

TECHNICAL NOTE

Project No: ITB13052
Project Title: Land at Newbarn Lane, North Bersted
Title: Reserved Matters Transport Statement
Ref: JCB/MS/ITB13052-001B TN
Date: 6 September 2017

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SECTION 1 INTRODUCTION

1.1 Overview

1.1.1 Linden Homes South has appointed i-Transport to provide transport and highways advice with regard to a 'reserved matters' planning application for 90 new homes at Newbarn Lane, North Bersted. The scheme already benefits from the following permissions:

- Outline planning permission (*ref: BE/142/15/OUT*) for 90 new homes granted in February 2016. Condition 3 of the outline planning permission requires the site access to be built out in accordance with approved drawings; and
- A permitted variation to condition 3 of the outline permission, providing access in a more northerly position on to Newbarn Lane was granted in May 2017 (*ref: BE/18/17/PL*).

1.1.2 The drawing of the site access arrangement that was permitted in May 2017 is provided in **Appendix A**.

1.1.3 The reserved matters scheme is based on this access arrangement and, in line with the outline permission, 90 dwellings are proposed. The proposed site layout is provided as **Appendix B**.

1.1.4 The permitted site access arrangement drawing has been re-produced by i-Transport to be consistent with the reserved matters layout (e.g. the geometric parameters of the connection with Newbarn Lane and visibility splays are as per the permitted arrangement and are therefore unchanged). This site access drawing is provided in **Appendix C**.

1.2 Key Transport Tests

1.2.1 There are three key transport tests for new development (*ref: paragraph 32 of the NPPF*):

- i) Have the opportunities for sustainable travel have been appropriately taken up?
- ii) Will safe and suitable access be provided?
- iii) Will the residual cumulative impact be acceptable, noting that development should only be prevented from coming forward for transport reasons if there will be a 'severe' impact?

1.2.2 All of these matters were fully addressed in the Transport Assessment that accompanied the outline planning application, and the subsequent work undertaken by the applicant. West Sussex County Council (WSCC) independently scrutinised that work and found the development proposal acceptable subject to appropriate conditions and obligations – WSCC raised no objection and the outline planning application was permitted by Arun District Council.

1.2.3 Similarly, WSCC raised no objection to the amended access arrangements – indeed, the amended arrangement was their preference – and that was also approved by Arun District Council.

1.2.4 Therefore, it has already been established that:

- The site is in a suitable location in transport accessibility terms;
- The permitted access arrangements will be safe and suitable; and
- The traffic impact of the permitted 90 homes will be acceptable, and certainly not severe.

1.3 Issues

1.3.1 A public consultation event was held on 18 July 2017. The main transport issues identified were as follows:

- Traffic impact – particularly the existing operation of the local highway network, and whether Newbarn Lane and Brazwick Avenue can accommodate the additional traffic generation by the development in terms of width and existing on-street parking;
- Site access; and
- Parking – concerns were raised relating to the potential for overspill on to local streets.

1.3.2 As set out in Section 1.2, traffic impact and site access matters have already been comprehensively dealt with. They are not open to further consideration.

1.3.3 Notwithstanding this, having reviewed the previous Transport Assessment, it is clear that it over-estimated traffic impacts. Therefore, to provide some comfort on the traffic impact point, **Section 2** of this note provides a revised estimate of the traffic generation of the development proposal.

1.3.4 Site layout is a reserved matter and therefore **Section 3** of this note summarises the permitted access arrangements. It also considers the street hierarchy of the proposal (e.g. carriageway widths and footway provision); the provision for manoeuvring of servicing and emergency vehicles; and the provision for car parking.

SECTION 2 TRAFFIC IMPACT

2.1 Previously Agreed Trip Generation

2.1.1 The Transport Assessment that accompanied the application identifies the following peak hour two-way traffic generation.

