

Land South of A259, Angmering

Transport Assessment

Client: Redrow Homes

i-Transport Ref: DS/GT/ITB16357-002B

Date: 10 March 2022

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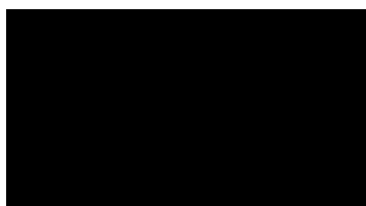
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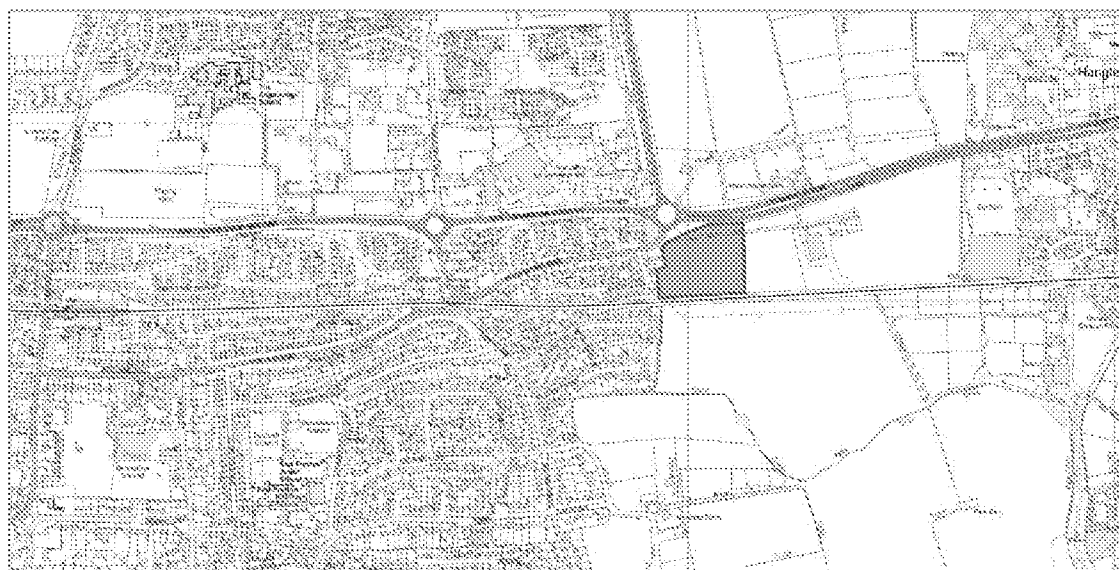
SECTION 1 Introduction

1.1 Location

1.1.1 Redrow Homes has appointed i-Transport LLP to provide highways and transport advice in relation to a full planning application for a proposed residential development of 76 dwellings with associated car parking and landscaping, on land south of the A259 in Angmering.

1.1.2 The site is located on the eastern edge of Angmering village, immediately adjacent to the existing settlement boundary. The site is bounded to the north by the A259 Littlehampton Road, to the east by Roundstone Farm and the 'Artists in Stone' commercial premises, to the south by the West Coastway Railway Line and the west by the B2140 Old Worthing Road and residential properties. The location of the site is shown on **Figure 1**, an extract of which is provided as **Image 1.1**.

Image 1.1: Site Location



Source: Figure 1

1.2 Scope

1.2.1 This Transport Assessment (TA) has been prepared to consider the transport impacts that may arise from the proposed development, and to consider the proposal against the relevant transport planning policy considerations and the key transport tests identified in paragraph 110 of the National Planning Policy Framework (NPPF) and these are summarised as follows:

- Will the opportunities for sustainable travel be appropriately taken up given the type of development and its location?
- Will safe and acceptable access be provided for all users?
- Will the transport impacts of the site be adequately mitigated, such that the residual cumulative impact will be acceptable (i.e. not severe), and not result in unacceptable safety impacts?

1.2.2 Pre-application discussions have been held with the officers at the local highway authority, West Sussex County Council (WSCC), regarding the proposed development and the scope of the TA. The scoping discussions are presented in **Appendix A** and are summarised as follows:

- Trip rates and distribution has been agreed. The scope of the junction assessment to extend to site access and A259 J11, with consideration of the development proposal in the context of the level crossing;
- Departure for Standards applications required in relation to the loss of hard strips, lane widths and bus stop location; and
- Consideration to be given to the widening of the A259 cycle/footway adjacent to the site and the treatment of the Public Right of Way crossing of the A259.

1.2.3 The TA has also been prepared to respond to matters raised by West Sussex County Council Highways in their response to planning application A/168/21. In particular, the treatment of the site access in respect of the identified Departures from Standards and pedestrian and cycle provision adjacent to the A259 'Roundstone' roundabout.

1.2.4 A separate Framework Travel Plan (FTP) has been prepared (report ref: ITB16357-003). The primary purpose of the FTP is to identify opportunities for the effective promotion and delivery of sustainable transport initiatives e.g., walking, cycling, public transport and home working to reduce the demand for travel by less sustainable modes.

1.3 Structure

1.3.1 The remainder of the TA is structured as follows:

- **Section 2** – Summarises relevant national and local transport policies and guidance;
- **Section 3** – Provides a review of existing transport conditions;
- **Section 4** – Confirms the details the development proposal;

- ♦ **Section 5** – Presents an assessment of accessibility and details a sustainable transport strategy to be delivered at the site;
- ♦ **Section 6** – Considers the likely traffic impacts of the proposal; and
- ♦ **Section 7** – Provides a summary of the report and its conclusions.

SECTION 2 Policy Context

2.1 Overview

- 2.1.1 This section of the TA sets out a review of national and local transport policy and guidance documents to provide the context for the TA.

2.2 National Policy

National Planning Policy Framework July 2021 (NPPF)

- 2.2.1 The revised NPPF sets out the Government's planning policies and how these are expected to be applied. It also constitutes guidance for local planning authorities and decision takers both in drawing up plans and as a material consideration in determining applications. The NPPF stresses that:

"..at the heart of the Framework is a presumption in favour of sustainable development".

- 2.2.2 Section 9 of the NPPF discusses promoting sustainable transport. Paragraphs 110 to 113 set out transport matters when considering development proposals.

- 2.2.3 Paragraph 110 states 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."

- 2.2.4 Paragraph 111 states 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."

- 2.2.5 In accordance with NPPF, this TA has been produced to accompany the planning application and assesses the scheme against these key transport tests.

National Planning Practice Guidance (March 2014)

- 2.2.6 The web based NPPG replaced the DfT's 'Guidance on Transport Assessment' on 6 March 2014 and seeks to bring together planning guidance for England across all disciplines in an accessible way as well as to provide a clear link between guidance and the aims and objectives of the NPPF.
- 2.2.7 The NPPG discusses the role of travel plans and transport assessments / statements and how they relate to each other:

"Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements. (ID42 – 002);

Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be "severe", which may be a reason for refusal, in accordance with the National Planning Policy Framework. (ID42 – 005);

Travel Plans are long-term management strategies for integrating proposals for sustainable travel into the planning process. They should not, however, be used as an excuse for unfairly penalising drivers and cutting provision for cars in a way that is unsustainable and could have negative impacts on the surrounding streets. (ID42 – 003)".

- 2.2.8 In accordance with NPPG this TA has been prepared to assess the transport impacts of the development, and to consider whether any effects would be 'severe'.
- 2.2.9 Sections 7, 8 and 9 of the TA presents a comprehensive assessment of potential traffic impacts and identifies deliverable and appropriate mitigation to ensure any impacts of the development are not significant.
- 2.2.10 A Framework Travel Plan (FTP) is also provided to outline a long-term, realistic strategy for the promotion of sustainable travel which seeks to reduce car-based travel demand. The FTP should be read in conjunction with the TA.

Local Transport Note 1/20 - Cycle Infrastructure Design (July 2020)

- 2.2.11 The Local Transport Note 1/20 provides guidance and good practice for the design of cycle infrastructure, in support of the Cycling and Walking Investment Strategy.
- 2.2.12 The Note sets out five core design principles which represent the essential requirements to achieve more people travelling by cycle or on foot, based on best practice both internationally and across the UK. These are that cycle networks and routes should be:

- Coherent;
- Direct;
- Safe;
- Comfortable; and
- Attractive.

2.2.13 The LTN 1/20 note identifies that inclusive design and accessibility should run through all five of the core design principles set out above. Designers should always aim to provide infrastructure that meets these principles and therefore caters for the broadest range of people. Infrastructure must be accessible to all, and the needs of vulnerable pedestrians and local people must be considered early in the process to ensure schemes are supported locally in the long term.

2.2.14 The cycle routes within the site, as well as the immediate off-site connections, have been designed in accordance with the core design principles and design guidance set out in LTN 1/20.

2.3 Local Planning Policies

Adopted Arun Local Plan 2011-2031 (July 2018)

2.3.1 In July 2018, Arun DC adopted a new Local Plan which sets out the vision for Arun District to 2031. The proposed development site forms a part of the wider 'West of Bersted' Strategic Allocation, which is identified under policy H SP2a (SD3). The whole West of Bersted allocation has been identified as being able to deliver at least 2,500 dwellings over the plan period. Redevelopment of the site therefore has policy support.

2.3.2 The Local Plan identifies a series of policies relating to transport, including:

"Policy T SP1 – Transport and Development - This identifies that development sites will be supported where they:

- ***Are designed to reduce the need to travel by car, but make provision for safe access to the site for all travel modes;***
- ***Give priority to pedestrian and cycle movements;***
- ***Incorporate appropriate levels of parking in line with WSCC Guidance;***
- ***Are supported by effective and deliverable Transport Assessments and Travel Plans; and***

- *Explain how development can:*
- *Accommodate deliveries and servicing;*
- *Give priority to pedestrian and cycle movements and have access to high-quality public transport;*
- *Create safe and secure layouts for all users;*
- *Incorporate electric charging infrastructure; and*
- *Consider the needs of people with disabilities."*

"Policy T DM1 – Sustainable Travel and Public Rights of Way – This identifies that proposals for new development must:

- *Be located where they are close to sustainable travel opportunities which link to key destinations;*
- *Contribute to the extension of public transport services;*
- *Make provision for pedestrian and cycling facilities; and*
- *Contributes to provision of a joined-up cycle and PROW network."*

2.3.3 This TA, and the accompanying FTP, have been prepared in accordance with these requirements and set out how the criteria within policies SP1 and DM1 will be met.

West Sussex County Council's Transport Plan 2011-2026

2.3.4 The West Sussex County Council (WSCC) Local Transport Plan 3 was published in February 2011 and sets out a long-term strategy and implementation plan for making improvements to the transport system throughout the county over the next 20 years.

2.3.5 The strategy for Arun is to provide improvements to the transport system to tackle the identified transport issues as and when funding becomes available. To ensure that the regeneration aspirations of the plan are delivered, and the identified transport issues are addressed, they will ensure that all new scheme and developments contribute, and support, in some way to the following:

- *Increasing use of sustainable modes of transport;*
- *Improving network efficiency in order to improve journey times and air quality;*
- *Improving safety for all road users;*
- *Discouraging HGVs from using unsuitable roads; and*

• ***Improving accessibility between communities within the District.***

- 2.3.6 This TA has been prepared in accordance with the strategies set out in the Local Transport Plan. The TA provides a comprehensive assessment of the impact of the development proposal and sets out a suitable and robust mitigation strategy.

Arun Transport Study 2016 (EBR 2017) and the Infrastructure Delivery Plan (2017)

- 2.3.7 The Arun Transport Study EBR 2017 (ATS) and the Infrastructure Delivery Plan (2017) (IDP) forms part of the evidence base that supports the adopted Arun Local Plan. The ATS and IDP have been prepared to demonstrate that the policies and proposals outlined in the LP are deliverable and to understand the infrastructure that is required to support development and growth across the District.
- 2.3.8 The ATS assesses the impact of planned growth upon the strategic and local highway networks. It establishes where intervention will be necessary to address a 'severe' highway impact arising from the planned growth and identifies schemes of mitigation at most locations. The cost of the scheme is included within the ATS and these have been apportioned to specific development locations according to the proportional impact of each development. This provides a framework for the works and financial contributions required from the Development in order to mitigate the impact of development. **Table 2.1** sets out the identified schemes of relevance to other allocated sites within Angmering.

Table 2.1: Arun Transport Study Strategic Infrastructure Schedule

Junction No.	Junction	Cost (High Estimate)
1	A27/B2233 Nyton Road	£300,000
	A27/A284 Arundel (roundabout improvement)	£301,000
7	A27 / A29 (Fontwell Eastern Roundabout)	£595,000
23	A259 / B2187 (Littlehampton West - Tesco)	£334,000

Source: Arun Transport Study EBR (2017)

- 2.3.9 Whilst the above have been identified as junctions which will require contributions from local allocated developments, it is not anticipated the proposed development will generate any significant impacts at any of these junctions to justify a financial contribution being secured.
- 2.3.10 The ATS establishes that the schemes above do not represent the full cost of highways and transport mitigation, as each development will also need to consider the following on a site-by-site basis:

- Local junction mitigation (i.e. junctions not included in the scope of the ATS on the local network);
- Cycle/pedestrian infrastructure; and
- Bus infrastructure.

2.3.11 The findings of the ATS contribute towards the infrastructure requirements set out in the Infrastructure Delivery Plan. The most recent iteration of the IDP, produced by Arun District Council in 2017, provides a site-specific infrastructure schedule which reflects the schemes identified in the ATS and which has been further developed through the Arun Apportionment Study (June 2020).

Arun Parking Standards Supplementary Planning Document (2020):

2.3.12 The SPD outlines Arun District Council's approach to parking at new developments (both residential and commercial) and should be used to help determine the level of parking at new developments. The SPD provides guidance on levels of car parking, cycle parking and electric vehicle infrastructure.

2.3.13 The document is based upon the 'West Sussex County Council Guidance on Parking at New Developments May 2019' (WSCC GPND) with a few exceptions. The SPD therefore seeks to define and formalise these standards in order to give them greater weight when considering planning applications.

2.3.14 The parking standards are based on Parking Behaviour Zones. The proposed development falls within 'Zone 2 – Peri-Rural'. A summary of the residential parking standards for the residential and commercial uses for the proposed development site are summarised in **Table 2.2** and **2.3** respectively.

Table 3.2: Residential Car and Cycle Parking Standards – Zone 2

No. Of Bedrooms	No. of Habitable Rooms	Car Parking Provision	Cycle Parking Provision
1	1-3	2	1
2	4	2	1
3	5-6	2	2
4+	7+	3	2

Source: ADC Parking Standards Supplementary Planning Document, January 2020

West Sussex Walking and Cycling Strategy 2016 – 2026

2.3.15 WSCC has developed a Walking and Cycling Strategy to outline the design and safety principles for walking and cycling, recognising the different needs of users, and identifies and prioritises potential infrastructure improvements for the County.

2.3.16 In relation to Angmering, the strategy identifies potential improvements to local cycle routes to:

- High Street Angmering to A259;
- Angmering to Arundel;
- Angmering to Rustington; and
- Angmering link to A259

Relevant Transport Guidance

2.3.17 The TA has also been prepared with due regard to relevant 'industry standard' practice and guidance documents, including:

- DfT's 'Manual for Streets' (MfS) and 'Manual for Streets 2' (MfS2);
- The Design Manual for Road and Bridges (DMRB);
- Local Transport Note 01/20;
- National Travel Survey (NTS) data
- LTN 01/20; and
- WSCC's 'Transport Assessment Methodology' (TAM).

2.4 Summary

2.4.1 Paragraph 110 of the NPPF identifies the three key transport criteria that decisions on development proposals should take account of. These are whether:

- The opportunities for sustainable travel have been appropriately 'taken up';
- Safe and suitable access can be achieved; and
- Improvements can be undertaken within the transport network that cost effectively limit the impacts of the development.

2.4.2 These criteria are reflected in local policy. This TA has therefore been prepared to assess the development proposal against these criteria and the remainder of this TA demonstrates how the proposals comply with the identified national and local transport policy.

SECTION 3 Existing Transport Conditions

3.1 Introduction

- 3.1.1 This section of the TA 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 on the eastern edge of Angmering village, immediately adjacent to the existing settlement boundary. The site is bounded to the north by the A259 Littlehampton Road, to the east by 'Artists in Stone' commercial premises, to the south by the West Coastway Railway Line and the west by the B2140 Old Worthing Road and residential development.

3.3 Walking and Cycling

Walking

A259 Littlehampton Road

- 3.3.1 The A259 Littlehampton Road runs parallel to the north side of the site, running east through Hangleton and west towards Angmering and Preston. A shared footway/cycleway is provided on the south side of the carriageway, tying into the proposed access-only road at the north west corner of the site. The shared footway/cycleway routes east from the site to a toucan crossing arrangement at the access junction to the ASDA superstore. The shared footway/cycleway continues eastward through Hangleton to a merged toucan/equestrian crossing providing access north across the A259 to the large industrial area on Hangleton Lane.
- 3.3.2 It should also be noted the street lighting is provided along the extent of Littlehampton Road and the straight nature of the carriageway affords both motorists and pedestrians good visibility.

Old Worthing Road

- 3.3.3 Old Worthing Road forms the southern arm of the A259 Littlehampton Road / Old Worthing Road / Roundstone By-Pass Road / A280 roundabout to the northwest of the site. Footways are provided on both sides of the carriageway with the southern footway tying into the proposed access-only road to the site. Both footways continue southwest through a residential area into

Preston. Old Worthing Road is street-lit along its extent with good natural surveillance provided by surrounding residential properties. A 30mph posted speed limit ensures vehicle speeds are low when routing alongside pedestrians.

A259 Roundstone By-Pass

3.3.4 The A259 Roundstone By-Pass Road routes west from the A259 Littlehampton Road / Old Worthing Road / Roundstone By-Pass Road / A280 roundabout to the northwest of the site. An uncontrolled pedestrian crossing comprising dropped kerbs and a pedestrian refuge island is provided across this arm of the roundabout.

3.3.5 A single footway is provided on the north side of the A259 Roundstone By-Pass Road, separated from the carriageway via a wide grass verge. This footway gives access to a number of retail units including Hobbycraft and Haskins Garden Centre. To the west, an uncontrolled pedestrian crossing comprising dropped kerbs, tactile paving and a pedestrian refuge island is provided at the A259 Roundstone By-Pass Road / Roundstone Lane roundabout. From here, onward pedestrian travel opportunities continue along Roundstone Lane north and south.

A280

3.3.6 Whilst there are no designated pedestrian routes along the A280, an uncontrolled pedestrian crossing point comprising dropped kerbs and tactile paving is provided across this arm of the A259 Littlehampton Road / Old Worthing Road / Roundstone By-Pass Road / A280 roundabout to the northwest of the site.

Cycling

3.3.7 The shared footway/cycleway along the A259 Littlehampton Road provides an off-carriageway route to Hangleton. The low vehicle speeds, street lighting and residential nature of Old Worthing Road provides an environment conducive to in-carriageway cycle without the need for designated cycle facilities. The A259 Roundstone By-Pass Road is subject to a 50mph speed limit and can therefore accommodate the majority of cyclists within the carriageway. Roundstone Lane is subject to a 30mph speed limit in both a northbound and southbound direction; this allows for safe cycle travel within the carriageway.

3.4 Public Rights of Way (PRoW)

- 3.4.1 An extensive PRoW network is available in the vicinity of the site, providing numerous alternative off-road routes to surrounding destinations. The extent of the local PRoW is outlined in **Image 3.1** below.

Image 3.1: Local PRoW Network



Source: West Sussex County Council iMap

- 3.4.2 Public Footpath 2126 is located to the east of the site and connects the A259 Littlehampton Road at its northern extent with Kingston Lane to the southwest and the north-western edge of Ferring to the east of the site. This is achieved through a network of additional footpaths including Footpaths 2114 and 2118.
- 3.4.3 Public Footpath 2143 is accessible to the north of the A259 Littlehampton Road and provides an off-carriageway route towards Angmering before linking with Bridleway 2140. An additional northbound round into Angmering can be accessed via Footpath 2145 located to the west of the roundabout at the northwest corner of the site.

3.5 Public Transport

Bus

- 3.5.1 The closest bus stops to the site are located along the A259 circa 100m to 150m from the site and take the form of a flag and pole arrangement. **Table 3.1** summarises the local bus services accessible from these stops and identify the site's accessibility to bus services.

