OPTIMA
Intelligent Highways Solutions

High Street, Great Houghton
Proposed Residential Development
Transport Assessment

July 2025 (Rev 4)

Prepared on behalf of

Avant Homes (West Yorkshire) Ltd

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Content page

IMAGES

TABLES

FIGURES

TRAFFIC FLOW FIGURES

APPENDICES

1. Introduction

1.1 INTRODUCTION

1.1.1 Optima Highways and Transportation Consultancy Limited (Optima) has been appointed by Avant Homes (West Yorkshire) Ltd to prepare a Transport Assessment (TA) that considers the highways and transportation matters associated with a planning application for residential development. The Site is located to the east of B6273 High Street in Great Houghton.

1.1.2 The Site in relation to the local highway network is shown in Figure 1 with an extract provided in Image 1.1.

Image 1.1 Site Location

1.2 PLANNING BACKGROUND

1.2.1 The Site is a Housing Allocation (Site Reference: HS90 - Land off High Street) in the Barnsley Local Plan that was adopted in January 2019. The Site Description within the Local Plan contains no specific requirements in relation to transport and highways.

1.3 SCHEME PROPOSAL, VISION, OBJECTIVES AND SCOPE OF REPORT

1.3.1 The scheme proposals comprise some 108 dwellings on the Site which is located to the east of High Street in Great Houghton. The proposals are discussed in more detail in Section 4.

1.3.2 This TA has been prepared in accordance with the Department for Communities and Local Government (DCLG) 'National Planning Practice Guidance' published in 2014 which supersedes the Department for Transport (DfT) and DCLG's 'Guidance on Transport Assessment' (GTA) document. Cognisance has also been taken of the National Planning Policy Framework (NPPF), as well as the BMBC Local Plan.

1.3.3 This TA adopts a vision-led approach. Rather than relying solely on extrapolated traffic forecasts, this assessment has been guided by a clear vision for a sustainable, connected, and accessible development. The transport strategy has been developed with the aim of maximising active and public transport use and reducing car dependency.

1.3.4 In light of the above, this TA outlines the transport Vision of the development, sets mode shift targets to achieve the vision and assesses the forecasted traffic impact of the development.

1.3.5 In accordance with DfT Circular 01/2022 and the NPPF, the transport vision for the development is:

> *To encourage a modal shift towards active travel modes, prioritise active travel and public transport, while reducing reliance on private car use.*

1.3.6 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 would be severe".

1.3.7 In order to achieve the transport vision the following sustainable transport measures are proposed:

- Implement a Travel Plan targeting a 5% reduction in single occupancy vehicle trips over a 5-year period;
- Deliver new pedestrian infrastructure within the development and create convenient pedestrian and cycle connections to the local highway network;
- Provide a pedestrian crossing facility to facilitate access to local bus stops;
- Contribute funding to enhance existing public transport provision;
- Provide electric vehicle charging points for each dwelling; and
- Provide cycle storage for each dwelling.

1.3.8 This report sets out the transport impacts relating to the development proposals and considers the sustainability and accessibility of the Site, reviewing the provision and quality of facilities and connections to and from the surrounding areas. The document structure is as follows:

- Section 2 - contains an overview of local and national Transport Policy relevant to the Site;
- Section 3 - describes the Site, its surroundings and existing transport conditions including access by all modes of transport;
- Section 4 - sets out the development proposals including means of access;

- Section 5 - considers the accessibility of the Site and the opportunities to influence travel behaviour;
- Section 6 - contains details of likely trip generation and distribution;
- Section 7 - describes the build-up of traffic flow information for the base and design years;
- Section 8 - provides a commentary of the junction assessments that have been undertaken to determine the impact of the development; and
- Section 9 - contains the summary of the findings and conclusions of the TA.

2. Planning Policy Context

2.1 INTRODUCTION

2.1.1 This section of the TA sets out planning policy context against which the proposed development is to be considered insofar as it relates to transportation and highway matters.

2.1.2 It sets out the relevant statements of planning policy within the statutory development plan and the National Planning Policy Framework (NPPF) that relate to the scheme. The Government also publishes National Planning Practice Guidance (NPPG) to explain how NPPF policy should be implemented.

2.1.3 S38(6) of the Planning and Compulsory Purchase Act 2004 states that *"If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise."* Therefore, the development plan is the starting point for the determination of planning applications.

2.1.4 The proposed development lies within the administrative boundary of Barnsley Metropolitan Borough Council (BMBC). BMBC is a Unitary Authority and consequently has responsibility for highways and transportation matters within its administrative boundary. Barnsley's Local Plan is the statutory development plan.

2.2 LOCAL POLICY

Barnsley Local Plan

2.2.1 Following public consultation and examination by an Independent Planning Inspector, Barnsley's Local Plan was adopted by Full Council on 3rd January 2019.

2.2.2 The Local Plan identifies Great Houghton as being a 'Village' and notes that villages vary in size from larger villages to small hamlets but are generally categorised by a more limited range of services and public transport compared with Urban Barnsley and the Principal Towns.

2.2.3 As already identified, the Site is a housing allocation; HS90 - Land off High Street, Great Houghton. The Local Plan allocation considers that the Site has an indicative capacity of 67 dwellings. The site description has no specific requirements in relation to highways and transport.

2.2.4 To the east of the Site there is an area of Safeguarded Land (Site Reference: SL22 – Off High Street). The Local Plan states that development on safeguarded land will normally only be allowed where it is consistent with the National Planning Policy Framework. Policy GB6 Safeguarded Land states that permanent development of safeguarded land will only be permitted following review of the Local Plan which proposes such development.

2.2.5 Policy T3 'New Development and Sustainable Travel' sets out the expectations of new development in relation to these matters. This policy sets out that new development should be located and designed to reduce the need to travel, be accessible to public transport and meet the needs of pedestrians and cyclists. Parking is to be provided to at least the minimum levels for cycles, motorbikes, scooters, mopeds and disabled people as set out in the relevant Supplementary Planning Document and Transport Assessments / Statements and Travel Plans are to be provided.

2.2.6 The Local Plan sets out detailed requirements for both Transport Assessments and Travel Plans and notes that Active Traffic Management and Integrated Demand Management types of intervention are preferable to capacity improvements.

2.2.7 Policy T4 'New Development and Transport Safety' is specifically concerned with development being "*expected to be designed and built to provide all transport users within and surrounding the development with safe, secure and convenient access and movement*."

Supplementary Planning Documents and Planning Advice Notes

2.2.8 Following the adoption of the Barnsley Local Plan, BMBC has also adopted several Supplementary Planning Documents (SPD) and Planning Advice Notes (PAN) of which the following, all adopted in November 2019, are concerned with highway and transport-related topics:

- Sustainable Travel SPD – seeks contributions for sustainable and active travel. This SPD also sets out the number of electric vehicle charging points to be provided by developments as a minimum;
- Section 278 Agreements SPD – sets out the process of Section 278 agreements which relate to works within the highway;
- Parking SPD – gives guidance on parking standards; and
- Section 38 Agreements PAN – sets out the process of Section 38 agreements which relate to adoption of highway.

Sheffield City Region Transport Strategy (2011-2026)

2.2.9 The Sheffield City Region Transport Strategy (2011-2026) (SCRTS) is part of the Third Local Transport Plan for South Yorkshire, which includes the districts of Barnsley, Doncaster, Rotherham and Sheffield. It is complemented by an implementation plan which explains how the strategic priorities identified in the SCRTS will be delivered. Due to its strong economic links to West Yorkshire, Barnsley also forms part of the Leeds City Region and is therefore also covered by the Leeds City Region Transport Strategy although as one of the four South Yorkshire districts, Barnsley's transport priorities are fully addressed in the SCRTS.

2.2.10 The SCRTS has four goals for the transport system which are underpinned by a set of 26 policies:

- To support the economic growth of the SCR;
- To enhance social inclusion and health;
- To reduce emissions from vehicles; and
- To make transport increasingly safe and secure.

2.2.11 The SCRTS also sets out the desired outcomes of the strategy following the same themes identified in the four goals. A development according with Policies T3 and T4 of the Barnsley Local Plan will play its part in contributing to the desired outcomes of the SCRTS across all four themes.

2.3 SOUTH YORKSHIRE RESIDENTIAL DESIGN GUIDE (2011)

2.3.1 The South Yorkshire Residential Design Guide (SYRDG) was published in January 2011 and is for residential developers and their design professionals, consultants and agents in formulating designs and making applications for planning permission for residential development in South Yorkshire. It is used by the four South Yorkshire local authorities, including BMBC, to support their assessment of proposals and it incorporates both their planning and highway responsibilities.

2.3.2 The Residential Design Guide covers all aspects of design for residential development including provision for cyclists, pedestrians and users of public transport as well as street / junction design and parking provision.

2.3.3 At Section N1.2 the SYRDG covers Accessibility and tables walking distances for residential areas in different types of settlement to local services, the nearest bus/tram stop and primary health/education. In the context of the table at Section N1.2, it is considered that Great Houghton is a rural settlement and therefore the residential area should be a bus ride to local services, a 10 minute walk to a bus/tram stop depending on destination and a 40 minute journey to primary health/education.

2.4 NATIONAL POLICY

National Planning Policy Framework

2.4.1 The report will be prepared in line with the prevailing National Planning Policy Framework (NPPF) which was updated by The Ministry of Housing, Communities and Local Government in December 2024.

2.4.2 Paragraph 109 states:

> *"Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places".*

2.4.3 The NPPF in paragraph 110 states that "*significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making*".

2.4.4 In paragraph 115 the NPPF states that when considering development proposals, 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.

2.4.5 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 would be severe, *taking into account all reasonable future scenarios*".

2.4.6 Relating to paragraph 115, developments should also in accordance with paragraph 117 which states;

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.

2.4.7 Paragraph 118 of the NPPF states "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".

National Planning Practice Guidance

2.4.8 On 6th March 2014 the Department for Communities and Local Government launched its planning practice guidance web-based resource. The Ministry of Housing, Communities & Local Government continues to update this resource and will continue to do so, where necessary, to reflect changes to NPPF. Transportation and highways matters are addressed under the heading of 'Travel Plans, Transport Assessments and Statements', 6th March 2014 and 'Design: process and tools', 1st October 2019.

Travel Plans, Transport Assessments and Statements

2.4.9 The NPPG explains that Travel Plans (TP) and Transport Assessments (TA) are ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development and that they are required for developments which generate significant amounts of traffic movements (Paragraph: 002 Reference ID: 42-002-20140306).

2.4.10 It goes on to advise that a TA may propose mitigation measures where these are necessary to avoid unacceptable or "severe" impacts. Travel Plans are identified as playing an effective role in taking forward those mitigation measures which relate to on-going occupation and operation of the development (Paragraph: 004 Reference ID: 42-005-21040306).

2.4.11 The guidance goes on to state (Paragraph: 006 Reference ID: 42-006-20140306) that TAs and TPs can positively contribute to:

- encouraging sustainable travel;
- lessening traffic generation and its detrimental impacts;
- reducing carbon emissions and climate impacts;
- creating accessible, connected, inclusive communities;
- improving health outcomes and quality of life;
- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.

2.4.12 The guidance notes that it is important to give appropriate consideration to the cumulative impacts arising from other committed development (i.e. development that is consented or allocated and there is a reasonable degree of certainty it proceed within the next 3 years). At the decision-taking stage this may require the developer to carry out an assessment of the impact of those adopted Local Plan allocations which have the potential to impact on the same sections of transport network as well as other relevant local sites benefitting from as yet unimplemented planning approval (Paragraph: 014 Reference ID: 42-006-20140306).

2.4.13 With regard to TPs, the guidance advises that these should identify the specific required outcomes, targets and measures, and set out clear future monitoring and management arrangements all of which should be proportionate. TPs should also consider what additional measures may be required to offset unacceptable impacts if targets are not met.

2.4.14 It is necessary for TPs to set out explicit outcomes rather than just identify processes to be followed. A TP should also address all journeys resulting from a proposed development by anyone who may need to visit or stay, and it should seek to fit in with wider strategies for transport in the area (Paragraph: 011 Reference ID: 42-011-20140306).

2.4.15 An important part of the overall strategy for the proposed development is the implementation, maintenance and monitoring of a Residential Travel Plan. The Residential Travel Plan in conjunction with the Transport Assessment are geared towards encouraging sustainable travel.

Design: process and tools

2.4.16 In Paragraph: 001 Reference ID: 29-001-2019001, the NPPG refers to the 'National design guide' (NDG). The NDG contains a section on 'Movement – Accessible and easy to move around' and within this section it is noted that *"Successful development depends upon a movement network that makes connections to destinations, places and communities, both within the site and beyond its boundaries."*

2.4.17 The NDG covers matters of:

- A connected network of routes for all modes of transport;
- Active travel; and
- Well-considered parking, servicing and utilities infrastructure for all users.

2.4.18 The design of the proposed development very much responds to the NDG in that it aims to address the needs of people and to encourage all users of the development to use sustainable modes for travel both within and to and from the development.

3. Existing Site Conditions

3.1 INTRODUCTION

3.1.1 This section describes the location of the Site and considers the existing conditions of the surrounding highway network for a range of transport modes.

3.1.2 The section also includes a review of recent personal injury collision data and describes the existing local facilities in the vicinity of the Site.

3.2 EXISTING SITE

3.2.1 The Site is generally rectangular in shape, has an overall area of approximately 3.56 hectares, and is currently undeveloped agricultural land.

3.2.2 The Site is bound to the west by B6273 High Street, to the north by an existing hedgerow beyond which is further agricultural land, to the east by a hedge line beyond which is another agricultural field and to the south by farm buildings belonging to Manor Farm.

3.2.3 The Site is located to the north west of the village which takes a generally linear form to both sides of B6273 High Street. Great Houghton and the Site is some 8.5km to the east of Barnsley Town Centre and some 15km to the west of Doncaster Town Centre.

3.2.4 The location of the Site in relation to the wider surroundings is shown in Figure 2.

3.3 EXISTING LOCAL HIGHWAY NETWORK

3.3.1 B6273 High Street which abuts the western frontage is a lit, adopted highway with a typical carriageway width of some 7.5m and is flanked by a footway to the west and a grass verge to the east, along the Site frontage.

3.3.2 In the vicinity of the Site frontage, High Street is subject to a 30mph speed limit. At the northern boundary of the Site, High Street becomes Moor Lane and, just to the north, the speed limit for traffic in a northbound direction changes to 60mph, the National Speed Limit for a single carriageway road. On the southbound approach, there are 'Dragon's Teeth' road markings to denote the change in speed limit from 60mph to 30mph.

3.3.3 B6273 Moor Lane runs in a generally northerly direction into Southmoor Road and meets A628 at a four-arm roundabout just to the south of Hemsworth. To the west of the roundabout, A628 is a key route into the centre of Barnsley which lies to the south west. To the east of the roundabout, A628 continues to another four-arm roundabout with B6422 Hemsworth Road and continues again to a three arm roundabout with A6201.

3.3.4 At this three-arm roundabout, A6201 as Sprockhovel Way and Wrangbrook Lane continues in a generally easterly direction to Barnsdale Bar on the A1. A628 continues in a generally northerly direction through Ackworth and into Pontefract.

3.3.5 In the centre of Great Houghton, B6411 Thurnscoe Lane leaves B6273 at a priority T junction leading in a generally easterly direction through the neighbouring village of Thurnscoe to join the A635 Doncaster Road at Hickleton. A635 is a key route between Barnsley to the west and Doncaster to the east and also connects to Junction 37 on A1(M) Doncaster Bypass, this interchange is known as Marr Roundabout.

3.3.6 To the south of Great Houghton, B6273 continues as Rotherham Road to connect with A6195 Dearne Towns Link Road just to the east of Darfield at Rotherham Road Roundabout. The Dearne Towns Link Road is a dual carriageway road that connects the Dearne towns of Darfield, Wombwell,

Brampton, Hemingfield and Hoyland with Junction 36 of the M1 Motorway. A6195 also intersects with A635 at Cathill Roundabout which is some 450m south of Rotherham Road Roundabout.

3.4 EXISTING PEDESTRIAN AND CYCLE FACILITIES

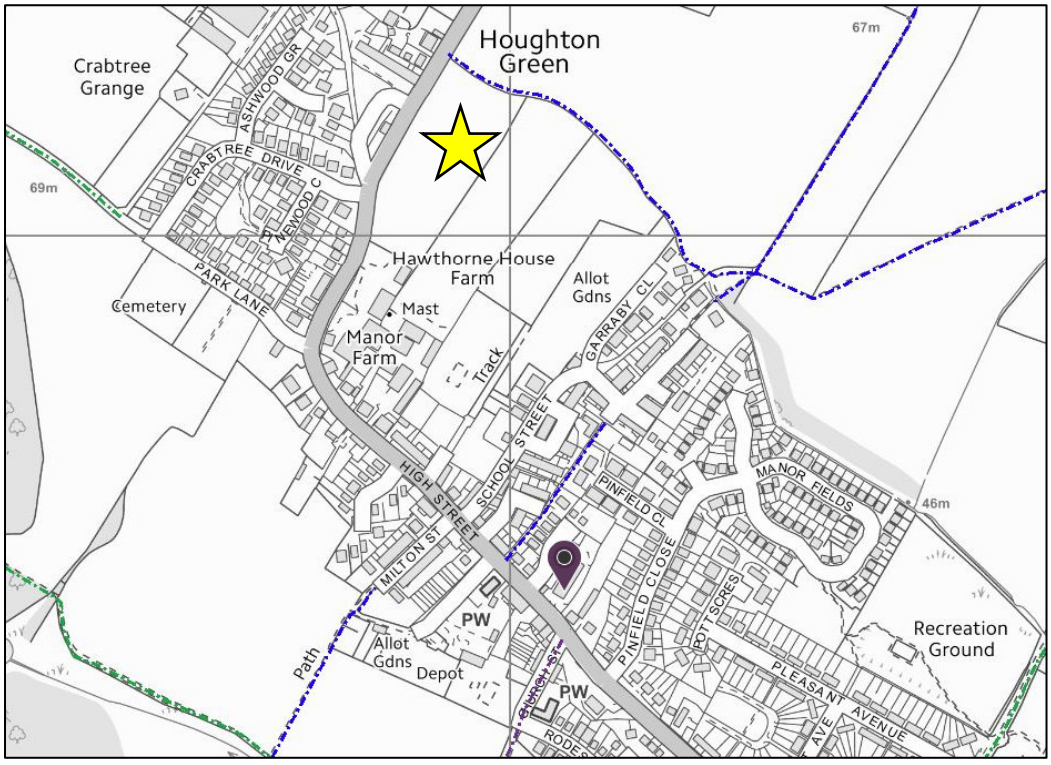
Pedestrian Infrastructure

3.4.1 There is a footway on High Street on the opposite side to the Site frontage and at the southern end of the frontage there is a footway to both sides. The footway on the eastern side is separated from the edge of carriageway by a grassed verge. There is continuous footway provision into the village to the south.

3.4.2 There are no Public Rights of Way within the Site and Footpath Number 4 follows the northern boundary running into Footpath Numbers 2 and 3 to the west of the Site. Footpath Number 5 which is a Bridleway leads in a north westerly direction off the end of Park Lane on the opposite side of High Street.

3.4.3 An extract from Barnsley's Public Rights of Way map is shown in Image 2.1 with Footpaths shown in blue, Bridleways in green and Restricted Byways in purple.

Image 3.1 Public Rights of Way in the vicinity of the Site



Source: www.barnsley.gov.uk/barnsley-maps/public-rights-of-way/

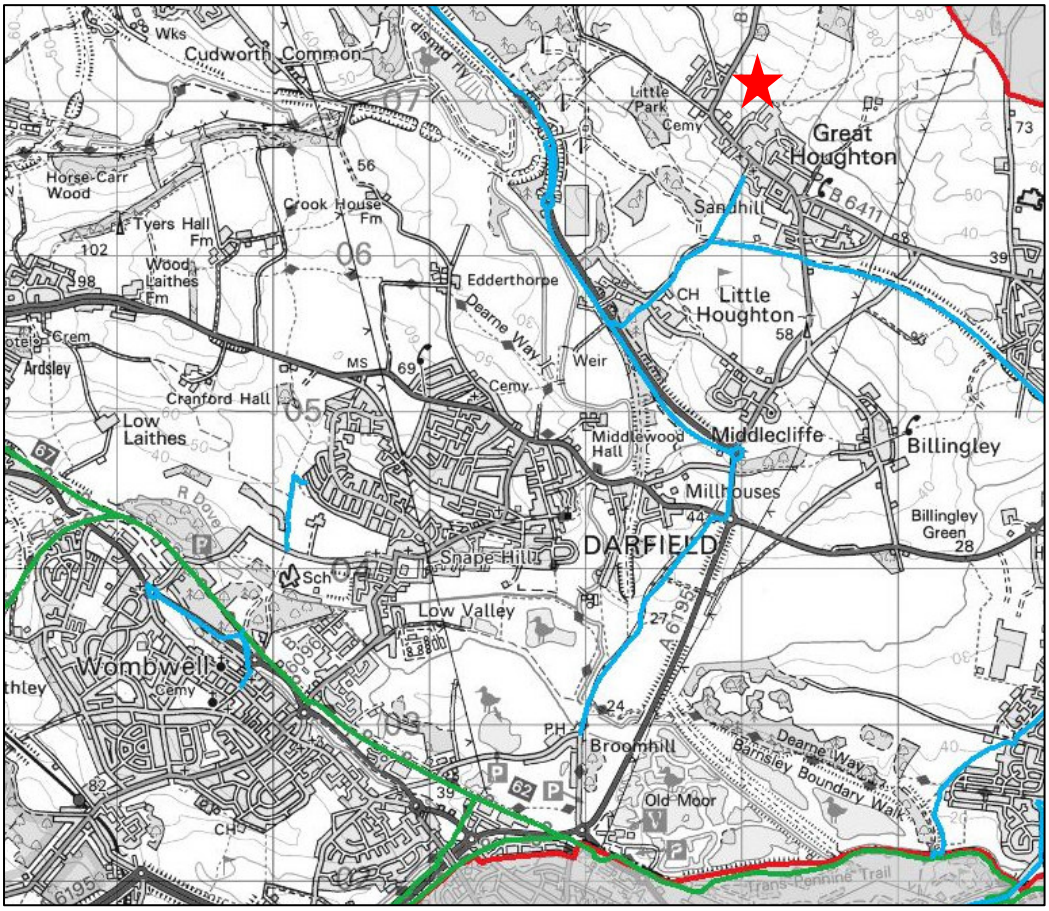
Cycle Infrastructure

3.4.4 The Restricted Byway that leads to the south from Church Street to the south of the village is designated as Cycle Route Number 3i – Great Houghton to Park Springs Road (A6195). This leads to a network of cycle routes in the Barnsley District including National Cycle Route 67 which is the Transpennine Trail.

3.4.5 The coast-to-coast section of the trail runs between Southport and Hornsea and locally can be utilised to access Barnsley and Doncaster, and within a wider, regional context can be utilised to access Sheffield, Leeds, Chesterfield and Hull.

3.4.6 An extract from Barnsley's Cycle Network map is shown in Image 3.2 with existing routes shown in blue and traffic-free national routes shown in green.

Image 3.2 Barnsley Cycle Network



Source: www.barnsley.gov.uk/barnsley-maps/national-cycle-network/

3.5 EXISTING DATA

Junction Turning Counts

3.5.1 Fully classified turning count surveys have been carried out for several junctions on the local highway network as set out in Table 3.1.

Table 3.1 Fully Classified Junction Turning Count Surveys

Ref	Location	Date Undertaken	Survey Periods
1	B6273 High Street / B6411 Thurnscoe Lane	Thursday 21st September 2023	07:00-10:00 and 16:00-19:00
2	Rotherham Road Roundabout (B6273/A6195)	Thursday 21st September 2023	07:00-10:00 and 16:00-19:00
3	Cathill Roundabout (A6195/A635)	Thursday 21st September 2023	07:00-10:00 and 16:00-19:00

Radar Speed Survey

3.5.2 Two Radar Gun Speed Surveys were also undertaken on B6273 High Street to provide vehicular speeds – split into northbound and southbound. These surveys are compliant with CA185 guidelines and were carried out on Monday 2nd June 2025 when the weather was overcast and the road surface was dry. The locations of these surveys are shown in Image 2.7 below.

Image 3.3 Radar Gun Speed Survey Locations

3.5.3 The speeds were recorded in locations suitable to obtain data to inform the design of the access junction and in free-flowing traffic conditions. The 85th percentile wet weather values that have been calculated from the results of the speed survey are provided in Table 3.2 and the raw data is contained at **Appendix A.**

Table 3.2 Radar Gun Speed Survey Results – High Street

Northbound		Southbound	
Average Speed (mph)	**Wet Weather 85th Percentile (mph)**	**Average Speed (mph)**	**Wet Weather 85th Percentile (mph)**
29.4	31.8	31.1	33.8

The Speed Gun Surveys show that the resulting northbound and southbound wet weather 85th percentile speeds are 31.8mph and 33.8mph respectively.

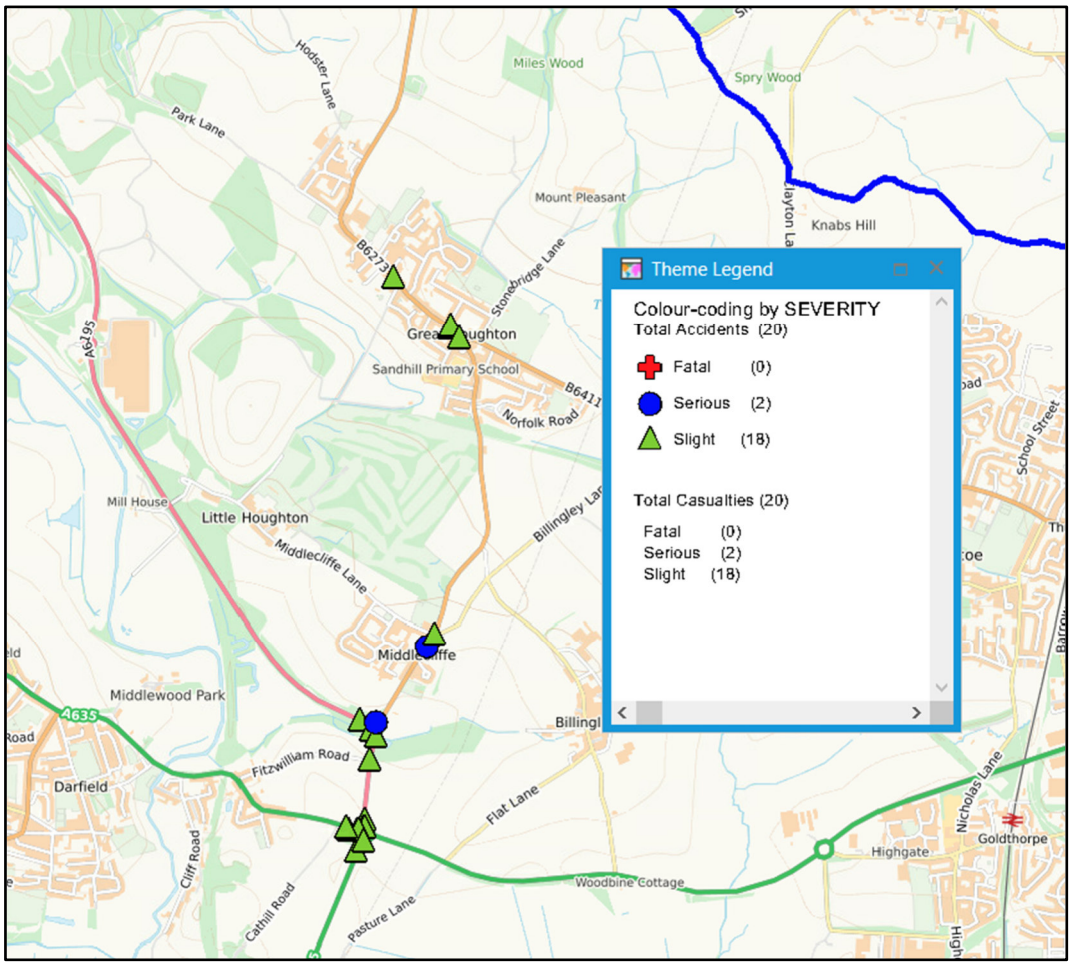
Personal Injury Collision Data

3.5.4 BMBC has provided Personal Injury Collision (PIC) data for the latest available 5 year (54 month) period from 1st January 2019 to 26th June 2023.

3.5.5 The study area includes B6273 High Street in the vicinity of the Site frontage and to the southeast to the junction with B6411 Thurnscoe Lane and also Rotherham Road Roundabout (B6273/A6195) and Cathill Roundabout (A6195/A635).

3.5.6 The data includes a Location Plan as shown on Image 3.3 and a copy of the data is contained at **Appendix B**.

Image 3.4 PIC Locations



Source: Barnsley Metropolitan Borough Council

3.5.7 As can be seen from Image 3.3, there has been a total of 20 collisions in the 5 year period resulting in a total of 20 casualties, 18 of which were classified as slight and 2 as serious. There have been no collisions resulting in a fatality. No collisions have been recorded in the vicinity of the proposed access locations from High Street.

3.5.8 There have been two collisions at Rotherham Road Roundabout, both of which were classified as slight in severity. One collision occurred on the Park Spring Road arm and the other on the A6195 Rotherham Road arm, both on the approach to the junction. A further two collisions occurred on the A6195 on the approach to the roundabout.

3.5.9 There has been one collision at the junction of A6195 Rotherham Road and Fitzwilliam Road, which have been classified as slight in severity. It is not clear whether any of these collisions are associated with the close proximities of Rotherham Road Roundabout to the north.

3.5.10 Ten of the collisions have occurred at or near Cathill Roundabout, all of which were classified as slight in severity. Several of the collisions were rear-end shunt type collisions involving two or more vehicles. Full descriptions of each collision are provided at **Appendix B**.

3.5.11 One of the collisions that has been classified as serious in severity as a result of a cyclist being knocked from his cycle on the circulatory carriageway. The rear of the bicycle was hit by a car with the cyclist sent onto the bonnet and the bicycle went underneath the cars wheel.

3.5.12 The remaining serious collision occurred to an elderly pedestrian who admitted stepping into the path of a vehicle whilst crossing B6273 Rotherham Road near the General Store to post a letter.

3.5.13 Based on the information available there is no evidence to suggest that there is a particular road safety issue in the local area or that the traffic that will be generated by the proposed development will exacerbate the current situation.

3.6 EXISTING PUBLIC TRANSPORT SERVICES/FACILITIES

3.6.1 The nearest bus stop to the Site is provided opposite the Site frontage within a dedicated bus turnaround area. This bus stop is located some 200m walking distance from the centre of the Site and is served by operators such as Stagecoach Yorkshire and Wilfreda Beehive. A summary of the nearest bus stop on High Street is provided in Table 2.1.

Table 3.3 Summary of Nearest Bus Stops

Bus Stop Reference	Location	Direction	Distance from Centre of Site	Facilities	Buses towards	Services
High Street/Crabtree Road						
37055289	High Street/Crabtree Road	Southbound	200m	Bus stop shelter, timetable information and bin	Barnsley, Doncaster & Wombwell	219, 219a, 449 & 664

3.6.2 There is also a further pair of bus stops located on High Street towards the south of the Site, some 500m from the centre of the Site. Both of these bus stops have shelters and are used by the same services as the nearer stop.

4. Development Proposals & Site Access Strategy

4.1 INTRODUCTION

4.1.1 This chapter describes the development proposals as well as the access strategies for primary transport modes.

4.2 DEVELOPMENT PROPOSALS

4.2.1 The development proposals are for the erection of 108 residential dwellings on land to the east of High Street, Great Houghton. A copy of the proposed masterplan is provided at **Appendix C**, an extract of which is provided in Image 4.1 below.

Image 4.1 Proposed Site Layout

4.2.2 The proposals can be summarised as follows:

- 108 residential units – a mix of 8 one bed, 34 two bed, 44 three bed and 22 four bed; 98 units will be open market and 10 will be affordable;
- Vehicular access from High Street;
- Pedestrian access from an existing PRoW via High Street;
- Associated Parking, Landscaping and Infrastructure Works.

4.3 PROPOSED ACCESS STRATEGY

Vehicular Access

4.3.1 Vehicular access is sought to be provided from High Street via a simple priority T-junction. The proposed Site access junction is displayed on the drawing contained at **Appendix D** (an extract of which is provided in Image 4.2 below) and comprises of the following:

- 6.0m carriageway on Site access road;
- 2.0m footway on either flank of the carriageway; and
- 10m junction radii.

4.3.2 A small number of dwellings will be served from private drives directly off High Street, one private drive to the north of the main access and two to the south. All private drives are positioned in excess of 40m apart from junctions on the same side as set out within the South Yorkshire Residential Design Guide. All private drives will provide turning facilities to allow vehicles to egress onto High Street in forward gear.

