



Land at North Colwell Farm, Lewes Road, Haywards Heath

Transport Assessment

Client: Miller Homes

i-Transport Ref: MG/BC/AT/AH/ITL19597-001A R

Date: 09 January 2025

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Quality Management

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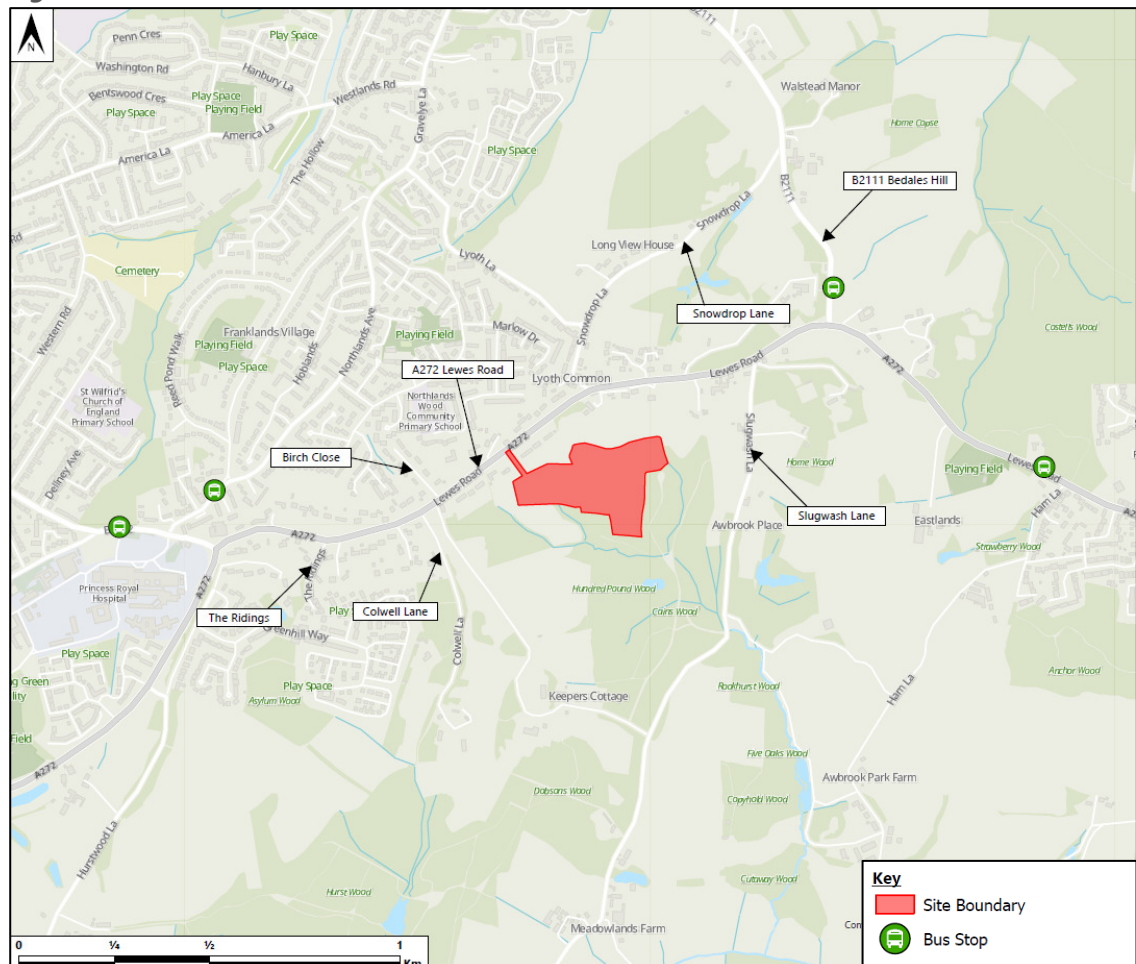
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SECTION 1 Introduction

1.1 Background

- 1.1.1 Miller Homes has appointed i-Transport LLP to provide highways and transport advice in relation to a proposed residential development on Land at North Colwell Farm, Lewes Road, Haywards Heath. The development comprises up to 80 new homes.
- 1.1.2 The site is located to the south of the Lewes Road (A272), approximately 2.5km to the south east of Haywards Heath town centre. The site is bound to the north by existing residential dwellings, and agricultural land and woodland surrounds the rest of the site. The site location is illustrated on **Figure 1.1**.

Figure 1.1: Site Location



- 1.1.3 The local planning authority is Mid Sussex District Council (MSDC), whilst the local highway authority is West Sussex County Council (WSCC).

1.2 Scoping

1.2.1 This Transport Assessment has been prepared to consider the transport impacts that may arise from the proposed development, and to consider it against the relevant transport planning policy considerations. The assessment has been produced in accordance with guidance contained in the National Planning Practice Guidance and, where necessary, other local and national transport planning guidance.

1.2.2 Pre application discussions have taken place with the local highway authority, WSCC. In summary, WSCC's position at pre-application stage is as follows:

- WSCC are supportive of the proposals including site access (subject to a Stage 1 Road Safety Audit, included within this Transport Assessment).
- WSCC confirmed that the site falls within Parking Behaviour Zone 3 for parking standards.
- The site being in a sustainable location close to local facilities with a good network of paths and footways for pedestrians to access a range of amenities within a reasonable walk distance.
- There is a good provision of bus services in the general area. The nearest bus stop has a good provision of real information, seating and shelter.
- The trip impact/scope of capacity assessments and parameters for the Transport Assessment were agreed.
- Following advice from WSCC highways, traffic from the following two strategic developments have been included in the traffic impact assessments:
 - Scamps Hill (DM/15/4457) for 200 new homes.
 - Hurst Farm (DM/22/2272) for 375 new homes and a two-form entry primary school.

1.2.3 Additional options were explored and shared with WSCC Highways for their view during the pre-application, including a potential section of footway on the southern side of Lewes Road towards Public Right of Way Footpath 29CU and a potential signal pedestrian crossing across Lewes Road at the site access. Both options were deemed not technically feasible or necessary for the development. An uncontrolled pedestrian crossing to the existing footway on the northern side of Lewes Road towards Footpath 29CU has been included in the site access design, this has gone through a Stage 1 Road Safety Audit, included within this Transport Assessment.

1.2.4 A Framework Travel Plan has also been prepared (*report ref: ITB19597-006*). The primary purpose of the Travel Plan is to identify opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport to reduce the demand for travel by less sustainable modes.

1.3 **Report Structure**

1.3.1 The remainder of this Transport Assessment is structured as follows:

- Section 2 – Policy Context;
- Section 3 – Proposed Development;
- Section 4 - Existing Highway Network Conditions;
- Section 5 – Proposed Site Access Arrangements;
- Section 6 – Opportunities to Promote Sustainable Transport Modes;
- Section 7 – Transport Impact; and
- Section 8 – Summary and Conclusions.

SECTION 2 Policy Context

2.1 Introduction

2.1.1 This section provides an evaluation of the national, and local transport policy and guidance against which this proposal is to be assessed. The following documents have been reviewed:

National

- National Planning Policy Framework (December 2024);

Local

- Adopted Mid-Sussex District Plan 2014-2031 (March 2018);
- Submission Draft Mid Sussex District Plan 2021 – 2039 (Regulation 19 – December 2023)
- West Sussex Transport Plan (April 2022);
- West Sussex Active Travel Strategy (2024 to 2036); and
- West Sussex County Council: Guidance on Parking at New Developments (September 2020)

2.2 National

National Planning Policy Framework (December 2024)

2.2.1 The National Planning Policy Framework (NPPF) sets out the Government’s planning policies for England and how these are expected to be applied.

2.2.2 Promoting sustainable transport is covered in Section 9 of the NPPF (paragraphs 109 – 118). Paragraphs 115 – 118 consider development proposals.

2.2.3 Paragraph 115 states that:

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

a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;

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

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

d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach.

2.2.4 Paragraph 116 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, following mitigation, would be severe, taking into account all reasonable future scenarios.

2.2.5 Paragraph 117 states that:

Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

2.2.6 Paragraph 118 states that:

All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.

2.3 Local

Adopted Mid-Sussex District Plan 2014-2031 (March 2018)

2.3.1 MSDC adopted its District Plan 2014 - 2031 on 28th March 2018.

2.3.2 One of the strategic objectives identified in the current District Plan is to ensure that development is accompanied by the necessary infrastructure in the right place at the right time that supports development and sustainable communities.

2.3.3 Policy DP21 is in relation to Transport.

Policy DP21: Transport

2.3.4 Decisions on development proposals will take into account of whether;

- *The scheme is sustainably located to minimise the need for travel;*
- *Appropriate opportunities to facilitate and promote the increased use of alternative means of transport to the private car, such as the provision of, and access to, safe and convenient routes for walking, cycling and public transport, including suitable facilities for secure and safe cycle parking, have been fully explored and taken up;*
- *The scheme provides adequate car parking for the proposed development taking into account the accessibility of the development, the type, mix and use of the development and the availability and opportunities for public transport; and with the relevant Neighbourhood Plan where applicable;*
- *Development which generates significant amounts of movement is supported by a Transport Assessment/ Statement and a Travel Plan that is effective and demonstrably deliverable including setting out how schemes will be funded;*
- *The scheme provides appropriate mitigation to support new development on the local and strategic road network, including the transport network outside of the district, secured where necessary through appropriate legal agreements;*
- *The scheme avoids severe additional traffic congestion, individually or cumulatively, taking account of any proposed mitigation; • The scheme protects the safety of road users and pedestrians; and*
- *Where practical and viable, developments should be located and designed to incorporate facilities for charging plug-in and other ultra-low emission vehicles.*

Policy DP22: Rights of Way and other Recreational Routes

2.3.5 This policy is in reference to Strategic Objective 15 which aims to create places that encourage a healthy and enjoyable lifestyle by the provision of first class cultural and sporting facilities, informal leisure space and the opportunity to walk, cycle or ride to common destinations.

2.3.6 Access to the countryside will be encouraged by:

- *Ensuring that (where appropriate) development provides safe and convenient links to rights of way and other recreational routes;*
- *Supporting the provision of additional routes within and between settlements that contribute to providing a joined up network of routes where possible;*
- *Where appropriate, encouraging making new or existing rights of way multi-functional to allow for benefits for a range of users. (Note: 'multi-functional will generally mean able to be used by walkers, cyclists and horse-riders).*

Submission Draft Mid Sussex District Plan 2021 – 2039 (Regulation 19 – December 2023)

2.3.7 The Regulation 19 submission draft District Plan 2021 – 2039 contains an updated vision, strategy, site allocations and policies and will supersede the 2018 District Plan upon its adoption.

2.3.8 This District Plan includes the following four policies on Transport related to the proposed development:

- DPT1: Placemaking and Connectivity. Development must provide appropriate infrastructure to support the vision and objectives of the West Sussex Transport Plan 2022-2036 and meet the requirements of the NPPF.
- DPT2: Rights of Way and Other Recreational Routes. Development must provide appropriate infrastructure to support the vision and objectives of the West Sussex Transport Plan 2022-2036 and meet the requirements of the NPPF.
- DPT3: Active and Sustainable Travel. Development will be required to help remove barriers to active and sustainable travel and create a healthy environment in which people choose to walk, wheel and use sustainable transport.
- DPT4: Parking and Electric Vehicle Charging Infrastructure.

West Sussex County Council Documents

2.3.9 A summary of relevant aspects of the following documents are provided at **Appendix A**:

- West Sussex Transport Plan (April 2022);
- West Sussex Active Travel Strategy (2024-2036); and
- West Sussex County Council: Guidance on Parking at New Developments (September 2020).

SECTION 3 Proposed Development

- 3.1.1 An outline planning application (with means of access being determined at outline stage) is being submitted.
- 3.1.2 The proposals are for up to 80 new homes along with supporting infrastructure including public open space, play areas, informal kickabout area, strategic landscaping and sustainable drainage.
- 3.1.3 The following plans are provided at **Appendix B**:
- Site location / red line plan;
 - Parameter plan; and
 - Illustrative masterplan.
- 3.1.4 An extract from the illustrative masterplan is provided at **Image 3.1**.

Image 3.1 Extract from Illustrative Masterplan



Source: The Core Design & Consultancy drawing number 02.38(01)02.

- 3.1.5 Access to the site is proposed via an all-purpose access from the A272 Lewes Road. Further details on the site access arrangements are provided in Section 5 of this Transport Assessment.

SECTION 4 Existing Highway Network Conditions

4.1.1 This section of the Transport Assessment provides a review of the site location and the existing highway network conditions in the vicinity of the site.

4.2 Site Location

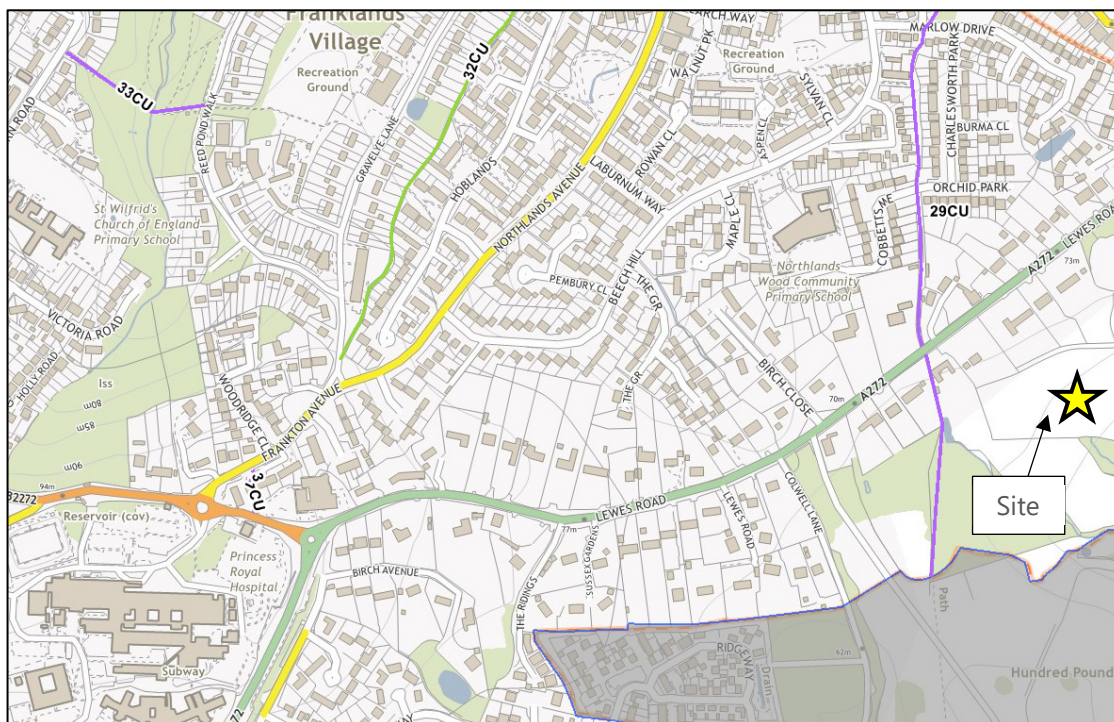
4.2.1 The site is located to the south of the Lewes Road (A272), approximately 2.5km to the southeast of Haywards Heath town centre. The site is bound to the north by existing residential dwellings, and agricultural land and woodland surrounds the rest of the site. The site location is illustrated on **Figure 1.1**.

4.3 Public Rights of Way

4.3.1 Public Rights of Way (PRoW) are shown on **Image 4.1**. Footpath 29CU routes in a north/south direction to the west of the site. It intersects Lewes Road A272. It continues northbound from Lewes Road to Orchid Park and further north connecting with Lyoth Lane. Other PRoW close to the site include:

- 31CU – A short section of public footpath which connects Franklynn Road to Frankton Avenue. This can be used as a short-cut for those using the bus stops on Frankton Avenue.
- 32CU – A bridleway which starts at Graveley Lane (north of junction with Franklands Avenue/Northlands Avenue) north eastwards to the junction of Northlands Avenue/Lyoth Lane.
- 33CU – A public footpath through Haywards Heath Cemetery and Gardens from Reed Pond Walk to Eastern Road.

Image 4.1: Public Rights of Way



Source: West Sussex County Council online Public Rights of Way Map.

4.4 Local Highway Network

A272 Lewes Road

- 4.4.1 The A272 Lewes Road is a single carriageway, two-way road running in a general east to west direction – it provides access to Haywards Heath town centre / the A23 to the west and North Chailey / the A22 / A26 to the east. At its western end it meets Rocky Lane and the B2272 at The Birch Hotel Roundabout. Each approach arm of the roundabout includes a flared two-lane approach.
- 4.4.2 Within vicinity of the site, Lewes Road includes a footway on the northern side of the carriageway between the junctions with Birch Close and Snowdrop Lane. Either side of these junctions, the footway terminates on the northern side but continues along the southern side of the carriageway. The footways are approximately 1.7 metres wide with street lighting present. Along the site frontage, Lewes Road is subject to a 40mph speed limit – this reduces to 30mph around 145m to the west of the site.

The Birch Hotel Roundabout

- 4.4.3 Lewes Road meets the Birch Hotel Roundabout at its most western end. Uncontrolled pedestrian crossings are found on all arms of the roundabout which all feature dropped kerbs and pedestrian refuge islands. Tactile paving is provided on the Rocky Lane approach arm crossing.

- 4.4.4 Road markings indicate cyclists to divert of the carriageway are found on the approaching arms of Lewes Road (westbound) and Franklynn Road (eastbound). A shared footway / cycleway encompasses the roundabout then continues westwards along the southern side of Franklynn Road for approximately 70 metres.

Franklynn Road (B2272)

- 4.4.5 The B2272 forms the 100-metre connecting road between the Birch Hotel Roundabout to the Princess Royal Hospital Roundabout.
- 4.4.6 West of the Princess Royal Roundabout, the B2272 is known as Franklynn Road. It runs in a general east to west direction into the centre of Haywards Heath. It has a general carriageway width of circa 7.5 metres, is street lit and subject to a 30-mph speed limit.
- 4.4.7 The section of Franklynn Road between the Birch Hotel Roundabout and Princes Royal Hospital Roundabout features a shared footway/cycleway only on the southern side of the carriageway (for circa 70 metres). West of Princess Royal Hospital Roundabout, footways are located on both sides of the carriageway which are between circa 1.2 and 2.5 metres wide and continue into the centre of Haywards Heath.
- 4.4.8 Princes Royal Hospital Roundabout features uncontrolled crossings with dropped kerbs and pedestrian refuge islands. A controlled signal pedestrian crossing with dropped kerbs and tactile paving is located approximately 80 metres west of the Princess Royal Hospital Roundabout.

Frankton Avenue / Northland Avenue

- 4.4.9 Frankton Avenue runs north-eastwards of the Princess Royal Roundabout for approximately 200 metres before becoming Northlands Avenue. It has an approximate carriageway width of 6 metres, is street lit and subject to a 30mph speed limit.
- 4.4.10 Frankton Avenue includes footways on both sides of the road which are circa 2 metres wide. This provides pedestrian access to the bus stops on either side of the road. When Frankton Avenue becomes and Northland Avenue, the corridor widens, and the footways become separated from the carriageway by a grass verge.

4.5 Road Safety Review

- 4.5.1 Road accident data has been acquired from Sussex Police which covers 5-years of their records (01/10/18 - 30/09/23)¹. The study area comprises of a section of Lewes Road, from The Ridings to Oldfield Drive. The raw data is included at **Appendix C**.
- 4.5.2 A total of three accidents have occurred in the last 5-years, two of which are of slight severity and one which was of serious severity.
- 4.5.3 The first slight accident occurred in February 2020 at 17:24 at the junction with Loyth Lane. It involved a car giving way at the junction which pulled out onto Lewes Road into the path of an oncoming (speeding) vehicle.
- 4.5.4 The second slight accident occurred in April 2021 at 15:37 at the junction with Snowdrop Lane. It involved a vehicle colliding with the rear of slow moving traffic and causing a multiple vehicle shunt.
- 4.5.5 The serious accident occurred in December 2021 at 09:16 approximately 120 metres to the east of the junction with Loyth Lane. It involved the driver suffering from a medical episode and veering off the carriageway into the hedge row.
- 4.5.6 Whilst any accident is unfortunate, none of the accidents involved pedestrians or cyclists and there are no obvious trends that would highlight a road safety problem within vicinity of the site or where the site access is proposed. Therefore, it is unlikely that the proposed development would materially deteriorate the safety of the local highway network.

4.6 Traffic Surveys

- 4.6.1 To establish existing traffic volumes on the adjoining road network a number of traffic surveys were undertaken and are summarised below.

Traffic Volumes and Speeds

- 4.6.2 An Automatic Traffic Counter (ATC) survey for a seven-day period, during December 2023 was undertaken along the A272 Lewes Road close to the proposed site access.
- 4.6.3 The average weekday traffic flows recorded on the A272 Lewes Road are provided in **Table 4.1**.

¹ This data has been compared to the latest five years' worth of data available from Crashmap, which confirms no additional accidents have been recorded in the study area.

Table 4.1: A272 Lewes Road Average Weekday Traffic Flows

Time	Eastbound	Westbound
08:00-09:00	465 (46)	577 (57)
17:00-18:00	528 (31)	434 (25)
00:00-24:00	5,970 (587)	6,106 (628)

Source: Innovise Data Survey's (2023)

- 4.6.4 The average weekday peak hour speeds, as well as the average daily weekday speeds, recorded on Lewes Road at the proposed access point are provided in **Table 4.2**.

Table 4.2: A272 Lewes Road Average Weekday Speeds (mph)

Time	Eastbound	Westbound
08:00-09:00	36.5	38.4
17:00-18:00	35.9	37.3
00:00-24:00	37.1	38.5

Source: Innovise Data Survey's (2023)

- 4.6.5 Lewes Road adjacent to the site is subject to a 40mph speed limit. The data recorded and provided in the table above indicates, on average, vehicles travel along Lewes Road are within the speed limit.

- 4.6.6 The 85th percentile speeds have also been extracted from the ATC data; these are detailed in **Table 4.3**.

Table 4.3: A272 Lewes Road Weekday 85th Percentile Speeds (mph)

Time	Eastbound	Westbound
08:00-09:00	41.3	42.5
17:00-18:00	40.1	41.2
10:00-12:00 & 14:00-16:00	41.1	42.5

Source: Innovise Data Survey's (2023). Note: 10:00-12:00 & 14:00-16:00 for visibility calculation.

Junction Turning Counts

- 4.6.7 A classified vehicle turning count survey was undertaken at The A272 Lewes Road/Rocky Lane/B2272 Birch Hotel Roundabout on a neutral weekday, Thursday 7 December 2023. The junction was surveyed between the hours of 07:00-10:00 and 16:00-19:00. The network peak hours derived from the Birch Hotel Roundabout survey are identified as 08:00-09:00 and 17:00-18:00, these correspond with the peak hours of the proposed development. The base surveyed traffic flow diagrams for the AM and PM network peaks are included in Figures TF 1 and TF 2 respectively.

SECTION 5 Proposed Site Access Arrangements

5.1 Multi Modal Trip Generation

5.1.1 The trip generation for the proposed development has been calculated using trip rates derived from the industry standard TRICS trip rate data base (version 7.10.3). Survey sites have been identified and selected which share similar characteristics to the proposed development site, location, and accessibility.

5.1.2 The following site selection has been used to identify site with similar characteristics to the proposed development site in accordance with best practice:

- Multi-modal survey.
- Residential – Houses privately owned.
- Surveys undertaken within the last nine years.
- Survey sites in England only (excluding Greater London).
- Sites in Edge of Town and Suburban locations only.
- Sites between 50 to 250 units.
- Weekday, Tuesday to Thursday surveys only.

5.1.3 The review indicates 18 suitable sites, the TRICS output report is included at **Appendix D**. Sites have been removed due to being undertaken during the covid-19 pandemic or being incomparable to the site in terms of accessibility and parking provision. This ensures that robust trip rates are utilised for assessment.

5.1.4 Using the site selection criteria above, the resultant total person trip rates and calculated person generation resulting from 80 residential units is provided in **Table 5.1**. The site selection and associated trip rates are the same as presented within the TA scoping Note submitted to WSCC Highways.

Table 5.1: Total Person Trip Rates and Trip Generation

Time Period	All Mode Trip Rate (per 1 unit)			Person Trip Generation (80 units)		
	In	Out	Two-Way	In	Out	Two-Way
AM Peak Hour (08:00-09:00)	0.188	0.728	0.916	15	58	73
PM Peak Hour (17:00-18:00)	0.546	0.255	0.801	44	20	64

Source: TRICS (version 7.10.3) and i-Transport calculations. Errors due to rounding.

5.1.5 In order to provide an accurate representation of the potential modal split of the proposed residential development during peak periods, local Census data has been used. The site is located within the Mid Sussex 008 Middle Super Output Area (MSOA), which includes the areas of Walstead and Lindfield.

5.1.6 The resulting modal split and calculated multi-modal trip generation is presented in **Table 5.2**.

Table 5.2: Residential Multi-Modal Trip Generation

Main Mode of Travel	TRICS Mode Split (%)	Trip Generation (80 units)					
		AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
		In	Out	Two-Way	In	Out	Two-Way
Single Vehicle Occupants	43.9%	7	26	32	19	9	28
Multi Vehicle Occupants	40.4%	6	24	30	18	8	26
<i>Total Vehicles</i>		<i>10</i>	<i>31</i>	<i>41</i>	<i>28</i>	<i>12</i>	<i>40</i>
Bus Passengers	1.4%	0	1	1	1	0	1
Rail Passengers	0.4%	0	0	0	0	0	0
Pedestrians Walking	12.1%	2	7	9	5	2	8
Cycling	1.6%	0	1	1	1	0	1
Total	100%	15	58	73	44	20	64

Source: Census Travel to Work data for Mid Sussex 008 MSA with TRICS total person trip generation.

5.2 A272 Lewes Road – All Purpose Access

5.2.1 The proposed access from the A272 Lewes Road will take the form of an all-purpose simple priority junction. Key aspects of the junction design include:

- 5.5m wide access road;
- 6m junction radii on the east side of the access with Lewis Road and a compound curve 9m junction radii on the west side of the access with Lewes Road; and
- 2m wide footway on the western side of the access road leading to an uncontrolled dropped kerb crossing of Lewes Road (to the north side footway) west of the site access.

5.2.2 The access design was reviewed by WSCC Highways as part of the pre-application stage and found acceptable subject to a Stage 1 Road Safety Audit (see below).

5.2.3 Visibility splays are shown at the Lewes Road site access as follows:

- 2.4m x 112m to the east (to a 0.3m off set); and
- 2.4m x 108m to the west (to a 0.3m off set).

5.2.4 Visibility splays for the site access are shown achievable for the recorded 85th percentile speeds along Lewes Road (via an ATC undertaken in December 2023). These visibility splays are shown on the site access drawing **ITL19597-GA-004**. The visibility splay from the site access to the east includes a slither outside of the highway and red line plan – Miller Homes has an existing agreement to use this land for visibility purposes. It is suggested that the visibility splays are controlled by a condition of any planning permission on the site.

5.2.5 Pedestrian visibility splays with a 1.5m setback distance have been shown achievable from the proposed uncontrolled crossing across Lewes Road adjacent to the site access and are shown on the site access drawing **ITL19597-GA-004**.

5.2.6 A vehicle swept path analysis of the Lewes Road site access is provided at **Appendix E**. In summary:

- A refuse vehicle can manoeuvre in and out of the proposed site access – the refuse vehicle does not over run the centre line of the A272 Lewes Road. It is acknowledged that the refuse vehicle does overrun the centre line of the access road when turning in / out - however given the very infrequent nature of a refuse vehicle and light / slow traffic flow on the minor arm and the need to balance highway design matters with minimising the impacts on the character of this section of Lewes Road the access is acceptable; and
- A fire tender can access the site satisfactorily.

Stage 1 Road Safety Audit

- 5.2.7 An independent Stage 1 Road Safety Audit (RSA) of the proposed A272 Lewes Road site access has been undertaken – see **Appendix F**.
- 5.2.8 The RSA raised three items, two are related to the access junction and the other related to non-motorised user provision.
- 5.2.9 A designer's Response Report was prepared following the RSA; this is included within **Appendix F** for information. The drawing submitted with the application is the drawing that takes on board the RSA and Designer's Response. We invite WSCC Highways to comment as overseeing organisation.

Potential Relocation of the existing 30mph / 40mph speed limit change on Lewes Road to the east of the proposed site access road

- 5.2.10 As noted above, the proposed Lewes Road site access and visibility splays are based on existing observed speeds and therefore the proposed access is not dependent on a speed limit change.
- 5.2.11 Notwithstanding the above, through the pre application process WSCC note that there is general support to try and achieve a relocation of the existing 30mph / 40mph speed limit change on Lewes Road to the east of the proposed site access road. Miller Homes recognises the wider public benefits of relocating the speed limit change and are content to make an appropriate financial contribution for such provision secured in any S106 Agreement.

5.3 Site Layout

- 5.3.1 The residential site layout is illustrative with detail subject to a reserved matter planning application. Either a loop or vehicle turning heads will be provided within the residential site for refuse vehicles, emergency, and delivery vehicles. The illustrative site layout (see **Appendix B**) shows that vehicle turning heads are possible with a combination of:

- Carriageway (5.5m wide) with footways (2m wide);
- Shared surfaces; and
- Private courtyard parking/drives.

5.3.2 The access roads within the site will be designed having regard to WSCC's guidance including emergency access where a fire tender will be able to get within 45 metres of all parts of each dwelling in line with Building Regs. The indicative site layout shows appropriate turning heads for delivery, servicing and emergency vehicles.

5.3.3 Following the WSCC pre-application advice, the car parking provision on the site would be provided having regard to West Sussex County Council guidance in parking at new developments for Parking Behaviour Zone 3. Car parking on the residential site will include both active and passive provision for charging electric vehicles.

5.3.4 WSCC guidance sets out cycle parking requirements as follows:

- Houses up to 4 rooms – 1 space per unit;
- Houses with 5 or more rooms – 2 spaces per unit;
- Flats up to 3 rooms – 0.5 space per unit (if communal storage); and
- Flats with 4 or more rooms – 1 space per unit.

5.3.5 Both car and cycle parking (including electric vehicle charging points) would be detailed as part of a reserved matter planning application following outline planning consent.

