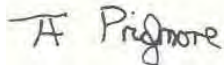
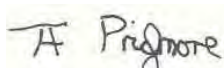


**Lee Lane, Royston
Proposed Residential Development
Transport Assessment**

January 2019

Prepared on behalf of
Bellway Homes Ltd (Yorkshire)

Quality Management

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Signature				
Checked by	M Whittaker			
Signature				
Authorised by	T Pridmore			
Signature				

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1. Introduction

1.1.1 Optima Highways & Transportation has been appointed by Bellway Homes (Yorkshire) to prepare this Transport Assessment to accompany a planning application for a residential development on land to the south of B6428 Lee Lane in Royston, Barnsley.

1.1.2 The scheme proposals, which are illustrated on STEN architectures Site Plan, a copy of which is contained in Appendix A, can be summarised as follows:

- 250 new dwellings;
- Access via Lee Lane; and
- Associated parking, landscaping and infrastructure.

1.1.3 A Travel Plan accompanies this application and should be read in conjunction with this report.

1.1.4 This report considers the suitability of the proposed access arrangements on to Lee Lane and the internal layout. It identifies if any measures are required to accommodate the anticipated transport impacts of the scheme.

1.4 This report covers a variety of topics which are set out within the following chapters:

- Chapter 2 - describes the Site and the existing transport conditions;
- Chapter 3 - defines the development proposals including the proposed access strategy, internal layout and parking;
- Chapter 4 - shows the expected trip generation of the development and the likely trip distribution;
- Chapter 5 – describes the likely impact of the development on the local highway network and includes capacity assessments at appropriate local junctions; and
- Chapter 6 - summarises and concludes the Transport Assessment.



2. Existing Site Conditions

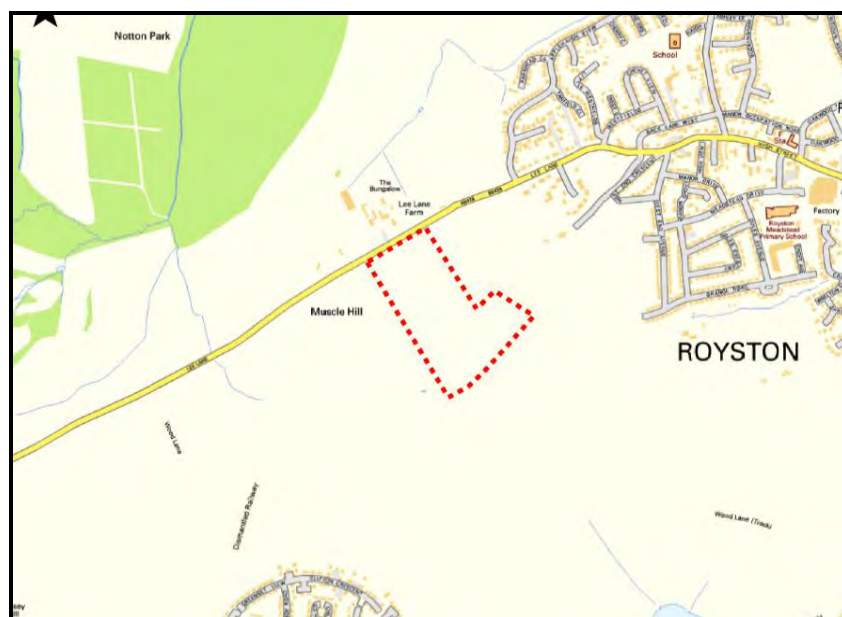
2.1 INTRODUCTION

2.1.1 This chapter describes the Site and considers the existing conditions on the surrounding highway network for a range of transport modes. It includes a review of existing accident data and describes the existing local facilities.

2.2 EXISTING SITE

2.2.1 The application Site is situated on land to the south of B6428 Lee Lane, Royston on the fringe of the village, some 5.9km north east of Barnsley Town Centre. The proposed development in relation to the strategic and local transport networks is shown in Figures 1 and 2 respectively. The indicative Site boundary is illustrated in Image 2.1.

Image 2.1 Site Location



2.2.2 The Site is approximately 8.69 hectares (21.47 acres) and is proposed to accommodate 250 residential dwellings. It presently incorporates two fields, which are currently in agricultural use.

2.2.3 The Site is bound by open fields on all side with Lee Lane forming the northern boundary to the Site. There are ongoing residential developments to the north of Lee Lane within the vicinity of the development Site, with Barratts currently building houses under their permission 2016/1490. The Site also forms part of a wider residential Site allocation.

2.2.4 Lee Lane runs west to east from its junction with Wakefield Rd (A61) to its junction with Church Street and Station Road in the east. It does however change its name to High Street when it reaches Royston.

2.2.5 Lee Lane is therefore a connector road and acts as a route from Royston towards the M1 corridor, via Junction 38. It should be noted that there is a gully between the Site and Lee Lane and this will need to be culverted for any access. At the present time the speed limit past the Site boundary is the National Speed Limit (60mph). This is likely to change as the residential development moves towards the west for Royston centre. The speed limit change to 30mph at the present time is close to where the news roundabout to the Barratts development is presently being built.



