



Land south of Church Lane
Wormley

Access Study

For

Broxbourne Borough Council

Document Control Sheet

Land south of Church Lane

Wormley

Broxbourne Borough Council

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
17 th January 2020	Draft	CH	JNR
8 th July 2020	Final Draft	JNR	JNR
16 th July 2020	Final	JNR	JNR

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1.0 Introduction

Preamble

- 1.1 Motion has been instructed by Broxbourne Borough Council (BBC) to undertake an access study in relation to a potential new secondary school (the "School"). The purpose of the School would be to cater for an increase in demand for school places which is expected to arise as a consequence of delivery of new homes allocated within the Broxbourne Local Plan.

Local Plan

- 1.2 The Borough adopted the Broxbourne Local Plan on 23rd June 2020. Of particular relevance to this study is the following policy:

Policy INF10: Secondary School Site DPD

The Council will prepare a Secondary School Development Plan Document (DPD) to:

- a) review the needs case and timing for delivery of a new secondary school;*
- b) identify a suitable and deliverable site or sites to meet identified secondary education needs;*
- c) demonstrate why the selected site was chosen from amongst a range of potential alternative options;*
- d) include sufficient detail to make clear how a decision maker should react to a development proposal on the site;*
- e) provide an approach to Green Belt which is effective and consistent with national policy.*

If needed, it is anticipated that a new secondary school would be provided towards the end of the current decade.

- 1.3 The supporting text to the Policy sets out that Broxbourne Council's preferred site is located at Church Lane, Wormley ("the Church Lane Site") but acknowledges that Hertfordshire County Council (HCC) has raised issues regarding the deliverability of the Church Lane Site. The most significant issues of concern relate to the practicality of achieving a road access into the Church Lane Site and whether it can be regarded as a sustainable choice for all modes of access into the school.
- 1.4 Broxbourne Council disagrees with these concerns and the main purpose of this commission is to examine and conclude on these matters.

Previous studies

- 1.5 The Church Lane Site has been the subject of previous studies commissioned by HCC. These studies include:
- ▶ *Transport Feasibility Study*, prepared by Stomor Civil Engineering on behalf of Vincent and Gorbings for HCC and dated November 2015 (hereafter referred to as "the Stomor Report"); and
 - ▶ *Land south of Church Lane Wormley, Hertfordshire, Additional Highway Study Summary Report* prepared by Vincent and Gorbings on behalf of Hertfordshire County Council and dated July 2016 (hereafter referred to as "the VAB Report").
- 1.6 Motion has considered the analysis, findings, conclusions and recommendations of these two reports and include reference to these in this report where relevant. Where reference is made to information in these two reports, Motion has reviewed this to ensure that it remains relevant having regard to current conditions including the relationship with Brookfield Garden Village and Brookfield Riverside.

Scope of commission

- 1.7 Motion understands that BBC's intention is to prepare a Development Plan Document (DPD) to guide secondary school provision within the Borough. The DPD will determine the needs case for a new secondary school and allocate a site as the preferred location for a new secondary school. It will include broad design parameters to guide the design evolution of a new secondary school at the Church Lane Site including means of access by all modes.
- 1.8 The purpose of this access study is to assess access and movement to and from the Church Lane Site by all modes of transport in order to understand the need for and nature of the transport infrastructure required to support the School, should it be located here. Where major new infrastructure is required then indicative costs are provided so that economic viability can be assessed.
- 1.9 This access study takes as its starting point the National Planning Policy Framework (NPPF) which at paragraph 108 states:
- "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
- ▶ *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
 - ▶ *safe and suitable access to the site can be achieved for all users; and*
 - ▶ *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*
- 1.10 These policy points are considered to be the appropriate transport tests for determining if it is appropriate to allocate the Church Lane Site for a new secondary school within the Development Plan Document.

Structure of Access Study

- 1.11 Following this introduction, the access study considers the following:
- ▶ Section 2 considers the transport sustainability of the Church Lane Site, identifies any shortcomings in provision and recommends how these could be overcome;
 - ▶ Section 3 identifies safe and suitable access to the Church Lane Site for all modes;
 - ▶ Section 4 provides indicative cost estimates for significant new infrastructure identified in Section 3; and
 - ▶ Section 5 summarises the key findings and conclusions of the access study.

2.0 Transport Sustainability

Church Lane Site Location

2.1 The Church Lane Site is located on land south of Church Lane as detailed on the plan below.



Figure 2.1 – Church Lane Site Location

- 2.2 The Church Lane Site is located in Wormley. It is bound to the north by Church Lane, to the east by the New River, the west by the A10 and the south by the A10 – A1170 link road (“the A10 link”).
- 2.3 The areas to the north, south and east of the Church Lane Site contain established residential communities with significant resident populations. To the west of the A10, which forms the Church Lane Site’s western boundary, policies BR1 to BR6 of the Council’s new Local Plan establish new communities referred to as Brookfield Garden Village and Brookfield Riverside which will provide up to 1,500 new homes.

Journeys by Foot

Walk Catchments

- 2.4 The document “*Assessment of Walked Routes to School*” published by Road Safety GB and endorsed by RoSPA provides guidelines on assessing the safety of walking routes to schools. The guidance identifies that for older children (over the age of 8) the walking distance to be assessed is up to 3 miles (4.8km). This latter distance is based on the local education authority’s legal obligation to provide school transport for children whose walk is greater than 3 miles.
- 2.5 Notwithstanding the Road Safety GB guidance, this study has applied guidance prepared by the Institute for Highways and Transportation (IHT) in assessing walking routes. The IHT guidance provides advice on distances considered suitable for a journey on foot. A journey of up to 2km is considered acceptable

by most people. Based on an average walking speed of 80m per minute, this equates to a 25-minute journey. These isochrones have been plotted on the drawing provided at **Appendix A**.

- 2.6 The walk isochrones provided at **Appendix A** demonstrate the area which can be accessed within a 2km walk, which includes a significant proportion of the existing local residential areas surrounding the Church Lane Site.
- 2.7 The isochrones also demonstrate that the Brookfield Riverside / Brookfield Garden Village area is accessible within a 10-15 minute walk of the Church Lane Site.

Existing Pedestrian Infrastructure

- 2.8 The areas to the east and south of the Church Lane Site are primarily urban / residential in nature. These are characterised by streets having footways, being street lit and generally subject to the national speed limit which is 30mph for these types of areas. There are frequent pedestrian crossing facilities including signal controlled crossings. Junctions generally have dropped kerbs to facilitate ease of movement.
- 2.9 To the west the Church Lane Site is bounded by the A10 which is a dual- carriageway with two lanes in each direction at this location. Existing and potential pedestrian access across the A10 and to and from the Church Lane Site is illustrated on Figure 2.2.



Figure 2.2 - Existing and potential pedestrian access and routes

- 2.10 Figure 2.2 shows that there is pedestrian access across the A10 at the following locations:
 - ▶ Church Lane – which crosses over the A10. To the west of the Church Lane Site there is a footway on the southern side of Church Lane and some street lighting. To the east of the Church Lane Site

Church Lane is street lit with footways on both sides. At the frontage of the Church Lane Site, Church Lane is street lit and has a footway to the southern side. This is overgrown in places with some narrow sections notwithstanding the availability of a wide grass verge. Consideration should be given to improving the footway along Church Lane across the frontage of the Church Lane Site;

- ▶ A footbridge over the New River connecting directly to High Road between Huntingdon Close and Oaklands Grove;
- ▶ New River – which passes underneath the A10. There is a shared footway / cycleway along the length of the New River in the vicinity of the Church Lane Site. In particular it is noted that to the southwest of the Church Lane Site, Brookfield Riverside will establish a new town centre clustered around the New River. There will therefore be a direct footway / cycleway connection between the Church Lane Site and Brookfield Riverside / Brookfield Garden Village. The route is generally good quality. The one exception is the underpass crossing the A10. Whilst the underpass is a short distance, if its use is to be intensified then it is recommended that the underpass is refurbished including, inter alia, provision of lighting and installation of CCTV; and
- ▶ Underpass connecting the west of the A10 with Winnipeg Way. This has the potential for a shared footway cycleway. The crossing of the A10 is reasonable however but if its use is to be intensified then it is recommended that the underpass is refurbished including, inter alia, provision of lighting and installation of CCTV. The surface of the section between the A10 and Winnipeg Way is poor and hard surfacing suitable for pedestrians and cyclists is required to complete the connection.

Journeys by bicycle

Cycle Catchments

- 2.11 "Planning for Cycling" published by the Institute of Highways and Transportation (2015) advises that the bicycle is a potential mode of transport for all journeys under five miles (8km). Notwithstanding this, it is normal practice to assume a distance of 5km as being a reasonable cycle distance for design purposes. This 5km cycle design catchment has been plotted on the drawing provided at **Appendix B**.
- 2.12 The cycle catchments illustrated at **Appendix B** demonstrate the area which can be accessed within a 5km cycle, which includes a significant proportion of the existing residential areas within the Borough.
- 2.13 The catchments also demonstrate that the Brookfield Riverside / Brookfield Garden Village area is accessible within a reasonable cycle distance of the Church Lane Site.

Existing Cycle Infrastructure

- 2.14 The Church Lane Site is bound to the east by the New River. The New River benefits from a long distance trail connecting Hertfordshire to Islington.
- 2.15 The Council has set out in its Local Plan its vision for a New River Cycle Path which will be provided in order to encourage greater walking and cycling along its length. The 'Cheshunt and Waltham Cross' and 'Hoddesdon and Broxbourne' Urban Transport Plans (UTP) 2012 have established medium to long term proposals for upgrading the path to provide better off road walking and cycle routes along the length of the borough. A partnership has been established to implement these proposals.
- 2.16 The New River Cycle path provides an outstanding opportunity to achieve direct, safe cycle access to and from the Church Lane Site for pupils and staff.
- 2.17 The New River route is illustrated on the figure below together with other existing and potential cycle access and A10 crossing opportunities.



Figure 2.3 - Existing and potential cycle access and routes

- 2.18 The areas to the east and south of the Church Lane Site are primarily urban / residential in nature. These are characterised by streets which are well lit and are generally subject to the national speed limit which is 30mph for these types of areas. These types of streets are normally considered safe and suitable for cyclists to use. A review of these streets on site has confirmed that there are no unusual features that would indicate that they are any less safe for cyclists to use than would normally be expected.
- 2.19 There are advisory cycle lanes provided on the A1170 High Road in the vicinity of the Church Lane Site improving safety for cyclists.
- 2.20 Further afield the Church Lane Site is approximately 4.3 kilometres from the National Cycle Network route 1 (Dover to the Shetland Islands) running along Windmill Lane, Russell Ride and Theobald's Lane, providing good access to surrounding areas to the south, including most of South Cheshunt.
- 2.21 The Lee Valley Cycle Route is located 1.2 kilometres from the Church Lane Site and provides a segregated cycle path along the Small River Lee and the River Lee Navigation. This path provides a direct route for cyclists to both the Cheshunt Railway Station and National Cycle Route 1 which gives further links to other major towns nearby.
- 2.22 To the west the Church Lane Site is bounded by the A10 which is a dual- carriageway with two lanes in each direction at this location. Referring to figure 2.3, potential cycle routes across the A10 comprise:
 - ▶ Planned New River route as discussed above;

- ▶ Church Lane – which crosses over the A10. To the west of the Church Lane Site, Church Lane is a predominantly rural road albeit it has a footway on the southern side and some street lighting. To the east Church Lane is more urban in nature being street lit with footways on both sides;
- ▶ Underpass connecting the west of the A10 with Winnipeg Way. This route would need improving in order for it to provide a reasonable facility for cyclists.