5.4 **Summary**

5.4.1 In summary safe and suitable access to the site from the A272 Lewes Road is achieved for all users.

SECTION 6 Opportunities to Promote Sustainable Transport Modes

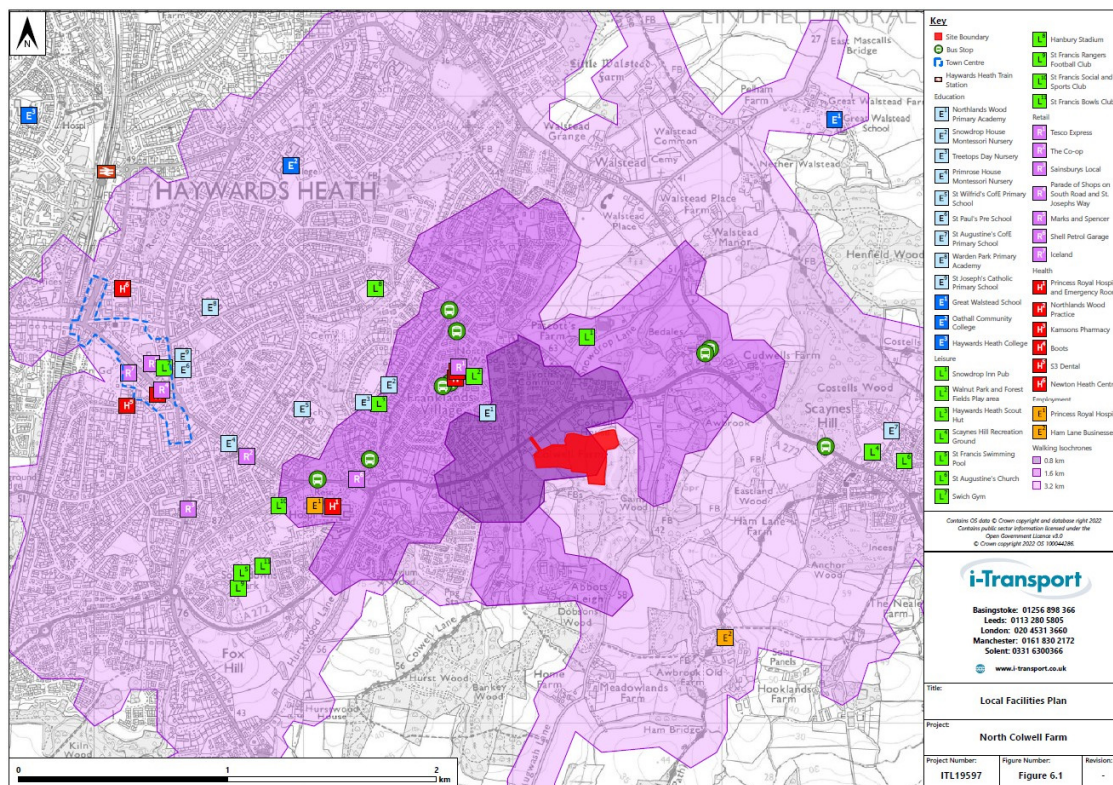
6.1 Core Local Amenities and Services

6.1.1 The site has been assessed with regard to access to core local amenities/facilities, including education, employment, retail and health facilities.

6.1.2 The core local amenities and services are presented in **Figure 6.1** (along with walking catchment isochrones) - the core facilities are listed below:

- Primary school – the main primary school is Northlands Wood Primary Academy to the north west, circa 840m from the centre of the site. Other primary schools include, Saint Wilfrid's C of E Primary School, St Joseph's Catholic Primary School and Warden Park Primary Academy.
- Secondary school – the main secondary school one is Oathall Community College (11 – 16). There is also Haywards Heath College (16 plus).
- Supermarket or local grocery shop (selling fresh food) – Tesco Express at Walnut Park is the closet at circa 790m from the centre of the site. The Shell petrol garage sells some food items, a Co-Op is located on B2272, with an Iceland and M&S in the town centre.
- Doctors surgery – Northlands Wood Practice, at Walnut Park, with a Pharmacy (Kamsons) adjacent, these are circa 800m from the centre of the site.
- Employment – Princess Royal Hospital is to the west of the site and Haywards Heath Town Centre a bit further along the B2272.
- Leisure / Recreation – Walnut Park and Forest Fields Play area is the closet to the site to the north west. Other nearby leisure includes the Snowdrop inn pub to the north east, St Francis swimming pool, Rangers football club and bowls club to the south west of the site.

Figure 6.1: Local Facilities Plan



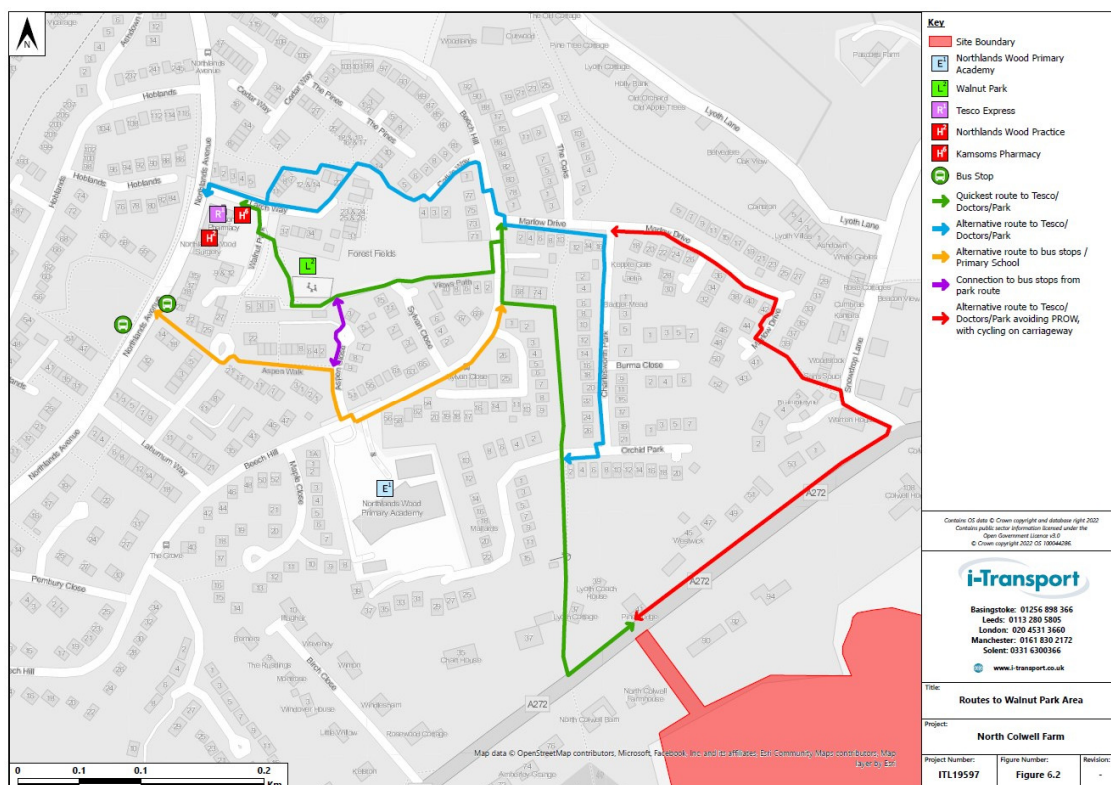
6.1.3 Many of the local facilities are located within the Walnut Park area within a reasonable² walking distance of the site, further amenities and employment opportunities are in Haywards Heath Town Centre which is within a reasonable³ cycling distance.

6.1.4 As part of the scoping exercise, routes to/from the site and the local facilities within the Walnut Park area were identified, these routes are shown in **Image 6.1**. The green route routes along footpath 29CU immediately to the north of Lewes Road and as such is only available to pedestrians.

² The vast majority (80%) of trips are undertaken on foot for journeys up to one mile (1.6km), according to the National Travel Survey.

³ The National Travel Survey identifies that the average distance travelled by bike is 4.4km.

Image 6.1: Routes to Walnut Park Area



6.2 Off-Site Highway Improvements

6.2.1 Following the route review to Walnut Park area, a number of potential improvements to the routes are possible to provide an improved pedestrian experience, these are presented on **Figure 6.2** and detailed below:

- An uncontrolled crossing with dropped kerbs and tactile paving across Lewes Road at the Birch Close junction, this improvements with appropriate visibility splays is shown on **Drawing ITL19597-GA-011**. The crossing is within the existing 30mph speed limit, albeit circa 50m east Lewes Road increases to 40mph, therefore additional visibility splays to the east are shown achievable to the recorded vehicle speeds at the site access.
- Removal of existing layby along Lewes Road A272 (near junction of Snowdrop Lane) with footway construction.
- An uncontrolled crossing across Orchard Park with dropped kerbs and tactile paving linking existing Footpath CU29.
- An uncontrolled crossing across Orchard Park with dropped kerbs and tactile paving for pedestrians onto Charlesworth Park.

- Adding tactile paving to the existing crossing at the Marlow Drive/Charlesworth Park junction.
- Adding tactile paving to the existing crossing at the Beech Hill/Marlow Drive junction.
- An uncontrolled crossing with dropped kerbs and tactile paving for pedestrians routing between Marlow Drive and Catkin Way.
- An uncontrolled crossing with dropped kerbs and tactile paving for pedestrians routing between Marlow Drive and Views Path.
- Adding tactile paving to the existing crossing at the Northlands Avenue/Larch Way junction.
- Adding tactile paving to the existing crossing at the Beech Hill/Aspen Close junction.
- An uncontrolled crossing with dropped kerbs and tactile paving for pedestrians across Rowan Close for pedestrians routing between Aspen Walk and Northlands Avenue.

6.3 Public Transport

Bus

- 6.3.1 The nearest bus stops to the site are located on Northlands Avenue (via Footpath 29CU) circa 1km walk distance from the centre of the site. The Northlands Avenue stops offer an hourly service from bus routes 31/31A. The southbound bus stop (towards Hayward Heath town centre and beyond) includes a shelter with seating, timetable information and real time information indicating arrival times of the next bus, this is a good level of existing provision. A signal pedestrian crossing exists adjacent to the bus stop to provide safe access to the northbound bus stop.
- 6.3.2 Further bus stops with additional services are located on Bedales Hill (B2111), the B2272 Lewes Road and on Franklynn Road, circa 1.3km to the east and 1.4km to the west of the site access respectively. In total there are over ten bus services available most of which are available from the B2272 bus stops outside the Princess Royal Hospital, the westbound bus stop (towards Haywards Heath town centre) includes two shelters with seating, timetable information and real time information indicating arrival times of the next bus, this again is good existing provision.
- 6.3.3 A summary of local bus services is presented in **Table 6.1**.

Table 6.1: Summary of Local Bus Services

Route		Typical Frequency (shown for one direction)		
		Mon-Fri	Sat	Sun
3	Slaugham - Haywards Heath	1 return service per day (Fridays only)	-	-
30	Haywards Heath (Ridgeway) - Lindfield (Circle)	06:27 then up to every hour from 08:10-17:41	08:26 then up to every hour from 09:08-17:10	-
31	Uckfield – Haywards Heath	Around every hour from 06:14-18:26	07:41 then hourly from 08:16 to 18:16	-
31A	Uckfield - Cuckfield	Every 2 hours from 09:16-15:16	Every 2 hours from 09:16-17:16	-
33	Hurstpierpoint - Haywards Heath	07:23 then hourly from 08:34-17:34	Hourly from 08:34-16:34	-
33A	Hurstpierpoint - Warden Park School	One return service per day	-	-
39	Haywards Heath (Ridgeway) - Princess Royal via Bolnore	06:14, 07:14, 08:00 then every hour from 08:30-14:30, and 16:00-18:00	08:10 then every hour from 08:30-14:30, and 16:00-18:00	-
62	Haywards Heath – Cuckfield – Balcombe – Pound Hill - Crawley	Tuesdays & Thursdays, every couple of hours	-	-
89	Princess Royal Hospital / Franklands to Horsham	09:45, 12:00, 14:15, 15:20, 17:30	-	-
149	Scaynes Hill – Haywards Heath – Wivelsfield Green	15:20	-	-
166	Lewes - Haywards Heath	08:09, 10:06, 12:53, 15:03, 17:45	10:06, 12:53, 15:03, 17:41	-
270	Brighton Churchill Square - East Grinstead Station	Around every hour from 06:14-18:26	Around every hour from 08:00-20:19	09:44, 12:29, 14:29, 17:22
271	Royal Sussex County Hospital - Crawley Bus Station	Services every 1-2 hours between 06:48 and 23:11	Around every 2 hours between 08:45 and 16:39	09:33, 11:33, 14:03, 16:03
272	Royal Sussex County Hospital - Crawley Bus Station	Services every 1-2 hours between 06:31 and 21:30	06:13 then every hour from 09:40-15:40	-
STP1/STP2	Haywards Heath / Cowfold - St Pauls Catholic College	One return service (each) per day	-	-

Source: bustimes.org accessed December 2024.

- 6.3.4 The above table demonstrates that there is a regular bus service available providing access to the key destinations with approximately six buses per hour on weekdays and Saturdays then one bus per hour on Sundays.

Rail

- 6.3.5 Haywards Heath rail station is located circa 2.6 km (straight line distance) north-west of the site. The station itself features step free access to all four platforms, 312 cycle parking spaces and 1,069 car parking spaces. The services that run to this station are summarised in **Table 6.2**.

Table 6.2: Summary of Haywards Heath Rail Services

Destination	Duration	Peak Frequency	Off-Peak Frequency
Bedford	2hrs 3mins	2 per hour	2 per hour
Brighton	14-21mins	6 per hour	6 per hour
London Victoria	45-49mins	6 per hour	5 per hour
Cambridge	2hrs 10mins	2 per hour	2 per hour
Littlehampton	57-69mins	3 per hour	2 per hour
Ore	1hr 22mins	1 per hour	1 per hour
Eastbourne	39-43mins	2 per hour	2 per hour

Source: Trainline – December 2024.

- 6.3.6 There are up to 12 services leaving the Haywards Heath rail station in the peak hours of the day and 10 in the off-peak hours.
- 6.3.7 The station is accessible for future residents on bike, by bus or by car.

6.4 Framework Travel Plan

- 6.4.1 A Framework Travel Plan has been prepared separately as part of the planning application and includes the following measures:
- A resident's travel pack - Information provision to residents on walking, cycling and public transport.
 - Promotion of cycling clubs and a Bicycle User Group.
 - Car sharing - [Join a car sharing scheme - West Sussex County Council](#).
 - Sustainable travel voucher – available for either cycling equipment, towards a bicycle or towards bus/rail tickets.

6.5 Summary

- 6.5.1 The site has been assessed with regard to access to core local facilities/amenities. It has been shown that there are a good number of local facilities/amenities within a reasonable walk distance of the proposed homes – including food shopping, a primary school, doctors / pharmacy and Princess Royal Hospital.
- 6.5.2 The site has access to existing bus services on Northlands Avenue, Bedales Hill, B2272 and Franklynn Road, in total there are over ten bus services available. Bus stops closest to the site include shelters with seating, timetable information and real time information indicating arrival times of the next bus, this is a good existing provision, and hence limited upgrades are currently required.
- 6.5.3 Haywards Heath rail station is located circa 2.6km north-west of the site. It is within a reasonable cycle distance and five minutes by car. Frequent rail services to London and the south coast run from the station.
- 6.5.4 The site therefore has a good level of accessibility to everyday facilities and services by a choice of modes of transport. The development therefore provides opportunities for the appropriate take up of sustainable transport modes, in line with the objectives of paragraph 115 of the NPPF.

SECTION 7 Transport Impact

7.1 Assessment Scope

7.1.1 Assessments cover the proposed site access and the existing junction of the A272 Lewes Road/Rocky Lane/B2272 Birch Hotel Roundabout, the scope was agreed with WSCC highways during pre-application stage.

7.1.2 Assessments have been undertaken for the following scenarios during the AM (08:00-09:00) and PM (17:00-18:00) peak hours:

- 2023 base traffic flows – taken directly from the traffic surveys;
- 2030 future year baseline traffic flows – calculated as the 2023 observed traffic flows multiplied by the network traffic growth factor to 2030 plus committed development traffic; and
- 2030 with development traffic flows – the 2030 future year baseline traffic flows plus development generated traffic.

7.2 Existing 2023 Traffic Flows

7.2.1 The 2023 traffic flows on the local highway network in the vicinity of the site are provided within Figures TF 1 and TF 2.

7.3 Committed Developments

7.3.1 The following two developments were identified as committed sites through the pre-application process with WSCC:

- Land to the South of Scamps Hill, Scaynes Hill Road, Lindfield (DM/15/4457) allowed at appeal for outline of 200 new homes, country park and land for a primary education facility.
- Land at Hurst Farm, Hurstwood Lane, Haywards Heath (DM/22/2272) outline application for up to 375 new homes and a two-form entry primary school.

7.3.2 The predicted traffic generation from the two above sites have been extracted from Transport Assessments related to the respective planning applications. The traffic associated with the two committed developments on the local highway near to the site are shown on traffic flow diagrams within Figures TF 3 to TF 6.

7.4 Background Traffic Growth

7.4.1 Factors to allow for traffic growth from 2023 (base year when traffic surveys were undertaken) to a future assessment year of 2030 have been extracted from TEMPro software. These factors have been derived from the latest available National Transport Model (NTM) using the NRTP Core Scenario dataset. The geographical 'Super Output Area' (mid layer) of 'Mid Sussex 008', within which the site is located, has been used to calculate the relevant growth factors, and 'A' road type selected. Alternative assumptions have been applied to reduce the future households by up to the level of the Hurst Farm strategic housing allocation to ensure no double counting. No further adjustment has been made to allow for the Land to the South of Scamps Hill development.

7.4.2 The proposed TEMPro growth factors used in the future year assessments are contained within **Table 7.1**.

Table 7.1: TEMPro Local Growth Factors (Mid Sussex 008)

Scenario	2023-2030
AM Peak	1.0419
PM Peak	1.0362

Source: TEMPro Version 8.1, NRTP Core Scenario Dataset.

7.4.3 The growth factors detailed in the table above have been applied to the surveyed 2023 base traffic flows to calculate the future background traffic levels for 2030. Traffic flow diagrams for the future base 2030 with committed developments are provided in Figures TF 7 and TF 8.

7.5 Development Traffic Generation Distribution and Assignment

7.5.1 The vehicular trip rates have been extracted from the same TRICS dataset as detailed in Section 5 and are provided in **Table 7.2** along with the calculated vehicle generation.

Table 7.2: Vehicle Trip Rates and Trip Generation

Time Period	All Mode Trip Rate (per 1 unit)			Trip Generation (80 units)		
	In	Out	Two-Way	In	Out	Two-Way
AM Peak Hour (08:00-09:00)	0.128	0.390	0.518	10	31	41
PM Peak Hour (17:00-18:00)	0.352	0.156	0.508	28	12	40

Source: TRICS (version 7.10.3) and i-Transport calculations. Errors due to rounding.

- 7.5.2** The results in the above table demonstrate that the proposed development (based on 80 residential dwellings) is likely to generate around 40 two-way 'vehicle trips' in the morning and evening peak hours.
- 7.5.3** The proposed development traffic distribution during the peak hours of the local highway network is likely to be primarily related by those commuting to and from work. Therefore, Census 'Travel to Work' data has been used to determine the distribution of development trips.
- 7.5.4** The proposed distribution of vehicle trips associated with the proposed development has been based on 2011 Census 'Travel to Work' data for the local Middle Super Output Area (MSOA) of Mid Sussex 008, in which the site is located. The data for the existing residents of Mid Sussex 008 includes those residing towards the north of Haywards Heath including areas of Walstead and Lindfield.
- 7.5.5** The data from this MSOA has been used to derive the likely workplace destinations for future residents of the site using the 'WU03EW – Location of usual residence and place of work by method of travel to work (MSOA) level' dataset from the 2011 Census outputs. The further afield destinations (beyond Mid Sussex) in which vehicle drivers will take strategic routes to and from the site, have been split below.
- 7.5.6** **Table 7.3** summarises the work destinations (excluding those that work at home) for residents within the Mid Sussex 008 MSOA for car drivers only.

Table 7.3: Journey to Work Destinations – Mid Sussex 008 MSOA Residents

Destination	Proportion (%)
Crawley	13.8%
Haywards Heath Town Centre (Mid Sussex 009)	13.7%
Site location / Walstead / Lindfield (Mid Sussex 008)	6.8%
South Haywards Heath / Ansty (Mid Sussex 011)	6.8%
Brighton and Hove	6.0%
Lewes	4.7%
West Hoathley / Horsted Keynes / Scaynes Hill (Mid Sussex 006)	4.4%
London	4.4%
Horsham	4.0%
Wealden	3.8%
Central Burgess Hill (Mid Sussex 014)	3.1%
Reigate and Banstead	3.1%
West Central Haywards Heath (Mid Sussex 010)	2.6%
South of Burgess Hill Station (Mid Sussex 015)	2.6%
Staplefield / Warninglid / Balcombe / Handcross (Mid Sussex 007)	2.2%
Hickstead / Sayers Common / Hurstpierpoint / Poynings (Mid Sussex 016)	2.2%
Central East Grinstead (Mid Sussex 001)	1.9%
West Burgess Hill (Mid Sussex 012)	1.2%
Tandridge	1.0%
Worthing	0.8%
Copthorne (Mid Sussex 002)	0.7%
West, East Grinstead and East Sunnyside (Mid Sussex 004)	0.7%
Hassocks (Mid Sussex 017)	0.7%
Tunbridge Wells	0.7%
Guildford	0.6%
Adur	0.6%
Mole Valley	0.5%
Other North	2.8%
Other East	1.3%
Other South	0.5%
Other West	1.8%
Total	100%

Source: Census 2011

- 7.5.7** The analysis above demonstrates the most common work destination that residents of Mid Sussex 008 drive to is Crawley (14%), followed by more local areas such as Haywards Heath Town Centre (14%), and residing in the same output area including Walstead / Lindfield (7%) and then the South Haywards Heath / Ansty (7%) areas. These in total make up circa 42% of the total destinations, the remaining destinations that make up 58% are quite spread out which generally have a proportion of 5% or fewer.
- 7.5.8** The quickest (most desirable) routes between the proposed residential development site access and other MSOA and local authority area destinations has been determined using route-planning software and recorded in journey stages through key junctions on the local highway network.
- 7.5.9** The resultant traffic assignment to and from the development site on the local highway network is detailed in **Table 7.4**.

Table 7.4: Proposed Development Traffic Assignment

Route	Assignment (%)
A272 Lewes Road (W)	82%
B2272	61%
A272 Rocky Lane (S)	22%
Rocky Lane (W)	13%
B2112	8%
Wivelsfield Road	1%
A272 Lewes Road (E)	18%
Lewes Road (E)	9%
Bedales Hill	8%

Source: Census 2011 and Consultant's Estimates.

- 7.5.10** Based on the Census traffic assignment in **Table 7.4**, the expected traffic on the local highway network for the development is detailed in **Table 7.5**.

Table 7.5: Proposed Development Traffic Arrivals/Departures Assignment

Peak Hour	Route	Arrivals	Departures
AM	A272 Lewes Road (W)	8	25
	B2272	6	19
	A272 Rocky Lane (S)	2	7
	Rocky Lane (W)	1	4
	B2112	1	2
	Wivelsfield Road	0	0
			11
	A272 Lewes Road (E)	2	6
	Lewes Road (E)	1	3
	Bedales Hill	1	2
PM	A272 Lewes Road (W)	23	10
	B2272	17	7
	A272 Rocky Lane (S)	6	3
	Rocky Lane (W)	4	2
	B2112	2	1
	Wivelsfield Road	0	0
	A272 Lewes Road (E)	5	2
	Lewes Road (E)	3	1
	Bedales Hill	2	1

Source: Census 2011 and Consultant's Estimates

7.5.11 The full traffic assignment calculations are included in Figure TF 9. The development traffic flow diagrams for both AM and PM peak hours are included in Figures TF 10 to TF 13.

7.5.12 Following on from the above estimated vehicle assignment, as part of the TA scoping exercise it was considered necessary to assess the following proposed and existing highway junctions as part of this TA (detailed in next section), this was agreed with WSCC highways:

- Proposed site access onto A272 Lewes Road; and
- Birch Hotel Roundabout.

7.6 Operational Assessments

- 7.6.1 The operation of both the Lewes Road site access and the Birch Hotel Roundabout have been modelled using the industry-standard TRL Junctions software, which is the standard software for modelling priority junctions.

Proposed Site Access onto A272 Lewes Road

- 7.6.2 The proposed site access with the A272 Lewes Road priority junction has been modelled using Junctions software. The full output results for the junction are included in **Appendix G**.
- 7.6.3 A summary of the 2030 base with committed and proposed development scenario for the proposed site access junction are provided in **Table 7.6**.

Table 7.6: Proposed Site Access onto A272 Lewes Road Assessment Results

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
2030 Assessment with Committed and Proposed Development				
Site Access	0.09	0.1	0.03	0.0
Lewes Road right turn into Site Access	0.02	0.0	0.05	0.1

Source: Junctions software.

- 7.6.4 As shown in the table above, the site access with development traffic in the future year with committed development and proposed development traffic flows can operate well within capacity with no expected queuing on Lewes Road or the site access.

The Birch Hotel Roundabout

- 7.6.5 The existing Birch Hotel Roundabout on the A272/B2272 has been modelled using Junctions software. The full output results for the junction are included at **Appendix H**.
- 7.6.6 The modelled queue results for 2023 have been compared against the observed queues to ensure the model is representative of the current traffic conditions, a comparison table is included at **Appendix I** which shows the model is robust with slightly higher modelled queues compared to the observed queues from the survey. A summary of the 2023, 2030 base with committed and 2030 proposed development scenario for the Birch Hotel Roundabout are provided in **Table 7.7**.

Table 7.7: The Birch Hotel Roundabout Assessment Results

	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
2023 Assessment				
Lewes Road A272 (E)	0.46	0.8	0.32	0.5
Rocky Lane A272 (S)	0.53	1.1	0.36	0.6
Lewes Road B2272 (W)	0.41	0.7	0.49	1.0
2030 Assessment with Committed Development				
Lewes Road A272 (E)	0.51	1.0	0.36	0.5
Rocky Lane A272 (S)	0.58	1.4	0.40	0.7
Lewes Road B2272 (W)	0.45	0.8	0.54	1.2
2030 Assessment with Committed and Proposed Development				
Lewes Road A272 (E)	0.53	1.1	0.37	0.6
Rocky Lane A272 (S)	0.59	1.4	0.40	0.7
Lewes Road B2272 (W)	0.45	0.8	0.55	1.2

Source: Junctions 9.

- 7.6.7** As shown in the table above the Birch Hotel Roundabout operates within capacity in the 2023 base year in both peak hours and will continue to do so in the future year, with the addition of committed and proposed development traffic. The traffic associated with the proposed development is expected to increase the queue on each approach by negligible amounts in both peak periods.

7.7 Summary

- 7.7.1** The results of the assessments indicate that the highway network assessed currently operates within capacity and will continue to do so in the future year allowing for traffic from committed development, traffic growth and with the addition of development traffic. Accordingly, it is concluded that traffic generated by the proposed development does not have a significant impact on the operation of the local highway network and as such highway capacity improvements are not necessary.

SECTION 8 Summary and Conclusions

- 8.1.1 Miller Homes has appointed i-Transport LLP to provide highways and transport advice in relation to the residential development at Land at North Colwell Farm, Lewes Road, Haywards Heath. The proposal comprises up to 80 residential homes.
- 8.1.2 The site is located to the south of the Lewes Road (A272), approximately 2.5km to the southeast of the centre of Haywards Heath. The site is bound to the north by existing residential dwellings, and agricultural land and woodland surrounds the rest of the site.
- 8.1.3 Pre application discussions have taken place with the local highway authority, West Sussex County Council.
- 8.1.4 A road safety review has been undertaken for a stretch of Lewes Road. The data shows that three accidents occurred, two of slight severity and one of serious severity. None of the accidents involved pedestrians or cyclists and there are no obvious trends that would highlight a road safety problem within vicinity of the site or where the site access is proposed.
- 8.1.5 The proposed principal residential access comprises a priority vehicular access junction from Lewes Road, this has been assessed with vehicle swept path analysis and has been subject to a Stage 1 Road Safety Audit. The proposed site access includes a 2m wide footway on the western side to a new uncontrolled crossing point across Lewes Road with dropped kerbs and tactile paving to access the existing north side footway and Footpath 29CU.
- 8.1.6 There are a number of local facilities / amenities within a reasonable walk distance of the proposed homes – including food shops, a primary school, doctors / pharmacy in the Walnut Park area and Princess Royal Hospital.
- 8.1.7 A number of off-site highway improvements are proposed as follows (which will also benefit existing highway users):
- An uncontrolled crossing with dropped kerbs and tactile paving across Lewes Road at the Birch Close junction, to improve the access and connection between the north side and south side footway.
 - Removal of existing layby along Lewes Road A272 (near junction of Snowdrop Lane) with footway construction.
 - An uncontrolled crossing across Orchid Park with dropped kerbs and tactile paving linking existing Footpath CU29.

- An uncontrolled crossing across Orchid Park with dropped kerbs and tactile paving for pedestrians onto Charlesworth Park.
- Adding tactile paving to the existing crossing at the Marlow Drive/Charlesworth Park junction.
- Adding tactile paving to the existing crossing at the Beech Hill/Marlow Drive junction.
- An uncontrolled crossing with dropped kerbs and tactile paving for pedestrians routing between Marlow Drive and Catkin Way.
- An uncontrolled crossing with dropped kerbs and tactile paving for pedestrians routing between Marlow Drive and Views Path.
- Adding tactile paving to the existing crossing at the Northlands Avenue/Larch Way junction.
- Adding tactile paving to the existing crossing at the Beech Hill/Aspen Close junction.
- An uncontrolled crossing with dropped kerbs and tactile paving for pedestrians across Rowan Close for pedestrians routing between Aspen Walk and Northlands Avenue.