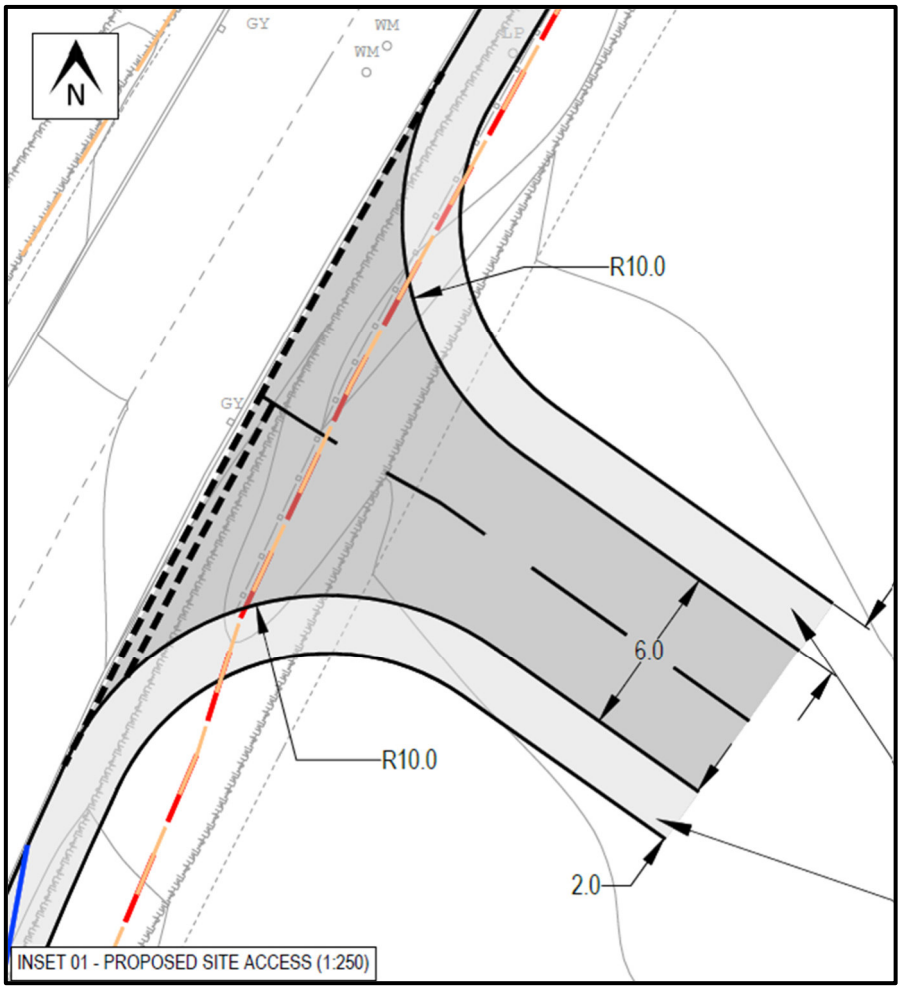
4.3.3 The length of the visibility splays at the proposed access have been informed by the results of the radar speed survey set out in Section 3.5. The 85th percentile wet weather values that have been calculated from the results of the speed survey are as follows:

- High Street (Northbound) – 31.8 mph; and
- High Street (Southbound) – 33.8 mph.

4.3.4 In accordance with Table 7.1 of Manual for Streets (MfS) which is referenced in the South Yorkshire Residential Design Guide (SYRDG), a visibility splay of 2.4m x 47m is required to the south and a visibility splay of 2.4m x 51m is required to the north. These splays will also be provided at each of the private drive accesses.

4.3.5 The drawing which displays the visibility splays for the Site access and private drives accesses is contained at **Appendix D**.

Image 4.2 Proposed Site Access



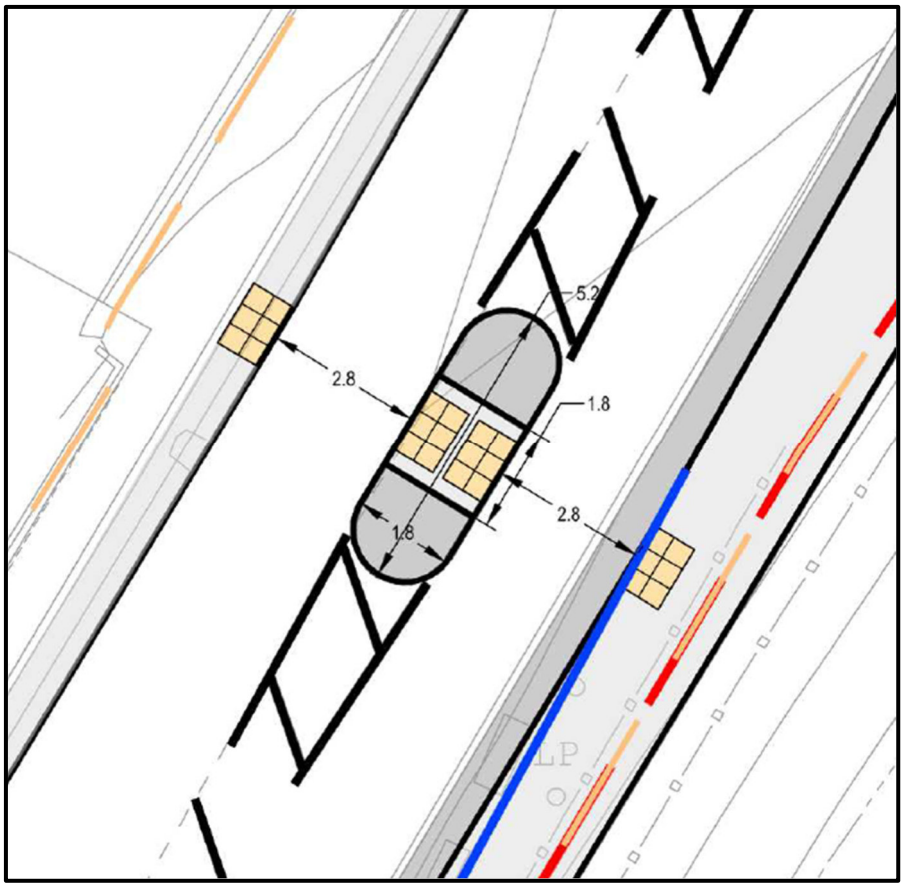
Pedestrian/Cycle Access

4.3.6 Pedestrian/cycle access will be provided via the Site access from High Street and via dedicated footpaths towards the north and south of the Site. In addition, a 2.0m wide footway will be provided along the Site frontage connecting to the existing footways along High Street.

4.3.7 Towards the north of the Site, a connection will be possible onto the nearby PRoW network via the Site access/dedicated northern pedestrian link and the proposed 2.0m footway along the Site frontage.

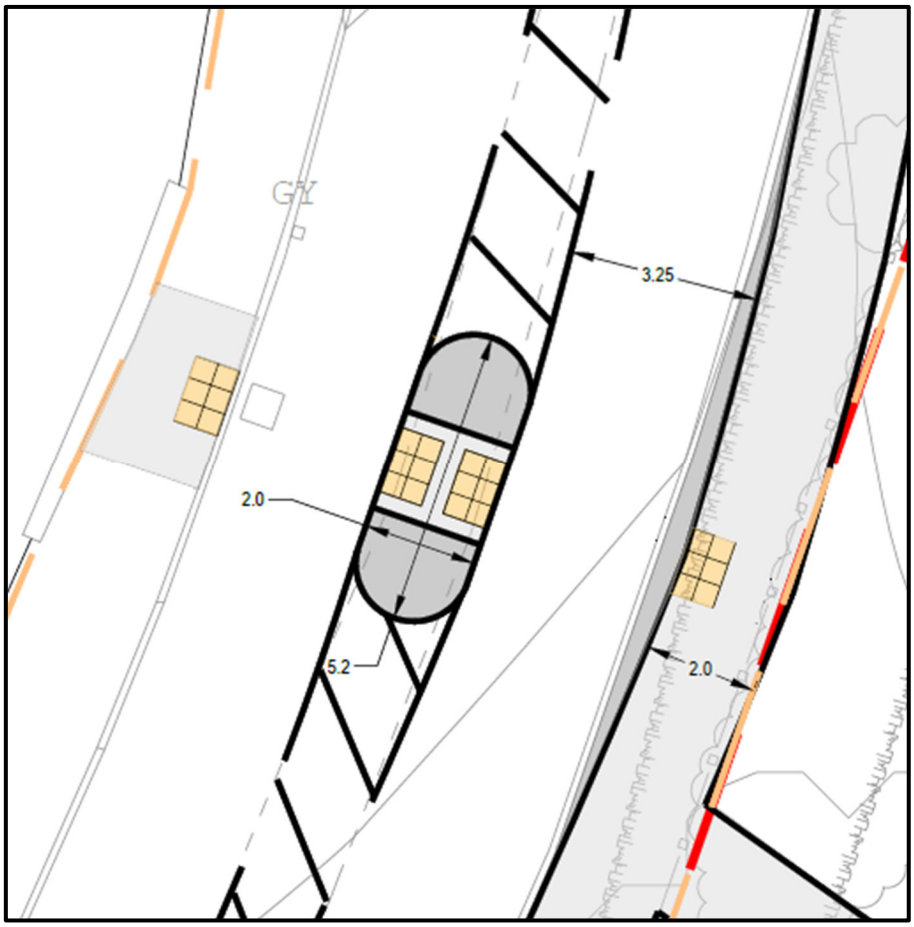
4.3.8 To the south of the dedicated northern pedestrian link, a pedestrian refuge island is proposed just north of Lister Row to facilitate access to the bus stop turnaround. The provision of the refuge island necessitates widening of the western footway to increase its width to a minimum of 2.0m.

Image 4.3 Proposed Crossing Facility – Northern Refuge Island



4.3.9 To improve pedestrian connectivity to the south, a pedestrian refuge island is proposed on High Street to the south of the main Site access, just to the north of the proposed pedestrian link into the Site. This connection will provide an improved connection with the nearby bus stop turnaround area on High Street. The details of the proposed crossings to the north and south of the main access are contained at **Appendix D**.

Image 4.4 Proposed Crossing Facility – Southern Refuge Island



4.4 INTERNAL LAYOUT AND SERVICING

4.4.1 Within the development Site there will be a network of residential streets measuring 6.0m in width, expect for the northern cul-de-sac which is 5.5m wide. Throughout the Site, 2.0m footways will also be provided.

4.4.2 Visibility for the internal junctions has been assessed and is in accordance with Table 7.1 of Manual for Streets which requires achievable visibility splays of 2.4m x 25m for a 20mph design speed. As shown on the drawing in **Appendix D**, the required visibility splays are achievable.

4.4.3 The bends along the southern residential street have a sharp change in direction and, in accordance with Section 4.2.5 of the South Yorkshire Residential Design Guide, this would be considered a speed control bend. Therefore, a 15mph design speed has been applied for vehicles travelling around the bend which equates to a forward visibility of 17m in accordance with Table 7.1 of Manual for Street and paragraph B.1.3.4 of the SYRDG which acknowledges that limiting forward visibility assists in reducing traffic speeds. With this in mind, the required forward visibility of 17m can be fully achieved within the adopted highway.

4.4.4 Appropriate turning facilities are provided to allow the development to be serviced by the refuse collection vehicle and delivery vehicles. Swept path analysis for a refuse collection vehicle, a fire tender and a home delivery vehicle has been carried out and this is contained at **Appendix D**.

4.5 PARKING PROVISION

Car Parking

4.5.1 BMBC has produced a Supplementary Planning Document (SPD) on 'Parking' which was adopted in November 2019 to support its emerging Local Plan. Table 1 of the Parking SPD sets out parking standards for broad categories of development and for C3 Dwelling Houses Borough wide (excluding Barnsley Urban) the maximum number of spaces allowed are 1 space for dwellings with 1 or 2 bedrooms and 2 spaces for dwellings with 3 or more bedrooms.

4.5.2 With respect to visitor parking, Table 1 of the Barnsley Parking SPD states that 1 visitor parking space per 4 dwellings should be provided. This is sought to be provided by a mixture of dedicated visitor parking spaces and on-street parking on roads with a minimum width of 6.0m.

4.5.3 The site provides 14 dedicated visitor parking spaces. A further 14 spaces can be provided on street along the 6m wide spine road.

4.5.4 The Parking SPD refers to the Sustainable Travel SPD in relation to the requirement for electric vehicle charging points (EVCPs) and the requirement for residential development is 1 charging point per dwelling with dedicated parking or 1 charging point per 10 spaces where parking is unallocated.

4.5.5 In summary, the proposed car parking provision is in line with BMBC's standards and is provided as a mix of off-road parking spaces, driveways and detached garages, as well as on-street for visitors.

Cycle Parking

4.5.6 Each residential dwelling will be provided with secure cycle storage facilities which will be provided in either garages or rear garden sheds.

5. Site Accessibility and Measures to Influence Travel Behaviour

5.1 INTRODUCTION

5.1.1 This chapter provides an assessment of the accessibility of the Site by foot, cycle, and public transport, considering local and national guidance and the availability of nearby facilities and travel opportunities.

5.1.2 The Government's objectives set out in the National Planning Policy Framework (NPPF) are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes of transport can be maximised.

5.2 ACCESSIBILITY ON FOOT

5.2.1 There are a range of local amenities and destinations within the surrounding area that are likely to attract walking trips from the proposed development. These amenities, and access to them, are discussed in the sections below.

5.2.2 The Institution of Highways & Transportation (IHT) document 'Providing for Journeys on Foot' states at paragraph 3.30 that 80% of walk journeys in urban areas are less than 1 mile (1.6km) and that on average people are prepared to walk 1.0 km with this figure differing little by age or sex, remaining constant since 1975. Table 3.2 of the document goes on to suggest some desirable, acceptable, and preferred maximum walking distances to 'town centres', 'commuting/schools' and 'elsewhere'. No specific studies are referenced to support these 'suggested' distances and it is not clear when the 'preferred maximum' distances should be applied as opposed to the shorter 'acceptable' distances. Notwithstanding this, the suggested walking distances are shown in Table 4.1.

Table 5.1 IHT 'Providing for Journeys on Foot' Walk Distances

	Town Centres (m)	Commuting/School/ Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

Source – Table 3.2 'Guidelines for Providing for Journeys on Foot' published by CIHT

5.2.3 The residential design guide 'Manual for Streets' (MfS) advises that "walkable neighbourhoods are typically characterised by having a range of facilities within ten minutes (up to about 800m) walking distance of residential areas…" (ref para 4.4.1). However, this is not regarded as an upper limit in MfS and reference is also made to walking offering "the greatest potential to replace short car trips, particularly those under 2km". The acceptability of walking trips up to 2km (an approximate 25 minutes' walk time) is also supported in the Chartered Institution of Highways and Transportation (CIHT) document 'Providing for Journeys on Foot', 2000.

Table 5.2 "Manual for Streets' Walk Distances to Local Facilities

'Comfortable' Walk Distance (m)	'Preferred Maximum' Walk Distance (m)
800	2,000

5.2.4 In summary, taking into account all of the guidance and evidence, it is considered that:

- **800m** represents a comfortable walking distance that the vast majority of people are prepared to undertake; and
- **2,000m** represents an acceptable upper limit walk distance for the majority of journey purposes.

5.2.5 The measures proposed which will positively influence trips on foot by residents and visitors include:

- Boundary connections with the existing highway network on the western frontage on to High Street;
- Internal links and pedestrian routes to create the shortest possible distances to the boundary connections; and
- Travel Plan initiatives for residents.

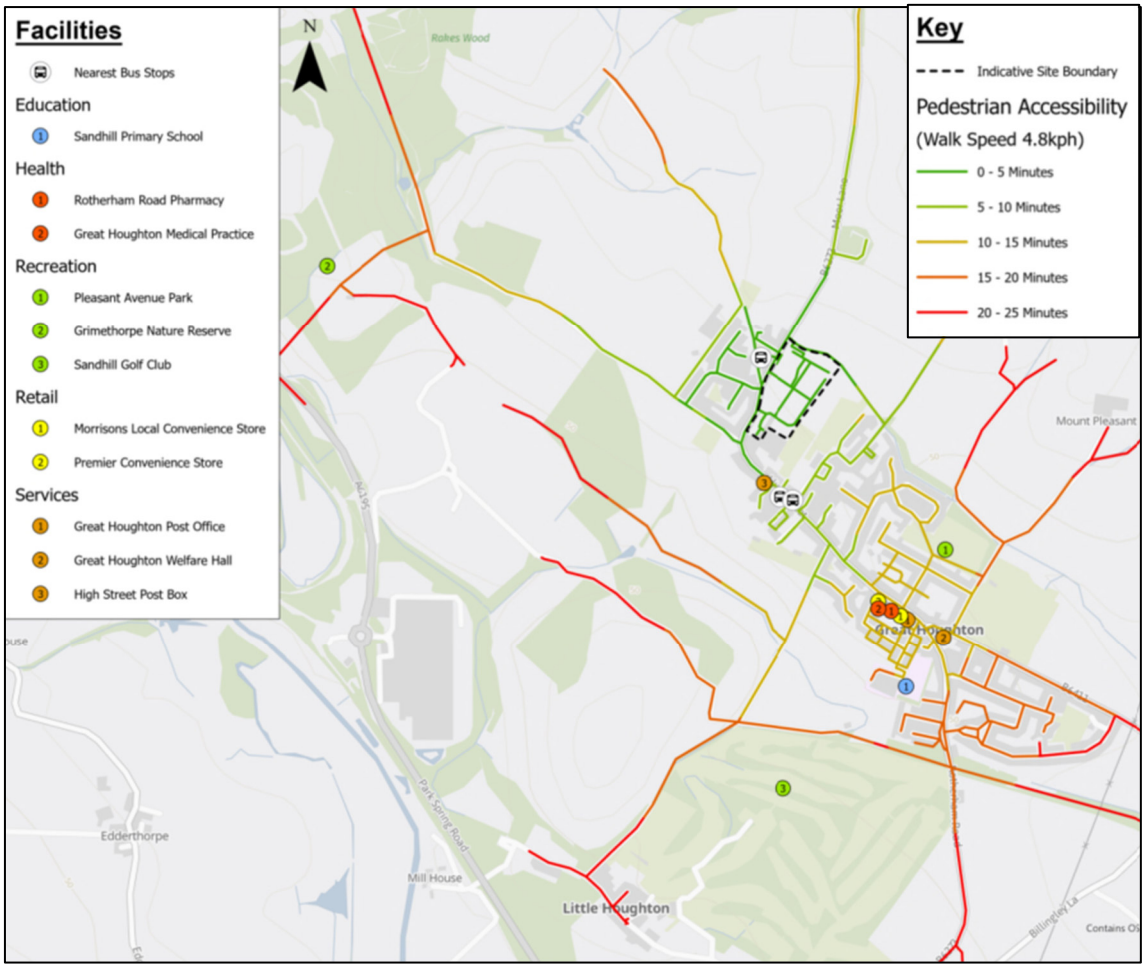
5.2.6 Based on the 'upper limit' 2km distance determined from national policy guidance, a number of local facilities can be considered to be within an acceptable walking distance. These are summarised in Table 5.3.

Table 5.3 Local Facilities within 2.0km of Site

Facility / Destination	Name / Comment
Education	1. Sandhill Primary School
Health	1. Rotherham Road Pharmacy 2. Hollygreen Medical Practise
Recreation	1. Pleasant Avenue Park 2. Grimethorpe Nature Reserve 3. Sandhill Golf Club
Retail	1. Morrisons Local Convenience Store 2. Premier Convenience Store
Services	1. Great Houghton Post Office 2. Great Houghton Welfare Hall 3. High Street Post Box

5.2.1 Using GIS Network Analyst software, the facilities within a 2km walk distance are shown in Figure 3 and in Image 5.1.

Image 5.1 Extract from Pedestrian Accessibility Plan



5.2.2 Figure 4 and the extract within Image 5.1 demonstrate that:

- The nearest bus stops located within the dedicated turnaround area on High Street can be reached within 5 minutes;
- The closest educational facility to the Site is Sandhill Primary School and can be reached within a 20-minute walk;
- There is multiple leisure facilities located within a 25-minute walk from the proposed development Site, these include such as Pleasant Avenue Park and Sandhill Golf Club;
- All health-related facilities can be reached within a 15-minute walk from the centre of the development Site;
- The nearest service facility is High Street Post Box, which can be reached within a 5 minutes' walk from the Site; and
- The nearest retail facility to the Site is Premier Convenience Store located to the southeast of the development Site and can be reached within a 15 minutes' walk.

5.2.3 There are other facilities within Great Houghton including three takeaway outlets, a veterinary surgery and a petrol station.

5.2.4 It is considered that the vast majority of pedestrian trips will be southbound along High Street towards local facilities. The existing footways are considered to be suitable for the level of demand expected and are continuous to local facilities off High Street.

5.2.5 Gradients locally are generally flat and are not considered to be a barrier to trips made on foot.

5.2.6 It is concluded that the proposed residential development will be provided with good accessibility on foot to a range of services and facilities in accordance with nationally recognised MfS, CIHT and DfE guidance.

5.3 ACCESSIBILITY BY CYCLE

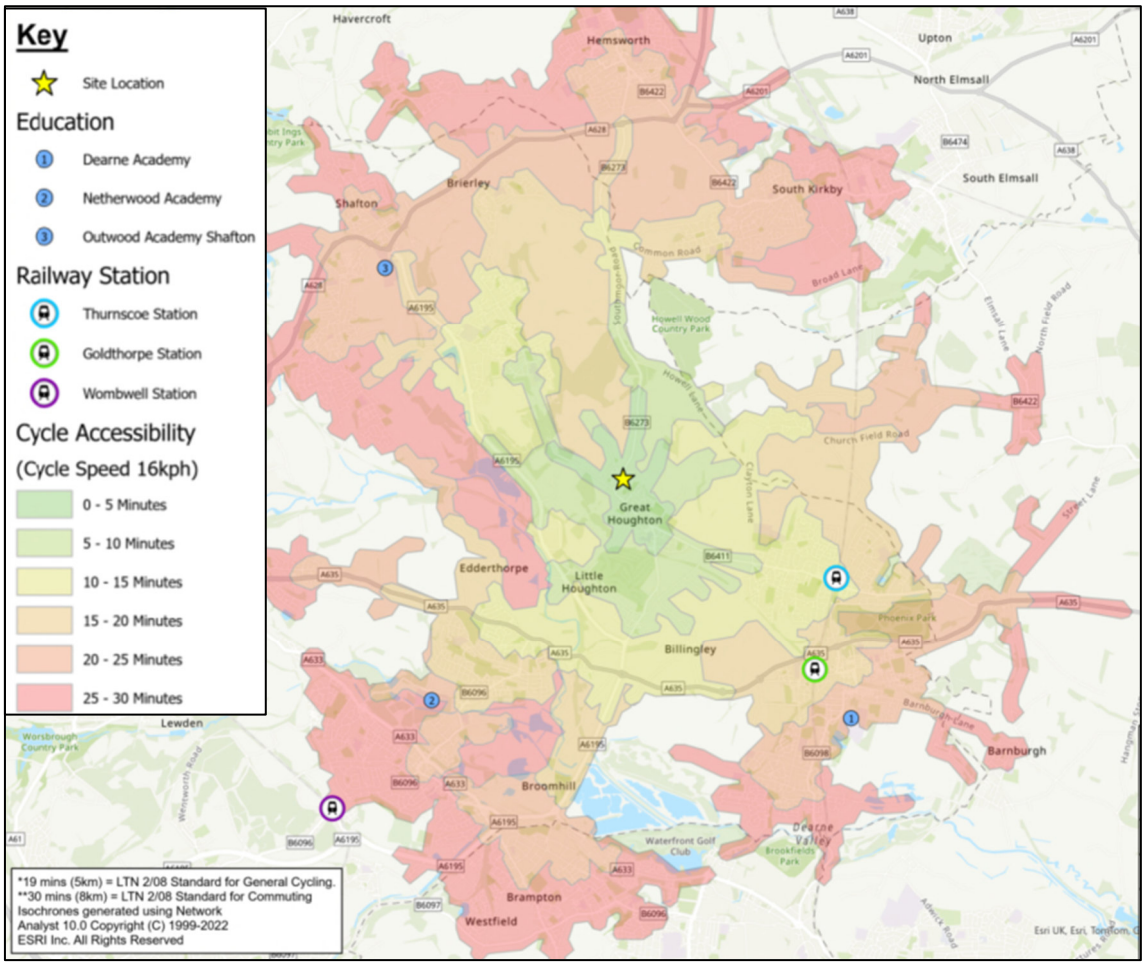
5.3.1 The measures proposed to positively influence trips on foot will also assist in influencing trips by cycle.

5.3.2 An acceptable and comfortable distance for general cycling trips is considered to be up to 5 kilometres as referred to in DfT's Local Transport Note 2/08. However, the same guidance also refers to commuting cycle trips of up to 8km. Whilst, in terms of design guidance for cycle facilities, this LTN has now been superseded by LTN 1/20, there is no reason to suggest that the accepted cycle distances have changed.

5.3.3 From the Site, an 8km catchment area encompasses Grimethorpe, Thurnscoe, Goldthorpe and parts of Wombwell and Wath Upon Dearne which opens up a wider variety of employment opportunities for residents. Langthwaite Business Park in South Kirkby and Goldthorpe Industrial Estate are accessible by cycle.

Using GIS Network Analyst software typical cycle times (up to 30 minutes which broadly equates to a distance of 8km) from the Site are shown in Figure 4 and an extract is provided in Image 5.2.

Image 5.2 Extract from Cycle Accessibility Plan



5.3.4 Figure 4 (Image 5.2) demonstrates that:

- A wide variety of retail, health, recreation and service facilities are located in Grimethorpe and Thurnscoe which can be reached within a 30-minute cycle ride;
- Many secondary schools such as Deanre Academy, Netherwood Academy & Outwood Academy Shafton can be reached within a 30-minute cycle ride; and
- Thurnscoe Railway Station can be reached within 15 minutes towards the east of the Site. Alternatively, Goldthorpe Railway Station is accessible within a 15-minutes cycle ride from the Site;

5.3.5 It is concluded that the proposed residential development will be provided with good accessibility by cycle to a wide range of local services, facilities and employment opportunities, many of which are within a short cycling distance.

5.4 ACCESSIBILITY BY BUS

5.4.1 The Institute of Highways and Transportation (IHT) published the 'Guidelines for Planning for Public Transport in Developments' in 1999 which outlines requirements for distances between bus stops and developments. The IHT state in paragraph 6.20 that "the maximum walking distance to a

bus stop should not exceed 400m and preferably be no more than 300m". However, it's stressed that these distances are guidelines and "should not be followed slavishly".

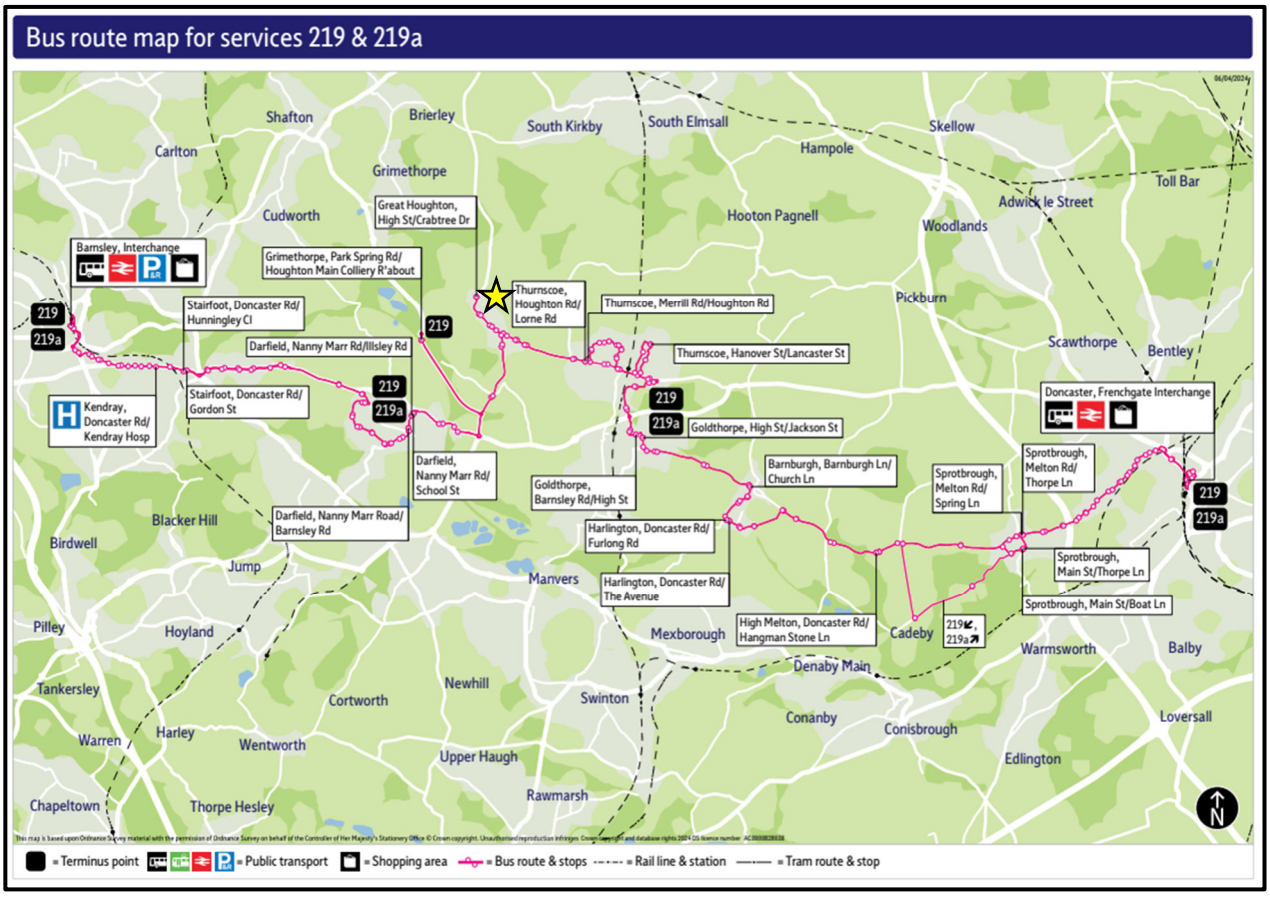
5.4.2 The nearest bus stop to the Site is provided on High Street, just to the west of the Site and sees services from operators such as Stagecoach Yorkshire and Wilfreda Beehive. The bus stop within the vicinity of the Site on High Street lies within the desirable 400m figure suggested by IHT. A summary of the bus services that serve these bus stops is given in Table 5.4.

Table 5.4 Summary of Bus Services – High Street

Service	Route	Days of Operation	Approximate One-way Frequency	Time of Operation
219/219a	**Doncaster – Barnsley** *Stop ID: 37055289*	Monday – Friday	1 per hour	06:39 – 23:00
		Saturday	1 per hour	08:17 – 23:00
		Sunday	Every 2 hours	09:05 – 23:00
	Barnsley - Doncaster *Stop ID: 37055289*	Monday – Friday	1 per hour	07:22 – 23:24
		Saturday	1 per hour	07:27 – 23:24
		Sunday	Every 2 hours	09:23 – 23:24

5.4.3 Service 219, operated by Stagecoach Yorkshire, provides the majority of the bus services that serve High Street. This service operates between Doncaster and Barnsley providing an hourly service in either direction between 06:39 & 23:00 on Monday to Saturday. This service also runs once every two hours on Sundays between 09:05 & 23:00. The route map for this service is provided in Image 5.3, below.

Image 5.3 Bus Route Map for Services 219 & 219a



5.4.4 Service 219a, which is also operated by Stagecoach Yorkshire, only runs services during the early morning and evening periods from Monday to Saturday. The 219a service does not run on Sundays.

5.4.5 The bus stop on High Street also sees Services 446 & 664 which are school bus services operated by Wilfreda Beehive. Service 446 operates between Wombwell and Thurnscoe and serves Netherwood Academy. Whereas, Service 664 operates between Wombwell and Wath-upon-Dearne and serves St Pius X Catholic High School.

5.4.6 The bus services that serve High Street provide the following journey times to key local facilities and destinations:

- Thurnscoe – approximately 17 minutes on Services 219/219a;
- Barnsley – approximately 36 minutes on Services 219/219a; and
- Doncaster – approximately 55 minutes on Services 219/219a.
- South Crosland – approximately 4 minutes on Services 354 & 355;

5.5 ACCESSIBILITY BY RAIL

5.5.1 The nearest railway station is in Thurnscoe located circa 3.75km to the east of the Site. The station can be accessed via multiple modes of non-car transport, and these are summarised in Table 5.5 with their associated estimated journey times.

Table 5.5 Total Journey Times to Dewsbury Train Station

Mode of Transport	Total Approx Journey Time
Cycle	11 minutes
Bus	13 minutes

5.5.2 Thurnscoe Railway Station is managed and solely served by Northern Trains providing services to key destinations such as Sheffield, Leeds and Wakefield.

5.5.3 The stations' ticket office is staffed between 06:15 to 19:30 on Monday- Saturday and 07:30 to 19:30 on Sundays. The station also offers ticket machines.