Journeys by Public Transport

Existing Bus

- 2.23 BREEAM guidance identifies a distance of 640m as being reasonable for people to walk to and from a bus stop. There are several bus stops located on the A1170 within this walk distance. Table 2.1 below summarises the services available from these bus stops.

Service Number and Route	Approximate Frequency
	Monday to Friday
310 Northbound – Waltham Cross, Hertford	10 minutes
310 Southbound – Hertford, Waltham Cross	10 minutes
410 North-eastbound – Waltham Cross, Harlow	30 minutes
410 South-westbound – Harlow, Waltham Cross	30 minutes

Table 2.1 – Bus Services

- 2.24 Table 2.1 shows that there are approximately 8 buses per hour in each direction (16 per hour in total) within a reasonable walk distance of the Church Lane Site.
- 2.25 In addition to these existing services, policy BR5 of the local plan requires planned new development at Brookfield to be served by new bus services. These are to be frequent with the anticipation that this will be at least every 20 minutes. The routes of the new bus services are expected to pass the Church Lane Site providing additional public transport options for pupils and staff of the School.

Rail

- 2.26 Broxbourne railway station is located circa 2.7 km (1.67 miles) to the northeast of the Church Lane Site. This is approximately 10 minutes cycle ride. Alternatively the railway station is accessible within a 15 minute total journey time by public transport utilising the 310 bus service. Table 2.2 below summarises the rail services available.

Destination	Approximate Frequency (per hour)
London Liverpool Street	6
Hertford East	2
Stratford (London)	2
Cambridge	1
Cambridge North	1
Bishops Stortford	2

Table 2.2 – Train Services from Cheshunt

- 2.27 Table 2.2 shows that there are frequent rail services operating from the railway station serving a variety of destinations.

- 2.28 In addition to existing rail services, policy INF5 of the local plan promotes the provision of a new railway station located at Turnford. This would be less than a 1-mile (20 minute) walk from the Church Lane Site providing a new opportunity for pupils and staff to travel by public transport.

Summary of Transport Sustainability

- 2.29 The analysis set out above demonstrates that spatially, the Church Lane Site is very well located to the existing walking, cycling and public transport networks enabling it to be readily integrated with existing sustainable travel infrastructure. The analysis also demonstrates that the existing sustainable travel networks are well developed providing a range of sustainable travel opportunities.
- 2.30 Hence it can be concluded that a significant proportion of people travelling to and from the Church Lane Site could reasonably be expected to travel using this existing sustainable travel provision. Further strengthening of and additions to this network have the potential to make the Church Lane Site a highly sustainable location for sustainable school travel.

3.0 Safe and Suitable Access

Pedestrian and cycle access

- 3.1 Pedestrian and cycle access to the Church Lane Site was considered in both the Stomor and VAB reports (see extracts at **Appendix C**). Both reports identified the following opportunities:
- ▶ Pedestrian and cyclist access via Church Lane;
 - ▶ Pedestrian and cycle access via Huntingdon Close subject to a bridge being provided over the New River; and
 - ▶ Pedestrian and cycle access direct from the New River path.
- 3.2 Motion has audited these proposals including reviewing them on site and conclude that these remain suitable and deliverable means of access for pedestrians and cyclists. However it is noted that there already exists a pedestrian bridge over the New River connecting directly to the High Road. The need to provide a further access via Huntingdon Close is therefore considered to be low.

Vehicular access

- 3.3 The Church Lane Site is bound by the New River to the east and the A10 dual-carriageway to the west. Both of these features represent substantial constraints to achieving vehicular access to the Church Lane Site that could only be overcome through extensive civil engineering works.
- 3.4 This study therefore focusses on the potential to provide vehicular access to the Church Lane Site via Church Lane to the north and the A10 – A1170 link road (“the A10 link”) to the south.

Church Lane

- 3.5 Drawing number ST-2462-03 contained in the Stomor Report (see **Appendix D**) provides an indicative layout for a vehicular access to the Church Lane Site from Church Lane. Motion has reviewed this access and concludes that the vehicular access remains suitable as an access to the Church Lane Site for its use as a new secondary school.
- 3.6 Notwithstanding this, the Stomor Report identified the following potential issues:
- ▶ Church Lane is too narrow to accommodate 2-way bus/coach movements.
 - ▶ Widening of Church Lane will have significant impact on the conservation area.
 - ▶ No scope to widen road between The Croft and High Road.

- ▶ Narrow carriageway over existing New River Bridge. Priority system required.
- 3.7 The Stomor report subsequently dismisses the use of Church Lane as a vehicular access due to the impact that would arise from widening Church Lane.
- 3.8 Motion has reviewed these findings and notes the following:
- ▶ A priority system at the New River bridge would be beneficial. Visibility across the bridge is reasonable and such a system could be safely provided; and
 - ▶ Church Lane is not a bus route. It is accepted that the School would attract bus traffic (school bus, visiting schools etc). However during the morning peak and afternoon school start and finish times coach / bus movements are expected to be primarily uni-directional. At other times bus / coach trips are expected to be infrequent occurrences. The risk of two bus / coaches meeting on Church Lane is therefore very low. It is therefore considered to be disproportionate to the risk level to widen Church Lane to accommodate two-way bus / coach travel.
- 3.9 Away from the Church Lane Site it is noted that the junction of Church Lane / A1170 prohibits the right turn for traffic travelling from Church Lane to the A1170. Traffic leaving the Church Lane Site and wishing to travel southbound on the A1170 is required to turn left onto the A1170 and then perform a u-turn at the roundabout junction of the A1170 / Cozens Lane East which is approximately 300m to the north of the Church Lane / A1170 junction. A series of swept paths have been undertaken to assess the suitability of a vehicular access being provided on Church Lane. The analysis is based on the largest vehicle using the access on a regular basis being a 12m long coach and identifies the following:
- ▶ The left turn from Church Lane onto the A1170 is constrained due to the central island on Church Lane and the median on the A1170. The drawing provided at **Appendix E** demonstrates the minor modifications to the junction that would be required to accommodate a 12m coach making this movement; and
 - ▶ The roundabout junction of A1170 / Cozens Lane East is able to accommodate a 12m bus / coach making a u-turn manoeuvre (see **Appendix F**).
- 3.10 Based on the above analysis, it is concluded that there is the potential for a safe and suitable vehicular access to be provided to the Church Lane Site from Church Lane subject to:
- ▶ A priority system being provided at the bridge crossing of the New River; and
 - ▶ Minor modifications to the Church Lane / A1170 junction.

The A10 Link Road

- 3.11 The A10 Link Road is a derestricted dual carriageway. It is therefore considered appropriate that an access at this location is designed to meet DMRB standards.
- 3.12 The following constraints to providing an access at this location have been identified:
- ▶ Length of the A10 Link Road between the A10 and New River which impacts on the opportunity to provide deceleration and acceleration facilities.
 - ▶ Major level difference between the Church Lane Site and road.
- 3.13 Having regard to these constraints and the requirements of DMRB, three options have been developed which are described below.

Option 1

- 3.14 Option 1 provides a left-in / left-out priority junction from the A10 Link Road and is shown on the drawing provided at **Appendix G**.

- 3.15 In order to achieve appropriate deceleration and acceleration distances the speed limit of the A10 Link Road would need to be reduced to 40mph. This would require a traffic regulation order (TRO).

Option 2

- 3.16 Option 2 provides a left-in / left-out priority junction from the A10 Link Road and is shown on the drawing provided at **Appendix H**.

- 3.17 In order to achieve appropriate deceleration and acceleration distances the speed limit of the A10 Link Road would need to be reduced to 50mph. This would require a TRO.

Option 3

- 3.18 Option 3 provides a left-in / left-out signal junction from the A10 Link Road and is shown on the drawing provided at **Appendix I**.

- 3.19 It is intended that the signals would default to green for traffic travelling on the A10 Link Road. Traffic turning left into the Church Lane Site would be able to free-flow into the Church Lane Site via a slip road. Traffic exiting the Church Lane Site would be safely stored within the Church Lane Site whilst waiting for green signal to exit left only onto the A10 Link Road.

- 3.20 It is envisaged that outside of peak hours, the green phase controlling exit from the Church Lane Site would be seldomly called. Should this option become the preferred option then it is recommended that speed detector and queue loops are installed on the A10 Link Road to the east of the access junction. These would perform a road safety role through managing the timing of and amount of green time received by traffic exiting the Church Lane Site having regard to traffic approach speeds and queues on the A10 Link Road (which would be prevented from extending back to the A10).

4.0 Transport Infrastructure costs

4.1 The table below provides a summary of the transport infrastructure improvements that may be needed to meet the requirements of paragraph 108 of the NPPF. The table identifies the infrastructure item, the reason for the need, the funding source (and indicative cost) and the organisation that would be expected to promote the delivery of the infrastructure item.