8.1.8 The nearest bus stops to the site are located on Northlands Avenue (via Footpath 29CU) circa 1km walk distance from the centre of the site. The Northlands Avenue stops offer an hourly service from bus routes 31/31A. The southbound bus stop (towards Haywards Heath town centre and beyond) includes a shelter with seating, timetable information and real time information indicating arrival times of the next bus, this is a good level of existing provision. A signal pedestrian crossing exists adjacent to the bus stop to provide safe access to the northbound bus stop.

8.1.9 Further bus stops with additional services are located on Bedales Hill (B2111), the B2272 Lewes Road and on Franklyn Road, circa 1.3km to the east and 1.4km to the west of the site access respectively. In total there are over ten bus services available most of which are available from the B2272 bus stops outside the Princess Royal Hospital, the westbound bus stop (towards Haywards Heath town centre) includes two shelters with seating, timetable information and real time information indicating arrival times of the next bus, this again is good existing provision.

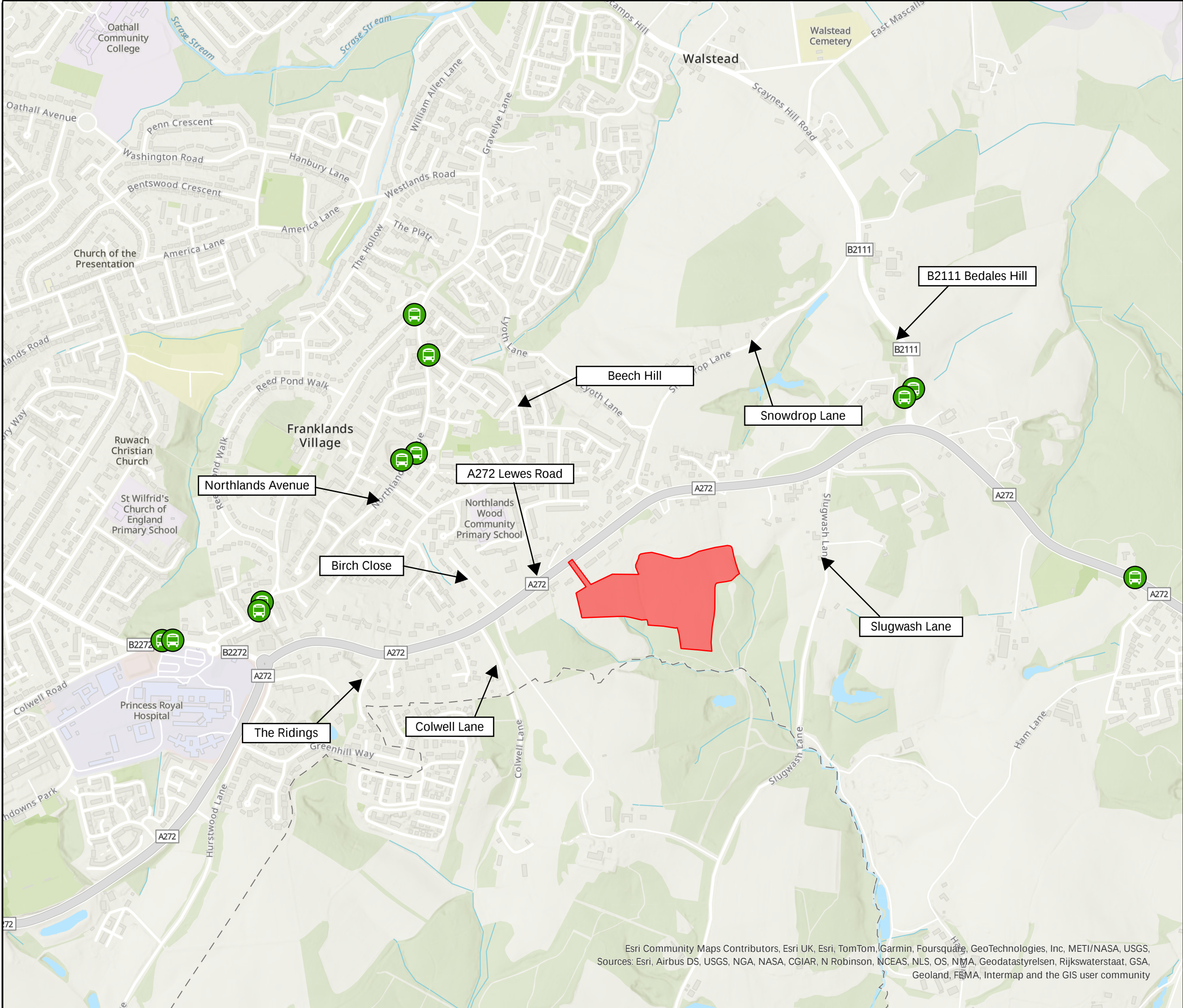
8.1.10 Haywards Heath rail station is located circa 2.6 km north-west of the site. It is accessible on bike, by bus or by car. There are up to 12 services leaving the Haywards Heath rail station in the peak hours of the day and 10 in the off-peak hours.

- 8.1.11 The trip generation for the proposed development has been calculated using trip rates derived from the industry standard TRICS trip rate database. The proposed development (based on 80 residential dwellings) is likely to generate around 40 two-way 'vehicle trips' in the morning and evening peak hours.
- 8.1.12 The distribution and assignment of development related traffic has been based on Census 'Travel to Work' data and route-planning software being recorded in journey stages through key junctions on the local highway network. The most common work destination that residents of Mid Sussex 008 (where the site is located) drive to is Crawley (14%), followed by more local areas such as Haywards Heath Town Centre (14%), and residing in the same output area including Walstead / Lindfield (7%) and then the South Haywards Heath / Ansty (7%) areas.
- 8.1.13 The results of the junction capacity assessments indicate that the local highway network assessed and in the vicinity of the site currently operates within capacity and will continue to do so in the 2030 future year allowing for traffic from committed development, traffic growth and with the addition of development traffic. Accordingly, the traffic generated by the proposed development does not have a significant impact on the operation of the local highway network and as such highway capacity improvements are not necessary.

8.2 Conclusions

- 8.2.1 It is concluded that the proposed development on land at North Colwell Farm:
- Provides safe and suitable access from the A272 Lewes Road for all users.
 - Demonstrates, through the illustrative site layout, that a connected layout is possible with a hierarchy of streets with appropriate vehicle turning heads for servicing, deliveries and emergency vehicles.
 - Provides appropriate opportunities to access a range of local facilities and amenities by a choice of travel modes.
 - Generates traffic movements of around 40 vehicles in a weekday peak hour which will not have a significant impact on the operation of the local highway network (safety or capacity) and as such operational improvements are not necessary.
- 8.2.2 The development proposal is therefore acceptable from a transport and highway perspective.

FIGURES



Key

Site Boundary

Bus Stop

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Basingstoke: 01256 898 366
Leeds: 0113 280 5805
London: 020 4531 3660
Manchester: 0161 830 2172
Solent: 0331 6300366

www.i-transport.co.uk

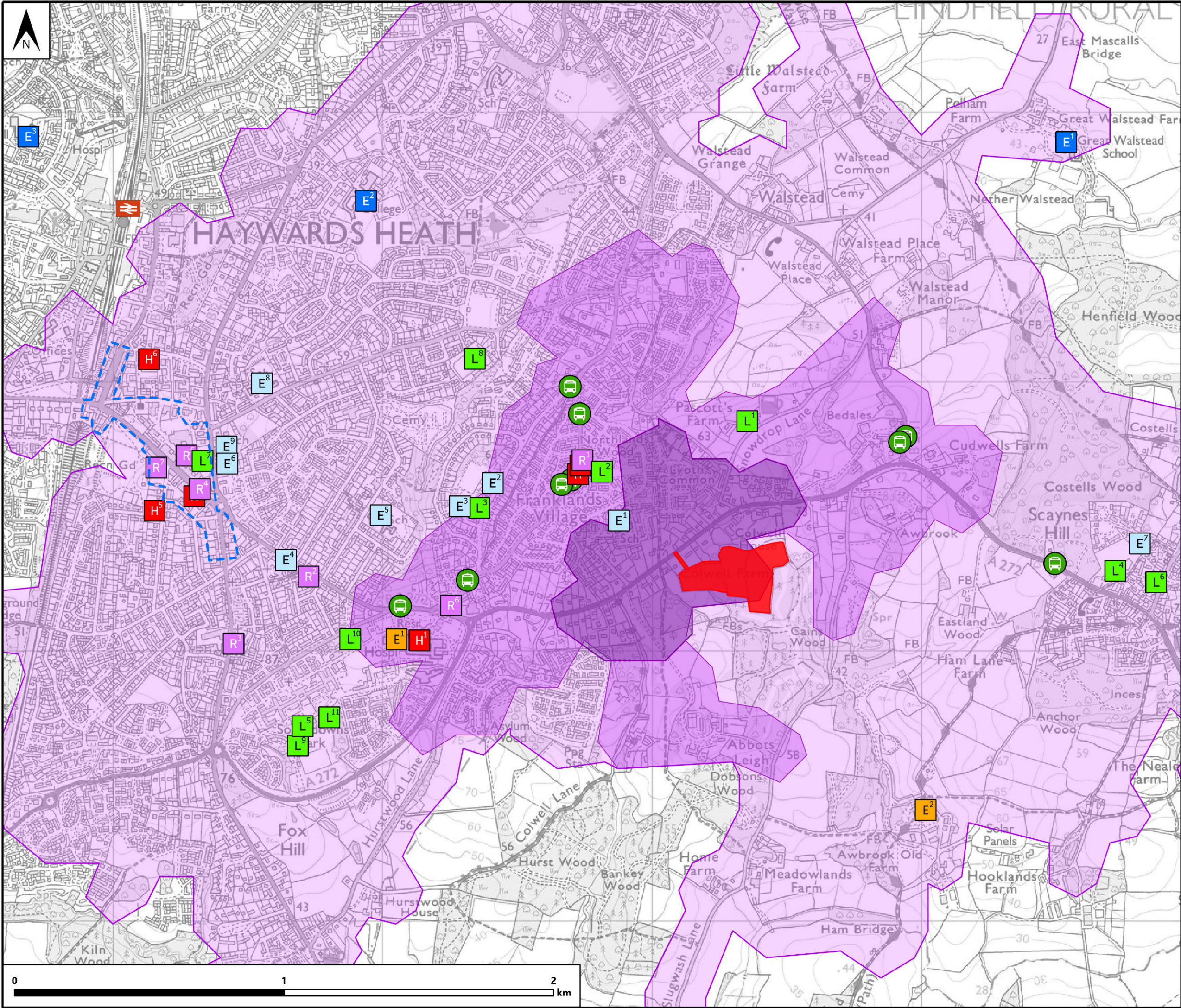
Title:

Site Location Plan

Project:

North Colwell Farm

Project Number:	Figure Number:	Revision:
ITL19597	Figure 1.1	-



Key

Site Boundary	Hanbury Stadium
Bus Stop	St Francis Rangers Football Club
Town Centre	St Francis Social and Sports Club
Haywards Heath Train Station	St Francis Bowls Club

Education

Northlands Wood Primary Academy	Tesco Express
Snowdrop House Montessori Nursery	The Co-op
Treetops Day Nursery	Sainsburys Local
Primrose House Montessori Nursery	Parade of Shops on South Road and St. Josephs Way
St Wilfrid's CoFe Primary School	Marks and Spencer
St Paul's Pre School	Shell Petrol Garage
St Augustine's CoFe Primary School	Iceland
Warden Park Primary Academy	
St Joseph's Catholic Primary School	Health Princess Royal Hospital and Emergency Room
Great Walstead School	Northlands Wood Practice
Oathall Community College	Kamsons Pharmacy
Haywards Heath College	Boots

Leisure

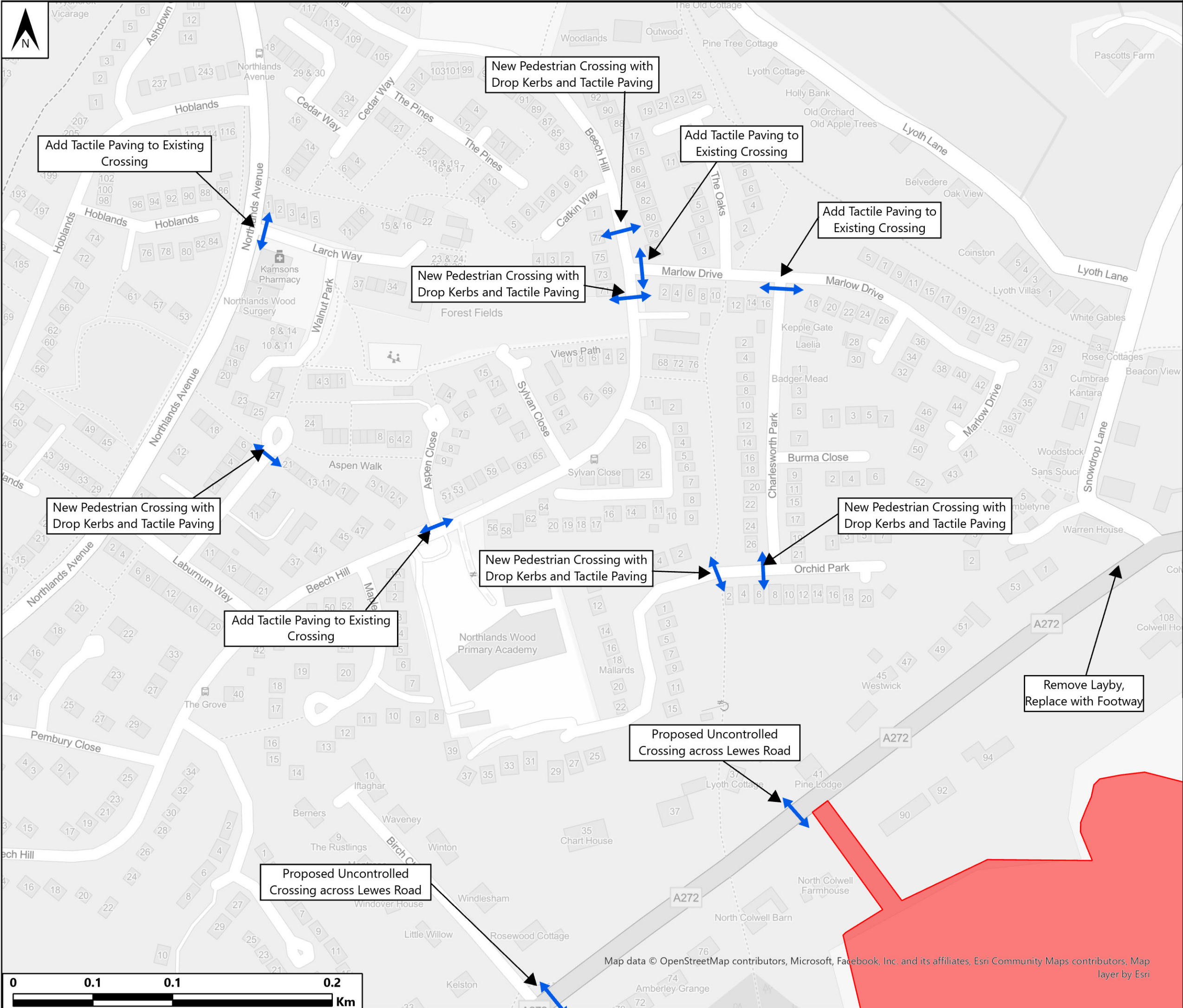
Snowdrop Inn Pub	S3 Dental
Walnut Park and Forest Fields Play area	Newton Heath Centre
Haywards Heath Scout Hut	
Scaynes Hill Recreation Ground	Employment Princess Royal Hospital
St Francis Swimming Pool	Ham Lane Businesses
St Augustine's Church	
Switch Gym	Walking Isochrones 0.8 km
	1.6 km
	3.2 km

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Basingstoke: 01256 898 366
Leeds: 0113 280 5805
London: 020 4531 3660
Manchester: 0161 830 2172
Solent: 0331 6300366

www.i-transport.co.uk

Title:	Local Facilities Plan	
Project:	North Colwell Farm	
Project Number:	Figure Number:	Revision:
ITL19597	Figure 6.1	-



Key
 Site Boundary
 Pedestrian Crossing

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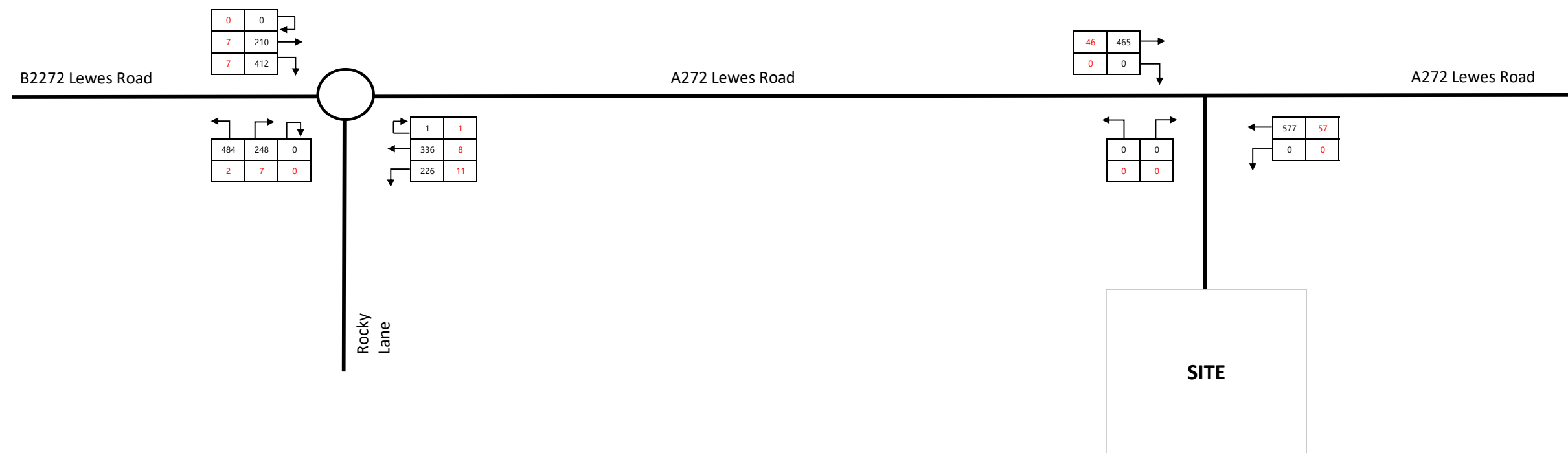


Basingstoke: 01256 898 366
Leeds: 0113 280 5805
London: 020 4531 3660
Manchester: 0161 830 2172
Solent: 0331 6300366
 www.i-transport.co.uk

Title: **Potential Off-site Improvements**

Project: **North Colwell Farm**

Project Number: ITL19597	Figure Number: Figure 6.2	Revision: -
------------------------------------	-------------------------------------	-----------------------



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North Colwell Farm

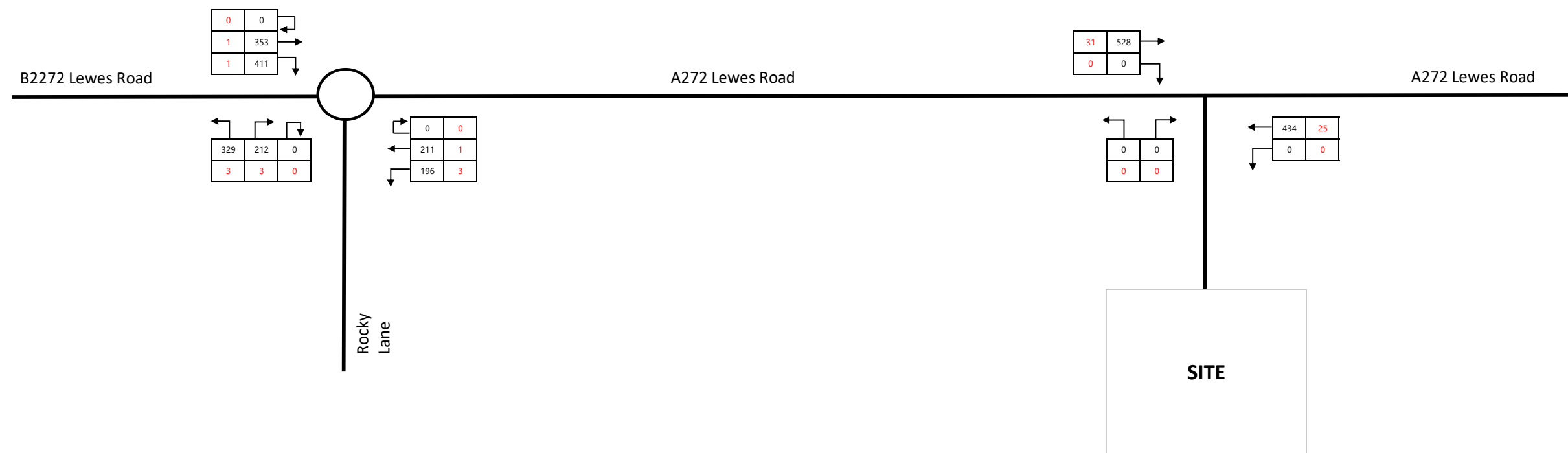
Figure - TF 1

2023 Base Year AM Peak Hour

KEY

500 = TOTAL
VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
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North Colwell Farm

