



Land South of Lower Road, Bedhampton

Transport Statement

Client: Bargate Homes

i-Transport Ref: SJ/RS/ITB12174-005B R

Date: 09 November 2020

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Quality Management

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SECTION 1 INTRODUCTION

1.1 Background

- 1.1.1 i-Transport LLP have been appointed by Bargate Homes to produce a Transport Statement (TS) in support of a detailed planning application for a residential development to the south of Lower Road, Bedhampton. The site location plan is shown in **Figure T1**. This TS has been produced to assess the transport and highways implications of the scheme, including accessibility of the site by non-car modes.

1.2 Previous planning application and agreed highways position

- 1.2.1 A previous planning application on this site (ref: APP/19/00427) was submitted in April 2019. That application was supported by a TS (ref: ITB12174-005A R). The TS was supplemented by a Technical Note (ref: ITB12174-007B TN). Hampshire County Council (HCC) in their role as the Highway Authority confirmed it had no objection in a letter dated 14 November 2019 to the earlier application subject to the imposition of planning conditions and a Section 106 Agreement.
- 1.2.2 For completeness, Technical Note (ref: ITB12174-007B TN) and the HCC response to the earlier application are both included in this TS at **Appendix J**.

1.3 Scope of Report

- 1.3.1 Havant Borough Council (HBC) is the Local Planning Authority for this area. Hampshire County Council (HCC) is the Local Highway Authority. This TS has been prepared in accordance with the guidelines set out by the National Planning Policy Framework (NPPF) and its scope has been agreed with officers at both HBC and HCC during the previous application discussions and HCC has agreed the form of site access through its Pre-Application Design Review (PADR) process and has confirmed it had no highways or transport objection to the previous application.
- 1.3.2 This TS assesses the transport and highways issues resulting from the proposed development. In particular, it identifies the proposed access arrangements, how the development will deliver sustainable travel opportunities in line with national and local transport planning policy requirements, as well as quantifying the likely traffic generation of the site and the resultant impact on the local highway network.

1.3.3 The remainder of the TS is structured as follows:

- Section 2: National and Local Policy Context;
- Section 3: Existing Transport Conditions;
- Section 4: Development Proposal;
- Section 5: Accessibility Review;
- Section 6: Traffic Impact;
- Section 7: Infrastructure Delivery Statement; and
- Section 8: Summary and Conclusions.

SECTION 2 NATIONAL AND LOCAL POLICY REVIEW

2.1 National Policy

National Planning Policy Framework

2.1.1 The National Planning Policy Framework (NPPF) February 2019 sets out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development.

2.1.2 The NPPF states that all developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment and a Travel Plan (ref: NPPF, paragraphs 111).

2.1.3 It is stated that in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- ***“appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;***
- ***safe and suitable access to the site can be achieved for all users; and***
- ***any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree”.*** (ref: NPPF, paragraph 108)

2.1.4 In addition, it is stated that:

- ***“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”*** (ref: NPPF, paragraph 109)

National Planning Practice Guidance (NPPG) – March 2014.

2.1.5 The NPPG was published in March 2014 and sets out the key roles of Transport Assessments / Statements:

“Transport Assessments and Statements are ways of assessing the potential transport impacts of developments (and they may propose mitigation measures to promote sustainable development. Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans).

Transport Assessments are thorough assessments of the transport implications of development, and Transport Statements are a 'lighter-touch' evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts)."

2.2 Local Policy

Hampshire County Council's Local Transport Plan (2011 – 2031)

2.2.1 HCC's transport strategy for the next 20 years is set out in this document which also outlines how the LTP will contribute to the Council's corporate priorities and includes a three year implementation plan. A vision of: '...safe, efficient and reliable ways to get around a prospering and sustainable Hampshire', is proposed.

2.2.2 Three main priorities are set out in the LTP for the next 20 years. These are:

"Support economic growth by ensuring the safety, soundness, and efficiency of the transport network in Hampshire";

"Provide a safe, well-maintained, and more resilient road network in Hampshire, as the basic transport infrastructure of the County, on which all forms of transport directly or indirectly depend, and the key to continued casualty reduction"; and

"Manage traffic to maximise the efficiency of the existing network capacity, improving journey time reliability and reducing emissions, and thereby supporting the efficient and sustainable movement of people and goods".

2.2.3 The LTP identifies Havant as being within the South Hampshire Joint Strategy area. This has been developed by HCC, Portsmouth City Council and Southampton City Council, working together as Transport for South Hampshire (TfSH – Now Solent Transport).

2.2.4 The LTP outlines the vision for TfSH as to create:

"A resilient, cost effective, fully-integrated sub-regional transport network, enabling economic growth whilst protecting and enhancing health, quality of life and environment"

2.2.5 14 transport policies are identified to deliver this objective. Policies relevant to Havant and Bedhampton include:

"To develop transport improvements that support sustainable economic growth and development within South Hampshire";

"To optimise the capacity of the highway network and improve journey time reliability for all modes";

“To achieve and sustain a high-quality, resilient and well-maintained highway network for all”;

“To deliver improvements in air quality”;

“To improve road safety across the sub-region”;

“To promote active travel modes and develop supporting infrastructure”;

“To encourage private investment in bus, taxi and community transport solutions, and where practical, better infrastructure and services”;

“To work with Local Planning Authorities to integrate planning and transport”;

“To develop and deliver high-quality public realm improvements”; and

“To safeguard and enable the future delivery of transport improvements within the TfSH area”

Havant Borough Transport Statement – December 2013

- 2.2.6 In addition to the LTP, HBC and HCC have produced a Transport Statement for the Borough. There are four objectives outlined in the document:

“Promote economic growth by providing a well maintained, safe and efficient highway network;

Improve access to jobs, facilities and services by all types of transport;

Facilitate and enable new development to come forward; and

Reduce carbon emissions and minimise the impacts of transport on the environment”.

HBC’s Parking Standards Supplementary Planning Document (SPD) July 2016

- 2.2.7 Car and Cycle parking standards for new residential development are provided within HBC’s Parking Standards SPD (adopted July 2016). Table 2.1 details the parking standards for a ‘non-Town Centre’ location.

Table 2.1: HBC Residential Parking Standards

Type	Non-Town Centre	
	Allocated	Shared / Communal (unallocated)
No. of Allocated Spaces per Dwelling		
1 Bedroom	1.0	0.9

Type	Non-Town Centre	
2 or 3 Bedrooms	2.0	1.3 / 1.9
4 or More Bedrooms	3.0	2.4

Source: HBC's Residential Parking Standards Supplementary Planning Document

2.2.8 In addition, an additional 20% of unallocated parking for visitors should be accommodated.

2.2.9 Cycle parking standards are also set out within HBC's Parking Standards SPD, Table 2.2 summarises the standards. Long stay cycle parking for dwelling houses requires secure covered parking for residents' cycles with short stay provision in the form of a secure loop attached to the house or garage.

Table 2.2: HBC's Cycle Parking Standards

Type	Long Stay	Short Stay
1 bedroom	1.0	In larger developments (schemes of 10 or more dwellings), short-term visitor parking will be expected at 20% of the long-term cycle parking standard.
2 or 3 bedrooms	2.0	
4 or more bedrooms	2.0	

Source: HBC's Residential Parking Standards Supplementary Planning Document

Havant Local Plan (2011-2026)

2.2.10 The adopted Local Plan is made up of the Core Strategy 2011 – 2026, which is the principal document outlining how planning will be managed in the borough until 2026.

2.2.11 Policy CS20 of the Core Strategy 'Transport and Access Strategy' states,

Development will be permitted that:

1. Is consistent with and contributes to the implementation of the 'Reduce, Manage and Invest' strategy.

2. Does not increase congestion and promotes better use of existing transport networks.

3. Improves accessibility to goods, services and employment and promotes equality in the transport system.

4. Provides transport management measures to ensure the safe and efficient operation of the strategic and local road network.

5. Ensures that highway design responds positively to the characteristics of the area and delivers a high quality public realm for all users.

6. Maintains or improves the range of transport modes accessible to the users of the development site with specific emphasis on public transport, especially high quality/frequency buses and includes walking and cycling where appropriate. assesses the non-transport infrastructure requirements to support the proposed new development [.....]

7. [.....]

2.2.12 Havant Borough Local Plan (Allocations) document 2014 - 2026 follows on from the Core Strategy and identifies sites for specific uses including, housing, employment, retail, recreation and green infrastructure up to 2026.

Havant Borough Council Local Plan Housing Statement 2016

2.2.13 The HBC Local Plan Housing Statement 2016 (LPHS) was 'made' by HBC's Full Council on 21 July 2016. The LPHS now forms part of the Development Plan and will be used to guide planning decisions in the Borough. The LPHS states that,

The LPHS is a clear position statement as to which sites the Council considers could deliver sustainable development to meet the high housing need up to 2036; providing that the necessary infrastructure is provided alongside new housing.

2.2.14 The LPHS identifies this development site as 'site UE30' as shown on **Figure T1** and concludes it is suitable for early release for the development of 50 homes.

Havant Borough Council's Pre-Submission Local Plan (2018 – 2036)

2.2.15 As with the LPHS, the site was identified within the draft Local Plan and is now included in the Pre-Submission Local Plan as **Site H20 – Land south of Lower Road**.

2.2.16 In terms of transport, Site H20 states that residential development of about 50 dwellings will be permitted where:

- ***An appropriate means of access is established to the satisfaction of the Highway Authority; and***
- ***Havant Footpath 107 is enhanced and provisions for greater connection between it and the site (through signage) are achieved;***

2.2.17 The Pre-Submission Havant Borough Local Plan 2036 was approved by the Full Council on 30 January 2019 and consulted on between 1 February and 18 March 2019.

2.2.18 As a result of the 2019 consultation and changes to legal requirements, some further changes were made to the plan before submission to the examination. These changes were agreed by the Full Council on 9 September 2020 and a consultation on those changes is taking place from the 3 November until 17 December 2020. In respect of **Site H20 – Land south of Lower Road**, the only change relative to highways and transport was for the requirement for *“an appropriate means of access is established to the satisfaction of the Highway Authority”* to be deleted. It is assumed that this deletion was due to the access having now been agreed with the Highway Authority as documented in **Appendix J**.

2.3 Policy summary

2.3.1 The site is identified in adopted local policy as being suitable for early release for the development of 50 homes. The site is also included within the Pre-Submission Local Plan as Site H20 – Land south of Lower Road and is identified as being suitable for 50 homes.

2.3.2 The NPPF confirms that there is a presumption in favour of sustainable development. The relevant planning policies suggest that account should be taken of whether opportunities for sustainable transport modes have been taken up, to ensure the need to travel will be minimised and the use of sustainable transport modes can be maximised. Safe and suitable access to sites should be achieved for all people and assessments should take account of whether improvements can be undertaken within the transport network that cost-effectively limit the significant impacts of development. The NPPF also states that development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

2.3.3 The subsequent sections of this report describe how the proposed development complies with these local and national transport planning policy considerations.

SECTION 3 EXISTING TRANSPORT CONDITIONS

3.1 Introduction

- 3.1.1 This section of the TS sets out the existing transport conditions in the local area. This includes a review of the opportunities to use non-car modes, as well as the current operation of the existing highway network.

3.2 Site Location

- 3.2.1 The site is located to the south of Bedhampton and has an existing residential development located to the north, with the railway line and A27 Trunk Road to the south, A3(M) located to the west with a open field and Mill Lane beyond to the east.

3.3 Walking and Cycling

- 3.3.1 Lower Road fronts the site from west to east, turning some 90 degrees northwards at the eastern end of the site and then some 90 degrees eastwards. Lower Road continues northwards (as Brookside Road) to the junction with Bedhampton Road. This leads east to local bus stops (served by up to ten buses an hour), Bedhampton centre and the railway station (**Image 3.1** – top left).
- 3.3.2 West of the site Lower Road intersects with Lodge Road, a residential cul-de-sac. A public footpath (FP107) links Lodge Road and Bedhampton Road. (**Image 3.1** - top right). The Definitive Map of Rights of Way is included in **Appendix A**.
- 3.3.3 Site inspections have been carried out including a meeting with HBC and HCC officers on 1 March 2017 which noted the following:
- Lower Road is lit and subject to a 30mph speed limit;
 - Lower Road is a minimum of 4.7m wide, with a width of around 5.5m between the bends and Brookside Road;
 - Lower Road and other local residential streets typically have footways on one side although there are two short sections near the site without footways:
 - On Lower Road fronting the site (see **Image 3.1** - middle left);

- On Lower Road just north of the site between the 90-degree bends (**Image 3.1** - middle right and bottom left);
- Lodge Road has a footway on both sides (**Image 3.1** – bottom right); and
- The local footways and FP107 are lit and hard-surfaced and thus usable year-round.