Table 2.1: Trip Generation of Permitted Scheme – 90 Privately Owned Houses

	Weekday Morning Peak Hour (0800-0900 Hours)			Weekday Evening Peak Hour (1700-1800 Hours)		
	In	Out	Two-Way	In	Out	Two-Way
Trip Rate per Dwelling	0.153	0.415	0.568	0.365	0.181	0.546
Traffic Flow (vehicles – 90 homes)	14	37	51	33	16	49

Source: Cannon TA, Table 5.2

2.1.2 The impact of that level traffic generation is acceptable to WSCC and ADC.

2.2 Revised Assessment

2.2.1 The Transport Assessment that accompanied the outline planning application took a somewhat simplistic (albeit robust) approach to traffic generation. It assumed that all dwellings on the site would be privately owned houses, i.e. it made no allowance for the lesser traffic generation of flats and affordable dwellings.

2.2.2 Therefore, an updated traffic generation assessment has been undertaken using the most recent version of TRICS, and separately allows for the following types of dwelling:

- Privately owned houses;
- Houses for rent;
- Privately owned flats; and
- Flats for rent.

2.2.3 The revised trip rates have been derived using the following selection criteria:

- England (excluding Greater London);
- Weekdays;

- Suburban Area and Edge of Town;
- Population within 1 mile: under 25,000
- Population within 5 miles: under 125,000

2.2.4 The trip rates per dwelling are set out in Table 2.2 below. The full TRICS outputs are included in **Appendix D**.

Table 2.2: Updated Vehicular Trip Rates Per Dwelling

Land Use	Weekday Morning Peak Hour (0800-0900)			Weekday Evening Peak Hour (1700-1800)		
	In	Out	Two-Way	In	Out	Two-Way
Privately Owned House	0.126	0.365	0.491	0.324	0.160	0.484
House for Rent	0.156	0.284	0.440	0.293	0.209	0.502
Privately Owned Flat	0.077	0.284	0.361	0.307	0.127	0.434
Flat for Rent	0.088	0.114	0.202	0.116	0.093	0.209

Source: TRICS

2.2.5 These rates have been applied to the accommodation schedule for the reserved matters scheme (*ref: Section 3 of this note*) and yield the follow traffic generation:

Table 2.3: Reserved Matters Scheme Traffic Generation

Land Use	Weekday Morning Peak Hour (0800-0900)			Weekday Evening Peak Hour (1700-1800)		
	In	Out	Two-Way	In	Out	Two-Way
Privately Owned House (58 homes)	7	21	28	19	9	28
Affordable House (16 homes)	2	5	7	5	3	8
Privately Owned Flat (5 homes)	0	2	2	2	1	3
Affordable Flat (11 homes)	1	1	2	1	1	2
Total	10	29	39	27	14	41

Source: Emerging Schedule of Accommodation

2.3 Net Difference

2.3.1 Comparing the traffic generation set out in the Transport Assessment (*ref: Table 2.1*) with the updated traffic generation assessment (*ref: Table 2.3*) yields the following:

Table 2.4: Traffic Generation Comparison – 90 Dwellings

Land Use	Weekday Morning Peak Hour (0800-0900)			Weekday Evening Peak Hour (1700-1800)		
	In	Out	Two-Way	In	Out	Two-Way
Transport Assessment Traffic Generation	14	37	51	33	16	49
Updated Traffic Generation Assessment for Reserved Matters Scheme	10	29	39	27	14	41
Net Difference	-4	-8	-12	-6	-2	-8

Source: Consultant's Estimates

- 2.3.2 Therefore, the traffic impact assessment that was undertaken in the Transport Assessment that accompanied the outline planning application significantly over-estimated traffic impacts. Given that that report concluded that traffic impacts would be acceptable – a conclusion agreed by WSCC and ADC – it is clear that the lesser impacts identified by the updated traffic generation exercise are similarly acceptable.

