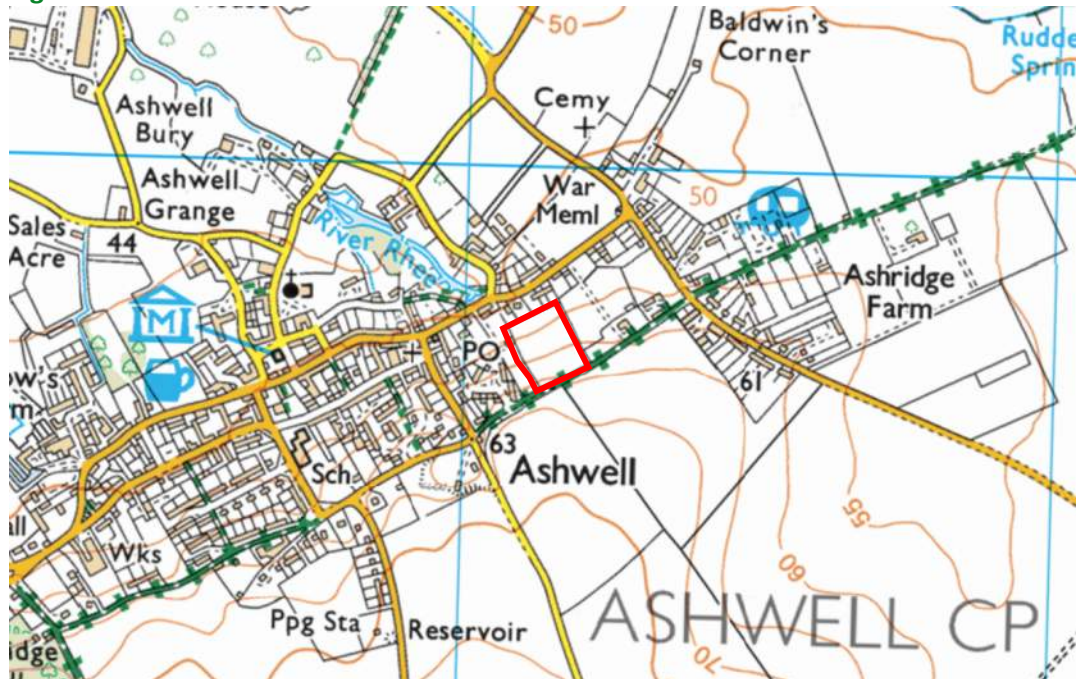


1.0 Introduction

- 1.1 Martin Andrews Consulting Ltd (MAC) have been provided highways advice on a potential residential development located at land to the north of Ashwell Street and south of Lucas Lane, Ashwell. The location of the site is indicated below in Figure 1.1.

Figure 1-1: Site Location Plan



- 1.2 Current access design work has focused on providing an access off Ashwell Street to the south of the site, however, we have been asked to consider whether it is viable to provide an access off Lucas Lane. This Technical Note considers whether an access off Lucas Lane is viable.

2.0 Lucas Lane Access Appraisal

- 2.1 The development site has a narrow, circa 8m wide, strip of land located between Nos. 4 and 8 Lucas Lane. The existing strip of land's frontage onto Lucas Lane can be seen in **Figure 2.1** below.

Figure 2-1: Development Site Frontage onto Lucas Lane



- 2.2 The land falls from south to north with a level of 54.98m at the northern boundary of the main parcel of land and a level off 50.98m at Lucas Lane. The land has an average fall of approximately 1/11.
- 2.3 It is possible, subject to Local Highway Authority (LHA) approval, to provide a shared surface access within this gap, see the drawing enclosed in **Appendix A**. However, this 5m wide surface only just fits within the gap (due to the need to provide a perpendicular junction with Lucas Lane) and provides little room either side of the access road for landscaping.
- 2.4 As the natural ground has a gradient of approximately 1 in 11 we need to consider vertical design parameters. The LHA will typically require an access road at the junction to have a 1/40 gradient for the first 10m after which the gradient can increase to 1/12.5 although flatter gradients would be preferred by the LHA. A gradient of 1/12.5 is flatter than the existing ground which has an average gradient of 1/11.

- 2.5 We have completed an indicative level design of the access road using the above parameters as shown on the drawing enclosed within **Appendix B**. This shows that the road level would need to be approximately 0.82m to 1.16m lower than the existing ground level. As there is little landscaping space between the proposed access and the third party neighbours it would not be possible to recover this level difference with an embankment. Therefore the only viable solution would be to utilise retaining structures. The drawing also indicates the height of retaining structure that would be required taking into account that the ground level changes at the boundary. This assessment shows that significant retaining wall structures, up to 1.6m, would be required as there is no space. Provision of an access via this route would be highly engineered and would not be a pleasant environment with highly engineered retaining walls very close to the access road.
- 2.6 In addition No. 4 Lucas Lane has a garage immediately on the boundary which would make provision of retaining structures difficult. Finally third party vegetation on either side which would be adversely affected by this proposal.
- 2.7 Due to the technical level constraints we do not consider it to be technically viable to provide an access off Lucas Lane within the available land between Nos. 4 and 8 Lucas Lane.
- 2.8 As a result it is considered that an access off Ashwell Street is the best solution to serve the proposed development.



