


Land at Vicars Close, Biddenham

Project Reference: 2006-006/TN/01

Technical Note – Access Appraisal

1 Introduction

- 1.1 Transport Planning Associates has been commissioned by  to provide transport planning consultancy services in respect of the proposed development of land off Vicars Close, Biddenham.
- 1.2 This Access Appraisal outlines the site in the context of the local highway network and identifies existing travel opportunities for pedestrians, cyclists and public transport users. A summary of the local services and facilities is provided and an indication is given of the likely traffic attraction of the proposed development. A suitable access solution is identified and proposed as part of this appraisal.
- 1.3 The appraisal is based upon a development of up to 12 residential dwellings which is being promoted as a residential allocation for inclusion in Bedford Borough Council Local Plan

Background information

- 1.4 The site will be accessed via Vicars Close, which is a private road owned by the promoter of the site, who also owns properties 12 and 12a Vicars Close, through which access will be achieved. Two planning applications has been approved by Bedford Borough Council which seek to demolish the two existing dwellings on the sites of 12/12a (application numbers 20/00065/s73 and 19/01564/FUL) and provide two replacement dwellings on the site.
- 1.5 The promoter of the site also owns land adjacent to 16 Vicars Close on which outline planning permission has been obtained for a further 2 dwellings (application number 18/01228/out).
- 1.6 Approved plans for these two developments are contained as **Appendix A**.

2 Existing Accessibility

- 2.1 This chapter of the Access Appraisal identifies the site in the context of the local transport network and outlines existing travel opportunities for pedestrians, cyclists and public transport users.

Site Location

- 2.2 The proposed site is located to the south of Vicars Close in the village of Biddenham and will be accessed through the existing demise of 12/12A Vicars Close which are also owned the promoter of the site.
- 2.3 The site is an agricultural field located to the south of Vicars Road, it is bound to the north by the residential dwellings to the south of the road and by agricultural land to the other three sides. The site location is presented in **Figure 1.1**, which also indicates the demise of 12/12a Vicars Close and the land adjacent to 16 Vicars Close.
- 2.4 The village of Biddenham is located immediately to the west of the town of Bedford, lying to the south of the A4280, which is one of the main radial corridors out of Bedford to the west.

Highways accessibility

- 2.5 The site will be accessed from Vicars Close, which is a private road of approximately 5-5.5m in width. The road is subject to a 30mph speed limit and is a residential cul-de-sac serving around 16 dwellings and is consequently lightly trafficked.
- 2.6 To its northern extent Vicars Close intersects with Main Road, which provides access to the village of Biddenham. To the west Main Road turns north and becomes Gold Lane, which runs on the western side of the village before meeting with Deep Spinney at a priority junction. To the north of this junction Deep Spinney intersects with the A4280 Bromham Road and the A6 Bedford western by-pass at a 4 arm roundabout.
- 2.7 To the east of Vicars Close, Main Road intersects with Days Lane before turning north and becoming Biddenham Turn. Both Days Lane and Biddenham Turn provide access to the A4280 Bromham Road to the north of the village.
- 2.8 The A4280 provides access to Bedford town centre to the east and to the west provides access to Milton Keynes and to the southern section of the Bedford western by-pass.

Pedestrian and cycle accessibility

- 2.9 Pedestrian access to the existing field can be obtained from the public footpath that runs along the carriageway of Vicars Close before turning to the south alongside number 16 Vicars Close.
- 2.10 No pavements are present on Vicars Close, with pedestrians able to safely walk on the carriageway due to the low volume of traffic on the road. The wide verges can also be utilised by pedestrians.
- 2.11 The road is also signed as a public footpath, which is identified on the definitive map (footpath 2 – Biddenham). This footpath runs the entire length of the road before turning south adjacent to 16 Vicars Close.
- 2.12 A footway is provided on the northern side of Main Road which is segregated from the carriageway by a wide grass verge.
- 2.13 No cycling facilities are present in the village of Biddenham, but the low volume of traffic mean that the local roads are suitable for cycling. The A4280 benefits from a shared use footway/cycleway on its northern side, which can be utilised by cyclists wishing to access Bedford by cycle.

Public Transport

- 2.14 The nearest bus stops to the site are located on Main Road approximately 100m west of the Vicars Close junction. The stop on the northern side of the road benefits from a bus shelter and timetable information. The bus stops are served by bus service 41, which provides an hourly service Monday to Saturday, with 3 services also operating on Sundays. .
- 2.15 Rail services can be access via Bedford mainline station, which is operated by Thameslink. The station provides regular train services to London, Gatwick Airport and Brighton to the south and Wellingborough and Nottingham to the north and will also provide access to the east-west rail line in future.