Image 3.1 Photographs of Lower Road and nearby pedestrian provision



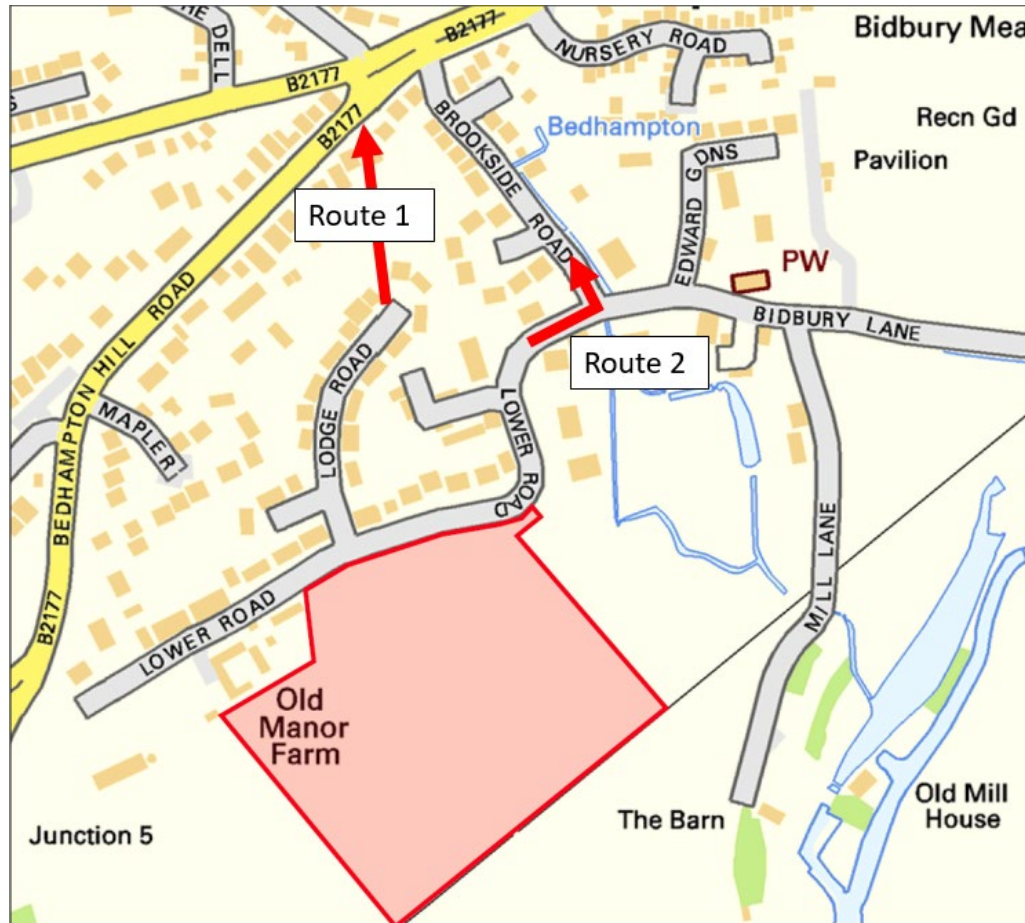
Source: i-Transport

3.3.4 The existing walking routes from the site are:

- Route 1 - The walk to the Bedhampton Road bus stops (475m via Lodge Road); and
- Route 2 - The walk to the Bedhampton Road bus stops (510m via Lower Road and Brookside Road).

3.3.5 These routes are shown **Image 3.2** and assessed in more detail on Section 4 and 5.

Image 3.2: Main pedestrian routes from development



Source: Illustrated Extract of Figure T1

Site frontage with Lower Road

3.3.6 There are currently no footways along the site frontage.

3.3.7 As part of the site access road, a new footway will be provided from the site to Lodge Road and the existing footway in Lower Road, this is described fully in Section 4.

Speed limits and Street lighting

3.3.8 Both Lower Road and Lodge Road are subject to a 30mph speed limit. Both Lower Road and Lodge Road along with the roads beyond them are street lit to a standard suitable for their respective highway status.

Cycling

- 3.3.9 Lower Road is part of the HBC formal cycle network (full mapping in **Appendix B**) and other local roads are also identified as being suitable for cycling. The road network is subject to a 30mph speed limit and is lightly trafficked making it safe and convenient for cycling. Paragraph 6.4.1 of Manual for Streets states:

“Cyclists should generally be accommodated on the carriageway. In areas with low traffic volumes and speeds, there should not be any need for dedicated cycle lanes on the street”

- 3.3.10 In addition, Lower Road provides a cycle connection to the National Cycle Route Network at the ‘Rusty Cutter’ roundabout where NCN 22 can be accessed for cycle journeys to Portsmouth.

Public Rights of Way

- 3.3.11 The Public Rights of Way (PROW) network within the immediate area includes Footpath 107 which extends north-south from Lodge Road to connect with Bedhampton Road. The Definitive Map of PROW is included in **Appendix A**.

3.4 Public Transport

Buses

- 3.4.1 The closest bus stops to the site are located on Bedhampton Road to the north. **Table 3.1** below provides a summary of the routes and their frequencies.

Table 3.1: Local Bus Services

Closest Bus Stop	Service	Route (Operator)	Service Details		
			Mon-Fri	Sat	Sun
Bedhampton adj. Nursery Road	21	Stagecoach Portsmouth (Havant – Portsmouth)	Every 10-15mins, first bus to Portsmouth at 05:47, last bus from Portsmouth at 23:07. First bus to Havant at 05:52, last bus from Havant at 23:00.	Every 10-15mins, first bus to Portsmouth at 06:37, last bus from Portsmouth at 23:07. First bus to Havant at 06:53, last bus from Havant at 23:00.	Every 20-30 mins, first bus to Portsmouth at 07:54, last bus from Portsmouth at 21:45. First bus to Havant at 07:54, last bus from Havant at 19:30.

	23	Stagecoach Portsmouth (Leigh Park – Southsea)	Every 15mins, first bus to Southsea at 05:29, last bus from Southsea at 22:45. First bus to Leigh Park at 06:00, last bus from Leigh Park at 22:54.	Every 15mins, first bus to Southsea at 07:06, last bus from Southsea at 22:45. First bus to Leigh Park at 07:20, last bus from Leigh Park at 22:54.	Every 20-30mins, first bus to Southsea at 08:07, last bus from Southsea at 22:25. First bus to Leigh Park at 08:21, last bus from Leigh Park at 22:34.
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Source: Traveline South East (2019 pre Covid-19)

- 3.4.2 It can be seen from **Table 3.1** that the site is very well served by bus with numbers 21 and 23 calling at the stops on Bedhampton Road (approx. 500m or less than a ten-minute walk) from the centre of the site providing a ‘turn up and go’ level of service. The bus stops provide up to ten services per hour to destinations including Portsmouth, Havant and Southsea.

Rail

- 3.4.3 The nearest station to the proposed development site is Bedhampton Railway Station which lies on a section of line which is common to the Portsmouth – London line (London Waterloo to Portsmouth Harbour) and the Coastal Line from Brighton to Southampton.
- 3.4.4 Bedhampton Station is located approximately 1000m northeast of the proposed site. The station does not include car parking but does provide cycling facilities with the capacity for 20 bicycle parking spaces.
- 3.4.5 **Table 3.2** below provides a summary of the services from Bedhampton station, including their typical frequency and journey time during both peak and off-peak periods.

Table 3.2: Rail Services

Train Station	Destination	Frequency		Average Journey Duration
		Peak	Off-Peak	
Bedhampton	Portsmouth Harbour	4 services per hour	2 services per hour	20 mins
	Chichester	2 services per hour	2 services per hour	23 mins
	London Waterloo	2 services per hour	2 services per hour	99 mins

Source: National Rail (2019 per Covid-19)

- 3.4.6 **Table 3.2** demonstrates that Bedhampton Station is served by frequent rail services to major destinations such as London, Portsmouth and Chichester.

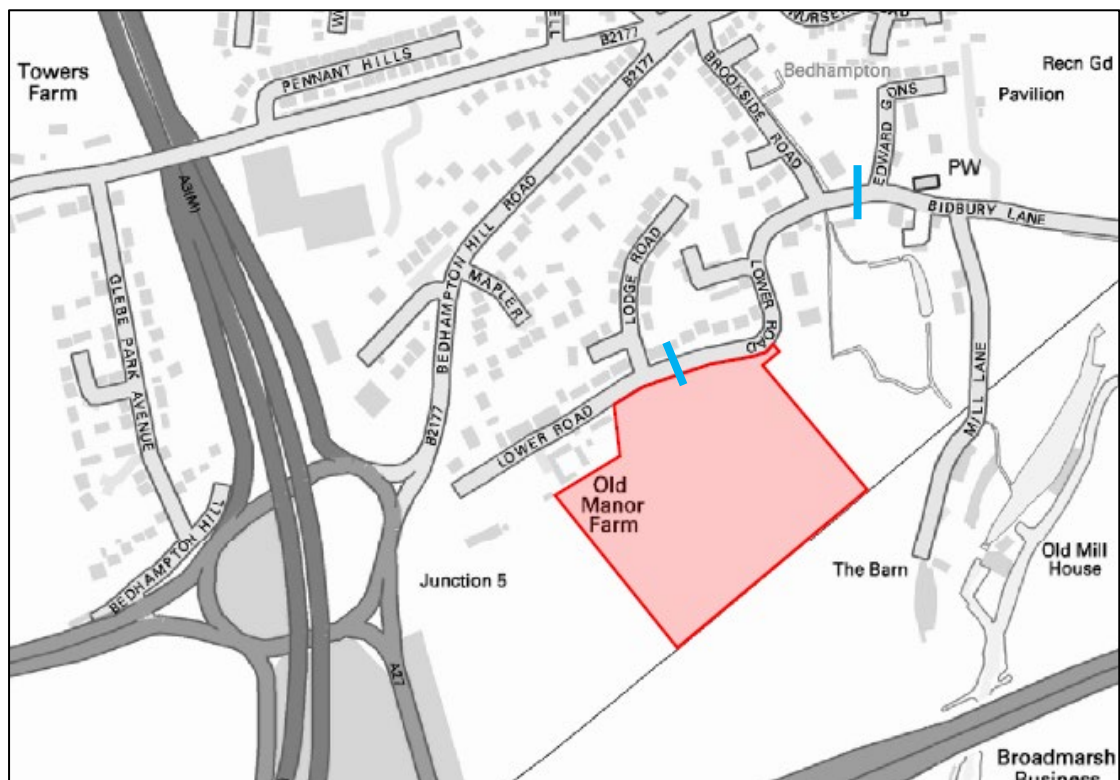
3.5 Local Highway Network

- 3.5.1 Access to the site will be via Lower Road which is a street lit two-way carriageway with a 30mph speed limit. Lower Road leads to Lodge Road to the north-west which is a small residential cul-de-sac. To the north-east, Lower Road connects to Brookside Road which meets the B2177 Bedhampton Road at a priority junction (left out and right / left in only).

Existing Traffic Flows

- 3.5.2 Automated Traffic Count (ATC) Surveys were undertaken in two locations on Lower Road and Bidbury Lane to establish the baseline traffic flow in September and October 2016. The location of the ATCs are shown on **Image 3.3** and the full ATC data is included at **Appendix C**.

Image 3.3: ATC Location



- 3.5.3 The flow data from the ATC is summarised in **Table 3.3** and shown in **Figure TF1**.

Table 3.3: Lower Road (Site Access – Weekday Average)

Location	Time Period	Southbound (Total Vehicles)	Northbound (Total Vehicles)	Two-Way (Total Vehicles)
Lower Road	Morning Peak	18	42	60
	Evening Peak	29	29	58
Bidbury Lane	Morning Peak	12	9	21
	Evening Peak	20	20	40

Source: ATC Surveys September 2016

- 3.5.4 In addition, Manual Classified Counts (MCC) were undertaken at the junction of Brookside Road / Bedhampton Road and the Bedhampton Road / Bedhampton Hill / Maylands Road roundabout on Wednesday 10 May 2017 and recorded morning and evening peak period traffic flows. The results of the MCC are shown **Figure TF1** and **TF2**, the full data is in **Appendix C**.

3.6 Traffic Speeds

- 3.6.1 The ATC surveys also recorded vehicle speeds. Two separate ATCs were located in the vicinity of the proposed site access on Lower Road. One ATC was located approximately 25m east of the proposed site access on the bend of Lower Road with the second on Lower Road located circa 70m west of the site access. The recorded vehicle speeds along Lower Road have been presented in **Table 3.4**.

Table 3.4: Lower Road Speeds (Weekday Average) for Site Access

Lower Road	85 th %tile Speed	85 th %tile Wet Weather Speed
Eastbound	20.6mph	18.1mph
Westbound	18.2mph	15.7mph

Source: ATC Surveys September and October 2016

- 3.6.2 Wet weather speed adjustments were carried out to derive wet weather speeds. The resultant 85th percentile wet weather speeds and dry weather speeds are shown in **Table 3.4** and the full speed data is in **Appendix C**.

Highway Safety

- 3.6.3 Personal Injury Accident (PIA) data for the last 5-year period has been obtained from Hampshire Constabulary for the local highway network in the vicinity of the site, including Bedhampton Road, the site frontage and other residential roads.
- 3.6.4 The data covers the six and a half-year period provided by Hampshire Constabulary on 30/06/2018 from 01/05/11 up to 31/01/18 and is included in **Appendix D**.
- 3.6.5 There have been no recorded collisions in the last 5 years in the vicinity of the site as shown by the map plot in **Appendix D**.

3.7 Summary

- 3.7.1 The site access proposal (described in Section 4) will ensure the site is accessible by non-car modes. A good standard of walking facilities are provided on the local highway network in the vicinity of the site. The local roads provide suitable conditions for cycling. Bus stops served by very frequent services are within 500m of the site providing connections to Portsmouth, Havant and Southsea.
- 3.7.2 Analysis of the local highway network shows that the local roads around the site are lightly trafficked and have a good highway safety record. The impact of the proposal on local roads is considered further in Section 6.

SECTION 4 DEVELOPMENT PROPOSAL

4.1 Introduction

- 4.1.1 The proposed development consists of 50 residential dwellings, some of which would be affordable dwellings. The proposed site layout is shown on **Drawing 17.043 102 Rev U**.