Table 3.1: Bus Services available from A259 Littlehampton Road

Service	Route	Operation		
		Monday- Friday	Saturday	Sunday
8	Worthing - Goring by Sea - South Ferring	One service per day to Angmering at 08:30, to Worthing at 15:40	-	-
9	Holmbush Shopping Centre - Arundel	Hourly service First service to Shoreham-by-Sea at 08:11, to Arundel at 06:57. Last service from Shoreham-by-Sea at 17:38, from Arundel at 17:14.	Hourly service First service to Shoreham-by-Sea at 08:19, to Arundel at 08:02. Last service from Shoreham-by-Sea at 17:38, from Arundel at 17:08.	-
700	Brighton - Wick	3-6 services per hour. First service to Brighton at 06:13, to Littlehampton at 05:45. Last service from Brighton at 20:50, from Littlehampton at 22:34.	2-5 services per hour. First service to Brighton at 07:15, to Littlehampton at 06:13. Last service from Brighton at 20:50, from Littlehampton at 20:22.	1-3 services per hour. First service to Brighton at 07:38, to Littlehampton at 07:36. Last service from Brighton at 19:15, from Littlehampton at 20:54.

Source: Bluestar and Traveline Southeast

- 3.5.2 **Tables 3.1** demonstrates that there are regular bus services operating along the A259 Littlehampton Road in the vicinity of the site. The 700 service provides a frequent service between Littlehampton and Brighton Monday to Sunday whilst bus route 9 serves Angmering Rail Station. Additional services are available to surrounding destinations such as Arundel and Worthing.

Rail

- 3.5.3 Angmering rail station is located around 1.8km west of the proposed site and is accessible by foot and by cycle. The station provides 123 car parking spaces with 3 accessible spaces along with 142 cycle parking spaces. As mentioned earlier, the station is also directly accessible via the 9 bus route operating from the A259 Littlehampton Road.
- 3.5.4 **Table 3.2** below summarises the details and frequencies of rail services from Angmering Station during both peak and off-peak periods.

Table 3.2: Rail Services from Angmering Station

Destination	Typical Frequency (trains per hour)		Average Journey Duration
	Peak	Off-Peak	
Littlehampton	1-2 direct services per hour	1 direct service per hour	11 minutes
Brighton	2-4 services per hour	2 services per hour	37 minutes
Portsmouth	1-2 direct services per hour	1 direct service per hour	48 minutes
Southampton	1 direct service per hour	1 direct service per hour	74 minutes
London	2 direct services per hour	1-2 direct services per hour	103 minutes

Source: National Rail Enquiries

- 3.5.5 **Table 3.2** demonstrates that Angmering Station provides rail services to a number of high order destinations including Portsmouth, Southampton, London and Brighton. This provides the opportunity for future residents to travel further afield for leisure, employment and retail opportunities via direct connections.

3.6 Local Highway Network

A259 Littlehampton Road

- 3.6.1 The A259 Littlehampton Road is a dual carriageway located to the north of the site routing east through Hangleton before merging with the A2032 Littlehampton Road at the Swallows Return Pub. The westbound carriageway measures approximately 7.3m in width with the eastbound carriageway measuring approximately 6.6m. The dual carriageway is subject to a 50mph speed limit.

Old Worthing Road

- 3.6.2 Old Worthing Road is a single carriageway measuring approximately 6.9m in width. At its northern extent it connects with the A259 Littlehampton Road / Old Worthing Road / Roundstone By-Pass Road / A280 roundabout to the northwest of the site. At its southern extent, Old Worthing Road merges into Roundstone Lane at a simple priority junction and onwards across the train line. A posted 30mph speed limit is enforced along the extent of Old Worthing Road.

A259 Roundstone By-Pass

- 3.6.3 The A259 Roundstone By-Pass is a short section of single carriageway that connects the A259 Littlehampton Road / Old Worthing Road / Roundstone By-Pass Road / A280 roundabout to the east with the A259 Roundstone By-Pass Road / Roundstone Lane roundabout to the west. The posted 50mph speed limit carries over from the A259 Littlehampton Road and continues along this route. The carriageway measures approximately 9.5m in width.

A280

- 3.6.4 The A280 forms the northern arm of the A259 Littlehampton Road / Old Worthing Road / Roundstone By-Pass Road / A280 roundabout and comprises a single carriageway measuring approximately 7.3m in width. The A280 is subject to the national speed limit of 60mph.

3.7 Existing Network Operation

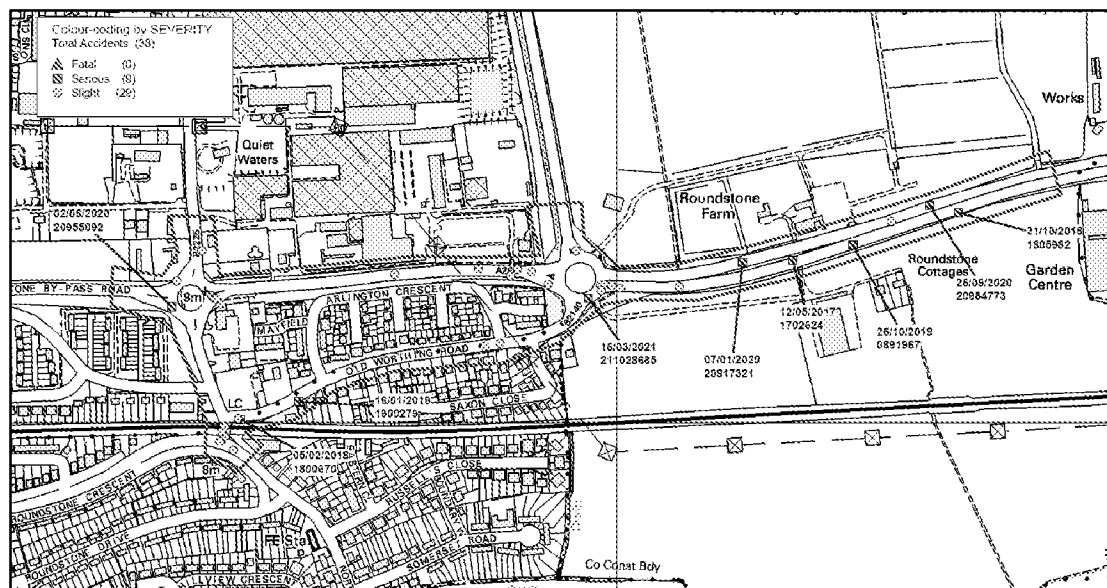
- 3.7.1 Usual practice would be to undertake peak period traffic flows to obtain baseline traffic flows, however due to the Covid-19 pandemic, it has not been possible to obtain 2021 baseline data from the use of traffic surveys as the existing peak period conditions experience lower traffic flows compared to pre-pandemic peak periods. On this basis, peak period traffic data has been obtained from planning application associated with Land South of Water Lane, Angmering (application ref: A/99/17/OUT). This application had baseline traffic data for 2015 peak periods which are illustrated in **Figures TF1 and TF2**.

3.8 Highway Safety

3.8.1 Personal Injury Accident (PIA) data has been obtained from Sussex Safer Roads Partnership for the five-year period between 01/04/2016 and 31/03/2021. A full copy of the collision data is provided at **Appendix B**.

3.8.2 In total, there were 38 PIAs recorded within the study area within the last five years. Of the collisions, nine were recorded as 'serious' in nature and 29 as 'slight'. No fatal collisions were recorded. The locations of the recorded PIAs are shown on **Image 3.2**.

Image 3.2: Location of Recorded PIAs



Source: Sussex Safer Roads Partnership

3.8.3 The nature, cause and location of each of these PIAs is outlined in the following paragraphs.

A259 Littlehampton Road (West of Asda)

3.8.4 Seven collisions occurred along this section of road of which four occurred on the westbound carriageway and three on the eastbound carriageway.

3.8.5 On the westbound carriageway, three collisions resulted in 'serious' injury. The first involved a motorcycle which attempted to change lanes and then lost control. The second 'serious' collision involved a cyclist who collided with a stationary vehicle and the third 'serious' collision involved a vehicle which attempted to change lanes and struck a motorcycle passing between vehicles. The final collision along this section resulted in 'slight' injury and involved a cyclist who entered the carriageway across the path of an oncoming vehicle.

- 3.8.6 On the eastbound carriageway, two collisions resulted in 'serious' injury and the first involved a motorcycle which failed to slow in time and collided with another motorcycle. The second involved a motorcyclist who was driving aggressively, left the carriageway and lost control. The 'slight' injury collision along this section involved a vehicle which lost control avoiding an animal in the carriageway.

A259 / Old Worthing Road Roundabout

- 3.8.7 A total of 10 collisions occurred at this junction, two resulted in 'serious' injury and 14 resulted in 'slight' injury.

A280 Arm

- 3.8.8 One collision occurred on this arm which involved a vehicle which failed to slow in time and caused a rear end shunt type collision and resulted in 'slight' injury.

A259 Littlehampton Road Arm

- 3.8.9 A total of five collisions occurred on this arm, all of which involved a vehicle which failed to slow in time causing a rear end shunt type collision and all resulted in 'slight' injury. Causal factors suggest that two of these collisions were due to damp road conditions.

Old Worthing Road Arm

- 3.8.10 One collision occurred on this arm which resulted in 'serious' injury. The collision involved a motorcycle travelling around the roundabout and colliding with a cyclist.

Roundstone By-Pass Arm

- 3.8.11 Three collisions occurred on this arm, all resulted in 'slight' injury. The first collision involved two vehicles colliding when merging on the exit of the roundabout travelling westbound. Another collision involved an eastbound vehicle which lost control and the causal factors suggest the driver experienced a medical episode. The second 'slight' injury collision involved a cyclist who entered the carriageway across the path of an oncoming vehicle.

A259 Roundstone By-Pass

- 3.8.12 Three collisions occurred along this section of carriageway, all resulted in 'slight' injury. On the eastbound carriageway, one collision involved a vehicle which failed to slow in time and caused

a rear end shunt type collision, whilst the other collision involved a vehicle which collided with a cyclist due to dazzling sun impacting the driver's vision.

- 3.8.12 The final collision involved a vehicle approaching the roundabout which had to brake suddenly which caused the vehicle to lose control. The causal factors suggest damp road conditions could have contributed to the collision.

Roundstone Roundabout

- 3.8.14 Eight collisions occurred at this junction, one resulted in 'serious' injury and seven resulted in 'slight' injury.

Roundstone Lane (North) Arm

- 3.8.15 One collision occurred on this arm which resulted in 'slight' injury and involved a southbound vehicle which collided with a stationary motorcycle. The causal factors suggest this was due to a road rage incident.

Roundstone By-Pass (East) Arm

- 3.8.16 Five collisions occurred on this arm, all resulted in 'slight' injury and involved westbound vehicles which failed to slow in time and caused a rear end shunt type collision. The causal factors suggest one collision was caused by a driver anticipating the vehicle in front to move.

Roundstone By-Pass (West) Arm

- 3.8.17 Two collisions occurred on this arm. The 'serious' injury collision involved a westbound vehicle colliding with a cyclist on the exit of the roundabout. The 'slight' injury collision involved a parked car reversing into another parked car.

Old Worthing Road

- 3.8.18 Five collisions occurred along this section of the carriageway, two resulted in 'serious' injury and three resulted in 'slight' injury. The first 'serious' injury collision occurred at the junction with Roundstone Lane and involved a southbound vehicle which swerved to avoid another vehicle and collided with a pedestrian. The second 'serious' collision occurred just to the east of Roundstone Lane and involved an eastbound vehicle colliding with a pedestrian emerging from between stationary vehicles.

3.8.19 Two 'slight' injury collisions occurred at the junction with Arlington Crescent. One collision involved an eastbound vehicle attempting to overtake and colliding with a vehicle waiting to turn right. The second collision involved a vehicle turning right and pulling out across the path of an eastbound vehicle.

3.8.20 The final 'slight' injury collision involved a westbound cyclist colliding with a slow moving vehicle. This collision also occurred at the junction with Roundstone Lane.

Old Worthing Road Level Crossing / North Lane

3.8.21 Five collisions occurred at this location, all resulted in 'slight' injury. Two collisions involved a vehicle which pulled out across the path of an oncoming cyclist to travel south along North Lane. Another collision involved a cyclist being struck by a vehicle turning right to the north of the level crossing.

3.8.22 A further collision involved a northbound vehicle colliding with a northbound motorcycle at the level crossing. The final collision occurred at the Worthing Road / North Lane junction and involved a vehicle which failed to slow in time and caused a rear end shunt type collision.

PIA Summary

3.8.23 Whilst it is regrettable that PIA's have been recorded on the local highway network within the last five-year period, the type and number of collisions is not uncommon for a network of this nature.

3.8.24 Two clusters of collisions have been identified on the eastern arms of the A259 / Old Worthing Road roundabout and also at the Roundstone Roundabout. Whilst clusters have been identified at these locations, all of the collisions resulted in 'slight' injury and again, this number and type of collision is not uncommon for junctions of this nature which experience high traffic volumes. The causal factors also suggest that some of the collisions were caused by damp road conditions and also driver error trying to anticipate the driver in front moving.

3.9 **Summary**

3.9.1 The site is well located to the existing pedestrian / cycle network within Angmering. Within the vicinity of the proposed site, existing bus stops are served by frequent bus routes between Brighton and Littlehampton along with Shoreham-by-Sea and Arundel.

- 3.9.2 Angmering rail station is accessible by foot and cycle and is also accessible by bus. Rail services from Angmering rail station offer access to destinations further afield such as Littlehampton, Brighton, Portsmouth, Southampton and London which provides a realistic opportunity for future residents to travel via sustainable modes.
- 3.9.3 A detailed review of the most recently available accident data has been undertaken and does not identify any specific road safety problems within the local area. Notwithstanding this, the analysis in **Section 6** of this TA carefully assesses the traffic impact of the proposal to identify whether the proposal will result in a material change in the way the local highway network operates.

SECTION 4 Development Proposal

4.1 Introduction

- 4.1.1 This section of the TA presents the development proposal including the proposed access and servicing arrangements. The TA supports a full planning application for 76 dwellings including associated infrastructure, parking and landscaping.

4.2 Schedule of Accommodation

- 4.2.1 The accommodation schedule of the 76 dwellings which form this development proposal is summarised in Table 4.1.

Table 4.1: Schedule of Accommodation

Type	Quantum / Size
Private	
2-bed House	10
3-bed House	10
4-bed House	33
Affordable	
1-bed Apartment	8
2-bed House	8
3-bed House	7
Total	76

Source: Geoff Perry Associates Ltd

- 4.2.2 The proposed development will provide a mixture of open market dwellings (70%) and affordable dwellings (30%).

4.3 Site Access Strategy

Vehicular

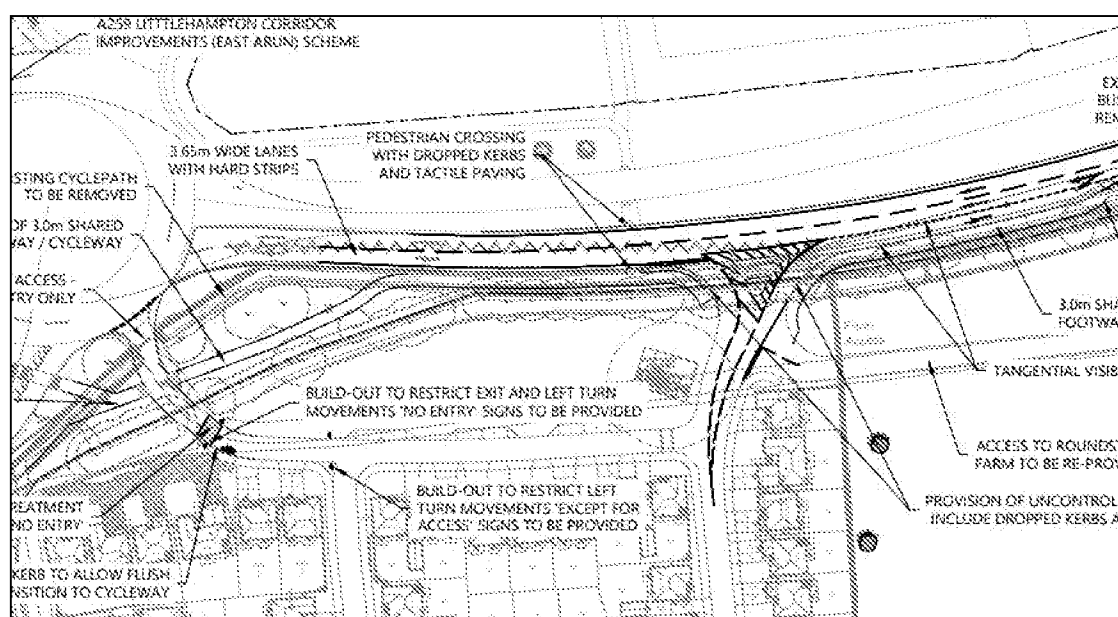
- 4.3.1 The site is currently accessed via a field gate onto the B2140 Old Worthing Road roundabout junction with the A259 Littlehampton Road. This access links within the site to the existing left in / left out access from the A259 Littlehampton Road serving the Artists in Stone commercial premises.

4.3.2 Following comments received from WSCC as part of application A/168/21, modifications have been made to the access arrangements proposed as part of that application. In summary, the arrangement comprises:

- A new Left In / Left Out type arrangement onto the A259 Littlehampton Road to the west of the roundabout;
- Retention of the roundabout access to provide an 'entry only' into the site, with the road realigned in accordance with the recommendation of the Road Safety Audit;
- Closure of the existing 'left in, left out' Roundstone Farm access to the west of the site;
- Removal of the bus stop on the A259; and
- Relocation of the pedestrian/cycle way adjacent to the A259 roundabout.

4.3.3 The proposed site access arrangement is presented in **Drawing ITB16357-GA-004**, an extract of which is shown in **Image 4.1**.

Image 4.1: Site Access Extract



Source: ITB16357-GA-003 Rev D

4.3.4 Through pre-application engagement with WSCC the need for Departure from Standards (DfS) applications was identified in relation to the loss of hard strips and lane widths on the A259 adjacent to the site access and the proximity of the bus stops to the site access. These departures have been designed out of the arrangement and are no longer required.

- 4.3.5 As part of the pre-application advice, WSCC also advised that a dedicated left turn lane between A259 westbound and Old Worthing Road did not make it into the Phase 1 A259 improvement works and, if possible, it would be prudent for development does not prejudice the potential for this to be delivered in the future. It should be noted that a dedicated left turn does not form part a programmed scheme of improvements, nor is the land safeguarded for its delivery; as such, it has no committed status and is only an aspirational scheme of improvements. It is not possible to relocate the access further east, and the proposed junction is at the easternmost part of the proposed development site.
- 4.3.6 In addition to the above, there are 4 lime trees situated adjacent to the roundabout, which are subject to a Tree Protection Order. These trees are identified in the Arun TPO extract provided at **Image 4.2**, and would restrict the delivery of any improvement scheme at this location:

Image 4.2: TPO Extract

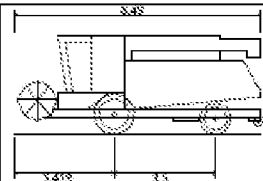


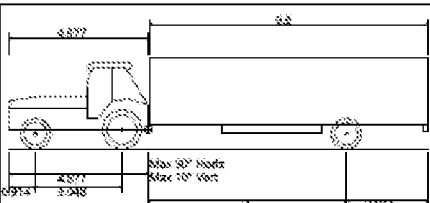
Source: Arun TPO

- 4.3.7 Further consideration of any additional measures to support 'entry only' into the site was also sought by WSCC through the pre-application response. The design has been amended to incorporate road narrowing, 'no entry' signage and a change in surface materials to emphasise that the route is not to be used to obtain access to the roundabout. A build out of the kerb line adjacent to property 6 has also been included to restrict left turn manoeuvres by vehicle movements originating in the southwestern area of the development.

4.3.8 These measures have been designed with consideration given to the vehicles operated by the adjacent Roundstone Farm, which has rights of access via the roundabout. It is understood that the farm operates two vehicles which are subject to an annual Abnormal Load Consent issued by Sussex Police. These design vehicles are identified in **Images 4.3** and **4.4**, and the tracking of each vehicle is presented in **Drawing ITB16357-GA-006**.