5.5.4 The station offers ticket machines and 8 spaces for bicycles which are sheltered and covered by CCTV.

Table 5.6 Rail Service Summary

Route	Days of Operation	Approximate One-way Frequency	Time of Operation
Leeds - Sheffield	Monday – Friday	1 per hour	06:20 – 23:07
	Saturday	1 per hour	06:20 – 23:07
	Sunday	1 per hour	09:22 - 22:26
Sheffield - Leeds	Monday – Friday	1 per hour	05:49 – 23:46
	Saturday	1 per hour	05:49 – 23:46
	Sunday	1 per hour	08:58 – 23:04

5.5.5 An alternative railway station is Wombwell Railway Station which is located on the Hallam Line is some 7.9km southwest of the Site and provides services to destinations such as Barnsley, Sheffield and Huddersfield.

5.5.6 It is therefore concluded that the Site will be provided with reasonable accessibility by public transport to principal local and regional destinations which offer a vast range of services, facilities and employment opportunities.

5.6 RESIDENTIAL TRAVEL PLAN

5.6.1 A Residential Travel Plan has been prepared to accompany this Transport Assessment. This demonstrates the connectivity between the Site and surrounding amenities, highlighting the opportunities for future residents to access these by means other than the car. It also sets out the ways in which the applicant will facilitate and encourage trips by sustainable modes of travel, by implementing a series of measures including (but not limited to):

- The appointment of a Travel Plan Coordinator to ensure the Travel Plan is delivered to full effect;
- A travel information guide that will be displayed in the sales office to sell the accessibility of the development to potential future residents, this guide will also be provided to all new occupiers;

- The potential for personalised journey planning; and
- Ongoing communication with residents regarding local travel options via an annual newsletter.

5.6.2 The Travel Plan also includes targets, which reflect the trip generation within this Transport Assessment; monitoring will be undertaken on an annual basis, following first occupation and the results of this process reported to BMBC.

5.7 SUMMARY

5.7.1 In summary it is concluded that the proposed residential development will be provided with generally good accessibility for pedestrians, cyclists and by public transport to a wide range of local services, facilities and employment facilities. This will be reinforced by the implementation, management and monitoring of a Residential Travel Plan at the development.

5.7.2 The Site location complies with paragraphs 115 and 117 of the NPPF, which requires that:

> *"sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location"* and *"safe and suitable access to the site can be achieved for all users".*
>
> and development should:
>
> *"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".*

6. Trip Generation and Distribution

6.1 VEHICULAR TRIP GENERATION

6.1.1 In order to obtain a suitable vehicular trip rate for the proposed development, the TRICS 7.10.3 on-line database has been interrogated using the following parameters:

- Land use: 03 – Residential, Category: A Houses Privately Owned;
- Calculation options: Vehicular trip rates selected;
- Regions: Greater London and Irish sites excluded;
- Number of dwellings: 50 to 250 units selected;
- Date range: 01/01/15 to 29/06/23;
- Survey days: Monday – Friday; and
- Location type: Suburban Area and Neighbourhood Centre.

6.1.2 Surveys undertaken during Covid-19 restrictions have been manually removed from the selected sites.

6.1.3 The full TRICS output is contained at **Appendix E** with the weekday AM and PM peak hour trip rates and resultant generated traffic for 108 dwellings shown tabulated below in Table 6.1.

Table 6.1 TRICs Residential Vehicular Trip Rates and Resultant Traffic Generation

Time Period	Vehicular Trip Rates (per dwelling)			Traffic Generation (108 Dwellings)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak 08:00-09:00	0.138	0.315	0.453	15	34	49
PM Peak 17:00-18:00	0.309	0.147	0.456	33	16	49

6.1.4 The proposed residential dwellings could be expected to generate in the region of 49 two-way vehicle trips during the weekday peak periods.

6.2 TRIP DISTRIBUTION AND ASSIGNMENT

6.2.1 Having established the weekday AM and PM peak hour vehicular trip generation for the proposed development, as shown in Table 6.1, a distribution exercise has been completed to predict the assignment of these trips on to the local highway network.

6.2.2 The Site is in the Barnsley 020 Super Output Area – Middle Layer (MSOA) for the purposes of the 2011 Census data. This latest Census dataset (WU03EW – Location of usual residence and place of work by method of travel to work (MSOA level)) has been interrogated to obtain places of work by MSOA for residents of Barnsley 020 MSOA.

6.2.3 Once the destinations for the trips have been ascertained, an assessment has been made based on journey tile of the likely routes that will be taken and, from this, the trips have been assigned to the local highway network. The spreadsheet at **Appendix F** provides details of the trip distribution exercise and Figure 102 shows the route assignment on percentage terms and this is summarised in Table 6.2.

Table 6.2 Percentage Route Assignment

Route	Percentage Assignment
From Site Access Point	
B6273 High Street (N)	16%
B6273 High Street (S)	84%
On Wider Highway Network	
B6411 Thurnscoe Lane	8%
A6195 Park Spring Road	5%
A635 (E)	3%
A6195 (S)	34%
A635 Doncaster Road	34%

6.2.4 The weekday AM and PM peak hour traffic flows from the proposed development are then shown in Figures 103 and 104 respectively.

6.3 MULTI MODAL TRIP GENERATION

6.3.1 In order to establish the trip generation by mode for the development Census data (2011) has been obtained from www.nomisweb.co.uk.

6.3.2 The proposed development is located within the boundary of super output area (mid layer) 'Barnsley 020',

6.3.3 The output area is considered to represent similar characteristics to the Site in terms of accessibility by all modes. As such the mode share of the selected output area is the most appropriate way to predict the proposed mode split. The mode share for Barnsley 020 MSOA is summarised in Table 6.3.

Table 6.3 Summary of Census Mode Splits – Barnsley 020

Mode	Trips
Driving a car or van	75%
Passenger	8%
Taxi	0%
Cycle	1%
Walk	8%
Bus	6%
Rail	1%
Motorcycle	1%
Work from home	0%
Other	0%
Total	**100%**

6.3.4 Having established the proposed vehicular trip generation, it is possible to calculate the number of trips by other modes by factoring the vehicular arrivals and departures by the baseline modal split values shown in Table 6.3. The resulting, predicted numbers of development trips by mode are shown in Table 6.4 for the AM and PM peaks respectively.

Table 6.4 Proposed Multi Modal Trip Generation

	AM Peak Hour Trip Generation by Mode			PM Peak Hour Trip Generation by Mode		
Trip Type	**Arrivals**	**Departures**	**Total**	**Arrivals**	**Departures**	**Total**
Driving a car or van*	15	34	49	33	16	49
Passenger	2	4	5	4	2	5
Taxi	0	0	0	0	0	0
Cycle	0	0	0	0	0	0
Walk	2	4	5	4	2	5
Bus	1	3	4	3	1	4
Rail	0	0	0	0	0	0
Light Rail / Tram	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Work from home	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	**20**	**45**	**65**	**44**	**21**	**65**

6.3.5 As can be seen from Table 6.4, the development is predicted to generate 5 trips on foot during the network peak hours and low volumes of cyclists.

6.4 VISION LED

6.4.1 Chapter 1 of this Transport Assessment sets out the transport vision for the development and sets out a series of measures to be implemented in order to achieve the vision. In addition, a Travel Plan will be provided, which includes a target to reduce peak hour single occupancy vehicle trips by 5% over a 5-year period.

6.4.2 The resulting residual peak hour trips are set out within Table 6.5.

Table 6.5 Trip Rates and Traffic Generation – Vision Led

Time Period	**Vehicular Trip Rates (per dwelling)**			**Traffic Generation (108 Dwellings)**		
	Arrivals	**Departures**	**Total**	**Arrivals**	**Departures**	**Total**
AM Peak Period						
08:00-09:00	0.130	0.300	0.430	13	32	45
PM Peak Period						
17:00-18:00	0.293	0.139	0.433	32	15	47

6.4.3 The traffic generation provided in Table 6.5 has been utilised to demonstrate the impact in terms of capacity on the local highway network as a result of a 5% reduction in single occupancy vehicle trips. The results of this sensitivity test are provided in Section 8.

7. Build Up of Traffic Flows

7.1 EXISTING TRAFFIC FLOWS

7.1.1 The September 2023 traffic surveys identified the following existing weekday peak hour periods:

- Weekday AM Peak Hour: 07:15 – 08:15; and
- Weekday PM Peak Hour: 16:30 – 17:30.

7.1.2 The traffic count flows for these periods at the junctions within the study area are shown in Figures 100 and 101 respectively.

7.2 BASE TRAFFIC FLOWS

Traffic Growth

7.2.1 Traffic growth is predicted based on a combination of proposed future development, car ownership and changing attitudes in the way people use and have access to their vehicles. To reflect the likely growth in existing traffic at the full Opening Year for the proposed development, TEMPro growth factors have been obtained to be applied to the 2023 existing peak hour flows.

7.2.2 An initial Design Year of 2029 has been assumed to represent the full Opening Year of the proposed development based on a construction period of some 3 years (35 dwellings per annum), anticipating a start in 2026.

7.2.3 Traffic growth rates have been obtained from the TEMPro v8.1 software for the Barnsley 020 Super Output Area - Mid Layer (MSOA). The resulting values for the AM and PM peak hour growth between 2023 and 2029 are as follows with the TEMPro output provided at **Appendix G**:

- AM Peak TEMPro Traffic Growth Rate 2023-2029: 1.0523; and
- PM Peak TEMPro Traffic Growth Rate 2023-2029: 1.0538.

7.2.4 The traffic growth rates have been applied to the 2023 AM and PM peak hour traffic flows to obtain 2029 Base AM and PM peak hour traffic flows and these are shown in Figures 110 and 111 respectively.

7.2.5 An additional assessment, five years post full occupation has also been assessed which also include committed development flows.

7.2.6 Traffic growth rates, between 2023 and 2034, have also been obtained from TEMPro v8.1 for the Barnsley 020 MSOA. The resulting values for the AM and PM peak hour growth between 2023 and 2034 are as follows with the TEMPro output also provided at **Appendix G**:

- AM Peak TEMPro Traffic Growth Rate 2023-2034: 1.0981; and
- PM Peak TEMPro Traffic Growth Rate 2023-2034: 1.1004.

7.2.7 The 2034 Base AM and PM peak hour traffic flows as shown in Figures 130 and 131 respectively also include the committed development flows as described in paragraph 7.2.8. This provides a very robust assessment for the later 2034 Design Year as the TEMPro growth factors take account of development in the local area and are inclusive of the 1,200 jobs associated with allocation Site ES10. No alternative assumptions with regards to the number of dwellings or jobs forecast have been applied to the Growth Factors and therefore there is an element of double counting within the junction capacity assessment modelling in Section 8 of this report.

Committed Development

7.2.8 The following planning applications have been considered as committed development and have been specifically assessed within this TA.

- Planning ref: 2021/1511 – Creation of a new roundabout on A635 Barnsley Road, Gawthorpe (to serve allocated Site ES10); and
- Planning ref: 2021/1282 – Erection of flexible employment space at Houghton Main, Park Spring Road, Little Houghton.
- Planning ref: 2023/1105 – Land South of Dearne Valley Parkway, Goldthorpe

7.2.9 Each of the above applications was accompanied by a Transport report (Assessment, Statement or Technical Note) with varying degrees of relevant information in relation to the extent of the highway network considered in this TA.

7.2.10 To generate turning movements at the junctions under consideration in this TA, if these are not explicitly provided, these have been derived on a pro-rata basis from any available link flows based on existing AM and PM peak hour turning movements at the junction in question.

7.2.11 The AM and PM peak hour committed development flows are provided in Figures 110 to 115.

7.3 DESIGN TRAFFIC FLOWS

7.3.1 Adding the proposed development trips shown in Figures 103 and 104 for the AM and PM peak hours respectively to the 2029 Base Traffic Flows provides the 2029 Design Traffic Flows which are shown in Figures 112 and 113 for the AM and PM peak hours respectively.

7.3.2 Adding the proposed development trips shown in Figures 103 and 104 for the AM and PM peak hours respectively to the 2034 Base Traffic Flows provides the 2034 Design Traffic Flows which are shown in Figures 132 and 133 for the AM and PM peak hours respectively.

7.3.3 A Vision Led Design 2034 assessment has also been carried out in accordance with Circular 01/2022 and the NPPF and these are shown on Figures 105 and 106 for the AM and PM peak hours respectively.

8. Junction Capacity Assessment

8.1 INTRODUCTION

8.1.1 This section of the Transport Assessment sets out the results of the individual junction capacity assessments that have been undertaken to determine the impact of the development proposals on key junctions on the local highway network.

8.1.2 Two future year scenarios have been considered; 2029 and 2034, and, to recap, the 2034 Base and Design scenarios consider both full TEMPro growth and committed development and as such provide a very robust assessment of the operation of each junction in this later Design Year.

8.1.3 This section also contains the capacity assessment of the development access junction to demonstrate that the form of junction that is proposed is adequate and appropriate to serve the quantum of development proposed.

8.1.4 The output for all junction capacity assessment is contained at **Appendix H** with the results summarised in the tables below.

8.2 B6273 HIGH STREET / B6411 THURNSCOE LANE

8.2.1 This priority junction has been modelled using the PICADY 9 Priority Intersection module in the TRL software, Junctions 9. Three and four-arm unsignalised give-way intersections are modelled using well-established TRL/Kimber capacity relationships, which consider key geometries such as road widths, visibility and the space available for traffic making an offside turn. This empirical framework intrinsically links priority junction geometry to driver behaviour and in turn to predicted capacities, queues and delays.

8.2.2 The existing layout of the junction is shown in Figure 5 and the junction has initially been modelled for the 2023 Surveyed weekday AM and PM peak hours. The results of the modelling are summarised in Table 8.1.

Table 8.1 B6273 High Street / B6411 Thurnscoe Lane – 2023 Surveyed PICADY Results

Movement	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.34	13	1	0.42	14	1
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.02	5	0	0.03	5	0

8.2.3 A Ratio of Flow to Capacity (RFC) value below 0.85 indicates that a junction or arm is operating within spare capacity. An RFC value between 0.85 and 1.00 indicates that there may be occasions during the period modelled when queues will develop, and delays will occur. An RFC value greater than 1.00 indicates that the junction or arm is operating beyond its theoretical capacity.

8.2.4 The junction has then been modelled for the AM and PM 2029 Base and Design scenarios and the results are summarised in Tables 8.2 and 8.3. Tables 8.4-8.6 provide a summary of the assessment of the AM and PM 2034 Base and Design scenarios.

Table 8.2 B6273 High Street / B6411 Thurnscoe Lane – 2029 Base PICADY Results

Movement	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.37	14	1	0.45	15	1
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.02	5	0	0.04	5	0

Table 8.3 B6273 High Street / B6411 Thurnscoe Lane – 2029 Design PICADY Results

Movement	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.38	14	1	0.47	16	1
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.02	5	0	0.04	5	0

Table 8.4 B6273 High Street / B6411 Thurnscoe Lane – 2034 Base PICADY Results

Movement	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.41	15	1	0.51	18	1
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.03	5	0	0.04	5	0

Table 8.5 B6273 High Street / B6411 Thurnscoe Lane – 2034 Design PICADY Results

Movement	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.42	16	1	0.52	18	1
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.03	5	0	0.04	5	0

Table 8.6 B6273 High Street / B6411 Thurnscoe Lane – 2034 Design Vision Led PICADY Results

Movement	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Stream B-AC (Thurnscoe Lane – High Street/Rotherham Road)	0.42	16	1	0.52	18	1
Stream C-AB (Rotherham Road – High Street/ Thurnscoe Lane)	0.03	5	0	0.04	5	0

8.2.5 The results in Table 8.1 demonstrate that the junction currently operates with significant spare capacity and minimal queues and delay. Even with the addition of general traffic growth to a Design Year of 2029, which represents the full Opening Year for the proposed development, and the traffic predicted to be generated by the development, the junction will continue to operate with significant spare capacity with RFC values well below 0.85, minimal queuing and delay.

8.2.6 At the later Design Year of 2034, with the addition of committed development traffic and full TEMPro growth, the junction will continue to operate with significant spare capacity.

8.2.7 No mitigation is therefore required at the existing B6273 High Street / B6411 Thurnscoe Lane priority junction.

8.3 ROTHERHAM ROAD ROUNDABOUT (B6273/A6195)

8.3.1 The roundabout has been modelled using the ARCADY 9 Roundabout module of the TRL software, Junctions 9. Roundabouts are modelled using the well-established TRL/Kimber capacity relationships which take into account key roundabout geometries such as entry width, approach width, flare length, conflict angle, inscribed circle diameter and entry radius. The empirical framework intrinsically links roundabout geometry to driver behaviour and in turn to predict capacities, queues and delays.

8.3.2 The existing layout of the junction is shown in Figure 6 and the junction has initially been modelled for the 2023 existing weekday AM and PM peak hours. The results of the modelling are summarised in Table 8.7.

Table 8.7 Rotherham Road Roundabout – 2023 Surveyed ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.45	4	1	0.66	7	3
Arm 2 – A6195 Park Spring Road	0.29	4	1	0.42	5	1
Arm 3 – B6273 Rotherham Road	0.69	11	3	0.58	8	2

8.3.3 The roundabout has then been modelled for the AM and PM 2029 and 2034 Base and Design peak hour scenarios and the results are summarised in Tables 8.8 to 8.12.

Table 8.8 Rotherham Road Roundabout – 2029 Base ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.48	5	1	0.70	8	3
Arm 2 – A6195 Park Spring Road	0.31	4	1	0.44	5	1
Arm 3 – B6273 Rotherham Road	0.74	13	3	0.61	9	2

Table 8.9 Rotherham Road Roundabout – 2029 Design ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.48	5	1	0.71	8	3
Arm 2 – A6195 Park Spring Road	0.31	4	1	0.45	5	1
Arm 3 – B6273 Rotherham Road	0.76	14	3	0.63	9	2

Table 8.10 Rotherham Road Roundabout – 2034 Base ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.52	5	1	0.76	9	3
Arm 2 – A6195 Park Spring Road	0.36	4	1	0.51	6	1
Arm 3 – B6273 Rotherham Road	0.82	18	5	0.67	11	2

Table 8.11 Rotherham Road Roundabout – 2034 Design ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.53	5	1	0.77	10	4
Arm 2 – A6195 Park Spring Road	0.36	4	1	0.52	6	1
Arm 3 – B6273 Rotherham Road	0.84	21	5	0.68	11	2

Table 8.12 Rotherham Road Roundabout – 2034 Design Vision Led ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 Rotherham Road	0.53	5	1	0.77	10	4
Arm 2 – A6195 Park Spring Road	0.36	4	1	0.52	6	1
Arm 3 – B6273 Rotherham Road	0.84	21	5	0.68	11	2

8.3.4 The results in Table 8.7 demonstrate that the roundabout currently operates with spare capacity and minimal queues and delay. Even with the addition of general traffic growth to a Design Year of 2029, which represents the full Opening Year for the proposed development, and the traffic predicted to be generated by the development, the roundabout will continue to operate with spare capacity with RFC values well below 0.85, minimal queuing and delay.

8.3.5 At the later Design Year of 2034, with the addition of committed development traffic and full TEMPro growth, the junction will continue to operate within practical reserve capacity.

8.3.6 No mitigation is therefore required at the existing Rotherham Road Roundabout.

8.4 CATHILL ROUNDABOUT (A6195/A635)

8.4.1 The draft version of the TA showed the Cathill Roundabout to be at or nearing capacity in the existing and future year assessments. Subsequently, BMBC has advised that there have recently been improvements made to the roundabout as part of the A6195 Goldthorpe Interventions Scheme. Whilst there has been no alteration to the size of the roundabout, these improvements have resulted in better allocation of road space and the following assessments have therefore been based on the improved geometry which is shown on the BMBC drawing contained at **Appendix I**.

8.4.2 The roundabout has also been modelled using the ARCADY 9 Roundabout module of the TRL software, Junctions 9, initially for the 2023 weekday AM and PM peak hours.

8.4.3 The results of the modelling are summarised in Table 8.13.

Table 8.13 Cathill Roundabout – 2023 Surveyed ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.59	5	2	0.67	6	3
Arm 2 – A635 West	0.49	5	1	0.45	5	2
Arm 3 – A6195 North	0.56	5	2	0.52	4	2
Arm 4 – A635 East	0.62	6	2	0.73	8	3

8.4.4 The assessment has shown that the improved roundabout is now operating with spare capacity, RFC on all arms is less than 0.85 and there are minimal queues and delays.

8.4.5 The roundabout has then been modelled for the AM and PM 2029 and 2034 Base and Design peak hour scenarios and the results are summarised in Tables 8.14 to 8.18.

Table 8.14 Cathill Roundabout – 2029 Base ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.63	5	2	0.71	6	2
Arm 2 – A635 West	0.53	5	1	0.48	5	1
Arm 3 – A6195 North	0.60	5	2	0.56	4	1
Arm 4 – A635 East	0.67	7	2	0.77	10	4

Table 8.15 Cathill Roundabout – 2029 Design ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.63	5	2	0.72	6	3
Arm 2 – A635 West	0.53	5	1	0.49	5	1
Arm 3 – A6195 North	0.61	5	2	0.56	4	1
Arm 4 – A635 East	0.68	7	2	0.79	9	4

Table 8.16 Cathill Roundabout – 2034 Base ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.78	9	4	0.84	13	5
Arm 2 – A635 West	0.81	14	4	0.61	7	2
Arm 3 – A6195 North	0.79	12	4	0.65	6	2
Arm 4 – A635 East	0.84	15	6	1.10	161	97

Table 8.17 Cathill Roundabout – 2034 Design ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.79	10	4	0.85	13	6
Arm 2 – A635 West	0.81	15	4	0.62	7	2
Arm 3 – A6195 North	0.81	13	5	0.65	6	2
Arm 4 – A635 East	0.85	16	6	1.10	167	103

Table 8.18 Cathill Roundabout – 2034 Design Vision Led ARCADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
Arm 1 – A6195 South	0.79	10	4	0.85	13	6
Arm 2 – A635 West	0.81	15	4	0.62	7	2
Arm 3 – A6195 North	0.80	13	5	0.65	6	2
Arm 4 – A635 East	0.85	15	6	1.10	167	103

8.4.6 Following the works recently carried out to improve the capacity of Cathill Roundabout it has been demonstrated that, with the benefit of these improvements, the junction will continue to operate with spare capacity with the addition of general traffic growth to a Design Year of 2029, which represents the full Opening Year for the proposed development, and the traffic predicted to be generated by the development.

8.4.7 In the later Design Year of 2034, with the addition of full TEMPro growth and committed development traffic (2034 Base), the roundabout is predicted to be operating at around its practical reserve capacity level on the A635 East approach during the PM peak period (RFC values over 0.85 but below 1.00). The addition of traffic generated by the proposed development causes only a very slight change in the level of operation (Levels of Service (LOS) is unchanged on all arms and there is a very slight increase in RFC value on one or more arms).

8.4.8 No further improvements are therefore required at Cathill Roundabout to accommodate traffic generated by the proposed development and general traffic growth which represents other committed and Local Plan development in the local area.

8.5 PROPOSED SITE ACCESS

8.5.1 The layout of the proposed junction on to B6273 High Street is described in Section 4 and shown on Avant Homes Proposed Site Layout.

8.5.2 The junction has been modelled using the PICADY module within the Junctions 9 software for the later 'with development' 2034 Design scenario. The results for the AM and PM peak hour periods are summarised in Table 8.19.

Table 8.19 Proposed Site Access Junction – 2034 Design PICADY Results

Approach Arm	AM Peak (07:15-08:15)			PM Peak (16:30-17:30)		
	RFC	Delay (s)	Queue (PCU)	RFC	Delay (s)	Queue (PCU)
2034 Design						
B-AC Left and Right turn from Site Access on to High Street	0.07	8	0	0.03	7	0
C-A High Street South to High Street North	0.18	5	1	0.23	6	1
C-B Right turn from High Street into Site Access	0.19	5	0	0.27	6	0
2034 Design – Vision Led						
B-AC Left and Right turn from Site Access on to High Street	0.07	8	0	0.03	7	0
C-A High Street South to High Street North	0.18	5	1	0.26	6	1
C-B Right turn from High Street into Site Access	0.19	5	0	0.27	6	0

8.5.3 The results demonstrate that the proposed junction will operate comfortably within capacity during both the AM and PM peak hour periods in the 2034 Design scenario comfortably accommodating the traffic generated by 108 dwellings.

9. Summary and Conclusions

9.1 SUMMARY

9.1.1 This Transport Assessment has been prepared by Optima Highways and Transportation Ltd to consider the highways and transportation matters associated with a proposed residential development on land to the east of High Street in Great Houghton.

9.1.2 The TA has been prepared to accompany a full planning application for the construction of up to 108 dwellings including access, landscaping and parking provision.

9.1.3 The main vehicular access into the proposed development will be via a simple priority junction on B6273 High Street. Pedestrians and cyclists will be able to access the development at the same point. Capacity analysis has been carried out that demonstrates that this is a suitable form of access for the level of development proposed.

9.1.4 This report has provided a commentary on the Site and its existing conditions. It has demonstrated that the Site is accessible by foot, cycle and public transport to numerous local facilities and employment opportunities. In accordance with the NPPF, this provides future residents with the choice to travel via alternatives modes of transport and minimise trips made by the private car. Furthermore, the additional use of these facilities by the residents at proposed development e.g. public transport and the local commerce, will assist in supporting and sustaining them.

9.1.5 An assessment of the available personal injury collision data has been undertaken for the study area. Based on the information currently available there is no evidence to suggest that there is a particular road safety issue or that the traffic that will be generated by the proposed development will exacerbate the current situation.

9.1.6 Junction capacity assessments have been undertaken across the local highway network using industry standard software for a development Design Year of 2029 and a future Design year of 2034. The capacity assessments have demonstrated that all the junctions in the study area are operating within capacity in the in both the 2029 and 2034 Base and Design scenarios and as such the impact of the development will be accommodated.

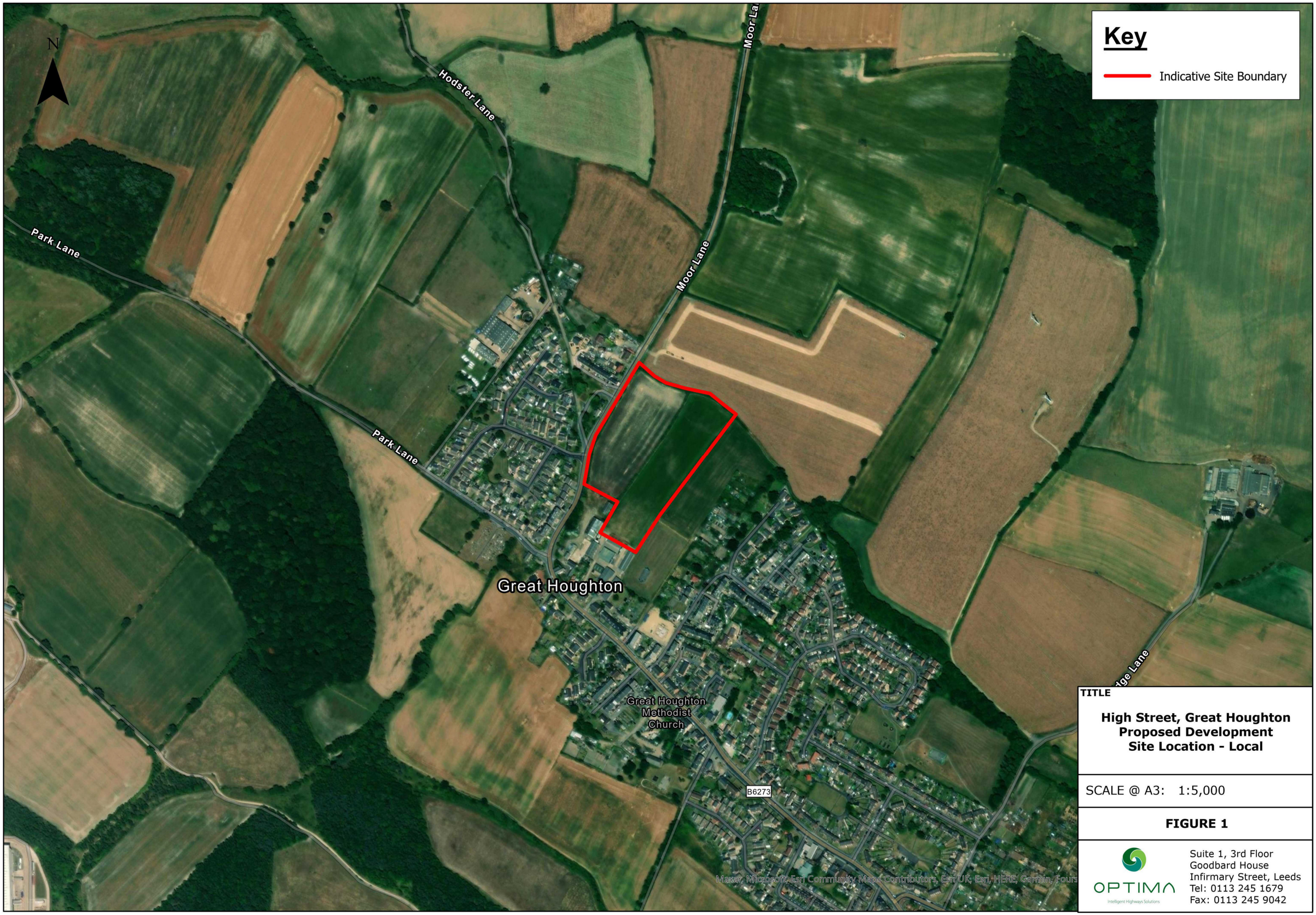
9.1.7 Cathill Roundabout has recently been improved and this junction can now accommodate traffic from the proposed development and general traffic growth which represents other committed and Local Plan development in the local area.

9.2 CONCLUSIONS

9.2.1 This Transport Assessment has demonstrated that safe and suitable access to the proposed development can be achieved for all users and that there will be no unacceptable impacts from the development on the transport network or on highway safety.

9.2.2 It is therefore concluded that there are no reasons on highways or transport grounds why the detailed development proposals on this Local Plan residential allocation should not be granted planning permission.