4.2 Site Access Arrangements

- 4.2.1 The NPPF at paragraph 108 requires that:

“Safe and suitable access to the site can be achieved for all people”

- 4.2.2 It is proposed to provide a single point of vehicular access into the site from Lower Road, to include:

- A new simple priority junction;
- A site access road with 5.5m wide carriageway;
- Visibility splays of 43m in excess of measured 85th percentile vehicle speeds; and
- A new pedestrian footway along Lower Road (within the site) to the west connecting with the existing footway network in Lodge Road and a footway to the east (within the site) to provide access towards Brookside Road.

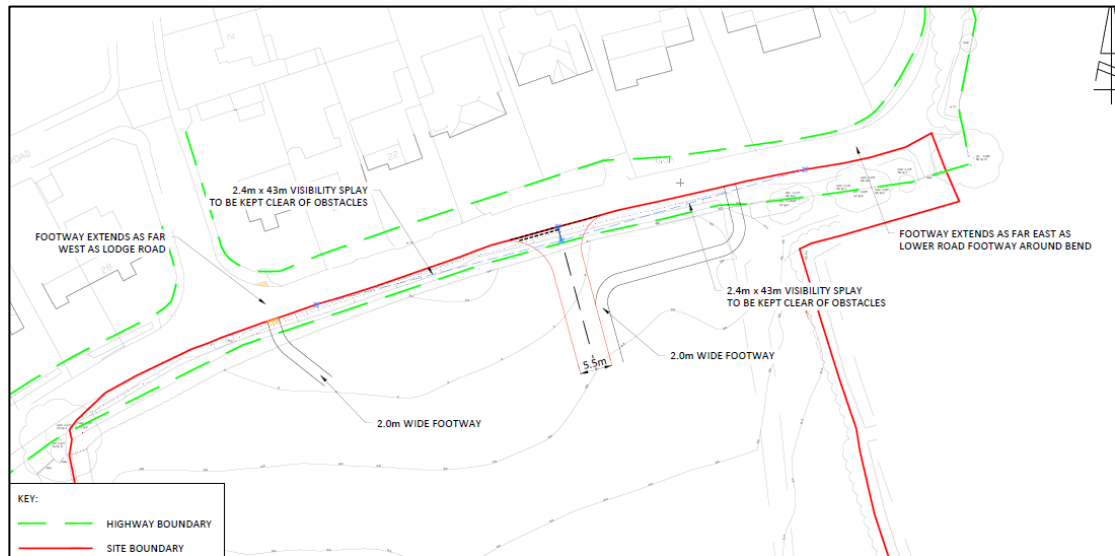
- 4.2.3 The site access road layout, visibility splays and new footway at the junction accord with relevant design standards and are illustrated in **drawing ITB12174-GA-002 Rev C** and MJA drawing 5992:601 Rev C.

HCC Pre-Application Design Review (PADR) process

- 4.2.4 The site access arrangements on drawing ITB12174-GA-002 involve minor works on the public highway and in line with Hampshire County Council's (HCC) Section 278 Procedures, a Pre-Application Design Review (PADR) package was submitted to establish the acceptability of the access works 'in principle'.
- 4.2.5 HCC have produced a PADR report which confirms the geometric layout shown on **drawing ITB12174-GA-002** is suitable for this type of development.

- 4.2.6 An extract of **drawing ITB12174-GA-002** showing the proposed access arrangements is shown at **Image 4.1**.

Image 4.1 Extract of ITB12174-GA-002 – Site access arrangement



Source: i-Transport

Swept path analysis

- 4.2.7 The proposed site access has been tracked for the swept path movements of a 11.37m refuse collection vehicle for inbound and outbound movements and this has also been agreed with HCC and HBC. This is shown in **drawing ITB12174-GA-006 Rev A**. Further analysis is also provided on MJA's drawings.

Road Safety Audit

- 4.2.8 To consider the safety of the proposed works, a Stage 1 Road safety Audit (compliant with HD19/15) has been completed. This is presented at **Appendix E**. The auditors' recommendations are accepted and noted within the integral Designers Response and shown on **drawing ITB12174-GA-002**. The auditor has confirmed he has no further comments to make.

Summary

- 4.2.9 The proposed access has been designed to comply with the relevant design standards outlined in the Manual for Streets guidance with relevant design speed applied. The work is shown to meet standards, operate adequately and the recommendations of an independent Road Safety Audit are acceptable and have been incorporated.

- 4.2.10 The site access has been agreed as an appropriate means of access to the satisfaction of the Highway Authority as required in the previous Pre-Submission Local Plan Site H20 policy.

4.3 Pedestrian and Cycle Access

- 4.3.1 The development will connect to existing pedestrian routes which are identified in **Image 3.2** and described below.

Route 1

- 4.3.2 The section of Lower Road that fronts the site does not have a footway see **Image 4.2** below.

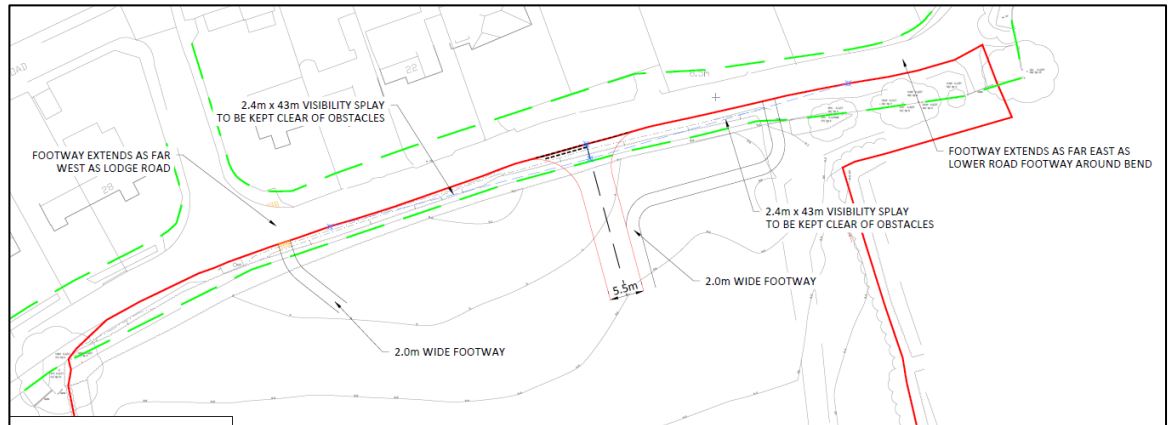
Image 4.2 – Section of Lower Road to Lodge Road with no footway



Source: i-Transport site photograph

- 4.3.3 The proposed site access arrangement (**drawing ITB12174-GA-002 Rev C** – extracted at **Image 4.3**) proposes a footway along Lower Road (within the site), tying in with existing footways at the end of Lodge Road and the corner on Lower Road – additional signage could be provided towards Lodge Road and Footpath 107. The stretch of Lower Road near the site currently without a footway will therefore cease to exist with development in place.

Image 4.3 Proposed Lower Road footway (extract of drawing ITB12174-GA-002 Rev C)



Source: Extract of drawing ITB12174-GA-002 Rev C

Route 2

- 4.3.4 The footway shown on **drawing ITB12174-GA-002** will connect with the existing footway on the corner on Lower Road. Beyond this there is a 50m straight section of Lower Road without a footway, see **Image 4.4**.

Image 4.4 Lower Road 'between the bend' with no footway



Source: i-Transport site photographs

- 4.3.5 This section currently operates as a section of shared surface street, it operates safely because:
- It is lightly trafficked with slow traffic speeds – 85th Percentile speeds of 21mph (ref: **Appendix C** and **Table 3.4**);

- It has an impeccable safety record (ref: crashmap.co.uk – no recorded injury accidents between 1999 and 2015);
- The road is straight, street lit and has forward visibility to pedestrians of around 30m (recorded 85th percentile speeds of 21mph require 24m of forward visibility);
- A driver can see a pedestrian on Lower Road and pedestrians will be using existing footways whilst on the bends themselves;
- A development of 50 homes will not significantly increase vehicular traffic (generating around 26 new vehicle trips in the busiest hour of the day); and
- The alternative route (Route 1 via Lodge Road) provides a shorter, lit, hard-surfaced and traffic free route meaning pedestrians will have a choice of walking routes.

4.3.6 The above has been agreed with HCC and HBC and is considered in further detail in Section 6.

4.4 Site layout

4.4.1 The internal site layout is being designed others and the highway matters considered by a civil engineering practice and separate documents are included in the planning application submission.

4.5 Car and cycle parking

4.5.1 The proposed dwelling mix includes a range of dwelling sizes and based on HBC's parking standards, **Table 4.1** below shows the necessary parking spaces.

Table 4.1: Car Parking Standards Havant Borough Council

Type	Non Town Centre	
Dwellings	Allocated	Shared / Communal (unallocated)
1 Bedroom x 2	1.0	0.9
2 or 3 Bedrooms x 43	2.0	1.3 / 1.9
4 or More Bedrooms x 5	3.0	2.4

Source: HBC Parking Standards

- 4.5.2 Car parking is in line with these standards is shown on drawing number **Drawing 17.043 102 Rev U** in accordance the above HBC Parking Standards.

Cycle Parking

- 4.5.3 **Table 4.2** below summarises the cycle parking standards and the type and number of cycle parking spaces required, this level will be provided at each dwelling.

Table 4.2: Cycle Parking Standards, Havant Borough Council

Type	Long Stay	Short Stay
1 bedroom	1 per dwelling	+20%
2 bedrooms	2 per dwelling	
3 bedrooms	2 per dwelling	
4 bedrooms	2 per dwelling	

Source: HBC Parking Standards

4.6 Refuse Collection and Servicing

- 4.6.1 Within the site, roads have been designed to enable a car to pass a large refuse or service vehicle. The layout incorporates space within the carriageway to enable a large refuse vehicle to access, turn within the site, and egress turning areas in a forward gear. The refuse collection arrangements have been designed with regard to the guidance on good practice, carry distances etc. in Section 6.8 of Manual for Streets (MfS) and with reference to the Hampshire County Council Manual for Streets Companion Document by the applicants civil engineering advisors. Separate documents are included in the planning application submission covering the internal layout.

4.7 Summary

- 4.7.1 It has been demonstrated that the proposed access meets current and relevant design standards in Manual for Streets and that it provides safe and suitable access to the development for pedestrians, cyclists and vehicles. The access has been through an independent Stage 1 Road Safety Audit and the subject of HCC's Pre-Application Design Review process. The site access has been agreed as an appropriate means of access to the satisfaction of the Highway Authority as required in the Pre-Submission Local Plan Site H20 policy.

4.7.2 The internal site layout, including the road layout, car parking and refuse collection arrangements have been comprehensively designed by the applicants civil engineering advisors and are available as part of the planning application documentation and it is clear that safe and suitable access will be provided for all in accordance with the NPPF.

SECTION 5 ACCESSIBILITY REVIEW

5.1 Introduction

- 5.1.1 As set out in Section 2 of this report, the NPPF advises that development should be sustainable. In promoting sustainable transport, it is important to consider the reasons why future residents of the proposed development will make journeys. The Department of Transport's National Travel Survey identifies the proportion of all trips by purpose as set out in **Table 5.1** below.

Table 5.1: Proportion of Trips per Year by Journey Purpose

Journey Purpose	Proportion of Trips
Leisure	26%
Shopping	19%
Commuting/Business	18%
Education/Escort Education	12%
Personal Business	10%
Other Escort	9%
Other (Including Just Walk)	6%

Source: Table NTS0409 Average number of trips by purpose and main mode: England NTS – 2017 Edition

- 5.1.2 By understanding the main types of journeys that people make, the key destinations for future residents of the proposed site can be determined. This section of the TS provides an assessment of the key destinations by journey purpose and summarises the opportunities to access each destination by non-car modes of transport.

5.2 Walking and Cycling

Walking

- 5.2.1 Manual for Streets (MfS) paragraph 4.4.1 states:

“Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance.....however this is not an upper limit and.....walking offers the greatest potential to replace short car trips, particularly those under 2km.”

- 5.2.2 Further, the National Travel Survey (NTS) 2014 (released September 2015) confirms that some 76% of all trips under 1 mile (circa 1.6km) are walks. Walking still accounts for some 31% of all

trips between 1 and under 2 miles (circa 1.6km – 3.2km). The NTS data is included at **Appendix F**.

5.2.3 It is clear from the guidance available that acceptable walking distances will vary between individuals and circumstances for example physical fitness, encumbrances (e.g. shopping etc.), journey purpose, attractiveness of walk route etc. On this basis it is considered that:

- Up to 800m is a “comfortable” walking distance;
- 2km offers the greatest potential to replace cars trips and is therefore a “reasonable” walking distance.
- Some people may walk further than this and, as such 3.2km (2 miles) is a “maximum” walking distance for non- leisure activities.

Cycling

5.2.4 Paragraph 1.5.1 of the DfT Document LTN 02/08 ‘Cycle Infrastructure Design’ discusses typical cycle trip distances and states that local highway networks are primarily for local journeys and many utility cycle journeys are under three miles (4.8km) although for commuter journeys a trip distance of 5 miles (8km) is not uncommon.

5.2.5 A cycling distance of up to around 5km (3 miles) therefore offers the greatest potential to replace cars trips, although a number of cycle journeys may be longer at 8km (5 miles). Cycling also frequently forms part of a longer journey in combination with public transport.

Local facilities

5.2.6 The facilities and key destinations within a 800m ‘comfortable’, 2km (1.2 miles) ‘reasonable’ and a 3.2km (2 miles) ‘maximum’ walking distance and a 8km (5 miles) ‘reasonable’ cycle distance of the site are shown on **Figure T2**. The respective distances are shown on **Table 5.2**.