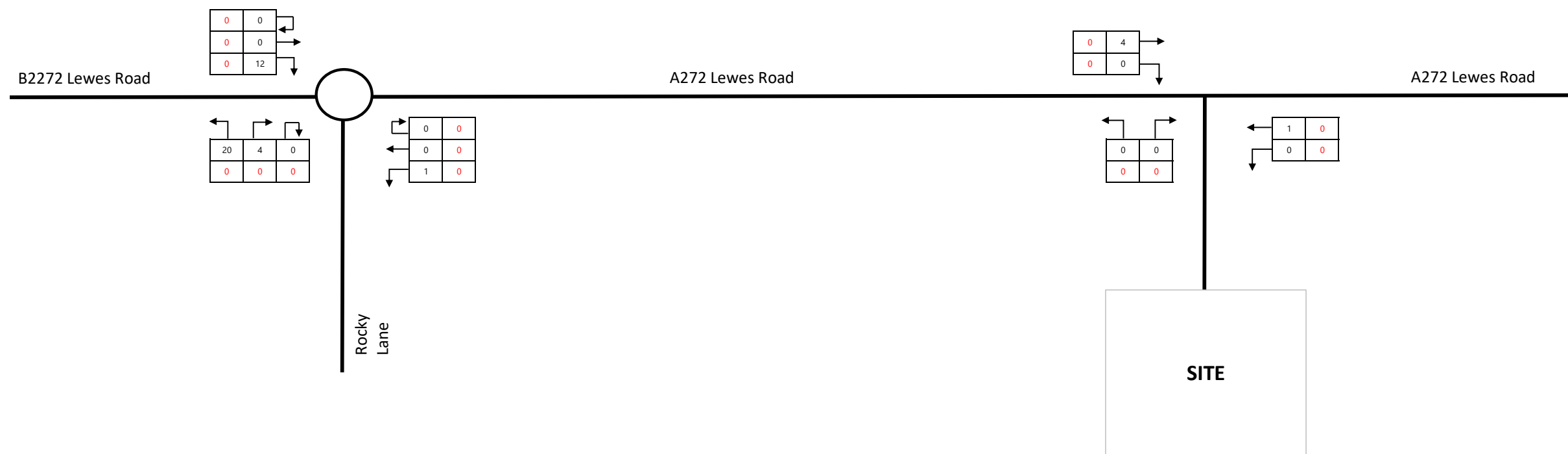
Figure - TF 2

2023 Base Year PM Peak Hour

KEY

500 = TOTAL VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

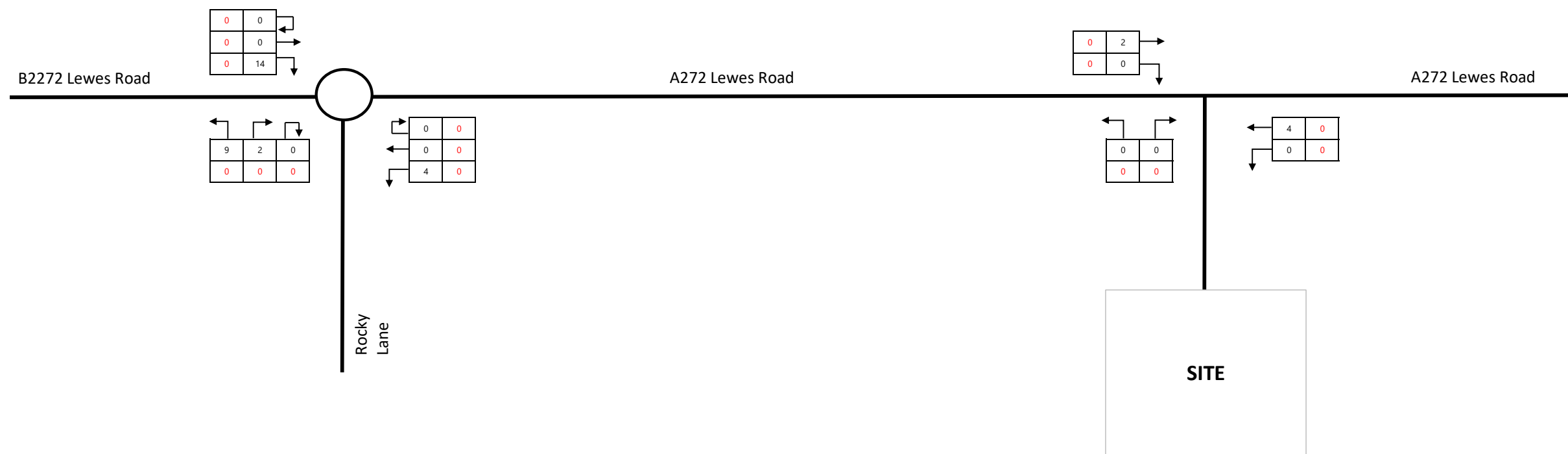
Figure - TF 3

Hurst Farm (345) Committed Developent AM Peak Hour

KEY

500 = TOTAL
VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

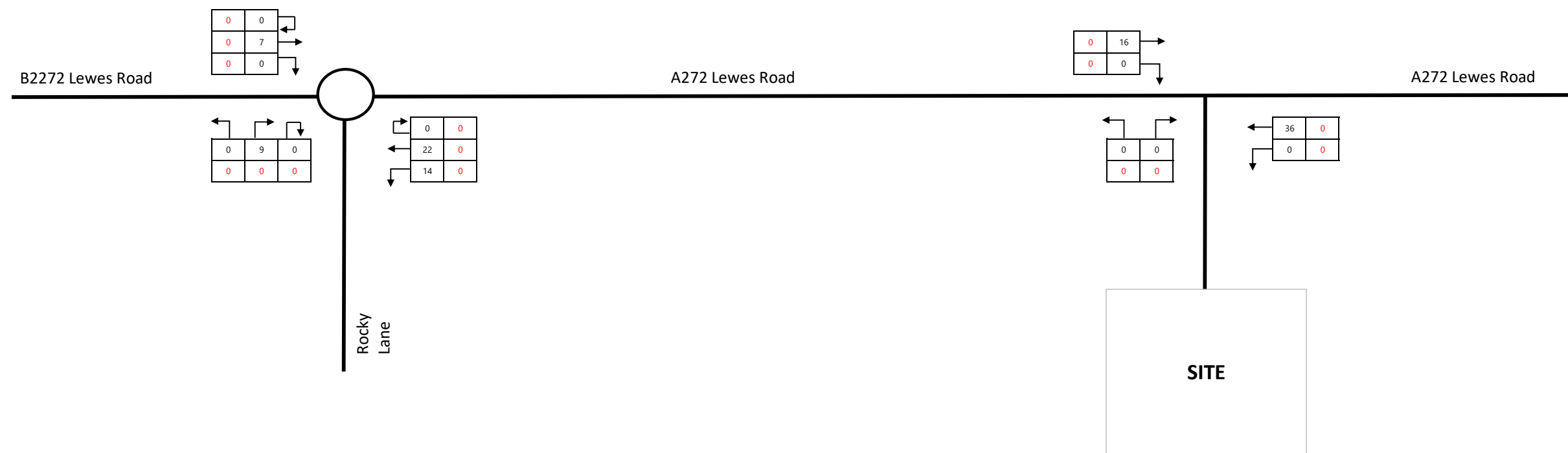
Figure - TF 4

Hurst Farm (345) Committed Developent PM Peak Hour

KEY

500 = TOTAL
VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

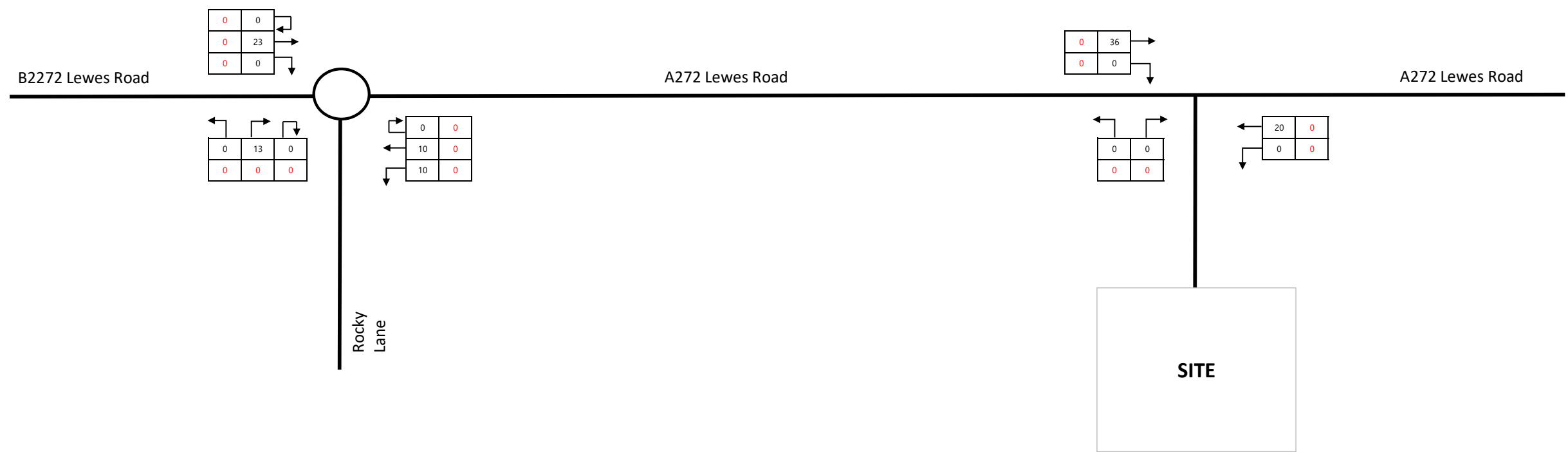
Figure - TF 5

Land South of Scamps Hill (200) Committed Developent AM Peak
Hour

KEY

500 = TOTAL
VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

Figure - TF 6

Land South of Scamps Hill (200) Committed Developent PM Peak
Hour

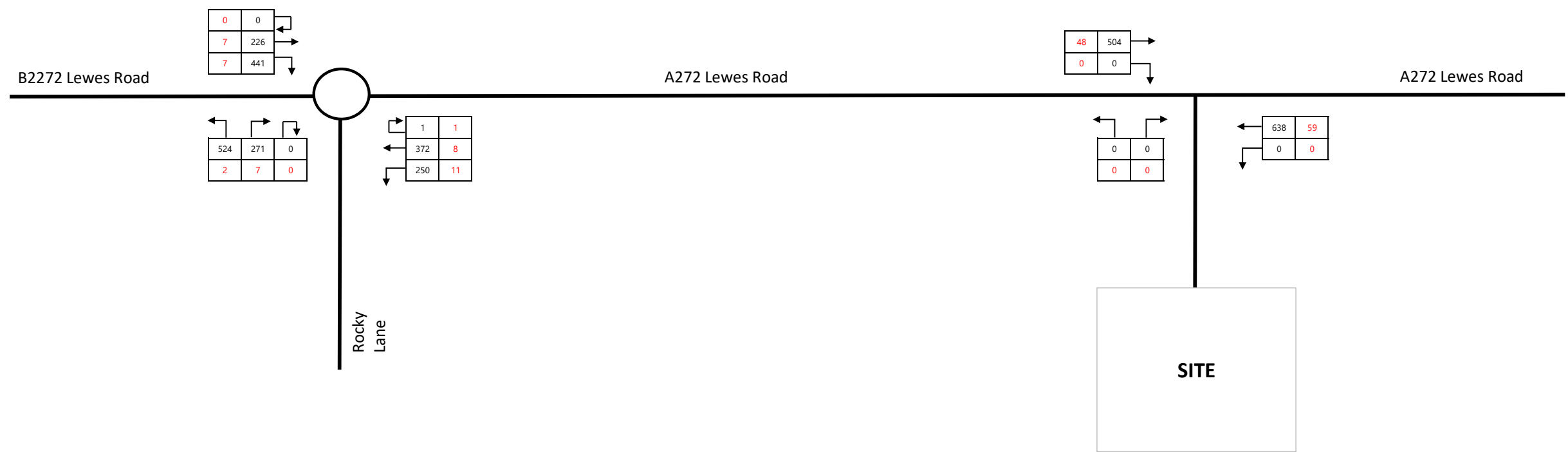
KEY

500

 = TOTAL
VEHICLES

25

 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

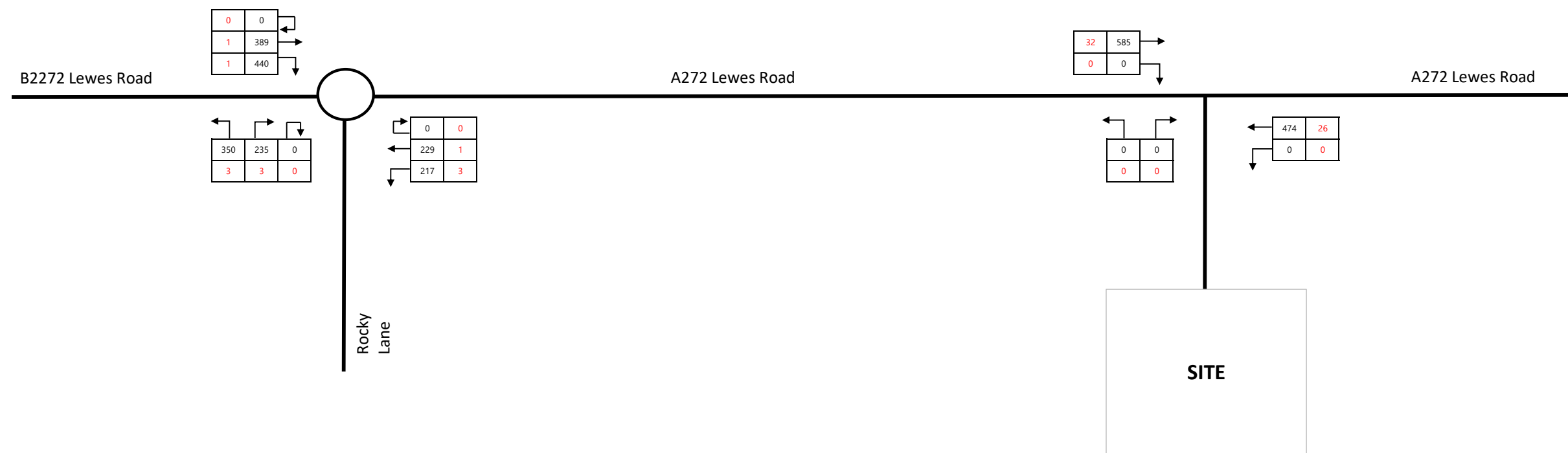
Figure - TF 7

2030 Future Base Year plus Committed Development AM Peak Hour

KEY

500 = TOTAL VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

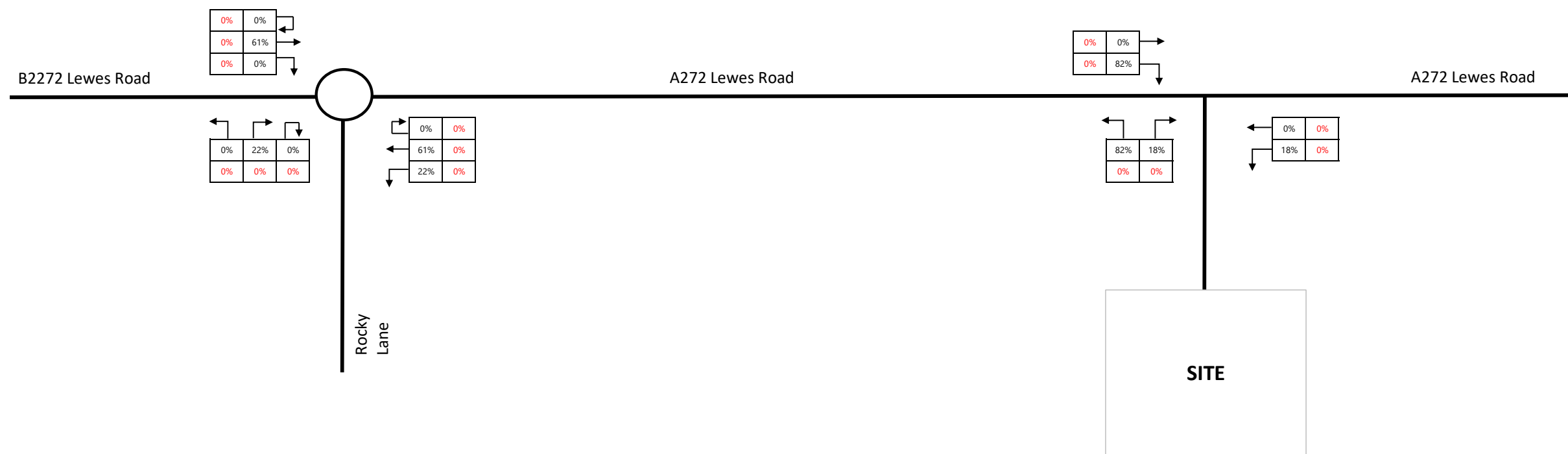
Figure - TF 8

2030 Future Base Year plus Committed Development PM Peak Hour

KEY

500 = TOTAL VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

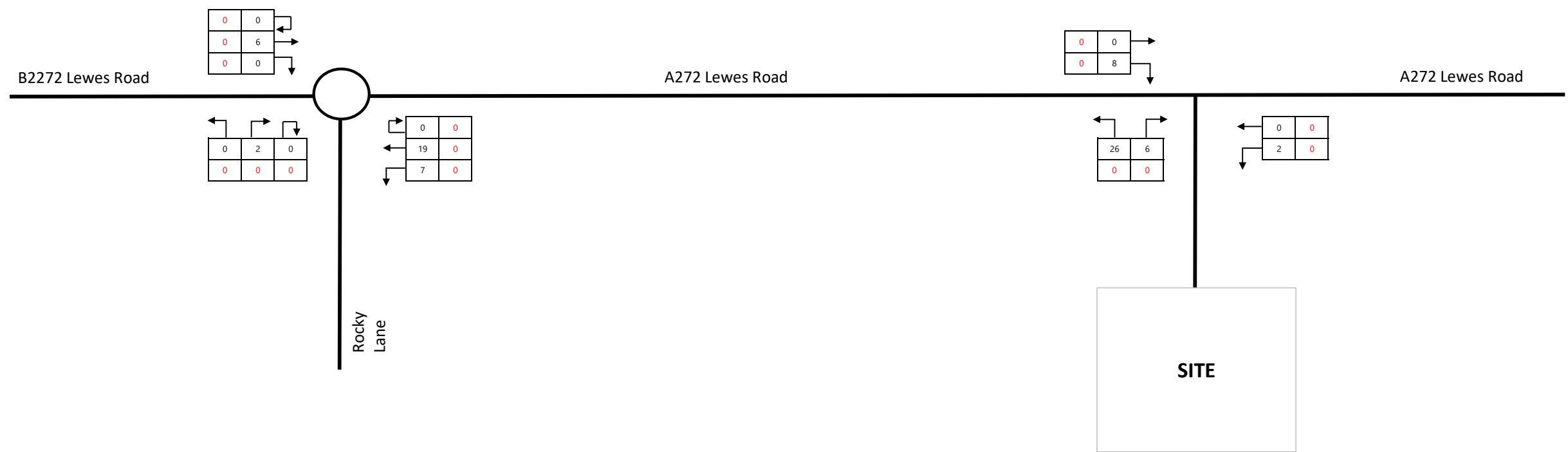
Figure - TF 9

Development Assignment Two-way

KEY

500 = TOTAL VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

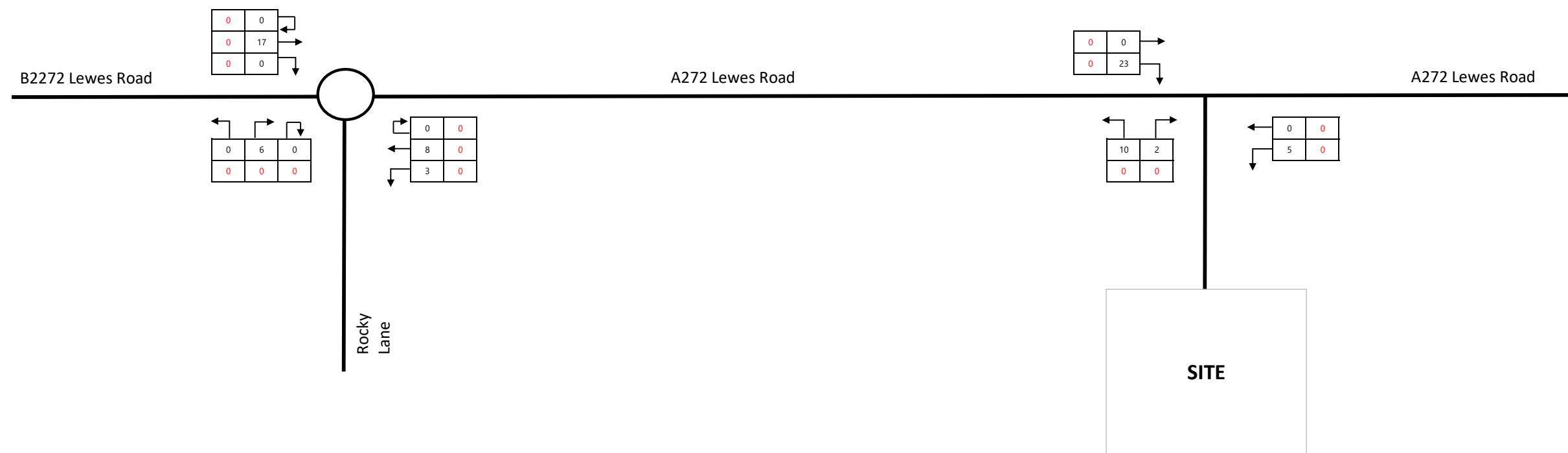
Figure - TF 10

Development Trips AM Peak Hour Two-way

KEY

500 = TOTAL VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

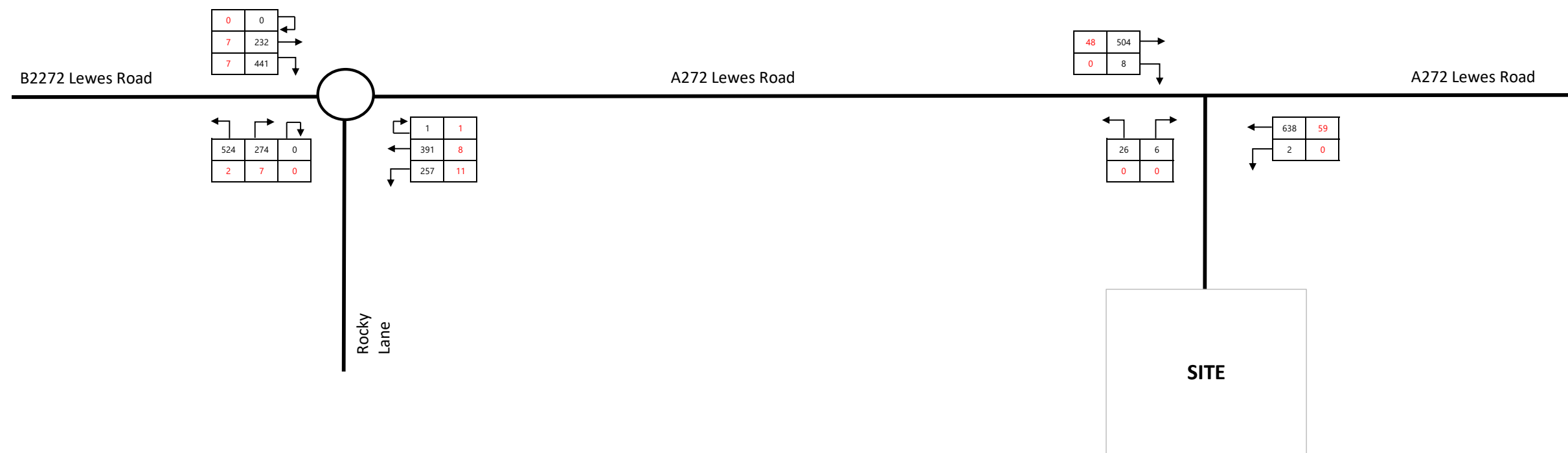
Figure - TF 11

Development Trips PM Peak Hour Two-way

KEY

500 = TOTAL VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
www.i-transport.co.uk

North Colwell Farm

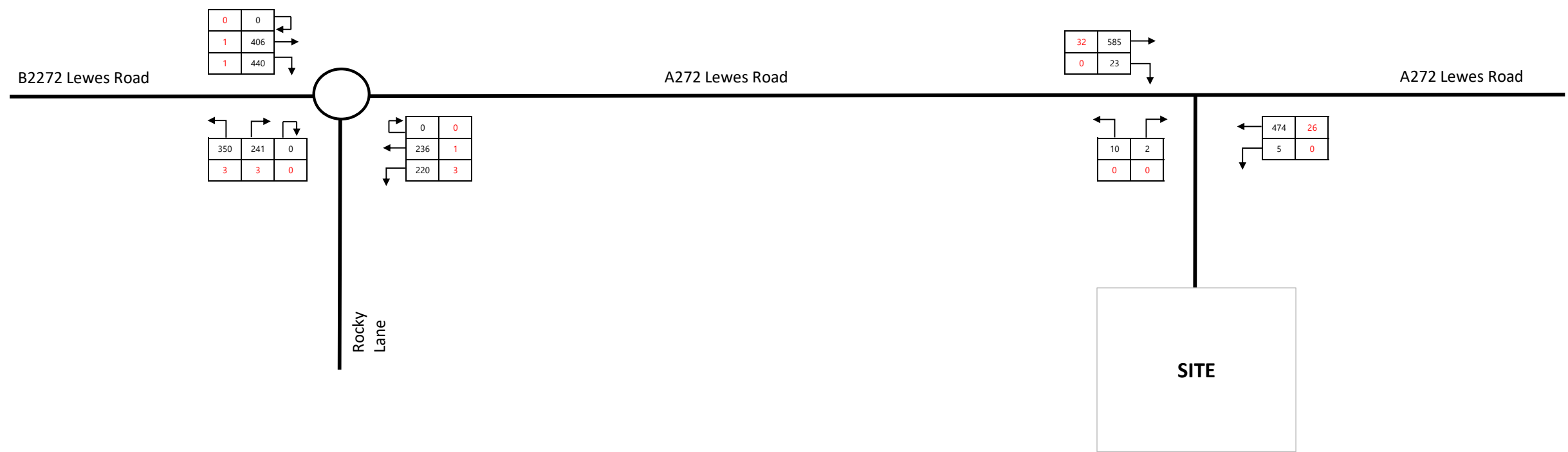
Figure - TF 12

2030 Future Base Year plus Committed Development and
Development AM Peak Hour

KEY

500 = TOTAL
VEHICLES

25 = HGVs



33 Queen Street, EC4R 1AP
Tel: 020 4531 3660
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North Colwell Farm

Figure - TF 13

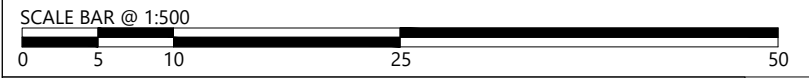
2030 Future Base Year plus Committed Development and
Development PM Peak Hour

KEY

500 = TOTAL
VEHICLES

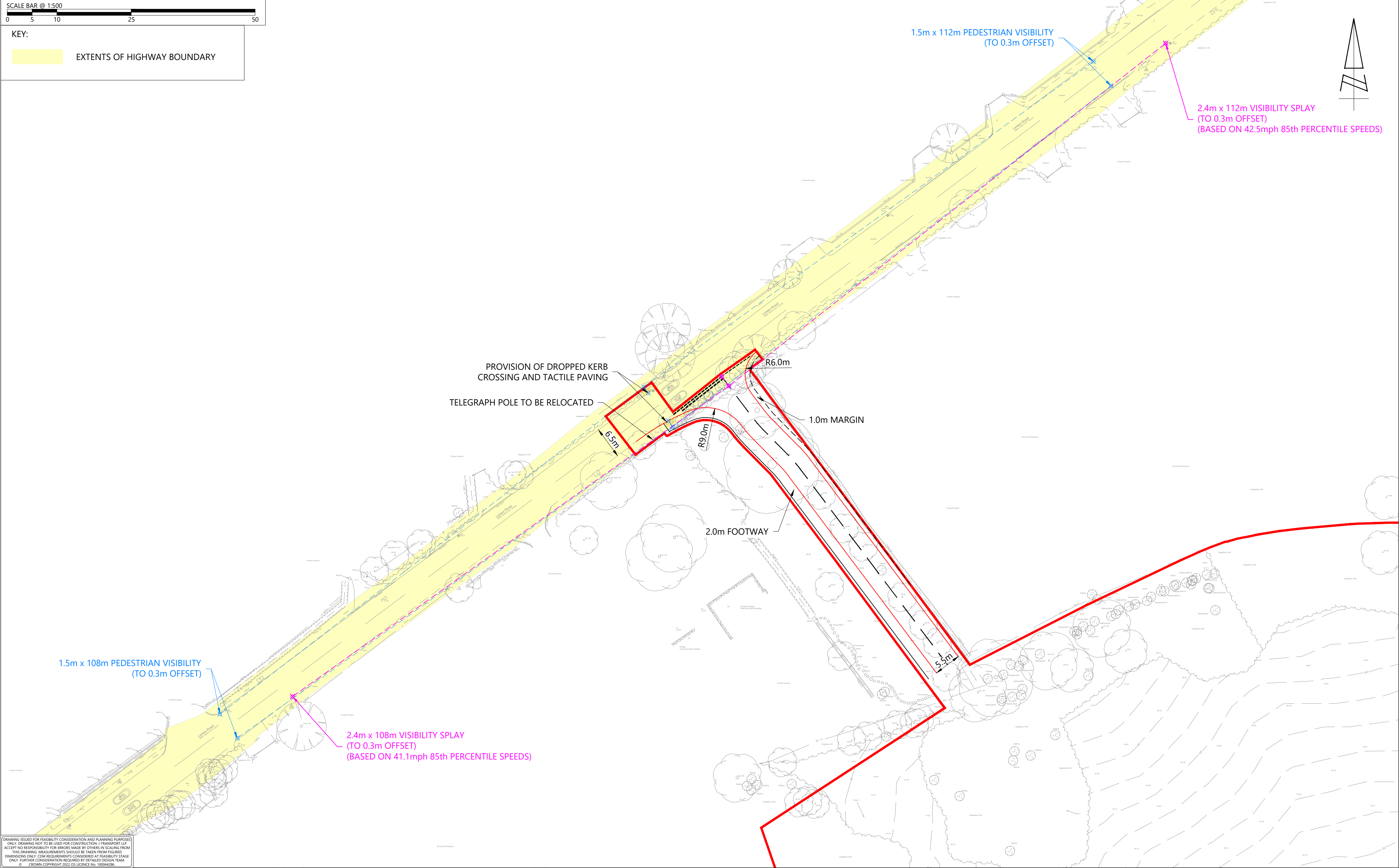
25 = HGVs

DRAWINGS



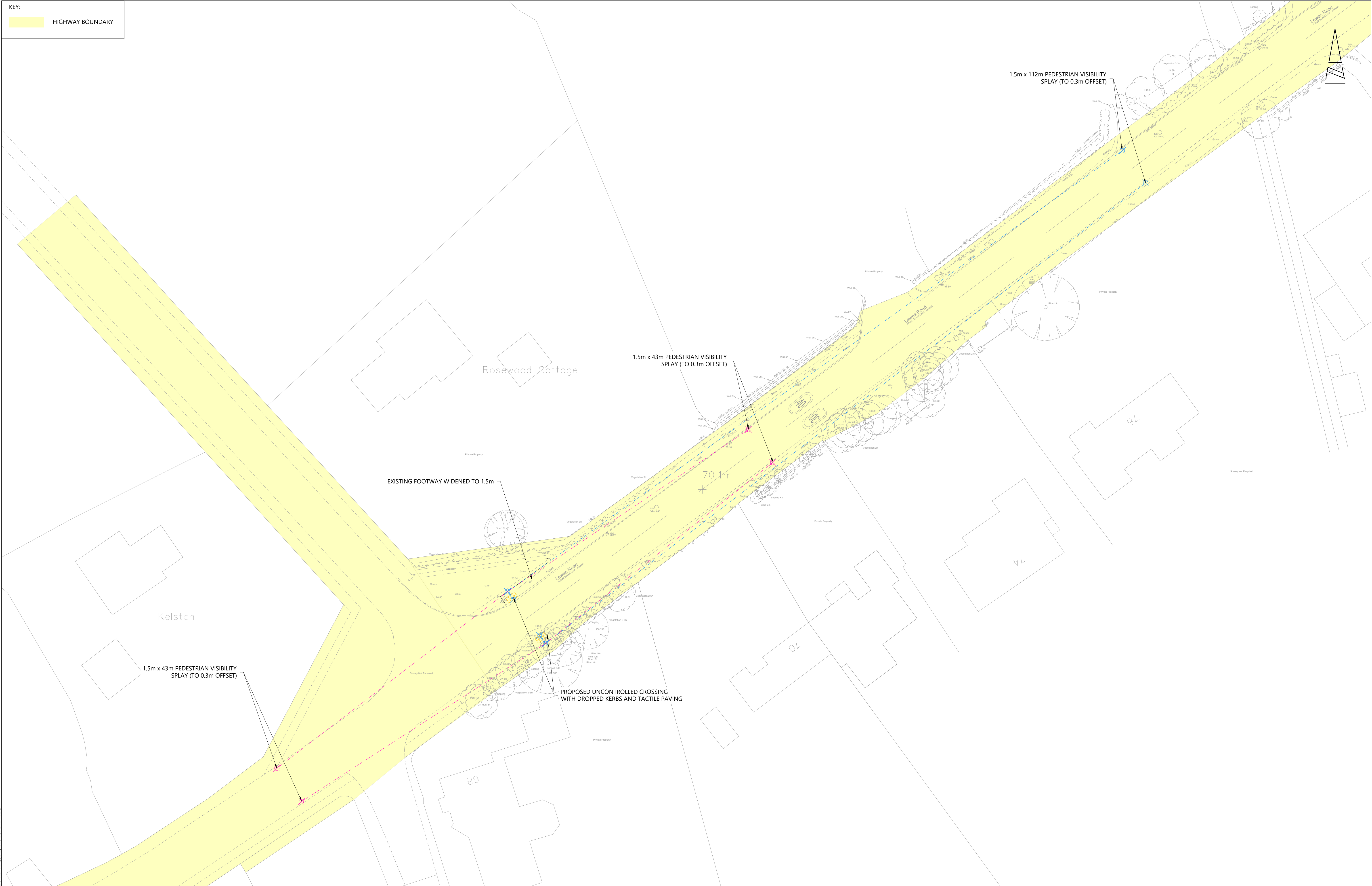
KEY:

EXTENTS OF HIGHWAY BOUNDARY



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 The Square, Basing View, Basingstoke, Hampshire, RG21 4EB Tel: 01256 898366 www.i-transport.co.uk				G16.12.24BCREDLINE BOUNDARY UPDATED F12.12.24BCREDLINE BOUNDARY UPDATED E10.12.24SHSITE ACCESS UPDATED TO RSA COMMENT D27.11.24JDRREDLINE BOUNDARY UPDATED C20.11.24JDSITE ACCESS UPDATED B11.07.24MMSITE ACCESS UPDATED A18.03.24SHSITE ACCESS UPDATED	BCMG BCMG BCMG BCMG BCMG BCMG BCMG	TITLE: PROPOSED SITE ACCESS ARRANGEMENT FROM LEWES ROAD (A272)		
REV	DATE	BY	DESCRIPTION	CHK	APD	PROJECT:	CLIENT:	
STATUS: FOR INFORMATION						LAND AT NORTH COLWELL FARM, LEWES ROAD, HAYWARDS HEATH	MILLER HOMES	
						DRAWING No: ITL19597-GA-004		REV: G





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SCALE BAR @ 1:250

0 1 2 5 10 25

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REV	DATE	BY	DESCRIPTION	CHK	APP	PROJECT	CUSTOMER
A	29.08.24	MM	UNCONTROLLED CROSSING RELOCATED	BC	MG	COLWELL FARM, LEWES ROAD, HAYWARDS HEATH	MILLER HOMES
STATUS			FOR INFORMATION				

TITLE: PROPOSED UNCONTROLLED CROSSING ACROSS LEWES ROAD

CLIENT: MILLER HOMES

DRAWN: MM	CHECKED: BC	APPROVED: MG
PROJECT No: ITB19597	SCALE @ A1: 1:250	DATE: 21.08.24
DRAWING No: ITB19597-GA-011		REV: A

APPENDIX A. Summary of WSCC Documents

West Sussex Transport Plan (April 2022)

The West Sussex Transport Plan is for the period of 2022 to 2036. It is aimed to set out holistic place-based strategies for improving transport networks. Transport Strategy specifically in the Mid-Sussex area Include:

- ***Improve the performance of the A272;***
- ***Improve public realm in Haywards Heath;***
- ***Increase space for active travel through infrastructure improvements on priority routes such as between Haywards Heath and Burgess Hill; and***
- ***Deliver priority cycle routes such as the Haywards Heath to Burgess Hill Route.***

West Sussex Active Travel Strategy (2024 to 2036)

The above West Sussex Transport Plan is the County's main policy on transport. The West Sussex Active Travel Strategy provides further detail on WSCC approach to active travel and how improvements will be prioritised for delivery. There are two objectives relevant to active travel:

- Objective 11: Reduce the need to travel by car by enabling local living.
- Objective 17: Extend and improve the network of active travel facilities so it is coherent and high quality enough to make active travel an attractive, safe option for short distance trips and to transport interchanges.

The Active Travel Strategy includes four aims:

- Aim 1: Support the decarbonisation of our transport network.
- Aim 2: Reduce the need to travel by motorised vehicles.
- Aim 3: Boost physical and mental health and wellbeing across the country.
- Aim 4: Support future economic prosperity and vibrant local communities.

Active travel infrastructure plans, including Local Cycling and Walking Infrastructure Plans (LCWIPs) within the County, will provide a strategic foundation for delivering active travel infrastructure in West Sussex.

New buildings should have facilities for cyclists including ample secure cycle parking. Opportunities to improve walking and cycling provision on the existing network should always be taken; for example, by widening footways or retrospectively adding crossings and protected cycle facilities.

West Sussex County Council: Guidance on Parking at New Development (September 2020)

Car and cycle parking standards are set out within this policy, and there is an accompanying parking spreadsheet to calculate the anticipated parking demand for new developments.

In order to take account of expected future growth in the demand for parking, growth factors have been identified using the Department for Transport's (DfT) National Trip End Model dataset (i.e. TEMPro) for a forecast year of 2033, as this broadly aligns with the end of current local plan periods. This has been used to provide expected levels of parking demand in 2033 for different Parking Behaviour Zones (PBZ).

The minimum cycle parking levels are set out in the below table.

Minimum levels of cycle parking provision

Type	Dwelling Size	Cycle Provision (per unit)
Houses	Up to 4 rooms (1 & 2 bed)	1 space
Houses	5+ rooms (3+ bed)	2 spaces
Houses	Multiple Occupation	1 space
Flat	Up to 3 rooms (1 & 2 bed)	0.5 spaces (if communal storage otherwise same as 1 & 2 bed house)
Flat	4+ rooms (3+ bed)	1 space

Car parking standards are set out in the below table for PBZ zone 3, within which the site is situated, as shown in **Image A.1**.