2.2.6 The carriageway on Lee Lane measures between 7.1m and 7.25m in width. There is a footway on the southern side of Lee Lane, which measures between 1.25m and 1.35m in width.

2.2.7 Image 2.2 shows Lee Lane looking west from the Site boundary, while Image 2.3 shows Lee Lane looking east from the Site boundary, towards Royston.

Image 2.2 Lee Lane Looking West



Image 2.3 Lee Lane Looking East



2.2.8 There are no traffic regulation orders preventing parking, waiting or loading in the immediate vicinity of the Site or along Lee Lane, until the centre of Royston.

2.2.9 A Plans identifying nearby public rights of way are contained in Appendix B.



2.2.10 There is a single Public Right of Way (PRoW) Footpath 10, which is a bridleway that runs along the western boundary of the Site. To the south of the Site is Footpath 8, which offers a pedestrian route from Royston village to Wakefield Road, avoiding Lee Lane.

2.3 ACCESSIBILITY BY FOOT

2.3.1 The residential design guide “Manual for Streets” (MfS) advises that *“walkable neighbourhoods are typically characterised by having a range of facilities within ten minutes (up to about 800m) walking distance of residential areas...”* (ref para 4.4.1). However, this is not regarded as an upper limit in MfS and reference is also made to walking offering *“the greatest potential to replace short car trips, particularly those under 2km”*. The acceptability of walking trips up to 2km (an approximate 25 minute walk time) is also supported in the IHT document ‘Providing for Journeys on Foot’.

2.3.2 Using GIS Network Analyst software, typical walk times (up to 25 mins) to specific local facilities situated in close proximity to the proposed Site are shown on Figure 3. This figure demonstrates that:

- The nearest nurseries are Little Nippers, Wise Owl and Bethel Church pre-school. These are located in Royston, and are 1.5km, 1.6km and 1.6km from the Site;
- Meadstead Primary Academy School is situated to the east of the Site and is 1.1km away from the centre of the Site. Summerfields Primary Academy is also to the east and is 1.3km from the centre of the Site;
- Outwood Academy (Carlton) Secondary School is located some 2.8km south-east of the centre of the Site and can be reached within a 35 minute walk;
- Craven and Partners GP surgery is located to the east of the Site, on High Street and within a 15 minute walk of the centre of the Site. A pharmacy is also provided there;
- Royston Leisure Centre is located to the east of the Site in Royston centre within a 20 minute walk of the centre of the Site; and
- There are a number of local retail opportunities, with the Lifestyle Express convenience store located just 950m from the centre of the Site, which equates to a 12 minute walk. The Co-op in the centre of Royston is 1.5km from the centre of the Site with the Asda store being 2km away. The remainder of the independent shops with the centre of Royston can be found within 1.6km of the centre of the Site, which equates to a 20 minute walk.

2.3.3 It is therefore concluded that the proposed Site is located in a highly sustainable area with the majority of services located close by.

2.4 ACCESSIBILITY BY CYCLE

2.4.1 The measures proposed within the Travel Plan, which will positively influence cycle trips should help to make cycling an attractive mode choice. The vehicular routes through the Site are considered to be appropriate for cycling as they will be lightly trafficked and low speed.

2.4.2 An acceptable and comfortable distance for general cycling trips is considered to be up to 5 kilometres as referred to in Local Transport Note 2/08 (published by the DfT). However, the same guidance also refers to commuting cycle trips of up to 8km. Using GIS Network Analyst software typical cycle times from the Site are shown in Figure 4. This figure shows that:



- All three primary schools in Royston can be reached within a 10 minute cycle from the centre of the Site;
- The closest secondary school can be cycled in a 10 minute cycle;
- Royston centre is within a 5 minute cycle ride of the Site;
- Both Darton and Barnsley Railway Stations are within a 25 minute cycle journey. Secure cycle parking is available at both;
- Potential employment opportunities within the Industrial Estate at Carlton can be cycled within 15 minutes, with Barnsley town centre 25 minutes cycle distance away from the Site; and
- From the development Site the 8km cycle catchment area (30 minutes) extends to include Barnsley town centre, Darton, Royston and Mapplewell.

2.4.3 It is therefore concluded that the proposed Site, will provide excellent cycle accessibility to a range of local services and facilities within a 10 minute cycle ride as well as employment opportunities beyond the immediate local area – including the opportunity to ‘bike and rail’.

2.5 PUBLIC TRANSPORT ACCESSIBILITY

2.5.1 The closest bus services to the Site operate along Lee Lane within 850m of the Site. With the development of the Barratts Site and the applicants Site, there is the possibility that additional services travelling further along Lee Lane may become more commercially viable in the future.

2.5.2 A summary of the existing services within the vicinity of the Site can be found at Tables 2.1.

Table 2.1 Bus Service Summary

Service	Route	Operator	Days of Operation	Typical Approx. Frequency
57	Barnsley – Monk Bretton – Carlton - Royston	Stagecoach	Monday – Friday	4 per hour
			Saturday	4 per hour
			Sunday	-
57	Royston – Carlton – Monk Bretton - Barnsley	Stagecoach	Monday – Friday	4 per hour
			Saturday	4 per hour
			Sunday	-
451	Darton – Royston – Carlton – Holy Trinity School	Globe Coaches	Monday – Friday	1 per day (term time only)
			Saturday	-
			Sunday	-
451	Holy Trinity School – Carlton – Royston - Darton	Globe Coaches	Monday – Friday	1 per day (term time only)
			Saturday	-
			Sunday	-

2.5.3 As can be seen from Table 2.1, the existing bus service provides regular journeys into Barnsley from which the bus station offers connections to all areas of South Yorkshire and further afield.