Table 5.2: Walk and Distance (Measured from Centre of site) to Key Local Facilities

Purpose	Destination	Approx. Total Distance (m)	Walking Distance	Cycling Distance
Leisure	Beefeater Rusty Cutter Restaurant	690	✓✓✓	✓✓✓
	Imperial Palace Restaurant	650	✓✓✓	✓✓✓
	Bedhampton Mariners Cricket Club	480	✓✓✓	✓✓✓
	Havant Leisure Centre	2200	✓	✓✓✓

Purpose	Destination	Approx. Total Distance (m)	Walking Distance	Cycling Distance
	Havant Rugby Football Club	1800	✓✓	✓✓✓
	The Swan Inn Restaurant	1400	✓✓	✓✓✓
	Havant Park	2100	✓	✓✓✓
	Recreation Ground	970	✓✓	✓✓✓
Employment	Volvo Cars Havant	940	✓✓	✓✓✓
	Industrial Estate	2000	✓✓	✓✓✓
	Langstone Technology Park	2100	✓	✓✓✓
	EndEavour Business Park	2700	✓	✓✓✓
	Havant Town Centre	2200	✓	✓✓✓
	Havant Industrial Estate	1900	✓✓	✓✓✓
Retail	Belmont Barber Shop	650	✓✓✓	✓✓✓
	Deep Blue Takeaway	820	✓✓	✓✓✓
	Tesco Extra	2300	✓	✓✓✓
	Asda Superstore	2150	✓	✓✓✓
	Aldi	1900	✓✓	✓✓✓
	Havant Town Centre	2200	✓	✓✓✓
	Post Office	990	✓✓	✓✓✓
	Convenience Store	970	✓✓	✓✓✓
Education	Havant College	1800	✓✓	✓✓✓
	Trosnant Junior School	2300	✓	✓✓✓
	Bidbury Junior School	1900	✓✓	✓✓✓
	Bidbury Infant School	1900	✓✓	✓✓✓
	St Thomas More's Pre School	1600	✓✓	✓✓✓
	Barncroft Primary School	1900	✓✓	✓✓✓
	South Down College	3000	✓	✓✓✓
	Bosmere Junior School	2400	✓	✓✓✓
Health	Rowlands Pharmacy	830	✓✓	✓✓✓
	Damira Dental Care	2200	✓	✓✓✓
Others	St Thomas Church	340	✓✓✓	✓✓✓
	Saint Nicholas Church	860	✓✓	✓✓✓
	Bedhampton Methodist Church	970	✓✓	✓✓✓

Note to walking distance column: ✓✓✓ up to 800m distance and reasonable cycle distance, ✓✓ - 800m – 2km distance, ✓ 2km – 3.2km – “maximum” walking distance

5.2.7 Table 5.2 identifies the key local destinations in the vicinity of the site and assesses the opportunity to access these facilities by non-car modes. It demonstrates that there is a range of facilities (retail, education, health, employment and leisure) within reasonable walking and cycling distance of the site, enabling future residents to access these facilities by non-car modes.

5.2.8 These facilities can be accessed by the proposed site access infrastructure (Section 4) and the existing highway network which Section 3 of this report identifies is suitable for pedestrians and cyclists.

5.2.9 In addition to the local destinations in **Table 5.2**, it should be noted that both Portsmouth and Chichester city centres which offer further employment, retail, health and leisure services can be reached by a short (approx. 20 minute) train journey respectively. Bedhampton railway station can be accessed on foot or by cycle and the Number 21 and 23 buses provide excellent bus access. The railway station also provides for onward journeys to Central London as shown in **Table 3.2**.

5.3 Pedestrian improvements for routes to school

5.3.1 As part of the previous planning application for the site work was completed in respect of walking routes to schools. Technical Note ITB12174-007B TN at **Appendix J** sets this out. The HCC response also within that appendix confirms it is agreed. The applicant has agreed to make a financial contribution of £23,489 towards improvements to routes to schools.

5.4 Summary

5.4.1 The analysis in this section confirms that the site is located within acceptable walking and/or cycling distance of a range of essential and everyday facilities including primary education, local shopping facilities and employment. Further facilities in Portsmouth and Chichester city centres including additional employment, retail and leisure can be accessed by a short bus or train journey.

5.4.2 The applicant has also agreed to contribute towards a series of physical improvements to walking routes to schools.

5.4.3 The development proposal therefore complies with current local and national transport policy, by promoting development in a location where there is accessibility to a range of destinations by a choice of modes of transport.

SECTION 6 TRAFFIC IMPACT

6.1 Trip generation

6.1.1 To understand the potential impact of residential development on the local highway network, an assessment of the likely vehicular trip generation of the development has been undertaken for the morning and evening weekday peak hour periods.

6.1.2 This has been done using vehicular trip rates that are based on traffic surveys of existing residential sites contained in the TRICS trip generation database. The sites have been selected using the following criteria:

- Private and private mixed with affordable only sites housing;
- Region – All regions except Greater London, Ireland, Scotland & Wales;
- Site size – Between 6 and 200 dwellings;
- Location – Edge of town area; and
- Survey days – Monday, Tuesday, Wednesday, Thursdays and Friday.

6.1.3 The resulting trip rates are given in **Table 6.1**. The full TRICS outputs are included in **Appendix G**.

Table 6.1 – TRICS Assessment

Time	AM Peak (0730 – 0830)			PM Peak (1630 – 1730)		
	In	Out	Total	In	Out	Total
Trip Rate (Houses Privately Owned and Mix Affordable)	0.133	0.385	0.518	0.348	0.169	0.517
Trips (50 Dwellings)	10	19	26	17	8	26

Source: TRICS

6.1.4 In total the proposed development is predicted to generate:

- 26 two-way vehicle movements in the morning peak hour, which equates to less than one vehicle every two minutes; and
- 26 two-way vehicle movements in the evening peak hour, which is less than one vehicle every two minutes.

6.2 Study Area and Base Traffic Flows

6.2.1 The study area for the junction assessments was agreed with HBC through the scoping process and comprises the following junctions:

- The proposed site access junction with Lower Road;
- The junction of Brookside Road and Bedhampton Road; and
- The Bedhampton Road / Bedhampton Hill roundabout junction.

6.3 Base traffic flows

6.3.1 The baseline (2016 and 2017) traffic flows as described in Section 3 of this TS are shown on **Figures TF1** and **TF2**.

6.4 Traffic Growth

6.4.1 The recorded traffic flows within the study area (see Figures TF1 and TF2) have been growthed to a future year of 2019 using factors from TEMPRO / NTM database AF09 Dataset. The 2019 traffic flows are shown in **Figures TF3** and **TF4**.

6.5 Development Traffic Distribution and Assignment

6.5.1 The likely journey purpose for the generated car driver peak hour trips has been determined using data derived from the National Travel Survey (NTS) 2014 (DfT) and the proportion of peak hour trips by journey purpose by car is presented in **Table 6.2**

Table 6.2: Proportion of Peak Hour Trips by Journey Purpose (Car Driver Only)

Trip Purpose	AM Peak (0730-0830)	PM Peak (1630-1730)
Commuting/Business	40%	45%
Other Journey Purposes	60%	55%
Total	100%	100%

Source: Car driver trip start time by trip purpose (Monday to Friday only): Great Britain, 2010/14, National Travel Survey, DfT, 2015

- 6.5.2 Traffic distribution is based on 46% of the peak vehicular trips being for employment journeys with the remaining 54% of the vehicle trips assumed to be for all other purposes, including education, shopping, leisure and personal business trips.
- 6.5.3 In order to provide an accurate assessment of the likely distribution of traffic from the site, separate methodologies have been applied to consider the destinations of commuting and business trips to other trip purposes. For commuting and business trips, the 2011 National Census Journey to Work statistics (for car drivers) for the Havant 018 MSOA has been used. These identify the location of existing resident's employment locations and so identify existing commuting patterns. For other journey purpose trips a P/T2 gravity model has been undertaken using the population of key urban areas (from the 2011 census) within a 35-minute drive from the site (estimated from Google Maps Directions facility).
- 6.5.4 The two sets of data are then combined to generate a single set of distribution parameters to inform the development trip assignment. The combined data is presented in **Table 6.3** and is shown in **Figure TF5**.

Table 6.3: Trip Distribution and Assignment Assessment

Destination	Employment Trips %	Non-Commuter Trips %	All Combined Trips %
Bedhampton/Havant	10.24%	31.78%	42.02%
Portsmouth	12.20%	10.03%	22.23%
Waterlooville/Horndean	5.97%	5.96%	11.93%
Chichester	2.96%	0.41%	3.36%
Emsworth	0.87%	1.68%	2.55%
Hayling Island	1.13%	1.06%	2.19%
Fareham	1.22%	0.47%	1.69%
Gosport	0.87%	0.80%	1.67%
Portchester	0.41%	1.21%	1.62%
Petersfield	0.96%	0.60%	1.56%
Hamble/Bursledon/Salisbury Green	1.46%	0.09%	1.55%
Southampton	0.91%	-	0.91%
Eastleigh	0.81%	-	0.81%
Hedge End	0.20%	0.46%	0.67%
Winchester	0.54%	-	0.54%

Destination	Employment Trips %	Non-Commuter Trips %	All Combined Trips %
Bordon	0.30%	0.24%	0.53%
London	0.41%	-	0.41%
Bishop's Waltham	0.26%	0.12%	0.38%
Midhurst	0.20%	0.08%	0.28%
Basingstoke/Hook	0.28%	-	0.28%
Arundel/Littlehampton	0.24%	-	0.24%
Farnborough/Aldershot/Camberley	0.22%	-	0.22%
Bracknell	0.18%	-	0.18%
Crawley/Horsham	0.18%	-	0.18%
Alton	0.17%	-	0.17%
Andover	0.13%	-	0.13%
Reigate/Dorking/Leatherhead/Banstead	0.13%	-	0.13%
Haslemere	0.09%	0.02%	0.11%
Woking	0.09%	-	0.09%
Fleet/Blackwater	0.07%	-	0.07%
Guildford	0.07%	-	0.07%
Farnham	0.04%	-	0.04%
Burgess Hill	0.02%	-	0.02%
Shoreham-by-Sea	0.02%	-	0.02%
Worthing	0.02%	-	0.02%
<i>Other</i>	<i>1.13%</i>	-	<i>1.13%</i>
TOTAL	45.00%	55.00%	100.00%

Source: Nomis Web / Google Maps

6.5.5 The traffic generation for the morning and evening peak hours (see **Table 6.1**) has been assigned to the network using the distribution in **Figure TF5**. The development traffic assignment for the morning and evening peak hours is shown on **Figures TF6** and **TF7** respectively.

6.6 Design Year Traffic Flows

6.6.1 On the basis of the above analysis, the development traffic has been added to the 2019 'without development' scenarios to achieve 'with development' scenarios for the design year in the morning and evening peak.

6.6.2 The 'with development' scenarios are presented in:

- **Figure TF8** – 2019 'with development' Traffic Flows – AM Peak Hour (0730 – 0830); and
- **Figure TF9** – 2019 'with development' Traffic Flows – PM Peak Hour (1630 – 1730).

6.7 Traffic Impact Analysis

Approach

6.7.1 As discussed above at 6.2, operational assessments have been undertaken using the TRL program 'Junctions 9' for:

- The site access / Lower Road junction;
- The Brookside Road / Bedhampton Road junction; and
- The Bedhampton Road / Bedhampton Hill roundabout junction.

Proposed Site Access

6.7.2 The operation of the proposed site access has been considered for a future year of 2019 with the development only. Junctions 9 operational assessments for the 2019 'with development' scenario are summarised in **Table 6.4** and the modelling output is in **Appendix H**.

Table 6.4: Site Access / Lower Road Junction – Modelling results

	Morning Peak Hour			Evening Peak Hour		
	RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2019 'with development'						
Site Access	0.04	0	7.47	0.02	0	7.31
Lower Road	0.00	0	0.00	0.00	0	0.00

Note: maximum delay per arriving vehicle in modelled peak hour (seconds)

6.7.3 **Table 6.4** shows that the proposed site access will easily accommodate the proposed development traffic in the morning and evening peak hours without queuing or delay.

Brookside Road / Bedhampton Road priority junction

- 6.7.4 The operation of the Brookside Road / Bedhampton Road priority junction has been tested to establish its current (base) operational performance (2017), a future year of 2019 (year of opening) with no development and then in 2019 with the development traffic included. Junctions 9 operational assessments for the scenarios are summarised in **Table 6.5** and the modelling output is in **Appendix H**.

Table 6.5: Brookside Road / Bedhampton Road Priority Junction – Modelling results

	Morning Peak Hour			Evening Peak Hour		
	RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2017 'base / observed'						
Brookside Road	0.14	<1	8	0.06	<1	8
Bedhampton Road	0.10	<1	8	0.09	<1	7
2019 'without development'						
Brookside Road	0.15	<1	8	0.10	<1	8
Bedhampton Road	0.10	<1	8	0.09	<1	7
2019 'with development'						
Brookside Road	0.17	<1	8	0.08	<1	8
Bedhampton Road	0.10	<1	8	0.10	<1	7
2019 'with development' – Comparison with 2019 Base						
Brookside Road	0.02	0	0	0.02	0	0
Bedhampton Road	0	0	0	0	0	0

Note: maximum delay per arriving vehicle in modelled peak hour (seconds)

- 6.7.5 The results show that the Brookside Road / Bedhampton Road priority junction operates well and will easily accommodate the proposed development traffic in the morning and evening peak hours without queuing or delay.

Bedhampton Road / Bedhampton Hill roundabout junction

- 6.7.6 The operation of the Bedhampton Road / Bedhampton Hill roundabout junction has been tested to establish its operational performance in 2017, in a future year of 2019 with no development and then in 2019 with the development traffic included. Junctions 9 operational assessments for the scenarios are summarised in **Table 6.6** and the modelling output is in **Appendix H**.