SECTION 3 SITE LAYOUT

3.1 Accommodation Schedule

3.1.1 The proposed site layout plan for the reserved matters scheme is included in **Appendix B**. In line with the outline permission, 90 dwellings are proposed:

Table 3.1: Reserved Matters Scheme Accommodation Schedule

Unit Type	Number of Units - Reserved Matters Scheme
Private	
2 bed flat	5
2 bed house	7
3 bed house	37
4 bed house	14
Affordable	
1 bed flat	6
2 bed flat	5
2 bed house	10
3 bed house	6
Total	90

Source: Urban Pulse Design

3.2 Site Access

3.2.1 The site will be accessed as follows:

- Vehicular site access with footway provision on to Newbarn Lane as shown on drawing number ITB13052-GA-001 Revision C in **Appendix C**, which accords with the permitted site access plan (*ref: **Appendix A***);
- Pedestrian connection to footpath 134 in the south-eastern corner of the site (*ref: drawing number ITB13052-GA-001 Revision C in **Appendix C***); and
- Pedestrian connection to footpath 134 in the southwestern corner of the site (*ref: site layout plan in **Appendix B***).

3.3 Car Parking

3.3.1 Car parking for the development proposal will be provided in accordance with the following:

- WSCC's Car Parking Demand Calculator¹; and
- The Bersted Neighbourhood Plan 2014-2019.

3.3.2 The WSCC Car Parking Demand Calculator derives the appropriate number of car parking spaces using local car ownership data derived from the Census and allows for *inter-alia*: the size of the dwelling; the type of the dwelling; the number of bedrooms; and the number of allocated spaces. The accommodation schedule in **Table 3.1** has been applied to the calculator as set out in **Appendix E**. This identifies a requirement for 211 parking spaces – 186 allocated and 25 unallocated/visitor spaces.

3.3.3 Policy HDQ8 of the Neighbourhood Plan states:

“Proposals for new development will have adequate onsite parking to meet current and future needs at a minimum rate of two spaces per dwelling unless alternative and accessible car parking arrangements can be made which do not add to on-street congestion. Developments which remove off road parking spaces will not be supported unless alternative provision is made which increases or maintains the number of parking spaces.”

3.3.4 The proposed provision of allocated car parking – as shown on the site layout plan in **Appendix B** – is as follows:

- Private flats: 2 spaces per unit;
- Two bed private houses: 2 spaces per unit;
- Three bed private houses: 2 to 3 spaces per unit;
- Four bed private houses: 3 to 4 spaces per unit;
- One to two bed affordable flats: 1 space per unit;
- Two to three bed affordable houses: 2 spaces per unit.

3.3.5 On this basis, 186 parking allocated parking spaces will be provided in line with the WSCC parking calculator and in excess of the two spaces per dwelling set out in Policy HDQ8 of the Neighbourhood Plan.

¹ Ref: <https://www.westsussex.gov.uk/roads-and-travel/information-for-developers/pre-application-advice-for-roads-and-transport/>

3.3.6 In addition, 25 unallocated/visitor spaces will be provided in full accordance with the WSCC parking calculator and in addition to the Neighbourhood Plan policy.

3.3.7 The overall level of car parking equates to 2.3 spaces per dwelling. In addition, the internal streets have been designed to be sufficiently wide² to accommodate additional occasional ad-hoc parking without obstructing access for refuse, emergency or fire vehicles (see later in this section). The proposed parking provision therefore:

- Accords with WSCC's car parking standards;
- Exceeds the Neighbourhood Plan standards; and
- On this basis, provides more-than-adequate car parking.

3.4 Cycle Parking

3.4.1 Cycle parking will be provided in accordance with the WSCC document '*Guidance for Parking in Residential Developments*', i.e.:

- One and two bed houses: one space;
- Three or more bed houses: two spaces; and
- One and two bed flats: 0.5 spaces if communal areas, otherwise one space.

3.4.2 For the houses, cycle parking will be accommodated within the curtilage of each plot either in sheds or garages. For the flats, the cycle parking will be accommodated in a secure cycle store parking. This is shown on the site layout plan in **Appendix B** and complies with WSCC's cycle parking standards.