Infrastructure item	Reason for item	Funding source / Indicative cost	Lead promoting organisation(s)
Refurbishment of New River A10 underpass including, inter alia, replacement of lighting and installation of CCTV.	This item is required to provide connectivity between the Brookfield Garden Village / Brookfield Riverside developments and the nearest existing community immediately to the east of the A10.	It is our view that these works will be required in order to integrate the Brookfield Garden Village / Brookfield Riverside developments into the existing community. The need for them are therefore triggered by the Brookfield Garden Village / Brookfield Riverside developments and not the new secondary school. They should therefore form part of the Brookfield Garden Village / Brookfield Riverside developments infrastructure requirements.	Developer led (Brookfield Garden Village / Brookfield Riverside)
Refurbishment and improvement to footway along Church Lane across the frontage of the Church Lane Site.	Provide pedestrian route to current design standards along Church Lane to access the Church Lane Site.	This could be incorporated within the design of the Church Lane Site.	School developer
Provision of A10-Winnipeg Way underpass including, inter alia, provision of lighting and CCTV.	This item is required to provide connectivity between the Brookfield Garden Village / Brookfield Riverside developments and the nearest existing community immediately to the east of the A10. In the absence of the Brookfield Garden Village / Brookfield Riverside development it is unlikely that these works would be required.	It is our view that these works would further strengthen the integration of the proposed secondary school with the proposed Brookfield development. The need for them is therefore triggered by the Brookfield Garden Village / Brookfield Riverside developments and not the new secondary school. They should therefore form part of the Brookfield Garden Village / Brookfield Riverside developments infrastructure requirements.	Developer led (Brookfield Garden Village / Brookfield Riverside)

Infrastructure item	Reason for item	Funding source / Indicative cost	Lead promoting organisation(s)
Church Lane Access	Vehicular access, local widening, improvements to existing footway and pedestrian crossing (in accordance with Stonor design).	£0.55M	School developer
	Church Lane / A1170 junction modifications to facilitate bus / coach movements.	£0.05M	School developer
	Priority working at New River bridge on Church Lane due to width.	£0.05M	School developer
A10 Link Road Option 1 access	Vehicular Access	£1.44M (source: see Appendix J)	School developer
A10 Link Road Option 2 access	Vehicular Access	£1.86M (source: see Appendix J)	School developer
A10 Link Road Option 3 access	Vehicular Access	£1.5M (source: see Appendix J)	School developer

5.0 Summary and Conclusions

Summary

- 5.1 This access study has been prepared in relation to the identification of a site (the Church Lane Site) for a potential new secondary school (the "School").
- 5.2 The Church Lane Site is located in Wormley. It is bound to the north by Church Lane, to the east by the New River, the west by the A10 and the south by the A10 – A1170 link road ("the A10 link").
- 5.3 The areas to the north, south and east of the Church Lane Site contain established residential communities with significant resident populations. To the west of the A10, which forms the Church Lane Site's western boundary, policies BR1 to BR6 of the Council's new Local Plan establish new communities referred to as Brookfield Garden Village and Brookfield Riverside respectively which will provide up to 1,500 new homes.
- 5.4 This access study takes as its starting point the National Planning Policy Framework (NPPF) which at paragraph 108 states:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- ▶ *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- ▶ *safe and suitable access to the site can be achieved for all users; and*
- ▶ *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

- 5.5 These policy criteria are considered to be the appropriate transport tests for determining if it is appropriate to allocate the Church Lane Site for a new secondary school within a future planning document. These criteria are considered in turn below.

Paragraph 108a: Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location

- 5.6 The analysis set out above demonstrates that spatially, the Church Lane Site is very well located to the existing walking, cycling and public transport networks enabling it to be readily integrated with existing sustainable travel infrastructure. The analysis also demonstrates that the existing sustainable travel networks are well developed providing a range of sustainable travel opportunities.
- 5.7 Hence it can be concluded that a significant proportion of people travelling to and from the Church Lane Site could reasonably be expected to travel using this existing sustainable travel provision without the need to provide additional sustainable transport modes. The location of the Church Lane Site therefore meets the criteria of paragraph 108a. Further strengthening of and additions to this network have the potential to make the Church Lane Site a highly sustainable location for sustainable school travel.

Paragraph 108b: Safe and suitable access to the site can be achieved for all users

- 5.8 The analysis and design work set out in this study has identified that:
- ▶ there is a variety of deliverable access options for walking, cycling, public transport and other motor vehicles which would provide safe and suitable access to the Church Lane Site having regard to the operational requirements of the School.

- ▶ as a consequence of this variety of deliverable access options, that there is some flexibility in the final access solution which can therefore be responsive to the detail of the masterplan for the Church Lane Site as this emerges.

5.9 The location of the Church Lane Site therefore meets the criteria of paragraph 108b.

Paragraph 108c: Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree

5.10 The Church Lane Site is located within an existing transport network which already provides infrastructure for walking, cycling and public transport journeys. The Church Lane Site is therefore spatially well located to take advantage of the existing transport network. Minimal infrastructure provision is required to connect the Church Lane Site to this network which is the most cost effective way of meeting the travel needs of new development.

5.11 Many of the recommended transport infrastructure items identified in this study to enable the Church Lane Site to integrate with the existing transport network would be embedded into the masterplan for a new school and would be common to all new schools irrespective of location.

5.12 Where this is not the case, this study has included costings for transport infrastructure elements to ensure that these can be delivered cost effectively.

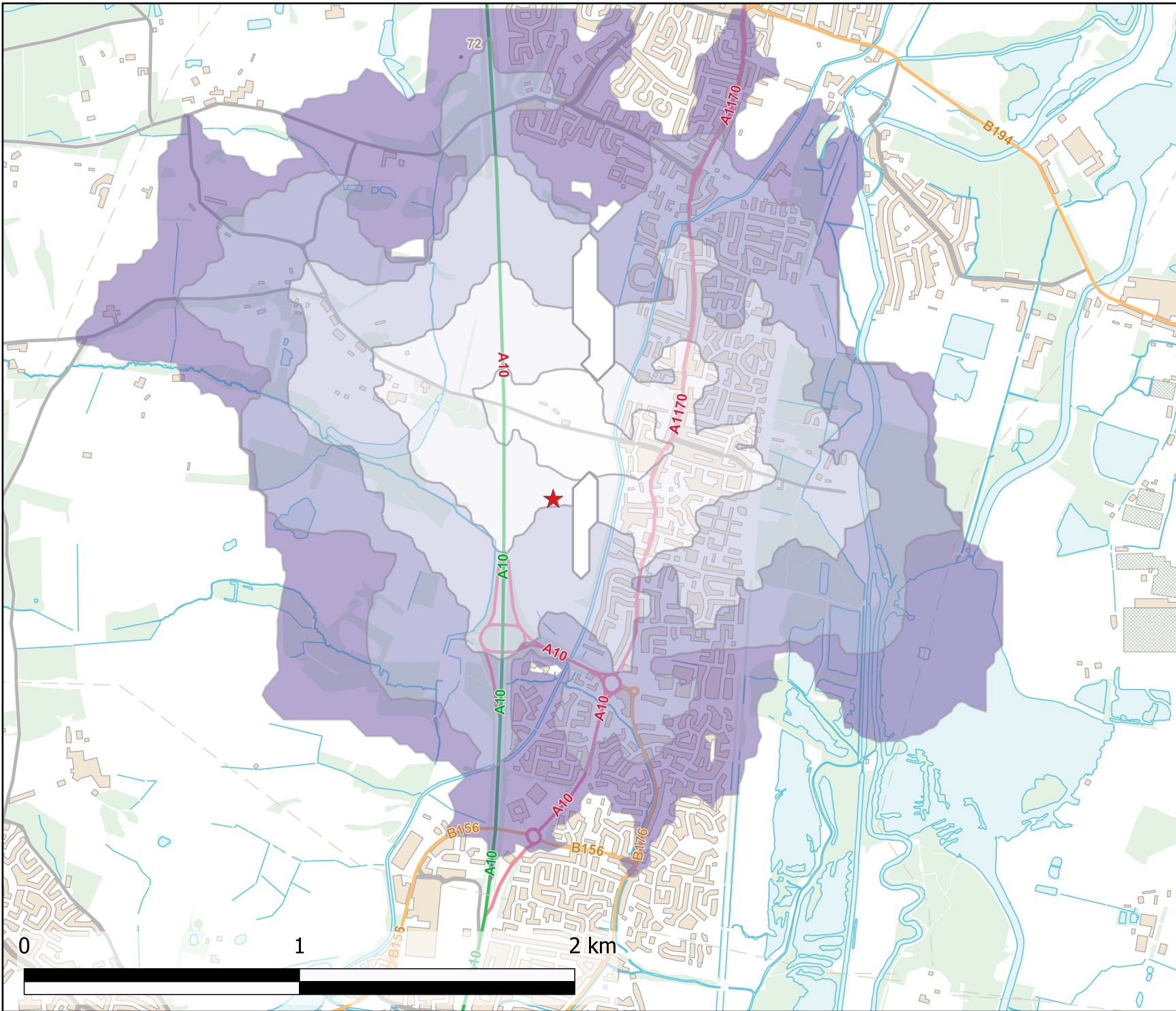
5.13 The location of the Church Lane Site therefore meets the criteria of paragraph 108c.

Conclusion

5.14 There are no access, transport or highway reasons preventing the Church Lane Site from being allocated for a new secondary school. With further, affordable, interventions into the transport network, the proposed location would be a highly sustainable location for multi modal trips to school.

Appendix A

Walk Catchments



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Key:

★ Site Location

Assumed Walk Speed: 4.8 km/h

Project

Land south of Church Lane, Cheshunt

Title

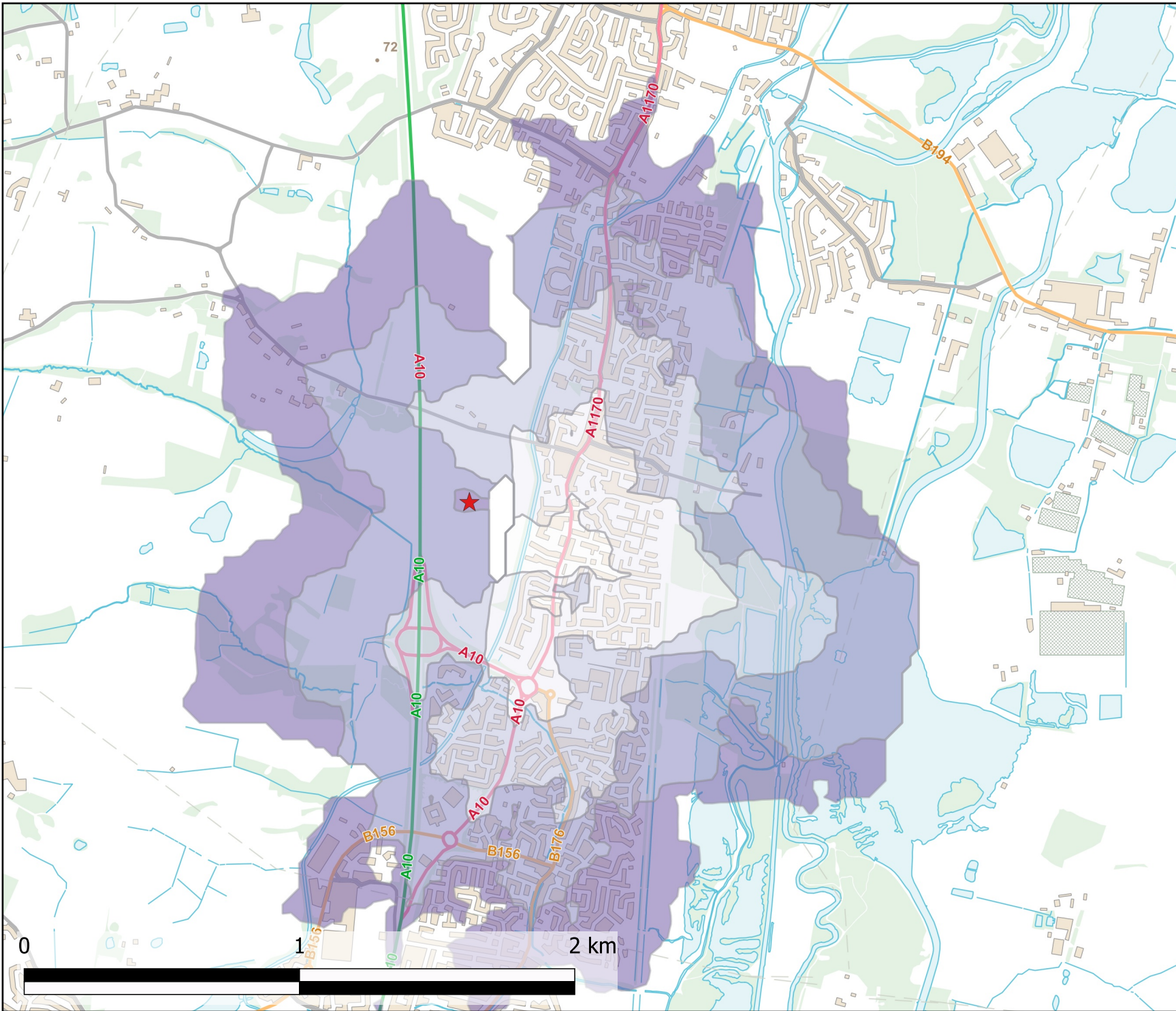
Accessibility by Foot via Church Lane Access