Figures



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TITLE

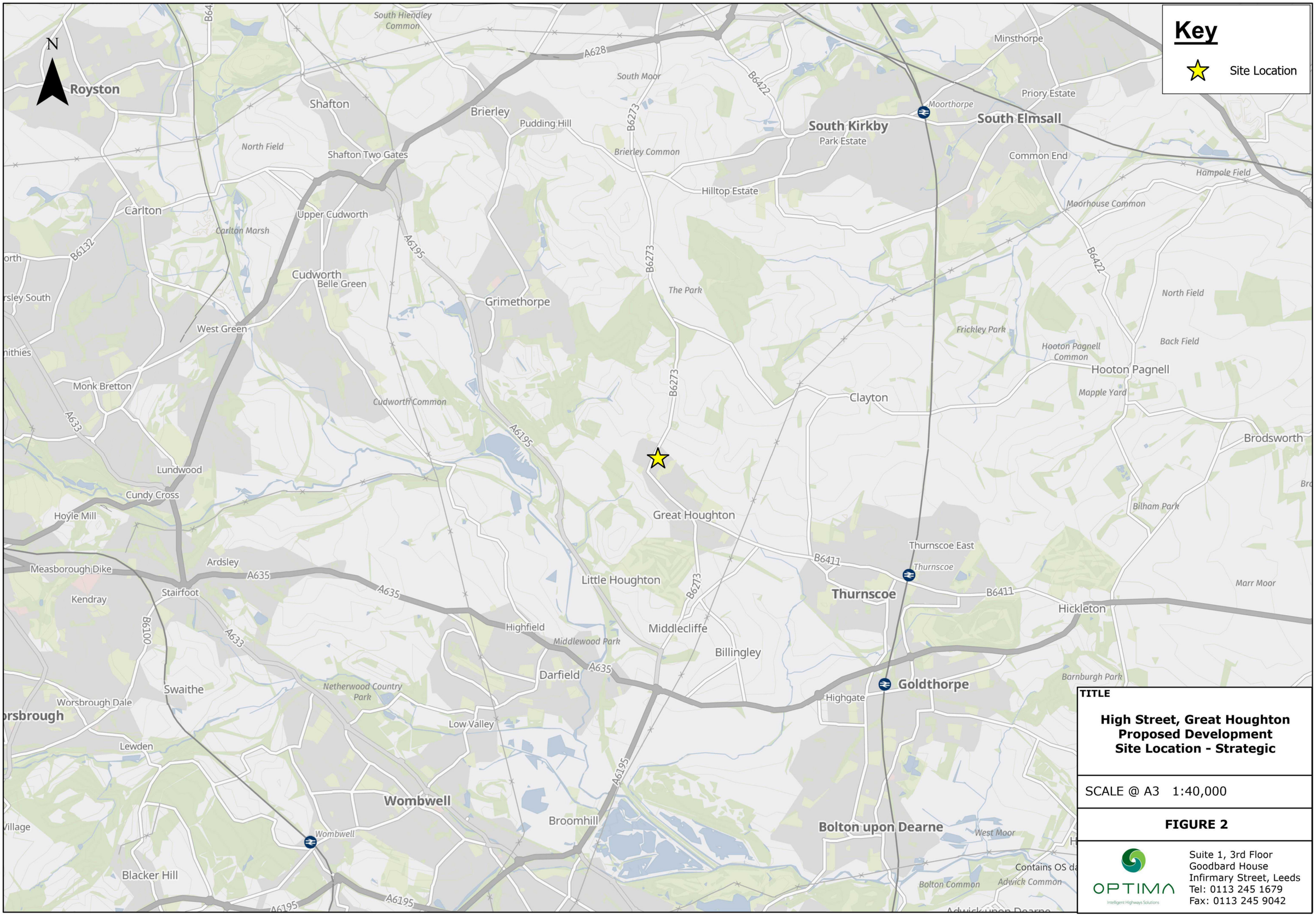
High Street, Great Houghton
Proposed Development
Site Location - Local

SCALE @ A3: 1:5,000

FIGURE 1

OPTIMA
Intelligent Highways Solutions

Suite 1, 3rd Floor
Goodbard House
Infirmary Street, Leeds
Tel: 0113 245 1679
Fax: 0113 245 9042



TITLE

High Street, Great Houghton
Proposed Development
Site Location - Strategic

SCALE @ A3 1:40,000

FIGURE 2

OPTIMA
Intelligent Highways Solutions
Suite 1, 3rd Floor
Goodbard House
Infirmary Street, Leeds
Tel: 0113 245 1679
Fax: 0113 245 9042

Path: O:\High Street, Great Houghton\DRAWINGS\GIS\ARCEDITOR\High Street, Great Houghton GIS.aprx

Facilities

Nearest Bus Stops

Education

1. Sandhill Primary School

Health

1. Rotherham Road Pharmacy
2. Great Houghton Medical Practice

Recreation

1. Pleasant Avenue Park
2. Grimethorpe Nature Reserve
3. Sandhill Golf Club

Retail

1. Morrisons Local Convenience Store
2. Premier Convenience Store

Services

1. Great Houghton Post Office
2. Great Houghton Welfare Hall
3. High Street Post Box

N

Key

Indicative Site Boundary

Pedestrian Accessibility

(Walk Speed 4.8kph)

- 0 - 5 Minutes
- 5 - 10 Minutes
- 10 - 15 Minutes
- 15 - 20 Minutes
- 20 - 25 Minutes

Hargate Hill
Rakes Wood
Miles Wood
Mount Pleasant
Thurnscoe Dike
Great Houghton
Little Houghton
Edderthorpe
Mill House
Park Spring Road
Rotherham Road
Billingley La
A6195
B6411
50

TITLE

High Street, Great Houghton
Proposed Development
Pedestrian Accessibility

SCALE @ A3 1:10,000

FIGURE 3

OPTIMA
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Goodbard House
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Fax: 0113 245 9042

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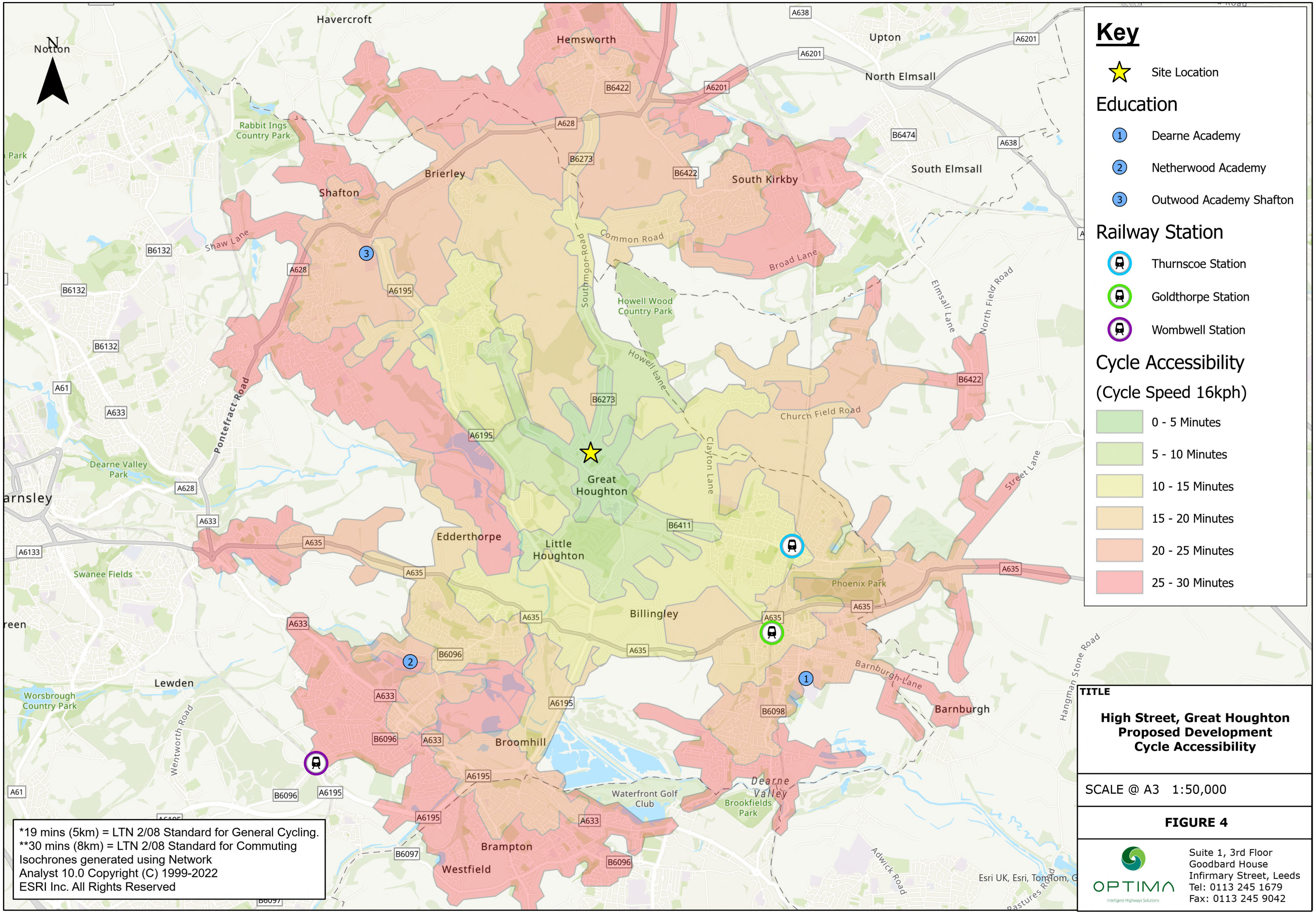
N
Key
Site Location
Education
1 Dearne Academy
2 Netherwood Academy
3 Outwood Academy Shafton
Railway Station
Thurnscoe Station
Goldthorpe Station
Wombwell Station
Cycle Accessibility
(Cycle Speed 16kph)
0 - 5 Minutes
5 - 10 Minutes
10 - 15 Minutes
15 - 20 Minutes
20 - 25 Minutes
25 - 30 Minutes
Havercroft
Notton
Hemsworth
Upton
North Elmsall
South Elmsall
South Kirkby
Brierley
Shafton
Rabbit Ings Country Park
Howell Wood Country Park
Great Houghton
Little Houghton
Edderthorpe
Billingley
Phoenix Park
Barnburgh
Broomhill
Brampton
Westfield
Lewden
Worsbrough Country Park
Swanee Fields
Dearne Valley Park
Waterfront Golf Club
Brookfields Park
Dearne Valley
arnsley
Southmoor Road
Common Road
Broad Lane
Howell Lane
Church Field Road
Clayton Lane
Street Lane
Barnburgh Lane
Hangman Stone Road
Adwick Road
Pontefract Road
Shaw Lane
Wentworth Road
Elmsall Lane
North Field Road
A638
A6201
B6474
B6422
A628
B6273
B6132
A61
A633
A6133
A635
A6195
B6411
B6096
B6098
B6097
*19 mins (5km) = LTN 2/08 Standard for General Cycling.
**30 mins (8km) = LTN 2/08 Standard for Commuting
Isochrones generated using Network Analyst 10.0 Copyright (C) 1999-2022 ESRI Inc. All Rights Reserved
Esri UK, Esri, TomTom, G
TITLE
High Street, Great Houghton
Proposed Development
Cycle Accessibility
SCALE @ A3 1:50,000
FIGURE 4
OPTIMA
Suite 1, 3rd Floor
Goodbard House
Infirmary Street, Leeds
Tel: 0113 245 1679
Fax: 0113 245 9042

Path: O:\High Street, Great Houghton\DRAWINGS\GIS\ARCEDITOR\High Street, Great Houghton GIS.aprx

N

GP

HIGH STREET

THURNSCOE LANE

22

30

30A

TITLE	HIGH STREET/THURNSCOE LANE EXISTING JUNCTION LAYOUT
REF	FIGURE 5
SCALE	1:200

OPTIMA
Intelligent Highway Solutions
Suite 1, 3rd Floor, Goodbard House, Infirmary Street
Leeds LS1 2JP

N

B6273 ROTHERHAM ROAD

A6195 PARK SPRING ROAD

A6195 ROTHERHAM ROAD

TITLE
ROTHERHAM ROAD/PARK SPRING ROAD
EXISTING JUNCTION LAYOUT

REF
FIGURE 6

SCALE
1:500

OPTIMA
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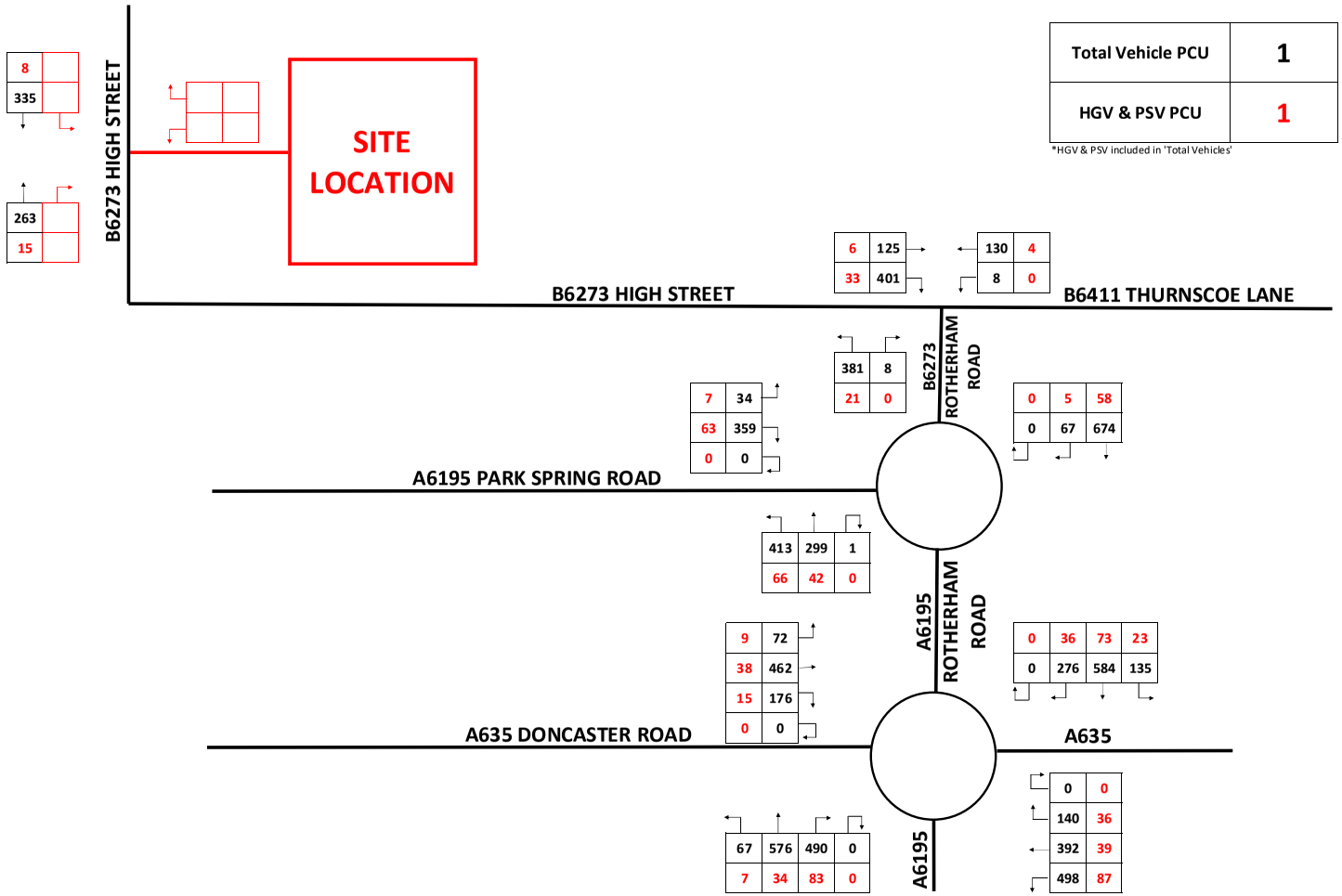
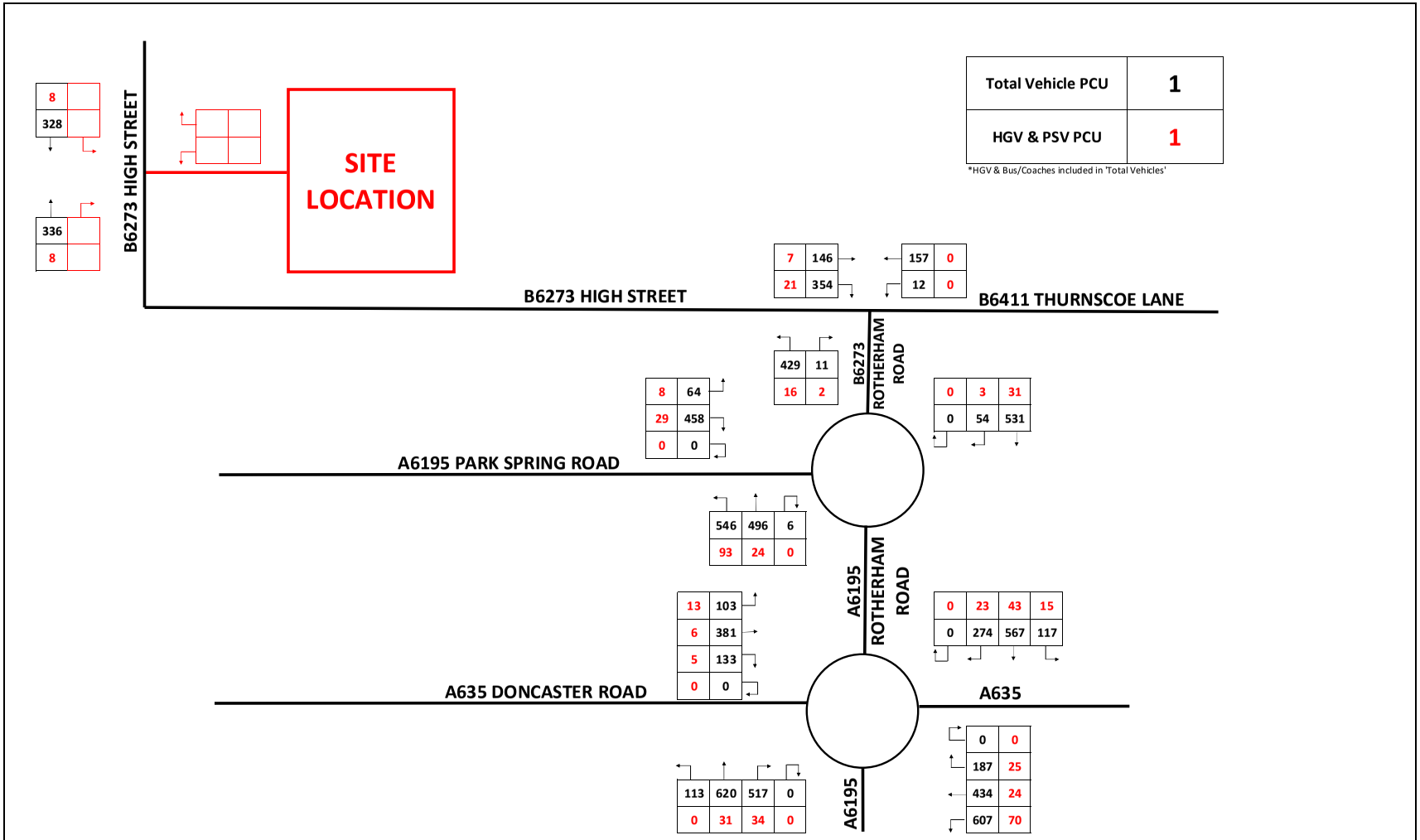
Suite 1, 3rd Floor, Goodbard House, Infirmary Street
Leeds LS1 2JP



OPTIMA
Intelligent Highways Solutions

2023 SURVEYED AM PEAK HOUR FLOWS (07:15 - 08:15)

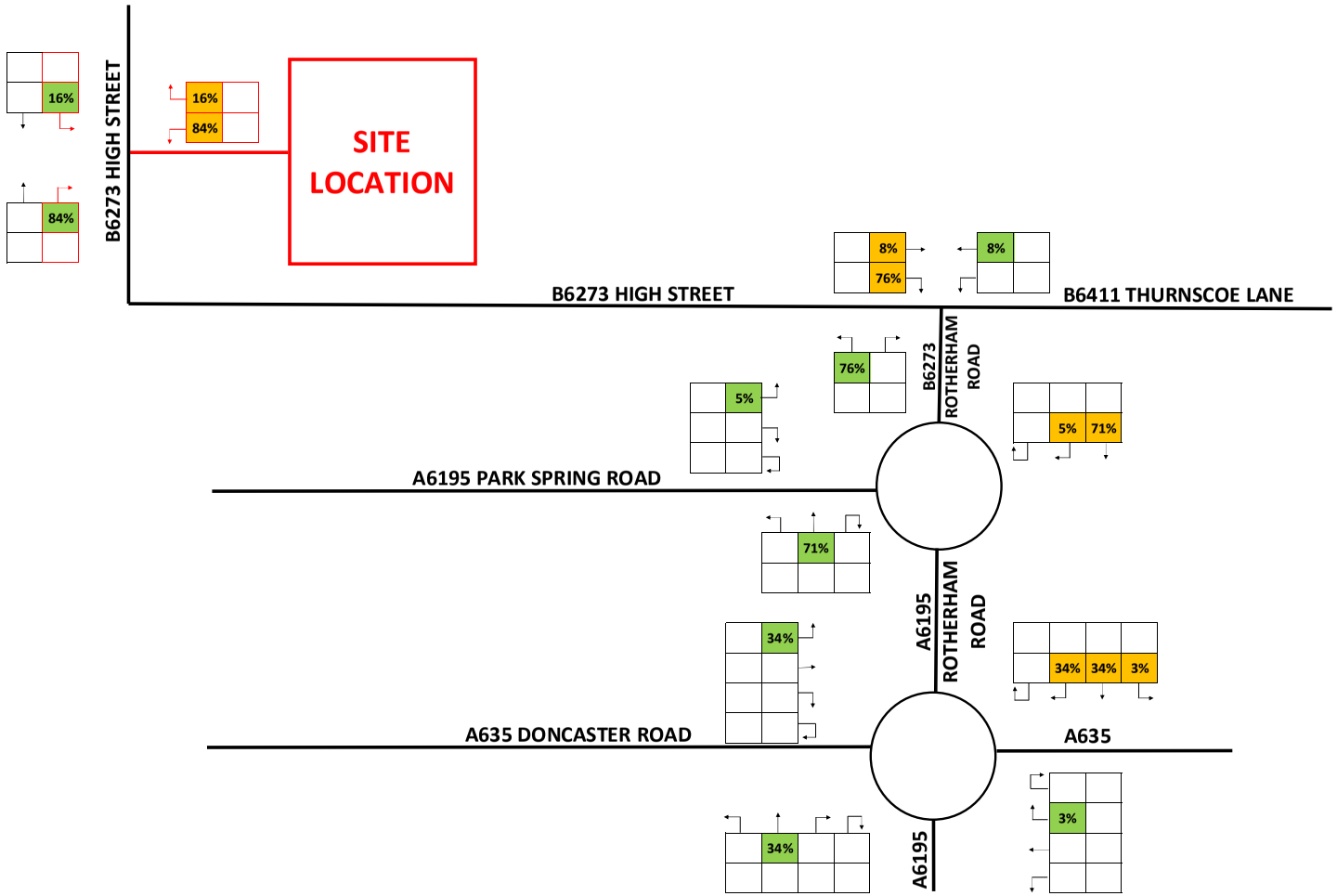
FIGURE 100



OPTIMA
Intelligent Highways Solutions

2023 SURVEYED PM PEAK HOUR FLOWS (16:30 - 17:30)

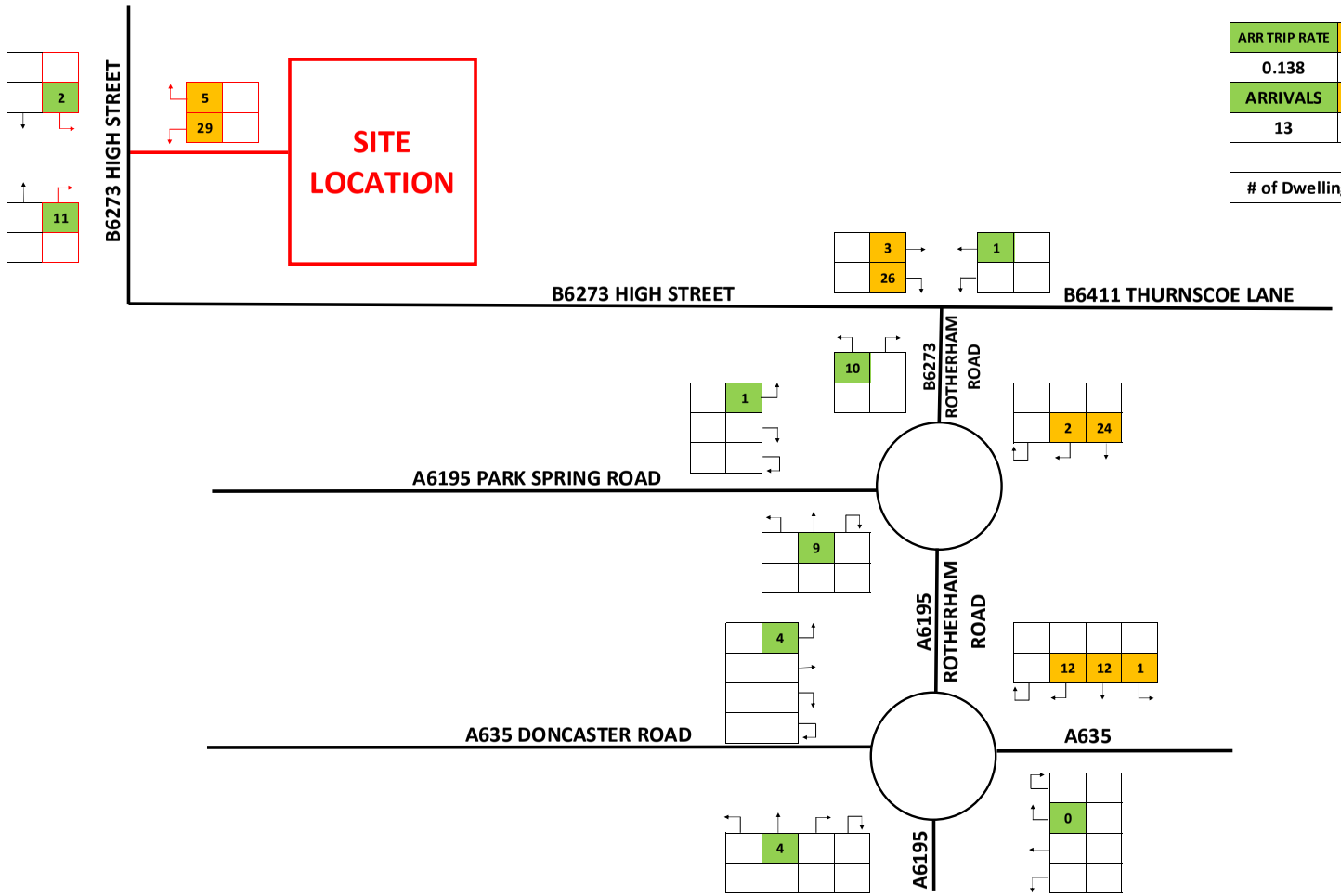
FIGURE 101



OPTIMA
Intelligent Highways Solutions

PERCENTAGE DISTRIBUTION OF DEVELOPMENT TRAFFIC

FIGURE 102



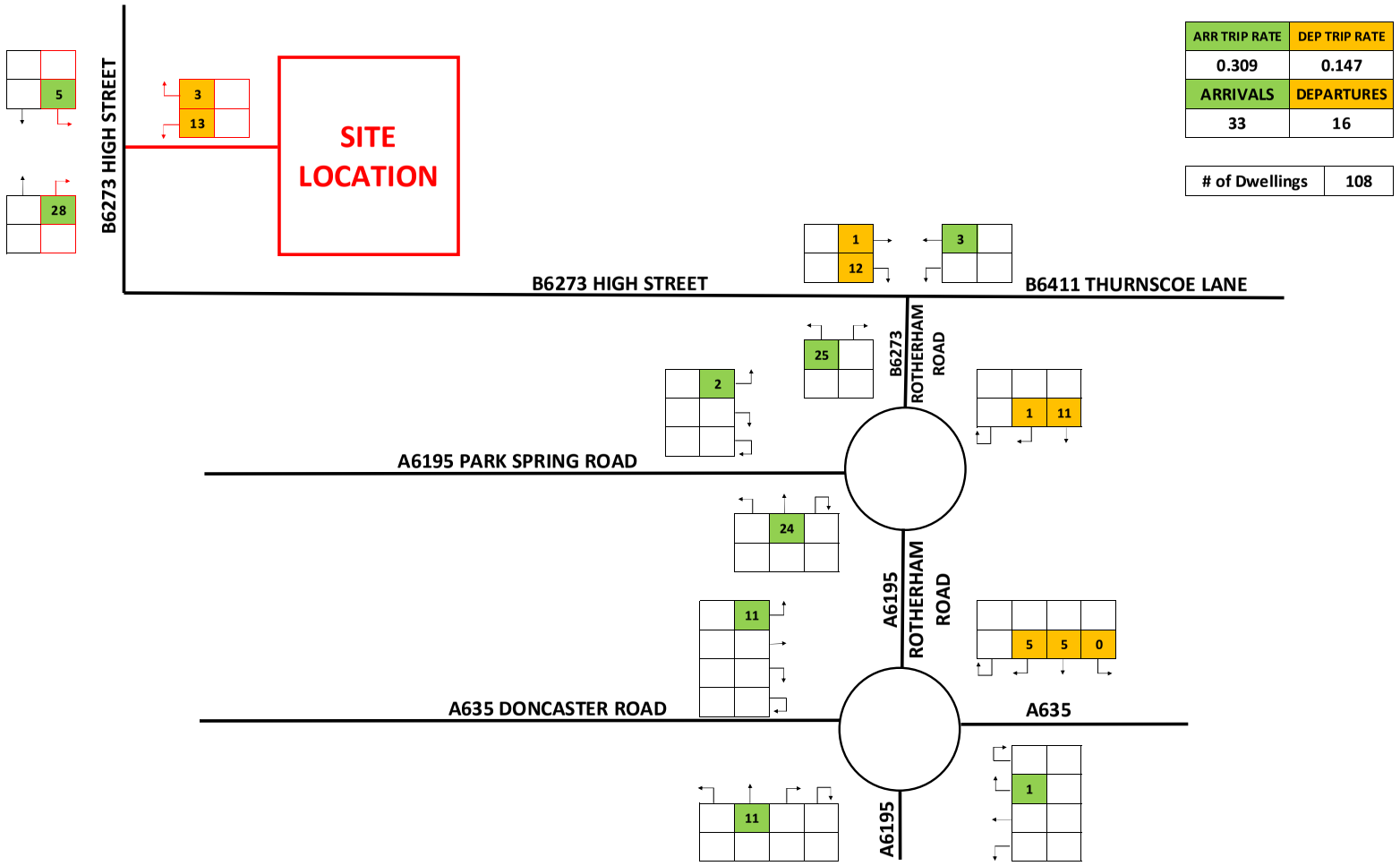
ARR TRIP RATE	DEP TRIP RATE
0.138	0.315
ARRIVALS	DEPARTURES
13	34

# of Dwellings	108

OPTIMA
Intelligent Highways Solutions

AM PEAK HOUR DEVELOPMENT TRIPS

FIGURE 103



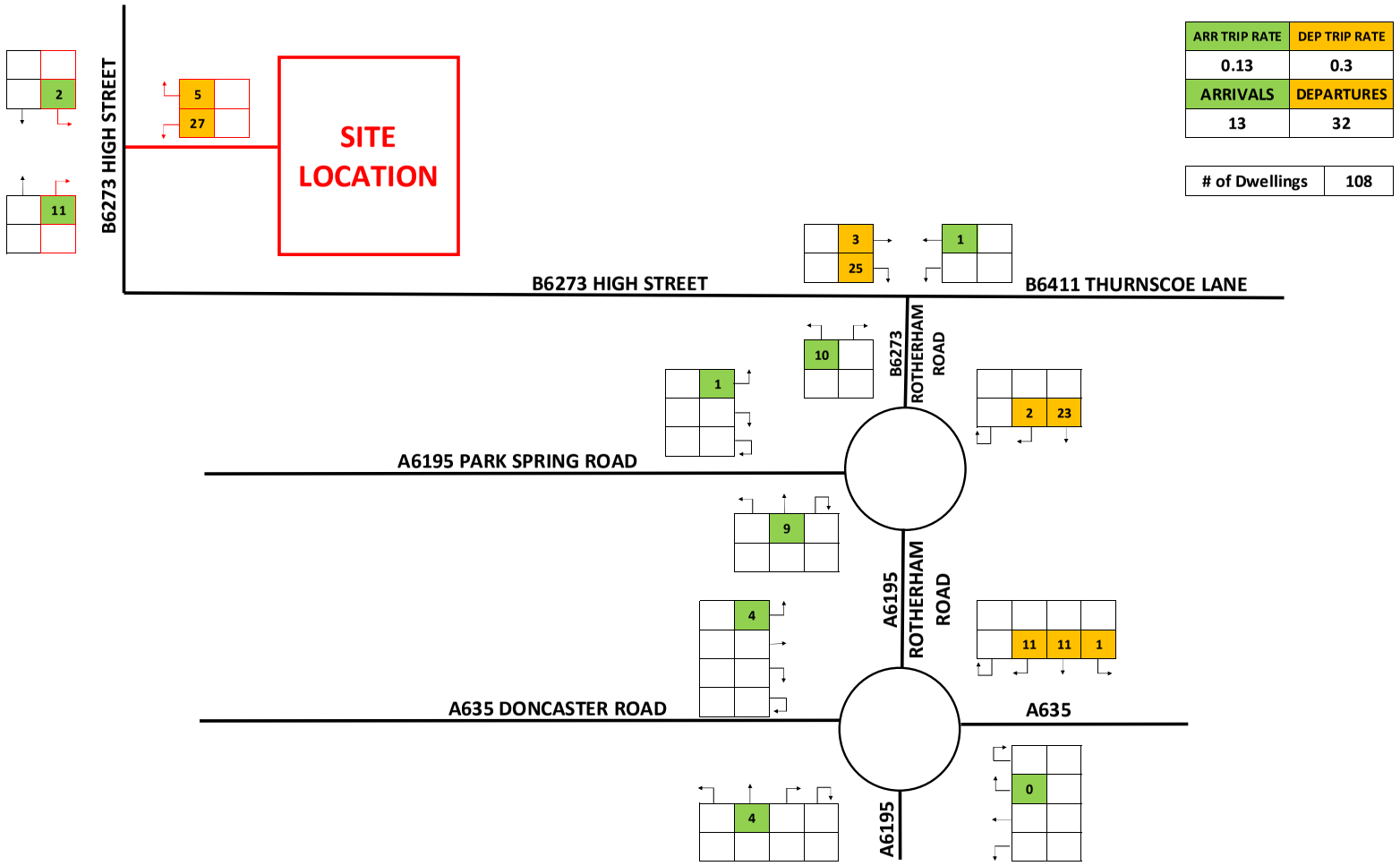
ARR TRIP RATE	DEP TRIP RATE
0.309	0.147
ARRIVALS	DEPARTURES
33	16