3.5 Internal Road Layout

3.5.1 The internal road layout has been designed in accordance with the design principles set out in Manual for Streets (DfT March 2007), i.e.:

² 5m in line with paragraph 6.8.7 of the Manual for Streets.

- Carriageway widths have been kept to a practicable minimum to encourage slow vehicle speeds and thus provide an environment that is safe and suitable for pedestrians and cyclists;
- Shared surfaces have been used such that pedestrians and cyclists will share the space on an equitable basis with vehicles; and
- The need to accommodate vehicular movement (particularly refuse vehicles) has not been allowed to dominate the layout.

3.5.2 The main entrance from Newbarn Lane has a carriageway width of 5.5m and includes 2m footways on both sides. The carriageway width reduces to 5.0m within the site and this is the minimum usually recommended to provide for refuse collection (*ref: MfS para. 6.8.7*).

3.5.3 In terms of the adequacy of road widths, a 5m wide road is sufficient to allow a car and a service vehicle to pass (*ref: Figure 7.1 of the Manual for Streets*). It will allow cars to comfortably pass each other but is not overly wide so as to encourage high vehicle speeds (*ref: page 89 of the Manual for Streets*).

3.5.4 Where footways are provided they will typically be 2m in width. Elsewhere a shared surface will be used and this fully complies with paragraph 7.2.14 of the Manual for Streets, which identifies the circumstances where shared surfaces work well, i.e.:

- In short lengths and in cul-de-sacs;
- Where traffic volumes are less than 100 vehicles per hour; and
- Where parking is controlled or takes place in designated areas (noting that the proposal provides adequate car parking in line with local standards).

3.5.5 The internal access road along the 'sensitive' western boundary has been designed with the following parameters:

- 4.1m carriageway width – sufficient to allow two cars to pass (*ref: Figure 7.1 of the Manual for Streets*);
- 0.9m over-runnable margin, i.e. to provide an overall width of 5m to accommodate two-way movement including the refuse vehicle (*ref: Figure 7.1 and paragraph 6.8.7 of the Manual for Streets*)

3.6 Servicing

- 3.6.1 The reserved matters scheme has been designed to accommodate the movements of a refuse collection vehicle and Dennis Sabre fire tender. The refuse vehicle swept path has been checked using the computer programme AutoTRACK. The resulting swept path plans are included as **Appendix F**.
- 3.6.2 This shows that the site layout makes adequate provision for the refuse collection vehicle whilst complying with the guidance and principles set out in the DfT's Manual for Streets (MfS), *inter alia*:

"The design of local roads should accommodate service vehicles without allowing their requirements to dominate the layout. On streets with low traffic flows and speeds, it may be assumed that they will be able to use the full width of the carriageway to manoeuvre." (ref: MfS para. 6.8.1).

"Larger vehicles which are only expected to use a street infrequently, such as pantechnicons, need not be fully accommodated" (ref: MfS para. 6.8.1).

"The operation of waste collection services should be an integral part of street design and achieved in ways that do not compromise quality of place." (ref: MfS para. 6.8.6).

- 3.6.3 The layout also complies with Building Regulations in terms of enabling bins to be collected from points that are within 30m of households and 25m of the refuse vehicle.
- 3.6.4 It should also be noted that **"waste collection vehicles fitted with rear-mounted compaction units are about the largest vehicles that might require regular access to residential areas"** (ref: MfS para. 6.8.7). Therefore, by providing for the large refuse vehicles, other smaller vehicles that will require regular access (e.g. fire tenders, parcel and supermarket deliveries) will also be accommodated.

SECTION 4 SUMMARY AND CONCLUSIONS

4.1 Summary

4.1.1 Linden Homes South has appointed i-Transport to provide transport and highways advice with regard to a 'reserved matters' planning application for 90 new homes at Newbarn Lane, North Bersted. The scheme already benefits from the following permissions:

- Outline planning permission (*ref: BE/142/15/OUT*) for 90 new homes granted in February 2016. Condition 3 of the outline planning permission requires the site access to be built out in accordance with approved drawings; and
- A permitted variation to condition 3 of the outline permission, providing access in a more northerly position on to Newbarn Lane was granted in May 2017 (*ref: BE/18/17/PL*).