Images 4.2 and 4.3: Design Vehicles

	
Combine Harvester	
Overall Length	8.490m
Overall Width	3.900m
Overall Body Height	3.377m
Min Body Ground Clearance	0.456m
Max Track Width	3.900m
Lock to lock time	8.00s
Max Wheel Angle	40.00°

	
Farm Tractor with Reekie Harvester	
Overall Length	14.734m
Overall Width	3.240m
Overall Body Height	5.198m
Min Body Ground Clearance	0.586m
Max Track Width	3.048m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.700m

4.3.9 As part of planning application A/168/21, WSCC identified the possibility of further measures to restrict misuse of the access, to be secured via Planning Condition/S106 Obligation. This could include the implantation of a Traffic Regulation Order (TRO) to prevent access to the roundabout, enforced by ANPR cameras positioned at the access to allow this to be enforced remotely. The Applicant is willing to accept such a condition.

4.3.10 To the east of the access, the bus stop on the A259 has been removed at the request of WSCC. In addition, the existing access to Roundstone Farm is to be closed to vehicular traffic and returned to grass verge, as identified in Drawing ITB16357-GA-004. The detail of this closure will be progressed as part of the S278 Agreement and will retain access to the Public Right of Way.

4.3.11 In accordance with the WSCC Road Safety Audit Policy, a Stage 1 RSA has been undertaken by an independent auditor. All matters have been addressed in accordance with the recommendations of the Auditor, and a GG119 Design Team response is provided as part of the application as **Technical Note ITB16357-013**.

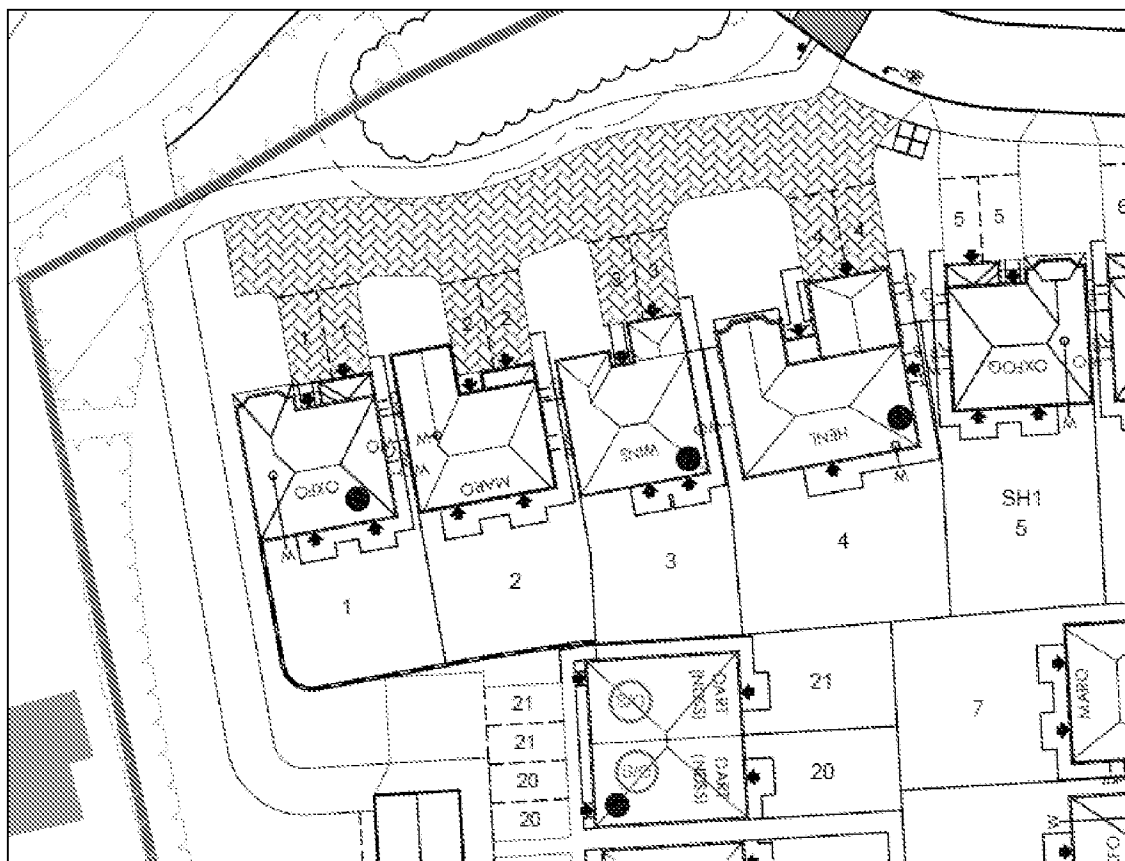
4.3.12 To address the audit requirements, a radius has been introduced to the roundabout access road so that exiting vehicles are not required to turn sharply when exiting the roundabout, and the existing pedestrian route is to be relocated to the south of the TPO trees, so that exiting vehicles are not required to obstruct westbound vehicles on the roundabout should a pedestrian or

cyclist be crossing at the same time. This also enables widening of the footway to accommodate cyclists without further hard surfacing in the immediate vicinity of the TPO trees, and the removal of the existing footway to enable it to be returned to verge.

Pedestrian and Cyclists

- 4.3.13 A pedestrian/cycle link is to be formed in the northeastern corner of the site, providing a direction connection to corresponding infrastructure adjacent to the A259. This provision will connect both eastwards and southwards within the site. An extract of the site identifying this arrangement is shown in **Image 5.1**.

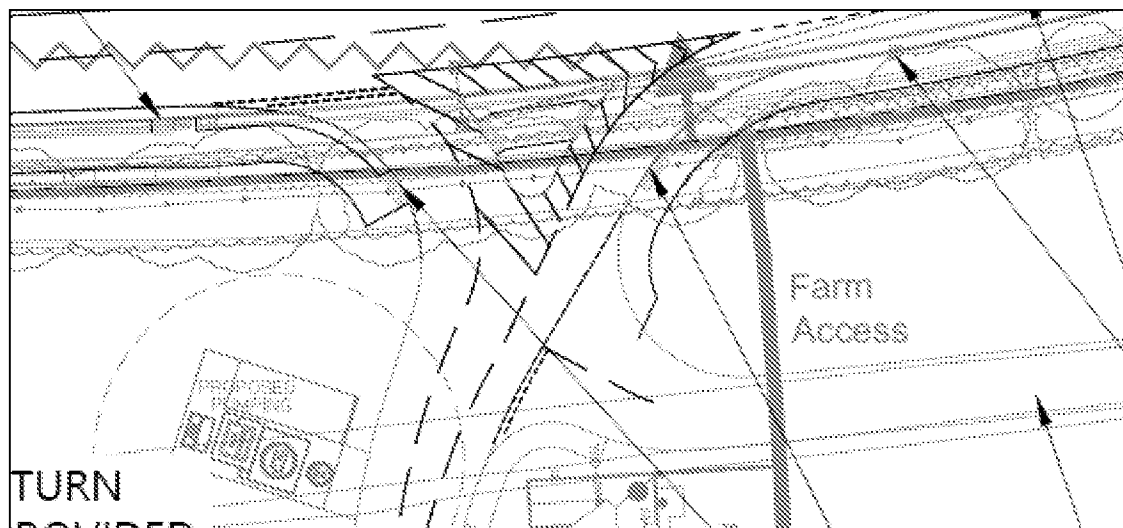
Image 5.1: Western Cycle Connection



Source: GPAL Drawing A1004-01-C

- 4.3.14 A connection will also be formed via the 'left in, left out' access to provide a connection for pedestrians and cyclists to the existing infrastructure adjacent to the A259. This connection is shown in the extract of **Drawing ITB16357-GA-004** shown in **Image 5.2**.

Image 5.2: Northern Cycle Connection



Source: ITB16357-GA-004 Rev F

- 4.3.15 To the north of the development site, it is understood that planned improvement to widen the cycleway on the southern side of the A259 and east of the A280 has been removed from the scope of the Phase 1 A259 Improvements; WSCC has indicated that it would be expected that improvements be delivered as part of any development proposal. On the basis, it is proposed to widen the east-west section of the route to the south of the A259.
- 4.3.16 At the roundabout, the existing arrangement is currently situated immediately adjacent to the carriageway. As part of the development proposal, the provision is to be relocated to the rear of the TPO trees and widened to enable use as a cycle route. The existing infrastructure is to be removed and returned to verge.

4.4 Site Layout

Street Layout and Servicing Arrangements

- 4.4.1 The layout of the site has been developed in line with the principles set out within MfS with carriageway widths of 5.5m provided on the primary route through the development. Refuse vehicles and servicing vehicles can manoeuvre within the site safely and leave in forward gear, and that emergency vehicles can satisfactorily manoeuvre around the layout.

Visibility

- 4.4.2 The site layout has been designed to ensure sufficient visibility is provided on internal streets and at junctions. Visibility to the spine road is provided at 2.4m x 25m, commensurate with a

design speed of 20mph. In addition, building lines have been set back from corners to allow for forward visibility around bends.

Parking Provision

- 4.4.3 Car and cycle parking is to be provided in accordance with Arun Parking SPD and the proposed parking strategy is summarised in the Design and Access Statement accompanying the application. The development also makes provision for Electric Vehicle Charging (EVC) across the proposed development.

4.5 **Summary**

- 4.5.1 The development is to provide for 76 new homes, comprising 70% private and 30% affordable dwellings.
- 4.5.2 Access to the site is to be achieved through a left in, left out junction onto the A259. An 'entry only' is to be retained through modifying the existing site access from the B2140/A259 roundabout, and measures are proposed within the site to restrict egress from the site through this junction.
- 4.5.3 A pedestrian and cycle access is proposed in the north-western corner of the development connecting into existing pedestrian/cycle provision adjacent to the A259/B2140 roundabout. In addition, a scheme of improvements to widen the pedestrian/cycle provision on the southern side of the A259 is proposed for delivery as part of the site access arrangements, incorporating the rerouting of the path to the rear of TPO trees adjacent to the roundabout.
- 4.5.4 The internal layout has been designed in accordance with Manual for Streets design principles and provides access for refuse and emergency vehicles throughout the site; further detail of this, and the parking strategy, is contained within the Design and Access Statement accompanying the application.

SECTION 5 Accessibility

5.1 This section of the TA considers the accessibility of the site to key services and facilities by non-car modes of transport.

5.2 Journey Purpose

5.2.1 In considering accessibility and promoting sustainable travel it is important to consider the reasons why future residents of the proposed development will make journeys. The Department for Transport's (DfT) National Travel Survey identifies the proportion of all trips by purpose as set out in **Table 5.1**.

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	13%
Personal Business	9%
Other Escort	9%
Other (Including Just Walk)	6%

Source: Table NT50409 Average number of trips by purpose and main mode: England NTS – 2019 Edition

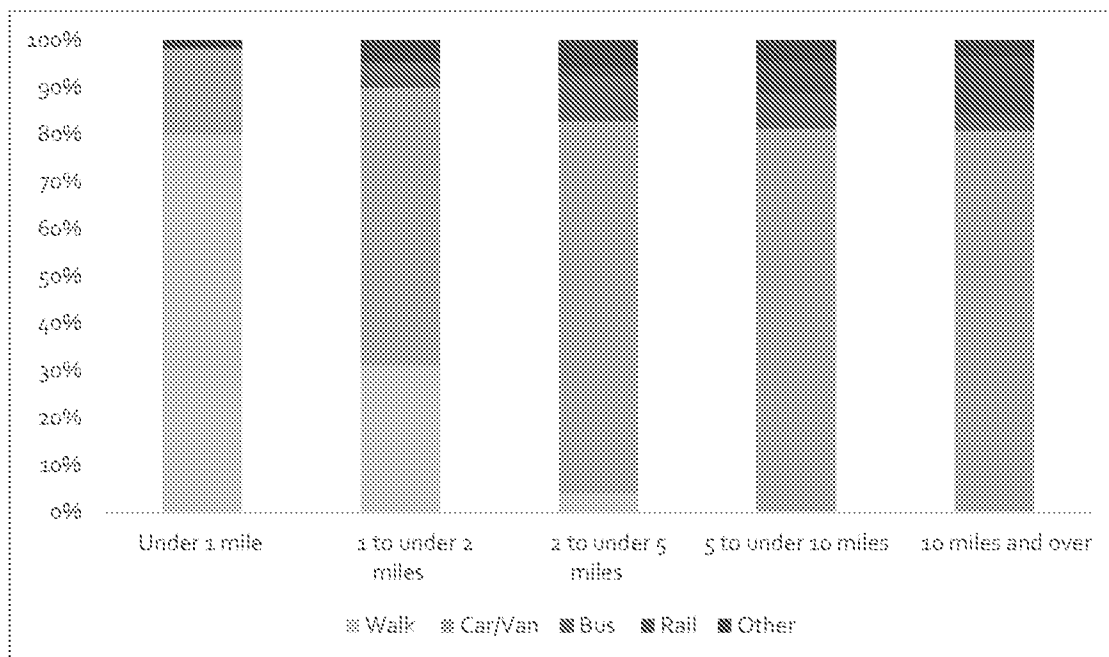
5.2.2 **Table 5.1** demonstrates that trips are made up of a number of different journey purposes, and each type of journey will have different requirements in terms of destination, time constraints and route choice.

5.2.3 This TA therefore considers the opportunities to access local facilities and services by a choice of transport modes.

5.3 Walking Distances

5.3.1 The National Travel Survey (NTS) 2019 identifies the mode share of journeys of different lengths:

Image 5.1: Mode Share of Trips by Main Mode for Different Trip Lengths: England



Source: National Travel Survey: England 2019

5.3.2 The vast majority (80%) of trips are undertaken on foot for journeys up to one mile, whilst walking accounts for some 31% of all trips between 1 and under 2 miles (circa 1.6km – 3.2km). Walking trips fall away beyond 2 miles, with journeys of between 2 and 4 miles equating to approximately 4% of all trips.

5.3.3 The one-mile (1.6km) distance is reflected in the Chartered Institution of Highways and Transportation (CIHT) guidance 'Planning for Walking' (2015) which states:

“Across Britain, approximately 80% of journeys shorter than 1 mile are made wholly on foot – something that has changed little in 30 years. The main reason for the decline in walking is the fall in the total number of journeys shorter than 1 mile, which has halved in thirty years. It is not that people are less likely to make short journeys on foot but rather that fewer of the journeys they make can be accomplished on foot. If destinations are within walking distance, people are more likely to walk if walking is safe and comfortable and the environment is attractive.”

5.3.4 Therefore, facilities and services within one mile (1.6km) will provide the greatest opportunity for trips to be made by walking.

5.3.5 Against this background, the following walking distances are identified:

- 1,600m – a distance where most people (circa 80%) will walk and offers “the greatest potential to replace short car trips”; and

- 5.3.6 **Figure 2** and **Table 5.2** demonstrates that there is a very good variety of local services and facilities within a 'reasonable' walking distance of the site including significant employment, education, retail, leisure and healthcare.

5.4 Cycling Distances

- 5.4.1 The Department for Transport's Cycling and Walking Investment Strategy (2017) states at paragraph 1.16 that:

"... there is significant potential for change in travel behaviour. Two out of every three personal trips are within five miles - an achievable distance to cycle for most people, with many shorter journeys also suitable for walking. For school children, the opportunities are even greater. Three quarters of children live within a 15 minute cycle ride of a secondary school, while more than 90% live within a 15 minute walk or bus journey from a primary school."

- 5.4.2 The DfT's Gear Change A bold vision for cycling and walking states (page 11) that:

In particular, there are many shorter journeys that could be shifted from cars, to walking, or cycling. We want to see a future where half of all journeys in towns and cities are cycled or walked. 58% of car journeys in 2018 were under 5 miles. And in urban areas, more than 40% of journeys were under 2 miles in 2017-18. For many people, these journeys are perfectly suited to cycling and walking.

- 5.4.3 While now superseded, the Department for Transport's (DfT) Local Transport Note 2/08 'Cycle Infrastructure Design' (October 2008) states that:

"Urban networks are primarily for local journeys. In common with other modes, many utility cycle journeys are under three miles (4.8km) (ECF, 1998), although for commuter journeys, a trip distance of over 5 miles (8km) is not uncommon."

- 5.4.4 This is corroborated by data provided within the National Travel Survey which demonstrates that the average distance per journey by bike is approximately 4.4km, with the current average length of an employment and leisure cycle trip some 5.2km.

- 5.4.5 There is a wealth guidance on cycling distances, with 8km (5 miles) considered to be a reasonable cycle distance.

5.5 Key Destinations

- 5.5.1 The primary destinations for future residents of the proposed development within the local area are listed in **Table 5.2**, overleaf, and also shown on **Figure 2**.

Table 5.2: Local Destinations

Journey Purpose	Destination	Distance (m)	Walking (mins)	Cycling (mins)
Leisure	Hangleton Farm Equestrian Centre	1300	15	5
	East Preston Football Club	1400	17	5
	Worthing RFC	1500	18	6
	Highdown Vineyard	1500	18	6
	The spotted Cow Public House	1700	20	6
	The Henty Arms Public House	1700	20	6
	Angmering Community Centre	1800	21	7
	Glebelands Recreation Ground	1800	21	7
	Ferring Village Hall	1800	21	7
	Ferring Football Club	2000	24	8
	Langmead Recreation Ground	2100	25	8
	Worthing Hockey Club	2300	27	9
	Angmering Village Hall	2500	30	9
Retail	Roundstone Bypass Retail Park	600	7	2
	Costcutter	900	11	3
	Asda	950	11	4
	The Co-operative Food (Ferring)	1800	21	7
	The Co-operative Food (Angmering Rail Station)	1900	23	7
	Sainsbury's	2100	25	8
	The Co-operative Food (Angmering)	2400	29	9
Education	East Preston Junior School	1500	18	6
	East Preston Village Pre-School	1900	23	7
	Ferring CoE Primary School	2200	26	8
	Georgian Gardens Community Primary School	2400	29	9
	The Angmering School	2400	29	9
	Angmering Village Pre-School	2500	30	9
Employment	Hangleton Industrial Estate	1100	13	4
	Littlehampton Road Industrial Estate	1900	23	7
	Rushington Trading Estate	3500	42	13
Healthcare	Asda Chemist	950	11	4
	Lloyds Pharmacy	1800	21	7

Journey Purpose	Destination	Distance (m)	Walking (mins)	Cycling (mins)
	Kamsons Pharmacy	1900	23	7
	Willow Green Surgery	2000	24	8
	Ferring Dental Clinic	2000	24	8
	Angmering Medical Centre	2500	30	9

Source: Google Maps and Consultant Estimates

	Reasonable walking distance (1,600m)
	Reasonable cycling distance (5,000m)

- 5.5.2 As demonstrated on **Figure 2** and in **Table 5.2**, a range of local facilities are accessible within reasonable walking and cycling distances, including education, retail, leisure and employment opportunities.

5.6 Public Transport

- 5.6.1 As set out in Section 3, the site is well located to existing bus stops situated on the A259 Littlehampton Road. These stops are serviced by regular bus routes to destinations including Littlehampton, Brighton, Shoreham-by-Sea and Arundel.

- 5.6.2 Angmering rail station is located circa 1.8km west from the site and the station offers services to destinations including Littlehampton, Brighton, Portsmouth, Southampton, and London.

- 5.6.3 The development proposal will connect the site to the existing pedestrian / cycle network along the A259 Littlehampton Road and this will provide a realistic opportunity for residents to travel from the site using sustainable modes of transport.

5.7 Sustainable Transport Strategy

- 5.7.1 The site is located within a comfortable walking and cycling distance of a good range of everyday facilities. Regular bus services are also accessible to the site to provide connections to destinations further afield and in addition to this Angmering rail station is also located within a reasonable walking distance and comfortable cycling distance.

5.7.2 To ensure these opportunities are taken up, a 'Sustainable Transport Strategy' has been developed. The strategy will be delivered through the Framework Travel Plan that supports the TA (report ref: ITB16357-003).

5.7.3 The overarching aims of the Strategy are:

- To reduce the number of single occupancy car journeys to the site, in line with the objectives of local and national policy guidance; and
- To promote the accessibility to the site by non-car modes of transport.

5.7.4 The key target of the Framework Travel Plan is:

“Over the period of the plan, achieve a 12-hour vehicle trip rate that is 10% lower than was forecast in the Transport Assessment for the site.”

5.7.5 To deliver these aims and targets, the Strategy seeks to:

- Manage car parking demand across the development;
- Support a range of sustainable transport alternatives to provide the future residents and their visitors with options for travel to/from the site;
- Develop an awareness of the options for sustainable travel to and from the site amongst residents and their visitors;
- Promote car sharing, walking, cycling and public transport as safe, efficient, affordable alternatives to private cars and highlight the health and environmental benefits of using sustainable travel modes; and
- Minimise the impacts of car based travel to the site on the local and strategic highway network and environment.