2.5.4 The bus services also allow residents to be able to interchange with rail services in Barnsley at Barnsley Interchange.

2.5.5 The station in Barnsley is managed by Northern and all services that stop there are also Northern services. There are four trains an hour to Sheffield, two of which are express services and



only call at Meadowhall. The two express services pass through Sheffield and extend to Worksop, Retford and Lincoln and to Chesterfield and Nottingham. To the north there are three trains an hour to Leeds, two of which only call at Wakefield Kirkgate and one train per hour to Huddersfield.

2.5.6 Darton rail station is in cycling distance from the Site and offers one train per hour to Wakefield and Leeds to the north and Barnsley and Sheffield to the south. There are 18 covered cycle storage spaces at Darton rail station.

2.5.7 In summary it is concluded that the proposed development Site provides good accessibility by foot, cycle and public transport and as such is in a sustainable location.

2.6 TRAFFIC SURVEYS

2.6.1 An Automatic Traffic Count (ATC) was placed on Lee Lane on the Site boundary for a week and further traffic counts were undertaken at the junctions of:

- Wakefield Road/Lee Lane/Shaw Lane; and
- Station Road/High Street/Church Street/Midland Road.

2.6.2 These were undertaken on Wednesday 10th October 2018 including a queue length survey. The count identified the peak hour periods of 07:45-08:45 and 16:30-17:30.

2.7 PERSONAL INJURY ACCIDENT DATA

2.7.1 Personal injury accident data has been obtained from Barnsley MBC for the highway network in the vicinity of the Site for the most recently available five year period between 1st January 2013 and 31st December 2017.

2.7.2 The study area includes the Site frontage on Lee Lane, along with the section of Lee Lane to the junction with Wakefield Road, with the junction included within the study area. The study area then extends east, to the built up area of Royston.

2.7.3 The full accident records and plan are presented in Appendix C.

2.7.4 The accident records show that there have been 15 accidents within the study area in the last 5 years. These 15 accidents resulted in 26 casualties. Of the 15 accidents, 3 were classed as serious.

2.7.5 The first serious accident occurred at the junction of Wakefield Road and Lee Lane. The driver of both a car and a light good vehicle both pulled out from opposite arms of the junction and crashed into each other, causing a serious injury to the 91 year old driver of the car. The causation was calculated as failure to look properly and failure to observe road markings.

2.7.6 The second serious accident occurred on Lee Lane when a motorcyclist was confronted by an inebriated pedestrian. The pedestrian was wearing dark clothes and was walking along the unlit carriageway. The motorcyclist was unable to stop and a collision occurred causing serious injury to the rider.

2.7.7 The third serious accident took place on High Street, close to its junction with Westfields. A car failed to observe the give way markings on Westfields and pulled out into the path of an oncoming vehicle. A collision occurred pushing the innocent vehicle into a parked car, which then spun and hit a wall. It is suggested within the accident report that the driver of the offending vehicle was in a hurry and was reckless.



2.7.8 A review of the slight accidents does not show any common causation factor that suggests there are any underlying highway defects that have caused the accidents. Driver error is the main contributory factor across most of the accidents that have been recorded.

2.7.9 It is therefore concluded that there are no highway safety concerns in the existing situation and the proposed development would not result in the introduction of any concerns.



3. Development Proposals and Access Arrangements

3.1 DEVELOPMENT PROPOSALS

3.1.1 The development proposals comprise the following:

- 250 new dwellings;
- Access via Lee Lane; and
- Associated parking, landscaping and infrastructure.

3.1.2 An illustrative layout indicating the principles of development produced by STEN is shown in Appendix A.

3.2 PROPOSED ACCESS STRATEGY

3.2.1 The Site will have a new access junction to the north of the development on to Lee Lane, which is the only highway boundary. Chapter 2 describes the existing road network and its suitability to accommodate the traffic generated by an additional 250 dwellings.

3.2.2 The site will be accessed by a new junction formed with its highway boundary with Lee Lane to the north of the Site. It is proposed to have a priority junction on Lee Lane, which is the usual junction access type for a development of this size. In line with the speed survey that was undertaken on Lee Lane, the junction have visibility splays of 2.4m x 160m. It should be noted that longer splays are actually available.

3.2.3 Details of the access junction are shown in Appendix D.

3.3 INTERNAL LAYOUT

3.3.1 The Site will layout has been designed with reference to Manual for Streets and the South Yorkshire Residential Design Guide. The main highway consists of a loop road with a 5.5m carriageway width and 2m wide footways on either side. Streets off this main loop road consist of shared surface streets.

3.4 CAR AND CYCLE PARKING

3.4.1 All houses have at least 2 parking spaces within the dwelling curtilage, apart from the 2 bedroom affordable properties that have 1.5 each.