4.1.2 Therefore, it has already been established that:

- The site is in a suitable location in transport accessibility terms;
- The permitted access arrangements will be safe and suitable; and
- The traffic impact of the permitted 90 homes will be acceptable, and certainly not severe.

4.1.3 A public consultation event was held on 18 July 2017. A number of transport issues were raised as concerns by local residents including traffic impact and the design of the site access arrangements. These matters have already been comprehensively dealt with. They are not open to further consideration.

4.1.4 Notwithstanding this, a review of the traffic impact work undertaken in the Transport Assessment that accompanied the outline planning application shows that it significantly over-estimated traffic impacts. Given that that report concluded that traffic impacts would be acceptable – a conclusion agreed by WSCC and ADC – it is clear that the lesser impacts identified by the updated traffic generation exercise set out in this note are similarly acceptable.

4.1.5 The site access arrangement remains as per the extant permissions, i.e.:

- Vehicular site access with footway provision on to Newbarn Lane;
- Pedestrian connection to footpath 134 in the southeaster corner of the site;
and
- Pedestrian connection to footpath 134 in the southwestern corner of the site.

4.1.6 In terms of site layout (i.e. the transport elements of the reserved matters):

- 186 allocated and 25 unallocated spaces are proposed (211 spaces in total), equivalent to 2.3 spaces per dwelling. The proposed parking provision:
 - Accords with WSCC's car parking standards;
 - Exceeds the Neighbourhood Plan standards; and
 - On this basis, provides more-than-adequate car parking.
- Cycle parking will be provided in accordance with the WSCC document *'Guidance for Parking in Residential Developments'*
- The internal road layout has been designed in accordance with the design principles set out in Manual for Streets:
 - The main entrance from Newbarn Lane has a carriageway width of 5.5m and includes 2m footways on both sides;
 - 5m internal carriageway width where refuse vehicle access is required (noting that this will be provided along the 'sensitive' western boundary using a 4.1m carriageway width plus an over-runnable 0.9m margin;
 - A mix of carriageways with 2m wide footways and shared surfaces;
- Swept path analysis has been undertaken to check that the internal street layout makes adequate provision for service and emergency vehicles.

4.2 Conclusion

- 4.2.1 On this basis, the reserved matters scheme is acceptable in transport and highways terms.

APPENDIX A

Permitted Site Access Arrangement



LEGEND

	PROPOSED TACTILE PAVING
	PROPOSED KERB
	PROPOSED DROPPED KERB
	PROPOSED DROPPER KERB
	PROPOSED FOOTWAY EDGING

Rev	Date	Description	Drn	Chk	App
A	31/05/16	MINOR AMENDMENTS	AS	PG	PG
-	20/05/16	ORIGINAL ISSUE	AS	PG	PG

