PROPOSED RESIDENTIAL DEVELOPMENT

TORGATE LANE PHASE 2, BASSINGHAM, LINCOLNSHIRE

TRANSPORT STATEMENT

December 2021
jgv/21024/TS/v1

Northern Transport Planning Ltd

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TORGATE LANE PHASE 2, BASSINGHAM, LINCOLNSHIRE

Document Status – Final

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1 TRANSPORT STATEMENT

1.1 Introduction

1.1.1 Northern Transport Planning has been appointed to provide advice on the transport implications of proposed Phase 2 residential development on land south of Torgate Lane in Bassingham, Lincolnshire. This report provides a Transport Statement to support a planning application for the proposed development.

1.2 Development Site and Location

1.2.1 The proposed development site is located south of Torgate Lane on the southeastern edge of Bassingham, approximately 13.0km southwest of the centre of Lincoln and approximately 13.0km northeast of the centre of Newark-on-Trent. The geographical location of the site is identified on **Plan 01**, **Plan 02** and **Plan 03**. The site is roughly rectangular and is bounded to the north by existing dwellings off Vasey Close and to the east, south and west by agricultural land.

1.2.2 Access to the site is available from Torgate Lane via Vasey Close.

1.3 Background

1.3.1 The residential development to the north of the proposed development site (Torgate Lane Phase 1) received planning permission (Application Number: 13/0647/FUL) in September 2013 for:

"Construction of 23 affordable dwellings and associated access, landscaping, sheds, attenuation pond, pumping station compound and substation."

1.3.2 The Phase 1 development has since been completed and all dwellings are occupied.

1.4 Development Proposals

1.4.1 The proposals for development of Torgate Lane Phase 2 are shown on the site layout plan provided as **Appendix A** and comprise the construction of 23 new affordable dwellings being a mix of 1, 2 and 3 bed houses and bungalows.

1.4.2 Access to the site will be available via an extension of Vasey Close.

1.5 Scope of the Report

1.5.1 This report considers the transport planning and traffic related issues relevant to the proposals for development on the Torgate Lane site. Subsequent sections of the report deal with the following matters:

- **Section Two** considers the site's accessibility by sustainable modes of transport.
- **Section Three** deals with traffic issues.
- **Section Four** provides a summary and conclusion to the report.

2 ACCESS BY SUSTAINABLE MODES OF TRANSPORT

2.1 Introduction

2.1.1 This section of the report considers the site's accessibility by sustainable modes of transport. First, an assessment of the person trip generating potential of the proposed development site is made.

2.2 Person Trips Associated with the Proposed Development

2.2.1 The proposed development comprises 23 dwellings. The number of weekday person trips associated with this level of development has been estimated using average trip rates taken from the TRICS trip rate database (version 7.8.3). The TRICS 'Houses Privately Owned' category has been used.

2.2.2 All TRICS data is provided within **Appendix B** and the calculations are summarised in the table below:

Land Use	Daily	
	Two-Way Trip Rate	Two-Way No. Trips
23 Dwellings	8.195	188

Table 2.01: Weekday Person Trips Generated by 23 Dwellings

2.2.3 The proposed development would generate around 188 two-way person trips (i.e. arrivals plus departures) per day (by all modes of transport).

2.2.4 By using modal split data from the 2011 census (provided as **Appendix C**) for the journey to work from the Bassingham Built Up Area (removing the categories 'works mainly from or at home', 'underground and metro, etc.', 'not in employment' and 'other') the following weekday trips by mode type for the proposed development are calculated:

Mode Type	Modal Split	No. Two-way Trips
Train, metro, etc.	2.0%	4
Bus, minibus, taxi, etc.	0.7%	1
PTW	1.2%	2
Driving a car or van	83.0%	156
Passenger in a car or van	4.2%	8
Bicycle	1.5%	3
On foot	7.4%	14
Total	**100.0%**	**188**

Table 2.02: Weekday Modal Split

2.3 Accessibility on Foot

2.3.1 It is generally accepted that walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2.0km.

2.3.2 Within the site areas of shared surface would provide links on foot, connecting to Torgate Lane via Vasey Close as shown on the site layout plan.

2.3.3 Torgate Lane benefits from street lighting. A continuous footway of approximately 1.5m width is available on the north side of the road. On the south side of the road is a verge of varying width. The footway provides a link on foot to Lincoln Road and onwards to the centre of Bassingham, which is less than a 1km walk to the northwest of the site.

2.3.4 A pedestrian access to the playing fields on the north side of Torgate Lane is available immediately to the east of the junction with Vasey Close.

2.3.5 A range of leisure walking routes are available close to the site as shown on the extract from the Lincolnshire's Public Right Of Way (PROW) map provided as **Appendix D**.

2.3.6 No pedestrian crossing facilities are apparent in the vicinity of the site, however the surrounding roads are lightly trafficked and crossing these on foot is not particularly unsafe.

2.3.7 800m and 2.0km walking radii, representing approximately a 10 minute and 25 minute walking distance respectively (walking at 5kph/3mph), are identified on **Plan 04**. Having regard to the availability of pedestrian infrastructure, the alignment of links for walking and barriers to movement, a significant built-up area comprising the whole of Bassingham lies within an 800m walk from the site. A modest additional built-up area, including part of Carlton-le-Moorland, lies within a 2.0km walk from the site.

2.3.8 The distances generally considered acceptable for utility walking vary greatly according to the individual and circumstances. The Institute of Highways and Transportation (IHT) 'Guidelines for Providing for Journeys on Foot' suggest the following walking distances:

	Town Centres	Commuting / school	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1.0km	800m
Preferred maximum	800m	2.0km	1.2km

Table 2.03: IHT Guideline Walking Distances

2.3.9 A range of facilities and shops, and their approximate walking distance from the site access on Torgate Lane, are identified below:

Facilities	Walking Distance
Education Facilities	
Bassingham Primary School	400m
Health Facilities	
The Bassingham Surgery	50m
Shops	
Convenience Store with Post Office	800m
Make-up and Beauty	800m
Convenience Store	850m
Hair Dressers	900m
Food and Drink	
Pub/Restaurant	500m
Pub/Restaurant	850m
Leisure	
Community Hall	200m
Bowling, Tennis, Playing fields, Playground, etc.	200m

Table 2.04: Walking Distance to Shops and Facilities

2.3.10 A modest range of employment opportunities are available within walking distance of the site.

2.3.11 It is concluded that the site is accessible on foot.

2.4 Accessibility by Cycle

2.4.1 It is generally accepted that cycling has the potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport.

2.4.2 Suitable facilities for the storage of cycles would be provided for each dwelling in accordance with local standards.

2.4.3 A signed footway/cycleway is available on the east side of Carlton Road/Lincoln Road, approximately 300m west of the site. The roads surrounding the site are relatively lightly trafficked and suitable for use by the majority of cyclists. Furthermore, the topography of the roads in the vicinity of the site is conducive to cycling.

2.4.4 A 5.0km cycling radius, representing approximately a 15 minute cycling distance (cycling at 20kph/12mph), is identified on **Plan 05**. Having regard to the alignment of the links for cyclists and barriers to movement and the rural nature of the site, a good built-up area lies within a 5.0km cycle from the proposed development site, including the whole of Bassingham and neighbouring villages such as Carlton-le-Moorland, Witham St Hughes and Norton Disney. Within this area is a good range of shops, facilities and opportunities for employment.

2.4.5 It is concluded that the site is accessible by cycle.

2.5 Accessibility by Public Transport

2.5.1 It is recognised that for public transport to be an attractive alternative mode of transport to the private car it needs to be easily accessible on foot. Ideally, bus users should not have to walk more than 400m to their nearest bus stop and train users should not have to walk more than 800m to their nearest train station.

2.5.2 Bus stops are available on Lincoln Road within a 400m walk from the site access on Torgate Lane. The bus stops comprise simple poles with bus service information. From here, the bus services No.47 and No.49 provide a public transport link to Lincoln and Newark on Trent. The CallConnect on-demand bus service is available within Bassingham. School bus services are also available within Bassingham.

2.5.3 It is concluded that the site is accessible by public transport.

2.6 Conclusion

2.6.1 It is concluded that the proposed development site is accessible by sustainable modes of transport.

3 TRAFFIC ISSUES

3.1 Introduction

3.1.1 This section of the report considers traffic issues.

3.2 Proposed Access Arrangements

3.2.1 Vehicular access to the site would be via an extension of Vasey Close. The internal highway network would be designed and constructed in accordance with the relevant national and local standards and guidance and will be adopted by the Local Highway Authority. The access road will have a 5.5m carriageway width. The junction of Vasey Close/Torgate Lane was provided as part of the Phase 1 development with suitable dimensions which included the widening of Torgate Lane and with 2.4m x 90m visibility splays.

3.3 Car Parking Provision

3.3.1 Car parking for residents and visitors would be provided in accordance with local standards.

3.4 Access by Commercial Vehicles

3.4.1 Suitable arrangements would be provided to enable Heavy Goods Vehicles (HGVs) to enter the site, manoeuvre within it, and exit safely and satisfactorily, as shown on the site layout plan provided as **Appendix A**.