Residential Parking Demand (spaces per dwelling)

Number of Bedrooms	Number of Habitable Rooms	Number of Spaces (Zone 3)
1	1 to 3	0.9
2	4	1.3
3	5 to 6	1.8
4+	7 or more	2.5

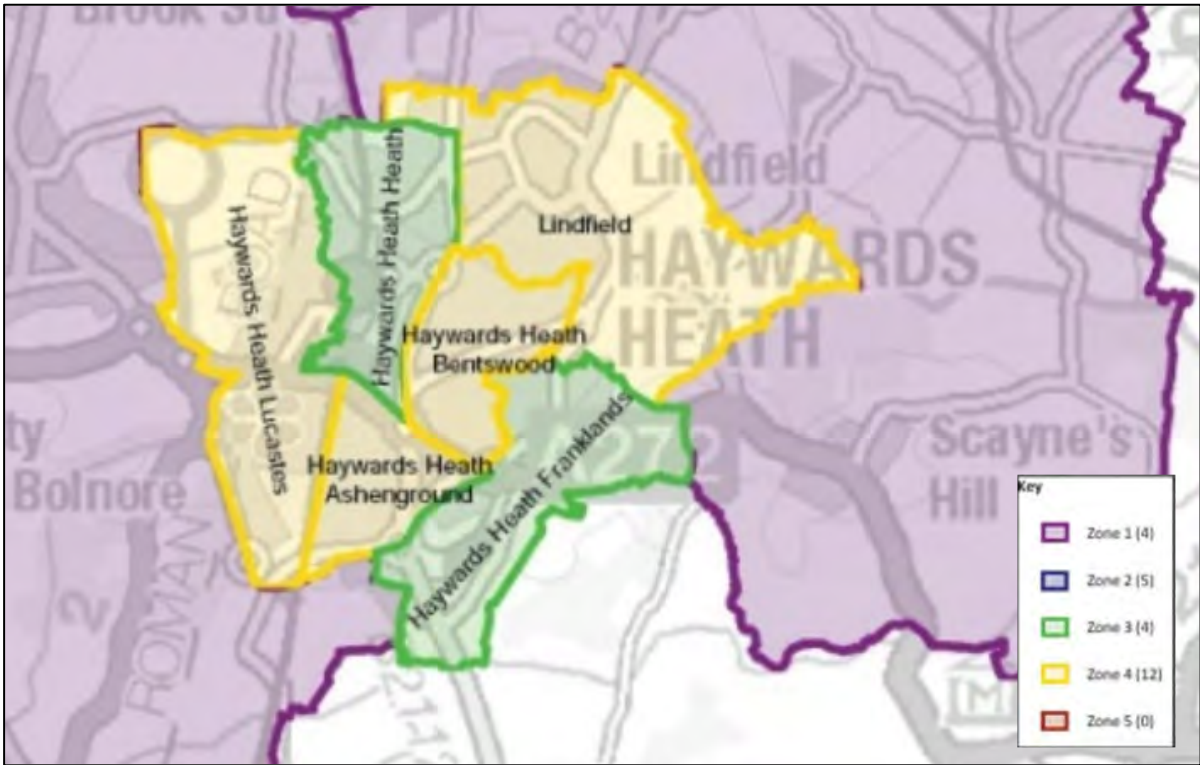
If garages are provided they should be at least 6m x 3m internally. If garages meet this requirement, they will be regarded as an allocated parking space of 0.5 and calculations of parking demand will take this into account.

EV charging – 20% active and the rest passive.

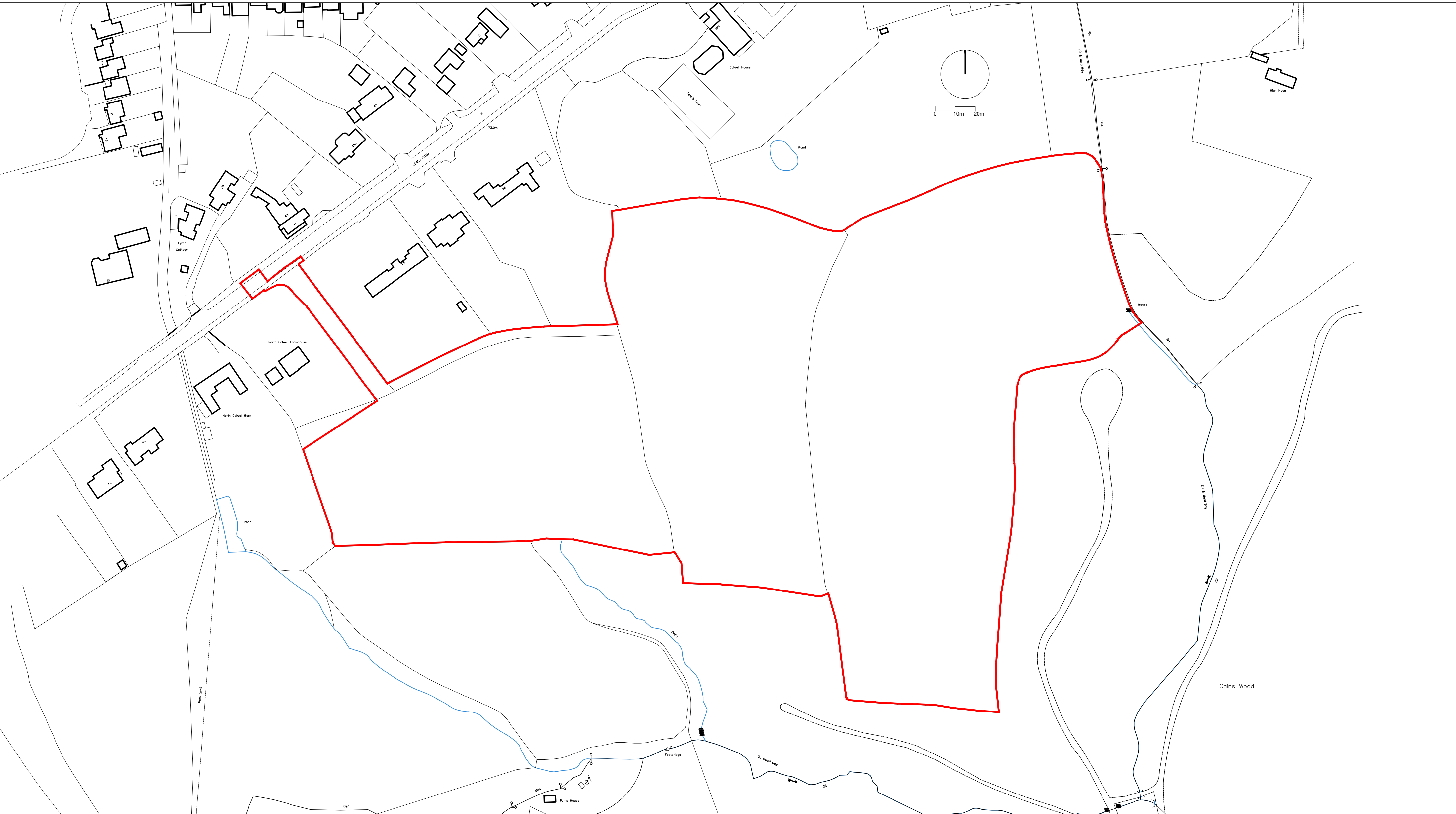
Disabled parking – minimum of 5% of the total number of parking spaces

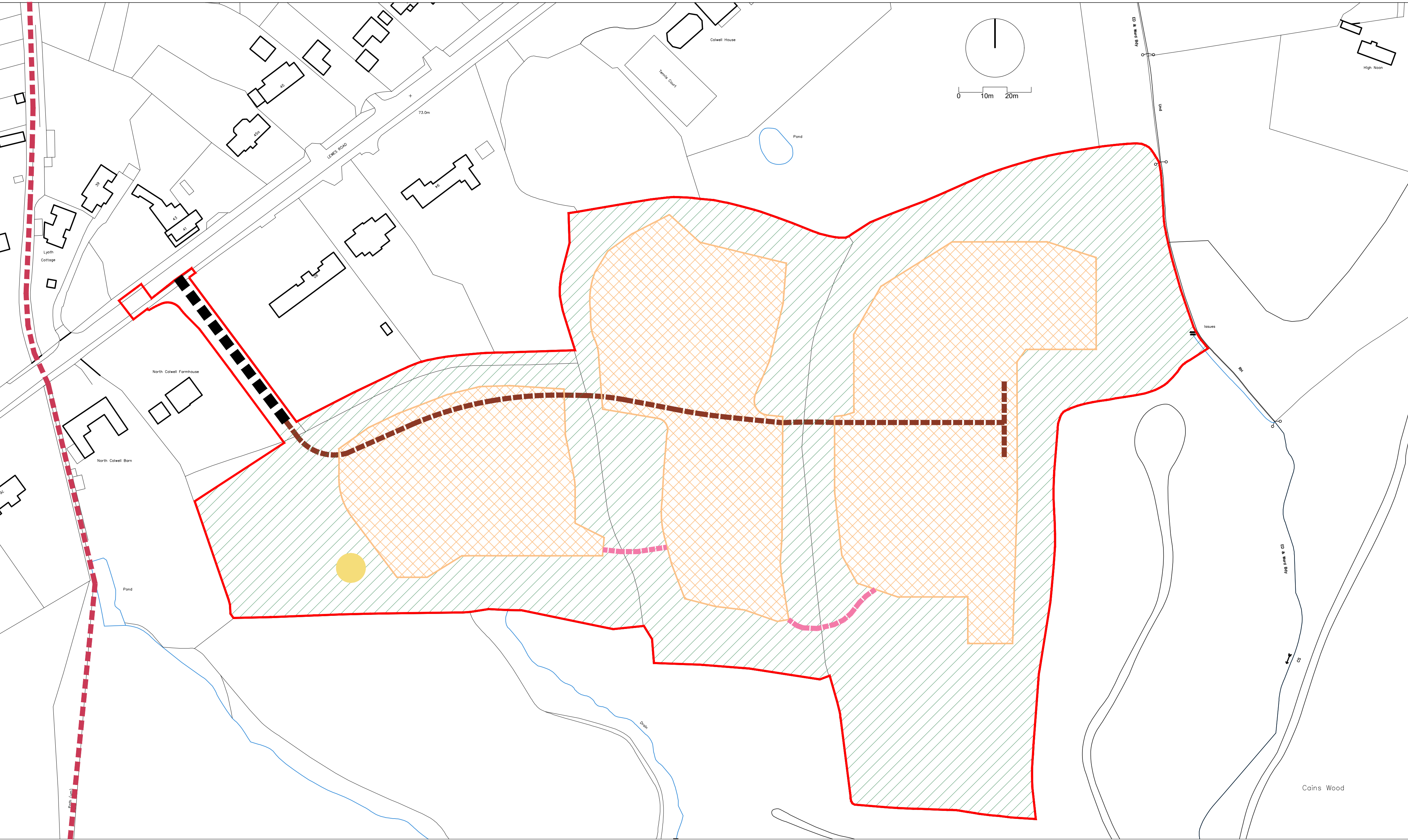
To accommodate potential variations in parking demand within a single ward, consideration may be given to varying the expected parking demand by 10% above or below, which is based on the average variation in demand between PBZs.

Image A.1: Parking Zones – Haywards Heath



APPENDIX B. Red Line Plan, Illustrative Site Layout and Parameter Plan





KEY

-  Site boundary
-  Supporting infrastructure including public open space, play areas, informal kickabout area, strategic landscaping and sustainable drainage
-  Residential development area including residential use, vehicular routes, pedestrian/cycle routes, car parking, private amenity space and associated landscaping
-  Proposed vehicular access
-  Existing Public Right of Way
-  Proposed tree lined street
-  Proposed pedestrian link
-  Indicative play area location



CLIENT:
PROJECT TITLE:
PROJECT NO:

LAND AT NORTH COLWELL FARM, HAYWARDS HEATH 02.38

DRAWING TITLE:
DRAWING NO:
SCALE:

PARAMETER PLAN
02.38(01)01
1:1000 @ A2



APPENDIX C. Personal Injury Accident Data

A272 – Lewes Road – I-Transport

Collision report 01/10/2018 – 30/09/2023

Date produced
13 December 2023

This report is marked as **Official – Sensitive**

- The information included in this report is provided for analysis purposes and is for the exclusive use of the applicant, the information must only be used for the purposes for which it has been obtained.
- The data has been provided by Sussex Police and should not be transmitted to any other person without their consent, including reports for the general public.
- Be aware that any improper disclosure, copying, distribution or use of the contents of this information is prohibited and criminal proceedings may follow.

Sussex Safer Roads
P A R T N E R S H I P

Safer Roads
Safer Communities
Sharing the Responsibility

Data regarding personal injury collisions is recorded by Sussex Police in accordance with the DfT Stats 19 requirements. The data is subsequently used by Sussex Safer Roads Partnership for monitoring and planning. While every effort is made to ensure that this data is accurate, it is subject to change should further information become available.

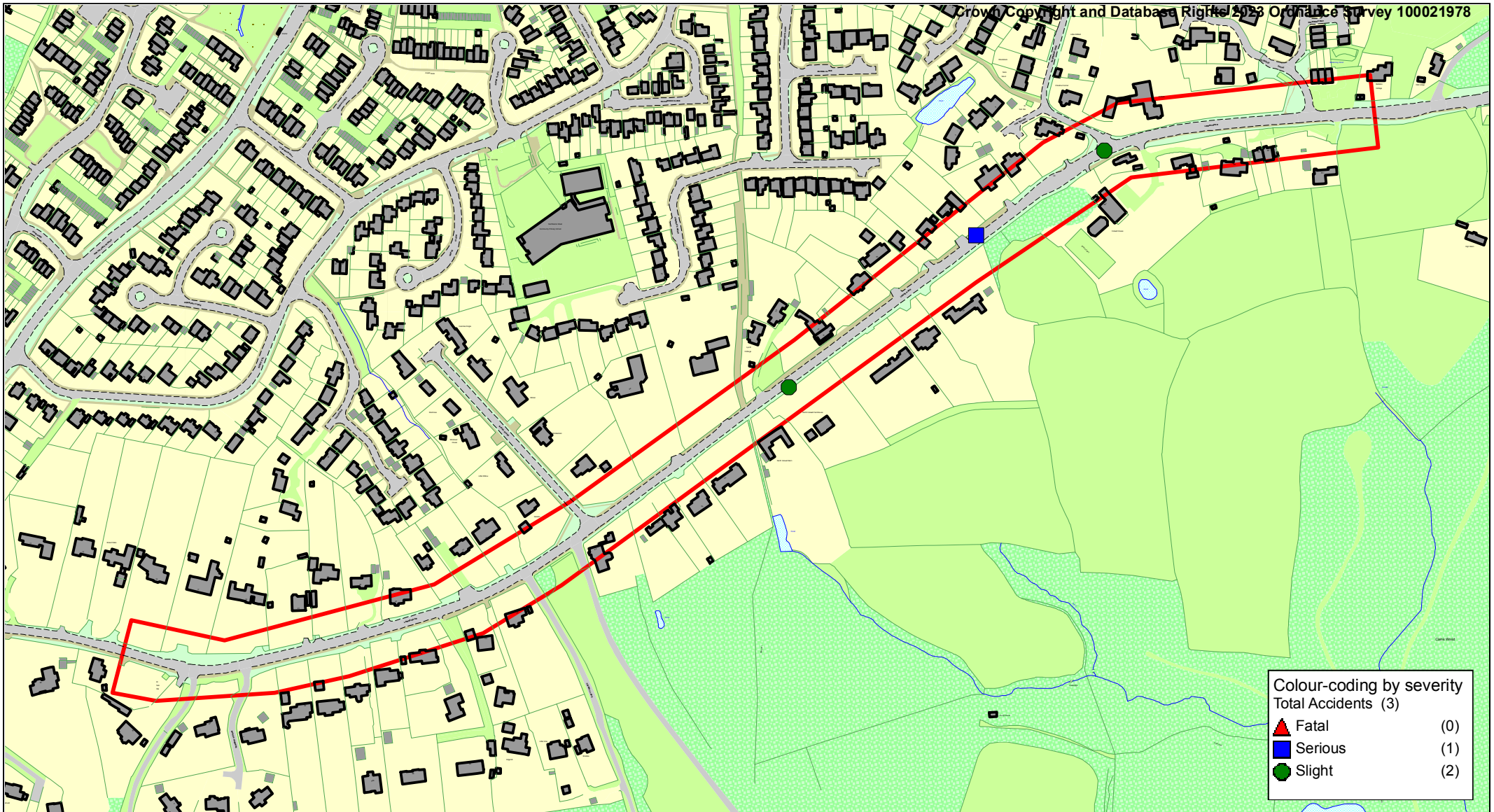
This data may not be fully validated and while every effort is made to ensure its accuracy any statistics provided may not match those published elsewhere.

Sussex Safer Roads Partnership does not hold collision data either where there are no recorded casualties or the incident has not been reported to Sussex Police.

For further information:

web: www.sussexsaferroads.gov.uk

email: data@sussexsaferroads.gov.uk



Sussex Safer Roads
P A R T N E R S H I P

A272 Lewes Road
Collision Dates 01/10/2018 - 30/09/2023
i-Transport

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SCALE	1 : 4000
DATE	13/12/2023
DRAWING No.	
DRAWN BY	

Details of Personal Injury Accidents for Period - 01/10/2018 to 30/09/2023 (60) months

Selection: Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons - temp 2023 ("A272 Lewes Road
(iTransport)")

Police Ref.	Day	Location Description	Vehicles				Casualties			
			Veh No / Type / Manv / Dir / Class				Sex / Age / Sev			
Road No.	Date									
2nd Road No.	Time									
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

Selected Polygon:A272 Lewes Road (iTransport)

20928071	Friday	LEWES ROAD (A272) NEAR	Veh 1	Car	Turning right	NW ^{to} SW				
	07/02/2020	JUNCTION WITH LYOTH LANE	Veh 2	Car	Going ahead	NE ^{to} SW Dri	M	23	Slight	
R1: A 272	1724hrs									
R2: U	Darkness: no street lighting									
E 535,298	Wet/Damp									
N 123,525	Fine with high winds									
	40 mph									

Causation Factor:

- 1st: Failed to judge other persons path or speed
2nd: Failed to look properly
3rd: Aggressive driving
4th: Careless/Reckless/In a hurry

Participant:

- Vehicle 1
Vehicle 1
Vehicle 2
Vehicle 2

Confidence:

- Possible
Possible
Possible
Possible

VEHICLE 1, GIVING WAY AT THE JUNCTION OF THE A272 HAS ENTERED INTO THE MAIN ROAD PULLING INTO THE PATH OF V2. THERE ARE ALLEGATIONS AND CONFESSION FROM THE DRIVER OF V2 THAT HE WAS EXCEEDING THE 40MPH LIMIT

211033730	Wednesday	LEWES ROAD (A272) - 170 METRES	Veh 1	Car	Going ahead	NE ^{to} SW				
	07/04/2021	FROM JUNCTION WITH BIRCH ROAD	Veh 2	Car	Stopping	NE ^{to} SW Dri	M	23	Slight	
R1: A 272	1537hrs		Veh 3	Car	Stopping	NE ^{to} SW				
	Daylight:street lights present		Veh 4	Car	Stopping	NE ^{to} SW				
E 535,059	Dry									
N 123,346	Unknown									
	30 mph									

V1 HAS DRIVEN INTO THE REAR OF V2 WHO HAD SLOWED DOWN DUE TO TRAFFIC IN FRONT SLOWING DOWN. V2 HAS THEN GON INTO V3 WHO HAS THEN GONE INTO V4.

211124546	Tuesday	LEWES ROAD (A272) - 122 METRES	Veh 1	Car	Going ahead	SW ^{to} NE Dri	F	43	Serious	
	21/12/2021	FROM JUNCTION WITH LYOTH LANE								
R1: A 272	0916hrs									
	Daylight:street lights present									
E 535,201	Dry									
N 123,461	Fine without high winds									
	40 mph									

Causation Factor:

- 1st: Illness or disability, mental or physical

Participant:

- Vehicle 1

Confidence:

- Very Likely

POSSIBLE MEDICAL EPISODE AT THE WHEEL. A STRAIGHT SINGLE CARRIAGE WAY WITH A 40 MPH SPEED LIMIT, THE VEHICLE H/ SWERVED FROM THE LEFT-HAND LANE AND MOUNTED THE GRASS VERGE ON THE OPPOSITE SIDE OF THE ROAD. THE VEHICLE HAS THEN CONTINUED ALONG THE VE RGE BEFORE HITTING THE HEDGES THAT BORDER THE ROAD.

Accidents between dates

01/10/2018 and 30/09/2023

(60) months

Selection:

Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -temp 2023 ("A272 Lewes Road
(iTransport)")

Selected Polygon:A272 Lewes Road (iTransport)

Date	Time	Weather	Police_ref	Casualties	Junct_ctrl	Junct_det
07/02/2020	1724	Fine with high winds	20928071	1	Give way or Uncontrolled	T & Stag Jct
Location: LEWES ROAD (A272) NEAR JUNCTION WITH LYOTH LANE						

Vehicles:

Type	Manvres	Impact	Junct_loc
Car	Turning right	Nearside	Entering main road
Car	Going ahead other	Front	Jct Approach

Casualties:

Class	Severity
Driver / Rider	Slight

Accidents between dates

01/10/2018 and 30/09/2023

(60) months

Selection:

Notes:

Selected using Pre-defined Query : ; Refined using Accidents
within selected Polygons -temp 2023 ("A272 Lewes Road
(iTransport)")

Date	Time	Weather	Police_ref	Casualties	Junct_ctrl	Junct_det
07/04/2021	1537	Unknown	211033730	1	Not applicable	Not within 20M
Location: LEWES ROAD (A272) - 170 METRES FROM JUNCTION WITH BIRCH ROAD						

Vehicles:

Type	Manvres	Impact	Junct_loc
Car	Going ahead other	Front	Not at, or within 20M of Jct
Car	Stopping	Back	Not at, or within 20M of Jct
Car	Stopping	Back	Not at, or within 20M of Jct
Car	Stopping	Back	Not at, or within 20M of Jct

Casualties:

Class	Severity
Driver / Rider	Slight

Date	Time	Weather	Police_ref	Casualties	Junct_ctrl	Junct_det
21/12/2021	0916	Fine without high winds	211124546	1	Not applicable	Not within 20M
Location: LEWES ROAD (A272) - 122 METRES FROM JUNCTION WITH LYOTH LANE						

Vehicles:

Type	Manvres	Impact	Junct_loc
Car	Going ahead other	Front	Not at, or within 20M of Jct

Casualties:

Class	Severity
Driver / Rider	Serious

Accidents between dates 01/10/2018 and 30/09/2023 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -temp 2023 ("A272 Lewes Road (iTransport)")

Notes:

Number of records in selection: 3

APPENDIX D. TRICS Output

i-Transport LLP 85 Gresham Street London

Licence No: 236603

Filtering Summary

Land Use	03/A	RESIDENTIAL/HOUSES PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	50-250 DWELLS	
Actual Trip Rate Calculation Parameter Range	50-250 DWELLS	
Date Range	Minimum: 01/01/15	Maximum: 29/06/23
Parking Spaces Range	All Surveys Included	
Parking Spaces Per Dwelling Range:	All Surveys Included	
Bedrooms Per Dwelling Range:	All Surveys Included	
Percentage of dwellings privately owned:	All Surveys Included	
Days of the week selected	Tuesday	7
	Wednesday	5
	Thursday	6
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	2
	Edge of Town	16
Inclusion of Servicing Vehicles Counts	Servicing vehicles Included	9 - Selected
	Servicing vehicles Excluded	21 - Selected
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,001 to 5,000	3
	5,001 to 10,000	5
	10,001 to 15,000	4
	15,001 to 20,000	4
	20,001 to 25,000	2
Population <5 Mile ranges selected	5,001 to 25,000	3
	25,001 to 50,000	2
	50,001 to 75,000	3
	75,001 to 100,000	4
	100,001 to 125,000	1
	125,001 to 250,000	3
	250,001 to 500,000	2
Car Ownership <5 Mile ranges selected	0.6 to 1.0	3
	1.1 to 1.5	14
	1.6 to 2.0	1
PTAL Rating	No PTAL Present	18

Calculation Reference: AUDIT-236603-231214-1251

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	3 days
	HC HAMPSHIRE	3 days
	KC KENT	2 days
	SP SOUTHAMPTON	1 days
	WS WEST SUSSEX	3 days
04	EAST ANGLIA	
	NF NORFOLK	5 days
09	NORTH	
	DH DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

i-Transport LLP 85 Gresham Street London

Licence No: 236603

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 50 to 250 (units:)
Range Selected by User: 50 to 250 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 29/06/23

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday 7 days
Wednesday 5 days
Thursday 6 days

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

Selected survey types:

Manual count 18 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre) 2
Edge of Town 16

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone 15
Out of Town 2
No Sub Category 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 9 days - Selected
Servicing vehicles Excluded 21 days - Selected

Secondary Filtering selection:**Use Class:**

C3 18 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	5 days
10,001 to 15,000	4 days
15,001 to 20,000	4 days
20,001 to 25,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	2 days
50,001 to 75,000	3 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	14 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	14 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	18 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	DH-03-A-01	SEMI DETACHED	DURHAM
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
2	ES-03-A-05	MIXED HOUSES & FLATS	EAST SUSSEX
	RATTLE ROAD		
	NEAR EASTBOURNE		
	STONE CROSS		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	99	
	Survey date: WEDNESDAY	05/06/19	Survey Type: MANUAL
3	ES-03-A-07	MIXED HOUSES & FLATS	EAST SUSSEX
	NEW ROAD		
	HAILSHAM		
	HELLINGLY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	91	
	Survey date: THURSDAY	07/11/19	Survey Type: MANUAL
4	ES-03-A-08	MIXED HOUSES & FLATS	EAST SUSSEX
	WRESTWOOD ROAD		
	BEXHILL		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	110	
	Survey date: WEDNESDAY	12/10/22	Survey Type: MANUAL
5	HC-03-A-24	MIXED HOUSES & FLATS	HAMPSHIRE
	STONEHAM LANE		
	EASTLEIGH		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	243	
	Survey date: WEDNESDAY	10/11/21	Survey Type: MANUAL
6	HC-03-A-27	MIXED HOUSES	HAMPSHIRE
	DAIRY ROAD		
	ANDOVER		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	73	
	Survey date: TUESDAY	16/11/21	Survey Type: MANUAL
7	HC-03-A-29	MIXED HOUSES & FLATS	HAMPSHIRE
	CROW LANE		
	RINGWOOD		
	CROW		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	195	
	Survey date: THURSDAY	30/06/22	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	KC-03-A-03 HYTHE ROAD ASHFORD WILLESBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 51 Survey date: THURSDAY 14/07/16	MIXED HOUSES & FLATS	KENT	Survey Type: MANUAL
9	KC-03-A-10 HEADCORN ROAD STAPLEHURST Edge of Town Residential Zone Total No of Dwellings: 106 Survey date: TUESDAY 09/05/23	MIXED HOUSES	KENT	Survey Type: MANUAL
10	NF-03-A-25 WOODFARM LANE GORLESTON-ON-SEA Edge of Town Residential Zone Total No of Dwellings: 55 Survey date: TUESDAY 21/09/21	MIXED HOUSES & FLATS	NORFOLK	Survey Type: MANUAL
11	NF-03-A-33 LONDON ROAD ATTLEBOROUGH Edge of Town Residential Zone Total No of Dwellings: 143 Survey date: THURSDAY 29/09/22	MIXED HOUSES	NORFOLK	Survey Type: MANUAL
12	NF-03-A-34 NORWICH ROAD SWAFFHAM Edge of Town Residential Zone Total No of Dwellings: 80 Survey date: TUESDAY 27/09/22	MIXED HOUSES	NORFOLK	Survey Type: MANUAL
13	NF-03-A-36 LONDON ROAD WYMONDHAM Edge of Town Out of Town Total No of Dwellings: 75 Survey date: THURSDAY 29/09/22	MIXED HOUSES	NORFOLK	Survey Type: MANUAL
14	NF-03-A-39 HEATH DRIVE HOLT Edge of Town No Sub Category Total No of Dwellings: 212 Survey date: TUESDAY 27/09/22	MIXED HOUSES	NORFOLK	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	SP-03-A-02	MIXED HOUSES & FLATS	SOUTHAMPTON
	BARNFIELD WAY		
	NEAR SOUTHAMPTON		
	HEDGE END		
	Edge of Town		
	Out of Town		
	Total No of Dwellings:	250	
	Survey date: TUESDAY	12/10/21	Survey Type: MANUAL
16	WS-03-A-08	MIXED HOUSES	WEST SUSSEX
	ROUNDSTONE LANE		
	ANGMERING		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	180	
	Survey date: THURSDAY	19/04/18	Survey Type: MANUAL
17	WS-03-A-14	MIXED HOUSES	WEST SUSSEX
	TODDINGTON LANE		
	LITTLEHAMPTON		
	WICK		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	117	
	Survey date: WEDNESDAY	20/10/21	Survey Type: MANUAL
18	WS-03-A-17	MIXED HOUSES & FLATS	WEST SUSSEX
	SHOPWHYKE ROAD		
	CHICHESTER		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	86	
	Survey date: WEDNESDAY	01/03/23	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
HC-03-A-23	Next to rail station
NF-03-A-35	Parking per dwelling too high
SF-03-A-09	covid-19
SF-03-A-10	covid-19
ST-03-A-07	parking per dwelling too high
WS-03-A-12	covid-19
WS-03-A-13	covid-19

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 1.61

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.081	18	123	0.304	18	123	0.385
08:00 - 09:00	18	123	0.128	18	123	0.390	18	123	0.518
09:00 - 10:00	18	123	0.147	18	123	0.174	18	123	0.321
10:00 - 11:00	18	123	0.135	18	123	0.169	18	123	0.304
11:00 - 12:00	18	123	0.143	18	123	0.154	18	123	0.297
12:00 - 13:00	18	123	0.160	18	123	0.149	18	123	0.309
13:00 - 14:00	18	123	0.179	18	123	0.173	18	123	0.352
14:00 - 15:00	18	123	0.176	18	123	0.201	18	123	0.377
15:00 - 16:00	18	123	0.267	18	123	0.163	18	123	0.430
16:00 - 17:00	18	123	0.261	18	123	0.163	18	123	0.424
17:00 - 18:00	18	123	0.352	18	123	0.156	18	123	0.508
18:00 - 19:00	18	123	0.267	18	123	0.144	18	123	0.411
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.296			2.340			4.636