Local services and facilities

- 2.16 The location of the development allows access to a number of local facilities which can be accessed without the need to use the car. The village benefits from both primary and secondary schools which can be reached within easy walking and cycling distance of the site. The village also benefits from a local public house and a church as identified on the local facilities plan presented in **Figure 2.1**.

3 Proposed Site

Access

- 3.1 Vehicular access to the site will be provided by a 5.5m wide access road which will be located on the bend of Vicars Close and will pass through the plots of 12/12a. The alignment of the proposed access road in relation to the consented development on the site is presented on TPA plan 2006-006/SK01 which is contained as **Appendix B**. The access will be provide as a 5.5m shared space road, which is accordance with the design criteria for a Mews Court or Access Way for up to 25 dwellings.
- 3.2 The access plan indicates that visibility splays of 43m can be provided in either direction and required in Manual for Streets and that access can be provided to the proposed development in accordance with the design standards.
- 3.3 It is considered that a shared space access would be in keeping with the character of Vicars Close and that no additional pedestrian facilities should be added to Vicars Close to maintain the exiting feel of the road, which currently also acts as a shared space. However, if required a footway could be added alongside the access road and as the promoter of the site owns the verges on either side of Vicars Road, this could be extended along the length of the private road. If required it is considered that the footway design should also be in keeping with the character of the road in a village setting.

Trip generation

- 3.4 Trip rates for the proposed residential use were determined using TRICS Land Use 03 – Residential, sub class A – Houses privately owned. The following criteria were used to obtain a sample of sites analogous to the proposed development:
- Sites in England selected;
 - Greater London sites were omitted;
 - Weekday surveys only;
 - Surveys dating back to 2012; and
 - Development with units ranging from 6 to 30 were considered.
- 3.5 A total of 5 sites were considered comparable to the proposed development. A full copy of the TRICS report is contained in **Appendix C**.
- 3.6 A summary of the vehicle trip rates for traditional AM and PM peak periods across a 12 hour period is provided in [Table 3.1](#).

Table 3.1 Total vehicle trip rates

Travel mode	AM peak (0800 to 0900)		PM peak (1700 to 1800)		12 hour (0700 to 1900)	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Total person trip rate per dwelling	0.131	0.298	0.298	0.083	1.976	1.999

- 3.7 The trip rates presented in [Table 3.1](#) have been applied to the development schedule of 12 dwellings to provide a forecast of person trips that may be generated during each period. [Table 3.2](#) presents the forecast total person trips that may be associated with the proposed development.

Table 3.2 Total vehicle trips

Travel mode	AM peak (0800 to 0900)		PM peak (1700 to 1800)		12 hour (0700 to 1900)	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Total person trips	2	4	4	1	24	24

- 3.8 The number of trips generated would not significantly impact on traffic flows in the area, with a maximum of one vehicle every 10 minutes in the peak periods arriving and departing the site.

Modal Share

- 3.9 To determine the likely modal share of residents of the proposed allocation. Census 2011 Journey to Work data has been obtained for super output area Bedford 008 which contains the allocation site. The modal share is presented in [Table 3.3](#).

Table 3.3 Forecast Modal Share

Mode	Number	Percentage
Train	26	2.29%
Bus	21	1.85%
Motorcycle	6	0.53%
Car/Van Driver	875	77.02%
Passenger	53	4.67%
Cycle	33	2.90%
Walk	106	9.33%
Taxi	7	0.62%
Other	9	0.79%
Total	1,136	100%

- 3.10 The forecast modal share is considered to be typical of villages of this type, with 77% of trips to work made by car. However, there are a significant number of trips made by sustainable transport modes with 9.33% walking.
- 3.11 A considerable number residents in the area work from home and it is considered that this number will further increase in the future, reducing further the number of vehicle trips generated by the proposed allocation.

4 Summary and Conclusion

- 4.1 The appraisal is based upon a development of up to 12 residential dwellings which is being promoted as a residential allocation for inclusion in Bedford Borough Council Local Plan
- 4.2 The site is located off Vicars Close in the village of Biddenham. Vicars Close is a private road which is owned by the promoter of the site. The site is well located close to local facilities including bus stops and primary and secondary schools.
- 4.3 It has been demonstrated that access to the proposed site can be achieved through the demise of 12/12a Vicars Close, which are also owned by the promoter of the site. Access can be achieved without significant alterations to the proposed development on that site
- 4.4 Whilst not considered necessary, if required pedestrian improvements to Vicars Close could be made to improve the connection to the site for those on foot, these should be designed to be in keeping with the village setting.
- 4.5 This appraisal has therefore identified that there are no highways reasons why the site should not be included in the Local Plan for residential use.