# of Dwellings	108

OPTIMA
Intelligent Highways Solutions

PM PEAK HOUR DEVELOPMENT TRIPS

FIGURE 104



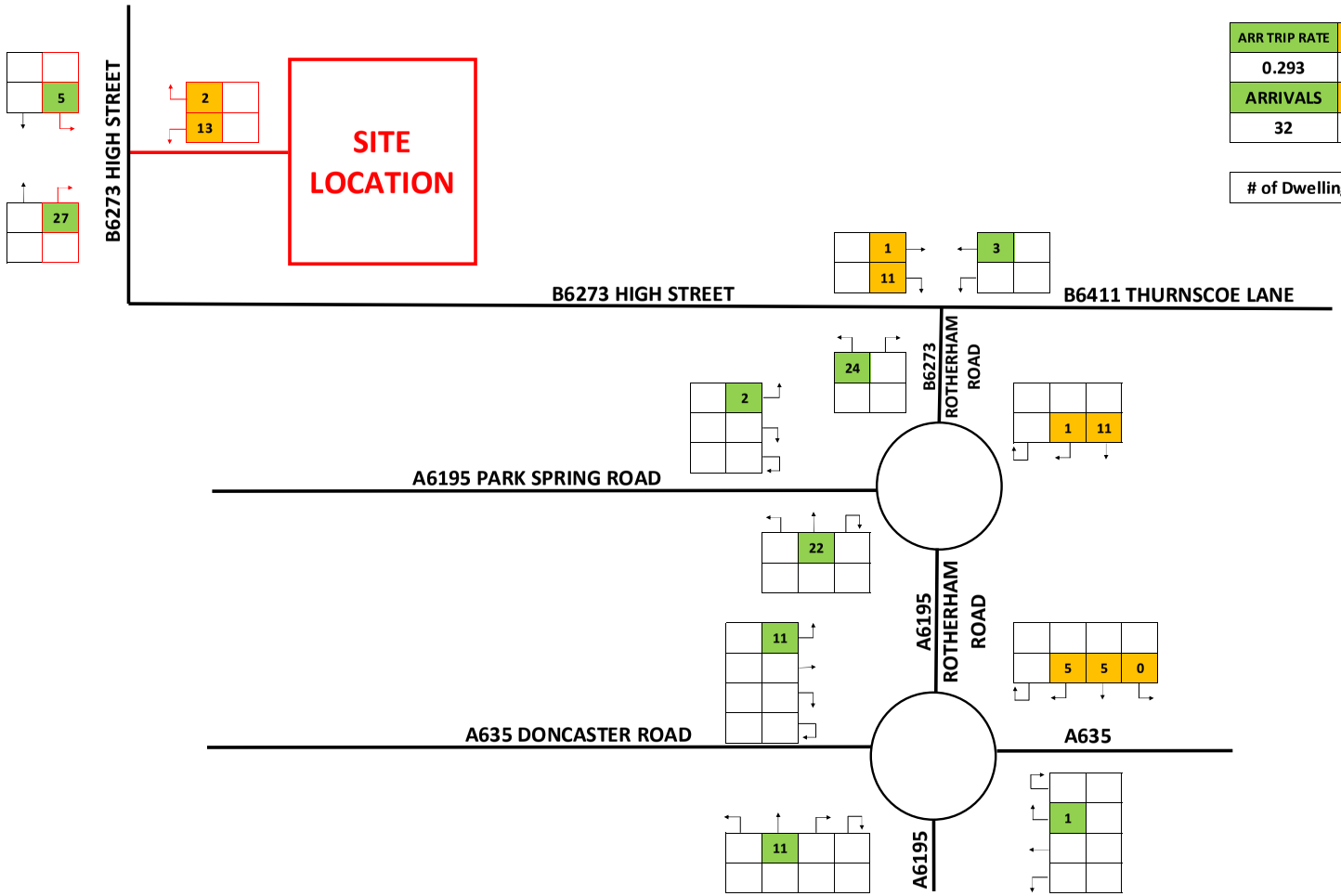
ARR TRIP RATE	DEP TRIP RATE
0.13	0.3
ARRIVALS	DEPARTURES
13	32

# of Dwellings	108

OPTIMA
Intelligent Highways Solutions

AM PEAK HOUR VISION LED DEVELOPMENT TRIPS

FIGURE 105



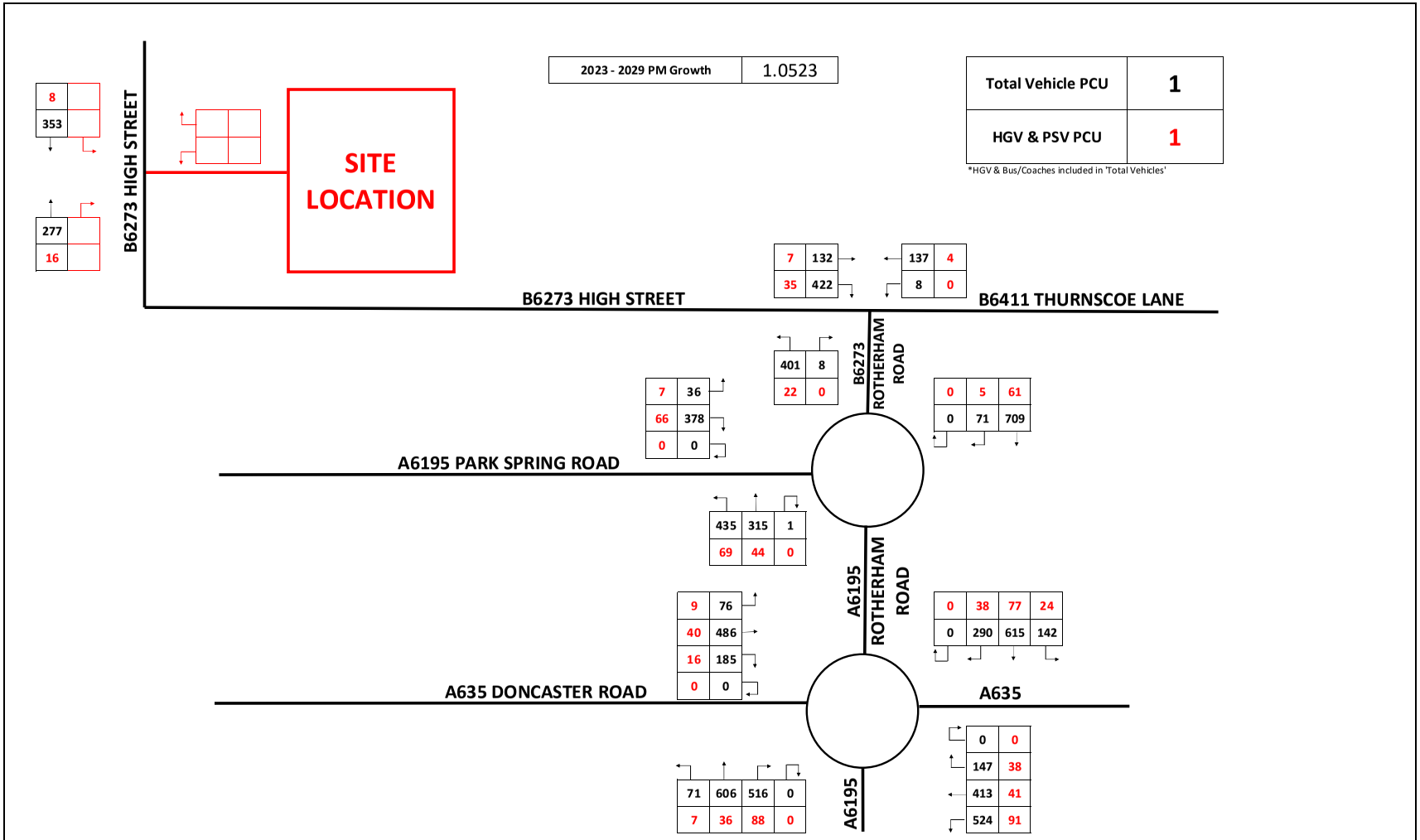
ARR TRIP RATE	DEP TRIP RATE
0.293	0.139
ARRIVALS	DEPARTURES
32	15