3.4.2 Nearly half of the properties within the development will also have a garage in addition which will be available for the storage of bicycles and cars.

3.4.3 Parking for visitors can be safely accommodated either in designated visitor bays on the shared surface areas, or on-street (where the carriageway width is 5.5m).

3.4.4 The proposed parking provision will ensure that the on Site demand will not affect the local highway network operation or safety.

3.4.5 Cycle parking for the development will be provided within garages, in those houses that are provided with them or in cycle sheds. The Barnsley Parking Standards SPG states that each Site should be individually assessed.



3.5 SERVICING

3.5.1 The internal layout has been designed to ensure that the servicing requirements of the development can be comfortably accommodated. Fire tenders are also able to get within 45m of the ground floor of all dwellings as specified as a requirement in Section 6.7 of MfS.

3.5.2 The drawing contained at Appendix E shows that a refuse vehicle can satisfactorily access and turn within the Site.



4. Trip Generation & Distribution

4.1 TRIP DISTRIBUTION

4.1.1 The TRICS database has been utilised in order to calculate representative and appropriate vehicular trip rates for the residential use. The following time periods have been selected (morning peak hour of 08:00-09:00) and evening peak hour of 17:00-18:00). Survey sites within the database for have been chosen using the following parameters:

Land use: 03 Residential a Houses Privately Owned

- Calculation options: Vehicular trip rates selected;
- Regions selected: All except Greater London, Scotland, Wales, Ireland and Northern Ireland;
- Trip Rate Parameters: Number of dwellings;
- Parameter range: 150 - 350 selected;
- Date range: 1st January 2010 and 19th April 2018;
- Days included: Monday to Friday; and
- Location Type: Edge of Town.

4.1.2 The TRICS version 7.5.3 outputs are contained within Appendix F, with a summary of the trip rates shown in Table 4.1 and the resultant generated traffic shown in Table 4.2.

Table 4.1 TRICS Residential Vehicle Trip Rates per Unit

Land Use	AM Vehicle Trips			PM Vehicle Trips		
	Arr	Dep	Total	Arr	Dep	Total
Residential Dwellings	0.158	0.382	0.540	0.359	0.162	0.521

Table 4.2 Residential Vehicle Trip Generation

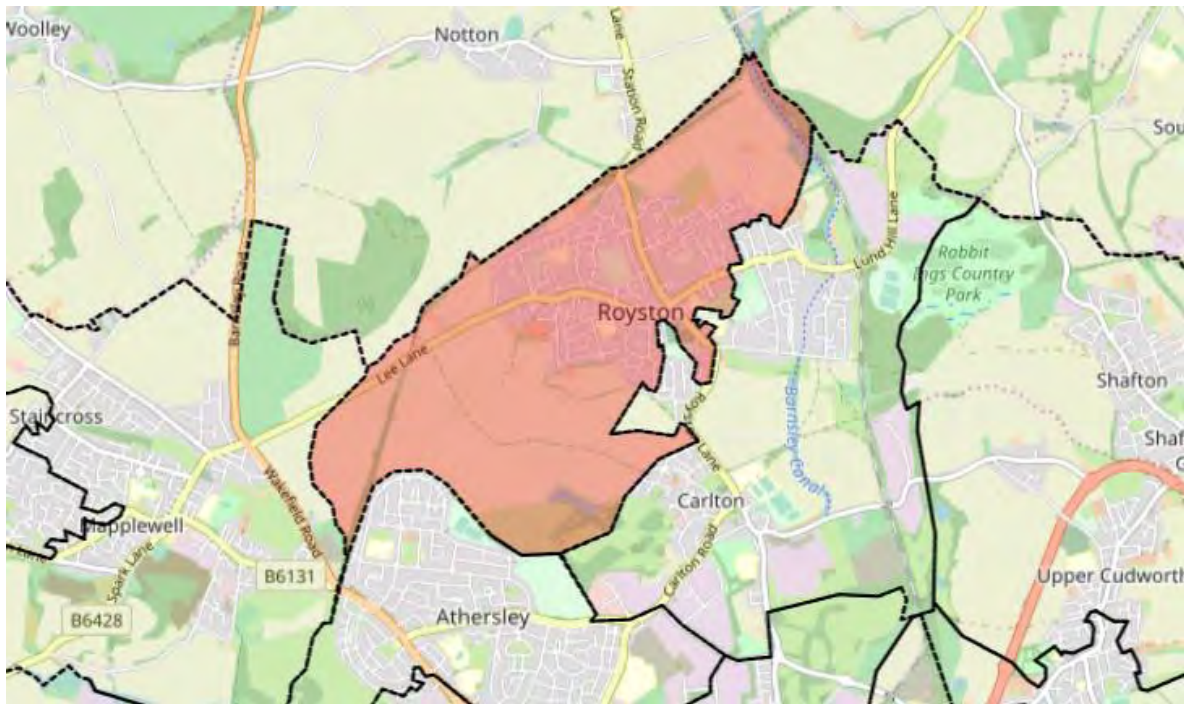
Land Use	AM Vehicle Trips			PM Vehicle Trips		
	Arr	Dep	Total	Arr	Dep	Total
250 Dwellings	40	100	140	90	41	131

4.2 TRIP DISTRIBUTION

4.2.1 Having established the development traffic generation for the Site, as shown in Table 4.2, a distribution exercise has been completed to predict the assignment of these trips onto the highway network. The latest census data (2011) has been interrogated for the Barnsley 001 super output area (middle layer) to predict the destination of residents travelling to work. The census data has been used to establish the journey to work destinations for all car driver trips travelling from Barnsley 001. The spreadsheet attached in Appendix G shows how the development traffic has been assigned to specific routes.