Document Management

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Document Review

	Status	Author	Checker	Approver	Date
01	Draft				
-	Issue	IB	TH	IB	11/08/2020
A	Revision ^a				
B	Revision ^b				

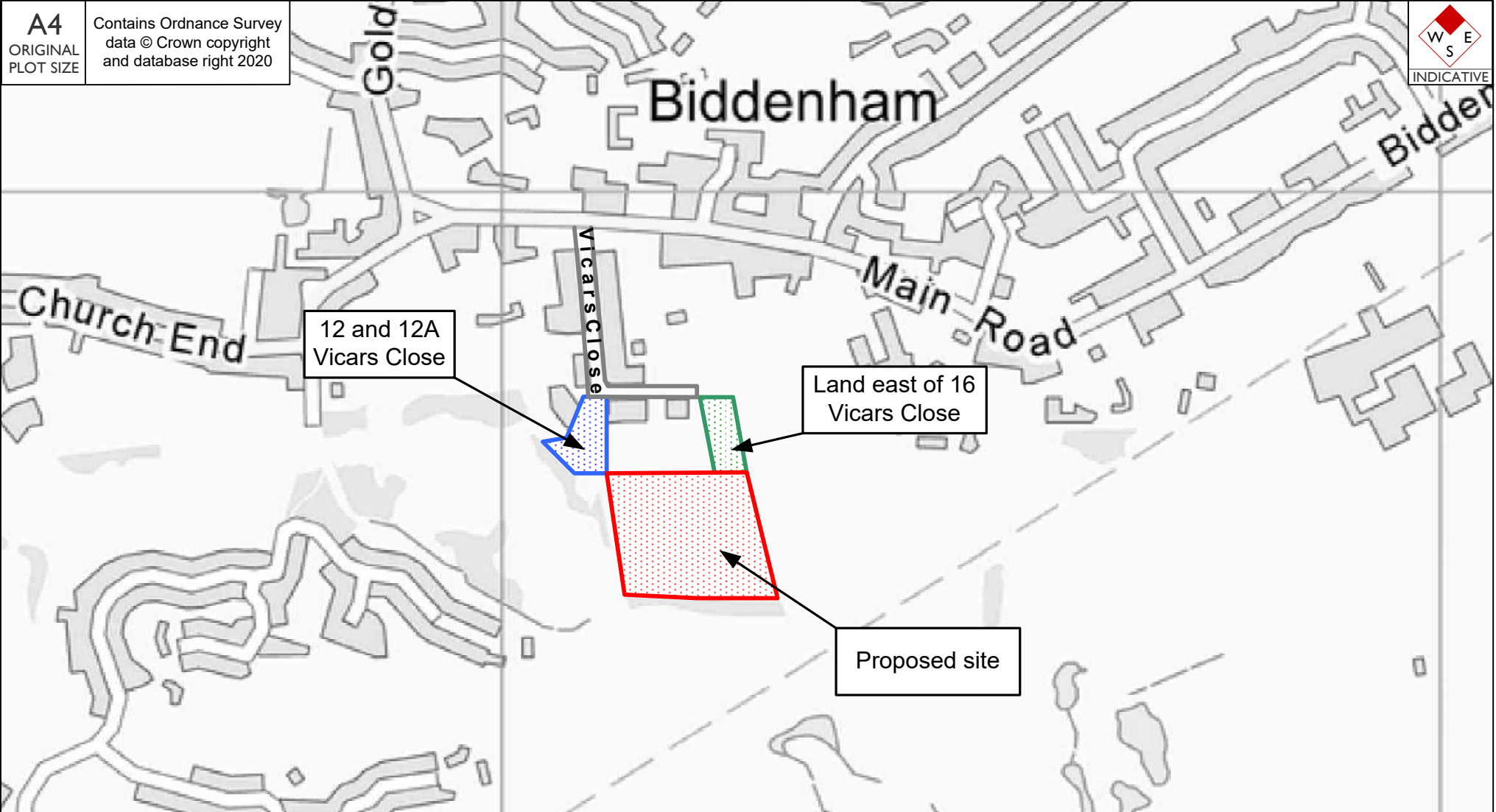
a

b

Figures

A4
ORIGINAL
PLOT SIZE

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 Manchester
 Oxford
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Vicars Close, Biddenham