Table 6.6: Bedhampton Road / Bedhampton Hill roundabout – Modelling results

	Morning Peak Hour			Evening Peak Hour		
	RFC	Queue	Delay (s)	RFC	Queue	Delay (s)
2017 'observed'						
Bedhampton Road	0.52	1	4	0.61	2	5
Bedhampton Hill	0.44	<1	5	0.53	1	6
Portsdown Hill Road	0.78	3	25	0.92	8	56
Maylands Road	0.31	<1	10	0.16	< 1	10
2019 'without development'						
Bedhampton Road	0.54	1	4	0.63	2	5
Bedhampton Hill	0.46	<1	5	0.55	1	6
Portsdown Hill Road	0.81	4	27	0.95	10	71
Maylands Road	0.33	<1	11	0.17	<1	10
2019 'with development'						
Bedhampton Road	0.54	1	4	0.63	2	5
Bedhampton Hill	0.46	<1	5	0.55	1	6
Portsdown Hill Road	0.81	4	28	0.97	11	77
Maylands Road	0.33	<1	11	0.17	< 1	10
2019 'with development' – Comparison with 2019 Base						
Bedhampton Road	0	0	0	0	0	0
Bedhampton Hill	0	0	0	0	0	0
Portsdown Hill Road	0	0	1	0.02	1	6
Maylands Road	0	0	0	0	0	0

Note: maximum delay per arriving vehicle in modelled peak hour (seconds)

6.7.7 **Table 6.6** shows that the Bedhampton Road / Bedhampton Hill roundabout junction is currently very busy during the evening peak period with Portsdown Hill Road being the arm with the most queuing and delay. However, it will continue to operate within its theoretical capacity with the addition of the development traffic. The greatest impact will be in the evening peak period on Portsdown Hill Road where the queue will increase by just one vehicle and delay by just six seconds.

6.7.8 These very minor increases will be well within daily flow variations and will not have any noticeable impact on the safety or operation of the local highway network let alone a severe impact. The operational assessment shows the existing network will continue to operate within theoretical capacity during the highway network peak hours.

6.8 Pedestrian and cycle assessment of Lower Road

6.8.1 Following comments from the public consultation event, a detailed assessment of Lower Road has been undertaken to understand the current and future pedestrian and cycle usage. The full assessment is set out in Technical Note ITB12174-006 in **Appendix I**)

6.8.2 The assessment in **Appendix I** includes a four-day pedestrian and cycle survey of Lower Road and demonstrates that there are large numbers of pedestrian and cycle movements on Lower Road. The highest amount of pedestrian movements across the survey period was on Sunday 13 May 2018 with total of 149 two-way movements. The highest amount of cyclist movements recorded were on Friday 11 May 2018 with a total of 104 two-way movements across the day.

6.8.3 When comparing these survey results to the traffic data received in October 2016 it demonstrates that out of all the total movements, between 24% and 38% were either pedestrian or cycling trips i.e. it is a genuine shared surface.

6.8.4 Pedestrians are observed to almost universally walk along the western side of Lower Road to continue along the footway to the north, the length of Lower Road without a footway is 50m, roughly a 35 second walk.

6.8.5 The current use of Lower Road, as a shared surface is suitable for the proposed development of 50 dwellings and has been agreed by Havant Borough Council. The shared surface is in line with the following criteria:

- It is lightly trafficked with slow traffic speeds – 85th Percentile speeds of 21mph;
- It has an impeccable safety record (ref: crashmap.co.uk – no recorded injury accidents between 1999 and 2018);
- The road is straight, street lit and has forward visibility to pedestrians of around 30m (recorded 85th percentile speeds of 21mph require 24m of forward visibility);

6.8.6 The assessment of the impact of the development in **Appendix I** shows that the amounts of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when the development is completed. The forecast number of pedestrian and cycling movements as a total of all forecast movements on Lower Road when the development is complete will be higher than it is now, the breakdown is:

- Weekday morning peak 30% pedestrians and cyclists;

- Weekday evening peak 28% pedestrians and cyclists; and
- Weekday daily 26% pedestrians and cyclists

6.8.7 Put simply, Lower Road will continue to be a genuine shared surface during at busy times and throughout the day.

6.8.8 In addition, the probability of vehicles and pedestrians using the section of Lower Road without a footway has also been assessed and the prospect of these users all being in the section without a footway at the same time is 0.056%, i.e. there is a very small prospect of any users meeting on that section – once every 56,000 times a user passes along the access. Even when this happens:

- There is ample width for car to pass a pedestrian;
- There is ample visibility between passing cars and other users; and
- This activity has occurred for many years with no impact on road safety.

6.8.9 Finally, an alternative pedestrian route can be accessed via Lodge Road (Public Footpath 107) which provides a direct connection to Bedhampton Road. The minimum width of the footpath is 0.90m, however the width does increase to 1.4m/1.6m at some sections. With sections along the footpath which are wider this allows for two pedestrians to pass one another. This alternative route is also located to a similar distance, (indeed shorter) to the bus stops located on Bedhampton Road.

6.9 **Summary**

6.9.1 In accordance with the agreed scope and pre-application discussions with HCC and HBC, the traffic impact of the proposed development has been considered on the local highway network in the vicinity of the site.

6.9.2 The development is anticipated to generate a maximum of 26 two-way vehicle movements during the weekday peak hour periods, equating to less one extra vehicle movement every two minutes.

6.9.3 The development traffic has been assigned to the local highway network using a distribution based on a combination of the 2011 Census Travel to Work Data (for the proportion of peak hour trips that are work journeys) and a gravity model (for other journey purposes).

- 6.9.4 Operational assessments have been undertaken at the site access junction and Bedhampton Road / Bedhampton Hill roundabout junction which is forecast to operate within its theoretical capacity with the addition of the development traffic. The greatest impact will be in the evening peak period on Portsdown Hill Road where the queue will increase by just one vehicle and delay by just six seconds.
- 6.9.5 Despite the continued use of that section of Lower Road with no footway being agreed with HCC and HBC, a detailed pedestrian and cycle assessment of it has been undertaken following public consultation which shows that it has an impeccable safety record and it will continue to be a quiet and safe environment when the development is complete with the development having no noticeable impact on the safety or operation of Lower Road.
- 6.9.6 Against this background, the development generated traffic can be accommodated on the local highway network and the residual impacts of the development falls well short of the “severe” test set by the National Planning Policy Framework.

SECTION 7 INFRASTRUCTURE DELIVERY STATEMENT

7.1 Introduction

7.1.1 HBC's LHPS includes the requirement for the site to be accompanied by an Infrastructure Delivery Statement which should set out the applicant's approach to scoping infrastructure and other requirements, including the level and type of engagement undertaken at pre-application stage. The following prompts are provided to assist in scoping the type of infrastructure provision at a 'locally specific' and 'site specific' level:

What issues and discussions relating to infrastructure capacity in relation to the subject site have taken place?

What infrastructure capacity projects are in place?

What infrastructure is required in relation to the subject site?

7.2 Assessment

7.2.1 **Table 7.1** follows the approach within the HBC LHPS and documents the assessment of highways and transport infrastructure that has been undertaken.

7.2.2 **Table 7.1** Transport Infrastructure Delivery Statement

Table 7.1 Transport Infrastructure Delivery Statement

Issue	Discussions	Projects in place	Infrastructure required
Sustainable Transport	Pre-app with HBC and HCC considered continued use of Lower Road as a shared surface street.	HBC and HCC agreed that the existing infrastructure is adequate to serve the development. A Section 106 contribution of £23,489 has been agreed towards walking routes to schools	None, other than those covered by the agreed Section 106 contribution.

Issue	Discussions	Projects in place	Infrastructure required
Site Access	Pre-app with HBC and HCC considered the route for a new footway to connect to Lodge Road.	HBC and HCC suggested the new footway be routed within the site to connect to the Post Box and to the east both to allow retention of hedgerow.	The HBC and HCC suggestion was agreed and shown as part of the proposed development on drawing ITB12174-GA-002C and on the MJA drawing 5992:601 Rev C
Transport Impact	Pre-app with HBC identified the need for an assessment of the Bedhampton Road roundabout.	The applicant funded further data collection and the TS includes a full analysis of the roundabout and an extensive pedestrian and cycle assessment of Lower Road demonstrating the existing infrastructure is adequate to serve the development	None

7.3 Summary

- 7.3.1** In accordance with the LPHS, the proposal is accompanied by an Infrastructure Delivery Statement which covers transport and sets out the completed approach to scoping, including the engagement undertaken at pre-application stage. Where necessary the resulting infrastructure requirements are provided as part of the proposed development and thus ensure compliance with the LPHS.

SECTION 8 SUMMARY AND CONCLUSIONS

8.1 Summary

- 8.1.1** This TS considers the transport aspects of a full planning application for development of land south of Lower Road, Bedhampton for 50 dwellings. Access is proposed via a new priority junction from Lower Road. The site is identified as being suitable for early release for residential development of 50 homes in the adopted Havant Borough Council Local Housing Policy Statement (LHPS) and Pre-Submission Local Plan which has been agreed by Full Council.
- 8.1.2** The site is in a suitable, accessible location for residential development. It has a good level of accessibility by non-car modes to a range of local everyday facilities and services including education, health, retail, leisure and employment facilities. Walking facilities in the vicinity of the site are of a good standard and continuous routes to these destinations are provided with a financial contribution having been agreed towards further improvements to walking routes to schools. Local roads are suitable for cycling and the site is within walking distance of regular bus routes, providing services seven days per week. Frequent and regular rail services to destinations including Portsmouth, Chichester and central London are available from Bedhampton Station, which can be reached within recommended walking distance and cycle distances.
- 8.1.3** It has been demonstrated that the proposed access meets current and relevant design standards in Manual for Streets and that it provides safe and suitable access to the development for pedestrians, cyclists and vehicles. The access has been through an independent Stage 1 Road Safety Audit and the subject of HCC's Pre-Application Design Review process. The site access is agreed with HCC as Local Highway Authority.
- 8.1.4** The internal site layout, including the road layout, car parking and refuse collection arrangements have been comprehensively designed by the applicants civil engineering advisors and are available as part of the planning application documentation.
- 8.1.5** The vehicular trip generation characteristics of the development have been assessed on a robust basis using trip rates from the TRICS trip generation database. In the peak hours the development is expected to result in the following increases in vehicular trips:

- 26 two-way vehicle movements in the morning peak hour, which equates to less than one vehicle every two minutes; and
- 26 two-way vehicle movements in the evening peak hour, which is again less than one vehicle every two minutes.

8.1.6 The vehicular trips generated by the development have been distributed to the local highway network using a comprehensive methodology assessing both a commuting and other trip purpose methodology and the site access junction and two other local junctions have been assessed on a worst case basis for a future year of 2019 with the development proposal and found to operate with no noticeable additional queuing or delay expected.

8.1.7 The assessment of the highway network demonstrates that the development traffic will amount to a minimal increase in local traffic flows which will be accommodated on the highway network without a noticeable, and certainly not a severe impact.

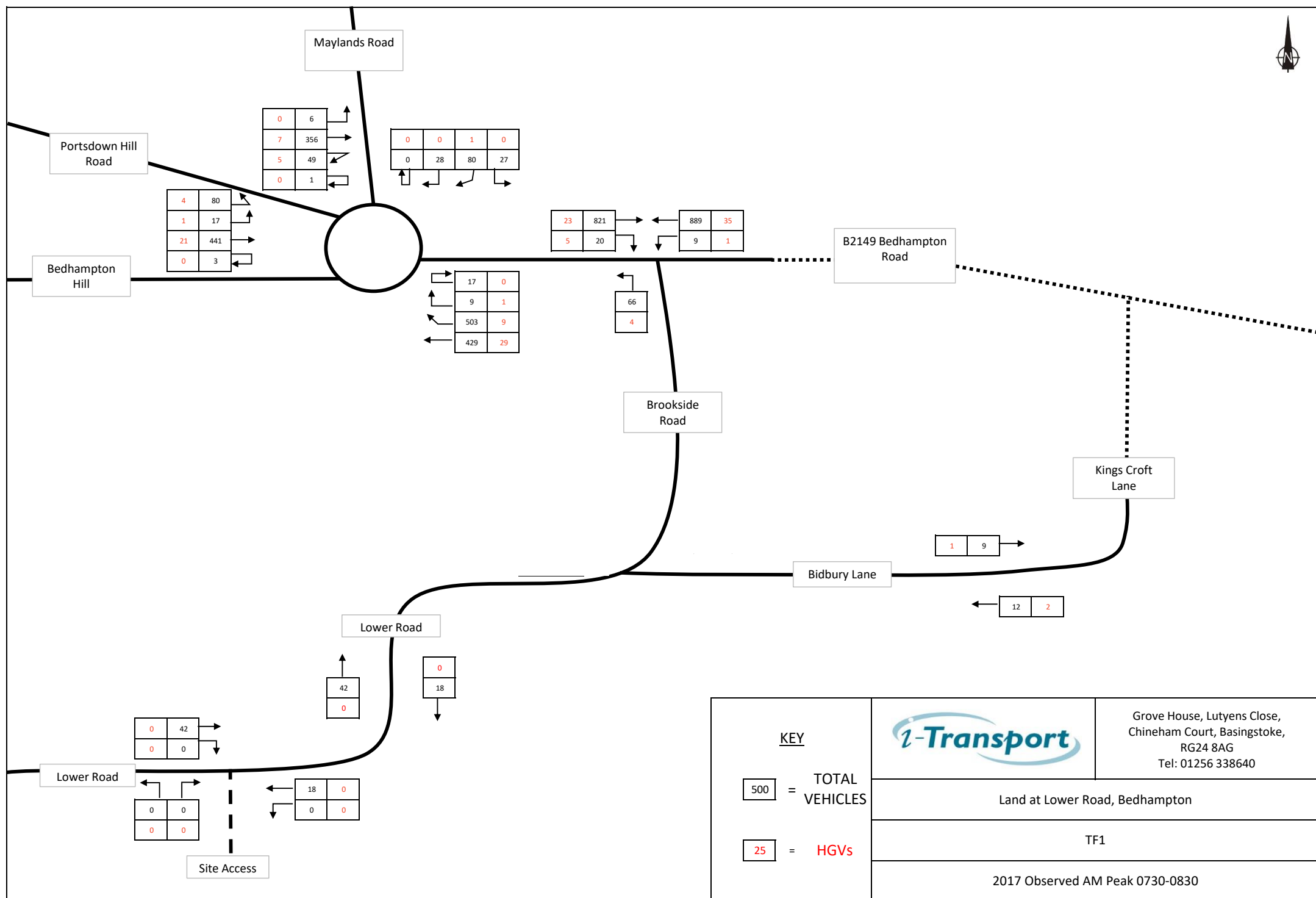
8.1.8 Discussions have taken place with both HBC and HCC over local highways and transport infrastructure to inform the Infrastructure Delivery Statement (IDS). This has determined that local transport services and infrastructure are sufficient to serve the site, subject to an agreed Section 106 contribution towards walking routes to schools. The IDS discussions have helped shape the site access proposals which now provide for a new footway to Lodge Road and Lower Road which retains a section of hedgerow on the Lower Road site frontage.