4.2.1 The proposed development is located in the super output area (mid layer) Barnsley 001 as illustrated in Image 4.1.



Image 4.1 Barnsley 001 Super output area

4.2.2 The development traffic has been distributed onto the local highway network using the following routes to/from the Site:

- Wakefield Road (South);
- Wakefield Road (North);
- Shaw Lane;
- Summer Lane;
- Church Street;
- Midland Road;
- Station Road; and
- Local traffic.

4.2.3 Table SD1 contained in Appendix G illustrates the proposed traffic distribution which is summarised within Table 4.3.

Table 4.3 Proposed Vehicular Distribution - Route Assignment Summary

	Wakefield Road (South)	Wakefield Road (North)	Shaw Lane	Summer Lane	Church Street	Midland Road	Station Road	Local Traffic
Percentage Distribution	8%	26%	26%	13%	16%	7%	2%	2%

4.2.4 The above distribution is based on journey to work data which encompasses the longest journey. Leisure, school and retail journeys are also accounted for within the trip rates and these



tend to be more localised journeys and would therefore not impact on the junctions further away from the Site. However for robustness all trips have been assumed to be journey to work trips.

4.2.5 The proposed residential distribution is shown in Figure 14 and applying the trip generation in Table 5.4 to these distributions produces the following figures:

- Figure 15 - Residential AM Peak Hour Trip Generation;
- Figure 16 - Residential PM Peak Hour Trip Generation;



5. Capacity Assessment

5.1 TRAFFIC FLOWS

5.1.1 To understand the effect of the development when it is built out, future year modelling has been undertaken. To predict the future year scenario of opening plus 5 years, the Temprow database has been interrogated.

5.1.2 An unadjusted Temprow rate between 2018 and 2023 has been calculated using the Barnsley 001 Temprow area, The rates are as follows:

- AM Peak Hour 2018-2023 - 1.08106530231467
- PM Peak Hour 2018-2023 - 1.07905856519947

5.1.3 Applying these growth rates to the 2018 counts (Figures 10 and 11) produces the 2023 Growthed Counts as shown in Figures 12 and 13. These growthed counts will be used as a base scenario in order to provide a comparison with the design flows shown in Figures 17 and 18.

5.1.4 Capacity modelling has been undertaken at the following junctions, in line with the agreed scope for the Barratts Site to the north of Lee Lane and following discussions with Aecom, working on behalf of Barnsley MBC:

- Site Access Priority Junction;
- High Street/Station Road/Midland Road/Church Street Traffic Signals; and
- Lee Lane/Wakefield Road/Shaw Lane Staggered Crossroads.

5.1.5 This chapter now assesses the highway impact of the development proposals at the aforementioned junctions.

5.2 SITE ACCESS CAPACITY ASSESSMENT

5.2.1 The Site access is to be a simple priority junction, with Lee Lane retaining priority.

5.2.2 The junction has been modelled using the PICADY module within the Junctions 9 software for the 'with development' 2023 Design scenario. The results for the AM and PM peak hour periods are summarised in Table 5.1.

Table 5.1 Lee Lane/Site Access Junction 2023

Movement	AM		PM	
	RFC	Mean Q	RFC	Mean Q
Site Access	0.20	0	0.10	0
Lee Lane	0.06	0	0.18	1

5.2.3 These junctions have been modelled using the PICADY function within Junctions 9 and the results are shown in Table 5.1 and the modelling outputs in Appendix F. A Ratio of Flow to Capacity (RFC) value below 0.85 indicates that a junction or arm operates within its predicted capacity. An RFC value between 0.85 and 1.00 indicates that there may be occasions during the period modelled when queues will develop and delays will occur. An RFC value greater than 1.00 indicates that the junction or arm operates beyond its theoretical capacity.

5.2.4 The results demonstrate that the proposed junction will operate comfortably within capacity during both the AM and PM peak hour periods in the 2023 Design scenario accommodating the traffic generated by the proposed development.



5.3 EXISTING JUNCTION ASSESSMENTS

Lee Lane / A61 Wakefield Road / Shaw Lane

5.3.1 This priority cross road staggered junction has also been modelled using the PICADY 9 Priority Intersection module in the TRL software, Junctions 9. The junction has initially been modelled for the 2018 existing weekday AM and PM peak hours. The results of the modelling are summarised in Table 5.2.