Site location

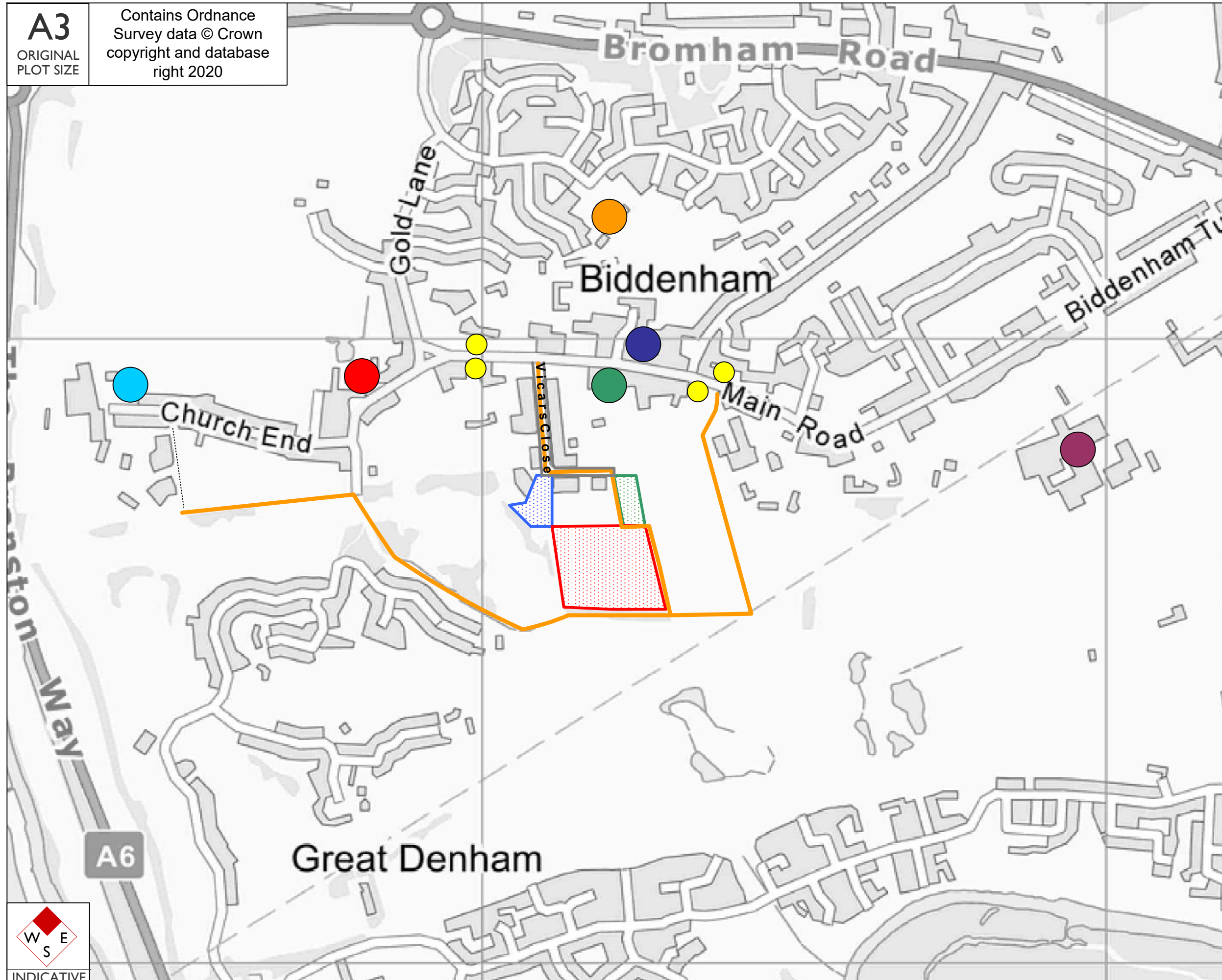
Mr I Laing

STATUS:			
INFORMATION			
SCALE:	PREPARED BY:	CHECKED BY:	APPROVED BY:
NTS	LM	IB	IB
JOB NO:	FIGURE NO:	DATE:	
2006-006	1.1	AUG '20	

A3

ORIGINAL PLOT SIZE

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- Key**
- 12 and 12A Vicars Close
 - Proposed site
 - Land east of 16 Vicars Close
 - Local footpaths
 - St James' VA Primary School
 - The Three Tuns public house
 - Local bus stops
 - The Manor Hospital
 - Biddenham Pavilion
 - Biddenham Internation School and Sports College
 - St James' Church

Rev	Date	Details	Drawn by	Checked by

Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City

The Stables
7 Chesterton Mill,
French's Road
Cambridge
CB4 3NP
01223 455385
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Vicars Close, Biddenham