5.7.6 A combination of 'hard' (infrastructure led) and 'soft' (promotion of incentive based) measures are identified to promote and incentivise sustainable travel choices where it is realistic to do so. The Framework Travel Plan identifies a delivery and management strategy for these measures and commits to future monitoring of the success of the travel plan.

5.7.7 An Action Plan is provided in **Table 5.4** which summarises the comprehensive package of measures proposed to be delivered to encourage sustainable access to and from the site. Further detail is provided within the Framework Travel Plan that accompanies the TA.

Table 5.4: Sustainable Transport Strategy

	Measure	Timescale
Cross-Objective	Develop and maintain community website	Prior to occupation
	Prepare and distribute Travel Welcome Packs	Prior to occupation
	Provide community notice boards	Phased with development
	Provide EV charging infrastructure	Phased with development
Reduce the Need to Travel	Deliver connections to broadband network	Phased with development
Promotion of Walking and Cycling	Provision of walking and cycling maps	Prior to occupation
	Pedestrian connection to the A259	Phased with development
	Offer a £50 travel voucher to each dwelling for cycle equipment purchase	On occupation
	Provision of cycle storage within each unit	Phased with development
	Set up a Bicycle User Group (BUG)	Six months after Occupation
Promotion of Public Transport	Negotiation of Bus Taster Ticket with local operators	On occupation
Encourage Car Sharing	Promotion of car sharing schemes through https://liftshare.com/uk/community/west-sussexcarshare	Prior to Occupation
Management	Appoint a Travel Plan Co-ordinator	Three months prior to Occupation – retained for five years from occupation
	Training of the sales team about the Travel Plan	Training as part of induction process
	Production of Sales Stage Travel Packs	To be developed before 1 st occupation
	Develop Full Travel Plan	One year after occupation
	Steering Group	Meeting every 6 months for the first three years after first occupation, annual meetings thereafter
Monitoring	Traffic Surveys at the site access	Year one, three and five
	Travel Questionnaires	Annually (for five years)
	Monitoring Report	Year one, three and five

Source:

5.8 Summary

5.8.1 The site is accessible to a wide range of facilities that residents may use on a day-to-day basis by a range of travel modes, including on foot and by cycle. Local bus services are accessible to

the site within a short, less than two minutes' walk, providing access to local destinations further afield such as Littlehampton, Brighton, Shoreham-by-Sea and Arundel.

5.8.2 Angmering rail station is also located within a reasonable walking distance from the site and provides services to key destinations such as Littlehampton, Brighton, Portsmouth, Southampton and London and therefore offers a realistic opportunity for residents to travel via sustainable modes.

5.8.3 A sustainable transport strategy has been developed to identify opportunities to promote sustainable transport choices. This will ensure that opportunities for sustainable transport can be taken up in accordance with paragraph 108 of the NPPF.

SECTION 6 Traffic Impact

6.1 This section of the TA establishes the likely traffic generation of the proposed development and assesses the vehicular traffic impact of the proposed development on the local highway network.

6.2 Baseline Conditions

6.2.1 Due to the Covid-19 pandemic, it has not been possible to obtain 2021 baseline data from the use of traffic surveys as the existing peak period conditions experience lower traffic flows compared to pre-pandemic peak periods. On this basis, peak period traffic data has been obtained from planning application associated with Land South of Water Lane, Angmering (application ref: A/99/17/OUT). This application had baseline traffic data for 2015 peak periods which are illustrated in **Figures TF1 and TF2**.

6.3 Traffic Growth and Committed Development

6.3.1 Factors to allow for background traffic growth from 2015 to 2021 and 2026 have been derived using the TEMPRO software for Arun 005 mid-layer super output area in line with WSCC's Transport Assessment guidance.

6.3.2 Application of the TEMPRO growth rates take account of local housing and employment projections so considers the cumulative impact of development within Angmering. The growth factors are summarised in **Table 6.1** and the TEMPRO calculations are provided in **Appendix C**. **Figures TF3 to TF6** illustrate the associated traffic flows.

Table 6.1: Growth Rates

Date Range	Morning Peak	Evening Peak
2015-2022	1.0790	1.0796
2015-2027	1.1276	1.1294

Source: TEMPRO

6.4 Proposed Development Trip Generation

6.4.1 The residential trip rates have been derived from the TRICS database using the following parameters, which were agreed with WSCC as part of the pre-application discussions:

- England (excluding Greater London);

- Privately owned houses;
- Surveys in suburban and edge of town locations; and
- Sites with between 40 – 80 houses.

6.4.2 The proposed development is for 76 residential dwellings. As shown in the schedule of accommodation in Section 4, 70% of the dwellings are privately owned and 30% are affordable dwellings, however, the trip rates are derived from surveys associated with private owned dwellings which typically exhibit greater peak hour trip rates. The agreed residential trip rate and generation is summarised in **Table 6.2** and the full TRICS output is provided in **Appendix D**.

Table 6.2: Residential Trip Rates

	Morning Peak Period			Evening Peak Period		
	In	Out	Total	In	Out	Total
Privately Owned Houses	0.118	0.367	0.485	0.350	0.166	0.516
76 Dwellings	9	28	37	27	13	40

Source: TRICS

6.4.3 The proposed residential development of 76 dwellings is expected to generate some 37 two-way vehicle movements during the morning peak period and 40 two-way vehicle movements during the evening peak period. This equates to around one vehicle movement every 1.5 minutes in the peak periods.

6.5 Traffic Distribution

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) 2019 (DfT), the proportion of the peak hour trips by journey purpose by car is presented in **Table 6.3**.

Table 6.3: Proportion of Peak Hour Trips by Journey Purpose (Car Driver Only)

Trip Purpose	Morning Peak	Evening Peak
Commuting / Business	36.8%	43.2%
All Other Journey Purposes	63.2%	56.8%
Total	100%	100%

Source: Car driver trip start time by trip purpose (Monday to Friday only): Great Britain, 2015/19, National Travel Survey, DfT, 2020

- 6.5.2 The data set out in **Table 6.3** has been used to distribute the generated traffic. For the purpose of this assessment, the analysis has been undertaken on the basis that 43.2% of the total vehicular trips generated by the development will be for employment journeys and the remaining 56.8% of the vehicle journeys will be for all other purposes for both the morning and evening peak periods.

Commuting Trips

- 6.5.3 Travel to Work data contained within the 2011 Census has been reviewed to identify the likely destinations for employment journeys. The data for the residents of Arun 005 MSOA has been used, which comprises the proposed development site and the surrounding residential area. The analysis is summarised in **Table 6.4**, overleaf, and presented in full in **Appendix E**.

Table 6.4: Summary of Work Trips Distribution (Travel by Car)

Destination	Percentage of Trips to Work	Percentage of All Trips
Worthing	11.06%	25.61%
Littlehampton	6.57%	15.20%
Angmering	3.04%	7.03%
Chichester	2.41%	5.59%
Crawley	1.81%	4.19%
Bognor Regis / Felpham	1.59%	3.68%
Shoreham by Sea	1.59%	3.68%
Brighton	1.54%	3.56%
Angmering on Sea	1.43%	3.30%
Findon / Patching	1.24%	2.88%
London	1.10%	2.54%
Horsham	1.08%	2.50%
Steyning / Henfield / Ashington	1.01%	2.33%
Yapton	0.95%	2.20%
Arundel	0.58%	1.35%
Ferring	0.53%	1.23%
Other	5.67%	13.13%
Total	43.20%	100.00%

Source: 2011 Census

Other Journey Purpose

- 6.5.4 The distribution of non-employment trips has been estimated using a P/T^2 gravity model. This considers destinations within a 30-minute drive time of the site to reflect the more local nature of the likely destinations of these trips.
- 6.5.5 The population of key urban areas (likely destinations for non-employment trips) has been estimated from the 2011 Census. Journey times were then estimated using journey planning software from the Google Maps Directions facility, based on peak hour journey times.
- 6.5.6 A summary of the distribution for non-employment journey purpose by destination is presented in **Table 6.5**. The gravity model is presented in full in **Appendix F**.

Table 6.5: Distribution of Other Journey Purposes (Car Drivers Only)

Destination	Percentage of Trips to Work	Percentage of All Trips
Worthing	28.63%	50.40%
Littlehampton	19.52%	34.36%
Bognor Regis / Felpham	3.30%	5.81%
Shoreham by Sea	1.45%	2.56%
Angmering	1.22%	2.15%
Horsham	1.09%	1.92%
Angmering on Sea	0.50%	0.88%
Chichester	0.40%	0.71%
Ferring	0.32%	0.56%
Other	0.37%	0.65%
Total	56.80%	100.00%

Source: Consultant's Gravity Model and Census 2011 Data

Combined Distribution

- 6.5.7 The traffic distribution associated with the employment and non-employment trips have been combined and the overall traffic distributions is summarised in **Table 6.6**.

Table 6.6: Combined Distribution (Travel by Car)

Destination	Percentage of all Trips – Work	Percentage of All Trips – Non-Work	Percentage of All Trips
Worthing	11.06%	28.63%	39.69%
Littlehampton	6.57%	19.52%	26.08%
Bognor Regis / Felpham	1.59%	3.30%	4.89%
Angmering	3.04%	1.22%	4.26%
Shoreham by Sea	1.59%	1.45%	3.05%
Chichester	2.41%	0.40%	2.82%
Horsham	1.08%	1.09%	2.17%

Destination	Percentage of all Trips – Work	Percentage of All Trips – Non-Work	Percentage of All Trips
Angmering on Sea	1.43%	0.50%	1.93%
Crawley	1.81%		1.81%
Brighton	1.54%		1.54%
Findon / Patching	1.24%	0.02%	1.26%
London	1.10%		1.10%
Steyning / Henfield / Ashington	1.01%	0.08%	1.09%
Yapton	0.95%	0.03%	0.98%
Ferring	0.53%	0.32%	0.85%
Arundel	0.58%	0.04%	0.62%
Other	5.67%	0.20%	5.87%
Total	43.20%	56.80%	100.00%

Source: 2011 Census

6.5.8 With reference to the results set out in **Table 6.6**, Worthing is the main local destination for peak hour travel, accounting for some 40%, followed by Littlehampton with circa 26% of trips and Bognor Regis / Felpham with approximately 5% of trips.

6.5.9 The development distribution is illustrated in **Figure TF7** and the development traffic flows during the morning and evening peak hours are shown in **Figures TF8 and TF9**.

6.6 Traffic Assignment

6.6.1 The traffic expected to be generated by the site (ref: **Table 6.2**) has been distributed across the local highway network to the destinations identified in **Table 6.6**.

6.6.2 To determine the routing of trips to these destinations, reference has been made to the Google Maps 'Directions' facility. A morning peak hour start time for journeys was utilised to ensure that peak period traffic conditions are reflected.

6.6.3 **Table 6.7** provides a summary of the assignment of development generated trips and the assigned trips are illustrated in **Figures TF10 to TF11**.

Table 6.7: Summary of Residential Traffic Assignment

Description of Route		% Traffic	Morning Peak			Evening Peak		
			In	Out	Two-Way	In	Out	Two-Way
East of Site Access	A259 E	44.30%	4	13	17	12	6	18
West of site Access	A280	18.30%	2	5	7	5	2	7
	Old Worthing Road	9.17%	1	3	4	2	1	3
	Roundstone Lane N	1.28%	0	0	0	0	0	0
	Roundstone Lane S	0.58%	0	0	0	0	0	0
	A259 (West of Roundstone Lane)	26.37%	2	7	9	8	4	12
Total		100.00 %	9	28	37	27	13	40

Source: Consultants' calculations

- 6.6.4 Based on the above, it can be seen that approximately 55.7% of the residential development traffic will route west of the site, equating to 20 to 22 two-way vehicle movements during the morning and evening peak periods. This equates to one vehicle movements every three minutes.

Development Traffic Impact

- 6.6.5 To put the level of increase into context, Table 6.8 provides a traffic impact assessment along key links within the vicinity of the proposed site.

Table 6.8: Net Traffic Impact Assessment (2027 Future Year)

Junction / Link	Morning Peak				Evening Peak			
	2027	Dev	2027 + Dev	% Impact	2027	Dev	2027 + Dev	% Impact
A259 E	2687	17	2704	0.63%	2843	18	2861	0.63%
A280	740	7	747	0.95%	803	7	810	0.87%
Old Worthing Road	882	4	886	0.45%	624	3	627	0.48%
A259 (West of Roundabout Lane)	1068	9	1077	0.84%	2737	12	2749	0.44%

Source: Consultants' calculations

6.6.6 Table 6.8 shows the greatest increase in traffic will be experienced along the A280 with a circa 1% increase during the morning and evening peak periods. This equates to around one additional vehicle movement every nine minutes. It should be noted that all of the local highway links will experience an increase of less than one percent in the peak periods which demonstrates the proposed development will have an immaterial impact.

6.7 Junction Capacity Testing

6.7.1 To calculate the impact of the proposal on neighbouring junctions, capacity analysis has been undertaken using the TRL software Junction 9 at the following junctions.

- Site Access / A259 Junction; and
- A259 / Old Worthing Road roundabout.

6.7.2 No further junctions are deemed necessary to consider as part of this assessment as Table 6.8 shows no other junctions within the vicinity of the site will experience an increase in traffic flows in excess of 30 movements. This is in accordance with WSCC's Traffic Assessment Methodology Section 10.5 which states:

"Generally the study area will include all junctions where there is a predicted increase in total entry flows of 30 or more vehicles in any hour – or if the junction already experiences peak period congestion an increase of 10 or more vehicles – as a result of the development proposals."

6.7.3 At each of the junctions outlined above, detailed modelling assessments were undertaken considering the following scenarios:

- 2022 with committed development and without development;
- 2027 with committed development and without development; and
- 2027 with committed development and development.

6.7.4 **Appendix G** presents the junction modelling outputs and the results of the assessment are summarised in the following paragraphs.

Proposed Site Access / A259

6.7.5 The principal outputs derived from the model are the Ratio of Flow to Capacity (RFC), Queue Length and Delay. The junction capacity assessment results are summarised in **Table 6.9**.

Table 6.9: Proposed Site Access / A259

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2027 with Development						
Site Access	0.06	<1	7	0.04	<1	10

Source: Junctions 9

- 6.7.6 The results demonstrate that the proposed site access onto Lower Turk Street will operate within capacity (i.e. with minimal queueing and delay), during all future year assessment scenarios.

A259 / A280 / B2140 roundabout

- 6.7.7 The A259 / Old Worthing Road roundabout is located immediately west of the proposed site access. There is a committed WSCC junction improvement scheme (**Appendix H**) which is expected to be implemented prior to the first occupation of the site. On this basis, the junction capacity assessment of the roundabout is based on the committed improvement scheme.

Table 6.10: A259 / Old Worthing Road Roundabout

Approach	Morning Peak Period			Evening Peak Period		
	RFC	Queue (veh)	Delay (s/veh)	RFC	Queue (veh)	Delay (s/veh)
2022						
A280	0.35	1	5	0.34	1	4
A259 (East)	0.44	1	3	0.69	2	5
Old Worthing Road	0.56	1	7	0.25	<1	5
Roundstone By-pass Road	0.65	2	5	0.63	2	4
2027 with Committed Development						
A280	0.38	1	6	0.37	1	5
A259 (East)	0.46	1	3	0.73	2	6
Old Worthing Road	0.60	2	8	0.27	<1	6
Roundstone By-pass Road	0.69	2	6	0.66	2	5
2027 with Committed Development plus Development						
A280	0.39	1	6	0.38	1	5
A259 (East)	0.47	1	3	0.74	2	6
Old Worthing Road	0.61	2	8	0.28	<1	6
Roundstone By-pass Road	0.69	2	6	0.67	2	5

Source: Junctions 9

- 6.7.8 Table 6.10 shows the A259 / Old Worthing Road roundabout will operate well within capacity during the 2026 future 'with development' scenarios. Both queueing and delay remains consistent between the 'without' and 'with' development scenarios in each peak period and therefore the proposed development will not result in a 'severe' impact at the junction.

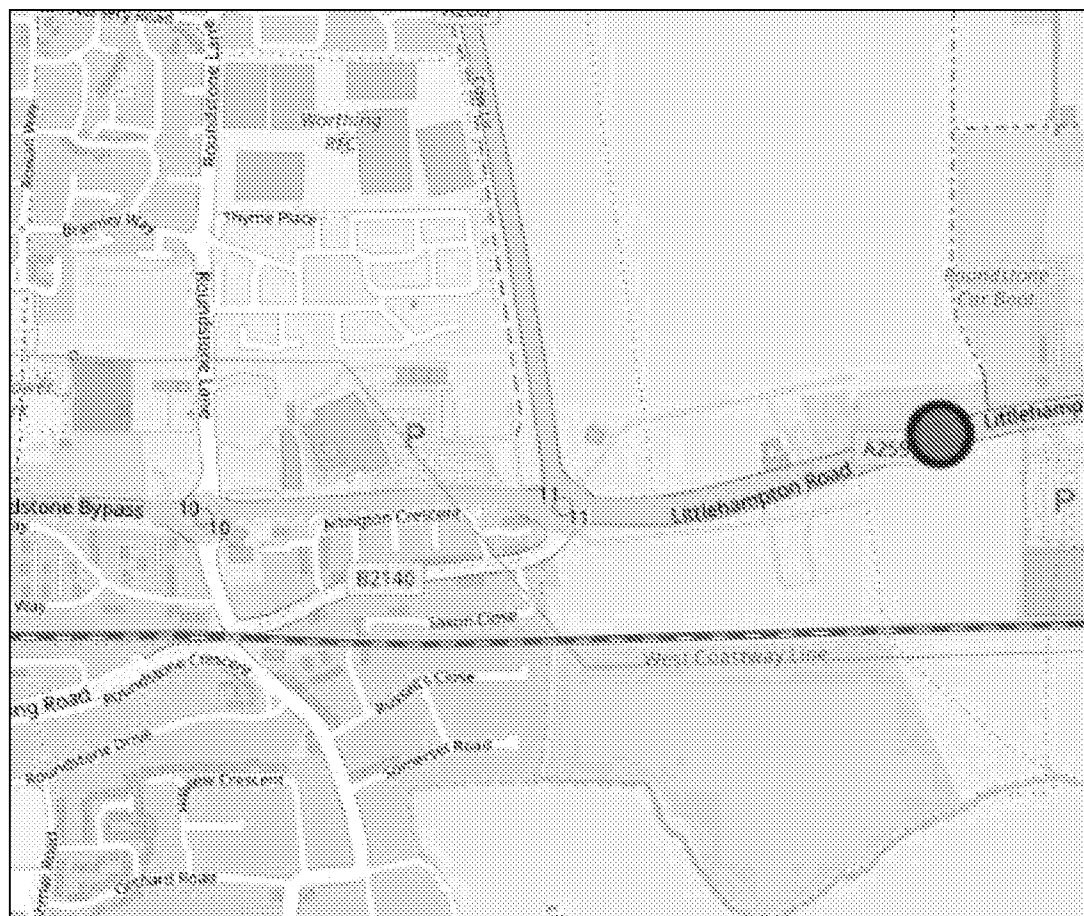
6.8 Roundstone Lane Level Crossing

- 6.8.1 As requested through the WSCC Pre-Application Advice, consideration has been given to the impact of the proposed development upon the B2140 level crossing.
- 6.8.2 The B2140 level crossing is located circa 700m west of the proposed site and it is anticipated around 10% of development generated traffic will route across the level crossing during the peak periods. This equates to around four two-way movements in each peak (one additional vehicle every 15 minutes).
- 6.8.3 As the development will generate such a low increase in vehicle movements at the level crossing, it has not been considered necessary to undertake a detailed capacity assessment of the crossing; it is forecast that the development will generate a maximum of one additional vehicle in the queue during the peak periods. On this basis, the proposed development will not cause a severe intensification in use at the level crossing and therefore complies with the NPPF.

6.9 Traffic Flow Validation

- 6.9.1 WSCC has requested validation of the 2015 base flows that have been used to inform the capacity assessment of the proposed development, to which growth values have been applied as derived from the National Transport Model (NTM).
- 6.9.2 The WSCC Traffic County Database has been used to identify permanent counts in the vicinity of the site. A single count location (site number: 00003133), the location of which is shown in **Image 6.1**, has been identified on the approach to the A259/A280/B2140 roundabout that can be used for validation purposes.