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	50 - 250 (units:)
Survey date date range:	01/01/15 - 29/06/23
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	5
Surveys manually removed from selection:	7

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.001	18	123	0.002	18	123	0.003
08:00 - 09:00	18	123	0.003	18	123	0.003	18	123	0.006
09:00 - 10:00	18	123	0.004	18	123	0.003	18	123	0.007
10:00 - 11:00	18	123	0.002	18	123	0.003	18	123	0.005
11:00 - 12:00	18	123	0.003	18	123	0.002	18	123	0.005
12:00 - 13:00	18	123	0.002	18	123	0.003	18	123	0.005
13:00 - 14:00	18	123	0.003	18	123	0.002	18	123	0.005
14:00 - 15:00	18	123	0.002	18	123	0.002	18	123	0.004
15:00 - 16:00	18	123	0.005	18	123	0.005	18	123	0.010
16:00 - 17:00	18	123	0.003	18	123	0.003	18	123	0.006
17:00 - 18:00	18	123	0.003	18	123	0.003	18	123	0.006
18:00 - 19:00	18	123	0.002	18	123	0.001	18	123	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.033			0.032			0.065

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.001	18	123	0.001	18	123	0.002
08:00 - 09:00	18	123	0.003	18	123	0.003	18	123	0.006
09:00 - 10:00	18	123	0.002	18	123	0.002	18	123	0.004
10:00 - 11:00	18	123	0.003	18	123	0.002	18	123	0.005
11:00 - 12:00	18	123	0.002	18	123	0.003	18	123	0.005
12:00 - 13:00	18	123	0.000	18	123	0.000	18	123	0.000
13:00 - 14:00	18	123	0.002	18	123	0.001	18	123	0.003
14:00 - 15:00	18	123	0.001	18	123	0.002	18	123	0.003
15:00 - 16:00	18	123	0.001	18	123	0.002	18	123	0.003
16:00 - 17:00	18	123	0.000	18	123	0.000	18	123	0.000
17:00 - 18:00	18	123	0.000	18	123	0.000	18	123	0.000
18:00 - 19:00	18	123	0.000	18	123	0.000	18	123	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.015			0.016			0.031

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.000	18	123	0.000	18	123	0.000
08:00 - 09:00	18	123	0.000	18	123	0.000	18	123	0.000
09:00 - 10:00	18	123	0.000	18	123	0.000	18	123	0.000
10:00 - 11:00	18	123	0.000	18	123	0.000	18	123	0.000
11:00 - 12:00	18	123	0.000	18	123	0.000	18	123	0.000
12:00 - 13:00	18	123	0.000	18	123	0.000	18	123	0.000
13:00 - 14:00	18	123	0.000	18	123	0.000	18	123	0.000
14:00 - 15:00	18	123	0.000	18	123	0.000	18	123	0.000
15:00 - 16:00	18	123	0.000	18	123	0.000	18	123	0.000
16:00 - 17:00	18	123	0.001	18	123	0.001	18	123	0.002
17:00 - 18:00	18	123	0.000	18	123	0.000	18	123	0.000
18:00 - 19:00	18	123	0.000	18	123	0.000	18	123	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.001			0.002

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.004	18	123	0.011	18	123	0.015
08:00 - 09:00	18	123	0.000	18	123	0.011	18	123	0.011
09:00 - 10:00	18	123	0.002	18	123	0.003	18	123	0.005
10:00 - 11:00	18	123	0.005	18	123	0.004	18	123	0.009
11:00 - 12:00	18	123	0.001	18	123	0.001	18	123	0.002
12:00 - 13:00	18	123	0.002	18	123	0.002	18	123	0.004
13:00 - 14:00	18	123	0.003	18	123	0.003	18	123	0.006
14:00 - 15:00	18	123	0.004	18	123	0.002	18	123	0.006
15:00 - 16:00	18	123	0.015	18	123	0.007	18	123	0.022
16:00 - 17:00	18	123	0.009	18	123	0.006	18	123	0.015
17:00 - 18:00	18	123	0.007	18	123	0.009	18	123	0.016
18:00 - 19:00	18	123	0.009	18	123	0.004	18	123	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.061			0.063			0.124

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.095	18	123	0.400	18	123	0.495
08:00 - 09:00	18	123	0.152	18	123	0.615	18	123	0.767
09:00 - 10:00	18	123	0.171	18	123	0.234	18	123	0.405
10:00 - 11:00	18	123	0.165	18	123	0.222	18	123	0.387
11:00 - 12:00	18	123	0.181	18	123	0.206	18	123	0.387
12:00 - 13:00	18	123	0.203	18	123	0.191	18	123	0.394
13:00 - 14:00	18	123	0.231	18	123	0.227	18	123	0.458
14:00 - 15:00	18	123	0.226	18	123	0.253	18	123	0.479
15:00 - 16:00	18	123	0.451	18	123	0.214	18	123	0.665
16:00 - 17:00	18	123	0.403	18	123	0.222	18	123	0.625
17:00 - 18:00	18	123	0.478	18	123	0.210	18	123	0.688
18:00 - 19:00	18	123	0.365	18	123	0.189	18	123	0.554
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.121			3.183			6.304

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.018	18	123	0.042	18	123	0.060
08:00 - 09:00	18	123	0.035	18	123	0.087	18	123	0.122
09:00 - 10:00	18	123	0.028	18	123	0.034	18	123	0.062
10:00 - 11:00	18	123	0.020	18	123	0.029	18	123	0.049
11:00 - 12:00	18	123	0.038	18	123	0.035	18	123	0.073
12:00 - 13:00	18	123	0.033	18	123	0.032	18	123	0.065
13:00 - 14:00	18	123	0.028	18	123	0.030	18	123	0.058
14:00 - 15:00	18	123	0.031	18	123	0.030	18	123	0.061
15:00 - 16:00	18	123	0.071	18	123	0.042	18	123	0.113
16:00 - 17:00	18	123	0.061	18	123	0.035	18	123	0.096
17:00 - 18:00	18	123	0.046	18	123	0.035	18	123	0.081
18:00 - 19:00	18	123	0.037	18	123	0.027	18	123	0.064
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.446			0.458			0.904

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.000	18	123	0.017	18	123	0.017
08:00 - 09:00	18	123	0.000	18	123	0.012	18	123	0.012
09:00 - 10:00	18	123	0.000	18	123	0.007	18	123	0.007
10:00 - 11:00	18	123	0.001	18	123	0.005	18	123	0.006
11:00 - 12:00	18	123	0.004	18	123	0.002	18	123	0.006
12:00 - 13:00	18	123	0.005	18	123	0.004	18	123	0.009
13:00 - 14:00	18	123	0.001	18	123	0.001	18	123	0.002
14:00 - 15:00	18	123	0.005	18	123	0.001	18	123	0.006
15:00 - 16:00	18	123	0.014	18	123	0.003	18	123	0.017
16:00 - 17:00	18	123	0.008	18	123	0.001	18	123	0.009
17:00 - 18:00	18	123	0.010	18	123	0.000	18	123	0.010
18:00 - 19:00	18	123	0.004	18	123	0.000	18	123	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.052			0.053			0.105

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.001	18	123	0.011	18	123	0.012
08:00 - 09:00	18	123	0.000	18	123	0.003	18	123	0.003
09:00 - 10:00	18	123	0.000	18	123	0.001	18	123	0.001
10:00 - 11:00	18	123	0.000	18	123	0.000	18	123	0.000
11:00 - 12:00	18	123	0.000	18	123	0.000	18	123	0.000
12:00 - 13:00	18	123	0.001	18	123	0.002	18	123	0.003
13:00 - 14:00	18	123	0.001	18	123	0.001	18	123	0.002
14:00 - 15:00	18	123	0.000	18	123	0.000	18	123	0.000
15:00 - 16:00	18	123	0.001	18	123	0.000	18	123	0.001
16:00 - 17:00	18	123	0.003	18	123	0.000	18	123	0.003
17:00 - 18:00	18	123	0.004	18	123	0.000	18	123	0.004
18:00 - 19:00	18	123	0.002	18	123	0.000	18	123	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.013			0.018			0.031

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.000	18	123	0.000	18	123	0.000
08:00 - 09:00	18	123	0.000	18	123	0.001	18	123	0.001
09:00 - 10:00	18	123	0.000	18	123	0.000	18	123	0.000
10:00 - 11:00	18	123	0.000	18	123	0.000	18	123	0.000
11:00 - 12:00	18	123	0.000	18	123	0.000	18	123	0.000
12:00 - 13:00	18	123	0.000	18	123	0.000	18	123	0.000
13:00 - 14:00	18	123	0.000	18	123	0.000	18	123	0.000
14:00 - 15:00	18	123	0.000	18	123	0.000	18	123	0.000
15:00 - 16:00	18	123	0.000	18	123	0.000	18	123	0.000
16:00 - 17:00	18	123	0.002	18	123	0.000	18	123	0.002
17:00 - 18:00	18	123	0.000	18	123	0.000	18	123	0.000
18:00 - 19:00	18	123	0.000	18	123	0.000	18	123	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.001			0.003

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.001	18	123	0.028	18	123	0.029
08:00 - 09:00	18	123	0.000	18	123	0.016	18	123	0.016
09:00 - 10:00	18	123	0.000	18	123	0.008	18	123	0.008
10:00 - 11:00	18	123	0.001	18	123	0.005	18	123	0.006
11:00 - 12:00	18	123	0.004	18	123	0.002	18	123	0.006
12:00 - 13:00	18	123	0.006	18	123	0.006	18	123	0.012
13:00 - 14:00	18	123	0.003	18	123	0.002	18	123	0.005
14:00 - 15:00	18	123	0.005	18	123	0.002	18	123	0.007
15:00 - 16:00	18	123	0.015	18	123	0.003	18	123	0.018
16:00 - 17:00	18	123	0.013	18	123	0.001	18	123	0.014
17:00 - 18:00	18	123	0.014	18	123	0.000	18	123	0.014
18:00 - 19:00	18	123	0.005	18	123	0.000	18	123	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.067			0.073			0.140

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 1.61

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.118	18	123	0.481	18	123	0.599
08:00 - 09:00	18	123	0.188	18	123	0.728	18	123	0.916
09:00 - 10:00	18	123	0.201	18	123	0.279	18	123	0.480
10:00 - 11:00	18	123	0.190	18	123	0.261	18	123	0.451
11:00 - 12:00	18	123	0.224	18	123	0.244	18	123	0.468
12:00 - 13:00	18	123	0.244	18	123	0.232	18	123	0.476
13:00 - 14:00	18	123	0.264	18	123	0.262	18	123	0.526
14:00 - 15:00	18	123	0.267	18	123	0.287	18	123	0.554
15:00 - 16:00	18	123	0.552	18	123	0.265	18	123	0.817
16:00 - 17:00	18	123	0.486	18	123	0.264	18	123	0.750
17:00 - 18:00	18	123	0.546	18	123	0.255	18	123	0.801
18:00 - 19:00	18	123	0.417	18	123	0.221	18	123	0.638
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.697			3.779			7.476

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.066	18	123	0.269	18	123	0.335
08:00 - 09:00	18	123	0.109	18	123	0.355	18	123	0.464
09:00 - 10:00	18	123	0.117	18	123	0.149	18	123	0.266
10:00 - 11:00	18	123	0.102	18	123	0.134	18	123	0.236
11:00 - 12:00	18	123	0.116	18	123	0.128	18	123	0.244
12:00 - 13:00	18	123	0.134	18	123	0.125	18	123	0.259
13:00 - 14:00	18	123	0.150	18	123	0.140	18	123	0.290
14:00 - 15:00	18	123	0.155	18	123	0.174	18	123	0.329
15:00 - 16:00	18	123	0.240	18	123	0.142	18	123	0.382
16:00 - 17:00	18	123	0.231	18	123	0.143	18	123	0.374
17:00 - 18:00	18	123	0.310	18	123	0.137	18	123	0.447
18:00 - 19:00	18	123	0.247	18	123	0.135	18	123	0.382
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.977			2.031			4.008

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.012	18	123	0.030	18	123	0.042
08:00 - 09:00	18	123	0.012	18	123	0.025	18	123	0.037
09:00 - 10:00	18	123	0.023	18	123	0.019	18	123	0.042
10:00 - 11:00	18	123	0.027	18	123	0.027	18	123	0.054
11:00 - 12:00	18	123	0.022	18	123	0.022	18	123	0.044
12:00 - 13:00	18	123	0.021	18	123	0.019	18	123	0.040
13:00 - 14:00	18	123	0.023	18	123	0.028	18	123	0.051
14:00 - 15:00	18	123	0.016	18	123	0.022	18	123	0.038
15:00 - 16:00	18	123	0.019	18	123	0.014	18	123	0.033
16:00 - 17:00	18	123	0.024	18	123	0.016	18	123	0.040
17:00 - 18:00	18	123	0.035	18	123	0.014	18	123	0.049
18:00 - 19:00	18	123	0.016	18	123	0.007	18	123	0.023
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.250			0.243			0.493

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

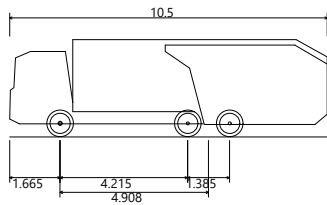
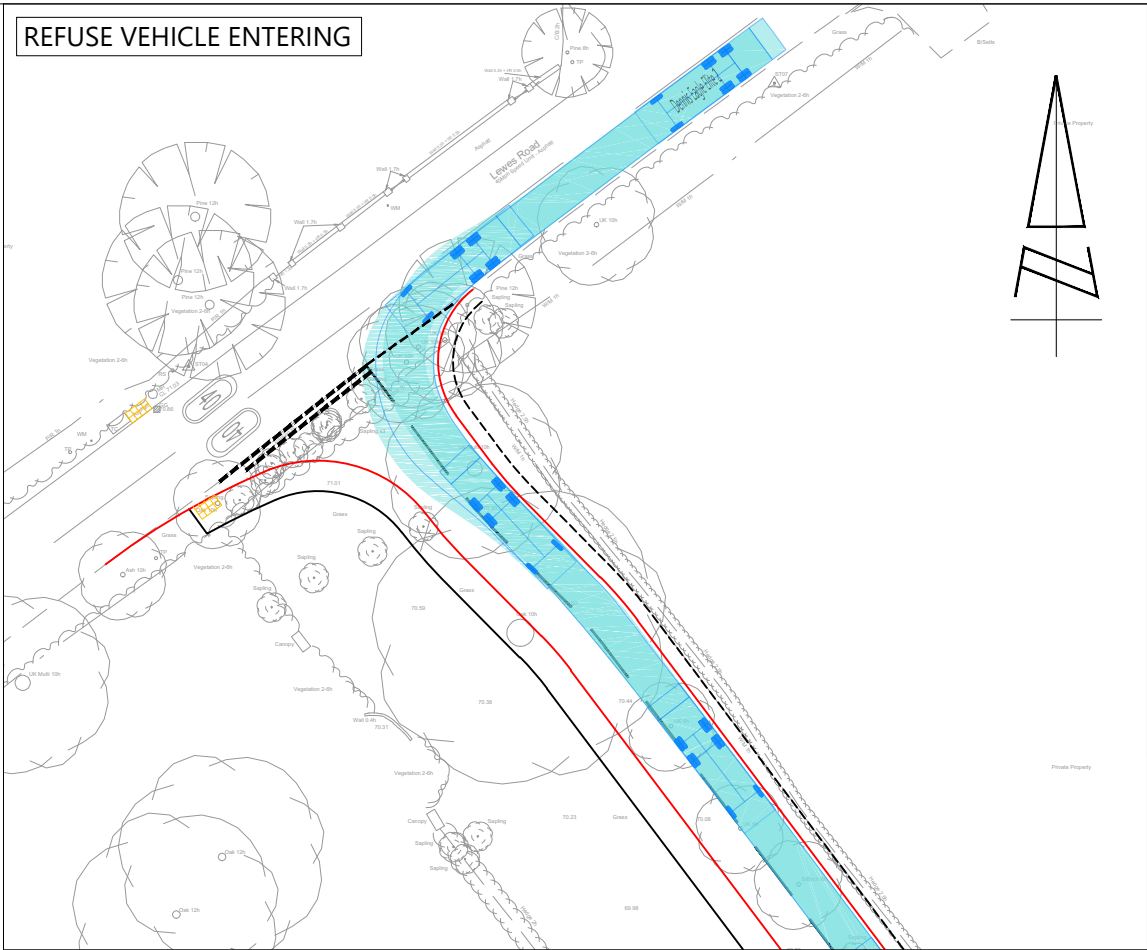
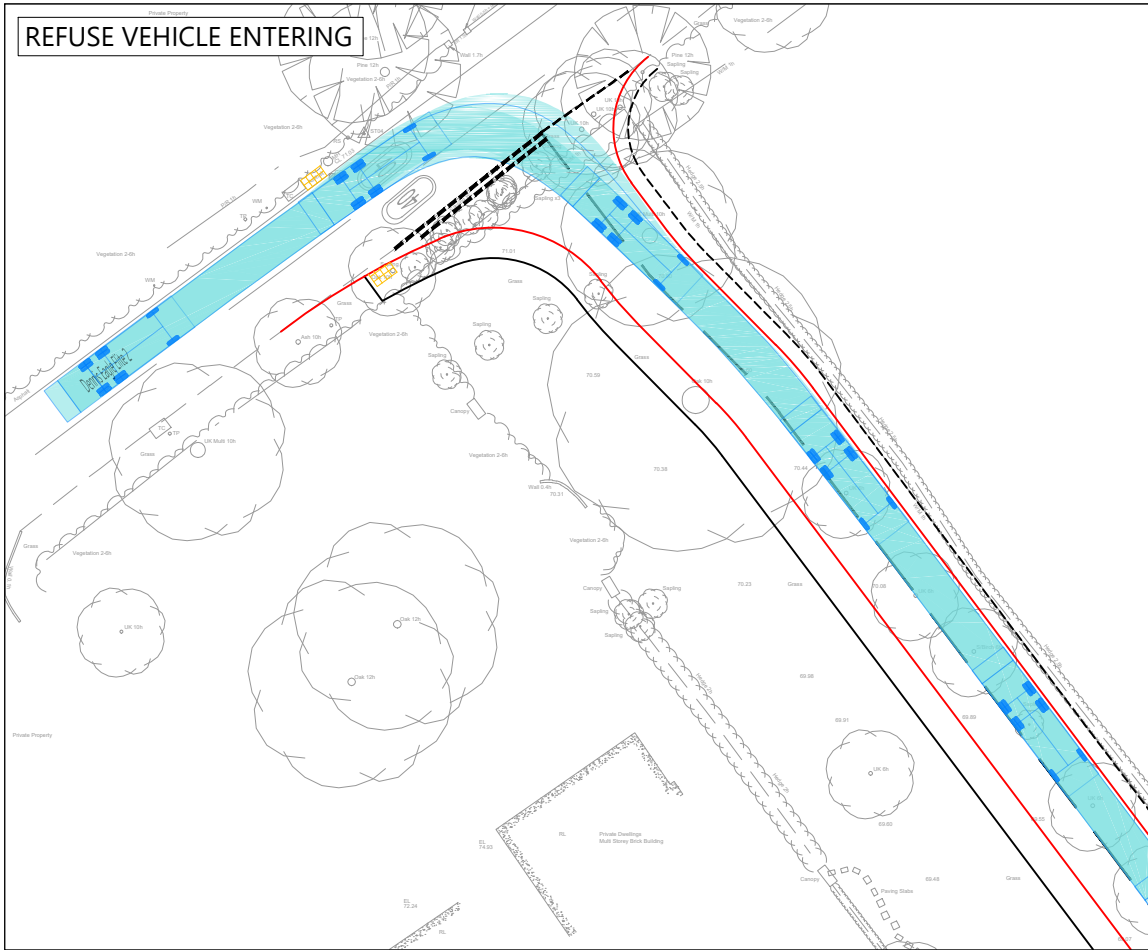
TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL MOTOR CYCLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	123	0.000	18	123	0.002	18	123	0.002
08:00 - 09:00	18	123	0.001	18	123	0.004	18	123	0.005
09:00 - 10:00	18	123	0.001	18	123	0.001	18	123	0.002
10:00 - 11:00	18	123	0.000	18	123	0.002	18	123	0.002
11:00 - 12:00	18	123	0.001	18	123	0.000	18	123	0.001
12:00 - 13:00	18	123	0.002	18	123	0.002	18	123	0.004
13:00 - 14:00	18	123	0.000	18	123	0.001	18	123	0.001
14:00 - 15:00	18	123	0.002	18	123	0.001	18	123	0.003
15:00 - 16:00	18	123	0.001	18	123	0.001	18	123	0.002
16:00 - 17:00	18	123	0.001	18	123	0.000	18	123	0.001
17:00 - 18:00	18	123	0.004	18	123	0.002	18	123	0.006
18:00 - 19:00	18	123	0.002	18	123	0.001	18	123	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.015			0.017			0.032

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

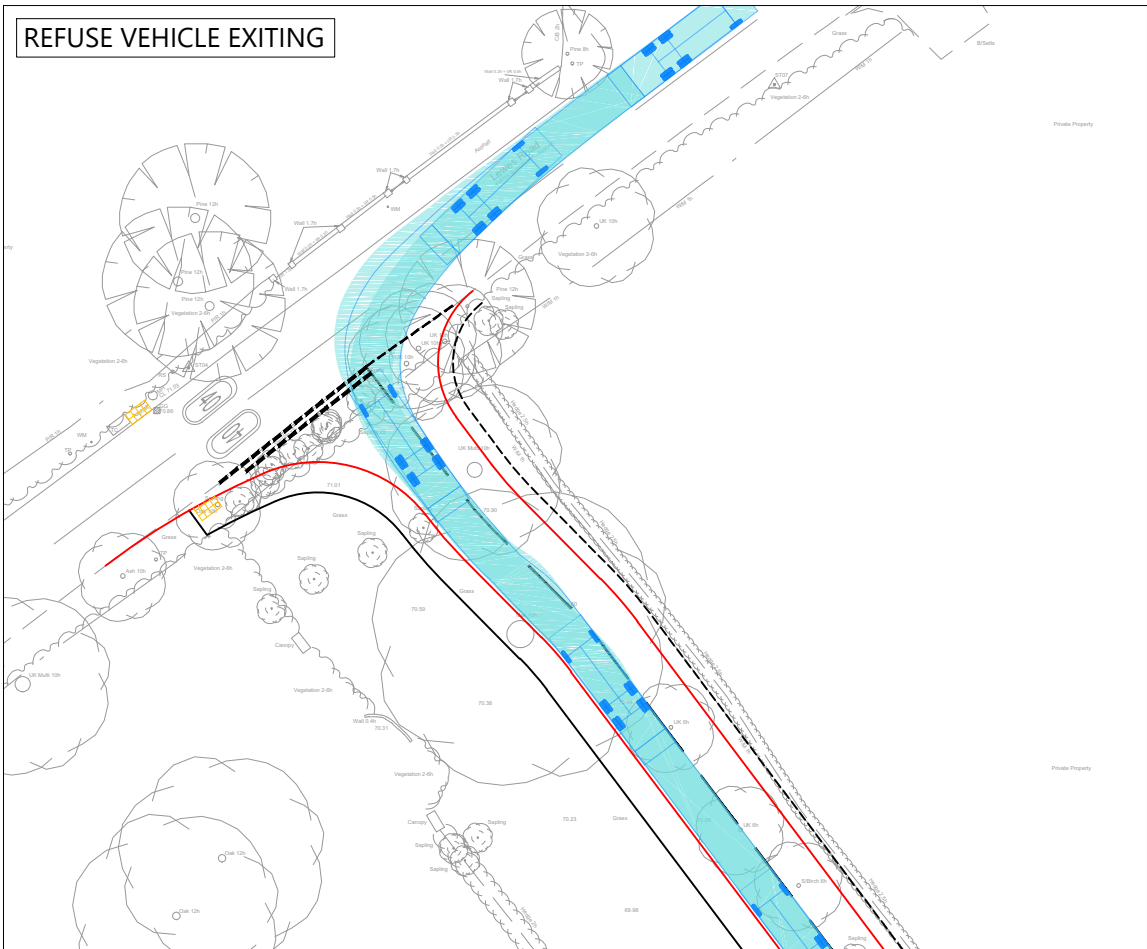
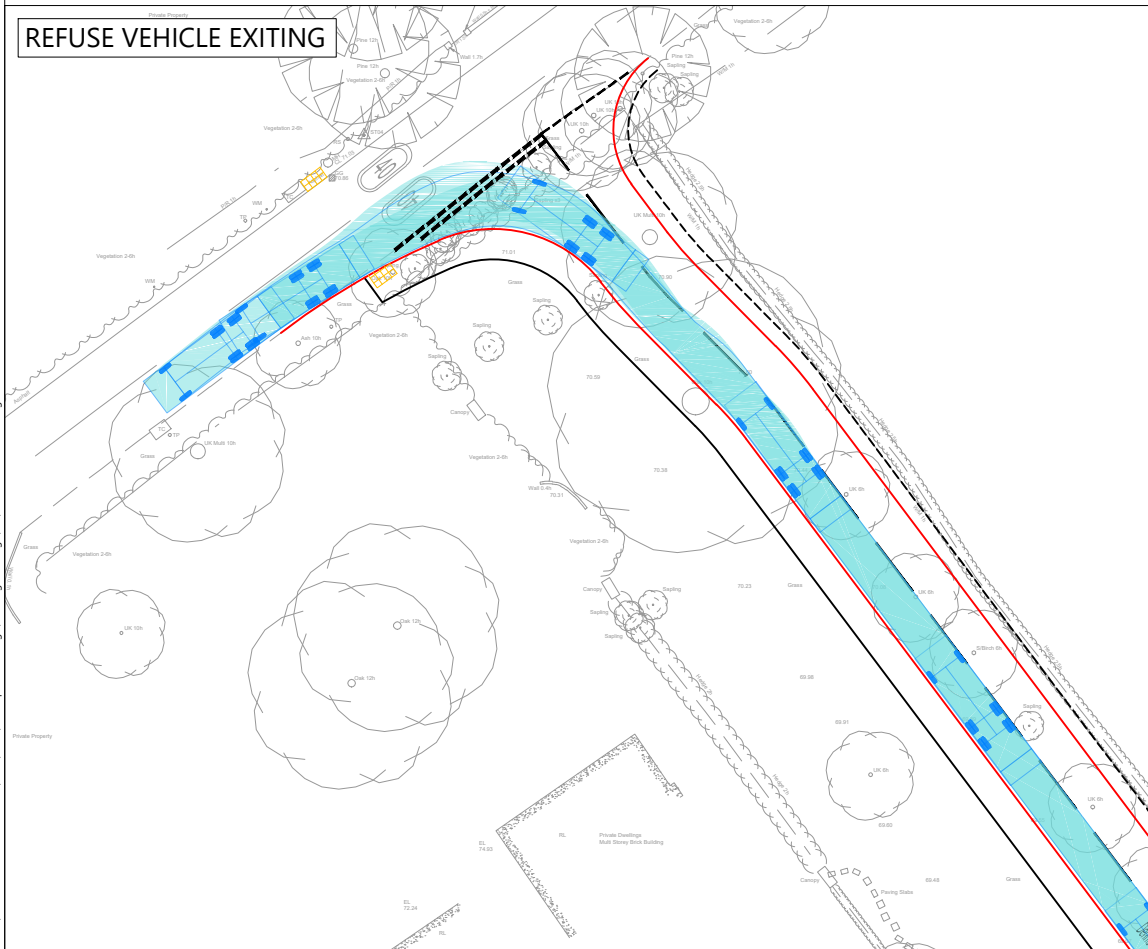
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

APPENDIX E. Vehicle Swept Path Analysis



Dennis Eagle Elite 2
Overall Length 10.500m
Overall Width 2.600m
Overall Body Height 3.211m
Min Body Ground Clearance 0.416m
Track Width 2.530m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.950m