Local services and facilities

STATUS:
INFORMATION

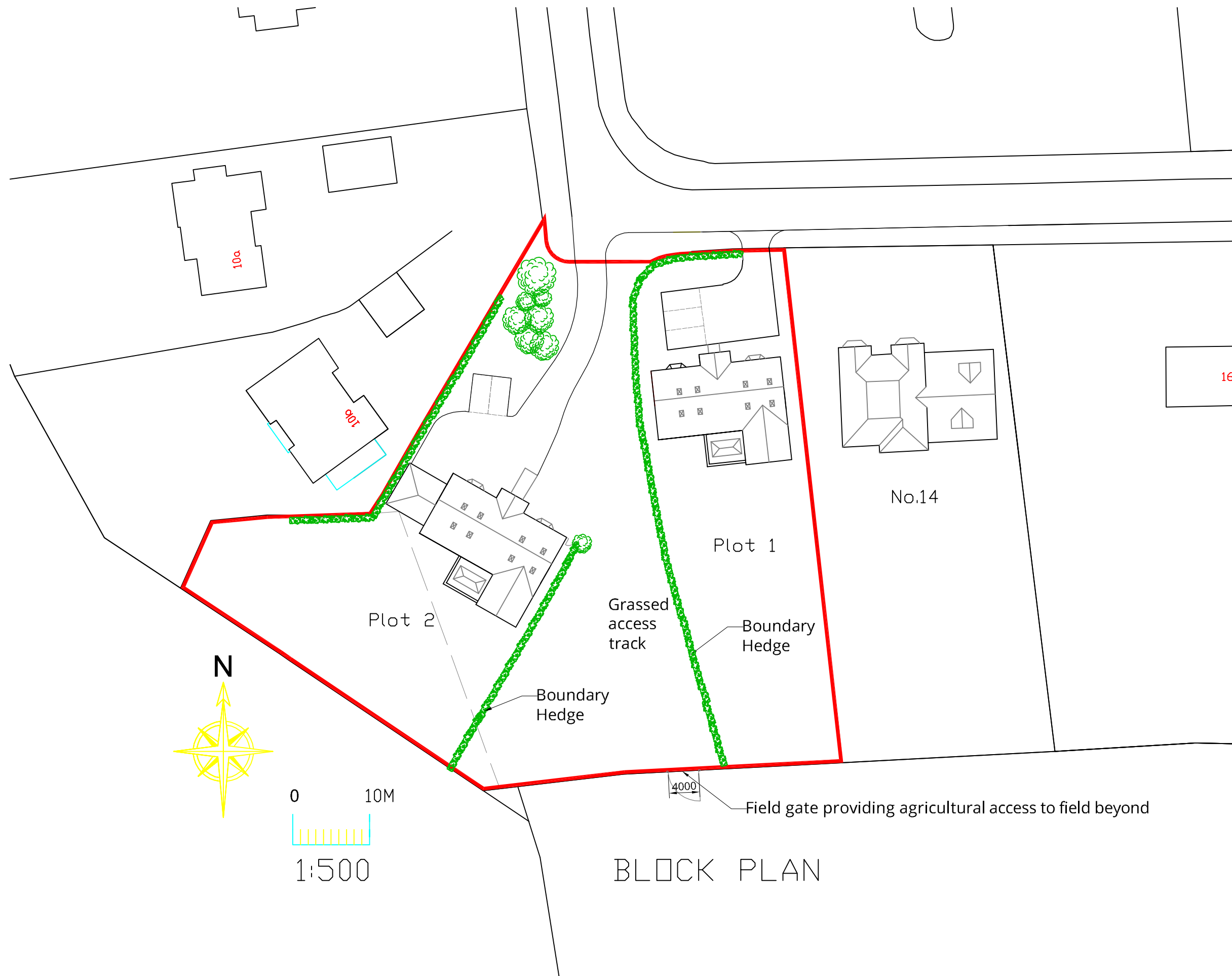
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JOB NO: 2006-006	DRAWING NO: 2.1	DATE: AUG '20	



APPENDIX A

Vicars Close, Biddenham

Site Plan



REVISIONS	DATE
A Plot 2 Parking gate and hedge amended, Plot 1 hedge realigned at entrance	05/19
B Plot 2 hedge realigned access track gate moved	05/19
C Plot 2 hedge realigned access track gate removed	05/19
D Plot 2 garage roof hipped parking repositioned planting added to boundary	08/9

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PROJECT
Vicars Close, Biddenham