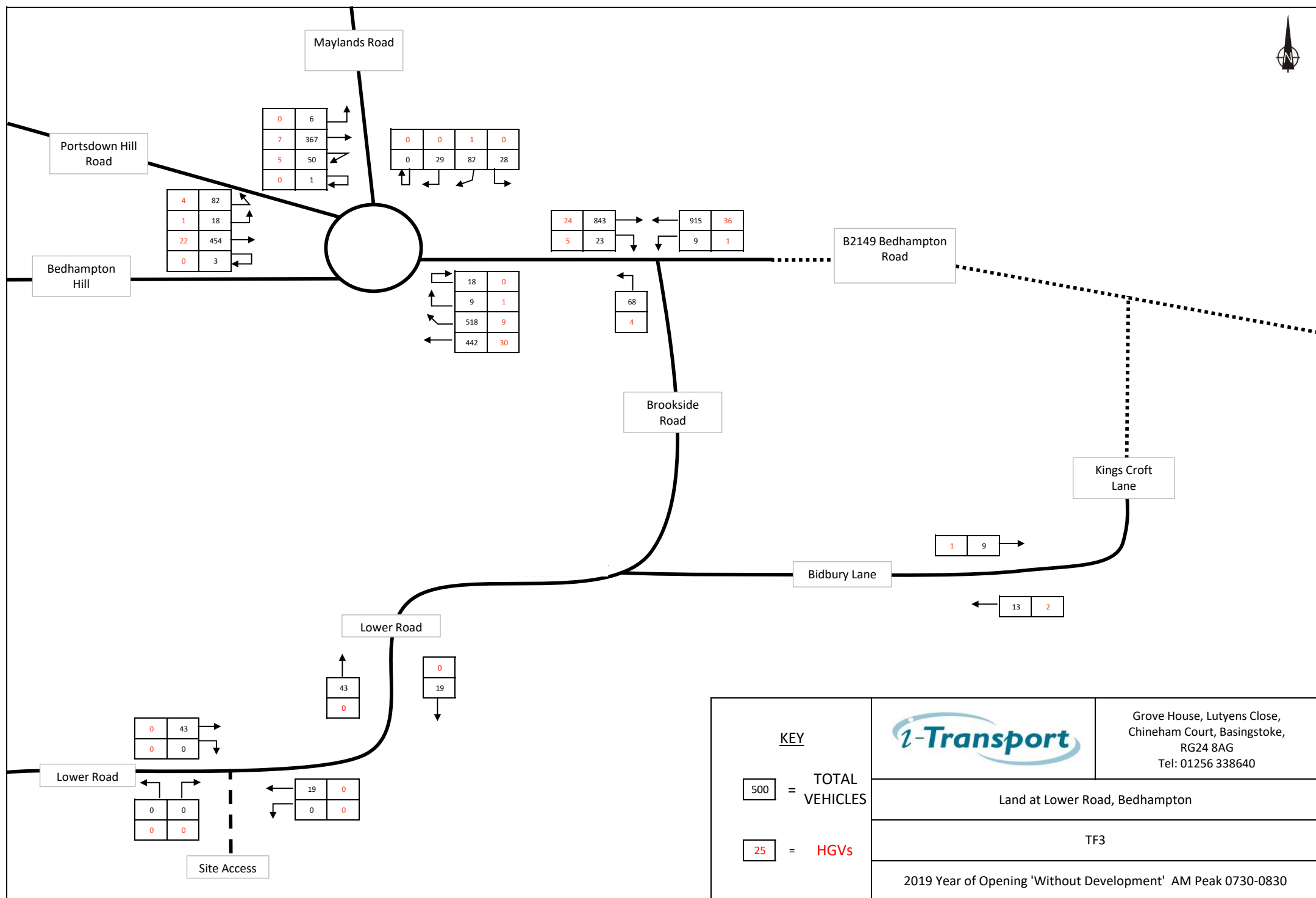
8.2 Conclusion

8.2.1 The site is identified for development in the Havant LHPS and Pre-Submission Local Plan, is in an accessible location and thereby complies with local and national transport policies to promote development in sustainable locations. The proposed access arrangements meet current design standards and are agreed with HBC and HCC. The site can be accessed safely by both car and non-car modes and the vehicular trips generated by the development can be accommodated on the local highway network. The impact of the development is not severe.

8.2.2 The proposal is therefore considered acceptable in transport and highways terms and the proposed development is in line the NPPF, HBC LHPS and HBC Pre-Submission Local Plan.

FIGURES



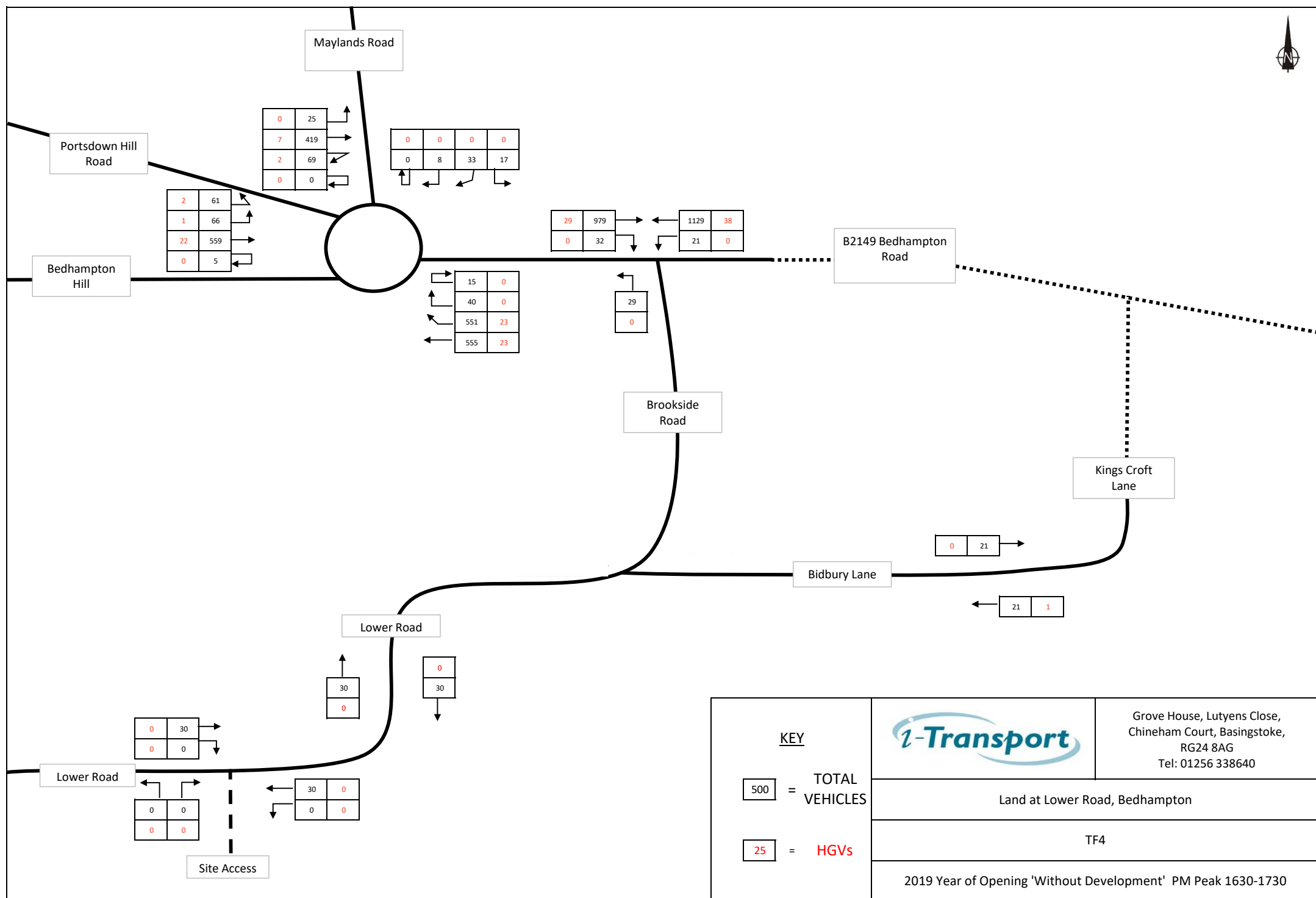


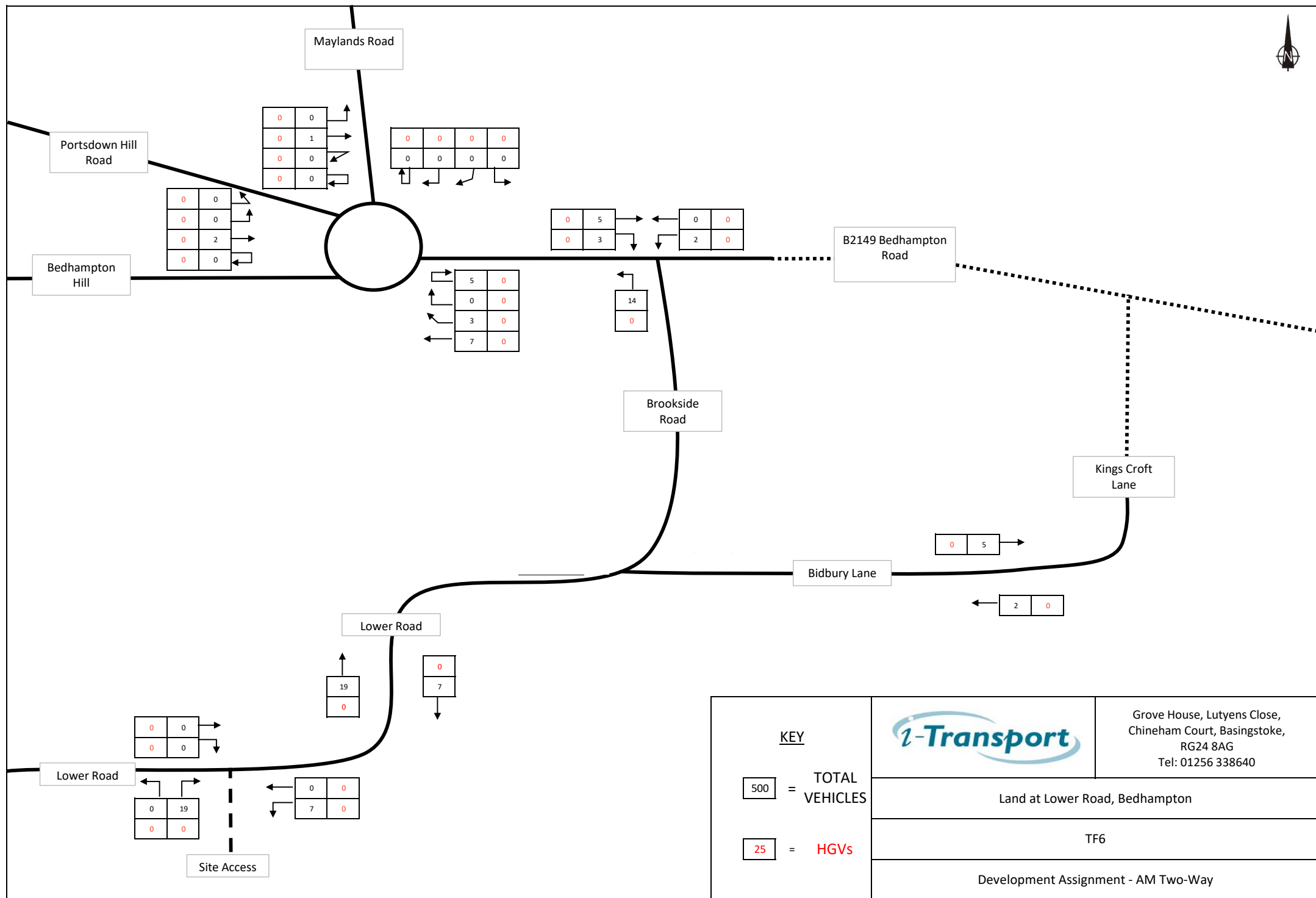
Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640