3.5 The Local Highway Network

3.5.1 The local highway network considered by this Transport Statement consists of Vasey Close, Torgate Lane and Middlegate. The local highway network can be seen on **Plan 03**.

3.5.2 Vasey Close is an adopted unclassified residential access road having a width of 5.5m. The road currently provides access to 23 affordable dwellings. The road is very lightly trafficked and is subject to a 30mph speed limit, with observed traffic speeds being lower than this limit.

3.5.3 The section of Torgate Lane between Lincoln Road and Middlegate is an adopted unclassified residential access road having a width of approximately 4.5m. The road is roughly aligned east-west and provides access to residential properties, the Bassingham Surgery, and also provides a link to Middlegate and to the section of Torgate Lane east of Middlegate. The road is lightly trafficked and is subject to a 30mph speed limit, with observed traffic speeds being around this limit.

3.5.4 The section of Torgate Lane east of Middlegate is an adopted unclassified rural access road having a width of approximately 2.5m with informal passing places. The road is roughly aligned east-west and provides access to the various farms and fields which lie east of Bassingham. The road is very lightly trafficked and is subject to the national speed limit (60mph), with observed traffic speeds being lower than this limit.

3.5.5 Middlegate is an adopted unclassified residential access road having a width of approximately 3.0m with defined passing places. The road is roughly aligned north-south and provides access to residential properties. The road is lightly trafficked and is subject to a 30mph speed limit, with observed traffic speeds being around this limit.

3.5.6 On-site observations of the operation of the local highway network have revealed no existing issues relating to highway capacity or safety – the local highway network operates satisfactorily.

3.6 Carriageway Widths

3.6.1 Manual for Streets 1 (MfS1) provides guidance on different carriageway widths and what each can readily accommodate as follows:

- 2.75m – suitable for single lane working only (passing places required).
- 4.1m – two cars can pass each other.
- 4.8m – a car can pass an HGV.
- 5.5m – two HGVs can pass each other.

3.6.2 It can be seen therefore that:

- Vasey Close – is suitable for the two-way traffic of all vehicles.
- Torgate Lane (west) – two cars can pass each other, a car can pass an HGV at informal passing places such as accesses and junctions.
- Torgate Lane (east) – suitable for single lane working only, with use of informal passing places for two-way traffic movement.
- Middlegate – suitable for single lane working only, with use of defined passing places for two-way traffic movement.

3.7 Existing Traffic Flows

3.7.1 The level of existing weekday peak period traffic using the local highway network has been determined from a manual classified traffic survey undertaken at the junction of Torgate Lane/Vasey Close between 15:00 and 17:00 hours on Thursday 4th November 2021. The traffic survey data is provided as **Appendix E**.

3.7.2 From the traffic survey data it can be seen that no HGVs, buses/coaches or motorbikes were observed during the two hour survey period. In addition to cars/LGVs, 4 cyclists were observed.

3.7.3 Between 15:00 and 16:00 hours, which includes the time when parents collect their children at the end of the school day, the following two-way traffic flows were observed:

- Torgate Lane west of Vasey Close – 24 cars/LGVs per hour.
- Torgate Lane east of Vasey Close – 18 cars/LGVs per hour.
- Vasey Close – 8 cars/LGVs per hour.

3.7.4 Between 16:00 and 17:00 hours, which is roughly the network peak hour, the following two-way traffic flows were observed:

- Torgate Lane west of Vasey Close – 35 cars/LGVs per hour.
- Torgate Lane east of Vasey Close – 25 cars/LGVs per hour.
- Vasey Close – 14 cars/LGVs per hour.

3.7.5 Using the above data and from other on-site observations the following peak hour two-way traffic flows are estimated:

- Torgate Lane east of Middlegate – 5 cars/LGVs per hour.
- Middlegate – 25 cars/LGVs per hour.

3.8 Highway Capacity

Torgate Lane west of Middlegate

3.8.1 By reference to Table 2 of TA 79/99, for the lowest standard of highway the two-way capacity is 1,250 vehicles per hour (vph), i.e. 750vph = 60%, 500vph = 40%. This capacity has an assumption of an HGV percentage of up to 15%, whereas the observed HGV percentage on Torgate Lane is 0%. On the other hand, it assumes a carriageway width of 6.1m whereas Torgate Lane (west) is around 4.5m in width. Having regard to this, an estimate is that the capacity of this section of Torgate Lane is at least 600vph, i.e. 10 vehicles per minute. This can be compared with the existing observed PM peak flow of 35vph, i.e. the highway link is currently operating well within capacity.

Torgate Lane east of Middlegate

3.8.2 To the east of Middlegate, Torgate Lane is suitable for single lane working only, with use of informal passing places for two-way traffic movement. The existing capacity of this section of Torgate Lane has been assessed using 'Figure 7/9/6: Single Track Roads Speed/Flow Relationships' of the 'NESA Manual'. The diagram suggests a road with single lane working (and passing places) can accommodate a two-way traffic flow of up to 280vph.

3.8.3 The NESA diagram is based on a 1964 study of 'Single Track Roads in the Scottish Highlands' (TRL LR71) where relationships between traffic flow and journey speed were obtained on four lengths of single track road. These roads had varying alignments and topographical conditions. For an acceptable journey speed of 20mph the capacity varied from l00vph for a length having poor alignment and sight distance to 220vph for a well aligned road.

3.8.4 The horizontal alignment of this section of Torgate Lane is relatively bendy, the vertical alignment is relatively flat, the provision of passing places is poor. Having regard to this, a conservative estimate is that the road has a capacity of 60vph, i.e. one vehicle per minute. This can be compared with the estimated peak traffic flow on the road of 5vph – it is concluded that this section of Torgate Lane is operating well within capacity.

Middlegate

3.8.5 Middlegate is suitable for single lane working only, with use of defined passing places for two-way traffic movement. The existing capacity of Middlegate has also been assessed using 'Figure 7/9/6: Single Track Roads Speed/Flow Relationships' of the 'NESA Manual'.

3.8.6 The horizontal alignment of Middlegate is straight, the vertical alignment is flat, the visibility between passing places is good. Having regard to this, a conservative estimate is that the road has a capacity of 240vph, i.e. 4 vehicles per minute. This can be compared with the estimated peak traffic flow on the road of 25vph – it is concluded that Middlegate is operating well within capacity.

3.9 Traffic Associated with Existing Development

3.9.1 The development site is currently used for agriculture and generates an insignificant level of traffic.

3.10 Committed Highways Schemes and Traffic Management Schemes

3.10.1 We are not aware of any committed highways schemes or traffic management schemes which will significantly affect traffic conditions or alter traffic flows in the vicinity of the site and need to be considered as part of this Transport Statement.

3.11 Committed Development

3.11.1 We are not aware of any committed development which will significantly affect traffic conditions or alter traffic flows in the vicinity of the site and needs to be considered as part of this Transport Statement.

3.12 Highway Safety

3.12.1 Personal Injury Accident (PIA) data provided on the 'Crashmap' website for the five year period 01/01/16 to 31/12/20 in the vicinity of the proposed development site (see **Appendix F**) reveals:

- No PIAs recorded on Torgate Lane between Lincoln Road and Middlegate.
- No PIAs recorded on Middlegate.
- A single PIA, recorded as 'slight', occurred on Torgate Lane (east) at the bend approximately 50m south of Middlegate in October 2017. The PIA involved a single vehicle and resulted in a single casualty.

3.12.2 There is nothing revealed by the data to suggest that the local highway network has any particular safety issues relating to highway design, junction design or traffic volumes that would justify restricting the grant of planning permission for the proposed development.

3.13 Traffic Generation

3.13.1 The proposed development comprises 23 dwellings. The number of weekday vehicle trips associated with this level of development has been estimated using average trip rates taken from the TRICS trip rate database (version 7.8.3). The TRICS 'Houses Privately Owned' category has been used.

3.13.2 The TRICS data is provided within **Appendix B** and the calculations are summarised in the table below:

Land Use	AM Peak		PM Peak		Daily
	Arrive	Depart	Arrive	Depart	Two-Way
Residential – Trip Rate per Dwelling	0.144	0.392	0.335	0.157	4.766
Trips associated with 23 Dwellings	**3**	**9**	**8**	**4**	**110**

Table 3.01: Weekday Vehicle Trips Generated by 23 Dwellings

3.13.3 The proposed development would generate up to 12 two-way vehicle movements per hour during the peak periods, representing one vehicle movement every 5 minutes, and 110 two-way vehicle movements per day.

3.13.4 It is not anticipated that the proposed development would generate any additional HGV movements – there will be a requirement for refuse collections but the vehicle will already be visiting Vasey Close to collect refuse from the existing dwellings.

3.14 Traffic Distribution and Assignment

3.14.1 Having regard to the traffic movements recorded by the manual classified traffic survey and other on-site observations, it is anticipated that the vast majority of traffic generated by the proposed development would travel via Torgate Lane to/from the west, with occasional trips being made via Middlegate and very few trips made via Torgate Lane (east).