Table 5.2 Lee Lane/Wakefield Road/Shaw Lane 2018

Movement	AM			PM		
	RFC	Q (pcu)	Recorded Queue	RFC	Q (pcu)	Recorded Queue
Lee Lane (Left Turn)	0.41	1	2	0.25	0	2
Lee Lane (Right Turn)	0.87	5	10	0.76	3	10
Wakefield Road (North)	0.22	0	1	0.31	1	2
Shaw Lane (Left Turn)	0.99	6	2	1.02	5	3
Shaw Lane (Right Turn)	1.00	12	12	1.01	14	14
Wakefield Road (South)	0.10	0	1	0.34	1	2

5.3.2 As can be seen above, the junction already operates over capacity on Shaw Lane in both peaks. Shaw Lane is the opposite arm to the highway, where the development takes access from.

5.3.3 The junction has then been modelled for the AM and PM 2023 Base and Design scenarios and the results are summarised in Tables 5.3 and 5.4.

Table 5.3 Lee Lane/Wakefield Road/Shaw Lane 2023

Movement	AM		PM	
	RFC	Mean Q	RFC	Mean Q
Lee Lane (Left Turn)	1.00	5	0.60	1
Lee Lane (Right Turn)	1.01	14	0.90	6
Wakefield Road (North)	0.25	0	0.35	1
Shaw Lane (Left Turn)	1.13	10	1.16	8
Shaw Lane (Right Turn)	1.14	27	1.15	30
Wakefield Road (South)	0.11	0	0.38	1

Table 5.4 Lee Lane/Wakefield Road/Shaw Lane 2023 with Development

Movement	AM		PM	
	RFC	Mean Q	RFC	Mean Q
Lee Lane (Left Turn)	1.12	10	0.99	6
Lee Lane (Right Turn)	1.14	30	1.02	12
Wakefield Road (North)	0.26	0	0.35	1
Shaw Lane (Left Turn)	1.18	12	1.25	10
Shaw Lane (Right Turn)	1.20	35	1.25	43
Wakefield Road (South)	0.13	0	0.45	1

5.3.4 The results in Table 5.3 and 5.4 demonstrate as expected, when the traffic is growthed to a future year of 2023, the queues increase. When a model reaches over 1.00 RFC, the queues tend to be unrepresentative of the actual likely situation. As would be expected the addition of the



development traffic adds to the Lee Lane arm, but makes little difference to the other arms in the 2023.

5.3.5 Discussions with officers at Barnsley MDC have suggested that there is a scheme in place to upgrade this junction to provide additional capacity.

Midland Road/Church Street/High Street/Station Road Traffic Signal Controlled junction

5.3.6 The existing layout of the Midland Road/Church Street/High Street/Station Road signalised junction has been modelled using the LINSIG v3.2 software. The junction model has been calibrated using on site observations, RR67 saturation flows, Barnsley MBC supplied signal data and validated against recorded queue information. Appendix H contains a copy of the traffic signal data obtained from Barnsley MBC which shows a layout of the junction.

5.3.7 The junction operates on MOVA control and cycle times have been observed as typically 90 seconds throughout the AM and PM peak hours.

5.3.8 The junction has initially been modelled for the surveyed 2018 AM and PM peak hours and the results are summarised in Table 5.5.

Table 5.5 Midland Rd/Church St/High St/Church St 2018

Lane	AM			PM		
	DoS (%)	MMQ	Obs Q	DoS (%)	MMQ	Obs Q
Midland Road	72.1	9	9	82.2	11	11
Church Street	71.0	10	10	82.7	11	12
High Street	71.5	6	5	84.1	9	8
Station Road	33.3	4	6	52.4	6	8

5.3.9 A Degree of Saturation (DoS) value below 90% indicates that a signalised junction is operating within its desirable practical capacity. A DoS value between 90% and 100% indicates that there are likely to be occasions during the period modelled when queues will develop, and delays will occur. A DoS value greater than 100% indicates that the junction or arm operates beyond its theoretical capacity with an associated increase in queuing and delay within that specified time period.

5.3.10 It can be seen from the summary results in Table 5.5 that the existing signalised junction is currently operating within desirable practical capacity i.e. less than 90% DoS during all peak hour periods. Mean maximum queue lengths are also acceptable and generally reflect the surveyed values thereby validating the model.

5.3.11 The junction has then been modelled in the AM and PM 2023 Base and Design scenarios. The results are summarised in Tables 5.6 and 5.7.

Table 5.6 Midland Rd/Church St/High St/Church St 2023

Lane	AM		PM	
	DoS (%)	MMQ	DoS (%)	MMQ
Midland Road	77.7	10	88.5	13
Church Street	76.8	11	90.8	14
High Street	77.3	7	90.9	12
Station Road	37.2	4	55.7	7



Table 5.7 Midland Rd/Church St/High St/Church St 2023 with development

Lane	AM		PM	
	DoS (%)	MMQ	DoS (%)	MMQ
Midland Road	78.3	10	89.9	13
Church Street	78.0	11	93.4	15
High Street	80.8	7	92.3	13
Station Road	37.4	4	56.1	7

5.3.12 The results in Tables 5.6 and 5.7 demonstrate that, throughout both the 2023 Base and Design the junction will operate slightly over 90% DoS however still within the maximum capacity of 100%.