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Client WORKING ON BEHALF OF

LANDFORM ESTATES

Project

NEW BARN LANE
NORTH BERSTED, BOGNOR REGIS

Drawing Title

NEW ACCESS PROPOSAL

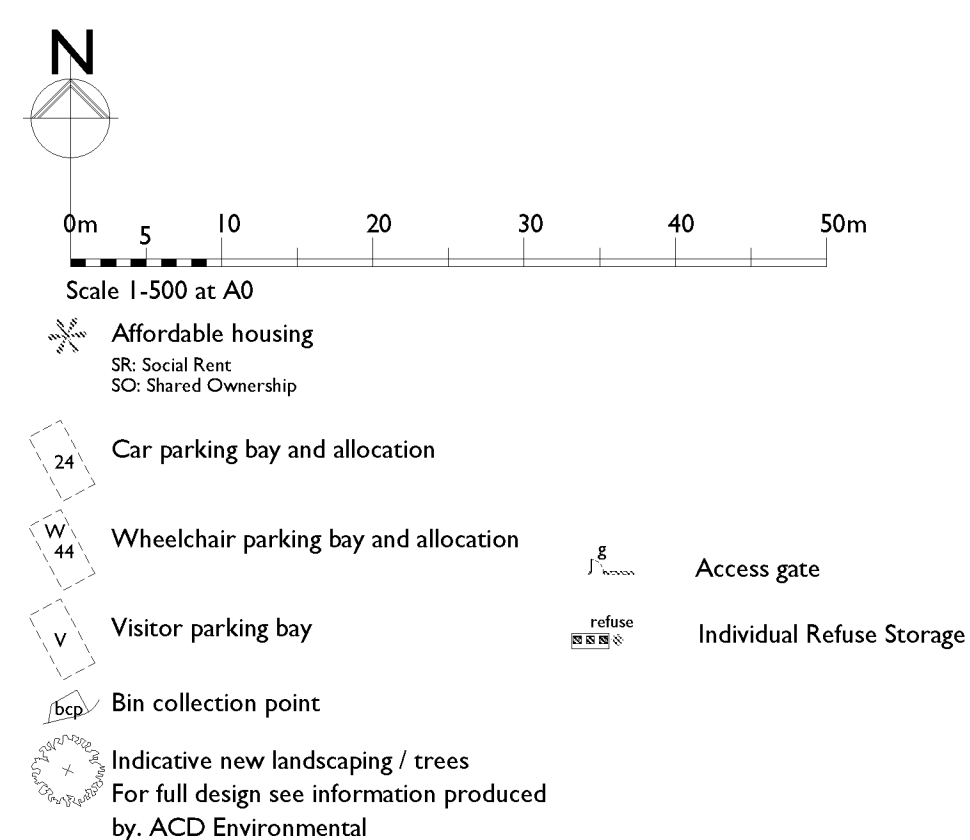
Drawing Status

FOR APPROVAL

Drawn AS	Designed PG	Date MAY 2016	Scale 1:500	Size A3
Drawing No. 507-021				Rev A

APPENDIX B

Proposed Reserved Matters Site Layout



The Sardo, Unit 17, Viewage Farm Business Park, Winchester Road,
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Land West of New Barn Lane
North Bersted Bormor Regis

Linden Homes South		
Project type Residential	Drawing description Site plan	Work stage Site development