TITLE
Site Plan

CLIENT
Mr I Laing

SCALE (@ A3)	DRAWN BY	DATE
1 : 500	LK	05/19

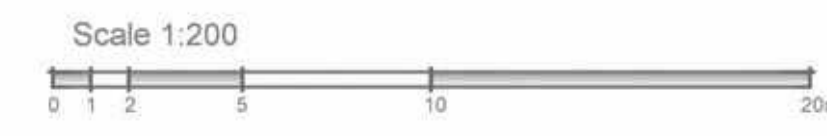
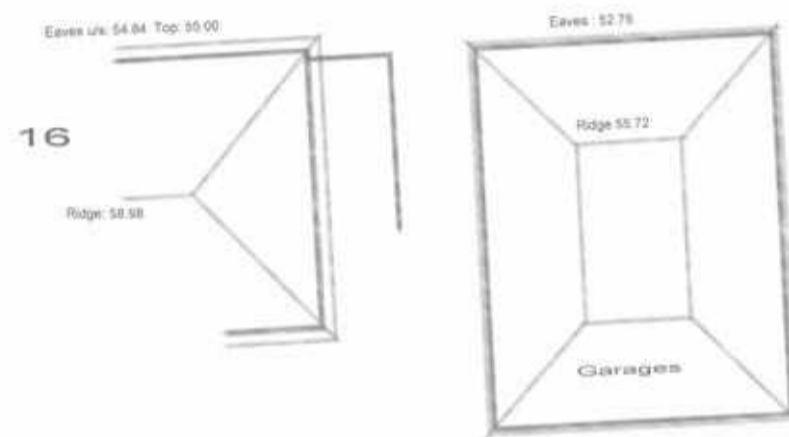
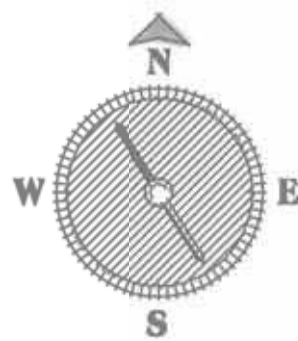
PROJECT NUMBER	DRAWING NUMBER	REV
951767	19-02	D

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BLOCK PLAN



Illustrative Site Layout and Block Plan

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Biddenham,
Bedfordshire



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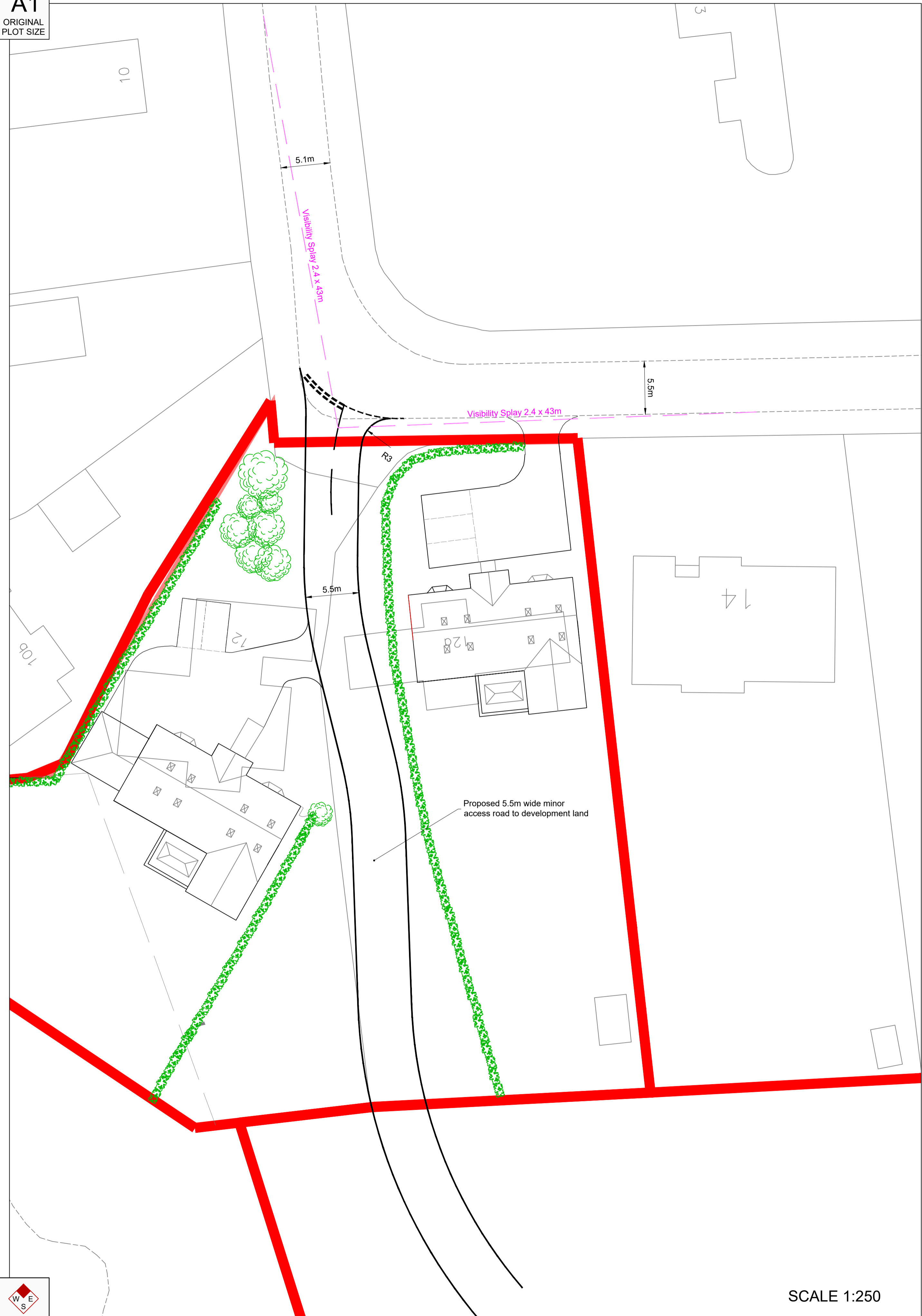
info@phillips-planning.co.uk