# of Dwellings	108

OPTIMA
Intelligent Highways Solutions

PM PEAK HOUR VISION LED DEVELOPMENT TRIPS

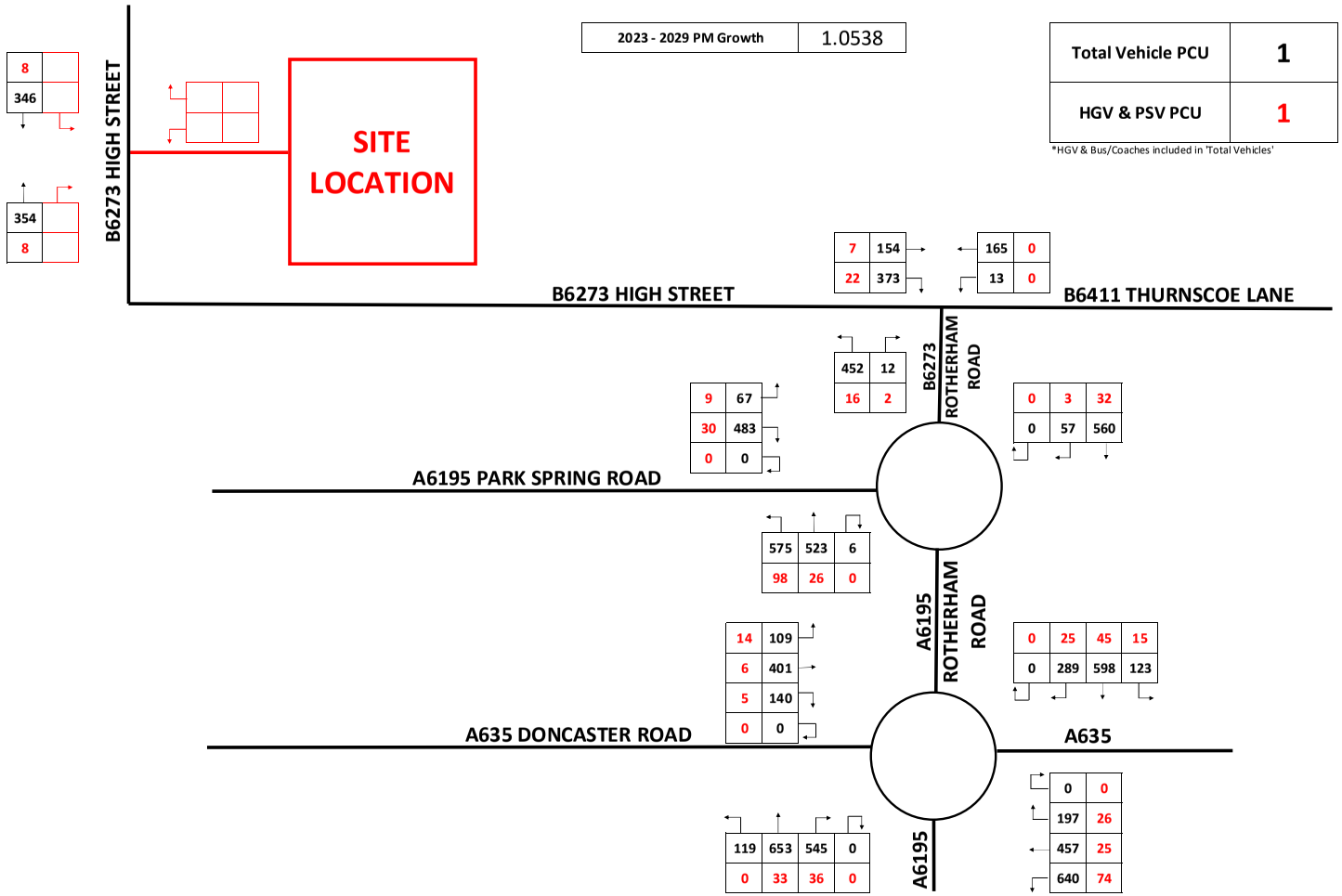
FIGURE 106



OPTIMA
Intelligent Highways Solutions

2029 BASE AM PEAK HOUR FLOWS

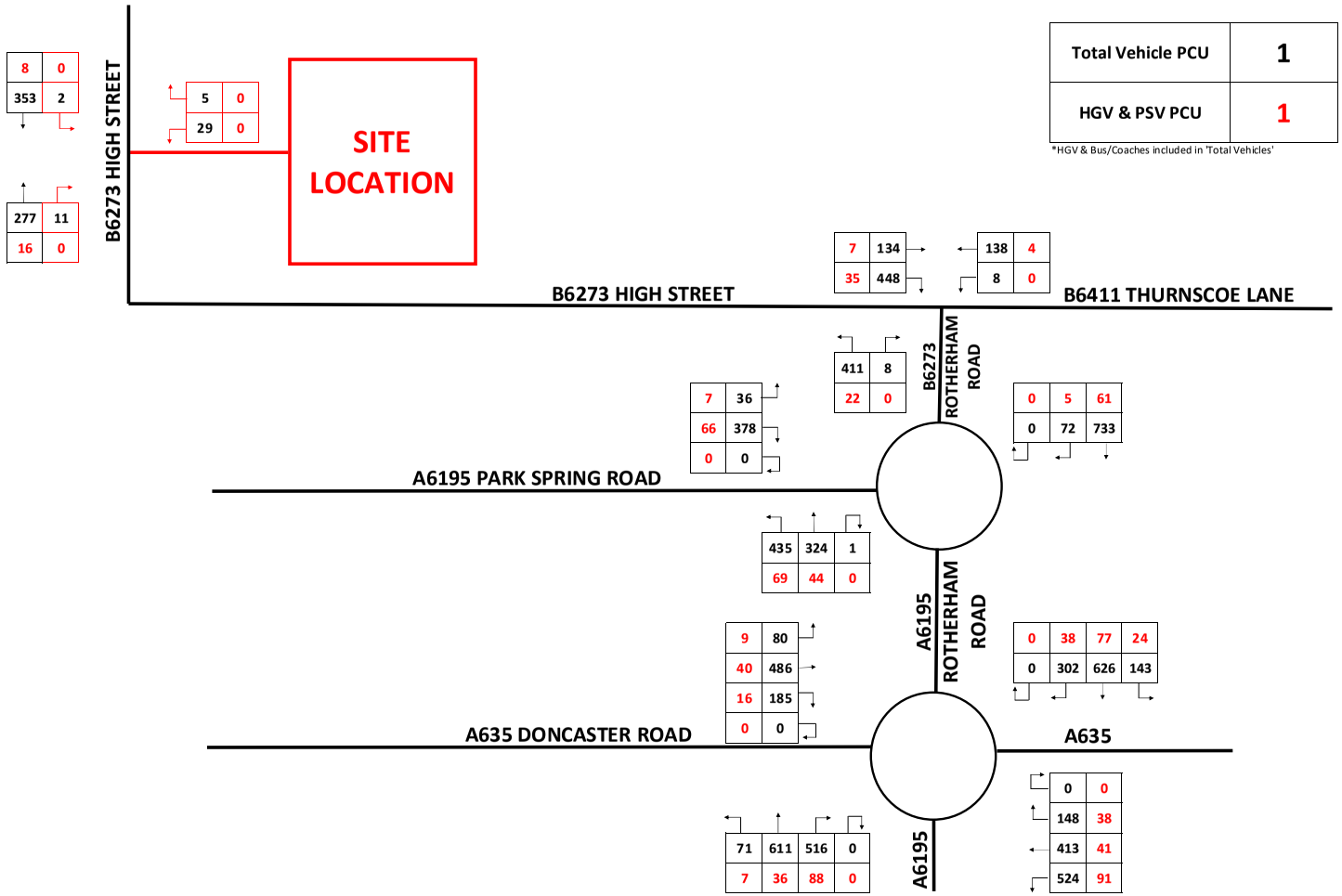
FIGURE 110



OPTIMA
Intelligent Highways Solutions

2029 BASE PM PEAK HOUR FLOWS

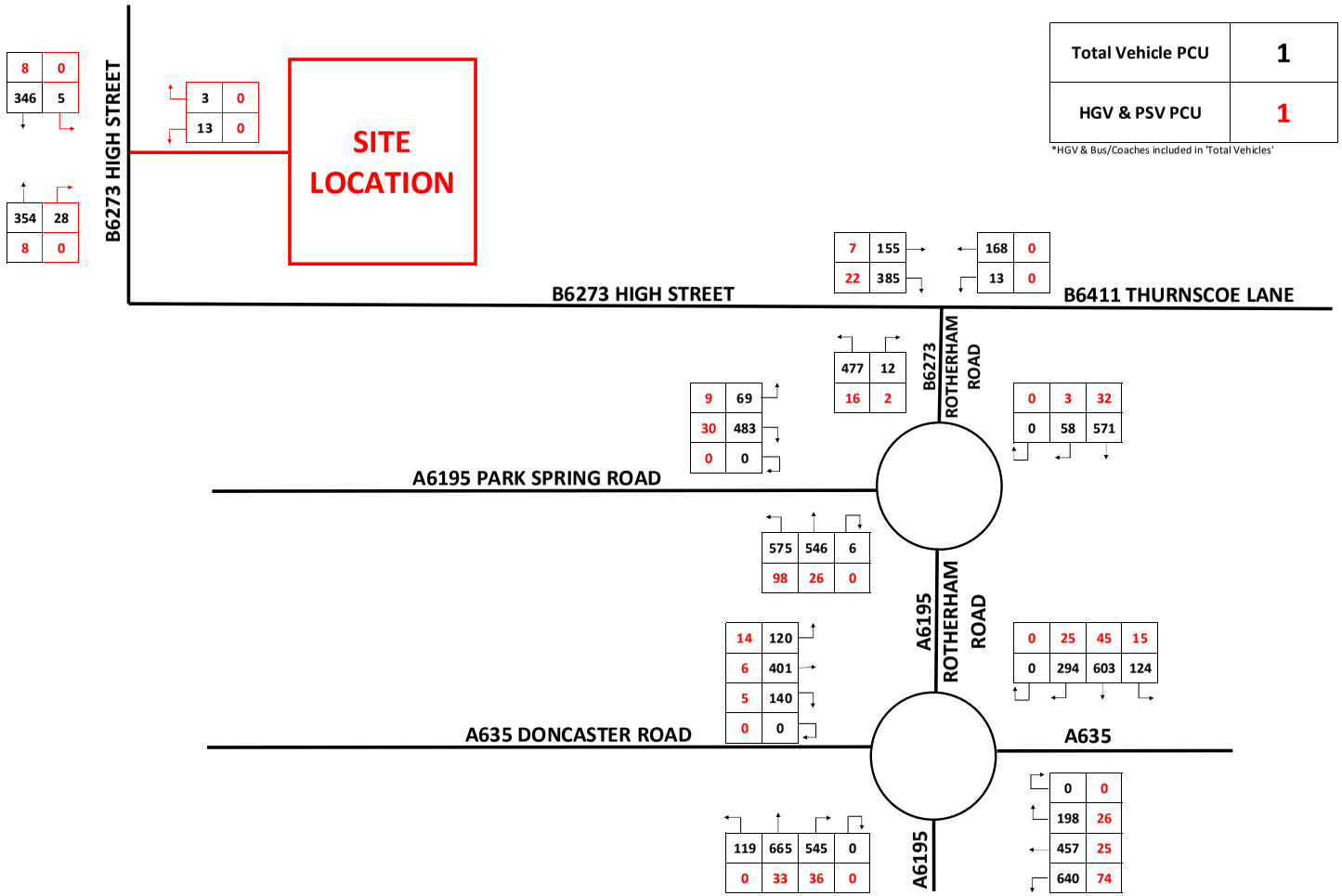
FIGURE 111



OPTIMA Intelligent Highways Solutions

2029 DESIGN AM PEAK HOUR FLOWS

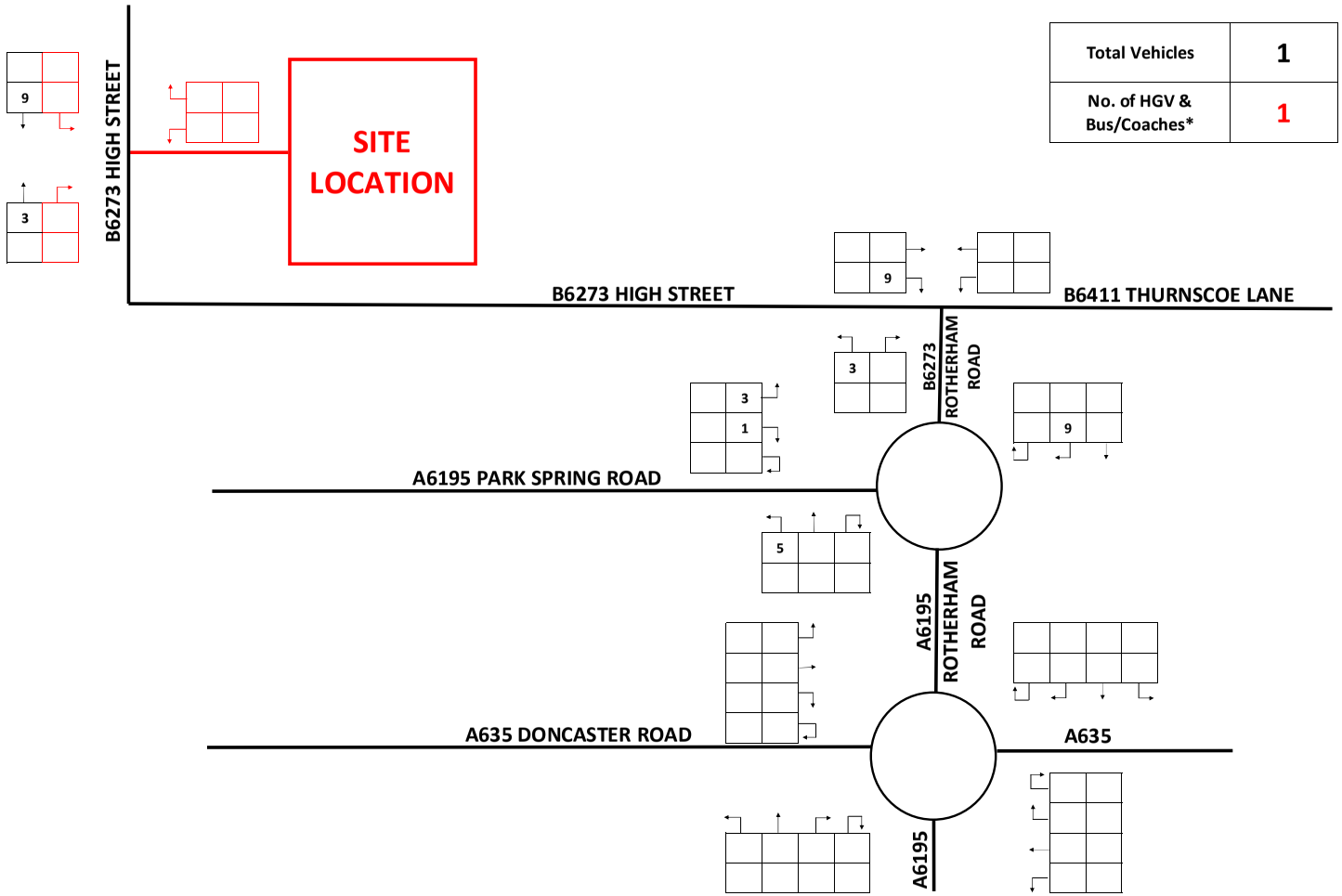
FIGURE 112



OPTIMA Intelligent Highways Solutions

2029 DESIGN PM PEAK HOUR FLOWS

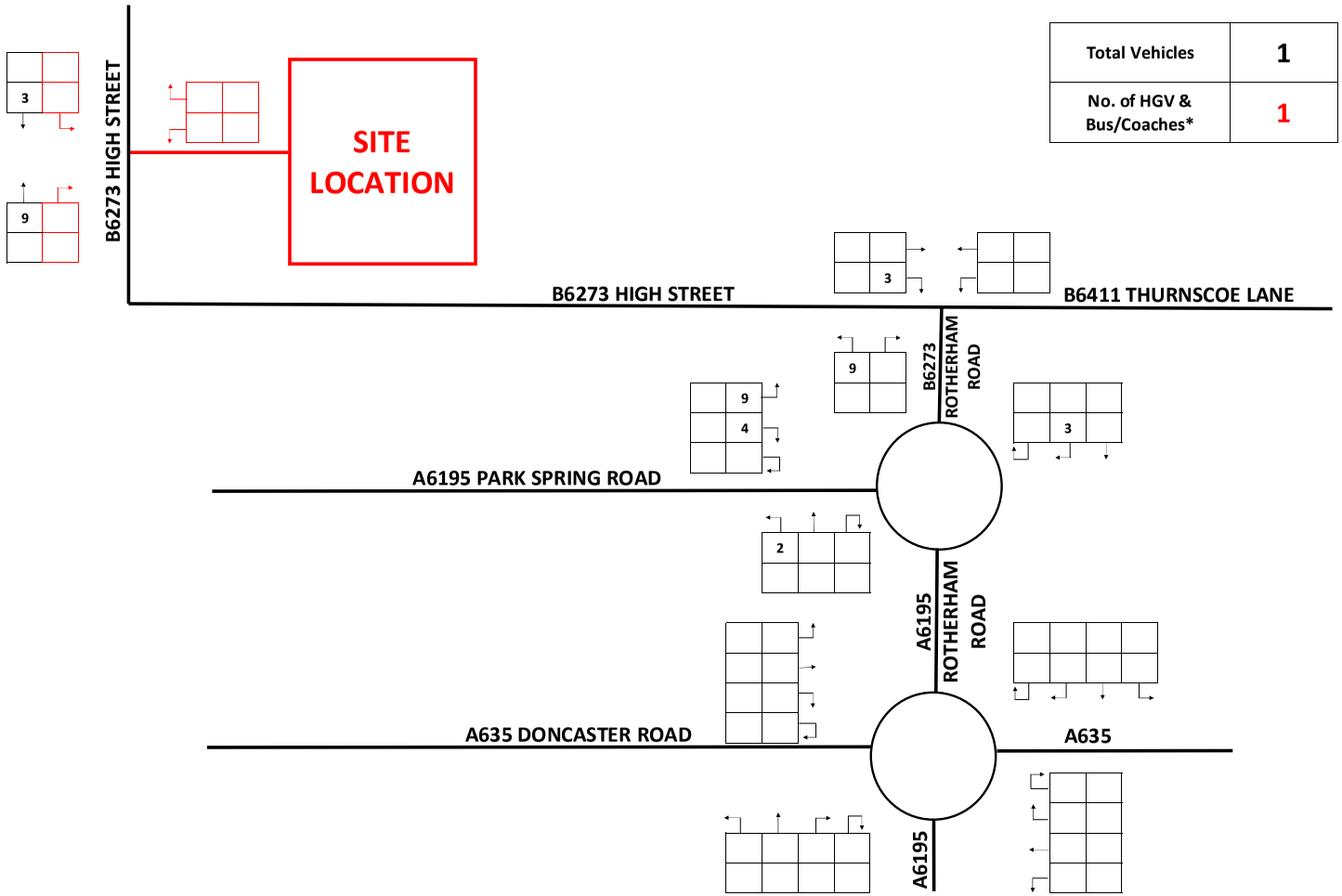
FIGURE 113



OPTIMA Intelligent Highways Solutions

AM PEAK HOUR - COMMITTED DEVELOPMENT - PLANNING APPLICATION 2021/1282

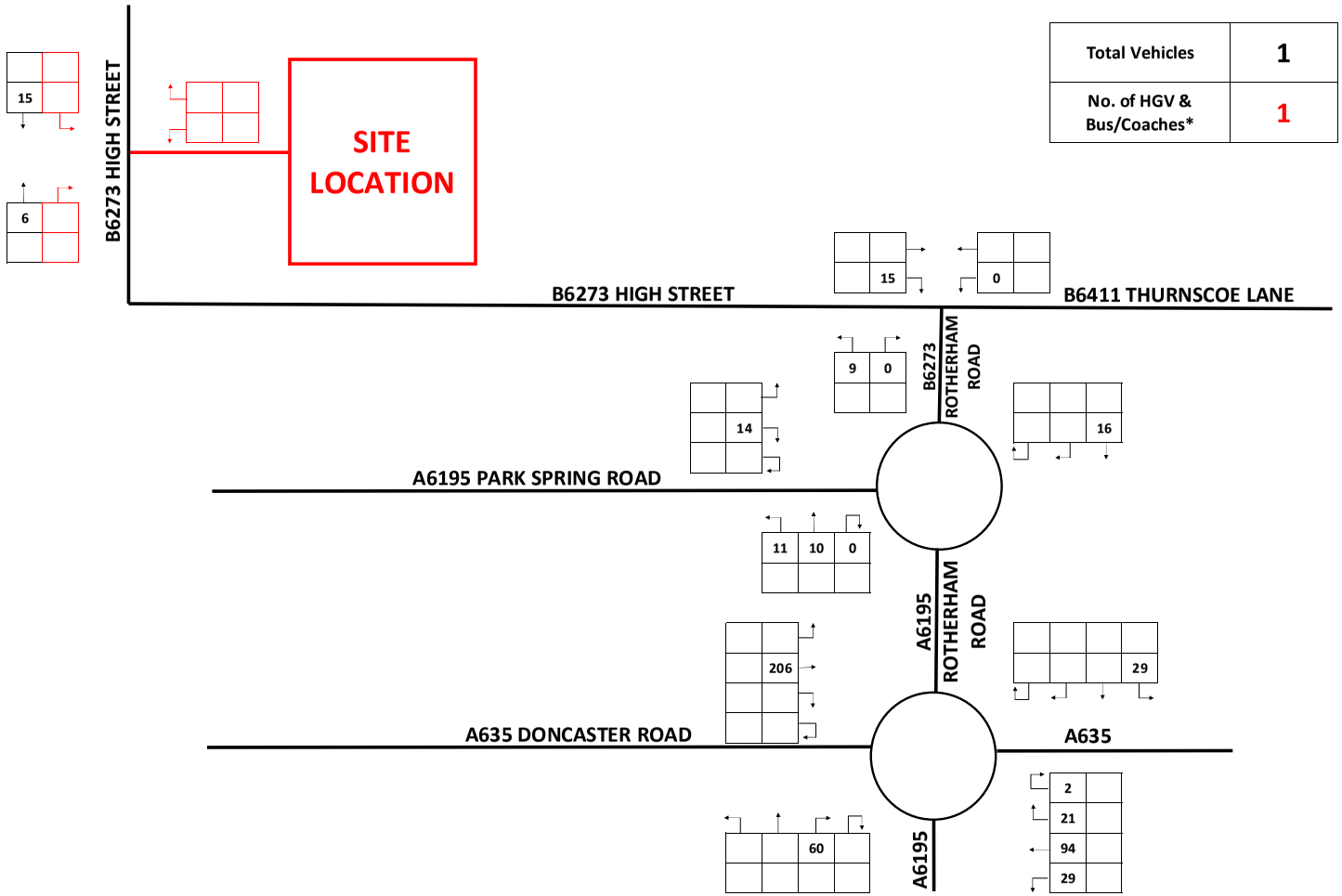
FIGURE 120



OPTIMA
Intelligent Highways Solutions

PM PEAK HOUR - COMMITTED DEVELOPMENT - PLANNING APPLICATION 2021/1282

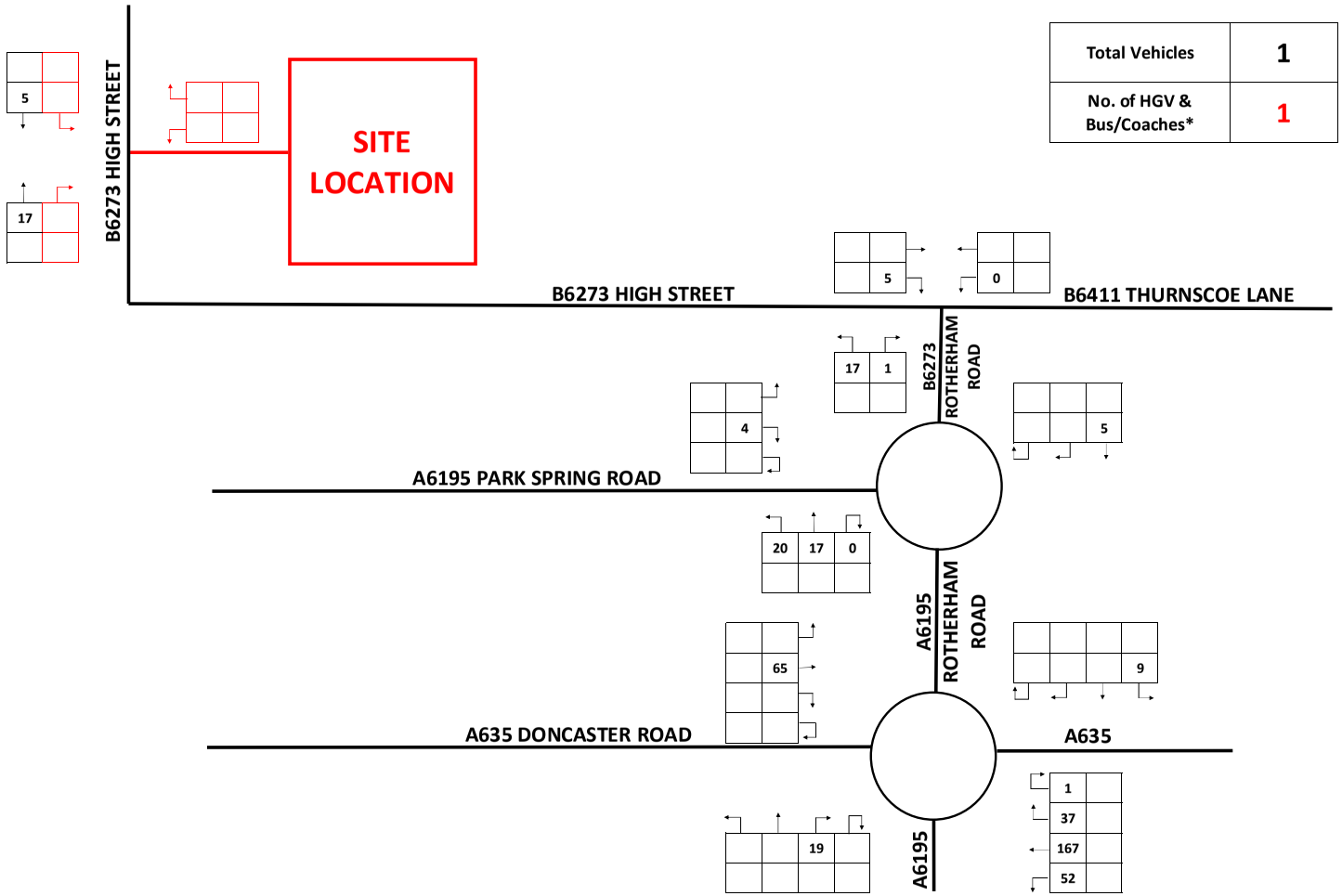
FIGURE 121



OPTIMA Intelligent Highways Solutions

AM PEAK HOUR - COMMITTED DEVELOPMENT - PLANNING APPLICATION 2021/1511

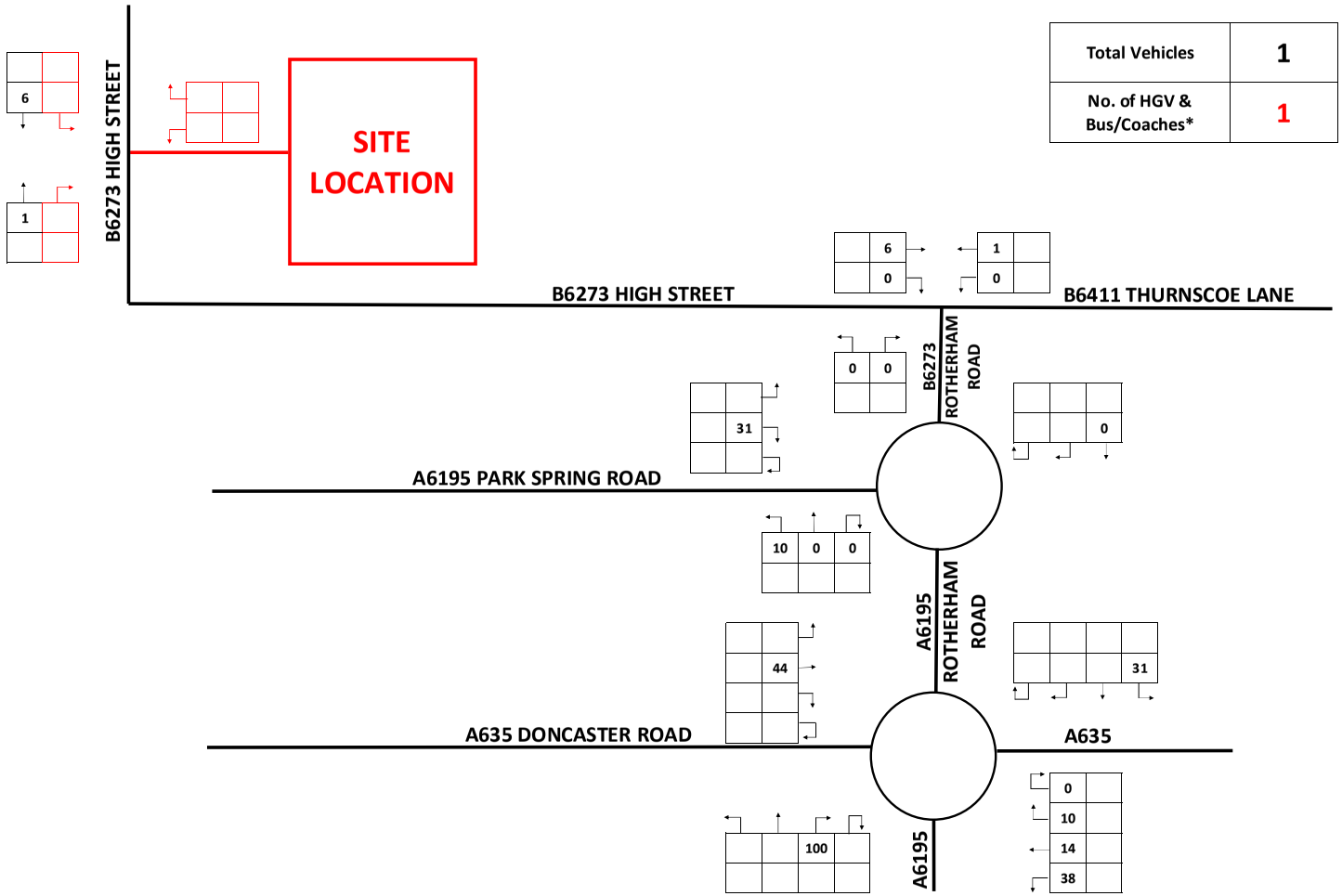
FIGURE 122



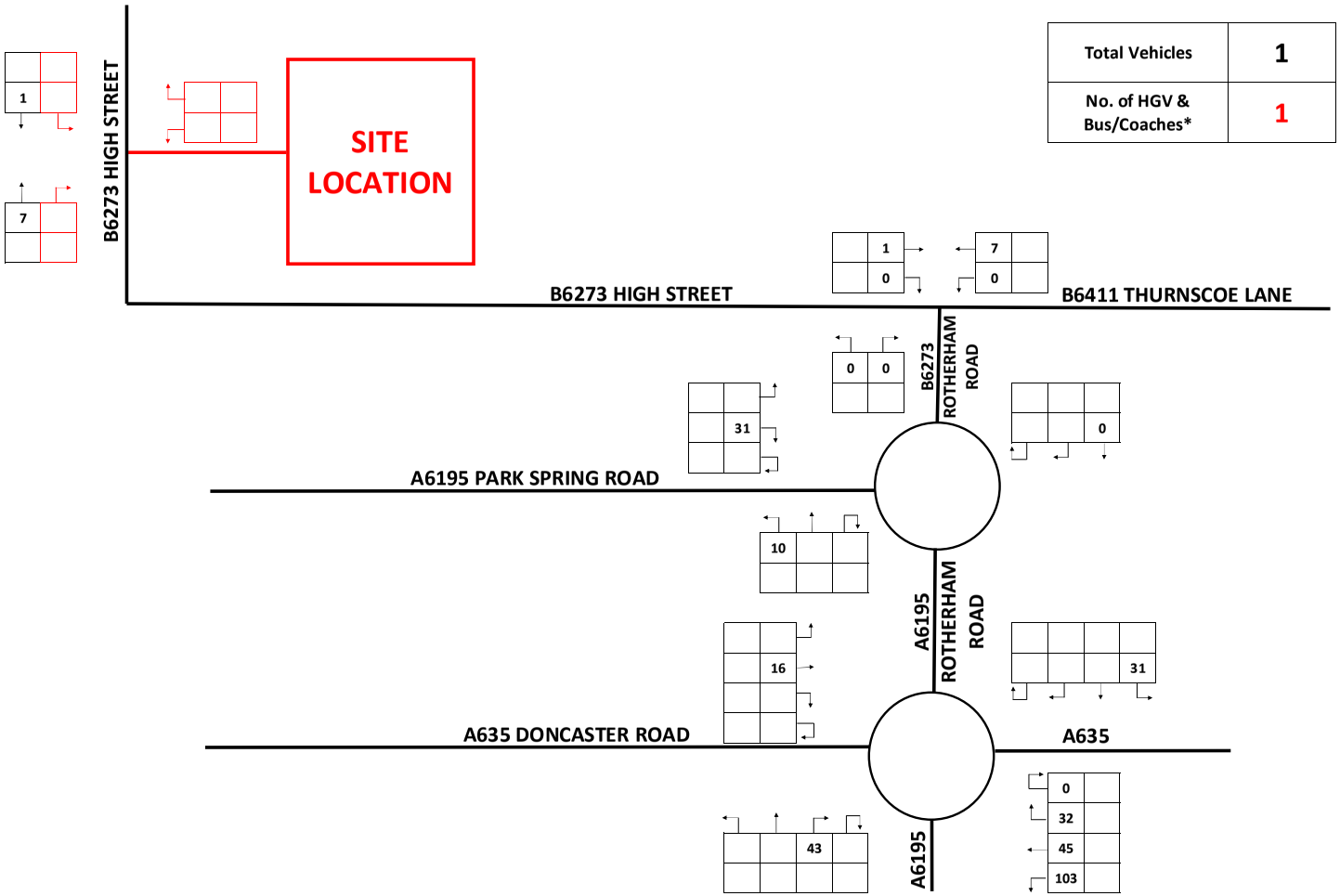
OPTIMA Intelligent Highways Solutions

PM PEAK HOUR - COMMITTED DEVELOPMENT - PLANNING APPLICATION 2021/1511

FIGURE 123



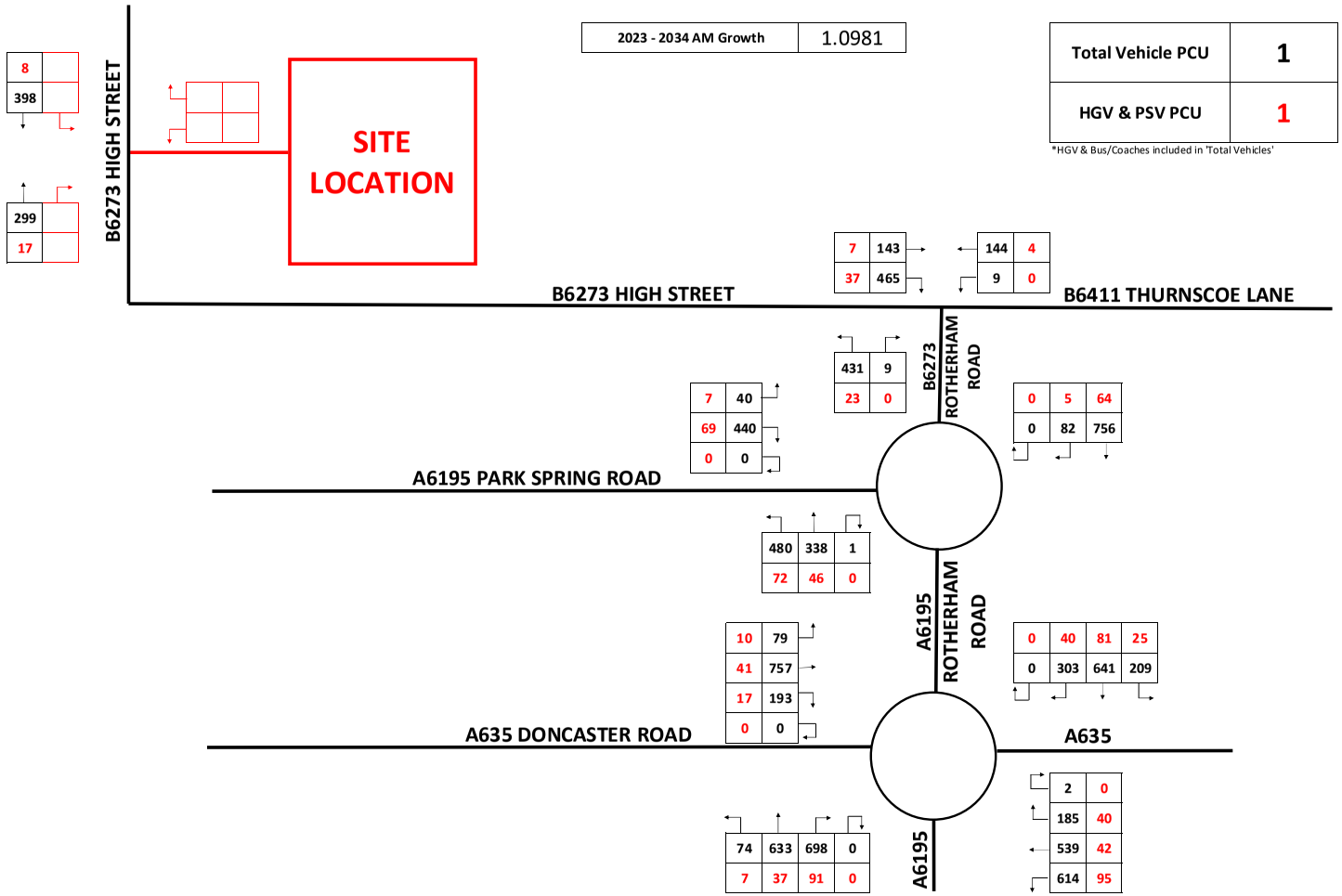
OPTIMA Intelligent Highways Solutions	AM PEAK HOUR - COMMITTED DEVELOPMENT - PLANNING APPLICATION 2023/1105	FIGURE 124



OPTIMA Intelligent Highways Solutions

PM PEAK HOUR - COMMITTED DEVELOPMENT - PLANNING APPLICATION 2023/1105

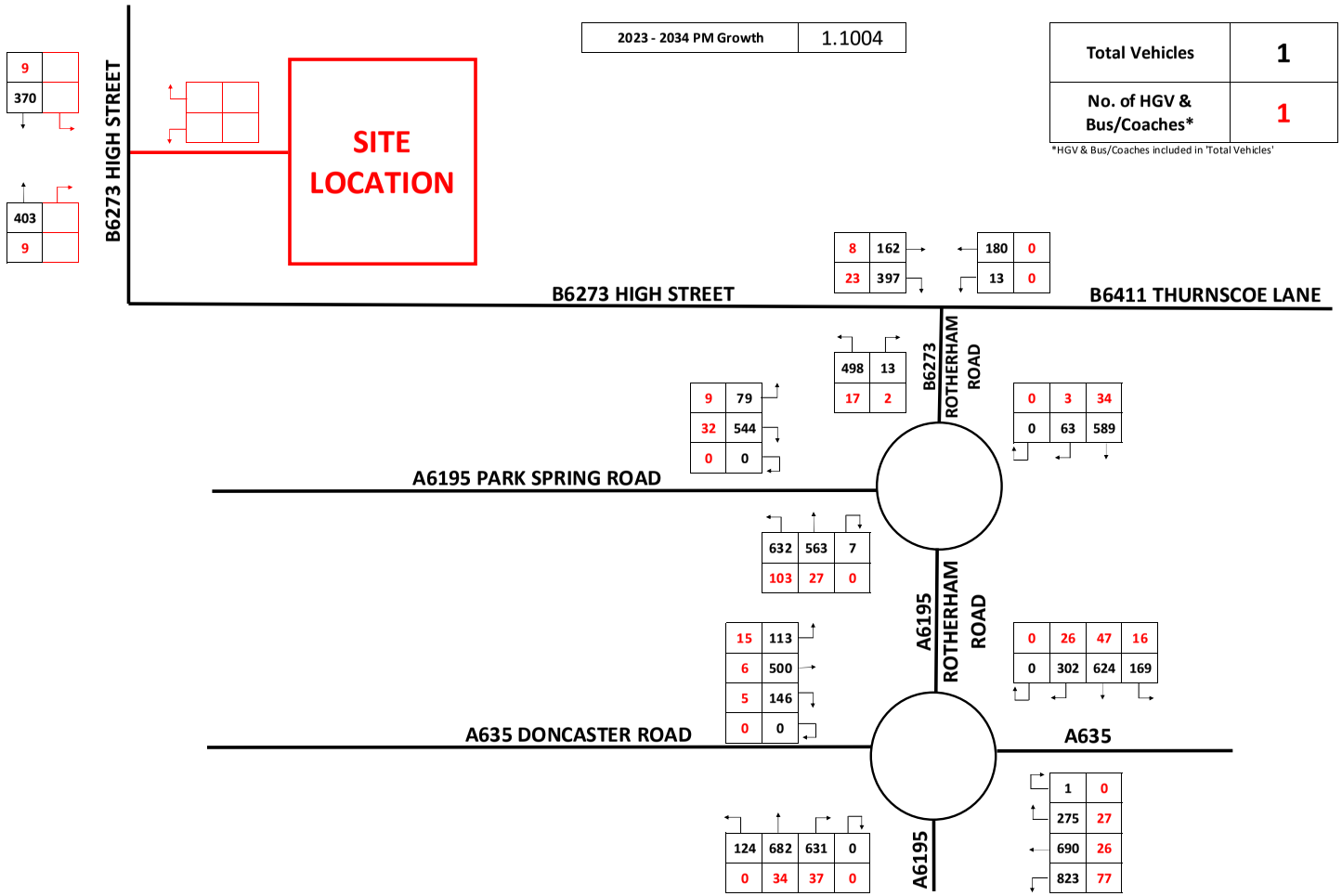
FIGURE 125



OPTIMA
Intelligent Highways Solutions

2034 BASE AM PEAK HOUR FLOWS

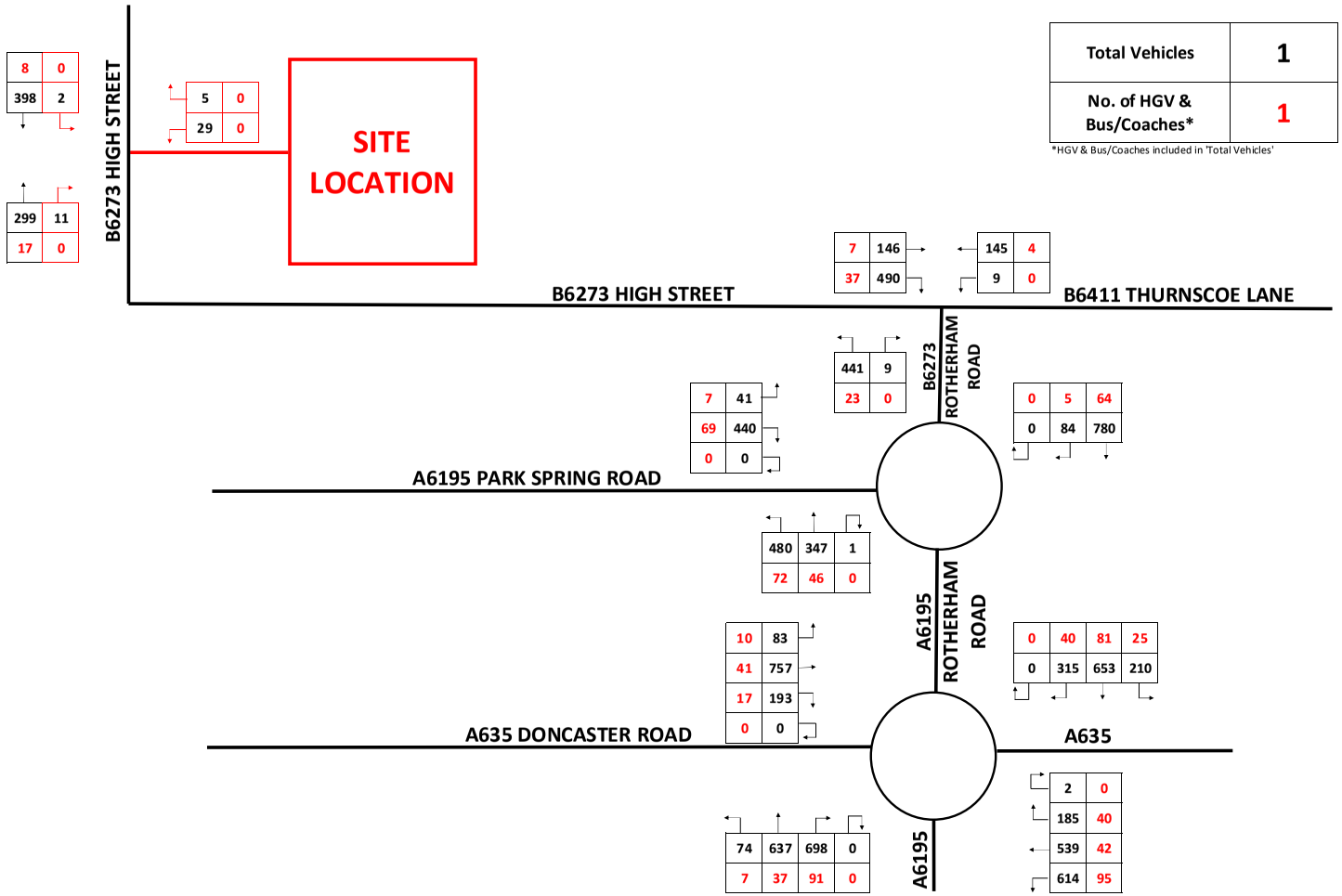
FIGURE 130



OPTIMA
Intelligent Highways Solutions

2034 BASE PM PEAK HOUR FLOWS

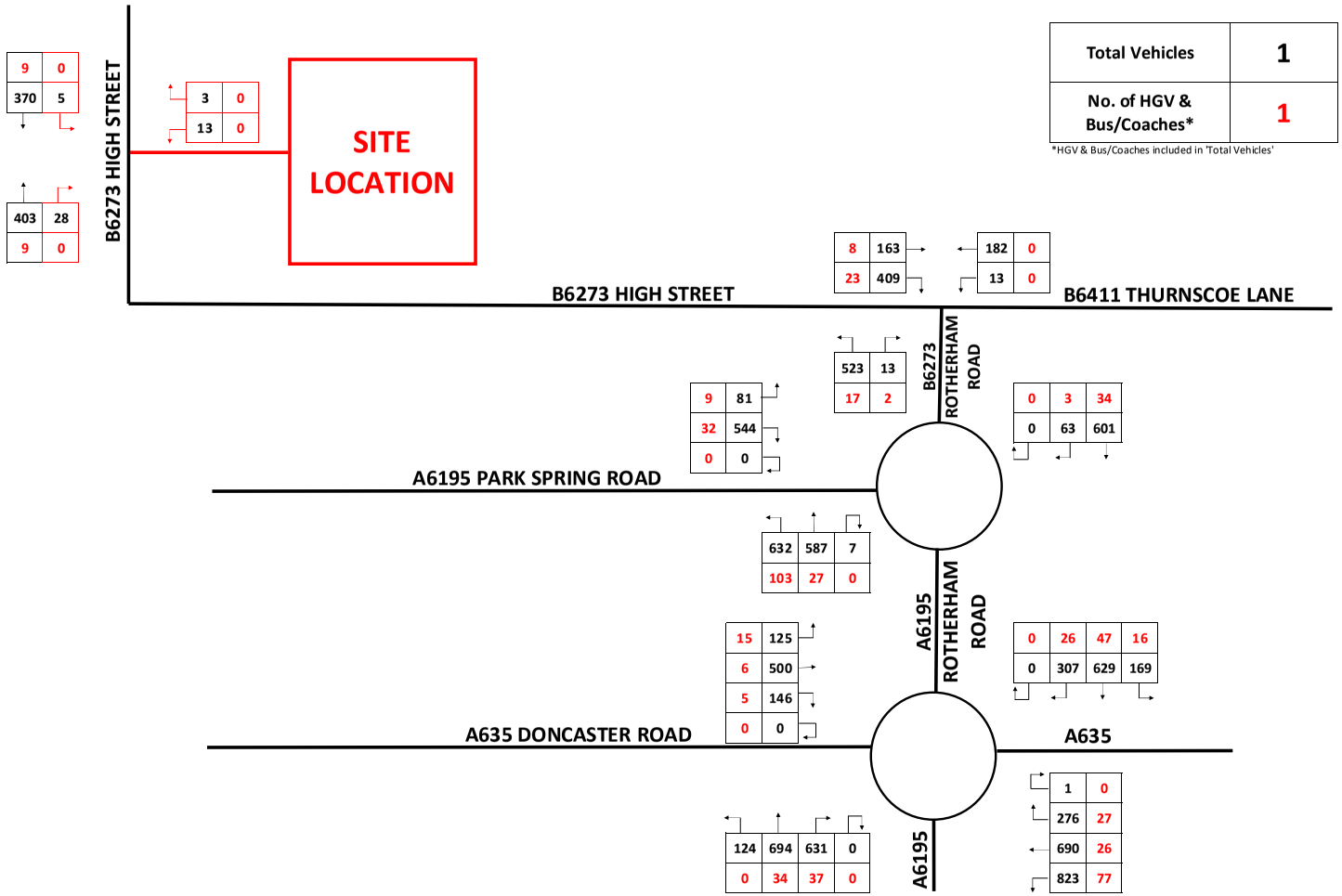
FIGURE 131



OPTIMA Intelligent Highways Solutions

2034 DESIGN AM PEAK HOUR FLOWS

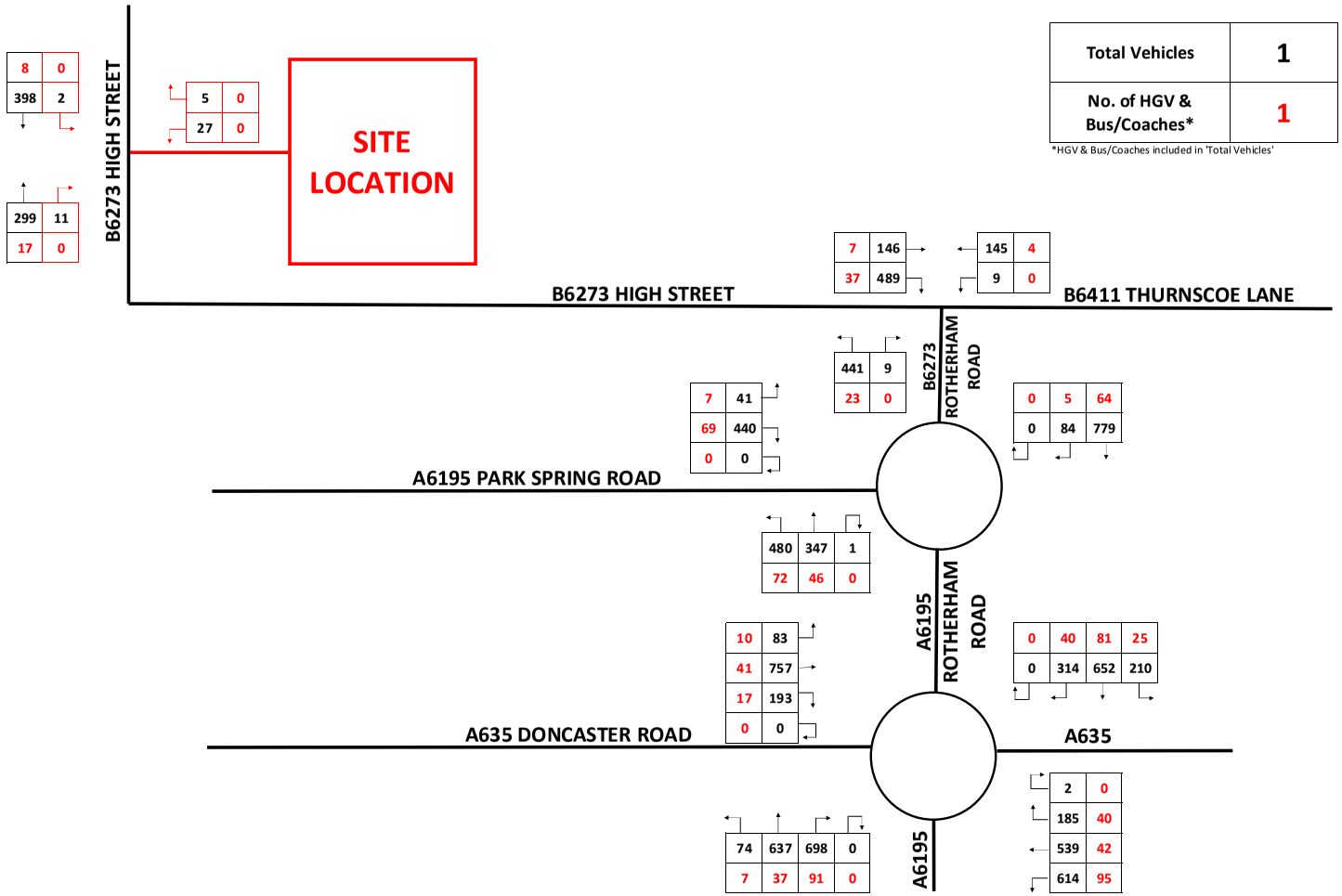
FIGURE 132



OPTIMA Intelligent Highways Solutions

2034 DESIGN PM PEAK HOUR FLOWS

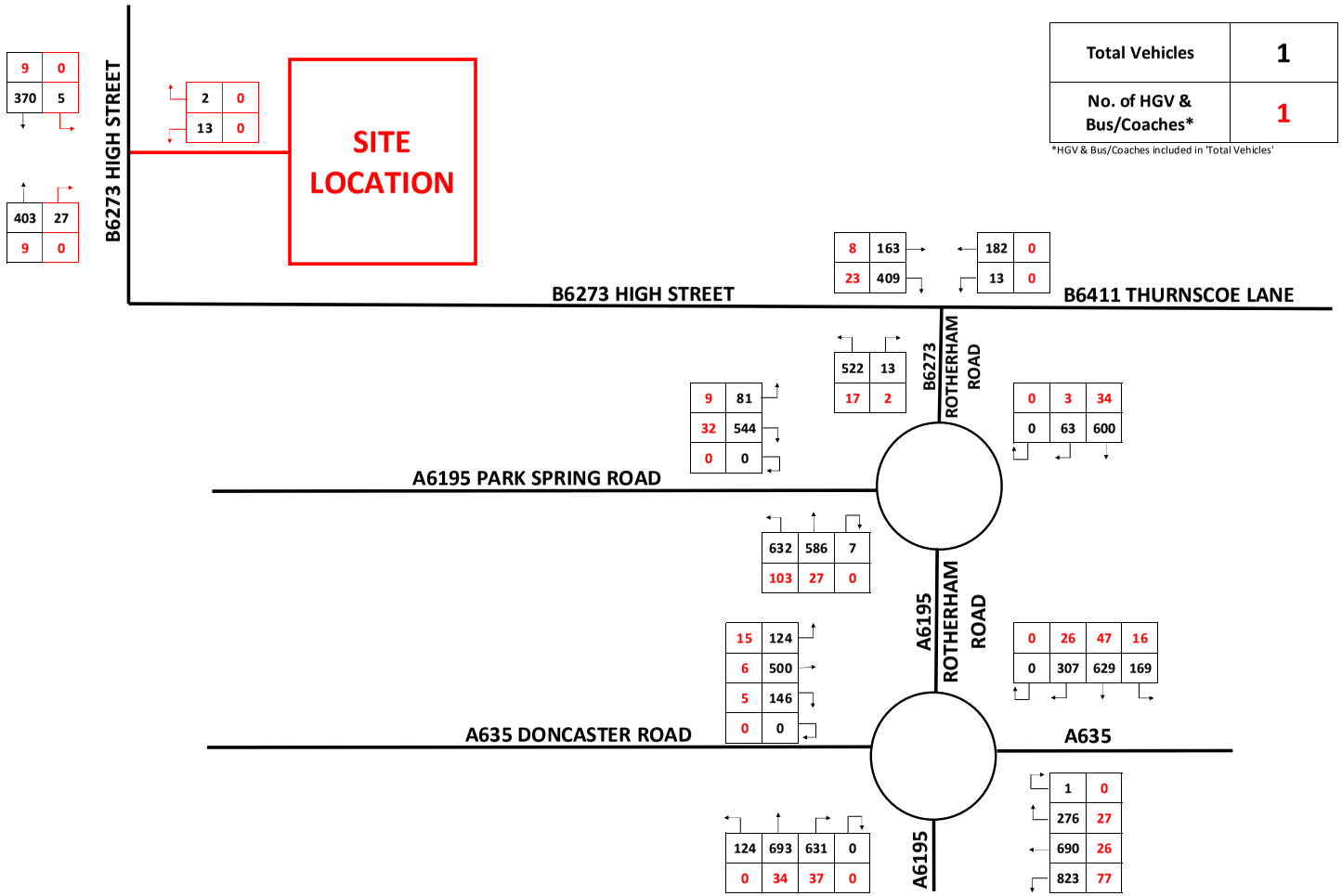
FIGURE 133



OPTIMA Intelligent Highways Solutions

2034 DESIGN VISION LED AM PEAK HOUR FLOWS

FIGURE 134



OPTIMA Intelligent Highways Solutions

2034 DESIGN VISION LED PM PEAK HOUR FLOWS

FIGURE 134

Appendices

Appendix A Results of Radar Speed Survey

Great Houghton Speed Survey, B6273 High Street

Road Data Services Ltd.