9 Greyfriars Road, Reading, RG1 1NU
Tel: +44 (0) 118 206 2930

scale	drawn by	date
stated	CH	19/11/2019

drawing number	rev
Figure 3.4	-



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Key:



Site Location

Assumed Walk Speed: 4.8 km/h

Project

Land south of Church Lane, Cheshunt

Title

Accessibility by Foot via Huntingdon Close Access

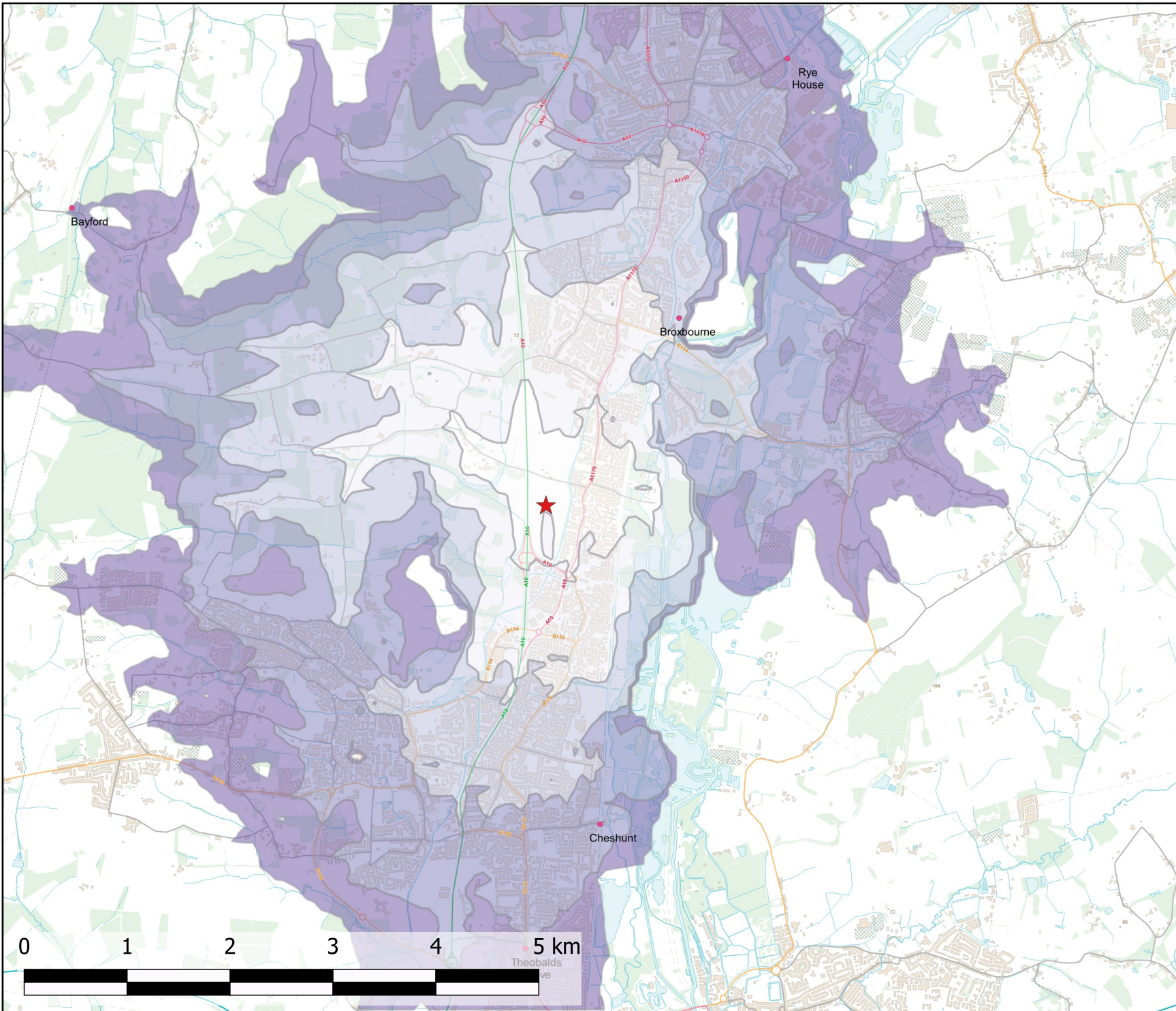


9 Greyfriars Road, Reading, RG1 1NU
Tel: +44 (0) 118 206 2930

scale stated	drawn by CH	date 19/11/2019
drawing number Figure 3.4		rev -

Appendix B

Cycle Catchments



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Key:

- Railway Station
- ★ Site Location

Project

Land south of Church Lane, Cheshunt

Title

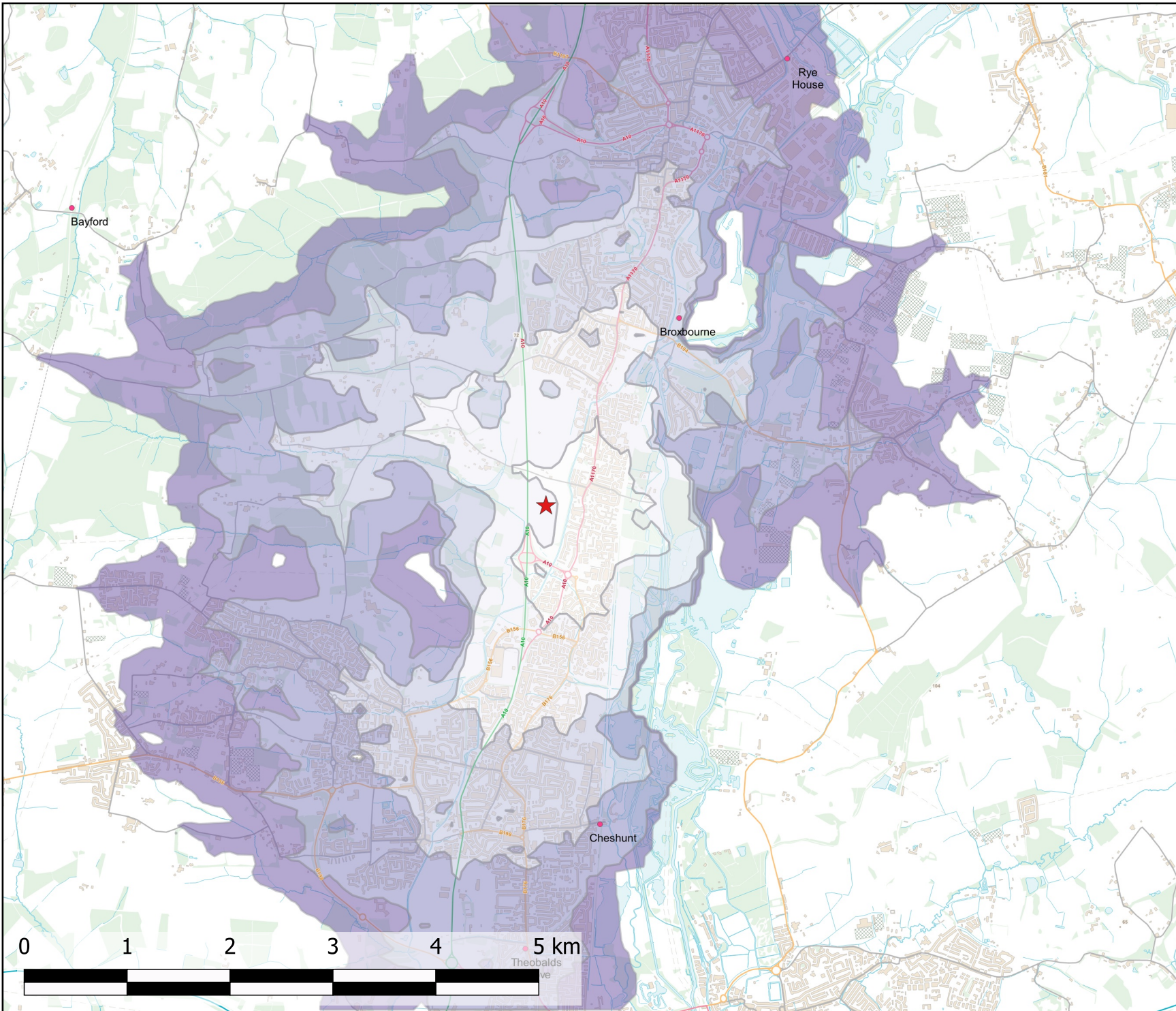
Accessibility by Cycling via Church Lane
Access



9 Greyfriars Road, Reading, RG1 1NU
Tel: +44 (0) 118 206 2930

scale	drawn by	date
stated	CH	19/11/2019

drawing number	rev
Figure 4	



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Key:

- Railway Station
- ★ Site Location

Project

Land south of Church Lane, Cheshunt

Title

Accessibility by Cycling via Huntingdon Close Access



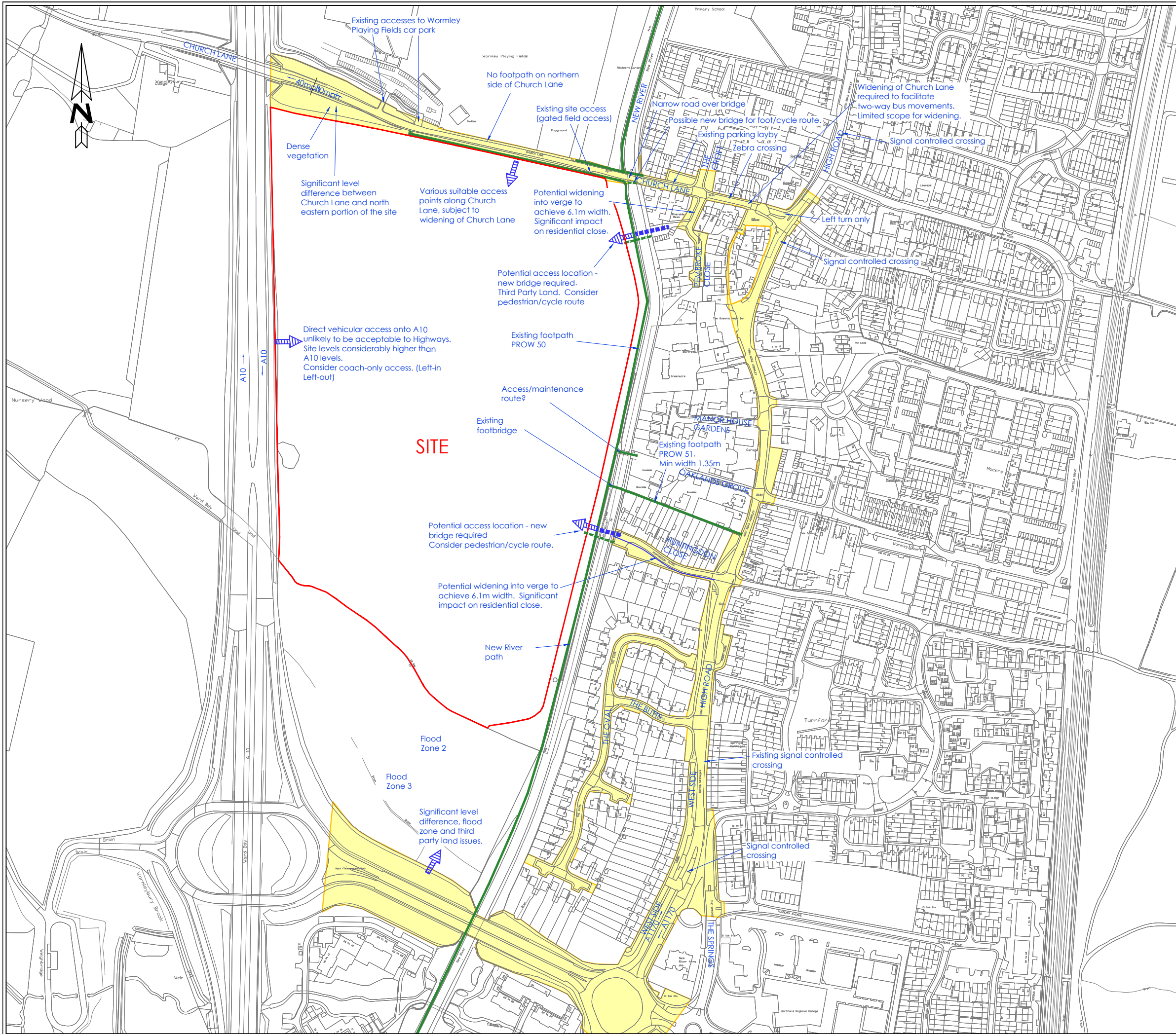
9 Greyfriars Road, Reading, RG1 1NU
Tel: +44 (0) 118 206 2930

scale	drawn by	date
stated	CH	19/11/2019

drawing number	rev
Figure 4	

Appendix C

Pedestrian and Cycle Access



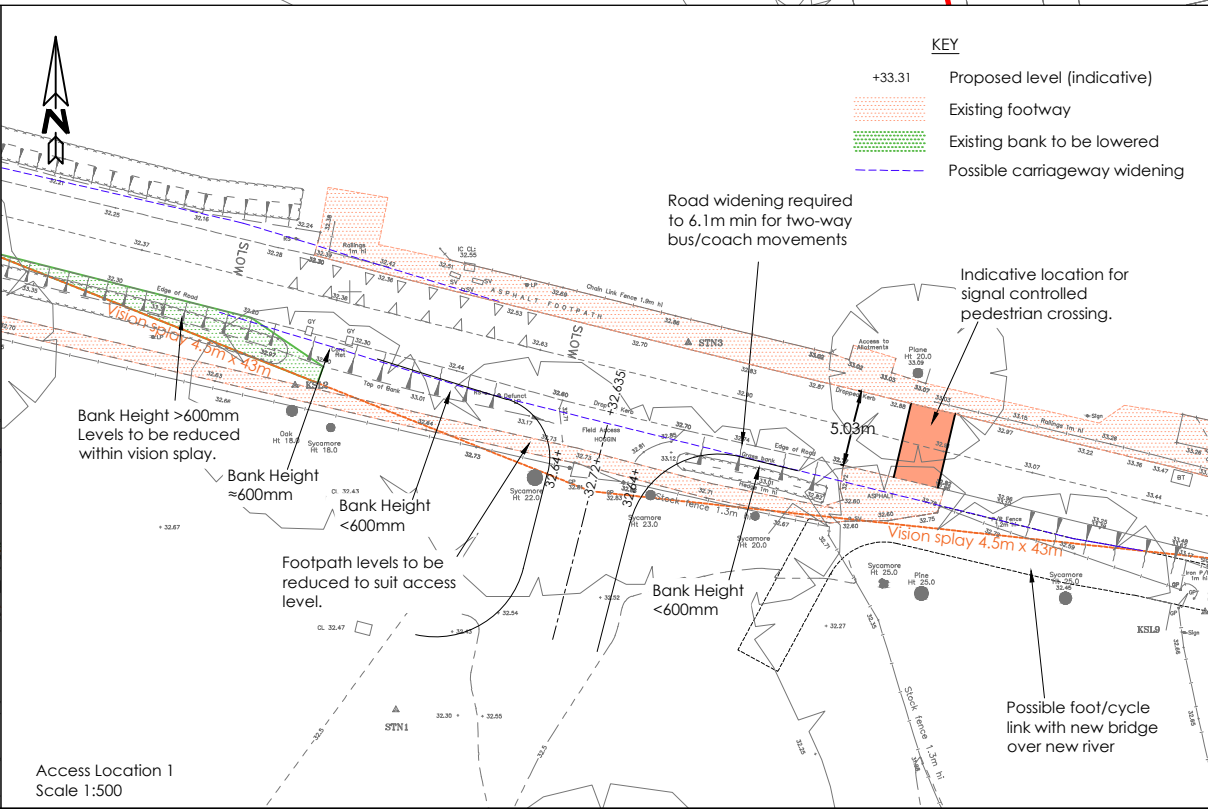
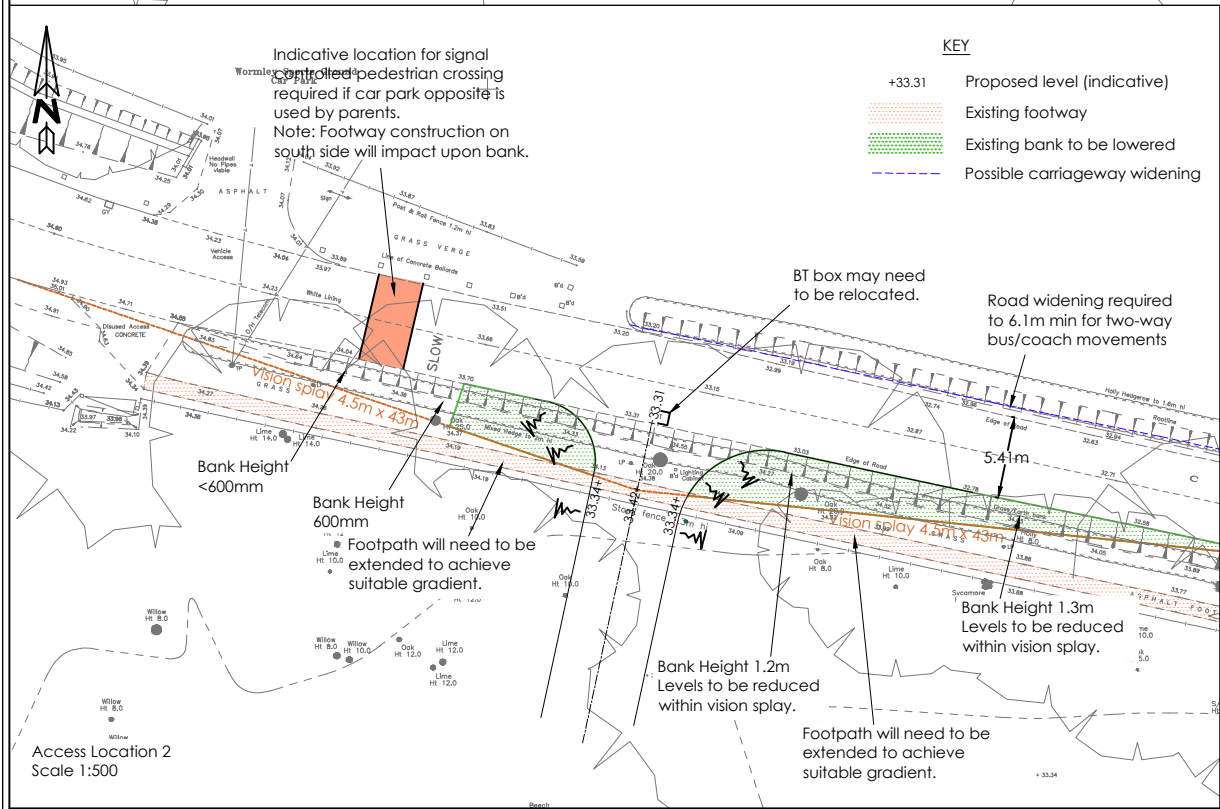
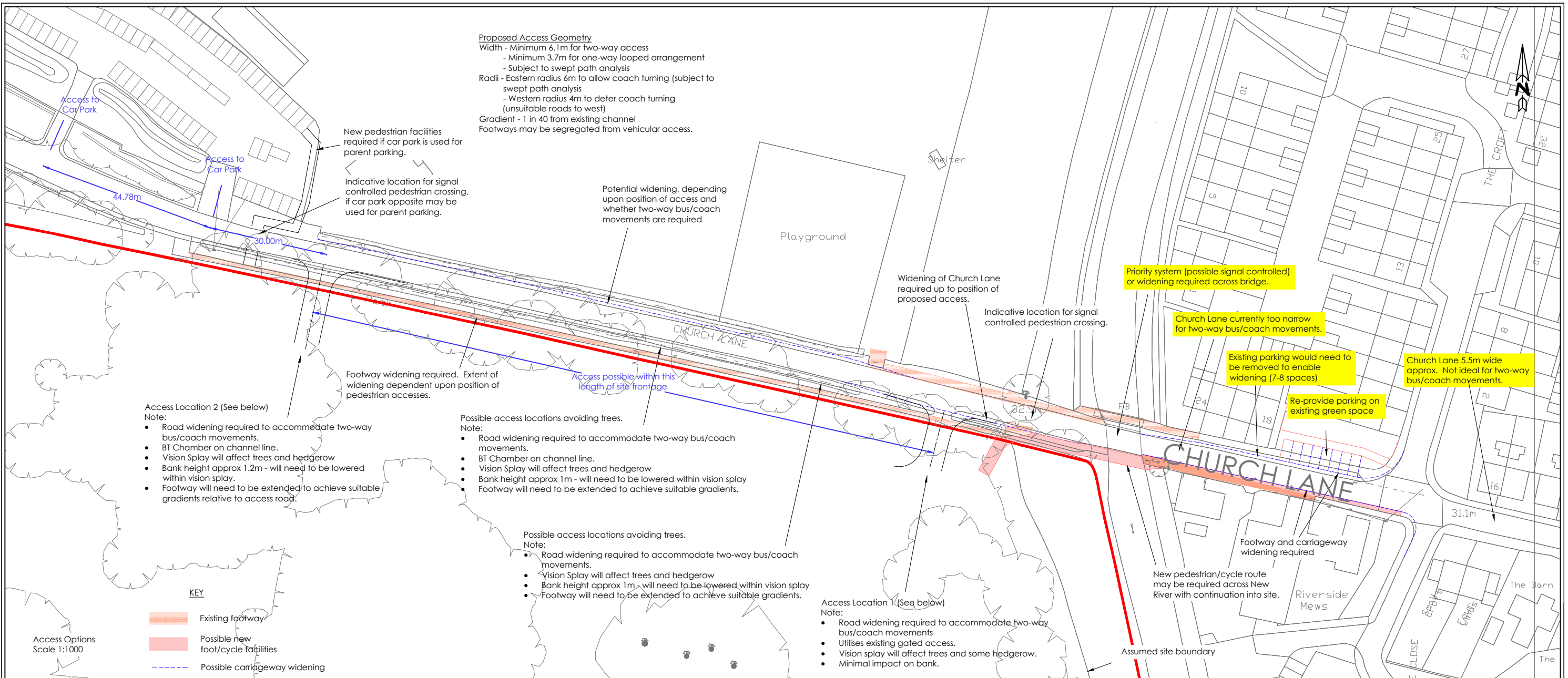
KEY