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Drawing Number	: 03	Date	: June 2009
Revision	: -	Drawn By	: FH

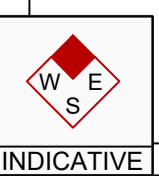
town planning & development consultants

APPENDIX B

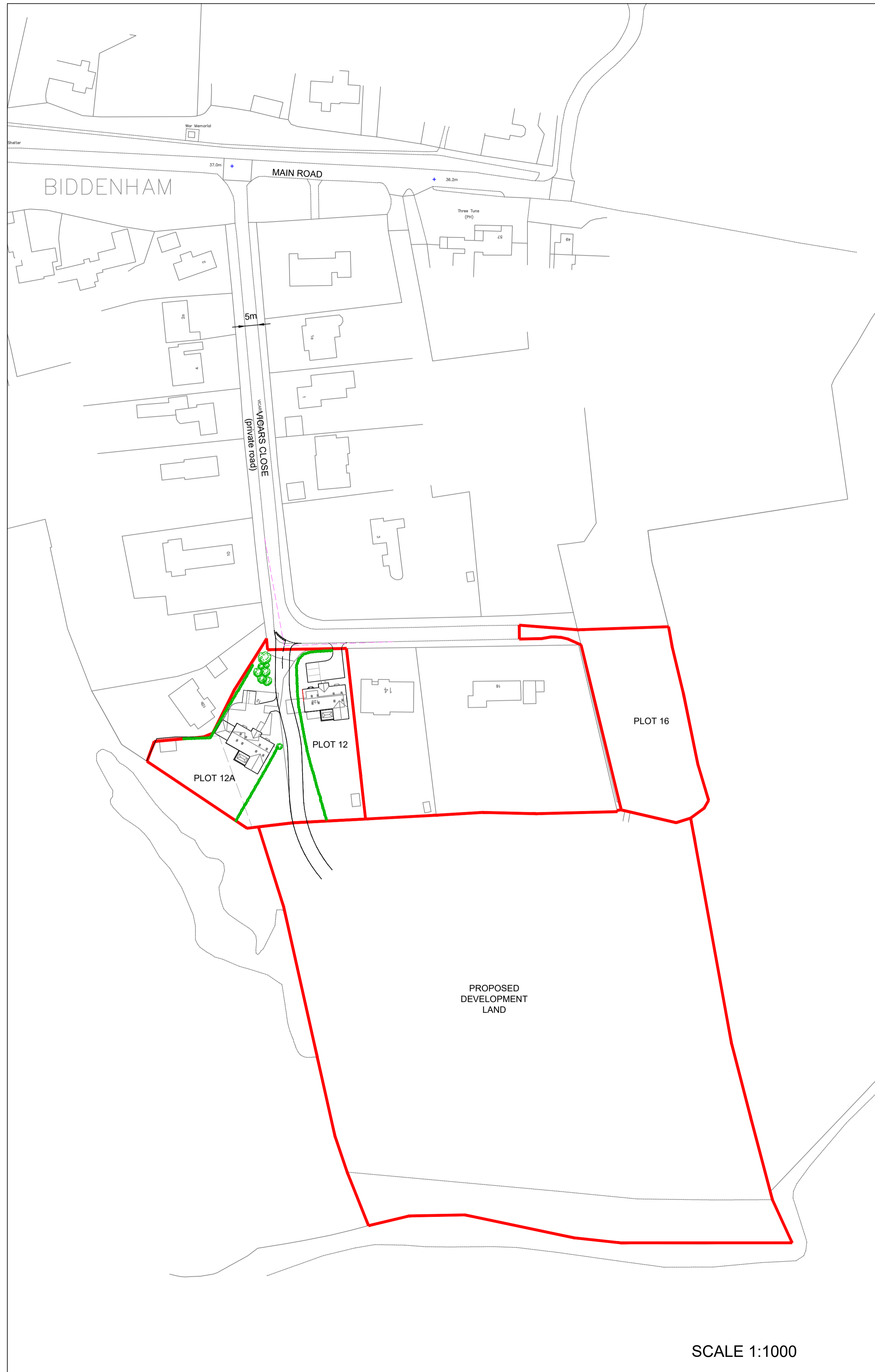
A1
ORIGINAL
PLOT SIZE



SCALE 1:250



INDICATIVE



SCALE 1:1000

Rev	Date	Drawn By	Checked By	Approved By

Bristol
Cambridge
London
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PROJECT:
**LAND AT VICARS CLOSE
BIDDENHAM**

TITLE:
**Proposed Preliminary
Access Arrangement**

STATUS:
PRELIMINARY

SCALE:	DATE:	DRAWN:	CHECKED:	APPROVED:
VARIES	04.08.20	RC	RC	IB
JOB NO:	2006-006	DRAWING NO:	SK01	REVISION:
				-

APPENDIX C

Calculation Reference: AUDIT-219603-200805-0837

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 10 to 24 (units:)
 Range Selected by User: 6 to 30 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 25/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Wednesday	3 days
Thursday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town	5
--------------	---

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	5
------------------	---

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000 1 days
 5,001 to 10,000 1 days
 10,001 to 15,000 3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000 1 days
 25,001 to 50,000 1 days
 50,001 to 75,000 1 days
 75,001 to 100,000 1 days
 250,001 to 500,000 1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0 3 days
 1.1 to 1.5 2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 5 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	NF-03-A-03 HALING WAY THETFORD	DETACHED HOUSES		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		10	