Weather:
Overcast

Monday 2nd June 2025
12:00 - 15:00

Northbound

	Speeds (mph)		Speeds (mph)		Speeds (mph)		Speeds (mph)
1	19	51	26	101	29	151	33
2	21	52	26	102	29	152	33
3	22	53	26	103	29	153	33
4	22	54	26	104	29	154	33
5	23	55	26	105	29	155	33
6	23	56	26	106	29	156	33
7	23	57	26	107	29	157	33
8	23	58	26	108	29	158	33
9	23	59	26	109	29	159	33
10	23	60	26	110	29	160	34
11	23	61	26	111	29	161	34
12	23	62	26	112	29	162	34
13	23	63	26	113	29	163	34
14	23	64	26	114	29	164	34
15	23	65	26	115	29	165	34
16	23	66	26	116	30	166	35
17	24	67	26	117	30	167	35
18	24	68	26	118	30	168	35
19	24	69	26	119	30	169	35
20	24	70	27	120	30	170	35
21	24	71	27	121	30	171	35
22	24	72	27	122	30	172	36
23	24	73	27	123	30	173	36
24	24	74	27	124	30	174	36
25	24	75	27	125	30	175	36
26	24	76	27	126	30	176	36
27	24	77	27	127	30	177	36
28	24	78	27	128	30	178	36
29	24	79	27	129	30	179	36
30	25	80	27	130	31	180	37
31	25	81	28	131	31	181	37
32	25	82	28	132	31	182	37
33	25	83	28	133	31	183	37
34	25	84	28	134	31	184	37
35	25	85	28	135	31	185	37
36	25	86	28	136	31	186	37
37	25	87	28	137	31	187	37
38	25	88	28	138	31	188	38
39	25	89	28	139	31	189	38
40	25	90	28	140	32	190	38
41	25	91	28	141	32	191	38
42	25	92	28	142	32	192	39
43	25	93	28	143	32	193	39
44	25	94	28	144	32	194	39
45	25	95	28	145	32	195	39
46	25	96	28	146	32	196	39
47	25	97	28	147	32	197	40
48	26	98	28	148	33	198	40
49	26	99	29	149	33	199	41
50	26	100	29	150	33	200	41

ROAD SURFACE - DRY

Average (mph)	29.4
Standard Deviation (mph)	4.7
85th Percentile (mph)	34.3
Wet Weather 85th Percentile (mph)	31.8
% > Speed Limit	35.5

SPEED LIMIT 30

Southbound

	Speeds (mph)		Speeds (mph)		Speeds (mph)		Speeds (mph)
1	22	51	27	101	30	151	35
2	24	52	27	102	30	152	35
3	24	53	27	103	30	153	35
4	24	54	27	104	30	154	35
5	24	55	27	105	31	155	35
6	24	56	27	106	31	156	35
7	24	57	27	107	31	157	35
8	24	58	27	108	31	158	36
9	24	59	28	109	31	159	36
10	24	60	28	110	31	160	36
11	24	61	28	111	31	161	36
12	24	62	28	112	31	162	36
13	24	63	28	113	31	163	36
14	24	64	28	114	31	164	36
15	25	65	28	115	31	165	37
16	25	66	28	116	31	166	37
17	25	67	28	117	31	167	37
18	25	68	28	118	31	168	37
19	25	69	28	119	32	169	38
20	25	70	28	120	32	170	38
21	25	71	28	121	32	171	38
22	25	72	28	122	32	172	38
23	25	73	28	123	32	173	38
24	25	74	28	124	32	174	38
25	26	75	28	125	32	175	38
26	26	76	28	126	32	176	38
27	26	77	28	127	32	177	38
28	26	78	29	128	32	178	38
29	26	79	29	129	32	179	39
30	26	80	29	130	33	180	39
31	26	81	29	131	33	181	39
32	26	82	29	132	33	182	39
33	26	83	29	133	33	183	39
34	26	84	29	134	33	184	39
35	26	85	29	135	33	185	39
36	26	86	29	136	33	186	39
37	26	87	29	137	33	187	40
38	26	88	29	138	33	188	40
39	26	89	30	139	33	189	40
40	27	90	30	140	33	190	40
41	27	91	30	141	34	191	40
42	27	92	30	142	34	192	40
43	27	93	30	143	34	193	41
44	27	94	30	144	34	194	41
45	27	95	30	145	34	195	41
46	27	96	30	146	34	196	42
47	27	97	30	147	34	197	42
48	27	98	30	148	34	198	42
49	27	99	30	149	34	199	42
50	27	100	30	150	35	200	42

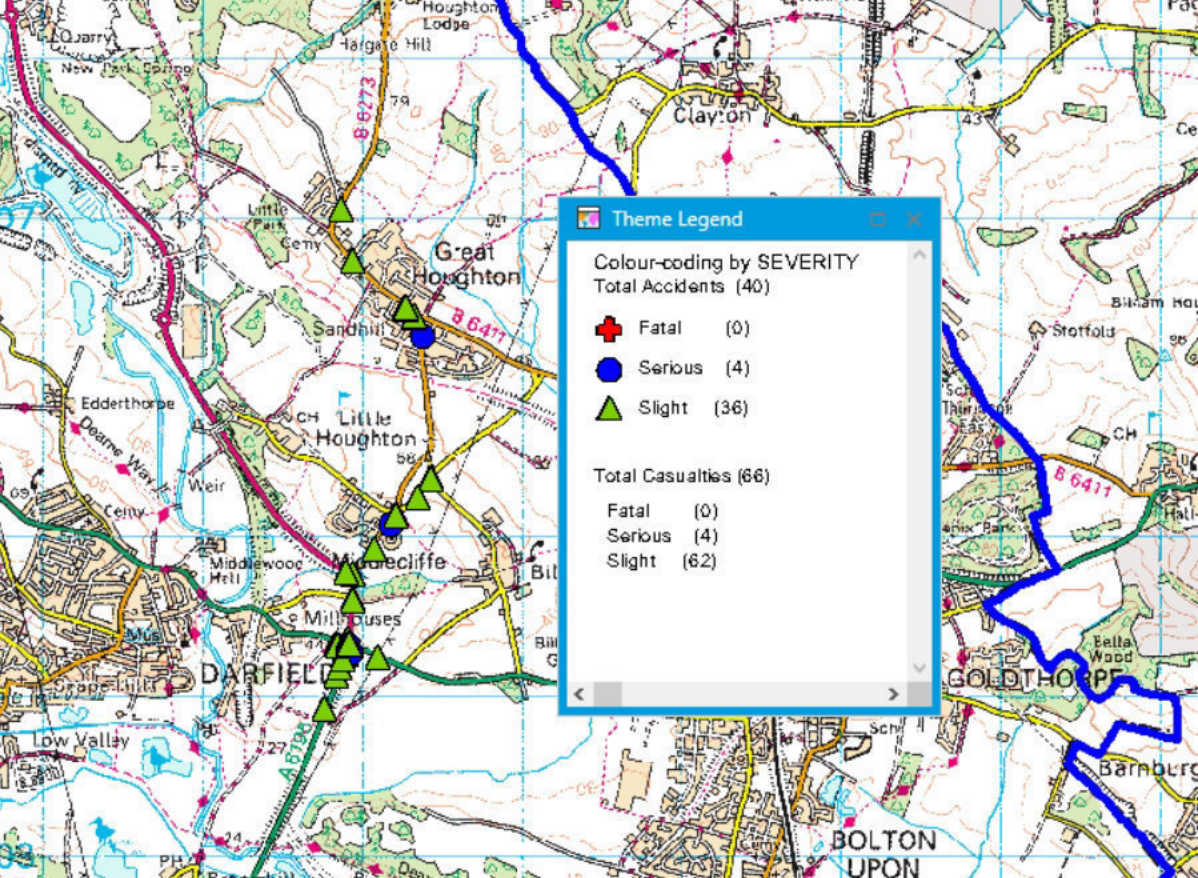
ROAD SURFACE - DRY

Average (mph)	31.1
Standard Deviation (mph)	5.0
85th Percentile (mph)	36.3
Wet Weather 85th Percentile (mph)	33.8
% > Speed Limit	48.0

SPEED LIMIT 30

All speeds are recorded from free flowing vehicles

Appendix B Personal Injury Collision Data


Theme Legend
Colour-coding by SEVERITY
Total Accidents (40)
Fatal (0)
Serious (4)
Slight (36)
Total Casualties (66)
Fatal (0)
Serious (4)
Slight (62)
Great Houghton
Little Houghton
Sandhill
Edderthorpe
Middlecliffe
DARFIELD
GOLDTHORPE
Clayton
Stotfold
BOLTON UPON
B 6273
B 6411
A 635

Accidents between dates **01/01/2016** **and** **31/12/2020** (60) months

Selection:

Selected using Manual Selection

Notes:

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
1638996	Slight	06/01/2016	Wed	0745	442881 404319	0	0	1	402V2A	0 0 0	Dark	Fine without high winds	Wet/Damp	3 9
1647906	Slight	18/02/2016	Thu	1320	442933 404608	0	0	2	308V2A 403V1B 602V2B	0 0 0	Light	Fine without high winds	Dry	9 9
1662467	Slight	20/04/2016	Wed	1815	443207 405145	0	0	2	405V1A	0 0 0	Light	Fine without high winds	Dry	9 9
1672628	Slight	02/05/2016	Mon	0630	442929 404762	0	0	1	405V1B 406V2B	0 0 0	Light	Fine without high winds	Dry	9 3
16119684	Slight	14/05/2016	Sat	1755	442864 407052	0	0	4	405V2B 703V2B	0 0 0	Light	Fine without high winds	Dry	9 9
1674364	Slight	23/05/2016	Mon	2120	442932 404606	0	0	2	406V1B	0 0 0	Dark	Fine without high winds	Dry	9 9
1690171	Slight	20/07/2016	Wed	1620	442887 404270	0	0	1	403V2B 406V2B 405V2B	0 0 0	Light	Fine without high winds	Dry	9 9
1690997	Slight	21/07/2016	Thu	0855	443426 405368	0	0	1	405V1A 402V1A 702V1A	0 0 0	Light	Fine without high winds	Dry	9 2
1699985	Slight	16/08/2016	Tue	1740	443064 404923	0	0	1	508V2B	0 0 0	Light	Fine without high winds	Dry	9 9
16133535	Slight	12/10/2016	Wed	0700	443324 406381	0	0	1	602V1B 404V1A	5 1 9	Light	Unknown	Dry	9
16121680	Slight	16/10/2016	Sun	1400	442934 404611	0	0	2	308V1B 405V1B 406V1A 508V1B 602V1A	0 0 0	Light	Fine without high winds	Dry	9 9 9
16146601	Slight	05/11/2016	Sat	1300	443318 406377	0	0	1	510V2A 405V1B	0 0 0	Light	Fine without high winds	Dry	3 9
16131715	Slight	14/11/2016	Mon	1230	443427 405365	0	0	1	302V2A	0 0 0	Light	Fine without high winds	Dry	9 9
16145745	Slight	12/12/2016	Mon	1603	443256 406438	0	0	1	802C1A	5 1 5	Light	Fine without high winds	Dry	19
16139040	Slight	12/12/2016	Mon	0727	442828 404328	0	0	2	405V1A 406V1B	0 0 0	Dark	Fine without high winds	Dry	9 9 9
17162880	Slight	23/02/2017	Thu	1613	443426 405365	0	0	3	405V1A	0 0 0	Light	Raining with high winds	Wet/Damp	9 9
17169153	Serious	21/03/2017	Tue	0828	443370 406274	0	1	0	310V2A	0 0 0	Light	Fine without high winds	Dry	21 1
17169008	Slight	25/03/2017	Sat	1417	442886 404271	0	0	3	405V2B 406V2B 602V2B	0 0 0	Light	Fine without high winds	Dry	9 9
17216552	Slight	11/08/2017	Fri	1642	442834 404131	0	0	6	408V3A 405V3A	0 0 0	Light	Fine without high winds	Dry	9 9 9
17217414	Serious	18/08/2017	Fri	1120	442907 404335	0	1	0	408V1A	0 0 0	Light	Fine without high winds	Dry	11 9
17219615	Slight	04/09/2017	Mon	1312	443093 404242	0	0	4	406V2A 405V2A	0 0 0	Light	Fine without high winds	Dry	9 9
17242294	Slight	04/11/2017	Sat	1130	442935 406734	0	0	1	802C1A 803C1A 406V1A	5 1 2	Light	Fine without high winds	Dry	9
17242458	Slight	06/11/2017	Mon	0920	442883 404274	0	0	2	510V1A	0 0 0	Light	Fine without high winds	Dry	9 9
17257467	Serious	19/12/2017	Tue	2110	442924 404290	0	1	0	405V2A	0 0 0	Dark	Fine without high winds	Wet/Damp	1 9
18261701	Slight	06/01/2018	Sat	1420	442853 404177	0	0	2	406V1A 408V2B 408V1B 408V3B	0 0 0	Light	Fine without high winds	Dry	9 9 9

Accidents between dates **01/01/2016** **and** **31/12/2020** (60) months

Selection:

Selected using Manual Selection

Notes:

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
18289191	Slight	18/04/2018	Wed	1714	442932 404603	0	0	1	405V1B 406V2B	0 0 0	Light	Fine without high winds	Dry	9 1
18291217	Slight	26/04/2018	Thu	1230	443342 405243	0	0	1	602V2A	0 0 0	Light	Fine with high winds	Dry	23 98
18323278	Slight	21/08/2018	Tue	1730	442932 404606	0	0	1	406V1A	0 0 0	Light	Fine without high winds	Dry	5 9
18338451	Slight	17/10/2018	Wed	0720	442875 404234	0	0	2	602V1A 405V1B	0 0 0	Dark	Fine without high winds	Dry	9 9 9 9
18342567	Slight	01/11/2018	Thu	0530	442890 404328	0	0	1	602V1A 302V1A	0 0 0	Dark	Fine without high winds	Dry	2
19814448	Slight	08/02/2019	Fri	0720	443266 406426	0	0	1	801C1A	5 3 6	Light	Unknown	Dry	9
19816788	Slight	18/02/2019	Mon	1221	443268 406436	0	0	1	602V1B 801C1A	6 9 1	Light	Fine without high winds	Dry	9
19827482	Serious	29/03/2019	Fri	1115	443169 405088	0	1	0	802C1A	5 9 9	Light	Fine without high winds	Dry	9
19851604	Slight	26/06/2019	Wed	1820	442841 404318	0	0	1		0 0 0	Light	Fine without high winds	Dry	9 98
19903375	Slight	12/11/2019	Tue	1008	442901 404326	0	0	1	605V3B	0 0 0	Light	Unknown	Dry	9 9 9 9
19904659	Slight	02/12/2019	Mon	1344	442754 403925	0	0	4	308V2A 308V3A	0 0 0	Light	Fine without high winds	Wet/Damp	9 9 9 9
20915633	Slight	06/01/2020	Mon	0730	442906 404356	0	0	1	602V1B 602V2B	0 0 0	Dark	Fine without high winds	Dry	3 9
20962378	Slight	06/07/2020	Mon	1230	443200 405136	0	0	1	405V2A 406V2A 308V2A 601V2B 203V2B	0 0 0	Light	Fine without high winds	Dry	9 9
20964867	Slight	14/07/2020	Tue	1800	442909 404324	0	0	1	406V1A	0 0 0	Light	Fine without high winds	Dry	9 9
20986485	Slight	02/10/2020	Fri	1920	442890 404776	0	0	1	601V1A	9 5 0	Dark	Fine without high winds	Dry	9
Column Totals	**Slight :** 36					0	4	0			**Light :** 32		**Dry :** 36	
	Serious : 4										**Dark :** 8		**Wet :** 4	
	Fatal : 0													

Total number of accidents listed: 40

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1638996 06/01/2016 Wednesda Time: 0745 Vehicles 2 Casualties 1 Slight
Easting: 442,881 Northing: 404,319
Fine without high winds Road Surface: Wet/Damp Darkness: street lights present and lit
Road Type: Roundabout Speed Limit: 60

Location: DONCASTER ROAD (A635) BARNSLEY AT OR WITHIN 20 MTS OF ROTHERHAM ROAD (A6195)
Description: V1 IN NEARSIDE OF CATHILL RB HEASING IN DIRECTION OF THE A6195, V2 OULLS OUT OF THE DONCASTER ROAD JUNCTION, VAUSING V1 TO TAKE EVASIVE ACTION. V1 FALLS TO THE FLOOR, DAMAGE TO V1 AND DRIVER. V2 FAILS TO EXCHANGE DETAILS

Vehicle Reference: 1 Motorcycle over 50cc and up Moving off
First point of impact: Offside
Vehicle direction: S to N Journey: Commuting to/from work
Age of Driver : 22 Breath test: Driver not contacted

Contributory Factors : 402

Casualty Reference: 1 Age: 22 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Did not impact
Vehicle direction: W to N Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 402

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1647906 18/02/2016 Thursday Time: 1320 Vehicles 2 Casualties 2 Slight
Easting: 442,933 Northing: 404,608
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: ROTHERHAM ROAD (A6195) BARNSLEY AT OR WITHIN 20 MTS OF FITZWILLIAM ROAD
Description: V1 WAS TURNGIN RIGHT, VEH2 HAS COLLIDED WITH RER OF V2, DID NOT SEE VEH 1 STOP

Vehicle Reference: 1 Car Waiting to turn right
First point of impact: Back
Vehicle direction: N to W Journey: Commuting to/from work
Age of Driver : 34 Breath test: Driver not contacted

Contributory Factors : 308 403 602

Casualty Reference: 1 Age: 34 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 30 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: N to S Journey: Commuting to/from work
Age of Driver : 28 Breath test: Driver not contacted

Contributory Factors : 308 403 602

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1662467 20/04/2016 Wednesda Time: 1815 Vehicles 2 Casualties 2 Slight
Easting: 443,207 Northing: 405,145
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM ROAD (B6273) BARNSLEY AT OR WITHIN 20 MTS OF MIDDLECLIFFE LANE
Description: V1 WAITING TO TURN RIGHT HIT BY V2 FROM BEHIND

Vehicle Reference: 1 Car Turning right
First point of impact: Front
Vehicle direction: SW to SE Journey: Not known
Age of Driver : 53 Breath test: Negative

Contributory Factors : 405

Casualty Reference: 1 Age: 53 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Waiting to turn right
First point of impact: Back
Vehicle direction: SW to SE Journey: Not known
Age of Driver : 20 Breath test: Not provided (medical)

Contributory Factors : 405

Casualty Reference: 2 Age: 20 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1672628 02/05/2016 Monday Time: 0630 Vehicles 2 Casualties 1 Slight
Easting: 442,929 Northing: 404,762
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: PARK SPRING ROAD (A6195) BARNSLEY AT OR WITHIN 20 MTS OF ROTHERHAM ROAD (B6273)
Description: V2 M/CYCLE WAITING TO JOIN ROUNDABOUT. V1 BEHIND V2 SETS OFF AND COLL WITH REAR OF M/CYCLE.

Vehicle Reference: 1 Car Moving off
First point of impact: Front
Vehicle direction: W to E Journey: Commuting to/from work
Age of Driver : 35 Breath test: Negative

Contributory Factors : 405 406

Vehicle Reference: 2 Motorcycle over 50cc and up Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: W to E Journey: Commuting to/from work
Age of Driver : 23 Breath test: Negative

Contributory Factors : 405 406

Casualty Reference: 1 Age: 23 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

16119684 14/05/2016 Saturday Time: 1755 Vehicles 2 Casualties 4 Slight
Easting: 442,864 Northing: 407,052
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: HIGH STREET (B6273) BARNSLEY AT OR WITHIN 20 MTS OF ACCESS ROAD
Description: V1 HAS COME ALONG ROTHERHAM ROAD AND V2 HAS PULLED OUT THE JUNC WITH LISTER ROW AND COLLIDED WITH V1.

Vehicle Reference: 1 Car Going ahead right hand bend
First point of impact: Offside
Vehicle direction: S to N Journey: Not known
Age of Driver : 19 Breath test: Not requested

Contributory Factors : 405 703

Casualty Reference: 1 Age: 19 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 17 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 2 Car Moving off
First point of impact: Offside
Vehicle direction: N to S Journey: Not known
Age of Driver : 20 Breath test: Not requested

Contributory Factors : 405 703

Casualty Reference: 2 Age: 20 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 4 Age: 21 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1674364 23/05/2016 Monday Time: 2120 Vehicles 2 Casualties 2 Slight
Easting: 442,932 Northing: 404,606
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 60

Location: ROTHERHAM ROAD (A6195) BARNSLEY AT OR WITHIN 20 MTS OF FITZWILLIAM ROAD
Description: V1 OVERATKING V2, V2 TURNS RIGHT COLL WITH V1. V2 FTS

Vehicle Reference: 1 Car Overtaking stationary vehicle on its offside
First point of impact: Nearside
Vehicle direction: N to S Journey: Other
Age of Driver : 39 Breath test: Negative

Contributory Factors : 406

Casualty Reference: 1 Age: 39 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 11 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Turning right
First point of impact: Offside
Vehicle direction: N to W Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 406

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1690171 20/07/2016 Wednesda Time: 1620 Vehicles 2 Casualties 1 Slight
Easting: 442,887 Northing: 404,270
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: A6195 BARNSLEY AT OR WITHIN 20 MTS OF DONCASTER ROAD (A635)
Description: V1 AT ROUNDABOUT (GOING AHEAD) V2 TRIES TO MOVE PAST, HITS V1 TWICE.

Vehicle Reference: 1 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: S to N Journey: Other
Age of Driver : 71 Breath test: Driver not contacted

Contributory Factors : 403 406 405

Casualty Reference: 1 Age: Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Waiting to go ahead but held up
First point of impact: Front
Vehicle direction: S to N Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 403 406 405

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1690997 21/07/2016 Thursday Time: 0855 Vehicles 2 Casualties 1 Slight
Easting: 443,426 Northing: 405,368
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: WEST KIRK LANE BARNSLEY AT OR WITHIN 20 MTS OF MIDDLECLIFF LANE
Description: V1 TURNED RIGHT AT JUNCTION. V2 TV WEST KIRK LANE. COLL OCCURRED.

Vehicle Reference: 1 Car Turning right
First point of impact: Offside
Vehicle direction: SW to SE Journey: Commuting to/from work
Age of Driver : 45 Breath test: Negative

Contributory Factors : 405 402 702

Vehicle Reference: 2 Motorcycle 50cc and under Going ahead
First point of impact: Front
Vehicle direction: SE to NW Journey: Commuting to/from work
Age of Driver : 29 Breath test: Negative

Contributory Factors : 405 402 702

Casualty Reference: 1 Age: 29 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

1699985 16/08/2016 Tuesday Time: 1740 Vehicles 2 Casualties 1 Slight
Easting: 443,064 Northing: 404,923
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM ROAD (B6273) BARNSLEY
Description: V1 HAS BEEN PARKED IN WAITING TRAFFIC, V2 HAS HIT REAR OF V1. V1 DRIVER SUSTAINED WHIPLASH INJURIES

Vehicle Reference: 1 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: NE to SW Journey: Commuting to/from work
Age of Driver : 41 Breath test: Driver not contacted

Contributory Factors : 508

Casualty Reference: 1 Age: 41 Male Driver/rider Severity: Slight

Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Waiting to go ahead but held up
First point of impact: Front
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 23 Breath test: Driver not contacted

Contributory Factors : 508

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

16133535 12/10/2016 Wednesda Time: 0700 Vehicles 1 Casualties 1 Slight
Easting: 443,324 Northing: 406,381
Unknown Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: THURNSCOE LANE (B6411) BARNSLEY AT OR WITHIN 20 MTS OF HIGH STREET (B6273)
Description: PEDN BEGINS TO CROSS ROAD WHEN VEH TRAVELS AROUND CORNER AND CLIPS PEDN.

Vehicle Reference: 1 Car Going ahead
First point of impact: Nearside
Vehicle direction: SE to SW Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 602 404

Casualty Reference: 1 Age: 20 Female Pedestrian Severity: Slight
Ped Dir: 9 Ped Movement : Driver's nearside
Ped Location: In carr elsewhere

Accidents between dates 01/01/2016 and 31/12/2020 (60) months
Selection: Notes:
Selected using Manual Selection

16121680 16/10/2016 Sunday Time: 1400 Vehicles 3 Casualties 2 Slight
Easting: 442,934 Northing: 404,611
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: ROTHERHAM ROAD (A6195) BARNSLEY AT OR WITHIN 20 MTS OF FITZWILLIAM ROAD
Description: V1 COLLIDES WITH REAR OF V2 AND SHUNTS IT INTO REAR OF V3

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: N to S Journey: Other
Age of Driver : 50 Breath test: Not requested

Contributory Factors : 308 405 406 508 602

Casualty Reference: 1 Age: 50 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: N to S Journey: Other
Age of Driver : 41 Breath test: Not requested

Contributory Factors : 308 405 406 508 602

Casualty Reference: 2 Age: 41 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 3 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: N to S Journey: Other
Age of Driver : 53 Breath test: Not requested

Contributory Factors : 308 405 406 508 602

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

16146601 05/11/2016 Saturday Time: 1300 Vehicles 2 Casualties 1 Slight
Easting: 443,318 Northing: 406,377
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: HIGH STREET (B6273) BARNSLEY AT OR WITHIN 20 MTS OF THURNSCOE LANE (B6411)
Description: V1 COLL WITH V2 AT STATED LOCATION

Vehicle Reference: 1 Motorcycle over 50cc and up Going ahead
First point of impact: Front
Vehicle direction: SE to NW Journey: Not known
Age of Driver : 21 Breath test: Not requested

Contributory Factors : 510 405

Casualty Reference: 1 Age: 21 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Waiting to turn right
First point of impact: Nearside
Vehicle direction: NE to NW Journey: Not known
Age of Driver : 38 Breath test: Driver not contacted

Contributory Factors : 510 405

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

16131715 14/11/2016 Monday Time: 1230 Vehicles 2 Casualties 1 Slight
Easting: 443,427 Northing: 405,365
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: WEST KIRK LANE BARNSLEY AT OR WITHIN 20 MTS OF BILLINGLEY LANE
Description: V1 TRAVELLING TW GREAT HOUGHTON APPROACHING XROADS. V2 TRAVELLING BILLINGLEY LANE FAILED TO STOP AT JUNC AND COLL OCCURRED.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: S to N Journey: Journey as part of work
Age of Driver : 53 Breath test: Driver not contacted

Contributory Factors : 302

Casualty Reference: 1 Age: 53 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 66 Breath test: Driver not contacted

Contributory Factors : 302

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

16145745 12/12/2016 Monday Time: 1603 Vehicles 1 Casualties 1 Slight
Easting: 443,256 Northing: 406,438
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: HIGH STREET (B6273) BARNSLEY AT OR WITHIN 20 MTS OF MOUNT AVENUE
Description: VEH TRAVELLING ROTHERHAM ROAD FROM HEMSWORTH TOWARDS THURNSCOE. PEDN RUNS OUT INTO ROAD AND A COLL OCCURS.

Vehicle Reference: 1 Van or Goods <= 3.5 tonnes Going ahead
First point of impact: Front
Vehicle direction: NW to SE Journey: Commuting to/from work
Age of Driver : 41 Breath test: Driver not contacted

Contributory Factors : 802

Casualty Reference: 1 Age: 7 Female Pedestrian Severity: Slight

Ped Dir: Pedestrian Ped Movement : Driver's nearside
Ped Location: In carr elsewhere

Accidents between dates 01/01/2016 and 31/12/2020 (60) months
Selection: Notes:
Selected using Manual Selection

16139040 12/12/2016 Monday Time: 0727 Vehicles 3 Casualties 2 Slight
Easting: 442,828 Northing: 404,328
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 60

Location: DONCASTER ROAD (A635) BARNSLEY J/W PRIVATE ENTRANCE
Description: VEHICLE 1 PULLING OUT OF CATHILL SERVICE STATION, TURNING RIGHT ONTO A695 - HITS VEHICLE 2 WHICH SPINS & HITS VEHICLE 3 TRAVELLING OPPOSITE DIRECTION.

Vehicle Reference: 1 Car Turning right
First point of impact: Front
Vehicle direction: S to E Journey: Commuting to/from work
Age of Driver : 32 Breath test: Not requested

Contributory Factors : 405 406

Casualty Reference: 1 Age: 32 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Offside
Vehicle direction: W to E Journey: Commuting to/from work
Age of Driver : 23 Breath test: Not provided (medical)

Contributory Factors : 405 406

Casualty Reference: 2 Age: 23 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 3 Car Going ahead
First point of impact: Front
Vehicle direction: E to W Journey: Commuting to/from work
Age of Driver : 31 Breath test: Negative

Contributory Factors : 405 406

Accidents between dates 01/01/2016 and 31/12/2020 (60) months
Selection: Notes:
Selected using Manual Selection

17162880 23/02/2017 Thursday Time: 1613 Vehicles 2 Casualties 3 Slight
Easting: 443,426 Northing: 405,365
Raining with high winds Road Surface: Wet/Damp Daylight
Road Type: Single carriageway Speed Limit: 60

Location: WEST KIRK LANE BARNSLEY AT OR NR JN WITH BILLINGLEY LANE
Description: V2 TRAVELLING TOWARD GREAT HOUGHTON ON WEST KIRK LANE. V1 TRAVELLING ON BILLING LANE TOWARDS LITTLE HOUGHTON FAILS TO STOP AND COLL WITH OFFSIDE OF V2.

Vehicle Reference: 1 Car Moving off
First point of impact: Front
Vehicle direction: NE to SW Journey: Journey as part of work
Age of Driver : 60 Breath test: Not requested

Contributory Factors : 405

Vehicle Reference: 2 Car Going ahead right hand bend
First point of impact: Offside
Vehicle direction: SE to N Journey: Other
Age of Driver : 31 Breath test: Not requested

Contributory Factors : 405

Casualty Reference: 1 Age: 31 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 79 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 78 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

17169153 21/03/2017 Tuesday Time: 0828 Vehicles 2 Casualties 1 Serious
Easting: 443,370 Northing: 406,274
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM ROAD (B6273) BARNSLEY AT OR NR JN WITH JOHN STREET
Description: WITNESSES SEE CHILD ON BICYCLE, ON PAVEMENT SAME DIRECTION AS V1, TOWARDS BRIERLY. CHILD FALLS OFF BICYLE FOR NO APPARENT REASON, INTO CARRIAGEWAY AND UNDER THE FOREMOST OF THE HGV'S REAR AXLES.

Vehicle Reference: 1 Goods >= 7.5 tonnes mgw Going ahead
First point of impact: Nearside
Vehicle direction: S to N Journey: Journey as part of work
Age of Driver : 61 Breath test: Negative

Contributory Factors : 310

Vehicle Reference: 2 Pedal cycle Going ahead
First point of impact: Did not impact
Vehicle direction: S to N Journey: Not known
Age of Driver : 10 Breath test: Not applicable

Contributory Factors : 310

Casualty Reference: 1 Age: 10 Male Driver/rider Severity: Serious
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 01/01/2016 and 31/12/2020 (60) months
Selection: Notes:
Selected using Manual Selection

17169008 25/03/2017 Saturday Time: 1417 Vehicles 2 Casualties 3 Slight
Easting: 442,886 Northing: 404,271
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY AT OR NR JN WITH CATHILL ROUNDABOUT (A635)
Description: V1 APPROPRACHING ROUNDABOUT. V1 COMES TO A STOP, HIT BY V2 BEHIND, DRIVER OF V2 FTS, VRM OBTAINED

Vehicle Reference: 1 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: S to N Journey: Not known
Age of Driver : 36 Breath test: Driver not contacted

Contributory Factors : 405 406 602

Casualty Reference: 1 Age: 36 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 64 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 37 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: S to N Journey: Other
Age of Driver : 46 Breath test: Driver not contacted

Contributory Factors : 405 406 602

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

17216552 11/08/2017 Friday Time: 1642 Vehicles 3 Casualties 6 Slight
Easting: 442,834 Northing: 404,131
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY
Description: VEHICLE 3 DRIVER HAS BEEN DISTRACTED BY SON IN THE CAR, SHE HAS TURNED TO LOK AT HIM THEN TURNED BACK AS THE TRAFFIC IN FRONT HAS COME TO OR ABOUT TO STOP. V3 HAS HIT V2 SHUNTING IT INTO V1 ALL INJURIES ARE MINOR.