3.15 Traffic Impact

3.15.1 It is generally accepted that an increase of over 30 vehicles per hour, or one vehicle every two minutes, is a useful ‘rule of thumb’ for considering materiality and triggering a requirement for a formal assessment.

3.15.2 The proposed development would generate an additional peak two-way traffic flow of up to 12vph at the Vasey Close junction with Torgate Lane. It has been demonstrated that the proposed site access arrangements are of a suitable standard and that the junction is currently lightly trafficked. There is no reason to consider that the site access arrangements will not operate safely and within capacity after opening of the proposed development.

3.15.3 Up to 12vph generated by the proposed development would travel via Torgate Lane (west), with occasional trips being made via Middlegate and very few trips made via Torgate Lane (east). It has been demonstrated that these three roads currently operate safely and within capacity. These are not material increases in traffic which justify further analysis – the impact on the local highway network as a result of the increase in traffic would be small, not severe.

3.16 Conclusion

3.16.1 It is concluded that the proposed development site is accessible by motor vehicles.

4 SUMMARY AND CONCLUSIONS

4.1 Introduction

4.1.1 Northern Transport Planning has been appointed to provide advice on the transport implications of proposed Phase 2 residential development on land south of Torgate Lane in Bassingham, Lincolnshire.

4.1.2 The proposals for development of Torgate Lane Phase 2 comprise the construction of 23 new affordable dwellings being a mix of 1, 2 and 3 bed houses and bungalows.

4.2 Accessibility

4.2.1 It has been demonstrated that the proposed development site is accessible on foot, by cycle and by using public transport.

4.3 Traffic Issues

4.3.1 Vehicular access to the site would be via an extension of Vasey Close. The internal highway network would be designed and constructed in accordance with the relevant national and local standards and guidance and will be adopted by the Local Highway Authority. The access road will have a 5.5m carriageway width. The junction of Vasey Close/Torgate Lane was provided as part of the Phase 1 development with suitable dimensions which included the widening of Torgate Lane and with 2.4m x 90m visibility splays.

4.3.2 Car parking for residents and visitors would be provided in accordance with local standards.

4.3.3 On-site observations and assessment of the operation of the local highway network has revealed no existing issues relating to highway capacity or safety – the local highway network operates satisfactorily.

4.3.4 The proposed development would generate an additional peak two-way traffic flow of up to 12vph at the Vasey Close junction with Torgate Lane. It has been demonstrated that the proposed site access arrangements are of a suitable standard and that the junction is currently lightly trafficked. There is no reason to consider that the site access arrangements will not operate safely and within capacity after opening of the proposed development.

4.3.5 Up to 12vph generated by the proposed development would travel via Torgate Lane (west), with occasional trips being made via Middlegate and very few trips made via Torgate Lane (east). It has been demonstrated that these three roads currently operate safely and within capacity. These are not material increases in traffic which justify further analysis – the impact on the local highway network as a result of the increase in traffic would be small, not severe.

4.4 National Planning Policy Framework

4.4.1 Paragraph 105 of the NPPF states:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

4.4.2 Paragraph 110 of the NPPF states:

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

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and

d) 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."

4.4.3 Paragraph 111 of the NPPF states:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

4.4.4 The following comments are relevant in relation to the above:

- Opportunities for sustainable transport – as has been demonstrated within this Transport Statement, having regard to its rural location the site is accessible by pedestrians, cyclists and public transport users.
- Safe and suitable access – safe and suitable access to the site will be available for all modes of transport.
- Impact of development – the analysis provided within this Transport Statement demonstrates that the traffic generated by the proposed development would not have a severe impact on the operation of the local highway network. Off-site mitigation measures are not necessary as the impact of trips generated by the proposed development is small.

4.5 Overall Conclusion

4.5.1 Having regard to the above it is concluded that the proposed development is satisfactory from a transport policy, traffic and highways viewpoint.

PLANS

Plan 01 - Site Location

Key:

Site Location -

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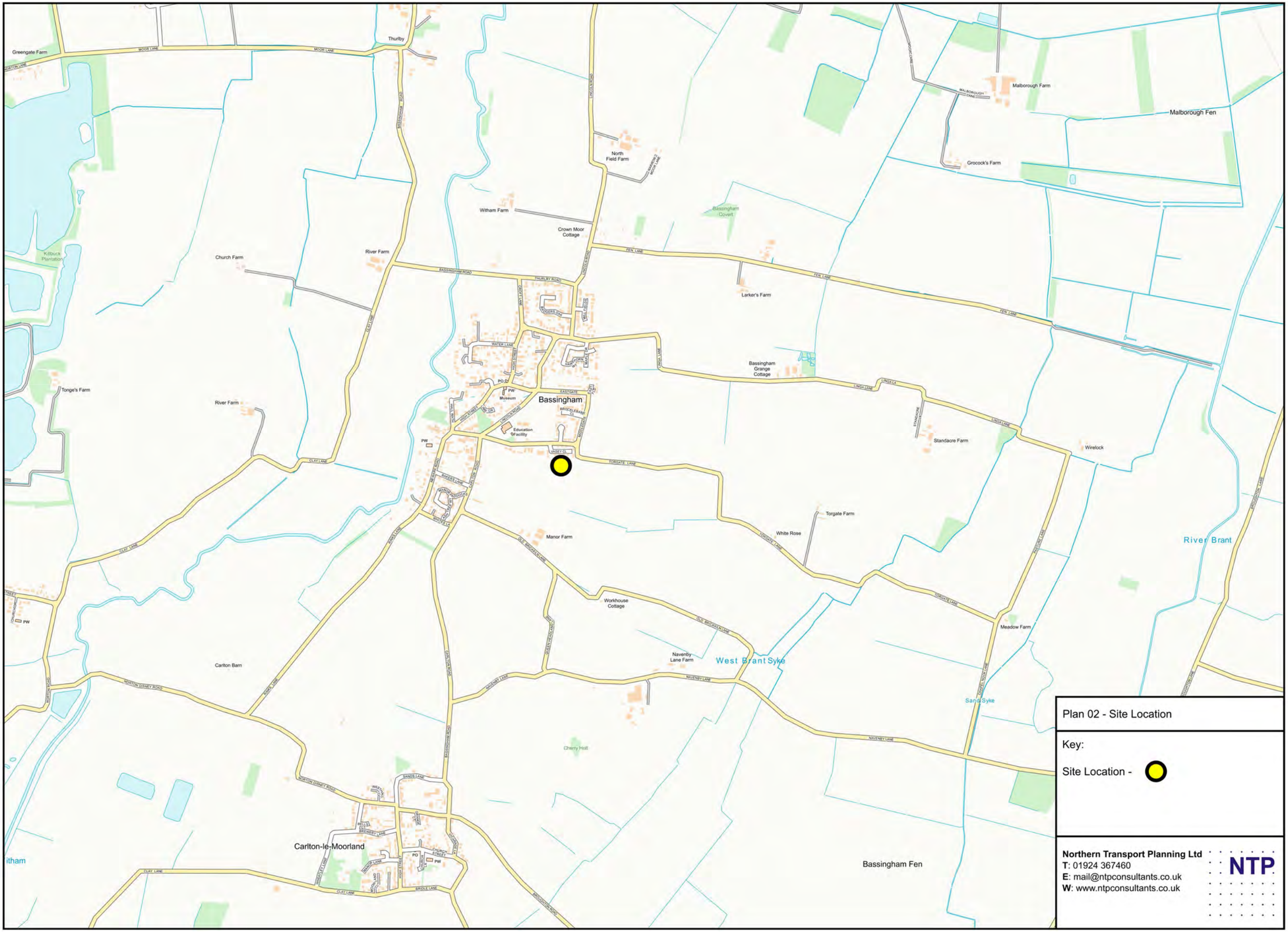
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Thurlby
Malborough Farm
Malborough Fen
Grocock's Farm
North Field Farm
Witham Farm
Crown Moor Cottage
Bassingham Covert
Kilbuck Plantation
Church Farm
River Farm
BASSINGHAM ROAD
THURLBY ROAD
LINCOLN ROAD
FEN LANE
Larker's Farm
CLAY LANE
Tonge's Farm
Bassingham
EASTGATE
HIGH STREET
WATER LANE
Museum
Education Facility
Bassingham Grange Cottage
LINGA LA
Standacre Farm
Wirelock
TORGATE LANE
Torgate Farm
White Rose
Manor Farm
River Brant
Workhouse Cottage
Meadow Farm
Navenby Lane Farm
West Brant Syke
NAVENBY LANE
Sand Syke
Carlton Barn
NORTON DISNEY ROAD
Carlton-le-Moorland
Cherry Holt
Bassingham Fen
Plan 02 - Site Location
Key:
Site Location -
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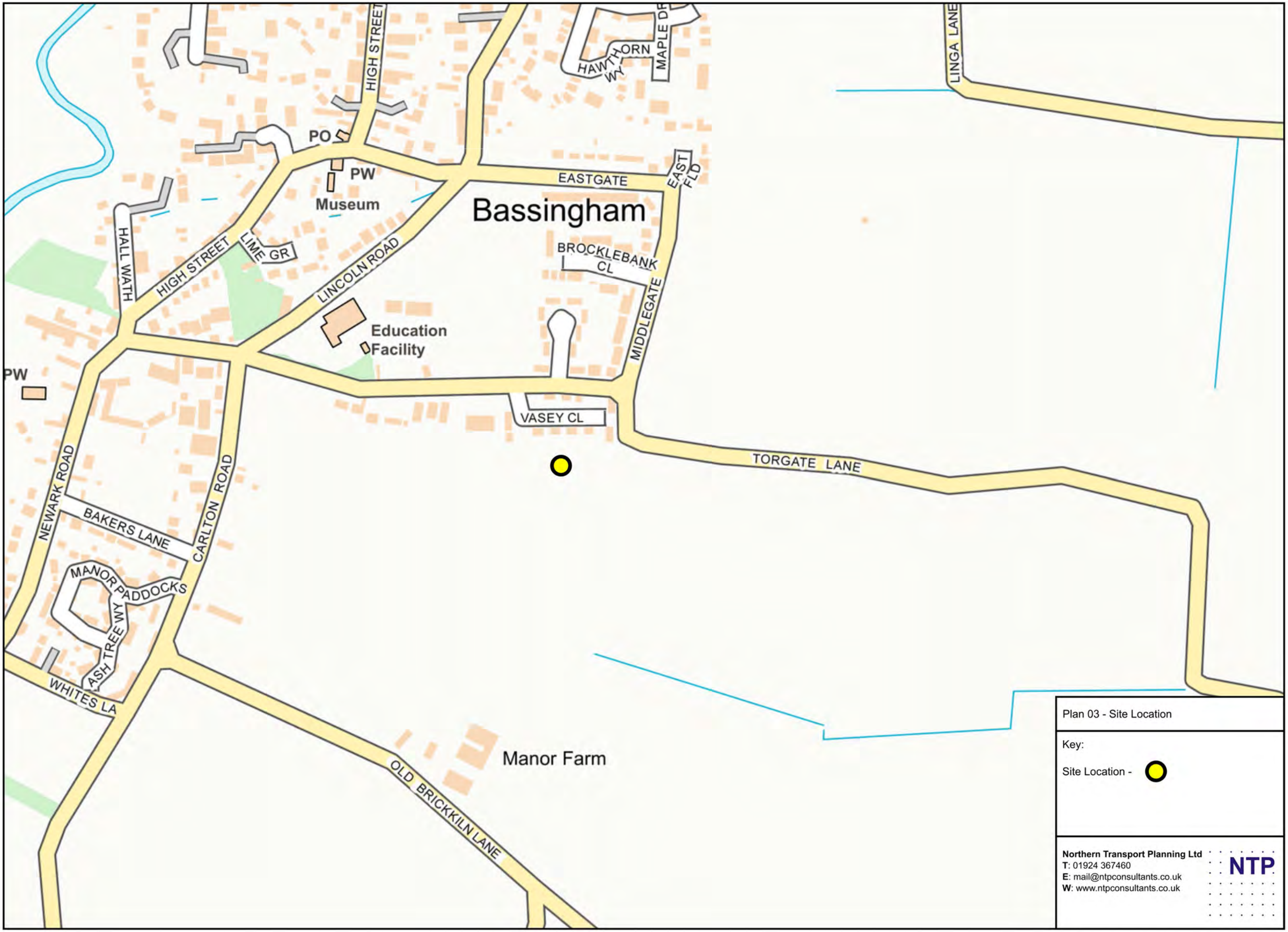
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HAWTHORN
MAPLE DR
LINGA LANE
PO
PW
Museum
EASTGATE
EAST FLD
Bassingham
HALL WATH
HIGH STREET
LIME GR
LINCOLN ROAD
BROCKLEBANK CL
MIDDLEGATE
Education Facility
PW
VASEY CL
TORGATE LANE
NEWARK ROAD
BAKERS LANE
CARLTON ROAD
MANOR PADDOCKS
ASH TREE WY
WHITES LA
Manor Farm
OLD BRICKKILN LANE
Plan 03 - Site Location
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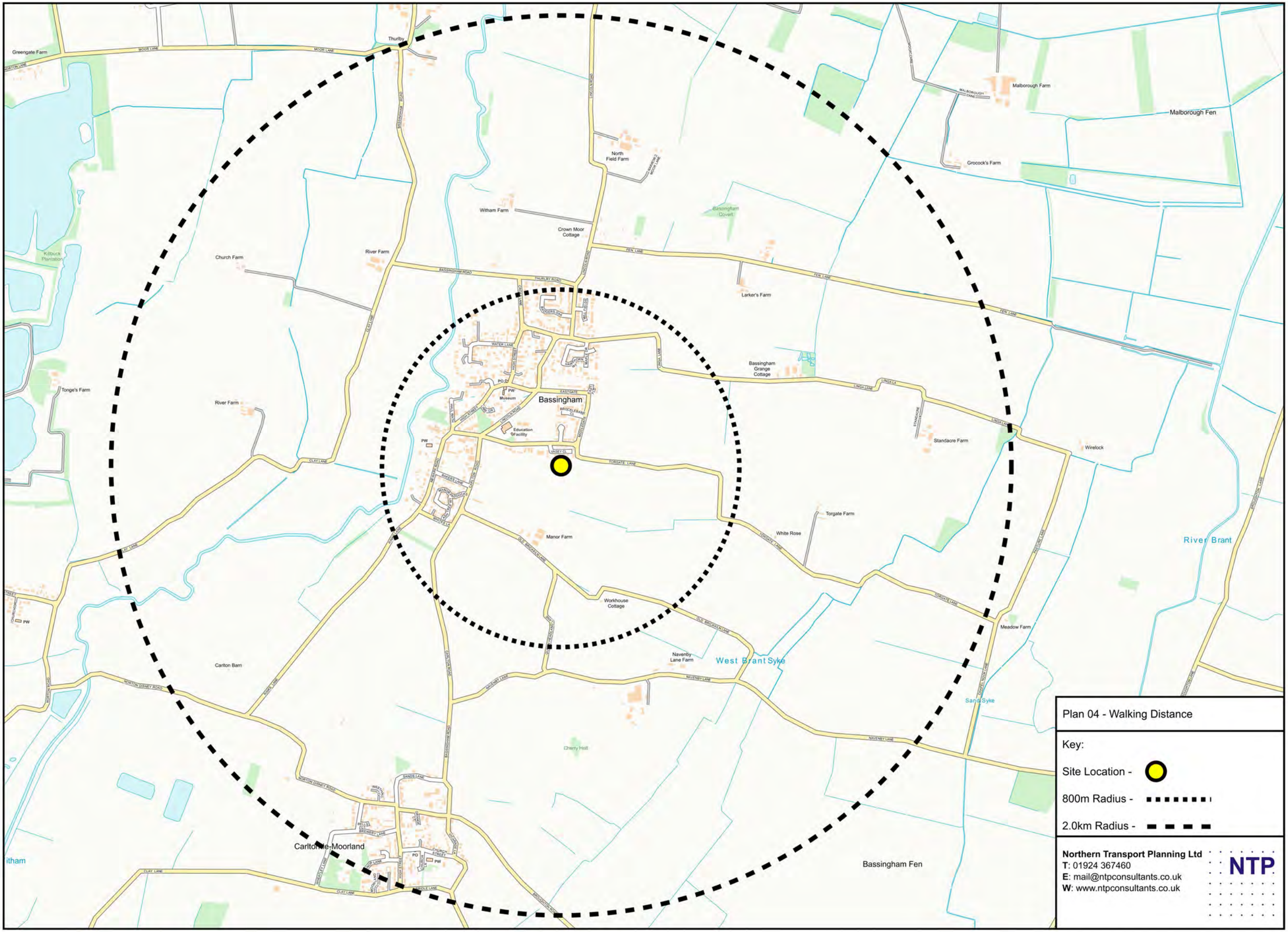

Plan 04 - Walking Distance

Key:

Site Location -

800m Radius -

2.0km Radius -

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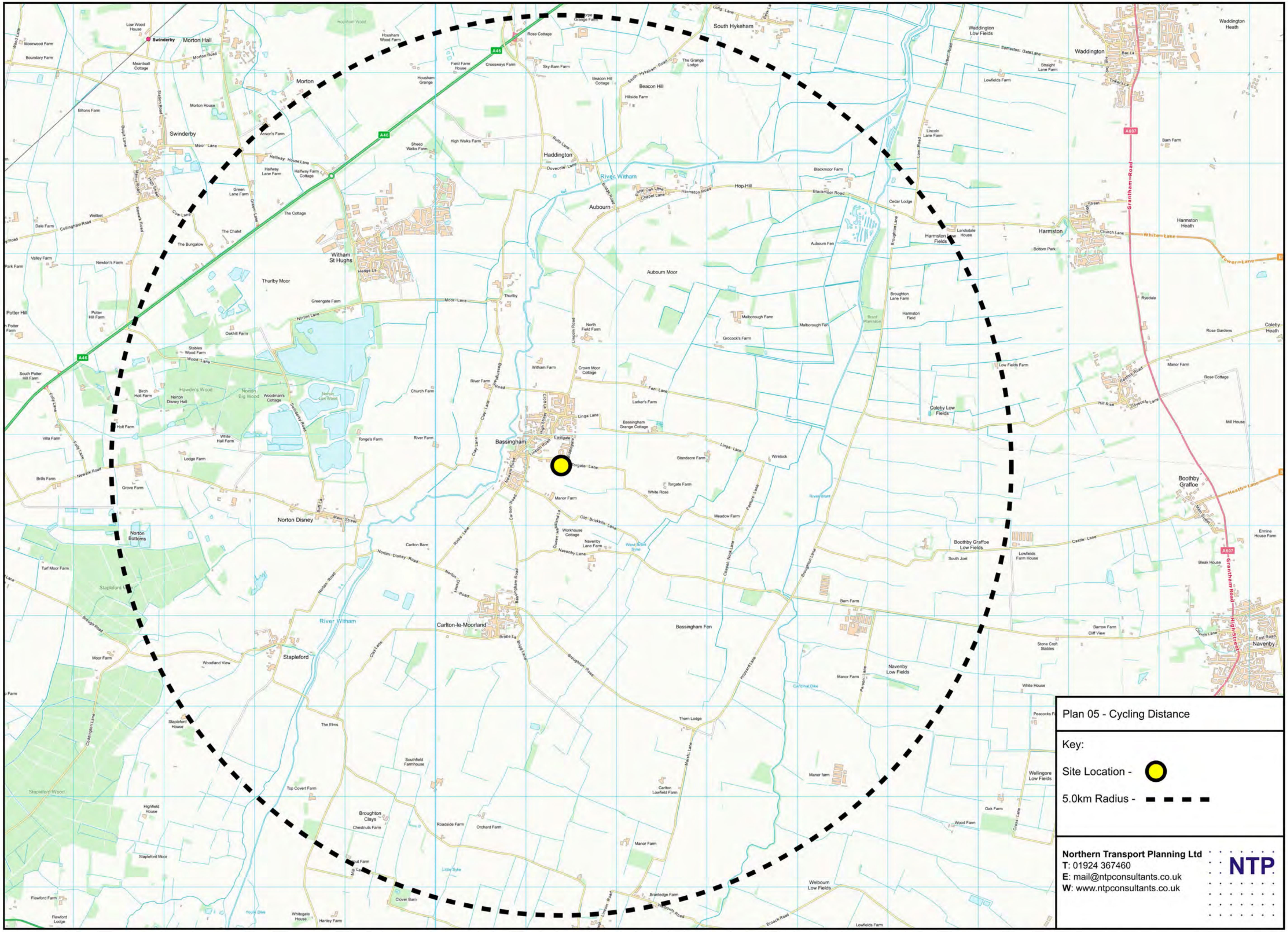
Plan 05 - Cycling Distance
Key:
Site Location -
5.0km Radius -
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NTP
Swinderby
Morton Hall
Morton
Swinderby
Low Wood House
Moorwood Farm
Boundary Farm
Meardsall Cottage
Morton Road
Biltons Farm
Morton House
Station Road
Bulpit Lane
Moor Lane
Anson's Farm
Halfway House Lane
Halfway Lane Farm
Halfway Farm Cottage
Green Lane Farm
Green Lane
Manor Road
High Street
Newark Road
Cow Lane
Wellbet
Dale Farm
Collingham Road
The Chalet
The Bungalow
The Cottage
Valley Farm
Newton's Farm
Park Farm
Witham St Hughs
Hedge La
Thurlby Moor
Greengate Farm
Norton Lane
Potter Hill
Potter Hill Farm
Oakhill Farm
Stables Wood Farm
Wood Lane
South Potter Hill Farm
Folly Lane
Birch Holt Farm
Hawdin's Wood
Norton Disney Hall
Norton Big Wood
Woodman's Cottage
Norton Low Wood
Swinderby Road
Holt Farm
Villa Farm
White Hall Farm
Tonge's Farm
River Farm
Church Farm
Lodge Farm
Brills Farm
Grove Farm
Norton Disney
Butt La
Main Street
Norton Bottoms
Turf Moor Farm
Stapleford Moor
Brough Road
Moor Farm
Woodland View
Stapleford
River Witham
Norton Road
Clay Lane
The Elms
Stapleford House
Coddington Lane
Stapleford Wood
Top Covert Farm
Southfield Farmhouse
Highfield House
Broughton Clays
Chestnuts Farm
Stapleford Moor
Clover Barn
Flawford Farm
Flawford Lodge
Youle Dike
Whitegate House
Hanley Farm
Housham Wood Farm
Housham Grange
Sheep Walks Farm
A46
Field Farm House
Crossways Farm
Rose Cottage
Sky-Barn Farm
Grange Farm
High Walks Farm
Haddington
Butts Lane
Dovecote Lane
Beacon Hill Cottage
South Hykeham Road
Beacon Hill
Hillside Farm
The Grange Lodge
South Hykeham
Long Lane
River Witham
Bridge Road
Aubourn
Royal Oak Lane
Chapel Lane
Harmston Road
Hop Hill
Blackmoor Farm
Blackmoor Road
Aubourn Fen
Aubourn Moor
Thurlby
Moor Lane
Lincoln Road
North Field Farm
Malborough Farm
Malborough Fen
Grocock's Farm
Brant Plantation
Witham Farm
Crown Moor Cottage
River Farm
Bassingham Road
Fen Lane
Larker's Farm
Croft La
Linga Lane
Bassingham Grange Cottage
Bassingham
High Street
Eastgate
Lincoln Road
Middlegate
Torgate Lane
Standacre Farm
Wirelock
Torgate Farm
White Rose
Manor Farm
Newark Road
Carlton Road
Pasture Lane
River Brant
Meadow Farm
Old Brickkiln Lane
Queen Headland La
Workhouse Cottage
Navenby Lane Farm
West Brant Syke
Navenby Lane
Chapel Nook Lane
Rinks Lane
Carlton Barn
Norton Disney Road
Broughton Lane
Barn Farm
Carlton-le-Moorland
Bridle La
Brigg Lane
Bassingham Fen
Broughton Road
Hopyard Lane
Manor Farm
Parson Lane
Cardinal Dike
Thorn Lodge
Marsh Lane
Carlton Lowfield Farm
Manor farm
Roadside Farm
Orchard Farm
Manor Farm
Little Syke
Brantedge Farm
Lincoln Road
Welbourn Road
Broach Road
Welbourn Low Fields
Lowfields Farm
Waddington Low Fields
Somerton Gate Lane
Brant Road
Straight Lane Farm
Lowfields Farm
Waddington
Bar La
Hill Top
Tinkers La
Waddington Heath
A607
Lincoln Lane Farm
Low Road
Barn Farm
Grantham Road
Cedar Lodge
Broughton Lane
Harmston Low Fields
Landsdale House
Harmston
Church Lane
White Lane
Tower Lane
Bottom Park
Harmston Heath
Broughton Lane Farm
Harmston Field
Ryedale
Rose Gardens
Coleby Heath
Low Fields Farm
Manor Farm
Rectory Road
Rose Cottage
Hill Rise
Dovecote Lane
Coleby Low Fields
Mill House
Boothby Graffoe
Heath Lane
Main Street
Boothby Graffoe Low Fields
South Joel
Castle Lane
Lowfields Farm House
Ermine House Farm
Bleak House
Barrow Farm
Cliff View
Stone Croft Stables
Church Lane
East Road
Navenby
High Street
Navenby Low Fields
White House
Peacocks Farm
Wellingore Low Fields
Oak Farm
Wood Farm
Cross Lane

APPENDIX A

Rev	Description	Date

Schedule of Accommodation

Affordable

Type	Bedrooms	Storeys	Size (m²)	No.
A - 2b4p	2	2	68.4	6
B - 3b5p	3	2	81.9	4
C - 2b4p M4(2)	2	2	77.2	7
D - 3b5p M4(2)	3	2	87.6	0
Bung.A-1b2p	1	1	43.8	4
Bung.B-2b3p	2	1	53	2

Total	**23**
Site Area	1.81 Acres
Density	31 Units / Hectare
Parking spaces	46 (2 per plot)

(R) Rented Unit

1800mm Timber Fence

Timber Knee Rail

1800/1000mm Service Strip

Proposed Landscaping Buffer

Lindum Business Park, Station Road
North Hykeham, Lincoln, LN6 3QX
Tel: 01522 500300
E-mail: design@lindumgroup.co.uk
Web: www.lindumgroup.co.uk