	<i>Survey date: WEDNESDAY</i>		<i>16/09/15</i>	<i>Survey Type: MANUAL</i>
2	NY-03-A-11 HORSEFAIR BOROUGHBRIDGE	PRIVATE HOUSING		NORTH YORKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		23	
	<i>Survey date: WEDNESDAY</i>		<i>18/09/13</i>	<i>Survey Type: MANUAL</i>
3	SF-03-A-05 VALE LANE BURY ST EDMUNDS	DETACHED HOUSES		SUFFOLK
	Edge of Town Residential Zone Total No of Dwellings:		18	
	<i>Survey date: WEDNESDAY</i>		<i>09/09/15</i>	<i>Survey Type: MANUAL</i>
4	SH-03-A-06 ELLESMERE ROAD SHREWSBURY	BUNGALOWS		SHROPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		16	
	<i>Survey date: THURSDAY</i>		<i>22/05/14</i>	<i>Survey Type: MANUAL</i>
5	WK-03-A-02 NARBERTH WAY COVENTRY POTTERS GREEN	BUNGALOWS		WARWICKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		17	
	<i>Survey date: THURSDAY</i>		<i>17/10/13</i>	<i>Survey Type: MANUAL</i>

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	17	0.071	5	17	0.190	5	17	0.261
08:00 - 09:00	5	17	0.131	5	17	0.298	5	17	0.429
09:00 - 10:00	5	17	0.107	5	17	0.202	5	17	0.309
10:00 - 11:00	5	17	0.214	5	17	0.143	5	17	0.357
11:00 - 12:00	5	17	0.083	5	17	0.107	5	17	0.190
12:00 - 13:00	5	17	0.143	5	17	0.131	5	17	0.274
13:00 - 14:00	5	17	0.119	5	17	0.095	5	17	0.214
14:00 - 15:00	5	17	0.131	5	17	0.167	5	17	0.298
15:00 - 16:00	5	17	0.262	5	17	0.333	5	17	0.595
16:00 - 17:00	5	17	0.179	5	17	0.107	5	17	0.286
17:00 - 18:00	5	17	0.298	5	17	0.083	5	17	0.381
18:00 - 19:00	5	17	0.238	5	17	0.143	5	17	0.381
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.976			1.999			3.975

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 10 - 24 (units:)
 Survey date range: 01/01/12 - 25/09/19
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 2
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.