Land at Lower Road, Bedhampton

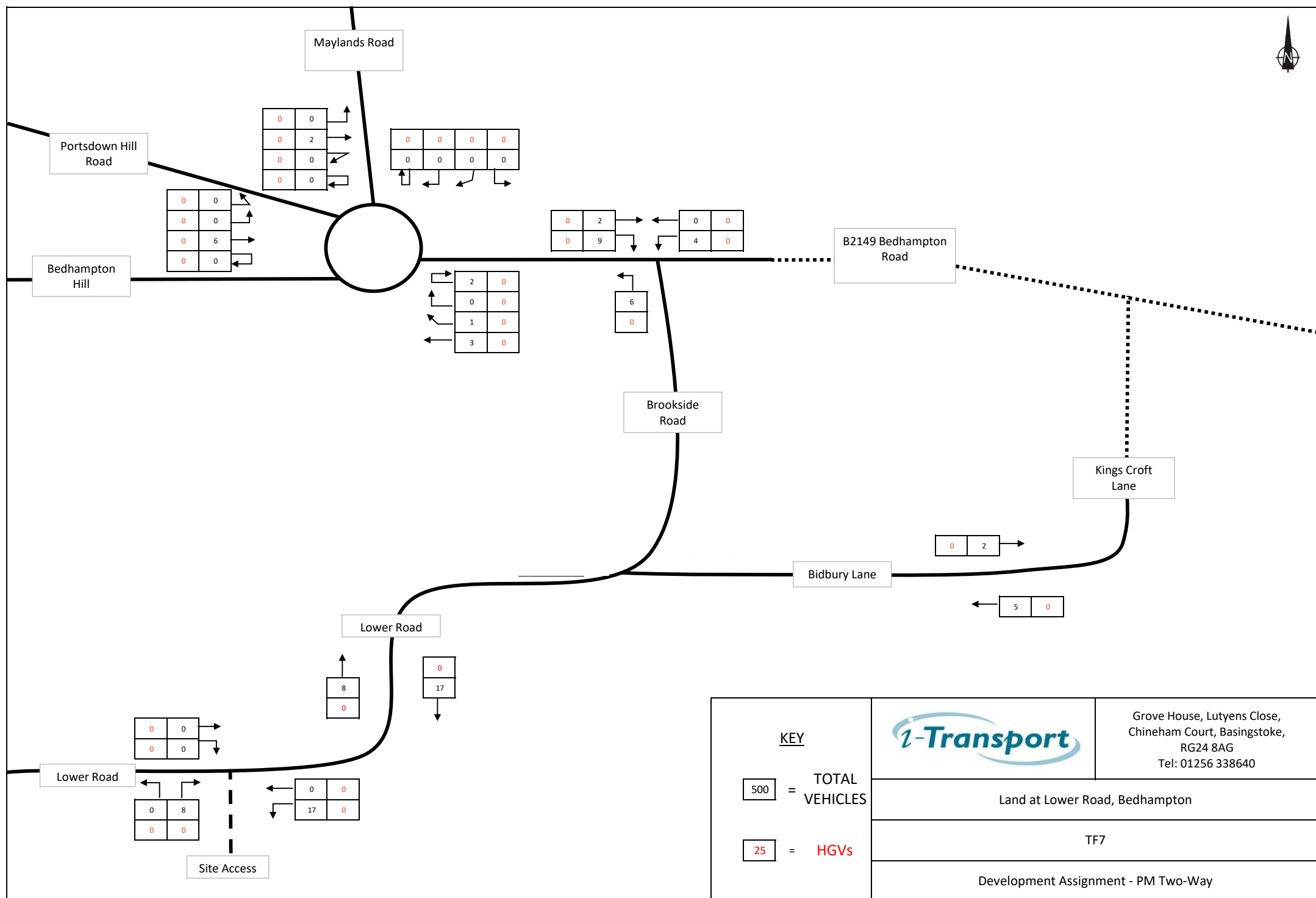
TF3

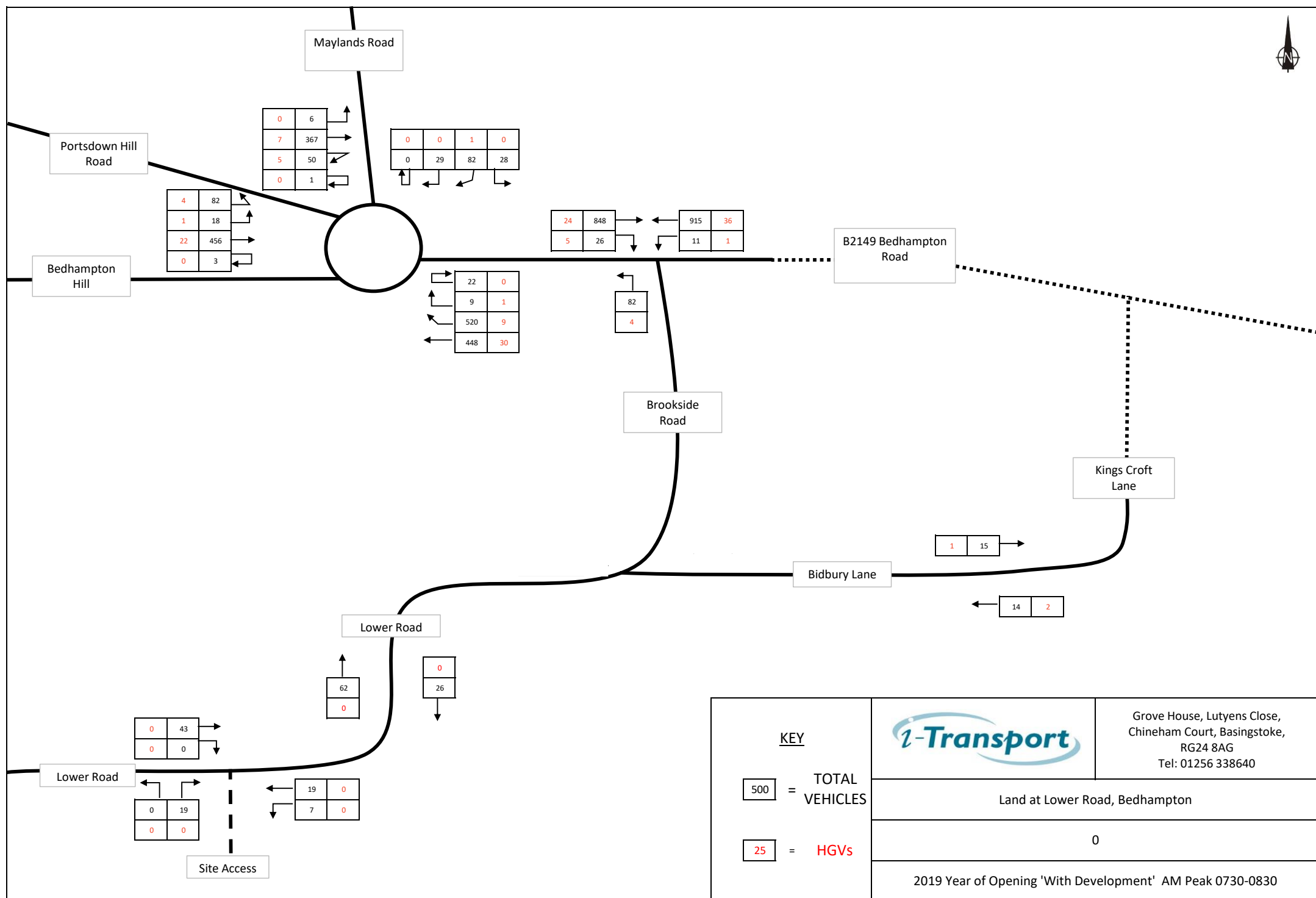
2019 Year of Opening 'Without Development' AM Peak 0730-0830

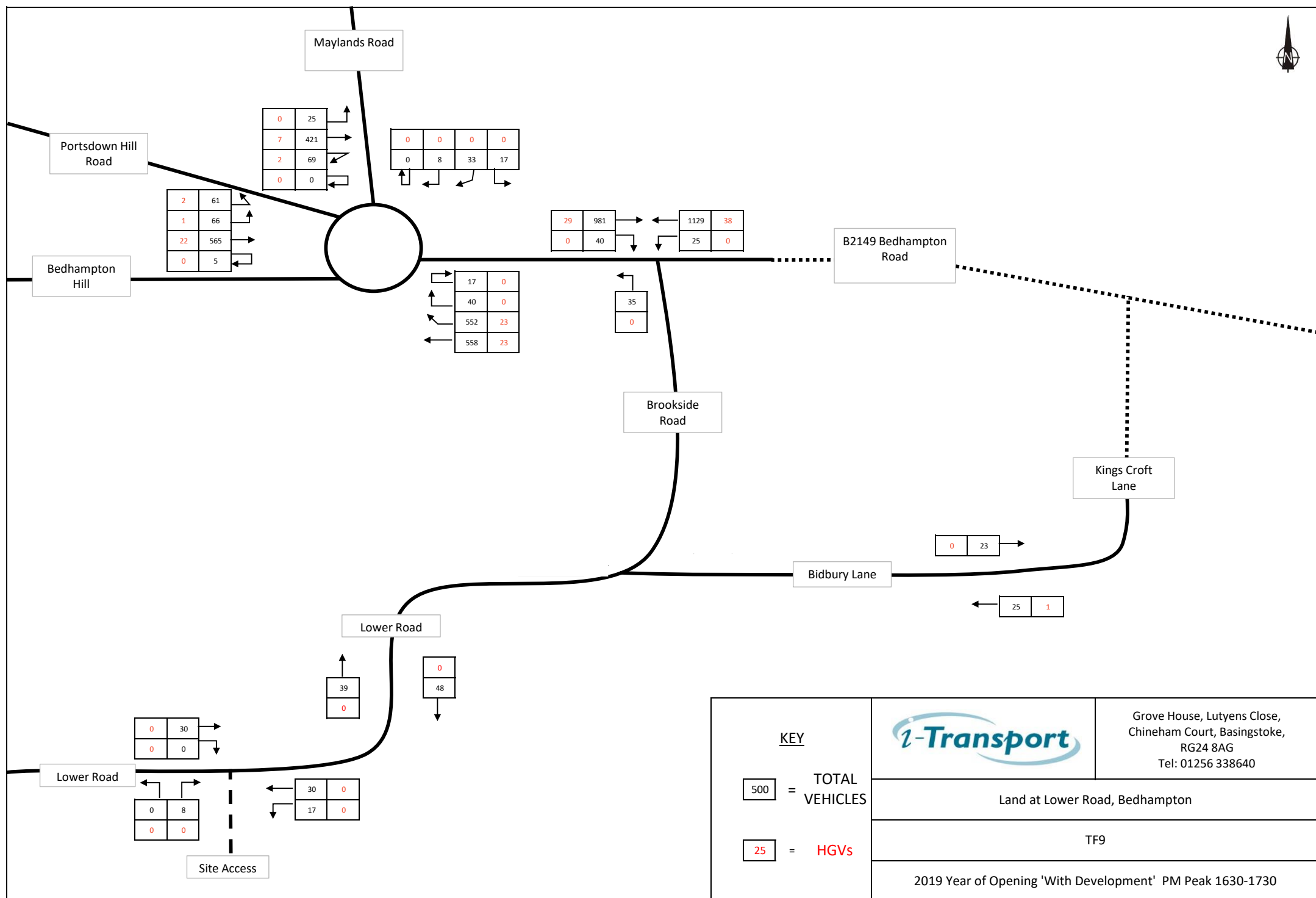




KEY 500 = TOTAL VEHICLES 25 = HGVs		Grove House, Lutyens Close, Chineham Court, Basingstoke, RG24 8AG Tel: 01256 338640
Land at Lower Road, Bedhampton		
TF6		
Development Assignment - AM Two-Way		



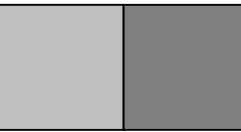




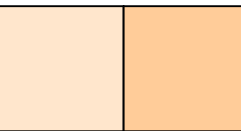
DRAWINGS



ROOF TILE KEY



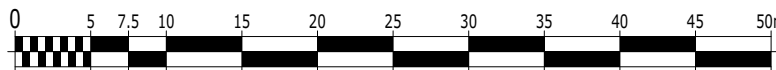
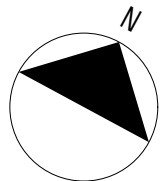
CS26 NATURAL ROOFING SLATE



CLAY LARGE PROFILE PLAIN ROOF TILE TO MAIN ROOFS, SMALL PROFILE PLAIN PORCH TILE TO CO-ORDINATE WITH MAIN ROOF TILE

NOTE:

Proposed replacement tree shelter belt, for details refer to drawing nos 1860-TF-00-00-DR-L-1002 to 1006 by Terraforma Landscape Architects



Revisions			
U	New 5 bed House Type shown to Plot 32. Garden length to Plots 22-25 reduced. Parking spaces swap. SUDS in open space amended.	21.10.20	IS /CK
T	Amendments to plots 3,4 & 5, removed SUDS in front of Plot 29, tarmac to parking spaces shown, re-labelled annotation.	02.10.20	IS /CK

Drawing Status

- ☐ Preliminary
☐ Planning
☐ Building Regulations
☐ Construction

Drawing Status

- ☐ Preliminary
☒ Planning
☐ Building Regulations
☐ Construction

Drawing Notes:
For hard and soft landscaping details refer to drawings nos. 1860-TF-00-00-L-1002 - 1006 inclusive by Terraforma Landscape Architects