Image 6.1: Permanent Count Location – A259



Source: WSCC Traffic Count Database

- 6.9.3 The traffic data collected to inform the Transport Assessment associated with planning application A/99/17 was obtained in November 2015. It is not possible to do a like-for-like assessment against a corresponding time period in November 2020, due to the impact that Covid measures were having on traffic flows at this time. Therefore, westbound traffic flows on the A259 for both November 2019 and February 2020 have been obtained for comparison purposes.
- 6.9.4 In order to growth the 2015 baseline data to obtain a 2020 value for comparison purposes, a further Temprow growth rate has been obtained for the period 2015-2020 using the same parameters as those used to obtain to the 2015-2022 and 2015-2027 growth rates. The morning and evening peak period growth rates are summarised in **Table 6.11**.

Table 6.11: TEMPro Growth Rate

Period	Morning Peak	Evening Peak
2015-2020	1.0593	1.0601

- 6.9.5 The comparison of the 2015 westbound traffic flows plus TempPro growth to 2020, November 2019 and February 2020 flows during the morning and evening peak hours is shown in **Table 6.12**.

Table 6.12: A259 Traffic Flow Comparison

	AM Peak (08:00 – 09:00)		PM Peak (17:00-18:00)	
	Eastbound	Westbound	Eastbound	Westbound
2020 Baseline (2015 + TempPro)	1641	900	1311	1378
November 2019	1517	1097	1323	1309
February 2020	1534	1090	1321	1293

Source: WSCC Traffic Data and Consultant's Calculations

- 6.9.6 As identified in **Table 6.12**, all traffic flows calculated via the application of a TempPro growth factor are higher than the actual observed traffic flows on the A259 in both 2019 and 2020 (with the exception of the westbound section of the A259 during the AM peak). As such, those flows are considered to be robust.
- 6.9.7 The westbound flows on the A259 during the AM peak were recorded as being higher in both 2019 and 2020 than those derived by applying TempPro growth to the 2015 data by approximately 20%. As this would have a direct impact on both the modelling of the site access junction and the A259/A280/B2140 roundabout, a sensitivity test has been undertaken. A 20% uplift has been applied to both the westbound movements travelling past the site access junction and the westbound entry movements onto the A259/A280/B2140 roundabout in the AM peak. The revised 2022 and 2027 baseline flows are provided at **TFD 1A** and **2A**, and the 2027 plus development traffic flows are provided at **TFD 3A**.
- 6.9.8 These flows have been used to rerun the traffic modelling for the both the site access and A259/A280/B2140 roundabout, and the outputs are summarised in **Tables 6.13** and **6.14**.

Table 6.13: Site Access Sensitivity Test

Approach	Morning Peak Period		
	RFC	Queue (veh)	Delay (s/veh)
2027 with Development			
Site Access	0.06	<1	8

Source: Junctions 9

Table 6.14: A259 / Old Worthing Road Roundabout

Approach	Morning Peak Period		
	RFC	Queue (veh)	Delay (s/veh)
2022			
A280	0.35	1	5
A259 (East)	0.52	1	3
Old Worthing Road	0.60	2	9
Roundstone By-pass Road	0.65	2	5
2027 with Committed Development			
A280	0.38	1	5
A259 (East)	0.55	1	4
Old Worthing Road	0.65	2	10
Roundstone By-pass Road	0.69	2	6
2027 with Committed Development plus Development			
A280	0.39	1	6
A259 (East)	0.57	1	4
Old Worthing Road	0.66	2	10
Roundstone By-pass Road	0.69	2	6

Source: Junctions 9

- 6.9.9 The revised modelling verifies that the proposed development will have no discernible capacity impact upon the operation of the local highway network.

6.10 Summary

- 6.10.1 The proposed residential development of 76 dwellings is expected to generate some 37 two-way vehicle movements during the morning peak period and 40 two-way vehicle movements during the evening peak period. This equates to around one vehicle movement every 1.5 minutes in the peak periods.

- 6.10.2 Based on the trip distribution methodology agreed as part of the pre-application advice, junction capacity testing has been undertaken at the site access junction and the A259/B2140 junction. The assessment demonstrates that the proposed development does not have a material, let alone 'severe', impact upon the operation of the highway network, consistent with the requirements of the National Planning Policy Framework.
- 6.10.3 Consideration has been given to the impact of the development upon the B2140 level crossing. The development is forecast to generate 4 peak hour movements across the level crossing, a level of impact that would be imperceptible to its existing performance.

SECTION 7 Summary and Conclusions

7.1 Summary

Introduction

7.1.1 Redrow Homes has appointed i-Transport LLP to provide highways and transport advice in relation to a full planning application for a proposed residential development of 76 dwellings with associated car parking and landscaping, on land south of the A259 in Angmering.

7.1.2 The site is located on the eastern edge of Angmering village, immediately adjacent to the existing settlement boundary. The site is bounded to the north by the A259 Littlehampton Road, to the east by Roundstone Farm and the 'Artists in Stone' commercial premises, to the south by the West Coastway Railway Line and the west by the B2140 Old Worthing Road and residential properties.

Policy

7.1.3 Paragraph 108 of the NPPF identifies the three key transport criteria that decisions on development proposals should take account of. These are whether:

- ♦ The opportunities for sustainable travel have been appropriately 'taken up';
- ♦ Safe and suitable access can be achieved; and
- ♦ Improvements can be undertaken within the transport network that cost effectively limit the impacts of the development.

7.1.4 These criteria are reflected in local policy. The TA has therefore been prepared to assess the development proposal against these criteria and how the proposals comply with the identified national and local transport policy.

Sustainability

7.1.5 The site is accessible to a wide range of facilities that residents may use on a day-to-day basis by a range of travel modes, including on foot and by cycle. Local bus services are accessible to the site within a short, less than two minutes' walk, providing access to local destinations further afield such as Littlehampton, Brighton, Shoreham-by-Sea and Arundel.

7.1.6 Angmering rail station is also located within a reasonable walking distance from the site and provides services to key destinations such as Littlehampton, Brighton, Portsmouth,

Southampton and London and therefore offers a realistic opportunity for residents to travel via sustainable modes.

- 7.1.7 A sustainable transport strategy has been developed to identify opportunities to promote sustainable transport choices. This will ensure that opportunities for sustainable transport can be taken up in accordance with paragraph 108 of the NPPF.

Access and Safety

- 7.1.8 A detailed review of available accident data has been undertaken and does not identify any specific road safety problems within the local area.
- 7.1.9 Access to the site is to be achieved through a left in, left out junction onto the A259. An 'entry only' is to be retained through the modification of the existing site access from the B2140/A259 roundabout, and measures are proposed within the site to restrict egress from the site through this junction. A bus stop on the A259 is to be removed at the request of WSCC, and the existing access to Roundstone Farm closed off to vehicular traffic.
- 7.1.10 A pedestrian and cycle access is proposed in the north western corner of the site to connect into pedestrian/cycle provision adjacent to the A259/B2140 roundabout. The existing path adjacent to the roundabout is to be relocated to the south of the TPO Lime trees and widened to provide for cycle use. In addition, a scheme of improvements to widen the pedestrian/cycle provision on the southern side of the A259 is proposed for delivery as part of the site access arrangements and to provide an alternative connection for residents.
- 7.1.11 The internal layout has been designed in accordance with Manual for Streets design principles and provides access for refuse and emergency vehicles throughout the site; further detail of this, and the parking strategy, is contained within the Design and Access Statement accompanying the application.

Traffic Impact

- 7.1.12 The proposed residential development of 76 dwellings is expected to generate some 37 two-way vehicle movements during the morning peak period and 40 two-way vehicle movements during the evening peak period. This equates to around one vehicle movement every 1.5 minutes in the peak periods.
- 7.1.13 Based on the trip distribution methodology agreed as part of the pre-application advice, junction capacity testing has been undertaken at the site access junction and the A259/B2140

junction. The assessment demonstrates that the proposed development does not have a material, let alone 'severe', impact upon the operation of the highway network, consistent with the requirements of the National Planning Policy Framework.

- 7.1.14 Consideration has been given to the impact of the development upon the B2140 level crossing. The development is forecast to generate 4 peak hour movements across the level crossing, a level of traffic that would have an imperceptible impact on its existing operation.

7.2 Conclusions

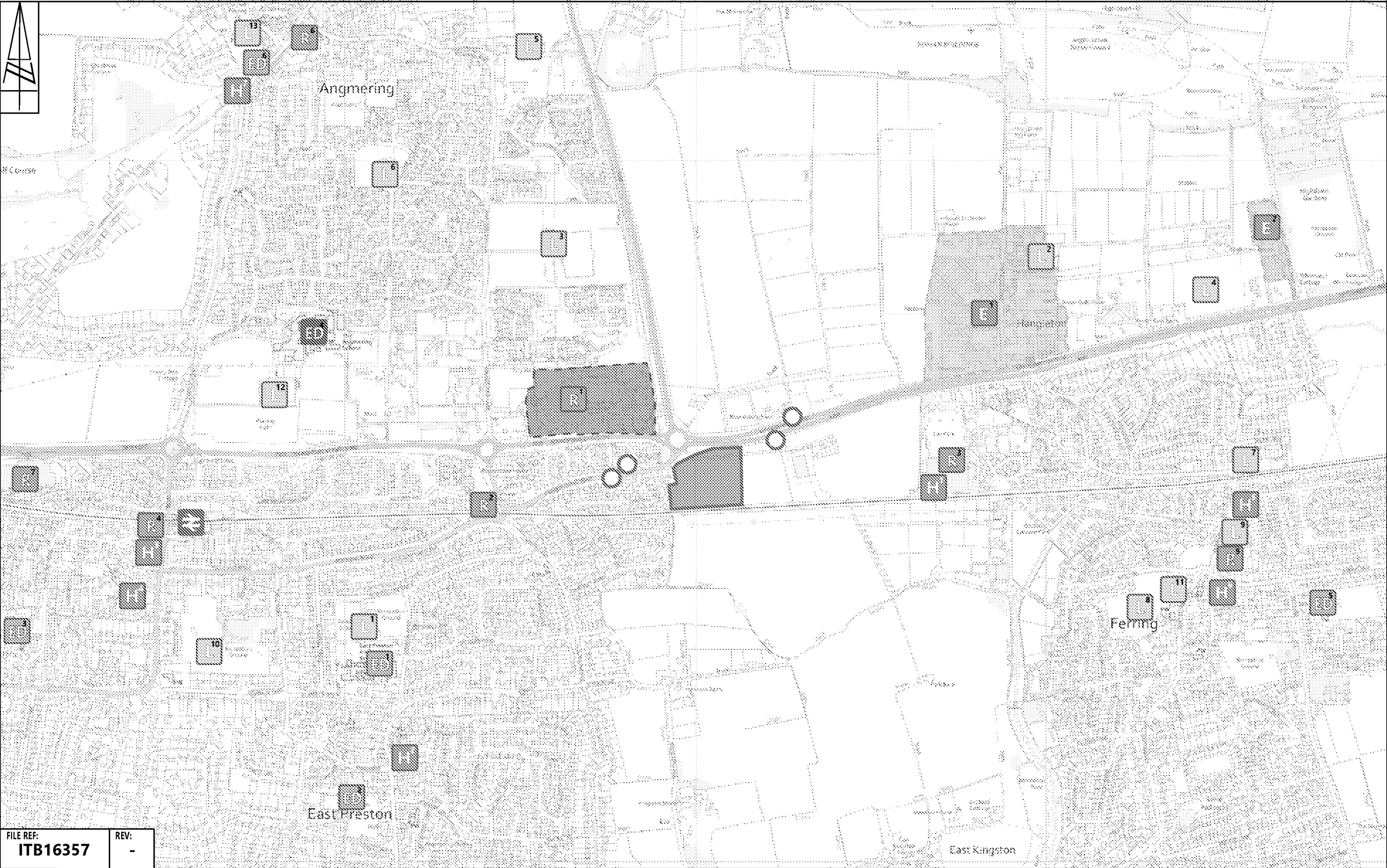
- 7.2.1 On this basis of the above, it is concluded that the proposed development complies with the requirements of the NPPF insofar that:

- ♦ The opportunities for sustainable travel have been appropriately taken up;
- ♦ Safe and suitable access can be achieved; and
- ♦ Improvements can be undertaken within the transport network that cost effectively limit the impacts of the development.

- 7.2.2 Further, the proposed development accords with paragraph 109 of the NPPF in that the proposed development does not have an unacceptable impact on highway safety severe impact upon the operation of the highway network; therefore, there are no reasonable grounds to refuse the application on matters of highways and transport.

FIGURES





FILE REF:
ITB16357

REV:
-

- ASDA
- THE COOPERATIVE FOOD
- THE COOPERATIVE FOOD
- THE COOPERATIVE FOOD
- SAINSBURY'S

- EDUCATION**
- EAST PRESTON JUNIOR SCHOOL
 - EAST PRESTON VILLAGE PRE-SCHOOL
 - GEORGIAN GARDENS COMMUNITY PRIMARY SCHOOL
 - THE ANGMERING SCHOOL
 - FERRING CoE PRIMARY SCHOOL
 - ANGMERING VILLAGE PRE-SCHOOL

- HEALTHCARE**
- ASDA CHEMIST
 - LLOYDS PHARMACY
 - KAMSONS PHARMACY
 - WILLOW GREEN SURGERY
 - ROWLANDS PHARMACY
 - FERRING DENTAL CLINIC
 - ANGMERING MEDICAL CENTRE

- KEY**
- SITE BOUNDARY
 - ANGMERING RAIL STATION
 - RETAIL AREA
 - EMPLOYMENT AREA
 - BUS STOP
- LEISURE**
- EAST PRESTON FOOTBALL CLUB
 - HANGLETON FARM EQUESTRIAN CENTRE
 - WORTHING RFC
 - HIGHDOWN VINEYARD
 - THE SPOTTED COW PUB
 - ANGMERING COMMUNITY CENTRE
 - THE HENTY ARMS PUB
 - GLEBELANDS RECREATION GROUND
 - FERRING VILLAGE HALL
 - LANGMEDE RECREATION GROUND
 - FERRING FOOTBALL CLUB
 - WORTHING HOCKEY CLUB
 - ANGMERING VILLAGE HALL
- EMPLOYMENT**
- HANGLETON INDUSTRIAL ESTATE
 - LITTLEHAMPTON ROAD INDUSTRIAL ESTATE
- RETAIL**
- ROUNDSTONE BYPASS RETAIL PARK
 - COSTCUTTER



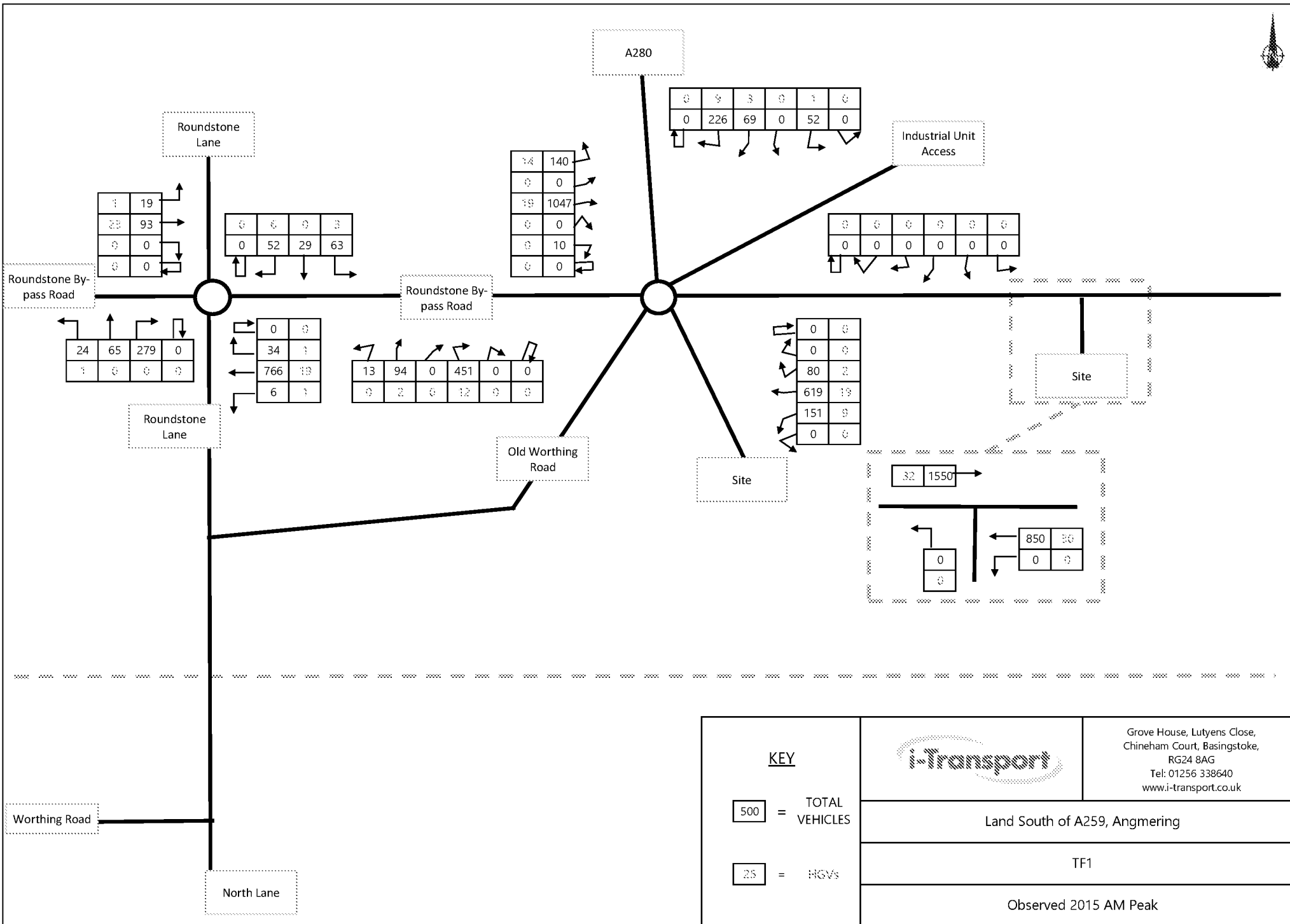
Grove House, Lutyens Close, Chineham Court,
Basingstoke, RG24 8AG
Tel: 01256 338 640
Fax: 01256 338 644
www.i-transport.co.uk

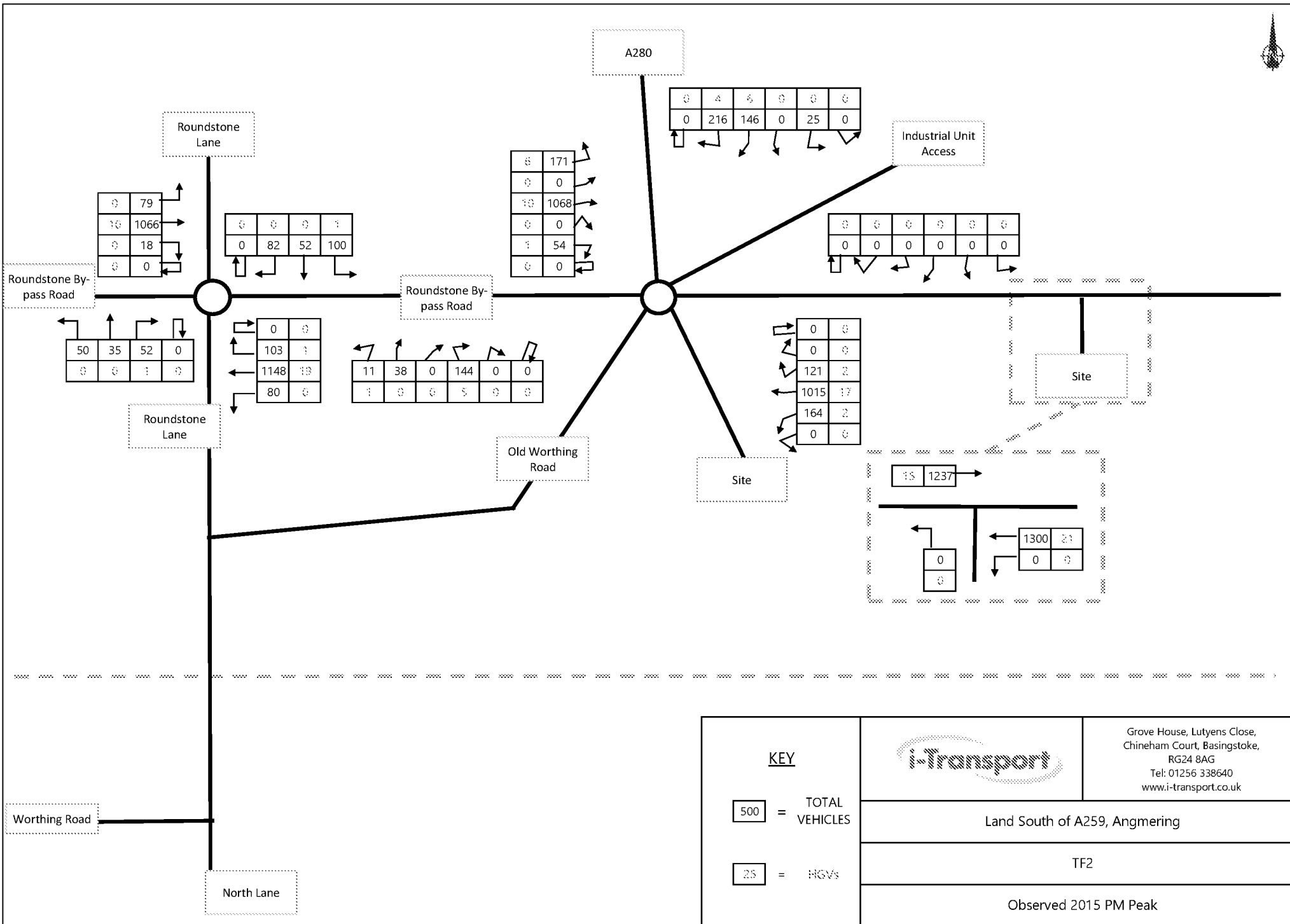
TITLE:
**LAND SOUTH OF A259,
ANGMERING
LOCAL FACILITIES PLAN**