Appendix A

Lucas Lane Access
MAC drawing no. 190-TA30



Key:

- Visibility Splay - 2.4m x 43m
- New Shared Surface
- Highway boundary



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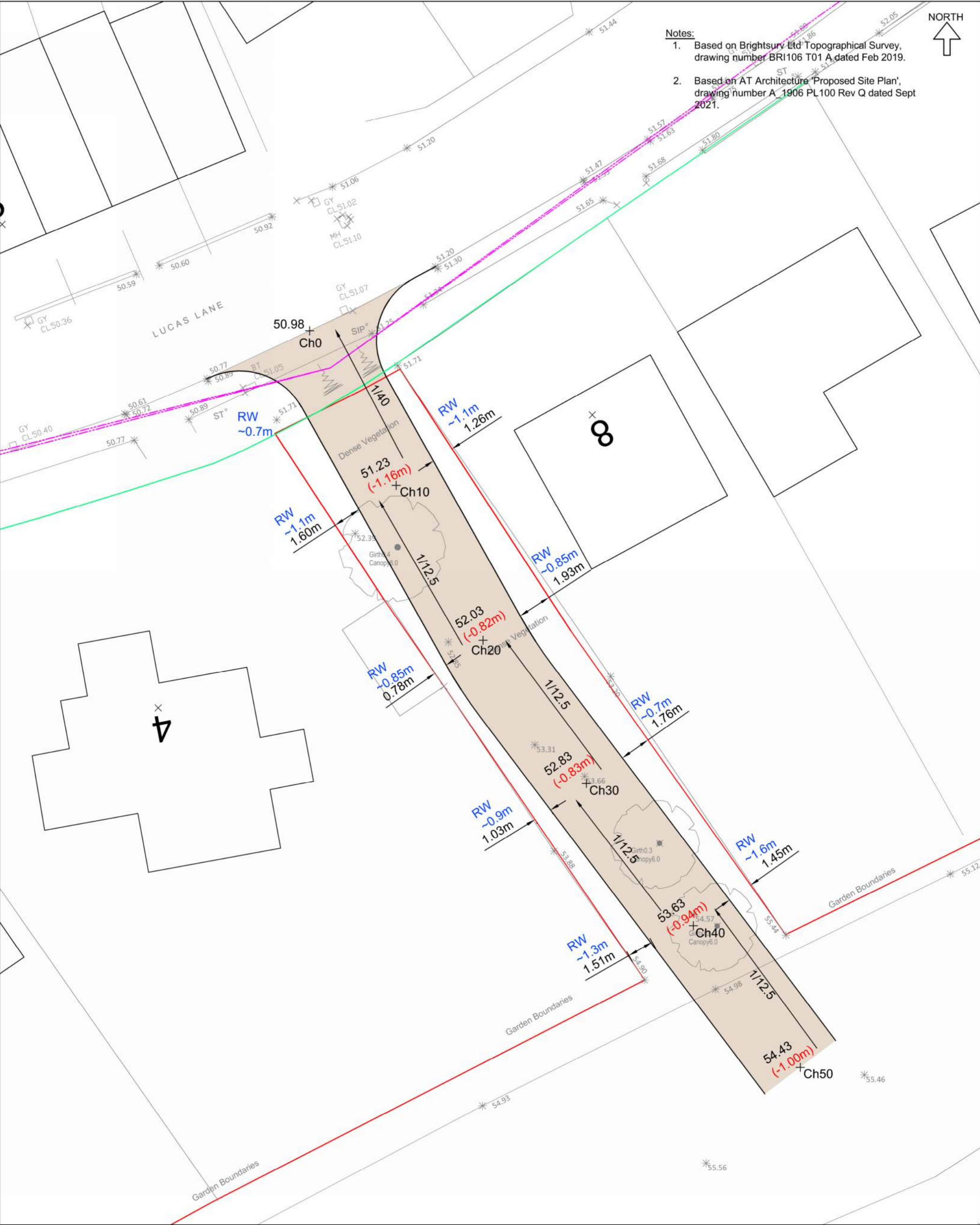
- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes		Project: Land off Ashwell Street Ashwell	
Title: Lucas Lane Access		Date: 22.02.24	Drw: MJA
Drawing No: 190-TA30		Revision: -	Scale: 1:500
			Size: A3



Appendix B

Lucas Lane Access with Levels
MAC drawing no. 190-TA32



Key:

- Visibility Splay - 2.4m x 43m
- New Shared Surface
- Highway boundary
- xx.xx Approximate level difference between proposed and existing. negative numbers indicate ground lowering
- xx.xx Approximate retaining wall height



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- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes		Project: Land off Ashwell Street Ashwell	
Title: Lucas Lane Access - with Levels		Date: 01.03.24	
		Drw: MJA	
Drawing No: 190-TA32		Revision: A	
		Scale: 1:200	
		Size: A3	