To be read in conjunction with HGP Architects Ltd drawing nos. 17.043.100-101, 200-202, 204-223 & 226-227 inclusive

Client



Project Title
Manor Farm, Bedhampton

Document Title
Proposed Site Layout

Drawing Scale / Sheet Size
1/500@A1

Job No.
17.043

Date
June/2018

Drawn by / Checked by
TIM / CK

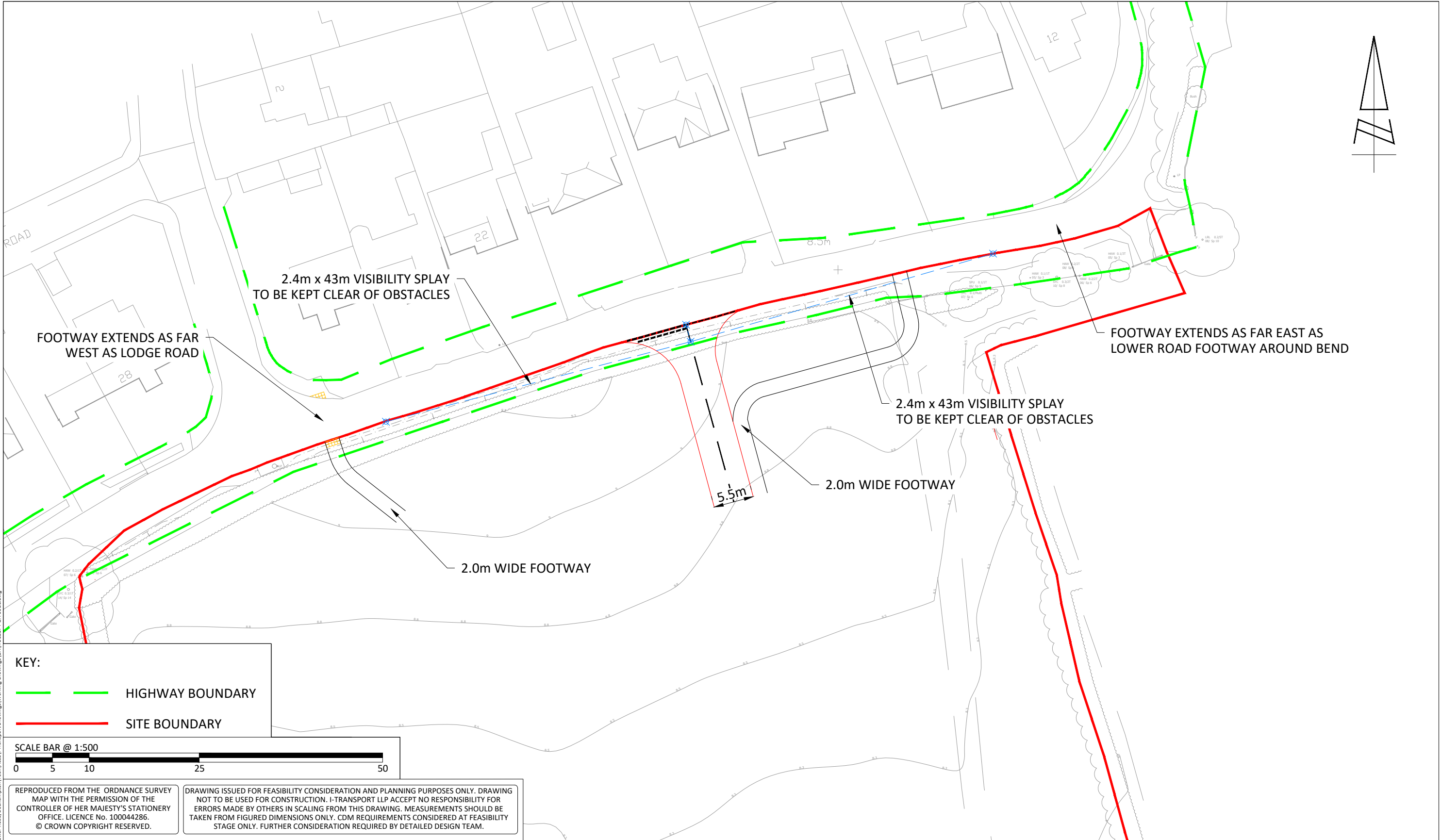
Signature

Drawing Number / Revision
102 U



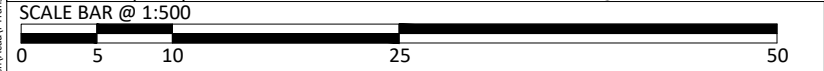
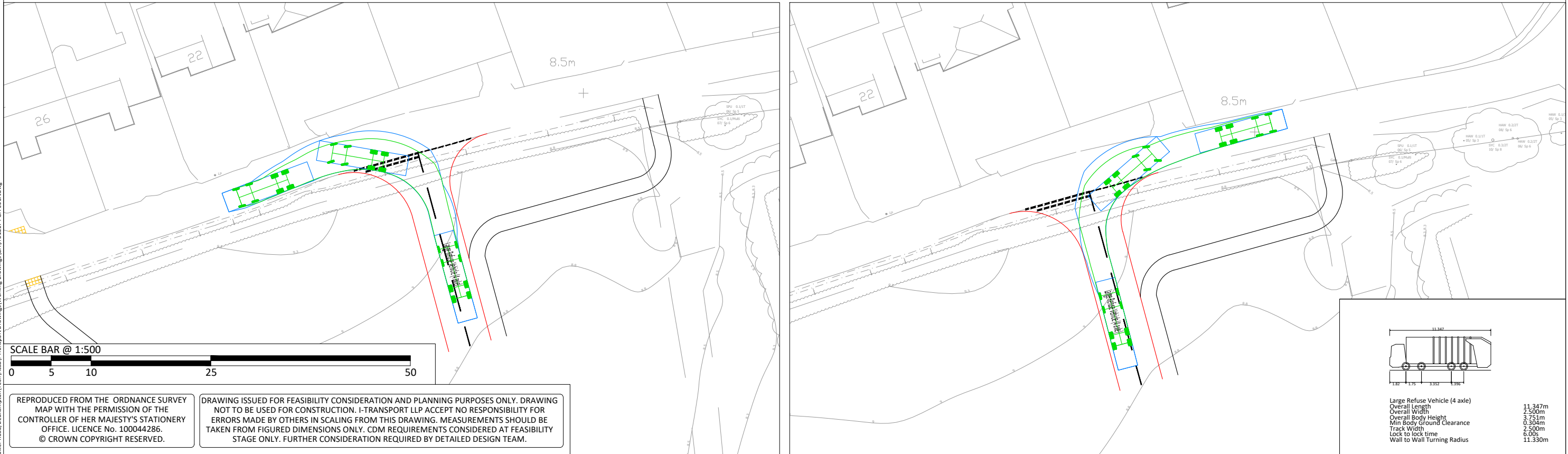
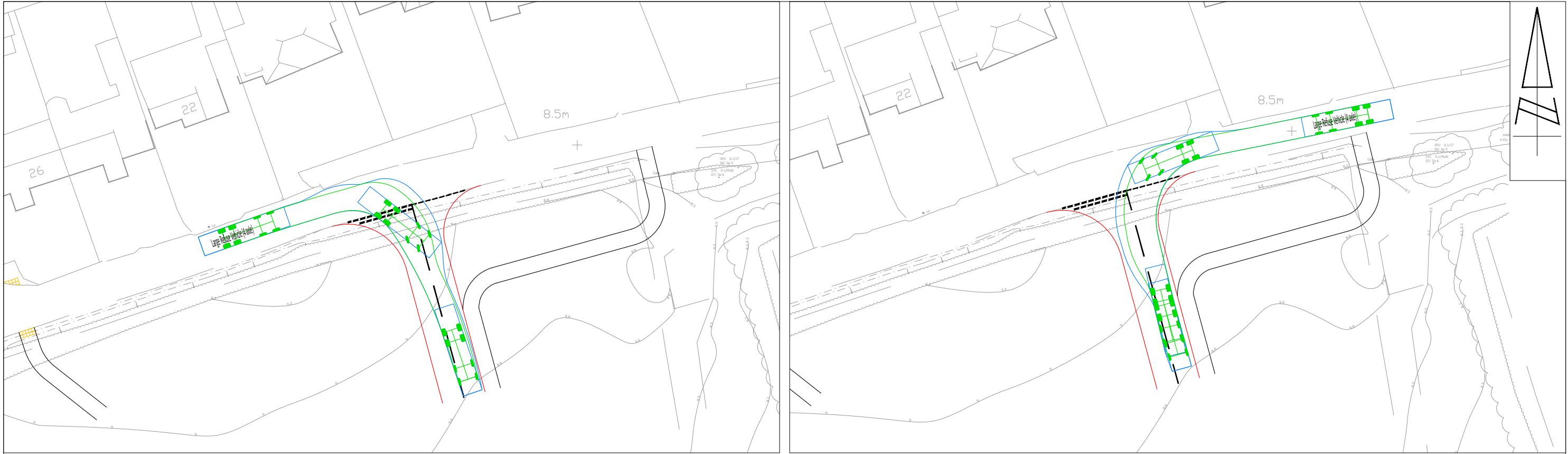
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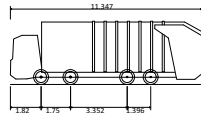
 Grove House, Lutyens Close, Chineham Basingstoke, Hampshire, RG24 8AG Tel: 01256 338640 Fax: 01256 338644 www.i-transport.co.uk		C	09.11.20	JD	SITE ACCESS UPDATED	SJ	SJ	TITLE: POTENTIAL SITE ACCESS ARRANGEMENT - OPTION B	SCALE @ A3: 1:500	CHECKED: MS	APPROVED: JCB	
		B	03.03.17	AB	MINOR AMENDMENTS	SJ	JCB		FILE REF: ITB12174	DRAWN: SH	DATE: 04.10.16	
		A	25.01.17	AB	MINOR AMENDMENTS	RS	JCB		DRAWING No: ITB12174-GA-002			
		REV	DATE	BY	DESCRIPTION	CHK	APD		PROJECT No: ITB12174			
		STATUS: FOR INFORMATION					PROJECT: LAND AT LOWER ROAD, BEDHAMPTON		CLIENT: BARGATE HOMES		REV: C	

T:\Projects\12000 Series Project Numbers\12174\ITB Land at Lower Road, Bedhampton\Tech\Acad\Transport Drawings\Working Drawings\ITB12174-GA-002C.dwg



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Large Refuse Vehicle (4 axle)
Overall Length 11.347m
Overall Width 2.500m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to lock time 6.00s
Wall to Wall Turning Radius 11.330m



Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG
www.i-transport.co.uk

Tel: 01256 338640
Fax: 01256 338644

A	09.11.20	JD	SITE ACCESS UPDATED	SJ	SJ
REV	DATE	BY	DESCRIPTION	CHK	APD
STATUS: FOR PLANNING					

TITLE: SITE ACCESS ARRANGEMENT SWEEP PATH ANALYSIS - LARGE REFUSE VEHICLE		SCALE @ A3: 1:500	CHECKED: SJ	APPROVED: SJ
PROJECT: LAND AT LOWER ROAD, BEDHAMPTON		FILE REF: ITB12174	DRAWN: AB	DATE: 14.08.17
CLIENT: BARGATE HOMES		DRAWING No: ITB12174-GA-006		
		PROJECT No: ITB12174		REV: A

APPENDIX A. Definitive Map of PROW

THE HAMPSHIRE COUNTY COUNCIL (s.57(3) WILDLIFE AND COUNTRYSIDE ACT 1981)
DEFINITIVE MAP OF PUBLIC RIGHTS OF WAY 2010

This sheet was reprinted on 1 January 2011 to take account of an order, or orders, confirmed after the publication of the 2008 definitive map.

Given this day of

The Common Seal of Hampshire County Council was hereunto affixed in the presence of:-

.....
Authorised Signatory

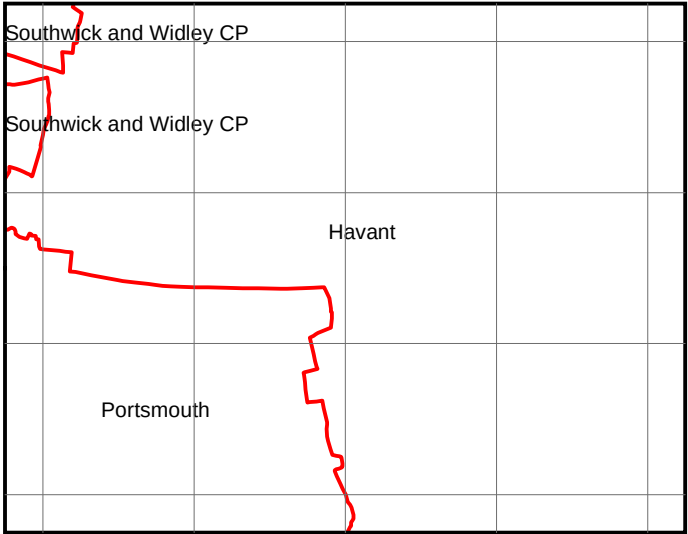
Map Scale 1:10,000



Legend

- Footpath 
- Bridleway 
- Restricted Byway 
- Byway Open to All Traffic 
- Parish Boundary 
- County Boundary 

Public Rights of Way are not shown over any areas shaded in grey on the map below, as these are outside the administrative boundary of Hampshire County Council



Index to adjoining maps

16.07	17.07	18.07
16.06	17.06	18.06
	17.05	18.05

Map
Number

17.06