FIGURE No:
FIGURE 2



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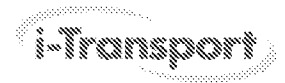




KEY

500 = TOTAL VEHICLES

25 = HGV's

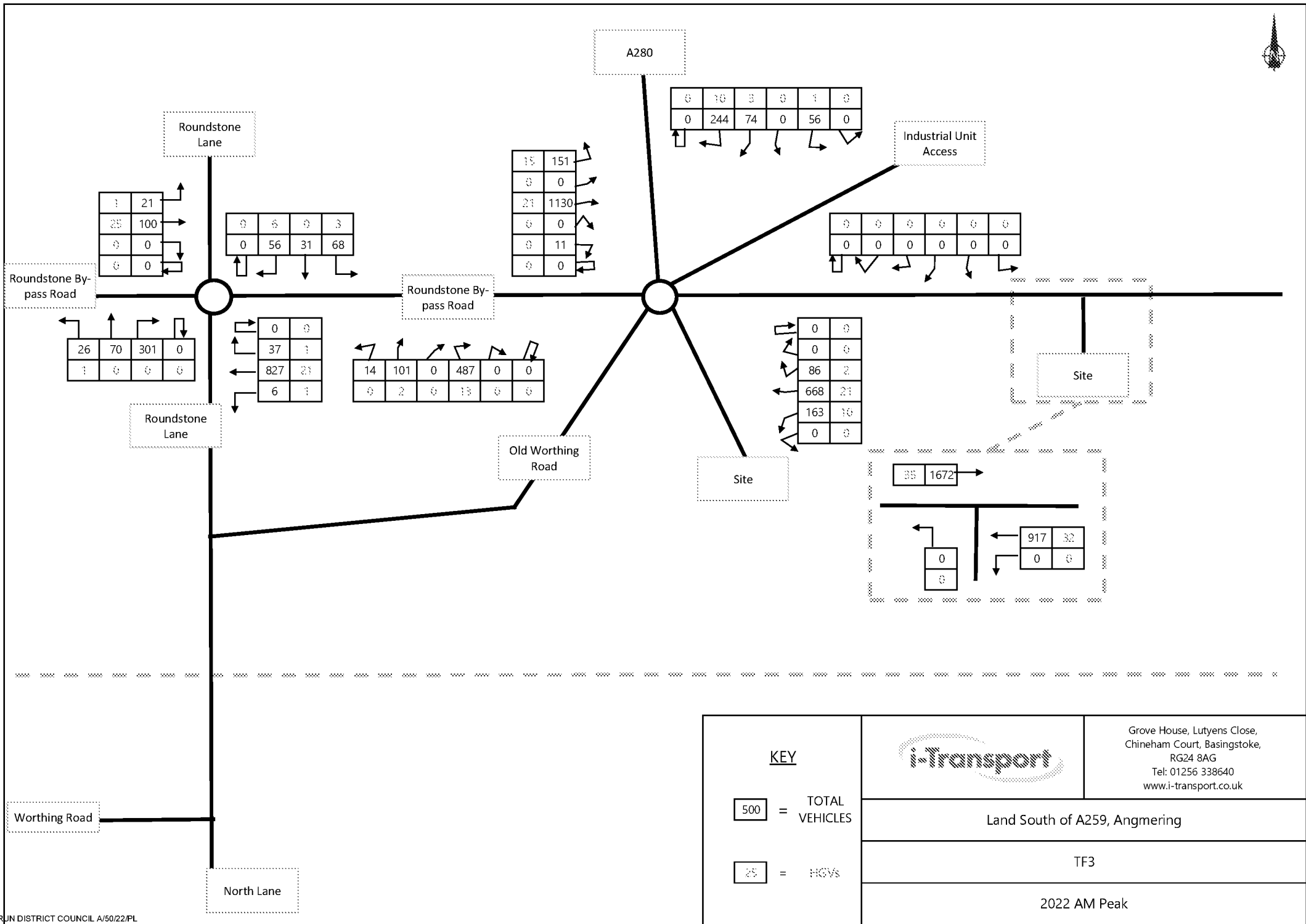


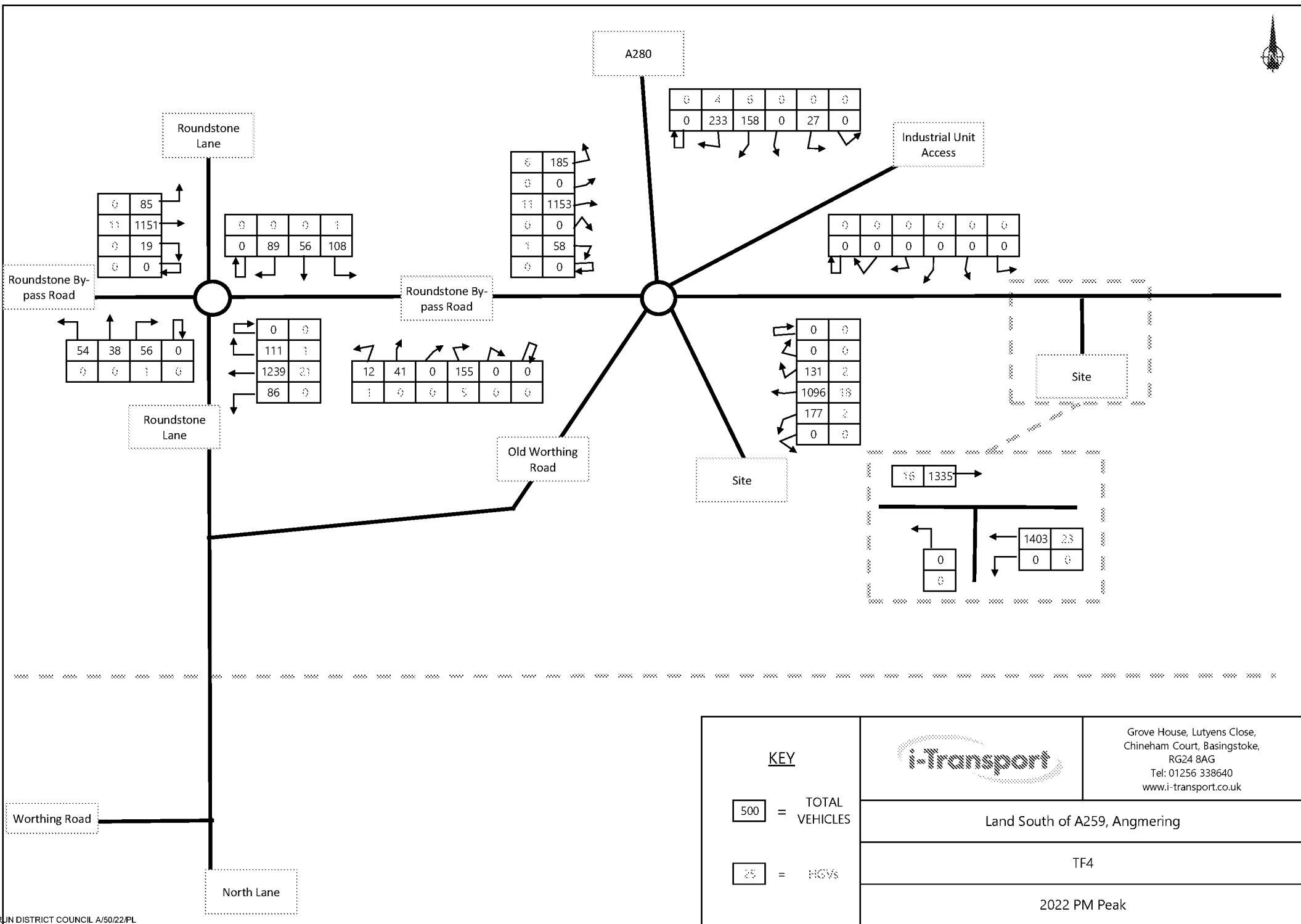
Grove House, Lutyens Close,
Chineham Court, Basingstoke,
RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