5.3.13 It should be noted that this junction was previously modelled by WSP for the adjacent Barratts development and the results showed a higher DoS. This can be attributed to MOVA not being in place during the earlier modelling of this junction and a different distribution of traffic. Clearly MOVA has improved the situation.

5.4 MODEL OUTPUTS

5.4.1 All junction model outputs for the junction modelling undertaken within this chapter are shown in Appendix I.



6. Conclusions

6.1.1 This Transport Assessment (TA) has been undertaken by Optima to consider the highways and transportation issues raised by a proposed residential development on Lee Lane, Royston, Barnsley.

6.1.2 This TA supports a full planning application made on behalf of Bellway Homes (Yorkshire) Ltd.

6.1.3 The development proposals are for 250 dwellings with associated parking and landscaping.

6.1.4 Access is to be taken from Lee Lane to the north of the Site via a priority junction. This junction has been modelled and vehicle tracked and operates satisfactorily.

6.1.5 A review of the Site's accessibility has concluded that the development is accessible for pedestrians and cyclists, with access to a frequent bus service available.

6.1.6 A review of the personal injury accident data has been undertaken within the study area, which has concluded that there are no specific concerns relating to highway safety.

6.1.7 The methodology of this Transport Assessment has been agreed with officers at Barnsley MBC and their advisers from Aecom.

6.1.8 Capacity assessments of the site access have demonstrated that the proposed development can be safely and efficiently accessed in the design year of 2023 at the access junction and the critical traffic signals in the centre of Royston. The junction of Wakefield Road and Lee Lane, which is currently over capacity in the base year is due to be upgraded.

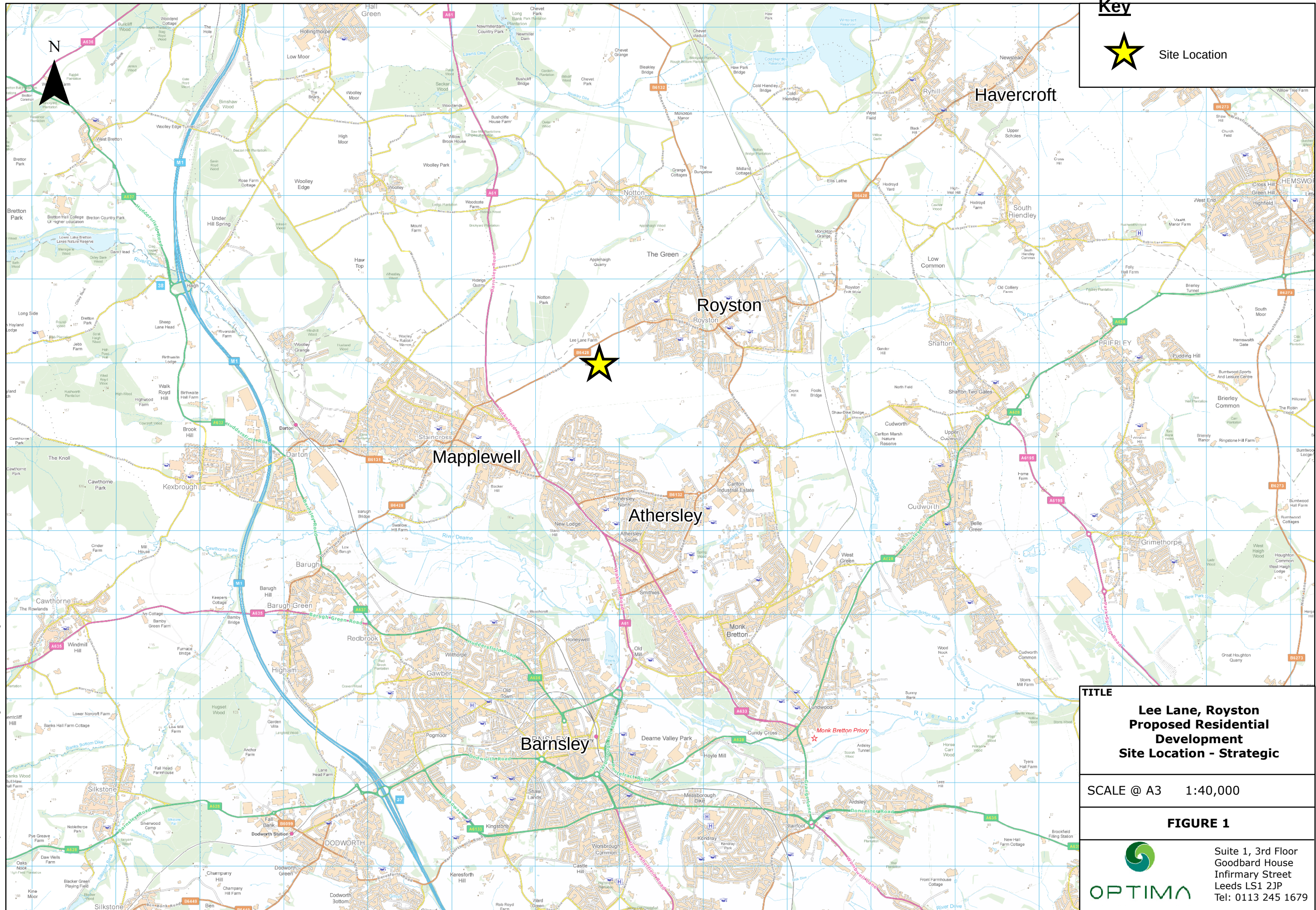
6.1.9 From the extensive work undertaken it is concluded that there are no reasons on highways or transport grounds why the development Site should not be granted full planning permission.