Client
Lindum Developments

Project
Torgate Lane Ph2
Bassingham, Lincolnshire

Drawing
Proposed Site Plan
Option C

Scale
1.250@A1/1.500@A3

Drawn by	Checked by
HB	SJP

Drawing Number	Revision
JV-181-04	

APPENDIX B

Northern Transport Planning Suite 7, Vincent House, 136 Westgate WAKEFIELD, WF2 9SR Licence No: 640801

Calculation Reference: AUDIT-640801-211116-1109

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	3 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	DC	DORSET	1 days
	DV	DEVON	2 days
	SM	SOMERSET	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	2 days
	SF	SUFFOLK	2 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
	WK	WARWICKSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	4 days
	SY	SOUTH YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	3 days
	MS	MERSEYSIDE	1 days
09	NORTH		
	DH	DURHAM	2 days
	TW	TYNE & WEAR	1 days
10	WALES		
	PS	POWYS	1 days
11	SCOTLAND		
	FA	FALKIRK	1 days
	HI	HIGHLAND	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: 15 to 99 (units:)
Range Selected by User: 15 to 100 (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: 01/01/13 to 27/05/21

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:

Monday	8 days
Tuesday	5 days
Wednesday	9 days
Thursday	11 days
Friday	3 days

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

Selected survey types:

Manual count	36 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	17
Edge of Town	19

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	35
No Sub Category	1

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	36 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 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	12 days
10,001 to 15,000	7 days
15,001 to 20,000	7 days
20,001 to 25,000	2 days
25,001 to 50,000	5 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	4 days
25,001 to 50,000	3 days
50,001 to 75,000	5 days
75,001 to 100,000	8 days
100,001 to 125,000	1 days
125,001 to 250,000	9 days
250,001 to 500,000	6 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	7 days
1.1 to 1.5	29 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:

Yes	9 days
No	27 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	36 days

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

LIST OF SITES relevant to selection parameters

1 CA-03-A-05 DETACHED HOUSES CAMBRIDGESHIRE
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

2 CH-03-A-09 TERRACED HOUSES CHESHIRE
GREYSTOKE ROAD
MACCLESFIELD
HURDSFIELD
Edge of Town
Residential Zone
Total No of Dwellings: 24
Survey date: MONDAY *24/11/14* *Survey Type: MANUAL*

3 CH-03-A-10 SEMI-DETACHED & TERRACED CHESHIRE
MEADOW DRIVE
NORTHWICH
BARNTON
Edge of Town
Residential Zone
Total No of Dwellings: 40
Survey date: TUESDAY *04/06/19* *Survey Type: MANUAL*

4 CH-03-A-11 TOWN HOUSES CHESHIRE
LONDON ROAD
NORTHWICH
LEFTWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 24
Survey date: THURSDAY *06/06/19* *Survey Type: MANUAL*

5 DC-03-A-08 BUNGALOWS DORSET
HURSTDENE ROAD
BOURNEMOUTH
CASTLE LANE WEST
Edge of Town
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY *24/03/14* *Survey Type: MANUAL*

6 DH-03-A-01 SEMI DETACHED DURHAM
GREENFIELDS ROAD
BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

7 DH-03-A-03 SEMI-DETACHED & TERRACED DURHAM
PILGRIMS WAY
DURHAM

Edge of Town
Residential Zone
Total No of Dwellings: 57
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

8 DV-03-A-01 TERRACED HOUSES DEVON
BRONSHILL ROAD
TORQUAY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 37
Survey date: WEDNESDAY *30/09/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 DV-03-A-03 TERRACED & SEMI DETACHED DEVON
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 70
Survey date: MONDAY 28/09/15 Survey Type: MANUAL

10 ES-03-A-05 MIXED HOUSES & FLATS EAST SUSSEX
RATTLE ROAD
NEAR EASTBOURNE
STONE CROSS
Edge of Town
Residential Zone
Total No of Dwellings: 99
Survey date: WEDNESDAY 05/06/19 Survey Type: MANUAL

11 FA-03-A-01 SEMI-DETACHED/TERRACED FALKIRK
MANDELA AVENUE
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 37
Survey date: THURSDAY 30/05/13 Survey Type: MANUAL

12 HC-03-A-21 TERRACED & SEMI-DETACHED HAMPSHIRE
PRIESTLEY ROAD
BASINGSTOKE
HOUNDMILLS
Edge of Town
Residential Zone
Total No of Dwellings: 39
Survey date: TUESDAY 13/11/18 Survey Type: MANUAL

13 HC-03-A-22 MIXED HOUSES HAMPSHIRE
BOW LAKE GARDENS
NEAR EASTLEIGH
BISHOPSTOKE
Edge of Town
Residential Zone
Total No of Dwellings: 40
Survey date: WEDNESDAY 31/10/18 Survey Type: MANUAL

14 HC-03-A-23 HOUSES & FLATS HAMPSHIRE
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 62
Survey date: TUESDAY 19/11/19 Survey Type: MANUAL

15 HI-03-A-14 SEMI-DETACHED & TERRACED HIGHLAND
KING BRUDE ROAD
INVERNESS
SCORGUIE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 40
Survey date: WEDNESDAY 23/03/16 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

16 KC-03-A-03 MIXED HOUSES & FLATS KENT
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

17 MS-03-A-03 DETACHED MERSEYSIDE
BEMPTON ROAD
LIVERPOOL
OTTERSPOOL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 15
Survey date: FRIDAY *21/06/13* *Survey Type: MANUAL*

18 NF-03-A-04 MIXED HOUSES NORFOLK
NORTH WALSHAM ROAD
NORTH WALSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 70
Survey date: WEDNESDAY *18/09/19* *Survey Type: MANUAL*

19 NF-03-A-05 MIXED HOUSES NORFOLK
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total No of Dwellings: 40
Survey date: THURSDAY *19/09/19* *Survey Type: MANUAL*

20 NY-03-A-08 TERRACED HOUSES NORTH YORKSHIRE
NICHOLAS STREET
YORK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 21
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

21 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE
NORTHALLERTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 52
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

22 NY-03-A-10 HOUSES AND FLATS NORTH YORKSHIRE
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total No of Dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

23 NY-03-A-11 PRIVATE HOUSING NORTH YORKSHIRE
HORSEFAIR
BOROUGHBRIDGE

Edge of Town
Residential Zone
Total No of Dwellings: 23
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

24 PS-03-A-02 DETACHED/SEMI-DETACHED POWYS
GUNROG ROAD
WELSHPOOL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: MONDAY *11/05/15* *Survey Type: MANUAL*

25 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total No of Dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

26 SF-03-A-05 DETACHED HOUSES SUFFOLK
VALE LANE
BURY ST EDMUNDS

Edge of Town
Residential Zone
Total No of Dwellings: 18
Survey date: WEDNESDAY *09/09/15* *Survey Type: MANUAL*

27 SF-03-A-07 MIXED HOUSES SUFFOLK
FOXHALL ROAD
IPSWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 73
Survey date: THURSDAY *09/05/19* *Survey Type: MANUAL*

28 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total No of Dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

29 SH-03-A-06 BUNGALOWS SHROPSHIRE
ELLESMERE ROAD
SHREWSBURY

Edge of Town
Residential Zone
Total No of Dwellings: 16
Survey date: THURSDAY *22/05/14* *Survey Type: MANUAL*

30 SM-03-A-01 DETACHED & SEMI SOMERSET
WEMBDON ROAD
BRIDGWATER
NORTHFIELD
Edge of Town
Residential Zone
Total No of Dwellings: 33
Survey date: THURSDAY *24/09/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

31	SY-03-A-01	SEMI DETACHED HOUSES		SOUTH YORKSHIRE
	A19 BENTLEY ROAD			
	DONCASTER			
	BENTLEY RISE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:		54	
	Survey date: WEDNESDAY		*18/09/13*	*Survey Type: MANUAL*
32	TW-03-A-02	SEMI-DETACHED		TYNE & WEAR
	WEST PARK ROAD			
	GATESHEAD			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:		16	
	Survey date: MONDAY		*07/10/13*	*Survey Type: MANUAL*
33	WK-03-A-02	BUNGALOWS		WARWICKSHIRE
	NARBERTH WAY			
	COVENTRY			
	POTTERS GREEN			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		17	
	Survey date: THURSDAY		*17/10/13*	*Survey Type: MANUAL*
34	WK-03-A-04	DETACHED HOUSES		WARWICKSHIRE
	DALEHOUSE LANE			
	KENILWORTH			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		49	
	Survey date: FRIDAY		*27/09/19*	*Survey Type: MANUAL*
35	WL-03-A-02	SEMI DETACHED		WILTSHIRE
	HEADLANDS GROVE			
	SWINDON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:		27	
	Survey date: THURSDAY		*22/09/16*	*Survey Type: MANUAL*
36	WS-03-A-10	MIXED HOUSES		WEST SUSSEX
	TODDINGTON LANE			
	LITTLEHAMPTON			
	WICK			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		79	
	Survey date: WEDNESDAY		*07/11/18*	*Survey Type: MANUAL*