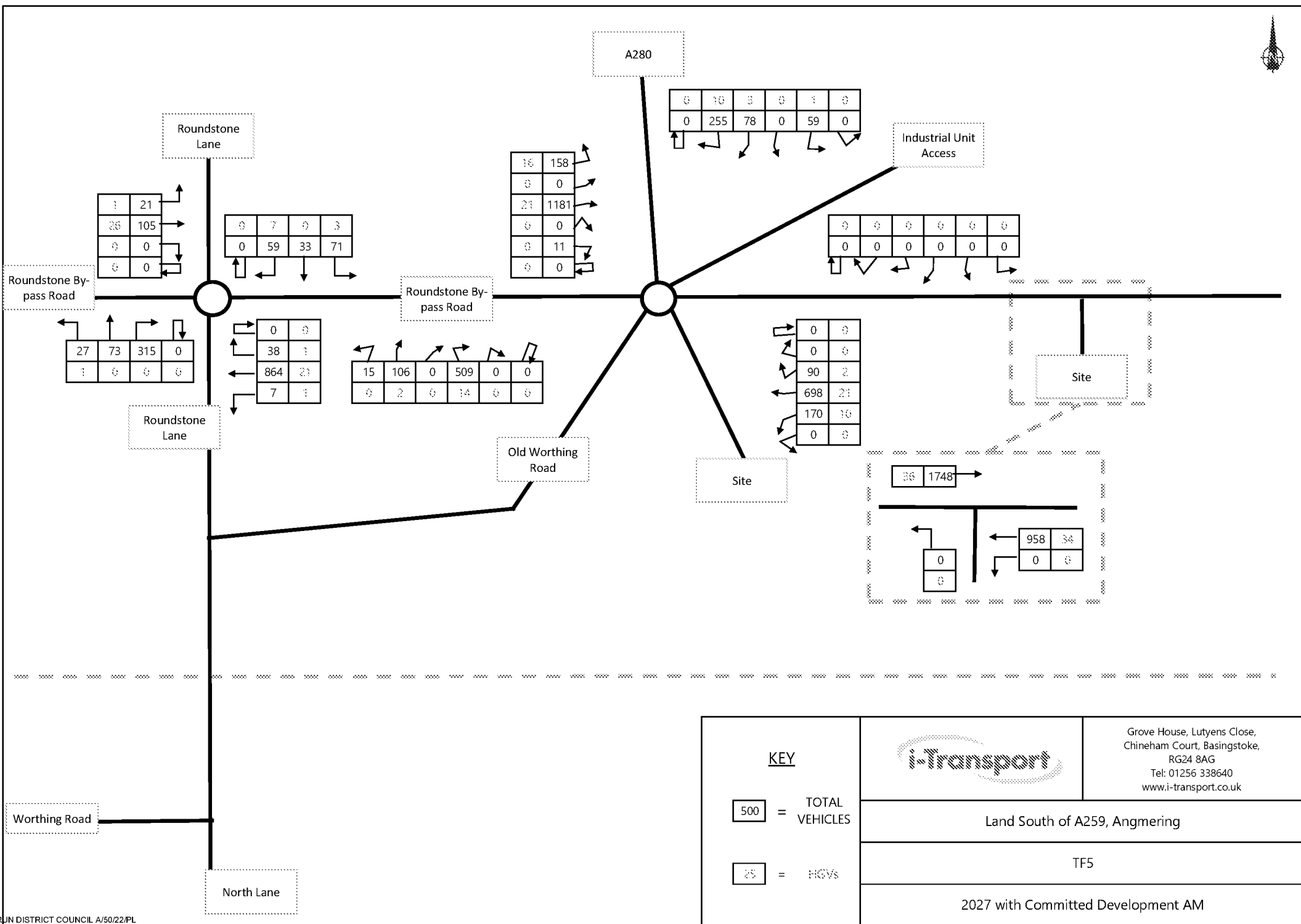
Land South of A259, Angmering

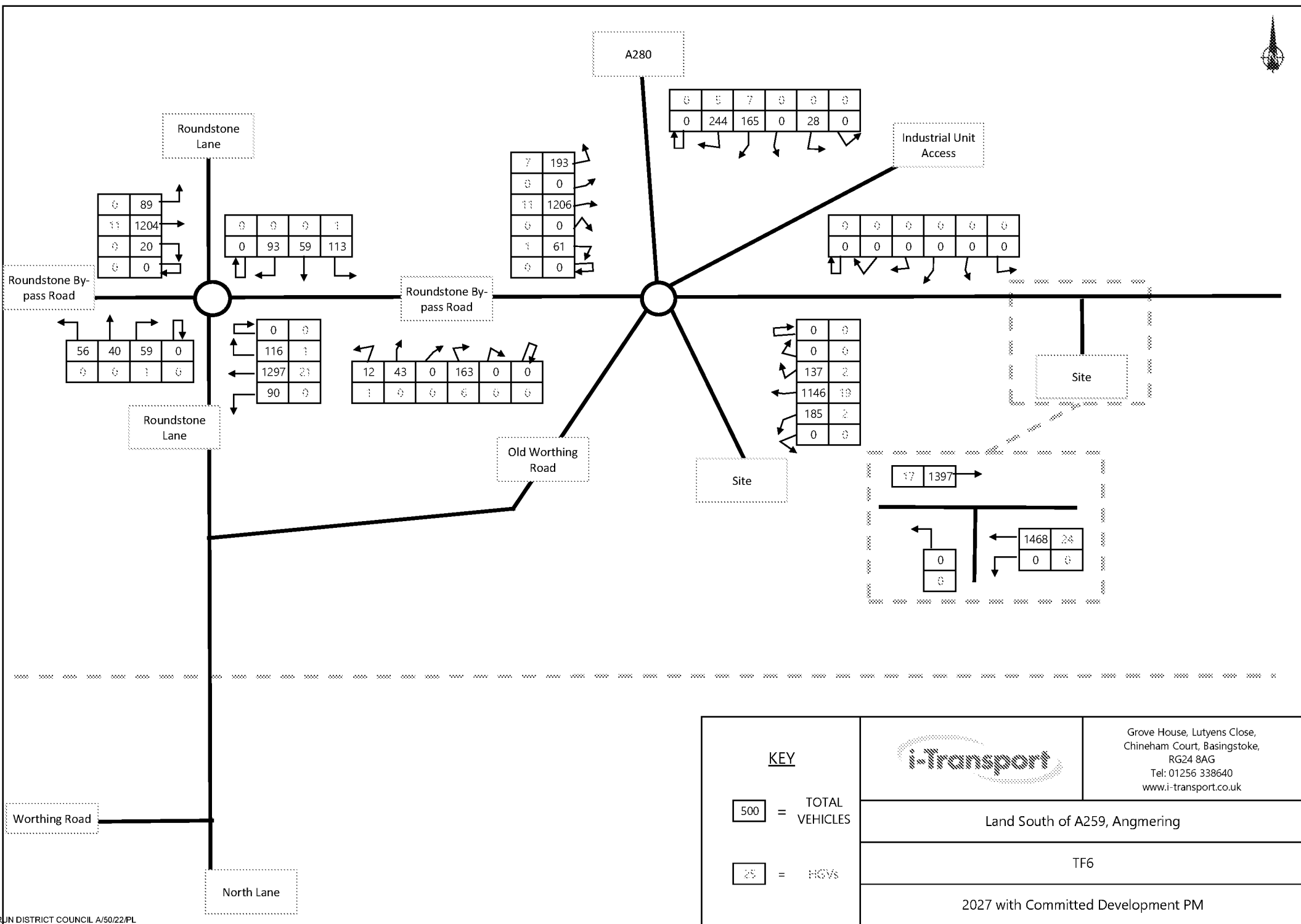
TF2

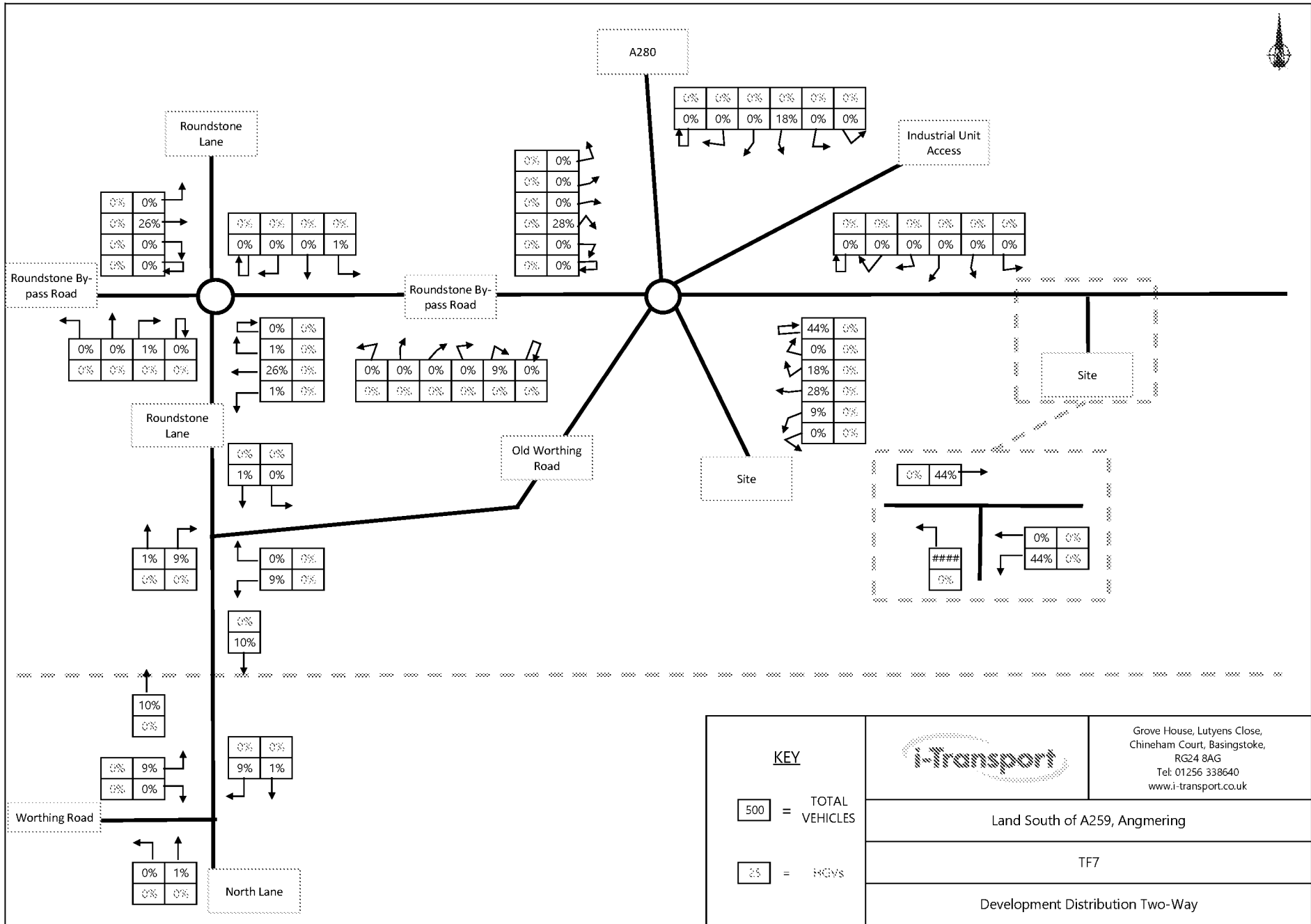
Observed 2015 PM Peak

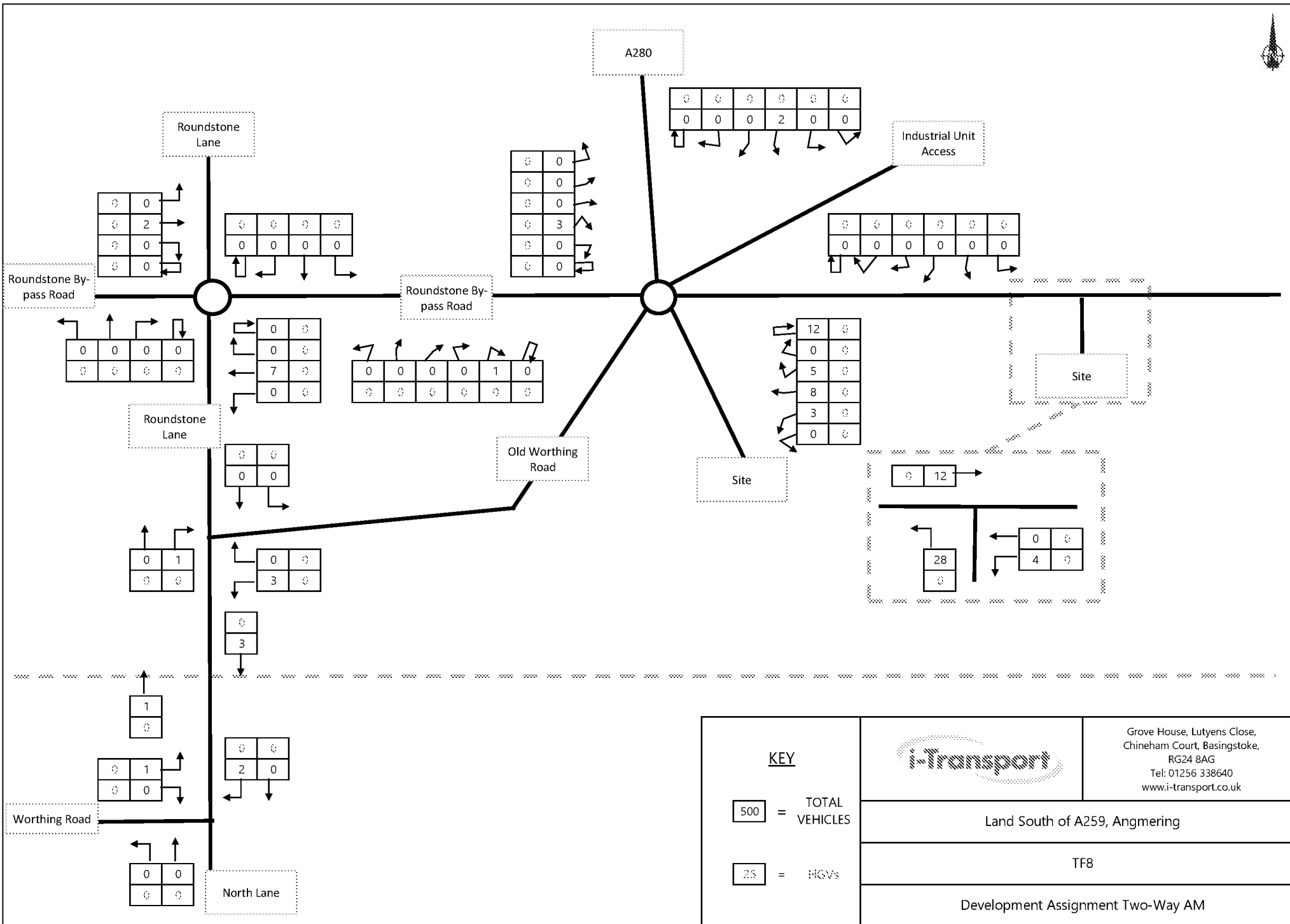








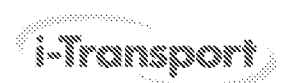




KEY

500 = TOTAL VEHICLES

25 = HGV's

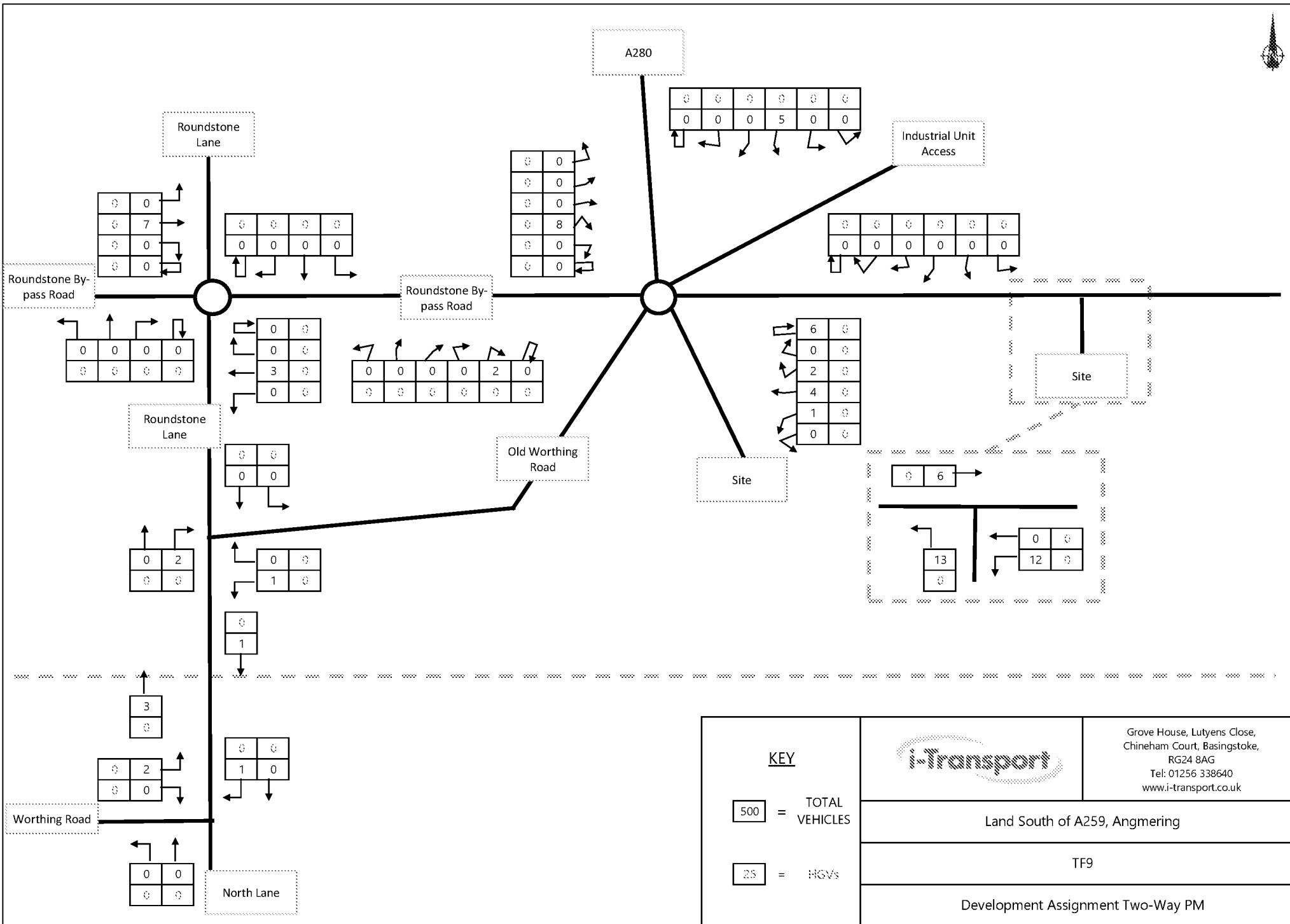


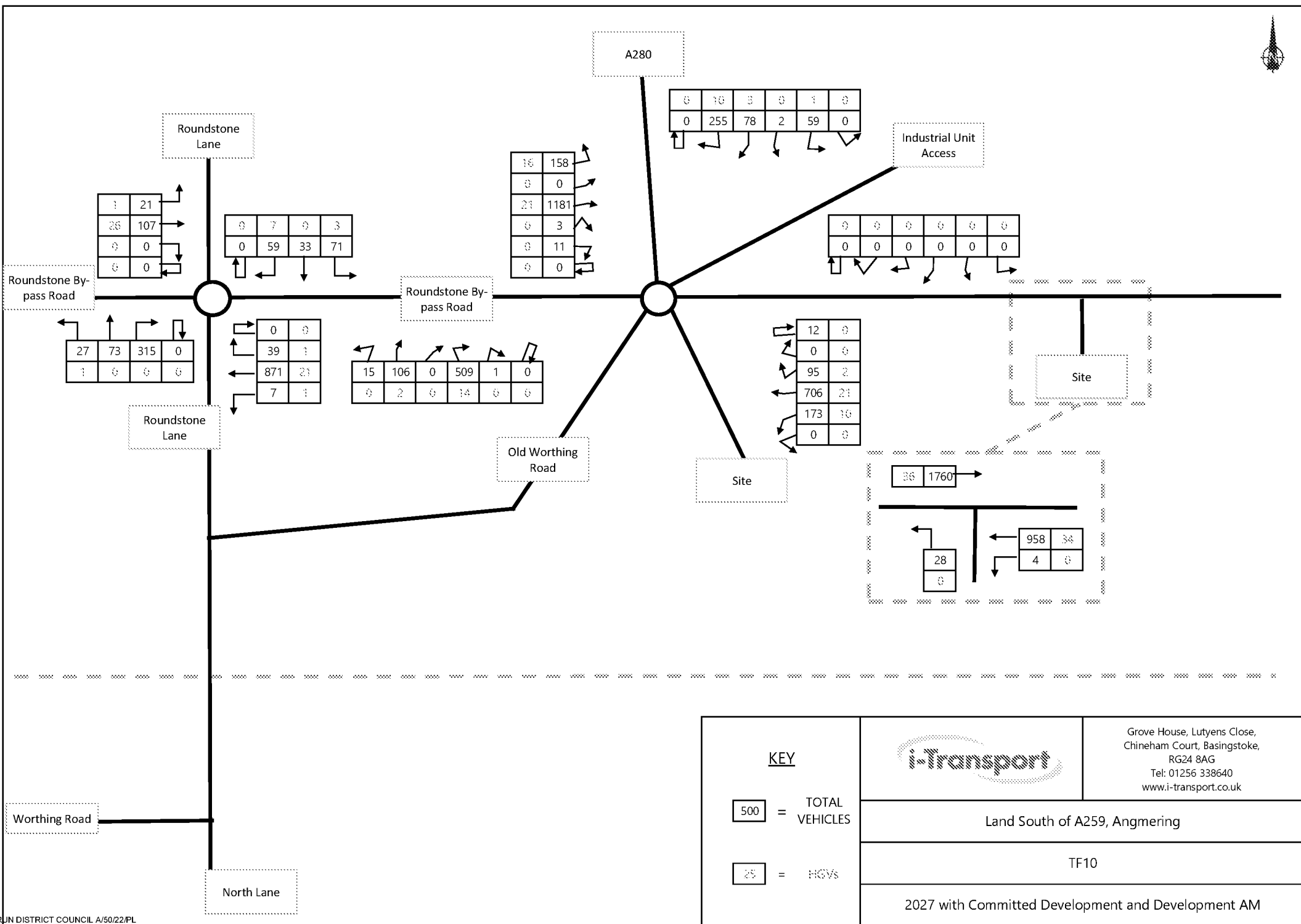
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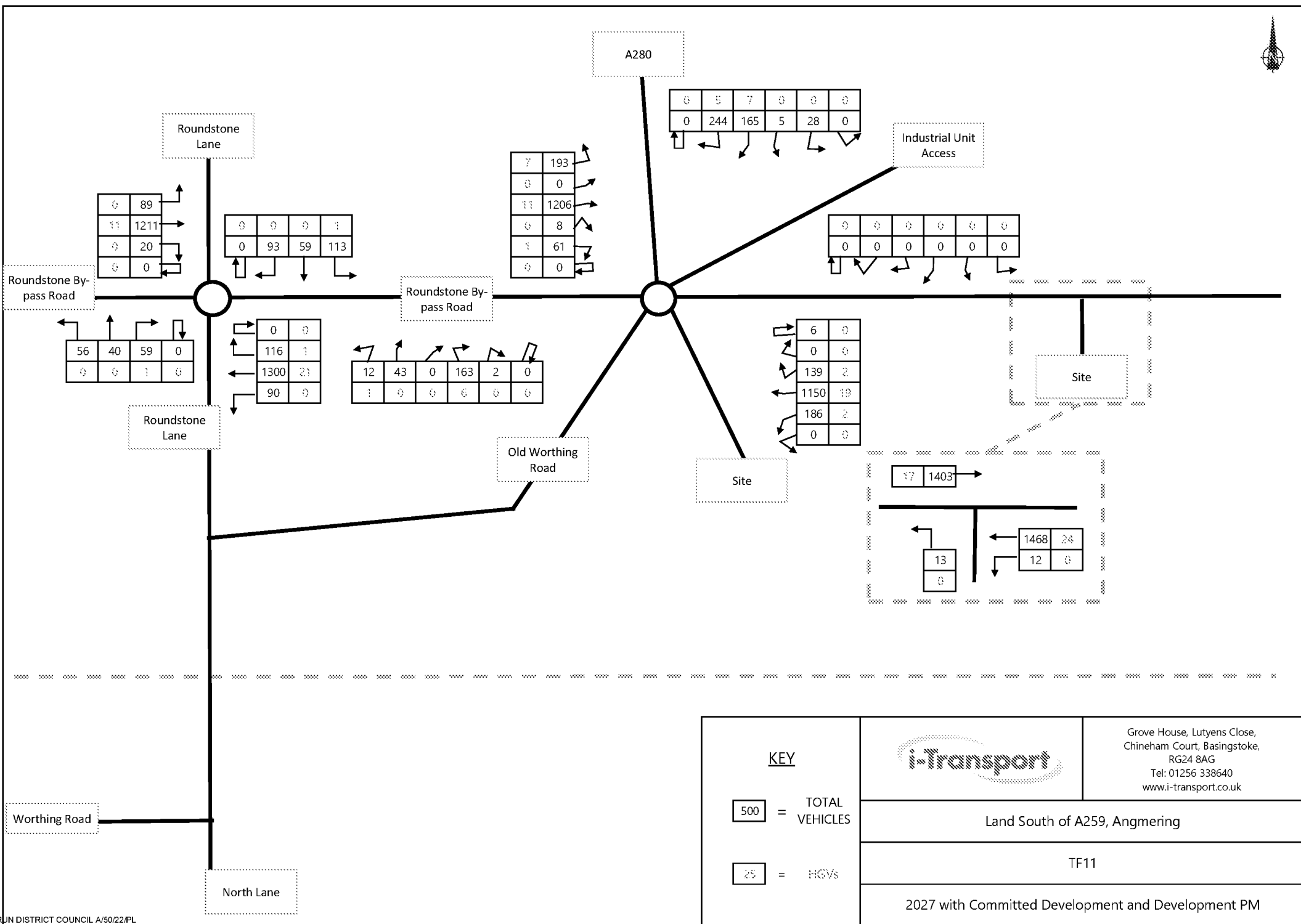
Land South of A259, Angmering

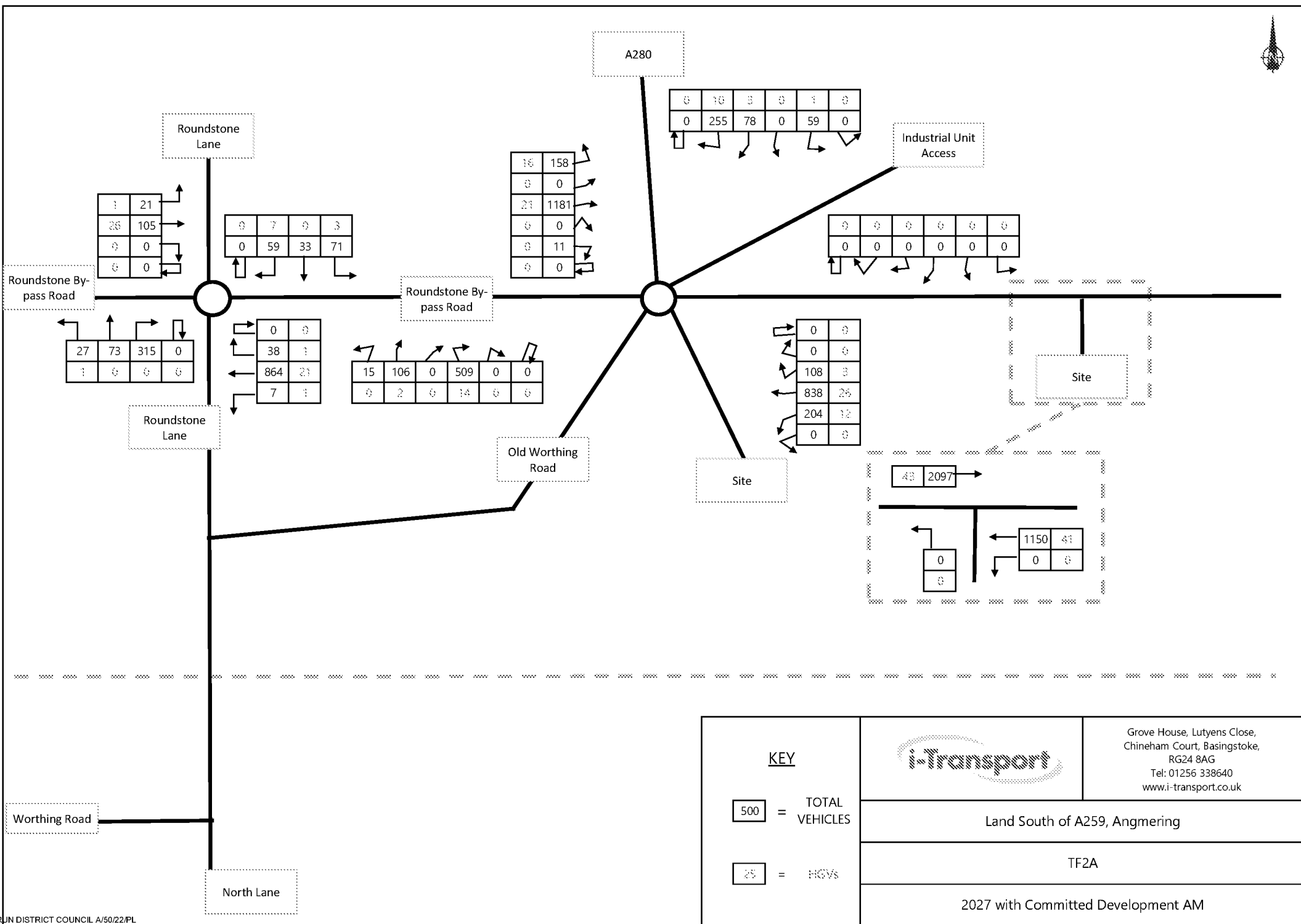
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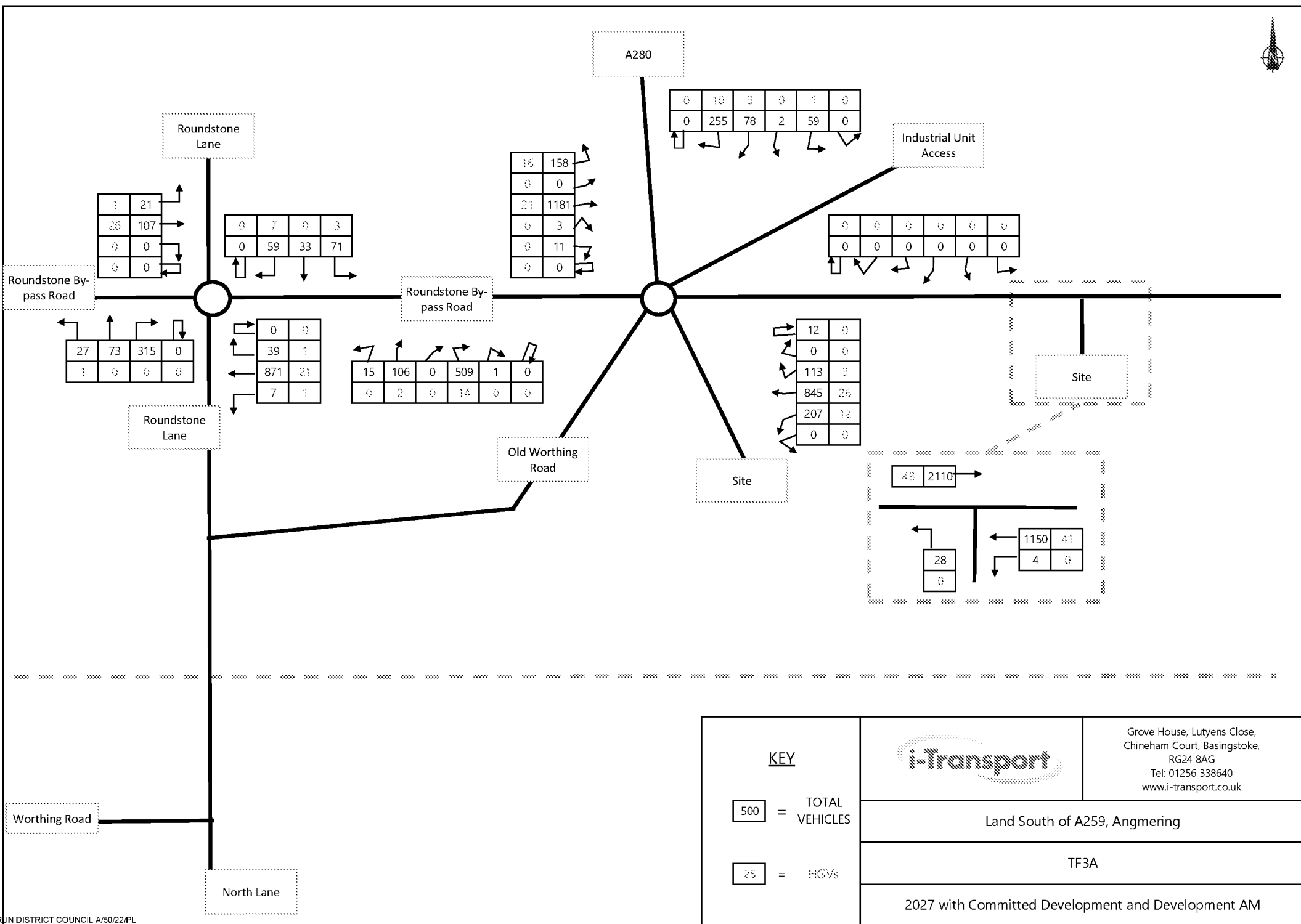
Development Assignment Two-Way AM