Residential	Site Layout
DRAWING TITLE	
Site Plan	

4.1 Planning Layout

SCALE	SHEET SIZE	SHEET NO.	DRAWN BY	CHECKED	DATE	CAD FILE
1:500	A0	of 1	ML	ML	30/06/17	

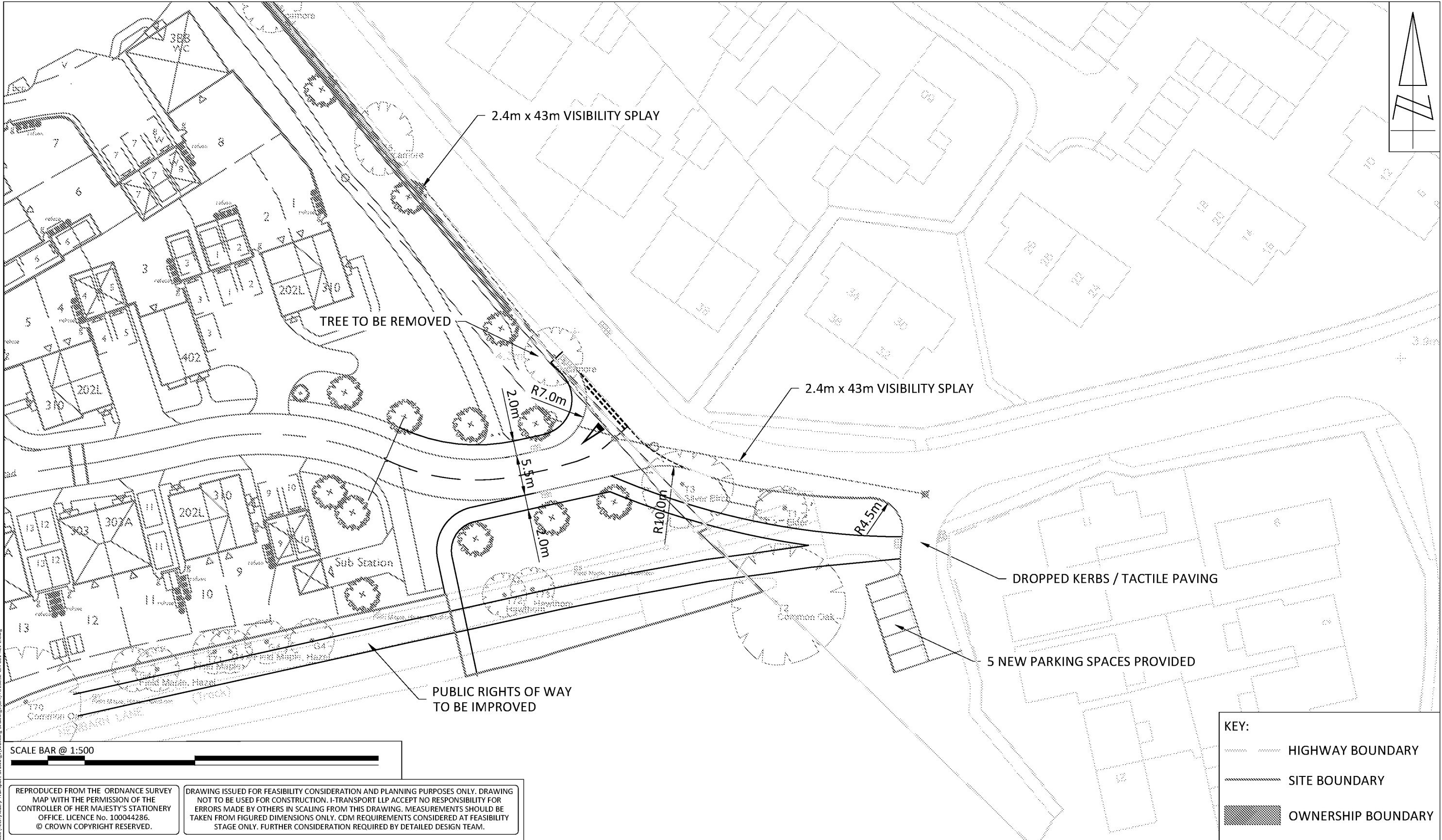
Detail Planning

Detail Planning

16-1103-005

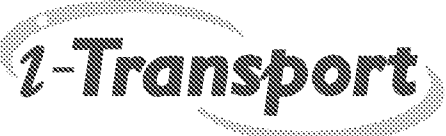
APPENDIX C

Site Access Drawing



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 Grove House, Lutyens Close, Chineham Basingstoke, Hampshire, RG24 8AG www.i-transport.co.uk				C 23.08.17 MC SITE LAYOUT UPDATED MS JCB		B 14.08.17 AB SITE LAYOUT UPDATED MS JCB		A 26.07.17 AB SITE LAYOUT UPDATED MS JCB		TITLE: PROPOSED SITE ACCESS ARRANGEMENT		SCALE @ A3: 1:500	CHECKED: JCB	APPROVED: MS
REV				DATE	BY	DESCRIPTION	CHK	APD	PROJECT: NEW BARN LANE, NORTH BERSTED		CLIENT: LINDED HOMES SOUTH	FILE REF: ITB13052	DRAWN: AB	DATE: 01.06.17
STATUS:				DRAFT						DRAWING No: ITB13052-GA-001		PROJECT No: ITB13052		REV: C

T:\Projects\13000 Series\13052\13 New Barn Lane, North Bersted\Tch\Acad\Transport Drawings\Working Drawings\GA\ITB13052-GA-001 Rev C.dwg