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
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	36	43	0.077	36	43	0.309	36	43	0.386
08:00 - 09:00	**36**	**43**	**0.144**	**36**	**43**	**0.392**	**36**	**43**	**0.536**
09:00 - 10:00	36	43	0.161	36	43	0.188	36	43	0.349
10:00 - 11:00	36	43	0.138	36	43	0.171	36	43	0.309
11:00 - 12:00	36	43	0.155	36	43	0.175	36	43	0.330
12:00 - 13:00	36	43	0.173	36	43	0.164	36	43	0.337
13:00 - 14:00	36	43	0.176	36	43	0.174	36	43	0.350
14:00 - 15:00	36	43	0.158	36	43	0.191	36	43	0.349
15:00 - 16:00	36	43	0.274	36	43	0.194	36	43	0.468
16:00 - 17:00	36	43	0.291	36	43	0.161	36	43	0.452
17:00 - 18:00	**36**	**43**	**0.335**	**36**	**43**	**0.157**	**36**	**43**	**0.492**
18:00 - 19:00	36	43	0.261	36	43	0.147	36	43	0.408
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.343			2.423			4.766

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.*

Parameter summary

Trip rate parameter range selected:	15 - 99 (units:)
Survey date date range:	01/01/13 - 27/05/21
Number of weekdays (Monday-Friday):	36
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	36	43	0.113	36	43	0.530	36	43	0.643
08:00 - 09:00	36	43	0.240	36	43	0.822	36	43	1.062
09:00 - 10:00	36	43	0.247	36	43	0.326	36	43	0.573
10:00 - 11:00	36	43	0.218	36	43	0.305	36	43	0.523
11:00 - 12:00	36	43	0.249	36	43	0.254	36	43	0.503
12:00 - 13:00	36	43	0.277	36	43	0.261	36	43	0.538
13:00 - 14:00	36	43	0.274	36	43	0.263	36	43	0.537
14:00 - 15:00	36	43	0.255	36	43	0.287	36	43	0.542
15:00 - 16:00	36	43	0.601	36	43	0.349	36	43	0.950
16:00 - 17:00	36	43	0.541	36	43	0.279	36	43	0.820
17:00 - 18:00	36	43	0.570	36	43	0.266	36	43	0.836
18:00 - 19:00	36	43	0.434	36	43	0.234	36	43	0.668
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.019			4.176			8.195

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.*

APPENDIX C

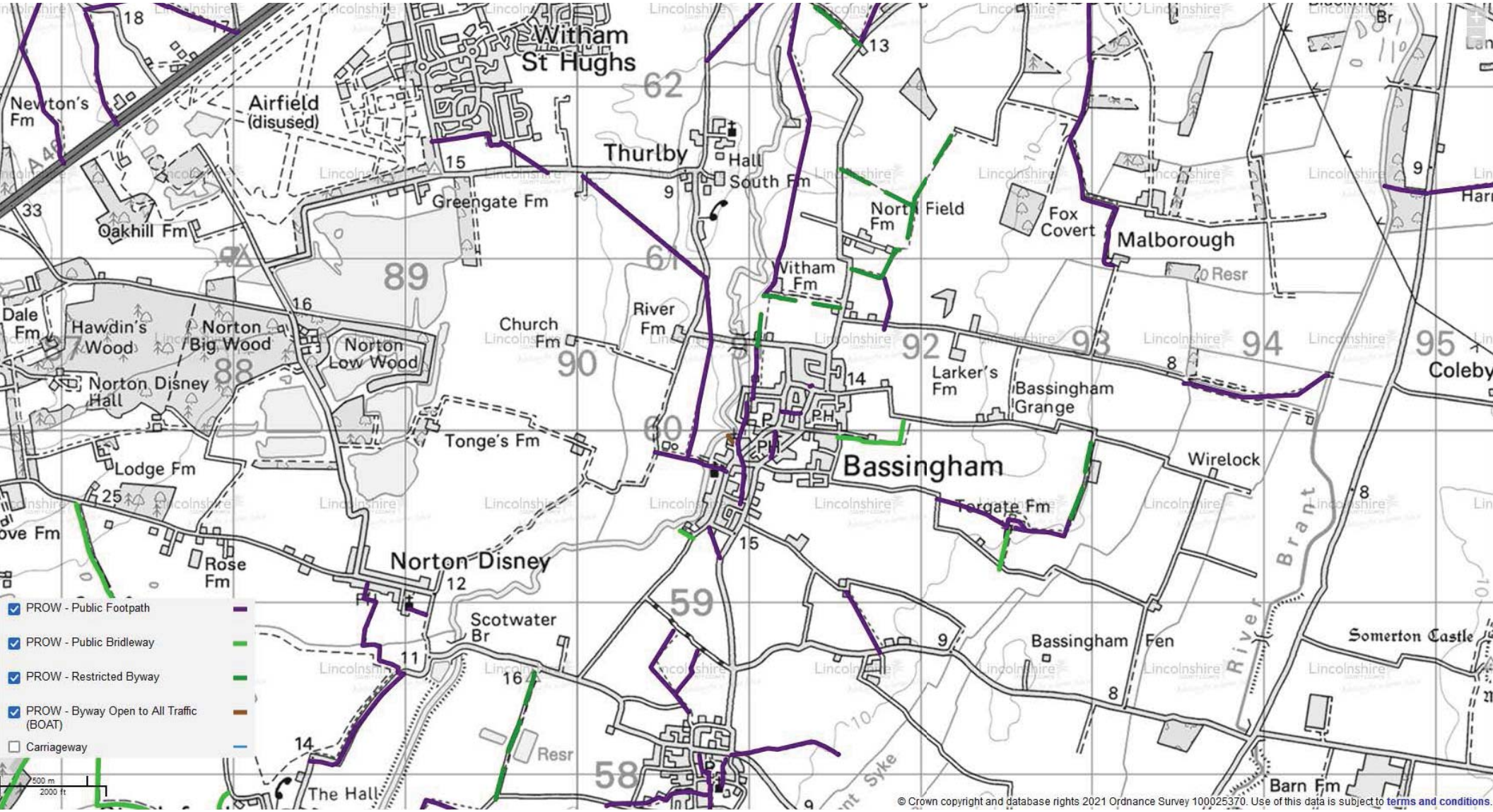
QS701EW - Method of travel to work

population	All usual residents aged 16 to 74
units	Persons
area type	built-up areas
area name	Bassingham BUA
rural urban	Total

Method of Travel to Work	**2011**
All categories: Method of travel to work	1,046
Work mainly at or from home	74
Underground, metro, light rail, tram	0
Train	13
Bus, minibus or coach	4
Taxi	1
Motorcycle, scooter or moped	8
Driving a car or van	553
Passenger in a car or van	28
Bicycle	10
On foot	49
Other method of travel to work	2
Not in employment	304

				23	8.195	188.485
					188
			Modal Split		2way Trips
Train, metro, etc.	13	1.95%	2.0%	3.7	4
Bus, minibus, taxi, etc.	5	0.75%	0.7%	1.4	1
PTW	8	1.20%	1.2%	2.3	2
Driving a car or van	553	83.03%	83.0%	156.1	156
Passenger in a car or van	28	4.20%	4.2%	7.9	8
Bicycle	10	1.50%	1.5%	2.8	3
On foot	49	7.36%	7.4%	13.8	14
	666	100.00%	100.0%	188.0	188

APPENDIX D



APPENDIX E

Traffic survey at Torgate Lane/Vasey Close Junction

15 mins ending	Car/ LGV	HGV	Torgate Lane E/B Bus/ Coach	M/C	Straight Ahead to P/C	Total	Torgate Lane %HGV/ bus	PCU
Thursday 04/11/21								
15:15	2	0	0	0	0	2	0.0%	2
15:30	2	0	0	0	0	2	0.0%	2
15:45	4	0	0	0	0	4	0.0%	4
16:00	2	0	0	0	0	2	0.0%	2
16:15	7	0	0	0	0	7	0.0%	7
16:30	1	0	0	0	2	3	0.0%	1
16:45	3	0	0	0	2	5	0.0%	3
17:00	2	0	0	0	0	2	0.0%	2
15:00 - 16:00	**10**	**0**	**0**	**0**	**0**	**10**	**0.0%**	**10**
16:00 - 17:00	**13**	**0**	**0**	**0**	**4**	**17**	**0.0%**	**14**

Traffic survey at Torgate Lane/Vasey Close Junction

15 mins ending	Car/ LGV	HGV	Torgate Lane E/B Bus/ Coach	M/C	P/C	Right to Total	Vasey Close %HGV/ bus	PCU
Thursday 04/11/21								
15:15	3	0	0	0	0	3	0.0%	3
15:30	1	0	0	0	0	1	0.0%	1
15:45	0	0	0	0	0	0	#DIV/0!	0
16:00	0	0	0	0	0	0	#DIV/0!	0
16:15	3	0	0	0	0	3	0.0%	3
16:30	3	0	0	0	0	3	0.0%	3
16:45	1	0	0	0	0	1	0.0%	1
17:00	1	0	0	0	0	1	0.0%	1
15:00 - 16:00	**4**	**0**	**0**	**0**	**0**	**4**	**0.0%**	**4**
16:00 - 17:00	**8**	**0**	**0**	**0**	**0**	**8**	**0.0%**	**8**