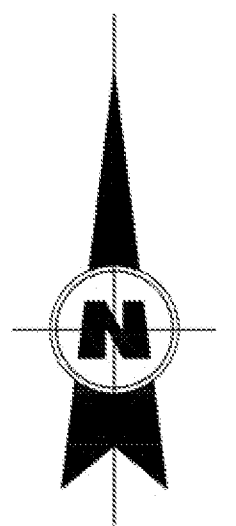








DRAWINGS



Legend.

- | | |
|---|---|
|  | Application Boundary - to be verified by Land Registry / Client |
|  | Indicates 1.8m high Close Boarded Fencing |
|  | Indicates 1.8m high Screen Wall |
|  | Feature Wall |
|  | Pedestrian crossing points |
|  | Autumn Gold block pavours |
|  | Brindle block pavours |
|  | Affordable dwellings |
|  | Visitor Parking Space |
|  | 1 Storey Existing Dwelling |
|  | 2 Storey Existing Dwelling |
|  | Overhead Powerlines |
|  | Existing Sewer |
|  | Corner Turner with additional window |

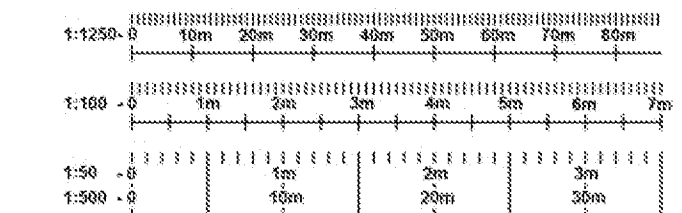
Accommodation Schedule				
Private Dwellings				
Type Ref	No. Beds	Sqft	No. Units	Total Sqft
Let	2B4P	984	8	7872
War	3B5P	1081	2	2162
Ox-L	3B6P	1318	8	10544
Win	4B7P	1240	8	9920
Marw	4B7P	1289	10	12890
Ox	4B7P	1318	7	9226
Cam	4B7P	1394	6	8364
Hen	4B8P	1760	4	7076
Total			53	68054
Affordable S/O				
Type Ref	No. Beds	Sqft	No. Units	Total Sqft
Tav	2B4P	865	4	3460
Dar	3B5P	1014	2	2028
Total			6	5488
Affordable A/R				
Type Ref	No. Beds	Sqft	No. Units	Total Sqft
Leadon GF	1B2P	506	4	2024
Leadon FF	1B2P	641	4	2564
Tav	2B4P	865	4	3460
Dar	3B5P	1014	5	5070
Total			17	13118
Total Affordable			23	18606
Grand Total			76	86660

[illegible]

Revisions:

- [illegible]

Scale Check:



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Client: REDROW HOMES SOUTHERN COUNTIES

Project: LAND SOUTH OF THE A259 ANGMERING

Title: PLANNING LAYOUT

Date: 12 / 05 / 2021

Scale: 1:500 @ A1

Drawn by: NGS

Checked by: ~

Job No. _____

Dwg No.

Rev.

A 924

03

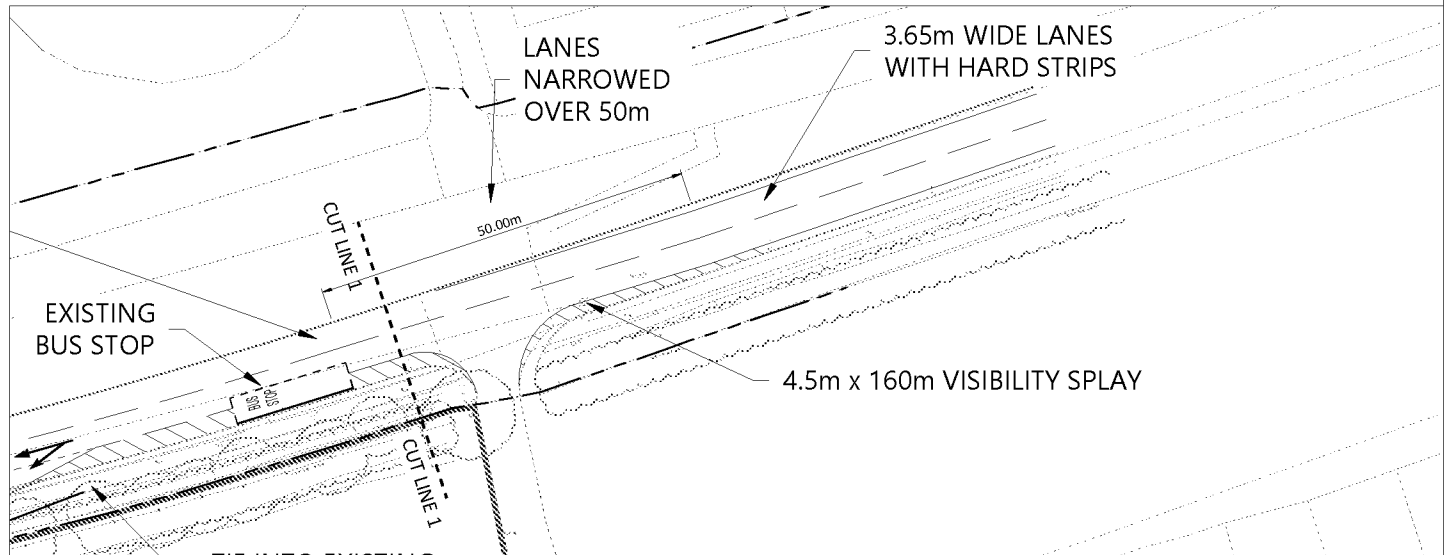
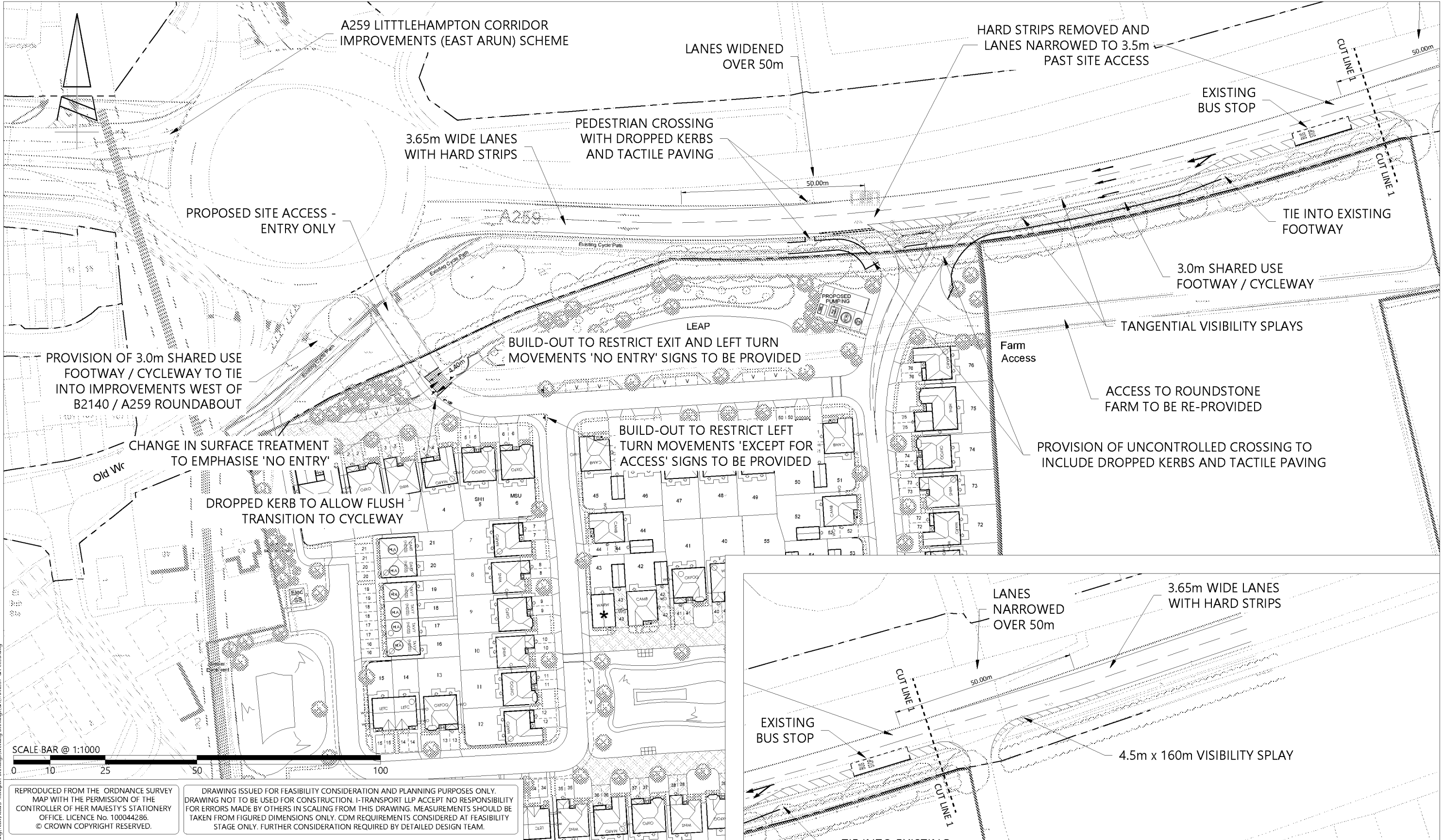
W

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Associates Limited

The Shrubbery, 28 Erdington Road,
Aldridge, Walsall WS6 8JH

enquiries@geoffperryassoc.co.uk

01622 764 800

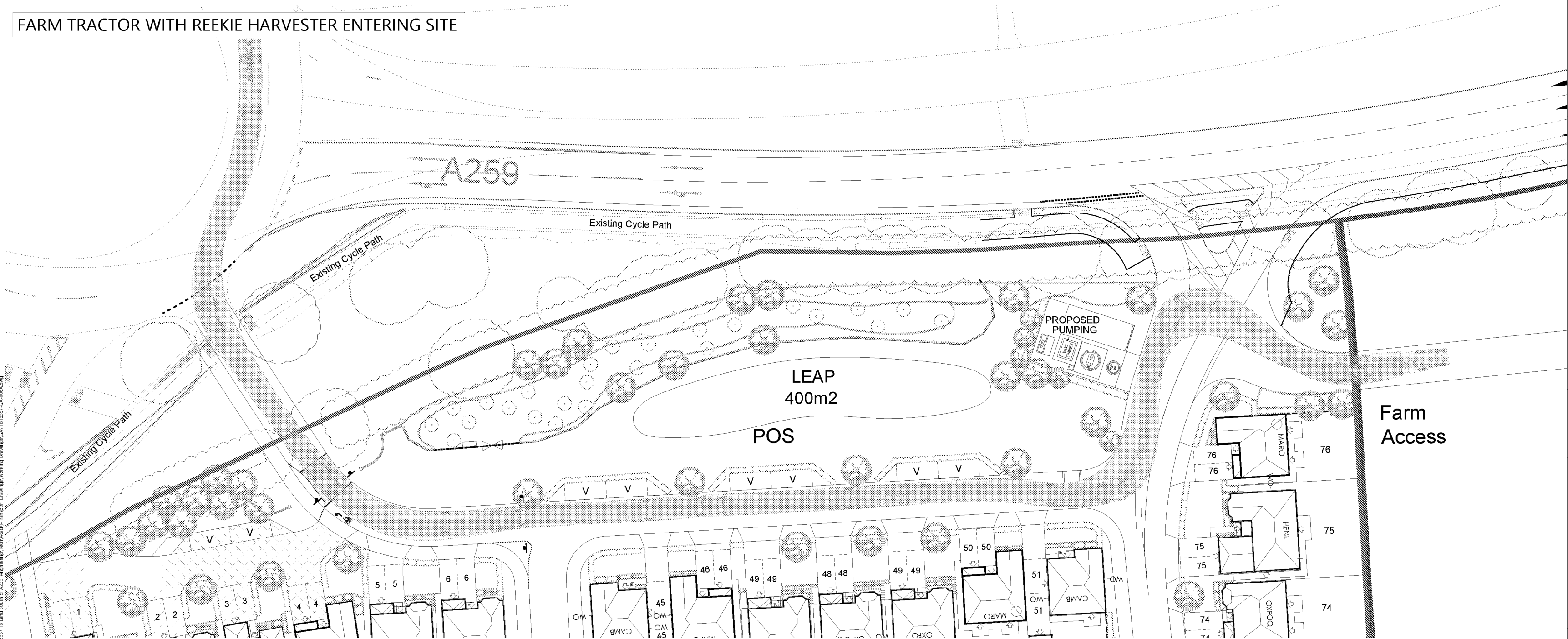
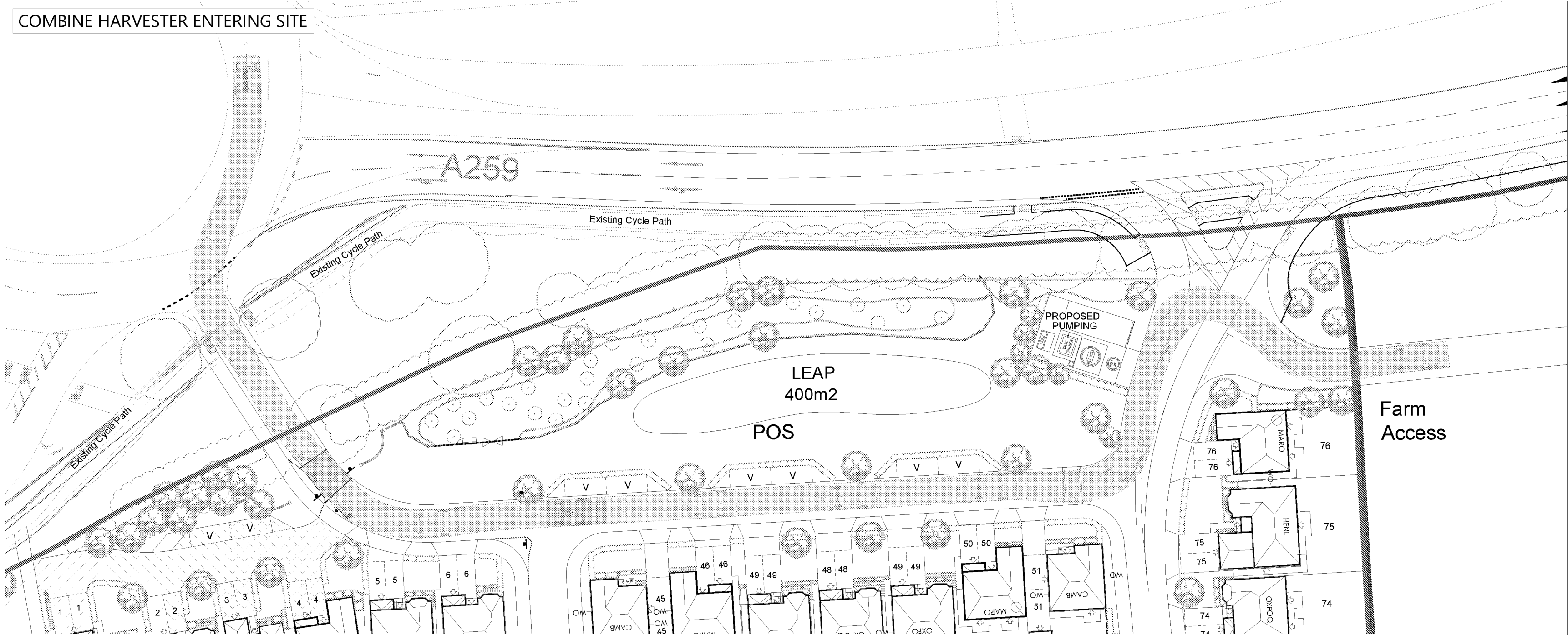


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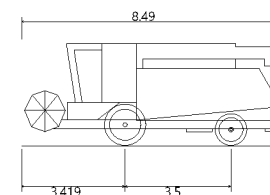
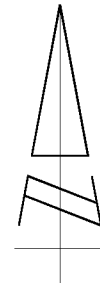
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								C	11.06.21	JD	NO ENTRY ARRANGEMENT AMENDED	DS	DS						
								B	23.04.21	JD	SITE LAYOUT UPDATED	DS	DS						
								A	16.03.21	JD	SITE LAYOUT UPDATED	DS	DS						
REV	DATE	BY	DESCRIPTION				CHK	APD	PROJECT: LAND SOUTH OF A259, ANGMERING		CLIENT: HAM MANOR FARMS LIMITED		DRAWN: PH		CHECKED: ZB		APPROVED: DS		
STATUS: FOR INFORMATION								PROJECT No: ITB16357					SCALE @ A3: 1:1000		DATE: 05.11.20				
														DRAWING No: ITB16357-GA-003				REV: D	

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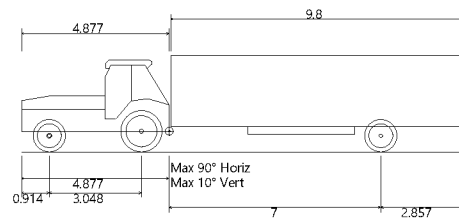


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Combine Harvester
Overall Length 8.490m
Overall Width 3.900m
Overall Body Height 3.377m
Min Body Ground Clearance 0.456m
Max Track Width 3.900m
Lock to lock time 8.00s
Max Wheel Angle 40.00°



Farm Tractor with Reekie Harvester
Overall Length 14.734m
Overall Width 3.240m
Overall Body Height 3.198m
Min Body Ground Clearance 0.586m
Max Track Width 3.048m
Lock to lock time 4.00s
Kerb to kerb Turning Radius 5.700m

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