- APPROXIMATE SITE BOUNDARY
- ACCESS LOCATION CONSIDERED
- ■ ■ ■ POSSIBLE NEW VEHICULAR LINK
- ■ ■ ■ POTENTIAL PEDESTRIAN ONLY ACCESS
- EXISTING PEDESTRIAN FACILITIES
- HIGHWAY LAND

Rev	Description	Date	Drawn	Checked
Revisions				
		<small>Registered Office: 32 Beehive Lane, Welwyn Garden City, Hertfordshire, AL7 4BQ</small> <small>Design Office: 19 Walsworth Road, Hitchin, Herts. SG4 9SP Tel 01462 615433 Fax 01462 615425 Email info@stomor.com www.stomor.com</small>		
Project				
Land South of Church Lane, Wormley				
Drawing Description				
Highways and Access Appraisal				
Scale	Date	Drawn By	Checked By	
1:4000@A3	19.08.15	YK	-	
Client		Architect		
Notes		Drawing Number		
<small>Do not scale off the drawing. Only written dimensions should be taken. Any discrepancies or errors should be brought to the attention of the engineer immediately.</small>		ST-2462-02		

Appendix D

Church Lane Vehicular Access (Stomor Report)

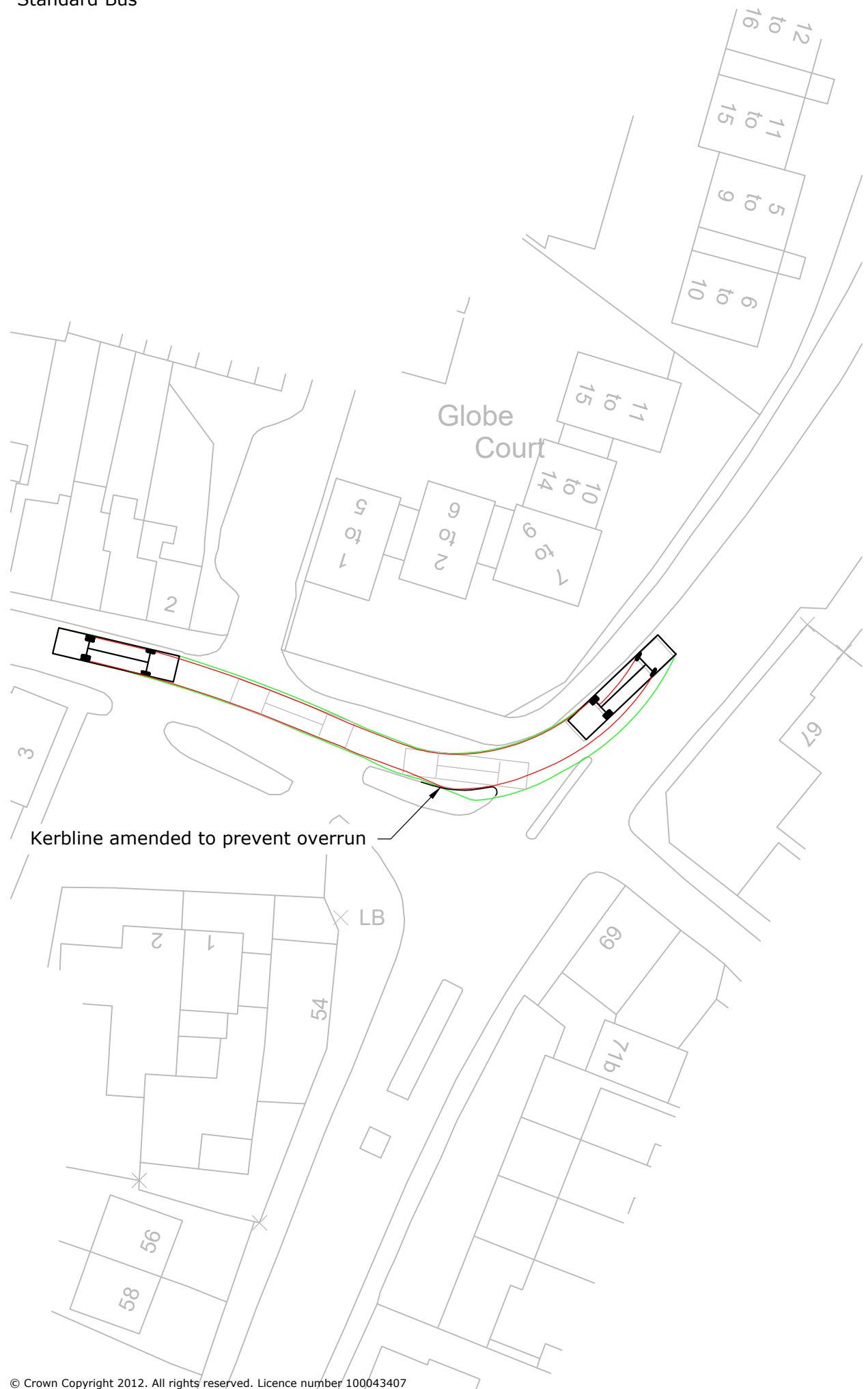


Rev	Description	Date	Drawn	Checked
Revisions				
Registered Office: 32 Beehive Lane, Welwyn Garden City, Hertfordshire, AL7 4BQ Design Office: 19 Waltham Road, Hitchin, Herts, SG4 9SP Tel: 01462 615423 Fax: 01462 615425 Email: info@stomor.com www.stomor.com				
Project				
Land South of Church Lane, Wormley				
Drawing Description				
Means of Access Options Appraisal Church Lane				
Scale	Date	Drawn By	Checked By	
Varies@A3	26.10.15	NJM	DGS	
Client			Architect	
Notes			Drawing Number	
Do not scale off the drawing. Only written dimensions should be taken. Any discrepancies or errors should be brought to the attention of the engineer immediately.			ST-2462-03	

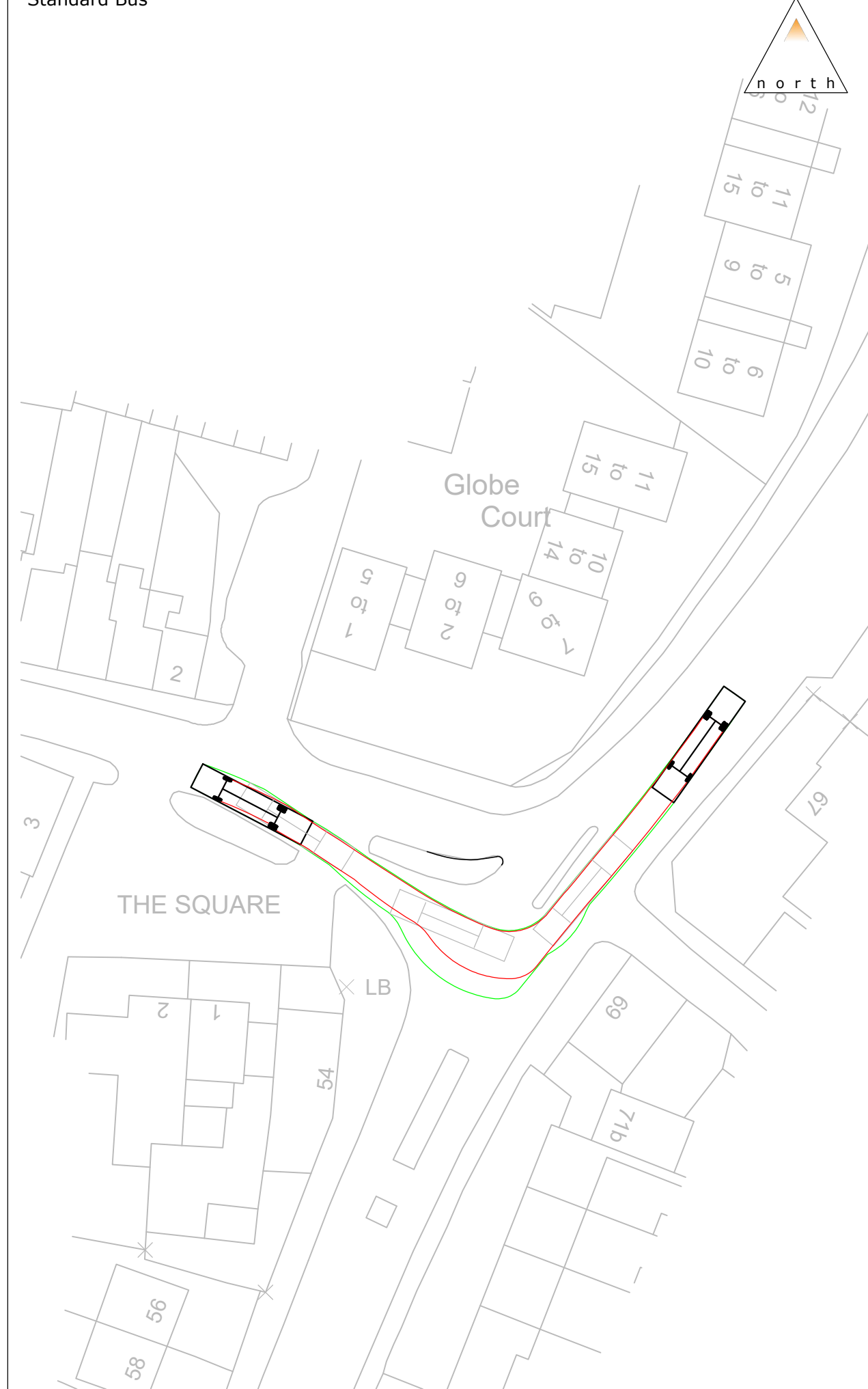
Appendix E

Church Lane / A1170 Junction Modifications

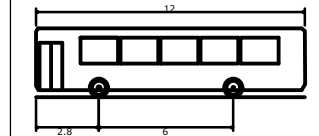
Standard Bus



Standard Bus



Rev: Description: Date: Rev By: Chk'd:



'Standard' Rigid Bus	12,000m
Overall Length	2,550m
Overall Width	3,069m
Overall Body Height	0,309m
Min Body Ground Clearance	2,350m
Track Width	4,00s
Lock-to-lock time	10,771m
Wall to Wall Turning Radius	



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Project:
Church Lane, Wormley

Title:
**Swept Path Analysis
 12m Bus**

Client:

Drawing Status: Information

Scale: 1:500 (@ A3) Date: 14.01.2020

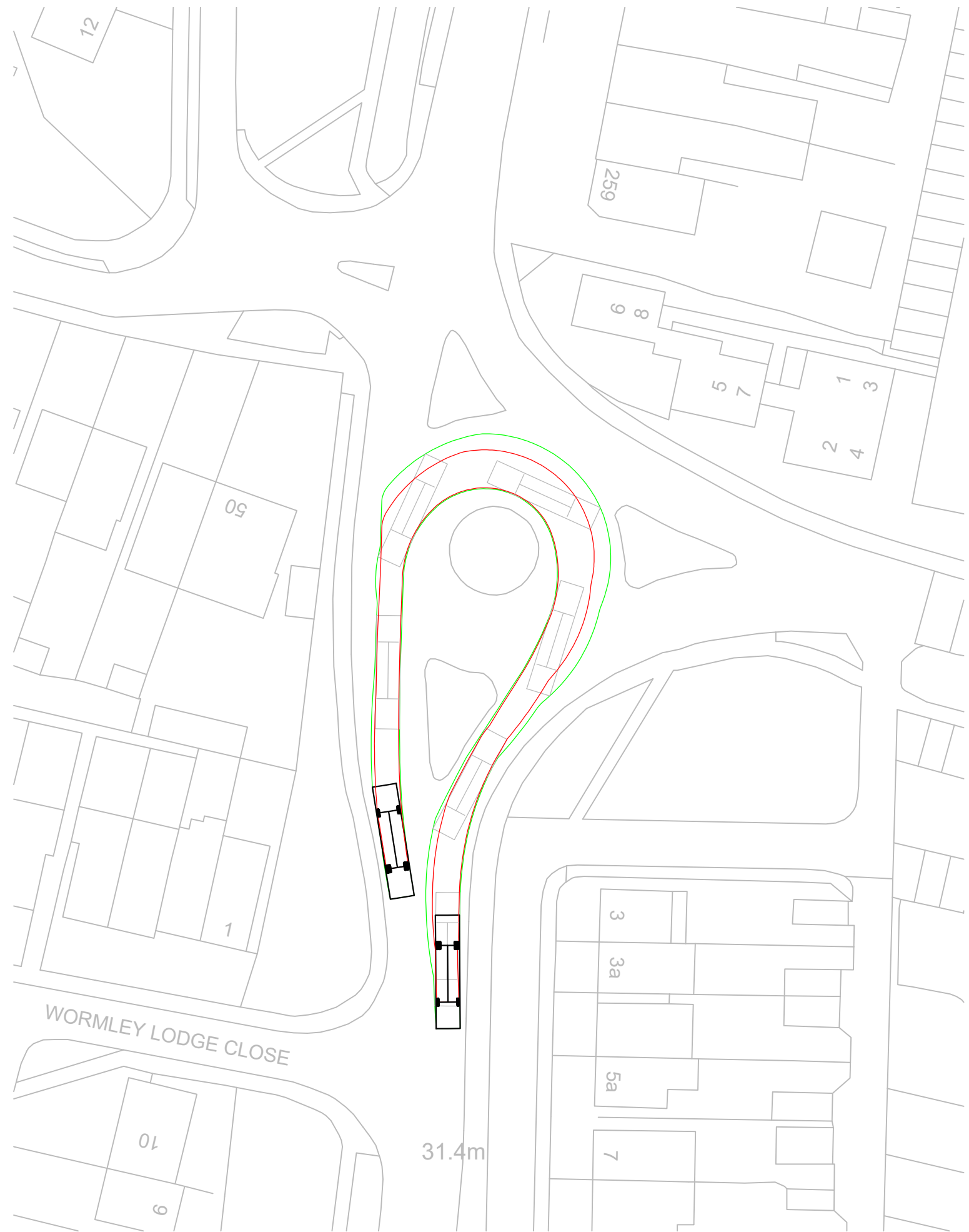
Drawn: RS Checked: JR Approved: JR

Drawing: **1909006-TK03** Revision: -

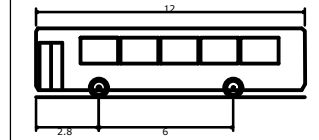
N:\Projects\brches_1909006\Drawings\1909006-TK03.dwg

Appendix F

A1170 / Cozens Lane East Swept Path Analysis



Rev: Description: Date: Rev By: Chk'd:



'Standard' Rigid Bus	12.000m
Overall Length	2.550m
Overall Width	3.069m
Overall Body Height	0.309m
Min Body Ground Clearance	2.350m
Track Width	4.00s
Lock-to-lock time	10.771m
Wall to Wall Turning Radius	



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Project:
Church Lane, Wormley

Title:
Swept Path Analysis
Buses

Client:
Broxbourne Borough Council

Drawing Status: Information

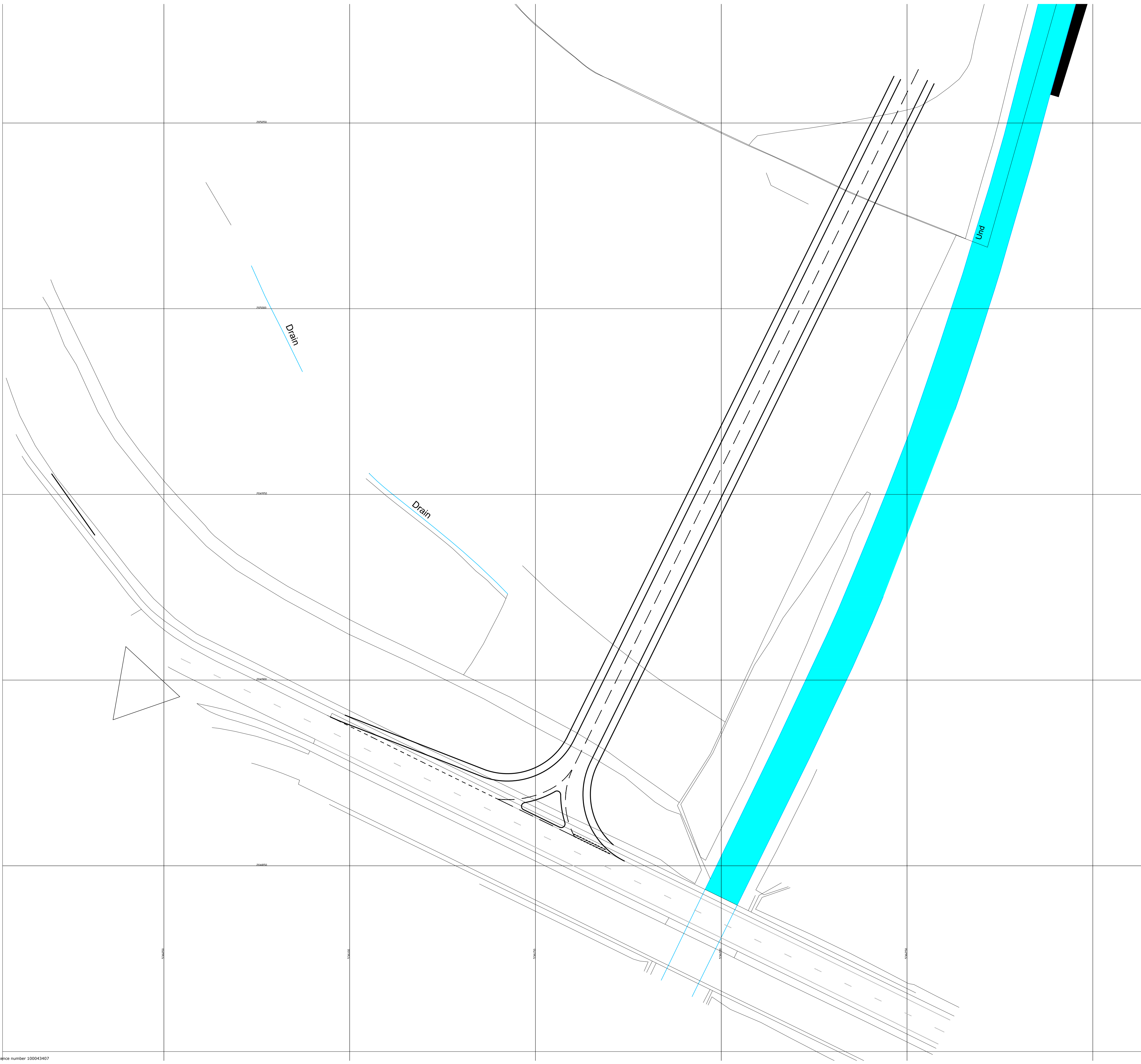
Scale: 1:500 (@ A3) Date: 21/10/2019

Drawn: CM Checked: JR Approved: JR

Drawing: 1909006-TK01 Revision: -

Appendix G

A10 Link Road Vehicular Access Option 1



84 North Street, Guildford, Surrey, GU1 4AU
T: 01483 531 300
Guildford - London - Reading
www.motion.co.uk

Project:
Land South of Church Lane, Wormley

Title:
Proposed Site Access Arrangement (40 mph Option)

Client:

Drawing Status: Discussion

Scale: 1:500 (@ A1) Date: 11.09.2019

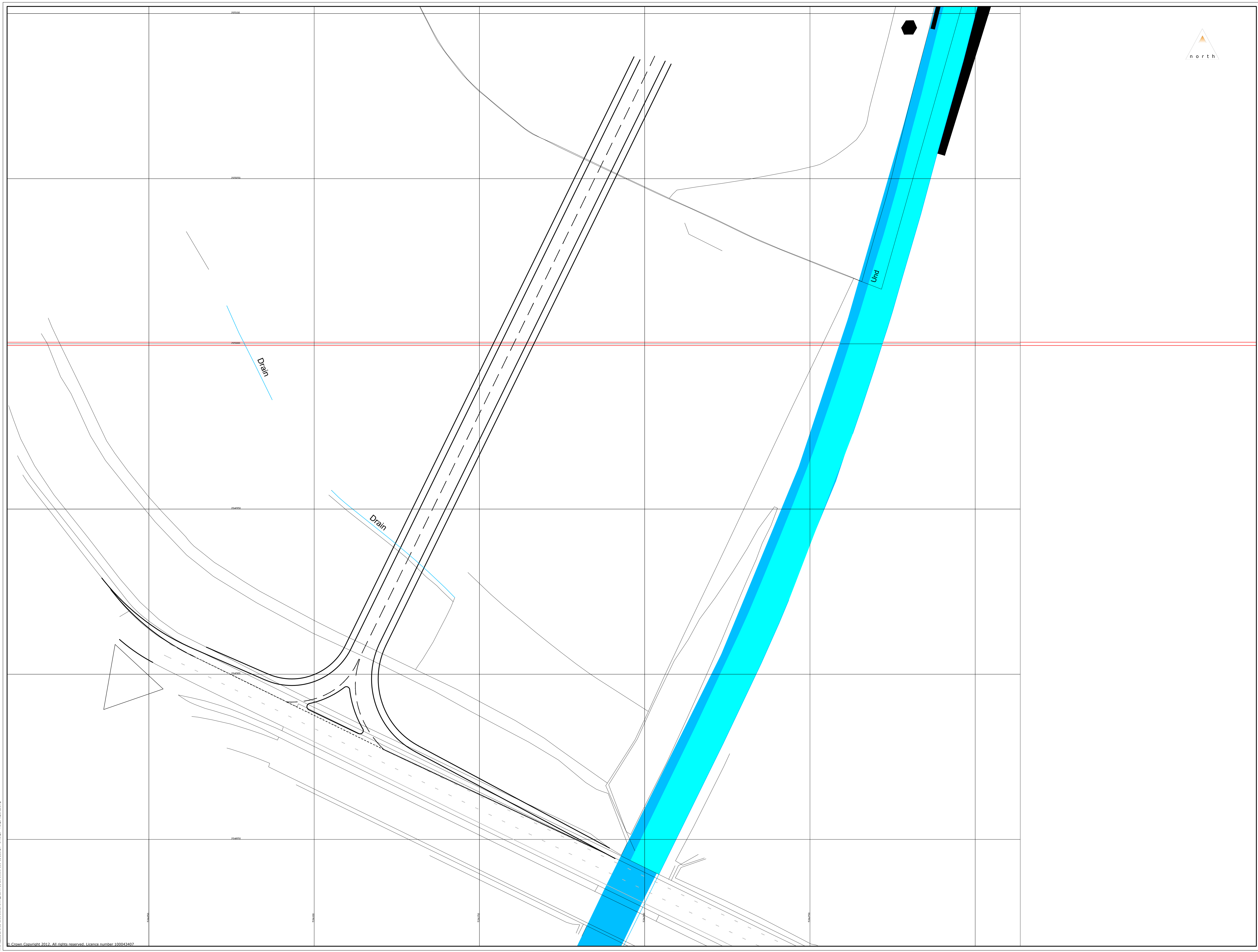
Drawn: RS Checked: Approved:

Drawing: Revision:

1909006-100-01 -

Appendix H

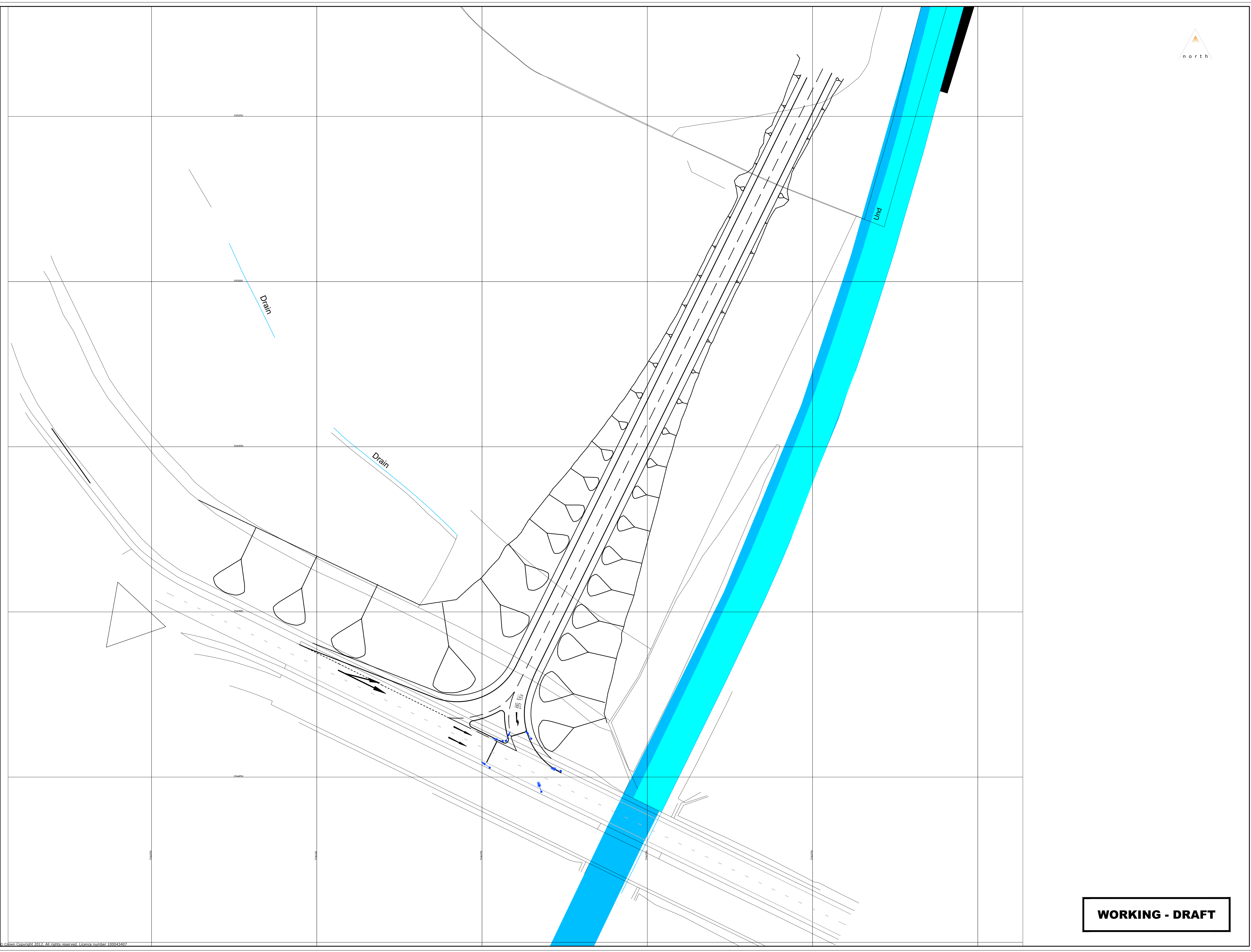
A10 Link Road Vehicular Access Option 2



Project:	Land South of Church Lane, Wormley
Title:	Proposed Site Access Arrangement (50 mph Option)
Client:	
Drawing Status:	Discussion
Scale:	1:500 (@ A1)
Date:	11.09.2019
Drawn:	RS
Checked:	
Approved:	
Revision:	
1909006-100-02 -	

Appendix I

A10 Link Road Vehicular Access Option 3



Project:	Land South of Church Lane, Wormley		
Title:	Proposed Site Access Arrangement (Signal Option)		
Client:			
Drawing Status:	Discussion	Date:	11.09.2019
Scale:	1:500 (@ A1)	Drawn:	RS
Checked:		Approved:	
Revision:		1909006-100-03	-

WORKING - DRAFT

Appendix J

A10 Link Road Vehicular Access Costings

PROJECT: Land South of Church Lane, Wormley
ITEM: 40mph option
JOB REF.: brches 1909006
DRAWING: 1909006-100-01
DATE: 23/09/2019
REVISION -



SERIES	Total
200 Site Clearance	£8,810
300 Fencing	£0
400 Safety Fences, Safety Barriers and Pedestrian Guardrails	£36,000
500 Drainage and Service Ducts	£19,897
600 Earthworks	£746,118
700 Pavements	£165,950
1100 Kerbs, Footways and Paved Areas	£10,355
1200 Traffic Signs, Road Markings and Traffic Signals	£1,499
1300 Road Lighting Columns, Brackets and CCTV Masts	£24,500
2500 Special Structures	£50,000
3000 Landscaping and Ecology	£3,000
- Traffic Management	£159,919
- Preliminaries	£106,613
- Contingency	£106,613
Total:	<u>£1,439,274</u>

ASSUMPTIONS

- 1 Basic lighting assumption
- 2 Basic drainage assumption
- 3 Assumed no utility diversions required.

PROJECT: Land South of Church Lane, Wormley
ITEM: 50mph option
JOB REF.: brches 1909006
DRAWING: 1909006-100-01
DATE: 23/09/2019
REVISION -



SERIES	Total
200 Site Clearance	£11,320
300 Fencing	£0
400 Safety Fences, Safety Barriers and Pedestrian Guardrails	£42,000
500 Drainage and Service Ducts	£21,424
600 Earthworks	£1,005,673
700 Pavements	£206,825
1100 Kerbs, Footways and Paved Areas	£12,141
1200 Traffic Signs, Road Markings and Traffic Signals	£1,499
1300 Road Lighting Columns, Brackets and CCTV Masts	£24,500
2500 Special Structures	£50,000
3000 Landscaping and Ecology	£3,500
- Traffic Management	£206,832
- Preliminaries	£137,888
- Contingency	£137,888
Total:	<u>£1,861,491</u>

ASSUMPTIONS

- 1 Basic lighting assumption
- 2 Basic drainage assumption
- 3 Assumed no utility diversions required.

PROJECT: Land South of Church Lane, Wormley
ITEM: **Signal option**
JOB REF.: brches 1909006
DRAWING: 1909006-100-01
DATE: 23/09/2019
REVISION -



SERIES	Total
200 Site Clearance	£8,810
300 Fencing	£0
400 Safety Fences, Safety Barriers and Pedestrian Guardrails	£36,000
500 Drainage and Service Ducts	£19,897
600 Earthworks	£746,118
700 Pavements	£165,950
1100 Kerbs, Footways and Paved Areas	£10,355
1200 Traffic Signs, Road Markings and Traffic Signals	£46,499
1300 Road Lighting Columns, Brackets and CCTV Masts	£24,500
2500 Special Structures	£50,000
3000 Landscaping and Ecology	£3,000
- Traffic Management	£166,669
- Preliminaries	£111,113
- Contingency	£111,113
Total:	<u>£1,500,024</u>

ASSUMPTIONS

- 1 Basic lighting assumption
- 2 Basic drainage assumption
- 3 Assumed no utility diversions required.