A	10.12.24	JD	TRACKING REVISED FOLLOWING SITE ACCESS UPDATE	BC	MG
REV	DATE	BY	DESCRIPTION	CHK	APD



STATUS: FOR INFORMATION



33 Queen Street, London, EC4R 1AP Tel: 020 4531 3660

www.i-transport.co.uk

TITLE: SWEPT PATH ANALYSIS - REFUSE VEHICLE

PROJECT: LAND AT NORTH COLWELL FARM,
LEWES ROAD, HAYWARDS HEATH

CLIENT: MILLER HOMES

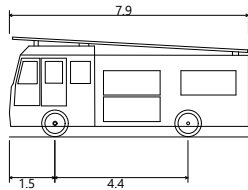
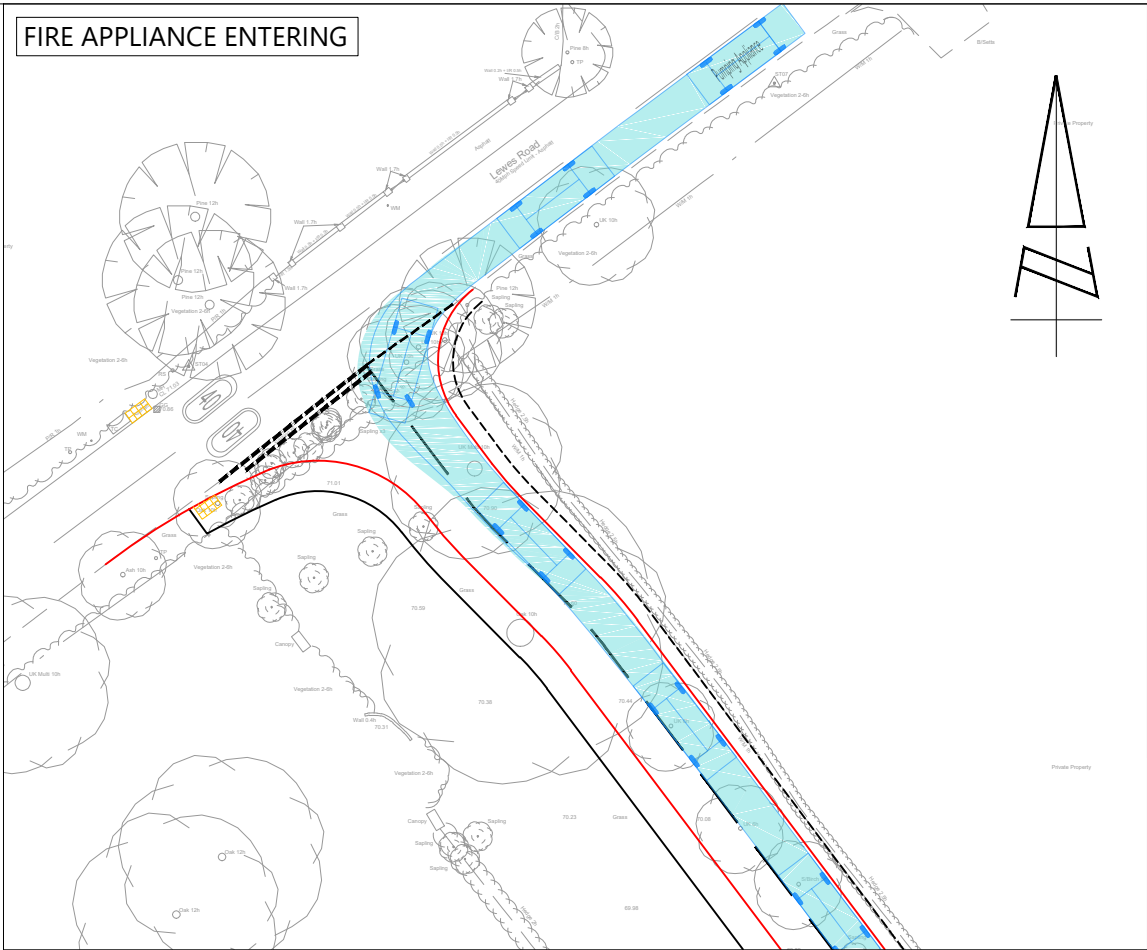
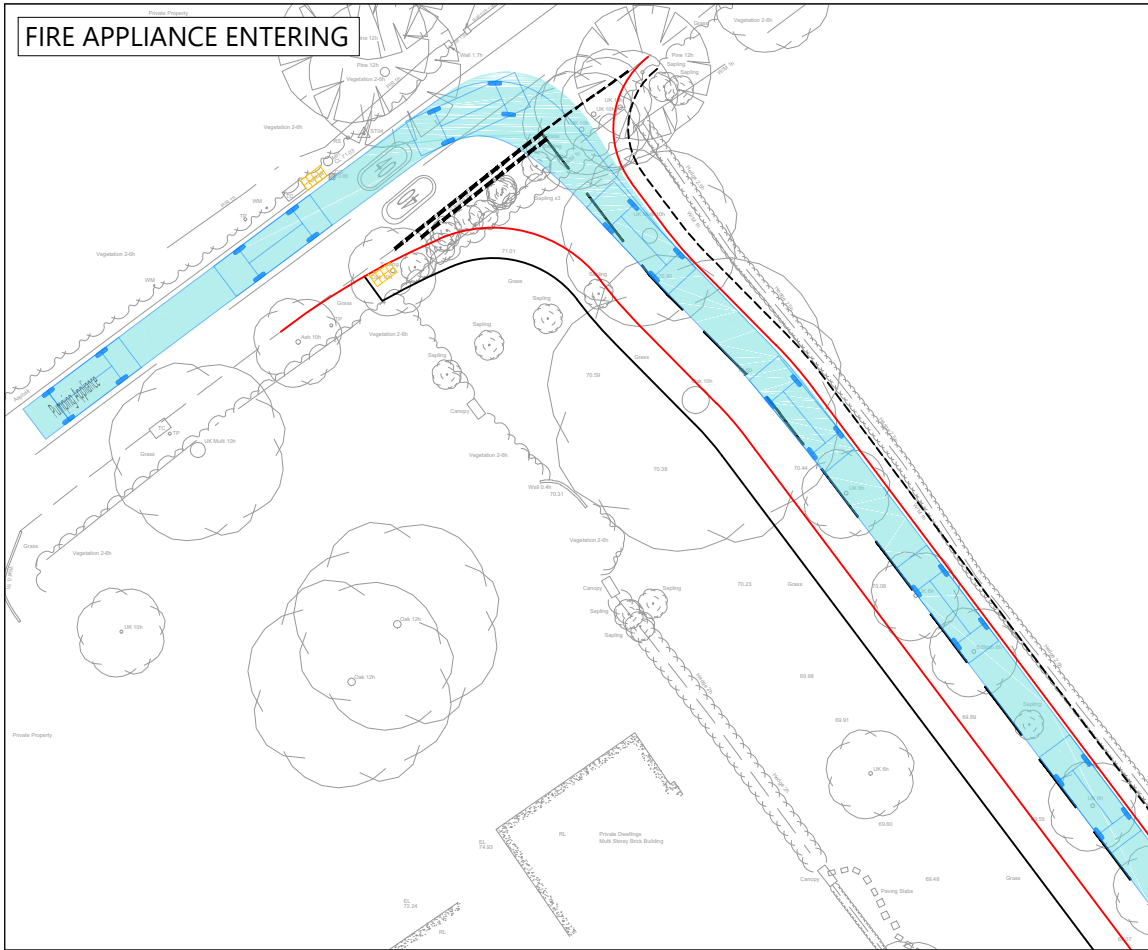
DRAWN: JD	CHECKED: BC	APPROVED: MG
PROJECT No: ITL19597	SCALE @ A3: 1:500	DATE: 26.11.24

DRAWING No: ITL19597-GA-015 REV: A

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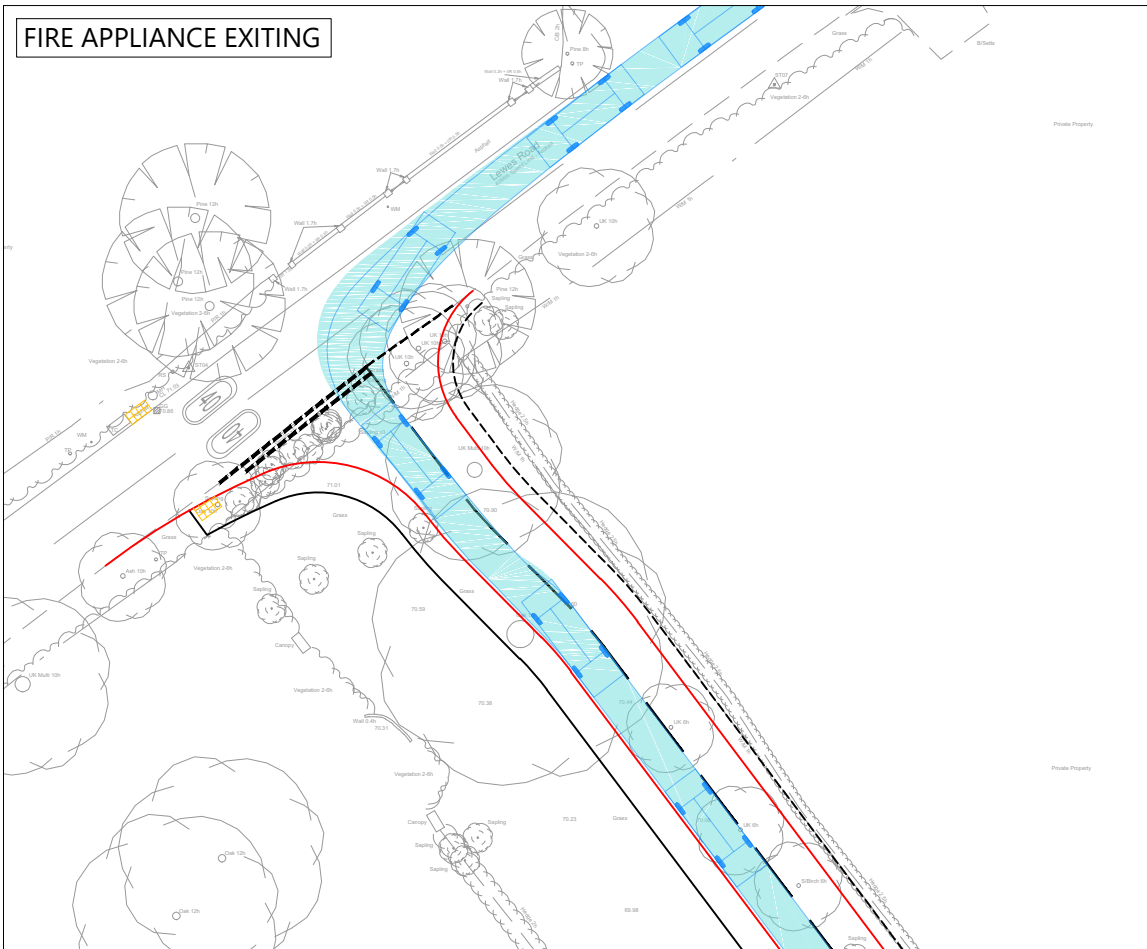
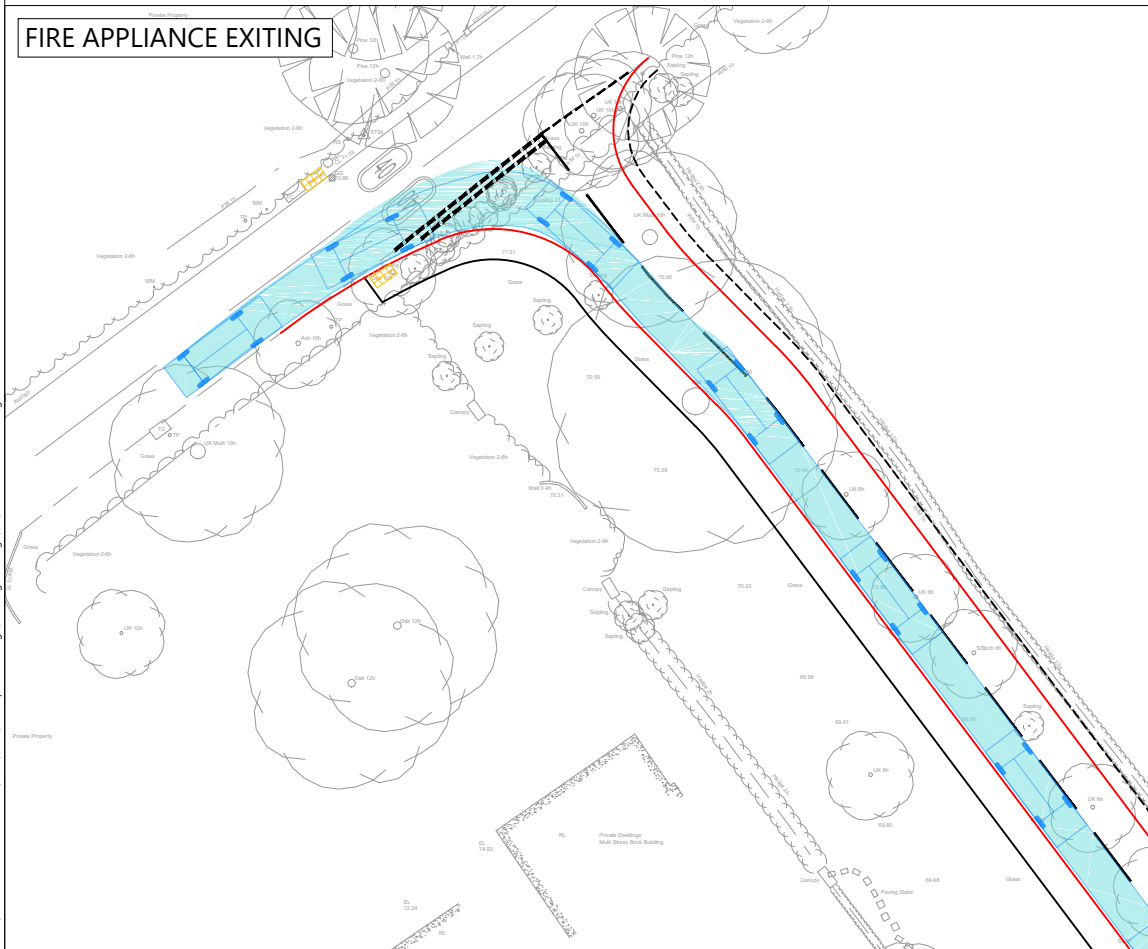


L:\PROJECTS\19000 SERIES\19597 - North Colwell Farm\Tech\Acad\i-Transport Drawings\Working Drawings\GA\ITL19597-GA-015A.dwg



Pumping Appliance
Overall Length 7.900m
Overall Width 2.500m
Overall Body Height 3.300m
Min Body Ground Clearance 0.350m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 7.750m

A	10.12.24	JD	TRACKING REVISED FOLLOWING SITE ACCESS UPDATE	BC	MG
REV	DATE	BY	DESCRIPTION	CHK	APD



STATUS: FOR INFORMATION



33 Queen Street, London, EC4R 1AP Tel: 020 4531 3660

www.i-transport.co.uk

TITLE: SWEPT PATH ANALYSIS - FIRE APPLIANCE

PROJECT: LAND AT NORTH COLWELL FARM,
LEWES ROAD, HAYWARDS HEATH

CLIENT: MILLER HOMES

DRAWN: JD	CHECKED: BC	APPROVED: MG
PROJECT No: ITL19597	SCALE @ A3: 1:500	DATE: 26.11.24

DRAWING No: ITL19597-GA-016	REV: A
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SCALE BAR @ 1:500



L:\PROJECTS\19000 SERIES\19597 - North Colwell Farm\Tech\Acad\i-Transport Drawings\Working Drawings\GA\ITL19597-GA-016A.dwg

APPENDIX F. Stage 1 RSA of Lewes Road Site Access and Designer's Response



Road Safety Audit Stage 1

Proposed Access Arrangements

Land at North Cowell Farm

Lewes Road

Haywards Heath

West Sussex

Date: 7th December 2024

Report produced for: i-Transport

Report produced by: M & S Traffic

DOCUMENT CONTROL SHEET

M&S Traffic has prepared this report in accordance with the instructions from i-Transport. M&S Traffic shall not be liable for the use of any information contained herein for any purpose other than the sole and specific use for which it was prepared.

Project Title Land at North Colwell Farm, Lewes Road, Haywards Heath

Report Title Road Safety Audit Stage 1

Audit Reference ITL/24/19597/1/MM

Record of Issue

Revision	Prepared by: (Name)	Checked by: (Name)	Approved by (Signature)	Date Approved
Final	Martin Morris	Bryan Shawyer		7 th December 2024

Distribution

Organisation	Contact	Copies
i-Transport	Ben Chadwick	-
i-Transport	Alice Twyning	-

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Document Control Sheet	2
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1 Introduction	4
2 Safety issues raised at previous Audits	5
3 Items raised at the Stage 1 Audit	6
4 Issues identified during the Stage 1 Audit that are outside the terms of reference	8
5 Auditors Statement	9

Appendix A..... List of drawings

Appendix B..... Comment Location Drawing

Appendix C..... Road Safety Audit Decision Log

1 INTRODUCTION

- 1.1 This report describes a Stage 1 Road Safety Audit carried out on proposed access arrangements associated with a residential development known as “Land at North Colwell Farm, Lewes Road, Haywards Heath for circa 80 homes – including:

- The provision of a priority junction with Lewes Road.
- The provision of an uncontrolled crossing point across Lewes Road.

The Audit was requested by the design organisation, i-Transport LLP, 33 Queen Street, London, EC4R 1AP, on behalf of West Sussex County Council, as the Overseeing Organisation.

- 1.2 The Audit Team membership was as follows:

Martin Morris, PGD, MCIHT, MSoRSA – Audit Team Member
Highways England Approved RSA Certificate of Competency (April 2012)

Bryan Shawyer B.Eng. (Hons), MSc, MCIHT, MSoRSA – Audit Team Leader
Highways England Approved RSA Certificate of Competency (July 2012)

- 1.3 The audit was undertaken following the principles of GG 119, The Design Manual for Roads and Bridges. The documents available at the time the report was compiled are detailed in Appendix A.
- 1.4 The Audit took place at the Gillingham offices of M&S Traffic in December 2024 and comprised an examination of the documents provided as listed in Appendix A, plus a joint visit to the site of the proposed scheme on the 4th December 2024 between 12:00 and 12:30. Weather conditions at the time were overcast and the road surface was dry. Traffic flows were moderate to heavy and free flow speeds were moderate. There were no pedestrian or cycle movements observed during the site visit.
- 1.5 The report has been compiled, only with regards to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any “Technical Check” function on these proposals. It is assumed that the Project Sponsor is satisfied that such a “Technical Check” has been successfully completed prior to requesting this safety audit.
- 1.6 The auditors have not been informed of any Departures from Standard.
- 1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief, Appendix B.

2 SAFETY ISSUES RAISED AT PREVIOUS AUDITS

2.1 No previous Audits were supplied for assessment.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 No Problems identified in this category at this Stage 1 Road Safety Audit.

3.2 Local Alignment

3.2.1 No Problems identified in this category at this Stage 1 Road Safety Audit.

3.3 Junctions

3.3.1 PROBLEM

Location: Proposed junction with Lewes Road.

Summary: Excessive flows could lead to side impact collisions or rear end shunts.

No information was supplied regarding the predicted movements or queuing at the proposed access were provided. This is the A272 where flows could be high and excessive queuing at the junction could lead to rear end shunt or side impact collisions.

RECOMMENDATION

It is recommended that a Picady, or similar, programme should be checked to ensure that there is no excessive queuing at the access and supplied for assessment.

3.3.2 PROBLEM

Location: Proposed junction with Lewes Road.

Summary: Insufficient carriageway space could lead to possible head on collisions or side swipe collisions.

Vehicle swept paths have been provided for assessment, where the refuse vehicle tracking shows incursion into the opposing carriageway, of the A272. This could cause conflict with vehicles travelling in the opposing direction leading to possible head on collisions or side swipe collisions.

RECOMMENDATION

It is recommended that the junction radii should be eased to provide sufficient carriageway space to prevent incursion into the opposing carriageway.

3.4 Non-Motorised User Provision

3.4.1 PROBLEM

Location: Lewes Road proposed crossing point.

Summary: Gully at or close to the crossing could lead to pedestrian trips and falls.

There is an existing gully cover close to or at the pedestrian crossing point that could lead to pedestrian trips and falls.

RECOMMENDATION

It is recommended that the gully should have a pedestrian friendly cover installed or be relocated.

3.5 Road Signs, Carriageway Markings and Lighting

3.5.1 No Problems identified in this category at this Stage 1 Road Safety Audit.

4 ISSUES IDENTIFIED DURING THE AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

- 4.1 Any issues that the Audit Team wish to bring to the attention of the Client Organisation, which are not covered by the road safety implications of this audit have been included in the following section. These issues could include maintenance items, operational issues, or poor existing provision. It should be understood however, that in raising these issues, the Audit Team do not warrant that a full review of the existing highway environment has been undertaken beyond the scope of the audit.
- 4.2 The Audit Team has no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out following the principles of GG 119.

Audit Team Leader

Martin Morris
PGD, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 7/12/24

Audit Team Member

Bryan Shawyer
BEng (Hons), MSc, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 7/12/24

M & S Traffic

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Kent ME7 3EX



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contact@mstraffic.co.uk



www.mstraffic.co.uk

APPENDIX A

List of drawings and documentation submitted for auditing:

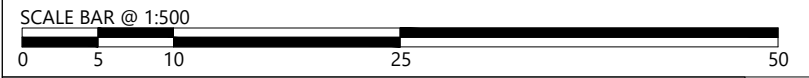
Drawing Number	Title
ITL19597-GA-004C –	Proposed Site Access Arrangement from A272
ITL19597-GA-015 –	Swept Path Analysis – Refuse Vehicle
ITL19597-GA-016 –	Swept Path Analysis – Fire Appliance

Supporting Documentation:

- Road safety Audit Brief i – Transport November 2024
- Untiled drawing showing vegetation removal December 2024

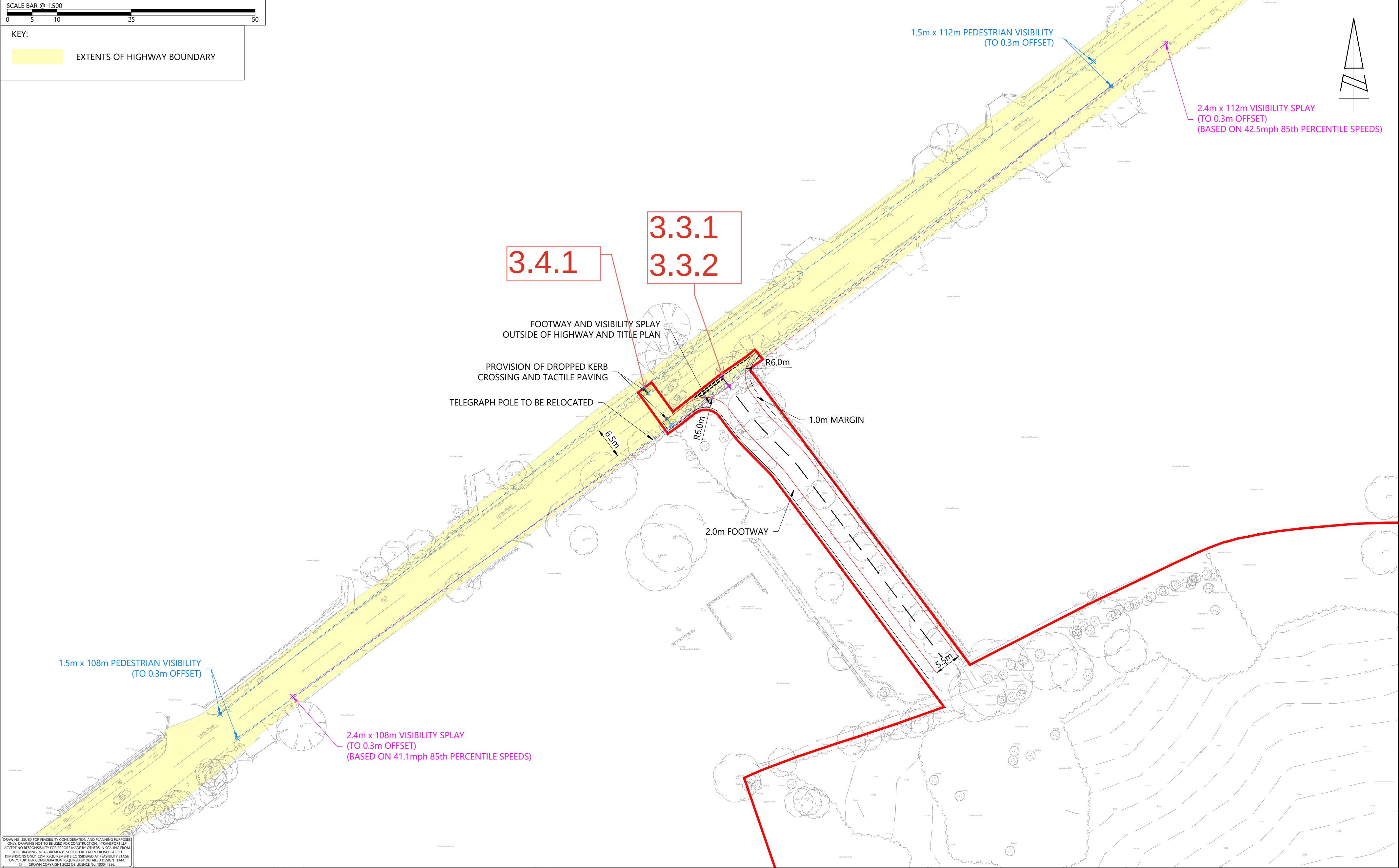
APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).



KEY:

EXTENTS OF HIGHWAY BOUNDARY



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The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
Tel: 01256 898366
www.i-transport.co.uk

D	27.11.24	JD	REDLINE BOUNDARY UPDATED	BC	MG
C	20.11.24	JD	SITE ACCESS UPDATED	BC	MG
B	11.07.24	MM	SITE ACCESS UPDATED	BC	MG
A	18.03.24	SH	SITE ACCESS UPDATED	BC	MG
REV	DATE	BY	DESCRIPTION	CHK	APD
STATUS:			FOR INFORMATION		

TITLE:	PROPOSED SITE ACCESS ARRANGEMENT FROM LEWES ROAD (A272)
PROJECT:	LAND AT NORTH COLWELL FARM, LEWES ROAD, HAYWARDS HEATH

CLIENT:	MILLER HOMES
---------	--------------

DRAWN: SH	CHECKED: BC	APPROVED: VP
PROJECT No: ITL19597	SCALE @ A2: 1:500	DATE: 24.01.24
DRAWING No: ITL19597-GA-004	REV: D	

APPENDIX C: Road Safety Audit Decision Log.

Auditors: Martin Morris (Team Leader) and Bryan Shawyer (Team Member).

Scheme: Land at North Colwell Farm, Lewes Road, Haywards Heath

Date Audit Completed: 7th December 2024

This response is to a Stage 1 Road Safety Audit to the design standard detailed within GG 119 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges, as detailed by the Highways Agency.

RSA Problem	RSA Recommendation	Design Organisation response	Overseeing Organisation response	Agreed RSA action
3.3.1	It is recommended that a Picady, or similar, programme should be checked to ensure that there is no excessive queuing at the access and supplied for assessment.	Agree. A Junctions 10 capacity model of the proposed site access has been undertaken and included within the Transport Assessment. The capacity model was assessed for the AM and PM peak hours for a future year 2030 with traffic from committed developments, local background traffic growth and the proposed development. The results show there is no expected queuing along Lewes Road as a result of the proposed site access.		
3.3.2	It is recommended that the junction radii should be eased to provide sufficient carriageway space to prevent incursion into the opposing carriageway.	Agree. The site access design has been revised this includes a compound curve radius to avoid a refuse vehicle from overhanging the centre line of Lewes Road when turning left out of the site access.		
3.4.1	It is recommended that the gully should have a pedestrian friendly cover installed or be relocated	Agree. Either a pedestrian friendly gully cover is provided, or the gully is relocated, this will be assessed and agreed at the detail design stage.		

