

CLIENT: HIGHWAYS AGENCY

PROJECT: THE VINERY – ACCESS ROAD TO REAR DEVELOPMENT
REVIEW OF MODIFIED ACCESS, NMU CONTEXT REPORT AND RSA BRIEF

PROJECT NO.: 3511134VP-PTG – 155.4

RESPONSE REF.: TECHNICAL NOTE 02 (TN02)

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1 INTRODUCTION

1.1 Background

- 1.1.1 Parsons Brinckerhoff (PB) has previously been commissioned (June 2013) by the Highways Agency (HA) to review the highway layout and road safety implications associated with an access improvement into the Vinery site on the A27 at Poling, near Arundel, as part of an recent application for planning permission.
- 1.1.2 The Designer, Millwood House Consultants Ltd, on behalf of Falgro Ltd, has now submitted a draft NMU Context Report and draft Road Safety Audit brief for approval.

1.2 Documents Reviewed

- 1.2.1 A number of documents have been submitted as part of this review but the following documents form the basis of this review:
 - NMU Context Report, Junction of the Vinery and A27, Proposed Warehousing Development, The Vinery, Poling, Arundel – Millwood House Consultants Ltd – 16/07/13
 - Road Safety Audit Brief, Junction of the Vinery and A27, Proposed Warehousing Development, The Vinery, Poling, Arundel – Millwood House Consultants Ltd – 16/07/13
 - Millwood House Consultants Ltd drawing no. 35201-102 Rev. C, The Vinery, Poling, Access to Rear Development, Preliminary Design – 15/07/13
 - 1.2.2 Other previous documents relating to this site, and design standards referred to in this review are as follows:
 - HA letter to Arun District Council 27/06/13
 - PB TN01 – Highway Layout and Road Safety – June 2013
 - DMRB TD 42/95 “Geometric Design of Major/Minor Junctions”
 - DMRB HD 42/05 “Non-Motorised User Audits”
 - DMRB HD 19/03 “Road Safety Audit”
 - 1.2.3 No site visit has been undertaken in carrying out this review. Publicly available images from Google Earth have, however, been used for reference, including aerial photography from 2001 and street level images from 2010.
- ### **1.3 Scope**
- 1.3.1 Parsons Brinckerhoff (PB) has been commissioned by the Highways Agency (HA) to review the draft NMU Context Report and draft Road Safety Audit Brief for improvements to the existing access into the Vinery site on the A27 at Poling, near Arundel. They are to be

considered in conjunction with the latest access improvement drawing, modified following PB's TN01 (June 2013).

2 REVISED ACCESS DRAWING (35201-102 REV. C)

- 2.1.1 PB's TN01 identified that the exit taper is one step below the deceleration length set out in TD 42/95, table 7/5b, and that this is a significant improvement over the existing situation. It is also noted that the HA letter to Arun District Council recommended that existing and predicted traffic flow information still needs to be provided. This traffic flow information may raise the threshold at which the proposed taper is deemed inadequate and an auxiliary lane needs to be provided instead. The access radii will also need increasing to 40m to meet TD 42/95, paragraph 7.54. Departures from Standard will need submitting and approving, for the current design to be approved, for the use of access radii less than 40m on a dual carriageway with a design speed in excess of 85kph.
- 2.1.2 In addition, the existing access has a diverge taper of approximately 40m in length, the start of which being approximately 85m from the exit merge of a lay-by on the westbound A27. Lengthening the diverge taper into the site will reduce the distance between the lay-by and the access to 45m, highlighting the fact that the distance between the lay-by and this access is sub-standard, according to TD 69/07, paragraph 3.7. This states that, to avoid conflicts between vehicle accelerating from the lay-by and those decelerating to enter an access or junction "... the separation distance between a lay-by and nearest junction or access must be $3.75V$ metres where V is the design speed in km/hr". Starting the diverge taper into The Vinery nearer the lay-by is also likely, therefore, to require the submission of the Departure from Standard.

3 NMU DRAFT CONTEXT REPORT

- 3.1.1 HD 42/05 suggests that, in order to assess whether an NMU audit is required, the NMU Context Report should provide enough information for the HA to be able to determine the likely effects of the scheme on NMUs. The draft NMU Context Report does not provide sufficient information as it lacks the following:
- Existing NMU flows to and from the site and passing the site on the A27, using the crossing point at the existing junction, including equestrians. The draft Context report suggests that, as there is no evidence of equestrians, they can be ignored. Google Earth shows an equestrian warning signs facing westbound A27 traffic, some 850m east of the site, so equestrians are present on the A27 between Hammerpot and Arundel, and the extent of their usage needs to be determined
 - Predicted increase in NMU flows to and from the site – the design of the modified access relocates the NMU crossing further away from the A27, resulting in NMUs having to turn a right angle when commencing and completing the crossing of the access road. If multiple NMUs cross simultaneously the width of the facility may need increasing so that opposing NMUs do not obstruct one another
 - Traffic flows to and from the existing and proposed site; such information can be used in conjunction with existing and predicted NMU flows to judge the exposure to risk to NMUs crossing the proposed access once the development is in place
 - Public Rights of Way through and passing the site; the HA letter of 27 June to Arun District Council states that the site affects a public Right of Way
 - Accident information; have there been any injury collisions involving NMUs on the A27 in the vicinity of the site? If so, will the increased exposure to risk at the access make this situation worse?

4 STAGE 1 ROAD SAFETY AUDIT DRAFT BRIEF

- 4.1.1 The draft RSA1 brief is not in accordance with HD 19/03 as it lacks the following information:
- A Departure from Standard relating to the use of sub-standard access radii; 20m instead of the minimum 40m required for a design speed in excess of 85kph
 - A Departure from Standard relating to the close proximity of the improved access to the lay-by just upstream of the access on the A27
 - Existing and forecast traffic flows
 - NMU existing and forecast flows on the A27 and the Right of Way through the site
 - NMU desire lines
 - Previous 36 months accident data for the A27 in the vicinity of both the lay-by just to the east, and the site access
- 4.1.2 Although not in required by HD 19/03 road safety briefs also now require the results of the NMU audit, or consideration of the NMU Context Report by the HA, to be included for consideration by the road safety audit team.

5 SUMMARY

- 5.1.1 The applicant needs to carry out traffic and NMU surveys, and provide predicted traffic flow and NMU flows passing and into the site, in order the meet the requirements for additional information in both sections 3 and 4 above.
- 5.1.2 The implications of the Right of Way affected by the proposal needs to be considered and documented.
- 5.1.3 36 months of accident information needs to be sought from Sussex Police and analysed for the stretch of the A27 in the vicinity of the lay-by and access to The Vinery.
- 5.1.4 The applicant also needs to bear in mind that there are two further Departures from Standard that need to be submitted, as detailed in 4.1.1 above.