

Technical Note – Passing Places to Wykin Lane/Stoke Road

Introduction & Background

As part of the proposed development on Land of Wykin Lane, Stoke Golding, for 55 dwellings, a scheme of passing places as shown indicatively on drawing ADC2042-DR-005 Rev P2 is to be submitted to and approved by the Local Planning Authority as per Conditions 19 and 20 of the Outline Planning Approval.

This technical note has been prepared to assist in demonstrating the design process that has occurred since the approval of these documents and is designed to sit alongside the final proposals which are to be submitted for Local Planning Authority approval and S278 technical approval.

The details previously designed by ADC Infrastructure as part of the planning submission were appropriate for that stage of the design and based on OS data only. They did not consider the existing topography, drainage features, vegetation or actual tarmacked highway extents. It is therefore reasonable to expect that whilst these are appropriate to assist in identifying the design parameters and principles the final solution is unlikely to mimic exactly what has previously been shown.

From these initial designs, the following design parameters have been determined:

- Passing Places to be intervisible
- Passing Places to be designed to accommodate passing manoeuvres between large cars and 3.5t commercial vehicles (vans)
- Kerbing to be provided at passing places

Additional Identified Guidance

Further to these parameters, additional design guidance has been identified. Whilst improvements to rural roads generally fall outside of the national design guidance in DMRB or Manual for Streets and does not form part of the Leicestershire Highway Design Guide, guidance provided as part of the national HS2 project is relevant to these improvement works. A Design Approach Statement (Ref: HS2-HS2-HW-DAS-000-000002 Rev P01, 17th July 2012) has been produced for the project to provide design guidance where improvements to roads are required as a result of the increased traffic due to nearby HS2 works/facilities. For single track roads, this states the following:

Single-track roads

A.6.7	For safety reasons, the normal width of single-track roads shall be 3.5 metres (above which the risk of uncertainty increases about whether two vehicles can pass each other over a length without passing places). However, the need for local widening at bends must be determined on a case-by-case basis using vehicle tracking design tools.
A.6.8	Inter-visible passing places must be provided on single-track roads at a maximum spacing of 200 metres.
A.6.9	The combined width of single-track road plus passing bay shall be 5.5 metres over a length of 5 metres (or 15 metres where likely to be used by buses or heavy goods vehicles). Tapers 5 metres long shall be provided at each end.
A.6.10	The carriageway width across overbridges and through underbridges on single-track roads shall be 5.5 metres, using road markings to give a centred 3.5 metre running lane to discourage a sudden increase in traffic speed or unsafe overtaking manoeuvres. Inter-visible passing places must be provided at each end of the structure.

This adds the following additional design requirements:

- Maximum 200m between passing places, regardless of intervisibility
- 5.5m available width at passing places for minimum of 5m
- 5m tapers to be provided either side of the carriageway

As per A6.9, a 5m passing bay length is considered to be most appropriate on Wykin Lane. This also provides the opportunity for multiple vehicles to utilise each bay, as is likely given the tidal flow of this stretch of road. Where delineation of the carriageway edge is proposed, it is proposed to identify the carriageway extents as being a maximum of 3.5m as per A6.7.

These have therefore been incorporated into the final proposed design.

Proposed Design

Based on these design parameters, a new proposal has been identified. This takes a “back-to-basics” approach to the design, focussing on the available land, existing features and this design guidance.

The ADC Plan shows a high density of passing places, requiring significant works, vegetation removal and disruption. This appears to be because the ADC design assessed the existing passing places by identifying areas of damage to the verge without undertaking an assessment of their current usage, locations or widths and determining whether these are suitable for use. Upon detailed review, many of the passing places identified show verge damage that does not correlate with the provision of a passing width or length, instead indicating that along stretches of the road the tarmacked width is not readily apparent, especially at night. It is therefore believed that due to the lack of edge delineation vehicles are frequently overrunning the tarmacked width unnecessarily.

To combat this and to aid in conveying the narrow available width to drivers (encouraging reduced vehicle speeds), it is proposed that edge of carriageway markings be provided to the existing road wherever passing places are not provided within the National Speed Limit extents. These are proposed to TSRDG Dia 1012.1 at a 150mm width in accordance with Table 2-5 of the Traffic Signs Manual, Chapter 5.

To enhance the visibility of Passing Places and ensure driver awareness, additional signage is proposed in accordance with TSRDG Chapter 4. Diagram 821 (replicated below) is proposed at either end of the road subject to National Speed Limit and Diagram 822 is to be installed at each passing place. This is considered appropriate for informing road users without creating unnecessary hazards or signage within the rural road setting:



Figure 4-6 Diagram 821



Figure 4-5 Diagram 822 (S11-2-9) Passing place on a narrow road

Passing Place locations have been selected based on the existing topography, locations of existing accesses which would benefit from widening in their locality, the availability of land with the Highway title and existing vegetation and carriageway extents.

The proposed Passing Places Plan showing the proposed passing places, intervisibility, signage and lining is included alongside this note as drawings 1189-ENG-1500 and 1189-ENG-1501.

This shows 12 proposed passing places and 2 existing passing places in accordance with the proposals as discussed within this technical note.