APPENDIX G. Proposed Lewes Road Site Access Junctions Output

Junctions 11							
PICADY 11 - Priority Intersection Module							
Version: 11.0.0.2177							
© Copyright TRL Software Limited, 2024							
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com							
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution							

Filename: Site Access, Lewes Road.j11

Path: L:\PROJECTS\19000 SERIES\19597 - North Colwell Farm\Tech\Junction Assessments\Picady

Report generation date: 10/12/2024 12:54:27

»2030 | + Com Dev + Dev | AM

»2030 | + Com Dev + Dev | PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
2030 - + Com Dev + Dev																
Stream B-AC	D5	0.1	0.5	10.09	0.09	B	0.30	70 %	D6	0.0	0.5	8.29	0.03	A	0.23	104 %
Stream C-AB		0.0	0.5	7.60	0.02	A		[Stream B-AC]		0.1	0.5	6.78	0.05	A		[Stream B-AC]

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Site Access, Lewes Road
Location	
Site number	
Date	09/08/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030	+ Com Dev + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030	+ Com Dev + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2030 | + Com Dev + Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access Junction	T-Junction	Two-way	Two-way	Two-way		0.30	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	70	Stream B-AC	0.30	A

Arms

Arms

Arm	Name	Description	Arm type
A	Lewes Road (E)		Major
B	Site Access		Minor
C	Lewes Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Lewes Road (W)	6.35			164.0	✓	1.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	3.26	29	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	507	0.091	0.230	0.145	0.329
B-C	650	0.098	0.248	-	-
C-B	669	0.255	0.255	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030	+ Com Dev + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Lewes Road (E)		ONE HOUR	✓	640	100.000
B - Site Access		ONE HOUR	✓	32	100.000
C - Lewes Road (W)		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Lewes Road (E)	B - Site Access	C - Lewes Road (W)
From	A - Lewes Road (E)	0	2	638
	B - Site Access	6	0	26
	C - Lewes Road (W)	504	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Lewes Road (E)	B - Site Access	C - Lewes Road (W)
From	A - Lewes Road (E)	0	0	9
	B - Site Access	0	0	0
	C - Lewes Road (W)	10	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.09	10.09	0.1	0.5	B	29	44
C-AB	0.02	7.60	0.0	0.5	A	7	11
C-A						462	694
A-B						2	3
A-C						585	878

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	467	0.052	24	0.0	0.1	8.124	A
C-AB	6	2	0.00	539	0.011	6	0.0	0.0	6.756	A
C-A	379	95	0.00			379				
A-B	2	0.38	0.00			2				
A-C	480	120	0.00			480				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	7	0.00	436	0.066	29	0.1	0.1	8.836	A
C-AB	7	2	0.00	515	0.014	7	0.0	0.0	7.091	A
C-A	453	113	0.00			453				
A-B	2	0.45	0.00			2				
A-C	574	143	0.00			574				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	0.00	392	0.090	35	0.1	0.1	10.086	B
C-AB	9	2	0.00	483	0.019	9	0.0	0.0	7.597	A
C-A	555	139	0.00			555				
A-B	2	0.55	0.00			2				
A-C	702	176	0.00			702				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	35	9	0.00	392	0.090	35	0.1	0.1	10.092	B
C-AB	9	2	0.00	483	0.019	9	0.0	0.0	7.597	A
C-A	555	139	0.00			555				
A-B	2	0.55	0.00			2				
A-C	702	176	0.00			702				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	7	0.00	436	0.066	29	0.1	0.1	8.843	A
C-AB	7	2	0.00	515	0.014	7	0.0	0.0	7.091	A
C-A	453	113	0.00			453				
A-B	2	0.45	0.00			2				
A-C	574	143	0.00			574				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	467	0.052	24	0.1	0.1	8.133	A
C-AB	6	2	0.00	539	0.011	6	0.0	0.0	6.756	A
C-A	379	95	0.00			379				
A-B	2	0.38	0.00			2				
A-C	480	120	0.00			480				

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.02	0.00	0.00	0.02	0.02			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

2030 | + Com Dev + Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access Junction	T-Junction	Two-way	Two-way	Two-way		0.23	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	104	Stream B-AC	0.23	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2030	+ Com Dev + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Lewes Road (E)		ONE HOUR	✓	479	100.000
B - Site Access		ONE HOUR	✓	12	100.000
C - Lewes Road (W)		ONE HOUR	✓	608	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Lewes Road (E)	B - Site Access	C - Lewes Road (W)
From	A - Lewes Road (E)	0	5	474
	B - Site Access	2	0	10
	C - Lewes Road (W)	585	23	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		A - Lewes Road (E)	B - Site Access	C - Lewes Road (W)
From	A - Lewes Road (E)	0	0	6
	B - Site Access	0	0	0
	C - Lewes Road (W)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.03	8.29	0.0	0.5	A	11	17
C-AB	0.05	6.78	0.1	0.5	A	22	33
C-A						536	804
A-B						5	7
A-C						435	652

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	0.00	506	0.018	9	0.0	0.0	7.250	A
C-AB	18	4	0.00	585	0.030	18	0.0	0.0	6.340	A
C-A	440	110	0.00			440				
A-B	4	0.94	0.00			4				
A-C	357	89	0.00			357				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	0.00	482	0.022	11	0.0	0.0	7.643	A
C-AB	21	5	0.00	573	0.037	21	0.0	0.0	6.529	A
C-A	525	131	0.00			525				
A-B	4	1	0.00			4				
A-C	426	107	0.00			426				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	0.00	448	0.030	13	0.0	0.0	8.288	A
C-AB	27	7	0.00	558	0.048	27	0.0	0.1	6.777	A
C-A	643	161	0.00			643				
A-B	6	1	0.00			6				
A-C	522	130	0.00			522				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	13	3	0.00	448	0.030	13	0.0	0.0	8.289	A
C-AB	27	7	0.00	558	0.048	27	0.1	0.1	6.777	A
C-A	643	161	0.00			643				
A-B	6	1	0.00			6				
A-C	522	130	0.00			522				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	11	3	0.00	482	0.022	11	0.0	0.0	7.647	A
C-AB	21	5	0.00	573	0.037	21	0.1	0.0	6.530	A
C-A	525	131	0.00			525				
A-B	4	1	0.00			4				
A-C	426	107	0.00			426				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	9	2	0.00	506	0.018	9	0.0	0.0	7.250	A
C-AB	18	4	0.00	585	0.030	18	0.0	0.0	6.343	A
C-A	440	110	0.00			440				
A-B	4	0.94	0.00			4				
A-C	357	89	0.00			357				

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

17:00 - 17:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.02	0.25	0.45	0.48			N/A	N/A
C-AB	0.04	0.03	0.25	0.45	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.05	0.03	0.26	0.46	0.49			N/A	N/A

17:30 - 17:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.03	0.00	0.00	0.03	0.03			N/A	N/A
C-AB	0.05	0.00	0.00	0.05	0.05			N/A	N/A

17:45 - 18:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.04	0.00	0.00	0.04	0.04			N/A	N/A

18:00 - 18:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.02	0.00	0.00	0.02	0.02			N/A	N/A
C-AB	0.03	0.00	0.00	0.03	0.03			N/A	N/A

APPENDIX H. Birch Hotel Roundabout Junctions Output

Junctions 11															
ARCADY 11 - Roundabout Module															
Version: 11.0.0.2177															
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+44 (0)1344 379777 software@trl.co.uk trlsoftware.com															
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution															

Filename: The Birch Hotel Roundabout.j11

Path: L:\PROJECTS\19000 SERIES\19597 - North Colwell Farm\Tech\Junction Assessments\Arcady

Report generation date: 10/12/2024 12:58:43

- »Existing Junction - 2023 | Base | AM
- »Existing Junction - 2023 | Base | PM
- »Existing Junction - 2030 | With Com Dev | AM
- »Existing Junction - 2030 | With Com Dev | PM
- »Existing Junction - 2030 | With Com Dev + Dev | AM
- »Existing Junction - 2030 | With Com Dev + Dev | PM

Summary of junction performance

	AM								PM							
	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
	Existing Junction - 2023 - Base															
1 - A272 Lewes Road	D1	0.8	2.3	4.89	0.46	A	4.53	60 % [2 - Rocky Lane]	D2	0.5	2.0	3.80	0.32	A	3.83	79 % [3 - B2272 Lewes Road]
2 - Rocky Lane		1.1	1.5	4.95	0.53	A				0.6	2.7	3.46	0.36	A		
3 - B2272 Lewes Road		0.7	2.6	3.72	0.41	A				1.0	1.5	4.10	0.49	A		
	Existing Junction - 2030 - With Com Dev															
1 - A272 Lewes Road	D3	1.0	1.6	5.52	0.51	A	5.10	47 % [2 - Rocky Lane]	D4	0.6	2.6	4.07	0.36	A	4.17	64 % [3 - B2272 Lewes Road]
2 - Rocky Lane		1.4	1.7	5.70	0.58	A				0.7	2.7	3.68	0.40	A		
3 - B2272 Lewes Road		0.8	2.1	3.99	0.45	A				1.2	1.5	4.57	0.54	A		
	Existing Junction - 2030 - With Com Dev + Dev															
1 - A272 Lewes Road	D5	1.1	1.5	5.76	0.53	A	5.25	45 % [2 - Rocky Lane]	D6	0.6	2.7	4.12	0.37	A	4.26	61 % [3 - B2272 Lewes Road]
2 - Rocky Lane		1.4	1.7	5.87	0.59	A				0.7	2.7	3.72	0.40	A		
3 - B2272 Lewes Road		0.8	2.0	4.03	0.45	A				1.2	1.5	4.71	0.55	A		

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	The Birch Hotel Roundabout
Location	Haywards Heath
Site number	
Date	12/08/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	ITL19597
Enumerator	I-TRANSPORT\basingstoke.hotdesk
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023	Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2030	With Com Dev	AM	ONE HOUR	07:45	09:15	15	✓
D4	2030	With Com Dev	PM	ONE HOUR	16:45	18:15	15	✓
D5	2030	With Com Dev + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2030	With Com Dev + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Existing Junction	✓	100.000	100.000

Existing Junction - 2023 | Base | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	The Birch Hotel Roundabout	Standard Roundabout		1, 2, 3	4.53	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	60	2 - Rocky Lane	4.53	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A272 Lewes Road		
2	Rocky Lane		
3	B2272 Lewes Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A272 Lewes Road	3.30	7.10	13.6	20.0	30.0	10.0		
2 - Rocky Lane	3.70	7.20	16.1	20.0	30.0	18.5		
3 - B2272 Lewes Road	3.40	7.30	25.5	20.0	30.0	19.5		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A272 Lewes Road	0.683	1719
2 - Rocky Lane	0.694	1816
3 - B2272 Lewes Road	0.708	1890

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	Base	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A272 Lewes Road		ONE HOUR	✓	563	100.000
2 - Rocky Lane		ONE HOUR	✓	732	100.000
3 - B2272 Lewes Road		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	1	226	336
	2 - Rocky Lane	248	0	484
	3 - B2272 Lewes Road	210	412	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	100	5	2
	2 - Rocky Lane	3	0	0
	3 - B2272 Lewes Road	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 Lewes Road	0.46	4.89	0.8	2.3	A	517	775
2 - Rocky Lane	0.53	4.95	1.1	1.5	A	672	1008
3 - B2272 Lewes Road	0.41	3.72	0.7	2.6	A	571	856

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	424	106	309	1453	0.292	422	344	0.0	0.4	3.487	A
2 - Rocky Lane	551	138	253	1616	0.341	549	479	0.0	0.5	3.367	A
3 - B2272 Lewes Road	468	117	187	1715	0.273	467	615	0.0	0.4	2.879	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	506	127	370	1412	0.359	506	412	0.4	0.6	3.970	A
2 - Rocky Lane	658	165	303	1581	0.416	657	573	0.5	0.7	3.892	A
3 - B2272 Lewes Road	559	140	224	1689	0.331	559	736	0.4	0.5	3.183	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	620	155	453	1356	0.457	619	505	0.6	0.8	4.876	A
2 - Rocky Lane	806	201	370	1534	0.526	804	701	0.7	1.1	4.927	A
3 - B2272 Lewes Road	685	171	274	1653	0.414	684	901	0.5	0.7	3.711	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	620	155	454	1356	0.457	620	505	0.8	0.8	4.892	A
2 - Rocky Lane	806	201	371	1533	0.526	806	702	1.1	1.1	4.949	A
3 - B2272 Lewes Road	685	171	274	1653	0.414	685	903	0.7	0.7	3.718	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	506	127	371	1411	0.359	507	413	0.8	0.6	3.987	A
2 - Rocky Lane	658	165	304	1581	0.416	660	575	1.1	0.7	3.914	A
3 - B2272 Lewes Road	559	140	224	1688	0.331	560	739	0.7	0.5	3.194	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	424	106	310	1452	0.292	424	346	0.6	0.4	3.508	A
2 - Rocky Lane	551	138	254	1616	0.341	552	481	0.7	0.5	3.388	A
3 - B2272 Lewes Road	468	117	188	1714	0.273	469	618	0.5	0.4	2.892	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - Rocky Lane	0.51	0.51	1.00	1.40	1.45			N/A	N/A
3 - B2272 Lewes Road	0.37	0.00	0.00	0.37	0.37			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.56	0.08	0.76	1.35	1.43			N/A	N/A
2 - Rocky Lane	0.71	0.09	0.82	1.38	1.45			N/A	N/A
3 - B2272 Lewes Road	0.49	0.00	0.00	0.49	0.49			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.83	0.03	0.25	0.83	0.83			N/A	N/A
2 - Rocky Lane	1.10	0.03	0.26	1.10	1.10			N/A	N/A
3 - B2272 Lewes Road	0.70	0.03	0.25	0.70	0.70			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.84	0.03	0.28	0.84	2.32			N/A	N/A
2 - Rocky Lane	1.10	0.03	0.27	1.10	1.10			N/A	N/A
3 - B2272 Lewes Road	0.71	0.03	0.28	0.71	2.60			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.56	0.55	1.00	1.40	1.45			N/A	N/A
2 - Rocky Lane	0.72	0.41	0.97	1.39	1.45			N/A	N/A
3 - B2272 Lewes Road	0.50	0.00	0.00	0.50	0.50			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - Rocky Lane	0.52	0.05	0.55	1.31	1.40			N/A	N/A
3 - B2272 Lewes Road	0.38	0.00	0.00	0.38	0.38			N/A	N/A

Existing Junction - 2023 | Base | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	The Birch Hotel Roundabout	Standard Roundabout		1, 2, 3	3.83	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	79	3 - B2272 Lewes Road	3.83	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023	Base	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A272 Lewes Road		ONE HOUR	✓	407	100.000
2 - Rocky Lane		ONE HOUR	✓	541	100.000
3 - B2272 Lewes Road		ONE HOUR	✓	764	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	0	196	211
	2 - Rocky Lane	212	0	329
	3 - B2272 Lewes Road	353	411	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	0	2	1
	2 - Rocky Lane	1	0	1
	3 - B2272 Lewes Road	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 Lewes Road	0.32	3.80	0.5	2.0	A	373	560
2 - Rocky Lane	0.36	3.46	0.6	2.7	A	496	745
3 - B2272 Lewes Road	0.49	4.10	1.0	1.5	A	701	1052

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	306	77	308	1494	0.205	305	424	0.0	0.3	3.027	A
2 - Rocky Lane	407	102	158	1687	0.241	406	455	0.0	0.3	2.807	A
3 - B2272 Lewes Road	575	144	159	1771	0.325	573	405	0.0	0.5	2.999	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	366	91	369	1452	0.252	366	507	0.3	0.3	3.312	A
2 - Rocky Lane	486	122	190	1666	0.292	486	545	0.3	0.4	3.051	A
3 - B2272 Lewes Road	687	172	190	1749	0.393	686	485	0.5	0.6	3.385	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	448	112	452	1396	0.321	448	621	0.3	0.5	3.792	A
2 - Rocky Lane	596	149	232	1636	0.364	595	667	0.4	0.6	3.455	A
3 - B2272 Lewes Road	841	210	233	1718	0.490	840	594	0.6	1.0	4.092	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	448	112	453	1396	0.321	448	622	0.5	0.5	3.797	A
2 - Rocky Lane	596	149	232	1636	0.364	596	668	0.6	0.6	3.458	A
3 - B2272 Lewes Road	841	210	233	1718	0.490	841	595	1.0	1.0	4.104	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	366	91	370	1452	0.252	366	509	0.5	0.3	3.318	A
2 - Rocky Lane	486	122	190	1665	0.292	487	547	0.6	0.4	3.055	A
3 - B2272 Lewes Road	687	172	191	1749	0.393	688	486	1.0	0.7	3.399	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	306	77	310	1493	0.205	307	426	0.3	0.3	3.038	A
2 - Rocky Lane	407	102	159	1687	0.241	408	457	0.4	0.3	2.816	A
3 - B2272 Lewes Road	575	144	160	1771	0.325	576	407	0.7	0.5	3.013	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2 - Rocky Lane	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3 - B2272 Lewes Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - Rocky Lane	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3 - B2272 Lewes Road	0.64	0.09	0.82	1.37	1.43			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.47	0.03	0.25	0.47	0.48			N/A	N/A
2 - Rocky Lane	0.57	0.03	0.25	0.57	0.57			N/A	N/A
3 - B2272 Lewes Road	0.95	0.03	0.25	0.95	0.95			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.47	0.03	0.31	1.40	1.98			N/A	N/A
2 - Rocky Lane	0.57	0.03	0.29	1.29	2.65			N/A	N/A
3 - B2272 Lewes Road	0.95	0.03	0.27	0.95	1.29			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2 - Rocky Lane	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3 - B2272 Lewes Road	0.65	0.55	1.00	1.40	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2 - Rocky Lane	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3 - B2272 Lewes Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A

Existing Junction - 2030 | With Com Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	The Birch Hotel Roundabout	Standard Roundabout		1, 2, 3	5.10	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	47	2 - Rocky Lane	5.10	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2030	With Com Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A272 Lewes Road		ONE HOUR	✓	623	100.000
2 - Rocky Lane		ONE HOUR	✓	795	100.000
3 - B2272 Lewes Road		ONE HOUR	✓	667	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	1	250	372
	2 - Rocky Lane	271	0	524
	3 - B2272 Lewes Road	226	441	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	100	5	2
	2 - Rocky Lane	3	0	0
	3 - B2272 Lewes Road	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 Lewes Road	0.51	5.52	1.0	1.6	A	572	858
2 - Rocky Lane	0.58	5.70	1.4	1.7	A	730	1094
3 - B2272 Lewes Road	0.45	3.99	0.8	2.1	A	612	918

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	469	117	331	1442	0.325	467	374	0.0	0.5	3.689	A
2 - Rocky Lane	599	150	280	1598	0.374	596	518	0.0	0.6	3.582	A
3 - B2272 Lewes Road	502	126	204	1704	0.295	500	672	0.0	0.4	2.988	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	560	140	396	1398	0.401	559	447	0.5	0.7	4.290	A
2 - Rocky Lane	715	179	335	1560	0.458	714	621	0.6	0.8	4.252	A
3 - B2272 Lewes Road	600	150	244	1675	0.358	599	804	0.4	0.6	3.344	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	686	171	485	1338	0.513	684	547	0.7	1.0	5.497	A
2 - Rocky Lane	875	219	410	1507	0.581	873	760	0.8	1.4	5.660	A
3 - B2272 Lewes Road	734	184	299	1636	0.449	733	984	0.6	0.8	3.985	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	686	171	486	1338	0.513	686	548	1.0	1.0	5.524	A
2 - Rocky Lane	875	219	411	1506	0.581	875	761	1.4	1.4	5.704	A
3 - B2272 Lewes Road	734	184	299	1635	0.449	734	986	0.8	0.8	3.995	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	560	140	397	1397	0.401	562	449	1.0	0.7	4.318	A
2 - Rocky Lane	715	179	336	1559	0.459	717	622	1.4	0.9	4.286	A
3 - B2272 Lewes Road	600	150	245	1674	0.358	601	808	0.8	0.6	3.355	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	469	117	332	1441	0.326	470	375	0.7	0.5	3.713	A
2 - Rocky Lane	599	150	281	1597	0.375	600	521	0.9	0.6	3.613	A
3 - B2272 Lewes Road	502	126	205	1703	0.295	503	676	0.6	0.4	3.000	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
2 - Rocky Lane	0.59	0.55	1.00	1.40	1.45			N/A	N/A
3 - B2272 Lewes Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.66	0.10	0.83	1.37	1.44			N/A	N/A
2 - Rocky Lane	0.84	0.08	0.83	1.18	1.66			N/A	N/A
3 - B2272 Lewes Road	0.55	0.08	0.75	1.35	1.43			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	1.04	0.03	0.26	1.04	1.04			N/A	N/A
2 - Rocky Lane	1.37	0.03	0.26	1.37	1.37			N/A	N/A
3 - B2272 Lewes Road	0.81	0.03	0.25	0.81	0.81			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	1.05	0.03	0.27	1.05	1.63			N/A	N/A
2 - Rocky Lane	1.38	0.03	0.27	1.38	1.38			N/A	N/A
3 - B2272 Lewes Road	0.81	0.03	0.27	0.81	2.12			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.67	0.25	0.94	1.39	1.44			N/A	N/A
2 - Rocky Lane	0.85	0.22	0.96	1.42	1.48			N/A	N/A
3 - B2272 Lewes Road	0.56	0.55	1.00	1.40	1.45			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.49	0.04	0.43	1.26	1.38			N/A	N/A
2 - Rocky Lane	0.60	0.06	0.65	1.34	1.43			N/A	N/A
3 - B2272 Lewes Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A

Existing Junction - 2030 | With Com Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	The Birch Hotel Roundabout	Standard Roundabout		1, 2, 3	4.17	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	64	3 - B2272 Lewes Road	4.17	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2030	With Com Dev	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A272 Lewes Road		ONE HOUR	✓	446	100.000
2 - Rocky Lane		ONE HOUR	✓	585	100.000
3 - B2272 Lewes Road		ONE HOUR	✓	829	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	0	217	229
	2 - Rocky Lane	235	0	350
	3 - B2272 Lewes Road	389	440	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	0	1	1
	2 - Rocky Lane	1	0	1
	3 - B2272 Lewes Road	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 Lewes Road	0.36	4.07	0.6	2.6	A	409	614
2 - Rocky Lane	0.40	3.68	0.7	2.7	A	537	805
3 - B2272 Lewes Road	0.54	4.57	1.2	1.5	A	761	1141

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	336	84	330	1479	0.227	335	468	0.0	0.3	3.142	A
2 - Rocky Lane	440	110	172	1679	0.262	439	493	0.0	0.4	2.902	A
3 - B2272 Lewes Road	624	156	176	1759	0.355	622	434	0.0	0.5	3.160	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	401	100	395	1435	0.279	401	560	0.3	0.4	3.479	A
2 - Rocky Lane	526	131	206	1655	0.318	525	590	0.4	0.5	3.184	A
3 - B2272 Lewes Road	745	186	211	1734	0.430	744	520	0.5	0.7	3.633	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	491	123	484	1375	0.357	490	686	0.4	0.6	4.066	A
2 - Rocky Lane	644	161	252	1623	0.397	643	722	0.5	0.7	3.668	A
3 - B2272 Lewes Road	913	228	258	1700	0.537	911	637	0.7	1.1	4.551	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	491	123	484	1375	0.357	491	687	0.6	0.6	4.073	A
2 - Rocky Lane	644	161	252	1623	0.397	644	723	0.7	0.7	3.676	A
3 - B2272 Lewes Road	913	228	259	1700	0.537	913	637	1.1	1.2	4.570	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	401	100	396	1434	0.280	402	562	0.6	0.4	3.489	A
2 - Rocky Lane	526	131	206	1655	0.318	527	592	0.7	0.5	3.192	A
3 - B2272 Lewes Road	745	186	212	1734	0.430	747	521	1.2	0.8	3.651	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	336	84	332	1478	0.227	336	470	0.4	0.3	3.154	A
2 - Rocky Lane	440	110	173	1678	0.262	441	495	0.5	0.4	2.912	A
3 - B2272 Lewes Road	624	156	177	1759	0.355	625	436	0.8	0.6	3.176	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2 - Rocky Lane	0.35	0.00	0.00	0.35	0.35			N/A	N/A
3 - B2272 Lewes Road	0.55	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - Rocky Lane	0.46	0.00	0.00	0.46	0.46			N/A	N/A
3 - B2272 Lewes Road	0.75	0.09	0.82	1.42	1.49			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.55	0.03	0.25	0.55	0.55			N/A	N/A
2 - Rocky Lane	0.65	0.03	0.25	0.65	0.65			N/A	N/A
3 - B2272 Lewes Road	1.15	0.03	0.26	1.15	1.15			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.55	0.03	0.30	1.36	2.60			N/A	N/A
2 - Rocky Lane	0.66	0.03	0.28	0.96	2.69			N/A	N/A
3 - B2272 Lewes Road	1.15	0.03	0.27	1.15	1.21			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.39	0.00	0.00	0.39	0.39			N/A	N/A
2 - Rocky Lane	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - B2272 Lewes Road	0.76	0.51	0.98	1.40	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - Rocky Lane	0.36	0.00	0.00	0.36	0.36			N/A	N/A
3 - B2272 Lewes Road	0.55	0.06	0.68	1.34	1.42			N/A	N/A

Existing Junction - 2030 | With Com Dev + Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	The Birch Hotel Roundabout	Standard Roundabout		1, 2, 3	5.25	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	45	2 - Rocky Lane	5.25	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030	With Com Dev + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A272 Lewes Road		ONE HOUR	✓	649	100.000
2 - Rocky Lane		ONE HOUR	✓	798	100.000
3 - B2272 Lewes Road		ONE HOUR	✓	673	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	1	257	391
	2 - Rocky Lane	274	0	524
	3 - B2272 Lewes Road	232	441	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	100	4	2
	2 - Rocky Lane	3	0	0
	3 - B2272 Lewes Road	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 Lewes Road	0.53	5.76	1.1	1.5	A	596	893
2 - Rocky Lane	0.59	5.87	1.4	1.7	A	732	1098
3 - B2272 Lewes Road	0.45	4.03	0.8	2.0	A	618	926

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	489	122	331	1444	0.338	487	380	0.0	0.5	3.753	A
2 - Rocky Lane	601	150	294	1589	0.378	598	524	0.0	0.6	3.626	A
3 - B2272 Lewes Road	507	127	206	1702	0.298	505	686	0.0	0.4	3.002	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	583	146	396	1400	0.417	583	455	0.5	0.7	4.400	A
2 - Rocky Lane	717	179	352	1548	0.463	716	627	0.6	0.9	4.324	A
3 - B2272 Lewes Road	605	151	247	1673	0.362	604	821	0.4	0.6	3.366	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	715	179	485	1340	0.533	713	557	0.7	1.1	5.725	A
2 - Rocky Lane	879	220	431	1493	0.589	876	767	0.9	1.4	5.821	A
3 - B2272 Lewes Road	741	185	302	1634	0.453	740	1005	0.6	0.8	4.020	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	715	179	486	1340	0.533	715	558	1.1	1.1	5.759	A
2 - Rocky Lane	879	220	432	1492	0.589	879	768	1.4	1.4	5.869	A
3 - B2272 Lewes Road	741	185	303	1633	0.454	741	1007	0.8	0.8	4.033	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	583	146	397	1399	0.417	585	457	1.1	0.7	4.432	A
2 - Rocky Lane	717	179	353	1547	0.464	720	629	1.4	0.9	4.364	A
3 - B2272 Lewes Road	605	151	248	1673	0.362	606	825	0.8	0.6	3.380	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	489	122	332	1443	0.339	489	382	0.7	0.5	3.778	A
2 - Rocky Lane	601	150	296	1587	0.378	602	526	0.9	0.6	3.658	A
3 - B2272 Lewes Road	507	127	207	1702	0.298	507	690	0.6	0.4	3.015	A

Queue Variation Results for each time segment

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.51	0.51	1.00	1.40	1.45			N/A	N/A
2 - Rocky Lane	0.60	0.55	1.00	1.40	1.45			N/A	N/A
3 - B2272 Lewes Road	0.42	0.00	0.00	0.42	0.42			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.71	0.09	0.83	1.38	1.45			N/A	N/A
2 - Rocky Lane	0.86	0.08	0.83	1.30	1.73			N/A	N/A
3 - B2272 Lewes Road	0.56	0.08	0.77	1.35	1.43			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	1.13	0.03	0.26	1.13	1.13			N/A	N/A
2 - Rocky Lane	1.41	0.03	0.26	1.41	1.41			N/A	N/A
3 - B2272 Lewes Road	0.82	0.03	0.25	0.82	0.82			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	1.14	0.03	0.27	1.14	1.39			N/A	N/A
2 - Rocky Lane	1.42	0.03	0.27	1.42	1.42			N/A	N/A
3 - B2272 Lewes Road	0.83	0.03	0.27	0.83	2.03			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.72	0.24	0.94	1.39	1.44			N/A	N/A
2 - Rocky Lane	0.87	0.20	0.96	1.02	1.02			N/A	N/A
3 - B2272 Lewes Road	0.57	0.55	1.00	1.40	1.45			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.52	0.05	0.49	1.30	1.40			N/A	N/A
2 - Rocky Lane	0.61	0.06	0.65	1.35	1.44			N/A	N/A
3 - B2272 Lewes Road	0.43	0.00	0.00	0.43	0.43			N/A	N/A

Existing Junction - 2030 | With Com Dev + Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	The Birch Hotel Roundabout	Standard Roundabout		1, 2, 3	4.26	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	61	3 - B2272 Lewes Road	4.26	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2030	With Com Dev + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A272 Lewes Road		ONE HOUR	✓	456	100.000
2 - Rocky Lane		ONE HOUR	✓	591	100.000
3 - B2272 Lewes Road		ONE HOUR	✓	846	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	0	220	236
	2 - Rocky Lane	241	0	350
	3 - B2272 Lewes Road	406	440	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
		1 - A272 Lewes Road	2 - Rocky Lane	3 - B2272 Lewes Road
From	1 - A272 Lewes Road	0	1	0
	2 - Rocky Lane	1	0	1
	3 - B2272 Lewes Road	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A272 Lewes Road	0.37	4.12	0.6	2.7	A	418	628
2 - Rocky Lane	0.40	3.72	0.7	2.7	A	542	813
3 - B2272 Lewes Road	0.55	4.71	1.2	1.5	A	776	1164

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	343	86	330	1480	0.232	342	485	0.0	0.3	3.160	A
2 - Rocky Lane	445	111	177	1675	0.266	443	495	0.0	0.4	2.921	A
3 - B2272 Lewes Road	637	159	181	1756	0.363	635	440	0.0	0.6	3.203	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	410	102	395	1436	0.285	410	581	0.3	0.4	3.507	A
2 - Rocky Lane	531	133	212	1651	0.322	531	593	0.4	0.5	3.211	A
3 - B2272 Lewes Road	761	190	216	1730	0.439	760	526	0.6	0.8	3.704	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	502	126	484	1376	0.365	501	711	0.4	0.6	4.112	A
2 - Rocky Lane	651	163	259	1618	0.402	650	725	0.5	0.7	3.714	A
3 - B2272 Lewes Road	931	233	265	1696	0.549	930	644	0.8	1.2	4.689	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	502	126	484	1376	0.365	502	712	0.6	0.6	4.121	A
2 - Rocky Lane	651	163	260	1618	0.402	651	727	0.7	0.7	3.720	A
3 - B2272 Lewes Road	931	233	265	1696	0.549	931	645	1.2	1.2	4.711	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	410	102	396	1435	0.286	411	583	0.6	0.4	3.514	A
2 - Rocky Lane	531	133	213	1651	0.322	532	595	0.7	0.5	3.222	A
3 - B2272 Lewes Road	761	190	217	1730	0.440	762	528	1.2	0.8	3.724	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A272 Lewes Road	343	86	332	1479	0.232	344	488	0.4	0.3	3.170	A
2 - Rocky Lane	445	111	178	1674	0.266	445	498	0.5	0.4	2.931	A
3 - B2272 Lewes Road	637	159	182	1755	0.363	638	442	0.8	0.6	3.225	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - Rocky Lane	0.36	0.00	0.00	0.36	0.36			N/A	N/A
3 - B2272 Lewes Road	0.57	0.55	1.00	1.40	1.45			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - Rocky Lane	0.47	0.00	0.00	0.47	0.47			N/A	N/A
3 - B2272 Lewes Road	0.78	0.08	0.82	1.30	1.30			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.57	0.03	0.25	0.57	0.57			N/A	N/A
2 - Rocky Lane	0.67	0.03	0.25	0.67	0.67			N/A	N/A
3 - B2272 Lewes Road	1.21	0.03	0.26	1.21	1.21			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.57	0.03	0.30	1.33	2.68			N/A	N/A
2 - Rocky Lane	0.67	0.03	0.28	0.89	2.68			N/A	N/A
3 - B2272 Lewes Road	1.21	0.03	0.27	1.21	1.21			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.40	0.00	0.00	0.40	0.40			N/A	N/A
2 - Rocky Lane	0.48	0.00	0.00	0.48	0.48			N/A	N/A
3 - B2272 Lewes Road	0.79	0.50	0.97	1.40	1.45			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A272 Lewes Road	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - Rocky Lane	0.36	0.00	0.00	0.36	0.36			N/A	N/A
3 - B2272 Lewes Road	0.57	0.07	0.70	1.34	1.42			N/A	N/A

APPENDIX I.

Comparison of Modelled queues
against Observed Queues at the Birch
Hotel Roundabout

Comparison of Modelled queues against Observed Queues at the Birch Hotel Roundabout

Time Period		Lewes Road (east)	Rocky Lane	Lewes Road (west)
AM Peak (08:00-09:00)	Observed	0.2	0.4	0.1
	Modelled	0.8	1.1	0.7
PM Peak (17:00-18:00)	Observed	0.1	0.2	0.1
	Modelled	0.5	0.6	1.0

Source: Queue surveys (average maximum queue from 1 minute spot counts) and Junctions 10 model.