Traffic survey at Torgate Lane/Vasey Close Junction

15 mins ending	Car/ LGV	HGV	Vasey Close N/B Bus/ Coach	M/C	P/C	Left to Total	Torgate Lane %HGV/ bus	PCU
Thursday 04/11/21								
15:15	1	0	0	0	0	1	0.0%	1
15:30	1	0	0	0	0	1	0.0%	1
15:45	1	0	0	0	0	1	0.0%	1
16:00	0	0	0	0	0	0	#DIV/0!	0
16:15	1	0	0	0	0	1	0.0%	1
16:30	2	0	0	0	0	2	0.0%	2
16:45	1	0	0	0	0	1	0.0%	1
17:00	0	0	0	0	0	0	#DIV/0!	0
15:00 - 16:00	**3**	**0**	**0**	**0**	**0**	**3**	**0.0%**	**3**
16:00 - 17:00	**4**	**0**	**0**	**0**	**0**	**4**	**0.0%**	**4**

Traffic survey at Torgate Lane/Vasey Close Junction

15 mins ending	Car/ LGV	HGV	Vasey Close N/B Bus/ Coach	M/C	P/C	Right to Total	Torgate Lane %HGV/ bus	PCU
Thursday 04/11/21								
15:15	0	0	0	0	0	0	#DIV/0!	0
15:30	0	0	0	0	0	0	#DIV/0!	0
15:45	0	0	0	0	0	0	#DIV/0!	0
16:00	1	0	0	0	0	1	0.0%	1
16:15	0	0	0	0	0	0	#DIV/0!	0
16:30	1	0	0	0	0	1	0.0%	1
16:45	1	0	0	0	0	1	0.0%	1
17:00	0	0	0	0	0	0	#DIV/0!	0
15:00 - 16:00	**1**	**0**	**0**	**0**	**0**	**1**	**0.0%**	**1**
16:00 - 17:00	**2**	**0**	**0**	**0**	**0**	**2**	**0.0%**	**2**

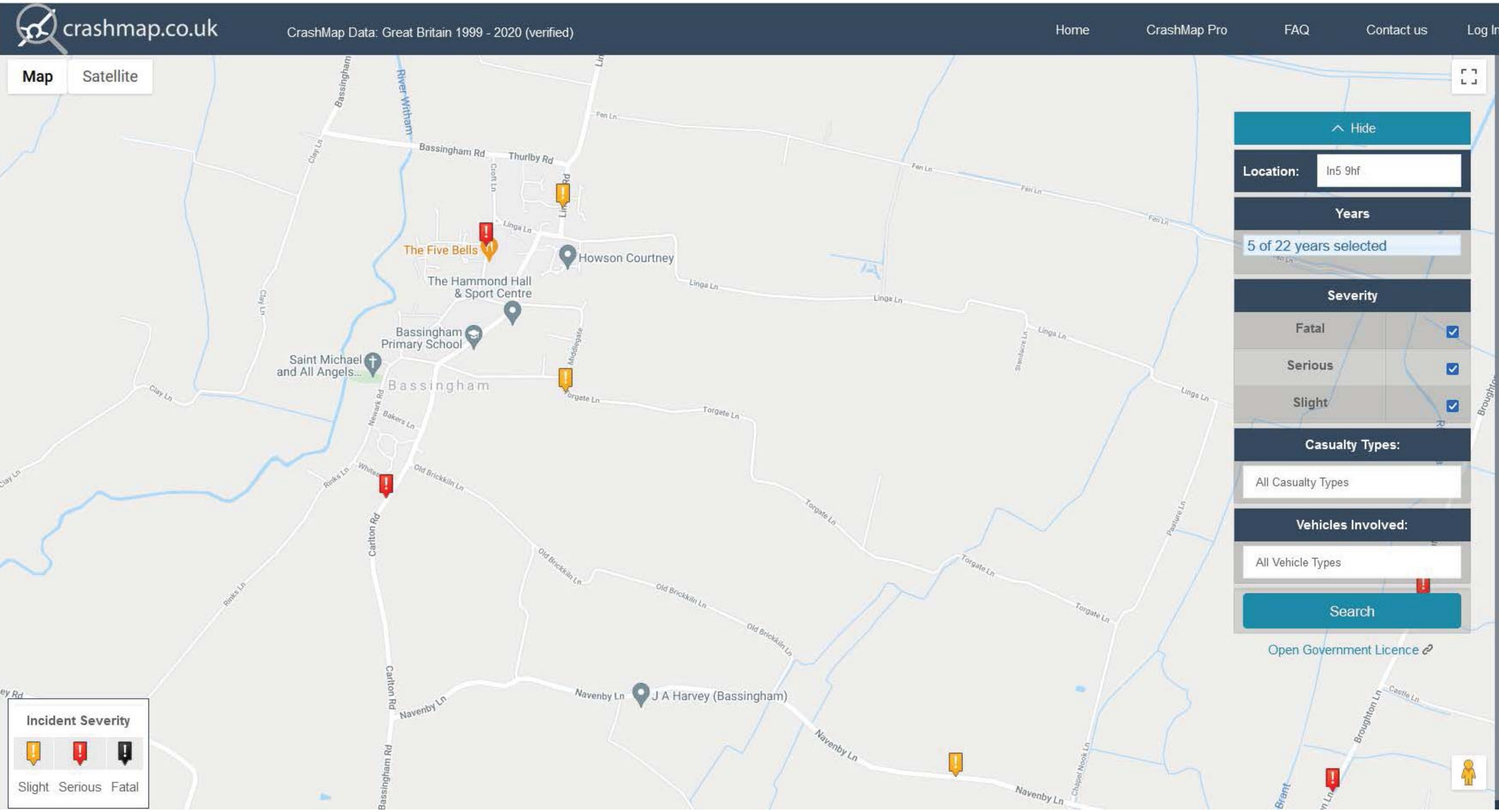
Traffic survey at Torgate Lane/Vasey Close Junction

15 mins ending	Car/ LGV	HGV	Torgate Lane W/B Bus/ Coach	M/C	P/C	Left to Total	Vasey Close %HGV/ bus	PCU
Thursday 04/11/21								
15:15	0	0	0	0	0	0	#DIV/0!	0
15:30	0	0	0	0	0	0	#DIV/0!	0
15:45	0	0	0	0	0	0	#DIV/0!	0
16:00	0	0	0	0	0	0	#DIV/0!	0
16:15	0	0	0	0	0	0	#DIV/0!	0
16:30	0	0	0	0	0	0	#DIV/0!	0
16:45	0	0	0	0	0	0	#DIV/0!	0
17:00	0	0	0	0	0	0	#DIV/0!	0
15:00 - 16:00	**0**	**0**	**0**	**0**	**0**	**0**	**#DIV/0!**	**0**
16:00 - 17:00	**0**	**0**	**0**	**0**	**0**	**0**	**#DIV/0!**	**0**

Traffic survey at Torgate Lane/Vasey Close Junction

15 mins ending	Car/ LGV	HGV	Torgate Lane W/B Bus/ Coach	M/C	P/C	Straight Ahead to Total	Torgate Lane %HGV/ bus	PCU
Thursday 04/11/21								
15:15	0	0	0	0	0	0	#DIV/0!	0
15:30	2	0	0	0	0	2	0.0%	2
15:45	2	0	0	0	0	2	0.0%	2
16:00	3	0	0	0	0	3	0.0%	3
16:15	4	0	0	0	0	4	0.0%	4
16:30	1	0	0	0	0	1	0.0%	1
16:45	3	0	0	0	0	3	0.0%	3
17:00	2	0	0	0	0	2	0.0%	2
15:00 - 16:00	**7**	**0**	**0**	**0**	**0**	**7**	**0.0%**	**7**
16:00 - 17:00	**10**	**0**	**0**	**0**	**0**	**10**	**0.0%**	**10**

APPENDIX F


crashmap.co.uk
CrashMap Data: Great Britain 1999 - 2020 (verified)
Home
CrashMap Pro
FAQ
Contact us
Log In
Map
Satellite
Hide
Location:
ln5 9hf
Years
5 of 22 years selected
Severity
Fatal
Serious
Slight
Casualty Types:
All Casualty Types
Vehicles Involved:
All Vehicle Types
Search
Open Government Licence
Incident Severity
Slight
Serious
Fatal
The Five Bells
Howson Courtney
The Hammond Hall & Sport Centre
Bassingham Primary School
Saint Michael and All Angels...
Bassingham
J A Harvey (Bassingham)
River Witham
Bassingham Rd
Thurlby Rd
Linga Ln
Fen Ln
Torgate Ln
Old Brickkiln Ln
Navenby Ln
Carlton Rd
Broughton Ln
Rinks Ln
Clay Ln
Bakers Ln
Newark Rd
Middlegate
Croft Ln
Pasture Ln
Chapel Nook Ln
Castle Ln
Brant