that pedestrians regularly cross the road across the eastern arm of the Tesco Roundabout. It is proposed therefore that the size of the splitter island on this arm is increased so as to reduce the width of carriageway that the pedestrians have to cross, as well as encouraging safer vehicle speeds on the eastbound exit from the roundabout. It is also proposed to introduce additional carriageway lining on the roundabout to reduce the circulatory width to improve lane discipline and encourage safer use of the roundabout by motorists. Anti-skid road surfacing will also be installed to reduce skidding on the approaches to the roundabout.
30. The section of road between Tesco Roundabout and Longbridge Roundabout is 40 mph (this speed limit was reduced from 60 mph in November 2014) and has a very wide carriageway and running lanes. It is proposed that an area of central hatching is introduced to provide a narrowing of the running lanes to encourage greater compliance with the 40 mph speed limit and separation of the opposing vehicle flows. This would be similar and consistent with the section of road to the west of the Tesco Roundabout which already has a wide area of central hatching. It is also proposed to introduce raised-rib edge of carriageway markings throughout this stretch.