Figures



Path: O:\Lee Lane, Royston\DRAWINGS\GIS\ARCEDITOR\Figure 1 Site Location - Strategic.mxd



Key



Site Location

TITLE

**Lee Lane, Royston
Proposed Residential
Development
Site Location - Strategic**

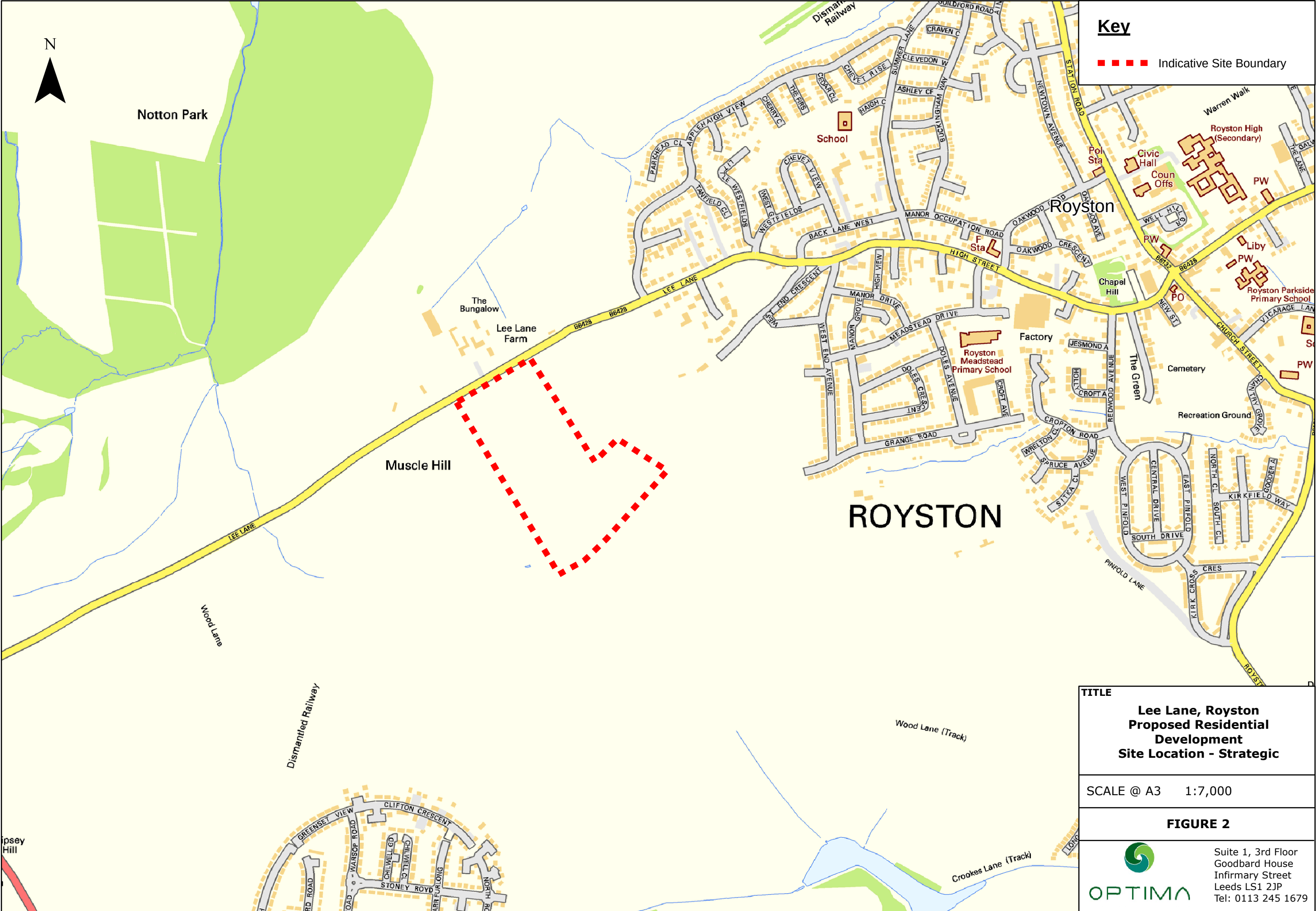
SCALE @ A3 1:40,000

FIGURE 1



Suite 1, 3rd Floor
Goodbard House
Infirmay Street
Leeds LS1 2JP
Tel: 0113 245 1679

Path: O:\Lee Lane, Royston\DRAWINGS\GIS\ARCEDITOR\Figure 2 Site Location - Local.mxd



TITLE	
Lee Lane, Royston Proposed Residential Development Site Location - Strategic	
SCALE @ A3 1:7,000	
FIGURE 2	
	Suite 1, 3rd Floor Goodbard House Infirmiry Street Leeds LS1 2JP Tel: 0113 245 1679