Vehicle Reference: 1 Car Slowing or Stopping
First point of impact: Back
Vehicle direction: S to N Journey: Other
Age of Driver : 27 Breath test: Not requested

Contributory Factors : 408 405

Casualty Reference: 1 Age: 27 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 4 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 32 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 2 Car — Slowing or Stopping
First point of impact: Back
Vehicle direction: S to N — Journey: Commuting to/from work
Age of Driver : 49 — Breath test: Not requested

Contributory Factors : 408 405

Casualty Reference: 4 Age: 49 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 3 Car — Going ahead
First point of impact: Front
Vehicle direction: S to N — Journey: Other
Age of Driver : 27 — Breath test: Not requested

Contributory Factors : 408 405

Casualty Reference: 5 Age: 27 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 6 Age: 5 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

17217414 18/08/2017 Friday Time: 1120 Vehicles 2 Casualties 1 Serious
Easting: 442,907 Northing: 404,335
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: ROTHERHAM ROAD (A6195) BARNSLEY AT OR NR JN WITH CATHILL ROUNDABOUT (A635)
Description: VEHICLE 1 APPROACHING CATHILL ROUNDABOUT, TRAVELLING ALONG ROTHERHAM ROAD A6195. VEHICLE 2 TRAVELLING AROUND THE ROUNDABOUT INDICATING THAT IT WOULD TAKE THE ROTHERHAM ROAD JUNCTION BUT CONTINUES ONTO THE A635 PASSING V1. V1 HAS TO BRAKE SUDDENLY TO AVOI
D IMPACT WITH V2. PASSENGER NOTIFY'S THE DRIVER IN BARNSLEY THAT THEY HAVE MINOR INJURY DUE TO FALLING OFF THE SEAT.

Vehicle Reference: 1 Bus or coach Slowing or Stopping
First point of impact: Did not impact
Vehicle direction: N to S Journey: Journey as part of work
Age of Driver : 52 Breath test: Driver not contacted

Contributory Factors : 408

Casualty Reference: 1 Age: 55 Female Passenger Severity: Serious
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Did not impact
Vehicle direction: W to E Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 408

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

17219615 04/09/2017 Monday Time: 1312 Vehicles 2 Casualties 4 Slight
Easting: 443,093 Northing: 404,242
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: DONCASTER ROAD (A635) BARNSLEY
Description: VEHICLE 1 WAS TRAVELLING ALONG A635 TOWARDS GOLDTHORPE VEHICLE 2 FILLOWING AND VEHICLE 1 STOPS AND VEHICLE 2 BRAKES BUT A COLLISION OCCURS

Vehicle Reference: 1 Car Slowing or Stopping
First point of impact: Back
Vehicle direction: W to E Journey: Other
Age of Driver : 51 Breath test: Driver not contacted

Contributory Factors : 406 405

Casualty Reference: 4 Age: 51 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: W to E Journey: Other
Age of Driver : 54 Breath test: Negative

Contributory Factors : 406 405

Casualty Reference: 1 Age: 54 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 33 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 10 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

17242294 04/11/2017 Saturday Time: 1130 Vehicles 1 Casualties 1 Slight
Easting: 442,935 Northing: 406,734
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: HIGH STREET (B6273) BARNSLEY AT OR NR JN WITH MILTON STREET
Description: 10 YEAR OLD CHILD CROSSING THE HIGH STREET, GREAT HOUGHTON, APPEARS NOT TO HAVE LOOKED FULLY. THE DRIVER, TRAVELLING FROM DIRECTION OF CATHILL TOWARDS BRIERLEY HAS SEEN THE CHILD IN THE ROAD AT THE LAST MOMENT AND HAS BEEN UNABLE TO STOP. A LOW SPEED, LO
W IMPACT COLLISION HAS OCCURED. THE DRIVER HAS STOPPED AND RETURNED THE CHILD TO HIS HOME ADDRESS ACROSS THE STREET. HERE THE POLICE HAVE BEEN CONTACTED AND DETAILS EXCHANGED. THE CHILD WAS CONVEYED TO BDGH AS A PRECAUTION

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: SE to NW Journey: Other
Age of Driver : 48 Breath test: Driver not contacted

Contributory Factors : 802 803 406

Casualty Reference: 1 Age: 12 Male Pedestrian Severity: Slight
Ped Dir: Pedestrian Ped Movement : Driver's nearside
Ped Location: In carr elsewhere

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

17242458 06/11/2017 Monday Time: 0920 Vehicles 2 Casualties 2 Slight
Easting: 442,883 Northing: 404,274
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY AT OR NR JN WITH CATHILL ROUNDABOUT (A635)
Description: V001 WAS WAITING TO ENTER ROUNDABOUT (GOING SOUTH TO WEST), HOWEVER STOPPED SUDDENLY DUE TO ANOTHER VEHICLE CUTTING ACROSS LANES CAUSING V002 (SOUTH TO NOTH) TO COLLIDE INTO THE REAR OF IT.

Vehicle Reference: 1 Car Slowing or Stopping
First point of impact: Back
Vehicle direction: S to W Journey: Commuting to/from work
Age of Driver : 29 Breath test: Negative

Contributory Factors : 510

Casualty Reference: 1 Age: 29 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 4 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Moving off
First point of impact: Front
Vehicle direction: S to N Journey: Other
Age of Driver : 66 Breath test: Negative

Contributory Factors : 510

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

17257467 19/12/2017 Tuesday Time: 2110 Vehicles 2 Casualties 1 Serious
Easting: 442,924 Northing: 404,290
Fine without high winds Road Surface: Wet/Damp Darkness: street lights present and lit
Road Type: Roundabout Speed Limit: 60

Location: CATHILL ROUNDABOUT (A635) BARNSLEY AT OR NR JN WITH DEARNE VALLEY PARKWAY (A6195)
Description: VEH 1 A PUSH BIKE RIDING AROUND CATHILL ROUNDABOUT INTENDING TO EXIT FOR WOMBWELL FROM THE A6195 (GREAT HOUGHTON). VEH 2 HAS ENTERED THE ROUNDABOUT FROM DONCASTER ROAD (GOLDTHORPE) AND COLLIDED WITH VEH 1 CAUSING RIDER TO FALL FROM HIS BIKE AND BANG HIS HEAD ON THE FLOOR. HELMET IS SMASHED AND RIDER WAS SEMI CONCIOUS/UNCONCIOUS. RIDER HAS SEEN HIS OWN DOCTOR ON THE 21/12/2017. THE LADY DRIVER OF VEH 2 IS A PRISON OFFICER.

Vehicle Reference: 1 Pedal cycle Going ahead
First point of impact: Nearside
Vehicle direction: N to S Journey: Other
Age of Driver : 50 Breath test: Not applicable

Contributory Factors : 405

Casualty Reference: 1 Age: 50 Male Driver/rider Severity: Serious
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: E to W Journey: Other
Age of Driver : 35 Breath test: Not requested

Contributory Factors : 405

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

18261701 06/01/2018 Saturday Time: 1420 Vehicles 3 Casualties 2 Slight
Easting: 442,853 Northing: 404,177
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY
Description: V002 AND V003 WERE TRAVELLING ALONG THE A635 DEARNE VALLEY PARKWAY BETWEEN BROOMHILL ROUNDABOUT AND CATHILL ROUNDABOUT. AS THE VEHICLES BEGAN TO APPROACH WITHIN 200 METRES OF CATHILL ROUNDABOUT, AN UNKNOWN VEHICLE AHEAD HAS BRAKED. V003 HAS BEGUN TO SLOW
AT WHICH POINT V002 HAS PULLED OUT SLIGHTY TOWARDS THE WHITE LINE TO AVOID COLLISION. V001 THEN COLLIDED WITH V002 WHICH IN TURN THEN COLLIDED WITH V003 SHUNTING BOTH VEHICLES.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: S to N Journey: Other
Age of Driver : 37 Breath test: Driver not contacted

Contributory Factors : 406 408 408 408

Vehicle Reference: 2 Car Slowing or Stopping
First point of impact: Back
Vehicle direction: S to N Journey: Other
Age of Driver : 53 Breath test: Negative

Contributory Factors : 406 408 408 408

Casualty Reference: 1 Age: 53 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 24 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 3 Car — Slowing or Stopping
First point of impact: Back
Vehicle direction: S to N — Journey: Not known
Age of Driver : 76 — Breath test: Negative

Contributory Factors : 406 408 408 408

18289191 18/04/2018 Wednesda Time: 1714 Vehicles 2 Casualties 1 Slight
Easting: 442,932 Northing: 404,603
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: ROTHERHAM ROAD (A6195) BARNSLEY AT OR NR JN WITH FITZWILLIAM ROAD
Description: VEHICLE 1 WAITING TO TURN RIGHT INTO ROAD TO OFFSIDE IN QUEUE OF TRAFFIC. VEHICLE 2 PASSES BY FILTERING TRAFFIC AND AS VEHICLE 2 DRAWS ALONGSIDE VEHICLE 1, VEHICLE 1 SETS OFF TURNS RIGHT AND A MINOR COLLISION OCCURS. RIDER OF VEHICLE 2 FALLS OFF BIKE HAV
ING DOWN AN EMERGENCY STOP. HE RECEIVES CUTS AND BRUISES.

Vehicle Reference: 1 Car — Turning right
First point of impact: Offside
Vehicle direction: N to W — Journey: Other
Age of Driver : 42 — Breath test: Driver not contacted

Contributory Factors : 405 406

Vehicle Reference: 2 Pedal cycle — Overtaking moving vehicle on its offside
First point of impact: Nearside
Vehicle direction: N to S — Journey: Other
Age of Driver : 44 — Breath test: Not applicable

Contributory Factors : 405 406

Casualty Reference: 1 Age: 44 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

18291217 26/04/2018 Thursday Time: 1230 Vehicles 2 Casualties 1 Slight
Easting: 443,342 Northing: 405,243
Fine with high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: MIDDLECLIFFE LANE BARNSLEY
Description: DRIVER ON SCOOTER TRAVELLING FROM THURNSCOE DOWN BILLINGLEY LANE TOWARDS MIDDLECLIFFE. HE BELIEVES A BLACK NISSAN OR MERCEDES VAN HAS OVERTAKEN HIM AND KNOCKED HIM OFF HIS SCOOTER. VAN HAS THEN FAILED TO STOP AND LEFT LOCATION. NO VRM OBTAINED FOR OF FENDING VEHICLE. DRIVER OF SCOOTER SUFFERED INJURIES TO HIS RIGHT HIP AND POSSIBLE CONCUSSION. TRANSPORTED TO NGH VIA AMBULANCE.

Vehicle Reference: 1 Electric Motorcycle Going ahead
First point of impact: Offside
Vehicle direction: NE to SW Journey: Other
Age of Driver : 16 Breath test: Not provided (medical)

Contributory Factors : 602

Casualty Reference: 1 Age: 16 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Goods vehicle - unknown Overtaking moving vehicle on its offside
First point of impact: Nearside
Vehicle direction: NE to SW Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 602

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

18323278 21/08/2018 Tuesday Time: 1730 Vehicles 2 Casualties 1 Slight
Easting: 442,932 Northing: 404,606
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: ROTHERHAM ROAD (A6195) BARNSLEY AT OR NR JN WITH FITZWILLIAM ROAD
Description: M/CYCLE WAS FILTERING PAST NEAR STATIONARY TRAFFIC WHERE CAR IN FRONT TURNED RIGHT, HAVING FIRST INDICATED INTENTIONS. M/CYCLE CLIPED REAR CORNER.

Vehicle Reference: 1 Motorcycle over 500cc Overtaking stationary vehicle on its offside
First point of impact: Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 37 Breath test: Not requested

Contributory Factors : 406

Casualty Reference: 1 Age: 37 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Turning right
First point of impact: Back
Vehicle direction: N to W Journey: Commuting to/from work
Age of Driver : 40 Breath test: Not requested

Contributory Factors : 406

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

18338451 17/10/2018 Wednesda Time: 0720 Vehicles 4 Casualties 2 Slight
Easting: 442,875 Northing: 404,234
Fine without high winds Road Surface: Dry Darkness: no street lighting
Road Type: Single carriageway Speed Limit: 60

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY
Description: 4 VEHICLE RTC MINOR INJURIES APPROACHING CATHILL R'BOUT. TRAFFIC CAME TO A STOP AND CARS COLLIDED INTO EACH OTHER, SHUNTING ONES INFRONT.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: S to N Journey: Not known
Age of Driver : 21 Breath test: Negative

Contributory Factors : 602 405

Vehicle Reference: 2 Car Going ahead
First point of impact: Back
Vehicle direction: S to N Journey: Journey as part of work
Age of Driver : 62 Breath test: Not requested

Contributory Factors : 602 405

Casualty Reference: 1 Age: 62 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 3 Car Going ahead
First point of impact: Back
Vehicle direction: S to N Journey: Commuting to/from work
Age of Driver : 53 Breath test: Negative

Contributory Factors : 602 405

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 4 Car Slowing or Stopping
First point of impact: Back
Vehicle direction: S to N Journey: Commuting to/from work
Age of Driver : 35 Breath test: Negative

Contributory Factors : 602 405

Casualty Reference: 2 Age: 35 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

18342567 01/11/2018 Thursday Time: 0530 Vehicles 2 Casualties 1 Slight
Easting: 442,890 Northing: 404,328
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Roundabout Speed Limit: 60

Location: CATHILL ROUNDABOUT (A635) BARNSLEY AT JN WITH ROTHERHAM ROAD (A6195)
Description: V2 NEGOTIATING ROUNDABOUT AND IS PASSING THE EXIT TOWARDS FITZWILLIAM ROAD. V1 HAS COLLIDED WITH THE REAR OF V2 CAUSING THE RIDER TO FALL FROM HIS BIKE, CAUSING SLIGHT INJURY AND DAMAGE. V1 FAILS TO STOP AT THE SCENE.

Vehicle Reference: 1 Turning left
First point of impact: Front
Vehicle direction: W to N Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 602 302

Vehicle Reference: 2 Motorcycle 50cc and under Going ahead
First point of impact: Back
Vehicle direction: W to E Journey: Commuting to/from work
Age of Driver : 45 Breath test: Negative

Contributory Factors : 602 302

Casualty Reference: 1 Age: 45 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

19814448 08/02/2019 Friday Time: 0720 Vehicles 1 Casualties 1 Slight
Easting: 443,266 Northing: 406,426
Unknown Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM ROAD (B6273) BARNSLEY AT OR NR JN WITH MOUNT AVENUE
Description: VEHICLE HAS BEEN DRIVING ALONG ROTHERHAM ROAD GREAT HOUGHTON, IN THE OPPOSITE DIRECTION A BUS HAS STOPPED. THE VEHICE HAS SLOWED DOWN TO 19 MPH AS IT PASSES THE BUS, THE CASUALTY THEN RUNS OUT FROM BEHIND THE BUS INTO THE ROAD RESULTING IN THE VEHICLE CO LLIDING WITH HIM.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: SE to NW Journey: Not known
Age of Driver : 38 Breath test: Not requested

Contributory Factors : 801

Casualty Reference: 1 Age: 12 Male Pedestrian Severity: Slight
Ped Dir: Pedestrian Ped Movement : Driver's offside
Ped Location: In carr elsewhere

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

19816788 18/02/2019 Monday Time: 1221 Vehicles 1 Casualties 1 Slight
Easting: 443,268 Northing: 406,436
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM ROAD (B6273) BARNSLEY AT OR NR JN WITH MOUNT AVENUE
Description: V1 WAS PARKED ON ROTHERHAM ROAD, FACING TOWARDS LITTLE HOUGHTON WITH THE NEARSIDE WHEELS ON THE PAVEMENT TO PREVENT CAUSING AN OBSTRUCTION TO OTHER ROAD USERS. THERE HAS BEEN ANOTHER VEHICLE PARKED INFRONT OF V1 AND SO HE HAS REVERSED SLIGHTLY, TO ENABLE HIM TO PULL AWAY. HE HAS NOT SEEN THE MALE STOOD IMMEDIATELY BEHIND HIS VEHICLE ON THE CORNER OF ROTHERHAM ROAD AND MOUNT AVENUE AND HAS REVERSED INTO HIM, CAUSING HIM TO FALL INTO THE ROAD.

Vehicle Reference: 1 Car Reversing
First point of impact: Back
Vehicle direction: SE to NW Journey: Other
Age of Driver : 25 Breath test: Not requested

Contributory Factors : 602 801

Casualty Reference: 1 Age: 87 Male Pedestrian Severity: Slight
Ped Dir: Pedestrian Ped Movement : Movement U/K
Ped Location: On footpath / verge

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

19827482 29/03/2019 Friday Time: 1115 Vehicles 1 Casualties 1 Serious
Easting: 443,169 Northing: 405,088
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM ROAD (B6273) BARNSLEY
Description: PEDESTRIAN (IP1) WAS CROSSING THE ROAD TO POST A LETTER. SHE HAS STATED THAT SHE FAILED TO LOOK PROPERLY AND WAS STRUCK BY V1 AT LOW SPEED.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: SW to NE Journey: Other
Age of Driver : 25 Breath test: Negative

Contributory Factors : 802

Casualty Reference: 1 Age: 74 Female Pedestrian Severity: Serious
Ped Dir: 9 Ped Movement : Movement U/K
Ped Location: In carr elsewhere

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

19851604 26/06/2019 Wednesda Time: 1820 Vehicles 2 Casualties 1 Slight
Easting: 442,841 Northing: 404,318
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: DONCASTER ROAD (A635) BARNSLEY AT JN WITH TEXACO FILLING STATION
Description: VEHICLE 1 HAD JUST STARTED TO PULL ONTO PETROL STATION JUST MOVING FORWARD VEHICLE2 A FORD TRANSIT PICKUP HAS DELIBERATELY RAMMED VEHICLE 2 PUSHED IT FORWARD THEN REVERSED AND DROVE OFF LEAVING NO DETAILS ,

Vehicle Reference: 1 Car Turning right
First point of impact: Back
Vehicle direction: W to SE Journey: Other
Age of Driver : 54 Breath test: Not requested

Contributory Factors :

Casualty Reference: 1 Age: 11 Female Passenger Severity: Slight

Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Goods vehicle - unknown Going ahead
First point of impact: Front
Vehicle direction: W to SE Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors :

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

19903375 12/11/2019 Tuesday Time: 1008 Vehicles 4 Casualties 1 Slight
Easting: 442,901 Northing: 404,326
Unknown Road Surface: Dry Daylight
Road Type: Roundabout Speed Limit: 60

Location: CATHILL ROUNDABOUT (A635) BARNSLEY AT OR NR JN WITH ROTHERHAM ROAD (A6195)
Description: NO CIRCS ON PRONTO - PICKED UP FROM FAILED QUEUE.

Vehicle Reference: 1 Car Going ahead
First point of impact: Back
Vehicle direction: to Journey: Not known
Age of Driver : 22 Breath test: Not provided (medical)

Contributory Factors : 605

Casualty Reference: 1 Age: 22 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Parked
First point of impact: Front
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : 50 Breath test: Not requested

Contributory Factors : 605

Vehicle Reference: 3 Car Going ahead
First point of impact: Front
Vehicle direction: to Journey: Not known
Age of Driver : 42 Breath test: Driver not contacted

Contributory Factors : 605

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 4 Car Moving off
First point of impact: Offside
Vehicle direction: to Journey: Not known
Age of Driver : 58 Breath test: Driver not contacted

Contributory Factors : 605

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

19904659 02/12/2019 Monday Time: 1344 Vehicles 4 Casualties 4 Slight
Easting: 442,754 Northing: 403,925
Fine without high winds Road Surface: Wet/Damp Daylight
Road Type: Single carriageway Speed Limit: 60

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY
Description: V001 BRAKES FOR TRAFFIC AHEAD WHERE V002 COLLIDES WITH REAR OF V001. V002 LEAVES CARRIEGWAY WHERE V003 COLLIDES WITH ON COMING V04.

Vehicle Reference: 1 Car Slowing or Stopping
First point of impact: Back
Vehicle direction: S to N Journey: Other
Age of Driver : 40 Breath test: Negative

Contributory Factors : 308 308

Casualty Reference: 1 Age: 37 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: S to N Journey: Other
Age of Driver : 57 Breath test: Negative

Contributory Factors : 308 308

Casualty Reference: 2 Age: 57 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 3 Car Going ahead
First point of impact: Front
Vehicle direction: S to N Journey: Other
Age of Driver : 26 Breath test: Negative

Contributory Factors : 308 308

Casualty Reference: 3 Age: 26 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 4 Car Going ahead
First point of impact: Front
Vehicle direction: N to S Journey: Other
Age of Driver : 57 Breath test: Negative

Contributory Factors : 308 308

Casualty Reference: 4 Age: 57 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

20915633 06/01/2020 Monday Time: 0730 Vehicles 2 Casualties 1 Slight
Easting: 442,906 Northing: 404,356
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 60

Location: ROTHERHAM ROAD (A6195) BARNSLEY
Description: V1 OVERTAKING QUEUING TRAFFIC. V2 PULLS OUT FROM THE QUEUING TRAFFIC, CROSSING BROKEN CENTRE WHITE LINE TO GET IN CLEAR RIGHT HAND LANE OF ROUNDABOUT. APPROX 30M FROM ROUNABOUT. V2 AND V1 COLLIDE.

Vehicle Reference: 1 Motorcycle over 50cc and up Overtaking stationary vehicle on its offside
First point of impact: Front
Vehicle direction: N to S Journey: Commuting to/from work
Age of Driver : 28 Breath test: Negative

Contributory Factors : 602 602

Casualty Reference: 1 Age: 28 Male Driver/rider Severity: Slight

Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Changing lane to right
First point of impact: Offside
Vehicle direction: N to S Journey: Commuting to/from work
Age of Driver : 34 Breath test: Negative

Contributory Factors : 602 602

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

20962378 06/07/2020 Monday Time: 1230 Vehicles 2 Casualties 1 Slight
Easting: 443,200 Northing: 405,136
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM ROAD (B6273) BARNSLEY AT OR NR JN WITH MIDDLECLIFFE LANE
Description: V1 TRAVELLING ALONG ROTHERHAM ROAD AND PREPARING TO TURN RIGHT. V2 HAS DRIVEN INTO THE BACK OF V1.

Vehicle Reference: 1 Car Turning right
First point of impact: Back
Vehicle direction: NE to NW Journey: Other
Age of Driver : 29 Breath test: Negative

Contributory Factors : 405 406 308 601 203

Casualty Reference: 1 Age: 29 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: NE to SW Journey: Other
Age of Driver : 18 Breath test: Negative

Contributory Factors : 405 406 308 601 203

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

20964867 14/07/2020 Tuesday Time: 1800 Vehicles 2 Casualties 1 Slight
Easting: 442,909 Northing: 404,324
Fine without high winds Road Surface: Dry Daylight
Road Type: Roundabout Speed Limit: 60

Location: CATHILL ROUNDABOUT (A635) BARNSLEY AT OR NR JN WITH ROTHERHAM ROAD (A6195)
Description: VEHICLE 1 WAS WAITING TO PULL OUT OF A JUCTION TURNING RIGHT. VEHICLE 2 WAS TRAVELING ALONG MAIN ROAD WITH HIS LEFT HAND INDICATOR ON. VEHICLE 1 HAS ASSUMED THAT VEHICLE 2 IS TURNING LEFT SO HAS PULLED OUT. VEHICLE 2 HAS HIT VEHICLE 1 ON THE O/S

Vehicle Reference: 1 Car Moving off
First point of impact: Offside
Vehicle direction: N to W Journey: Not known
Age of Driver : 29 Breath test: Not requested

Contributory Factors : 406

Casualty Reference: 1 Age: 23 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: W to E Journey: Commuting to/from work
Age of Driver : 41 Breath test: Not requested

Contributory Factors : 406

Accidents between dates **01/01/2016** **and** **31/12/2020** **(60) months**
Selection: **Notes:**
Selected using Manual Selection

20986485 02/10/2020 Friday Time: 1920 Vehicles 1 Casualties 1 Slight
Easting: 442,890 Northing: 404,776
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 60

Location: PARK SPRING ROAD (A6195) BARNSLEY
Description: V1 HAS BEEN TRAVELLING WITH NO LIGHTS, IP HAS BEEN TRAVELLING IN A DIFFERENT VEHICLE AND HAS STOPPED AND GOT OUT TO INFORM V1 THEY HAVE NO LIGHTS ON. DRIVER OF V1 GOT OUT THE CAR WAS VERBALLY ABUSIVE TO IP BEFORE GETTING BACK IN HIS CAR AND HAS DRIVING A T IP, HIT HIM CAUSING INJURY.

Vehicle Reference: 1 Car Moving off
First point of impact: Front
Vehicle direction: NW to SE Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 601

Casualty Reference: 1 Age: 40 Male Pedestrian Severity: Slight

Ped Dir: Pedestrian Ped Movement : In carr not crossing
Ped Location: In carr not crossing

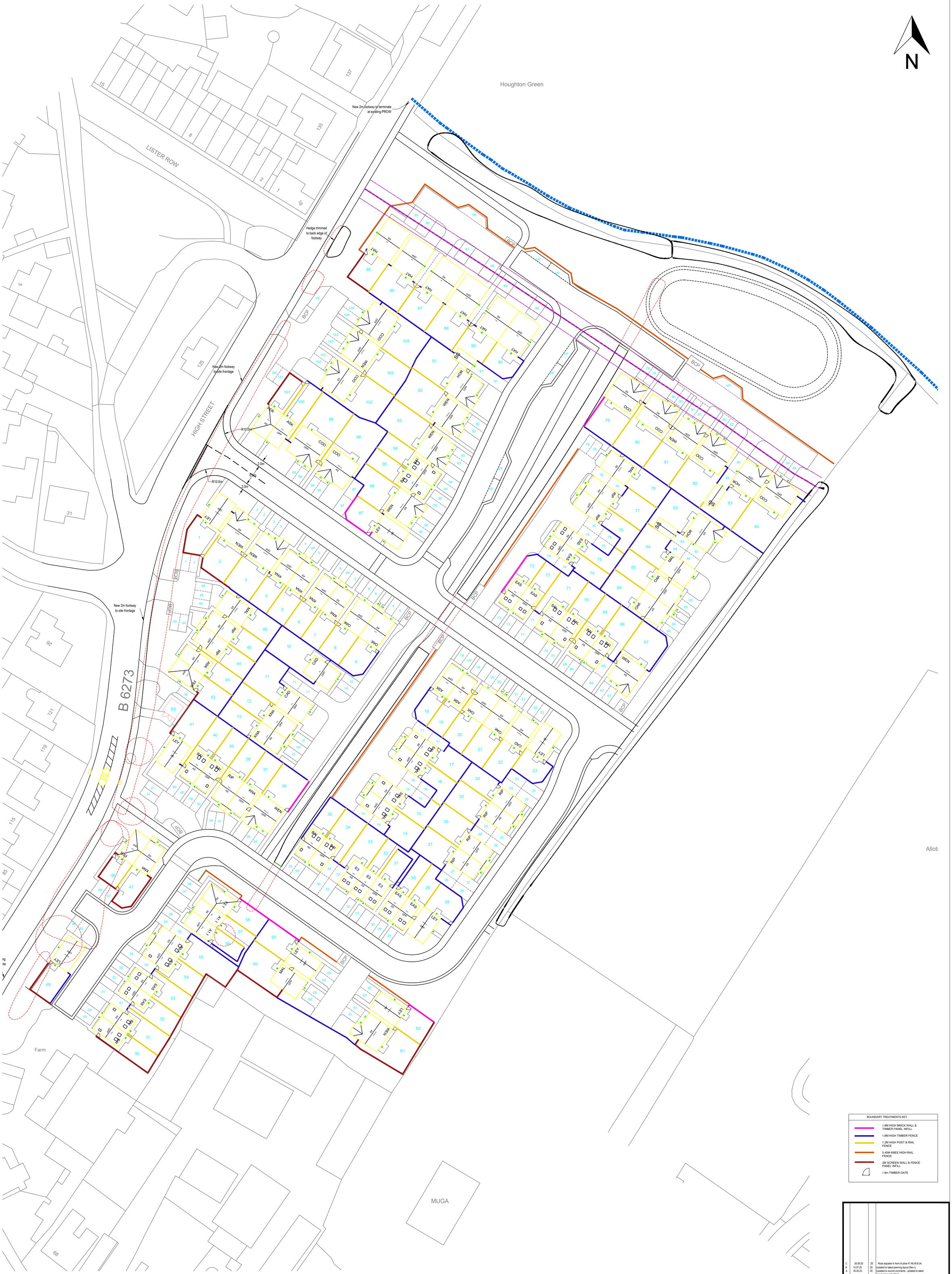
Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only excluding 2-wheels	0	2	27	29
2-wheeled motor vehicles	0	0	8	8
Pedal cycles	0	2	1	3
Horses & other	0	0	1	1
Total	0	4	36	40

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	29	29
Passenger	0	1	19	20
Motorcycle rider	0	0	7	7
Cyclist	0	2	1	3
Pedestrian	0	1	6	7
Other	0	0	0	0
Total	0	4	62	66

Appendix C Avant Homes (West Yorkshire) Proposed Site Layout



REV	DATE	BY	AMENDMENTS
C	26.08.25	ZE	Road adjusted in front of plots 47,48,49 & 54.
B	14.07.25	ZE	Updated to latest planning layout (Rev I)
A	20.05.25	ZE	Updated to council comments - updated to latest layout, knee rail added

AVANT homes
Unit 2, Mariner Court, Peel Avenue, Durkar, Wakefield, WF4 3FL,
Tel: 01924 248410, Fax: 01924 248488,
www.avanthomes.co.uk

DATE:	SCALE:	DRAWN BY:
Feb 2024	1:500 @ A1	KW

DWG TITLE: Boundary Treatment Plan

PROJECT: Main Street, Great Houghton

DWG No. 4206-260 REV. C

Appendix D Site Access Design, Junction Visibility Splays and Swept Path Analysis

DO NOT SCALE

HIGH STREET

LISTER ROW

B6273 MOOR LANE

B6273 HIGH STREET

B 6273

PROPOSED FOOTWAY TO TIE INTO EXISTING PUBLIC RIGHT OF WAY

EXISTING FOOTWAY TO BE WIDENED

PROPOSED 2.0M FOOTPATH

EXISTING CARRIAGEWAY TO BE WIDENED

PROPOSED 2.0M FOOTWAYS

PROPOSED 2.0M FOOTWAY

PROPOSED REFUGE ISLAND

CARRIAGEWAY TO BE WIDENED TO 3.25M

PROPOSED 2.0M FOOTPATH

INSET 01 - PROPOSED SITE ACCESS (1:250)

R10.0

6.0

2.0

R10.0

2.0

INSET 02 - PROPOSED SOUTHERN REFUGE ISLAND (1:100)

3.25

2.0

5.2

2.0

INSET 03 - PROPOSED NORTHERN REFUGE ISLAND (1:100)

2.8

5.2

1.8

2.8

1.8

KEY:

- PROPOSED CARRIAGEWAY
- PROPOSED FOOTWAY
- PROPOSED TACTILE PAVING
- PROPOSED SITE ACCESS JUNCTION VISIBILITY SPLAY (SEE NOTE 1)
- PROPOSED PRIVATE DRIVE JUNCTION VISIBILITY SPLAY (SEE NOTE 1)
- EXISTING ROAD MARKINGS
- HIGHWAY ADOPTION

NOTES:

1. JUNCTION VISIBILITY SPLAYS BASED ON SPEED SURVEY UNDERTAKEN ON 2ND JUNE 2025 FOR RECORDED NORTHBOUND AND SOUTHBOUND SPEEDS OF 31.8MPH & 33.8MPH, RESPECTIVELY.

REV	DATE	BY	DESCRIPTION	CHK	APP
A	01/09/25	RP	ADDED REFUGE ISLAND	SC	SC
-	05/06/25	RP	INITIAL ISSUE	SC	SC

STATUS: PRELIMINARY

PROJECT: HIGH STREET, GREAT HOUGHTON

CLIENT: AVANT HOMES

DRAWING TITLE: PROPOSED SITE ACCESS ARRANGEMENTS AND PEDESTRIAN CROSSING

CHECKED	APPROVED	DRG No.	
SC	SC	21069/GA/03	
DRAWN BY:	SCALE @ A2	DATE	REV.
RP	1:1,000	SEPTEMBER 2025	A

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DO NOT SCALE

KEY:

- PROPOSED CARRIAGEWAY
- PROPOSED FOOTWAY
- PROPOSED SITE ACCESS JUNCTION VISIBILITY SPLAY (SEE NOTE 1)
- PROPOSED PRIVATE DRIVE JUNCTION VISIBILITY SPLAY (SEE NOTE 1)
- HIGHWAY ADOPTION

NOTES:

1. JUNCTION VISIBILITY SPLAYS BASED ON SPEED SURVEY UNDERTAKEN ON 2ND JUNE 2025 FOR RECORDED NORTHBOUND AND SOUTHBOUND SPEEDS OF 31.8MPH & 33.8MPH, RESPECTIVELY.

REV	DATE	BY	DESCRIPTION	CHK	APP
B	10/07/25	RP	VISIBILITY SPLAYS AMENDED	SC	SC
A	07/02/24	CJF	VISIBILITY SPLAYS AMENDED	SC	SC
-	23/10/23	CJF	INITIAL ISSUE	SC	SC

STATUS: PRELIMINARY

PROJECT: HIGH STREET, GREAT HOUGHTON

CLIENT: AVANT HOMES

DRAWING TITLE: PROPOSED HIGH STREET ACCESSES JUNCTION VISIBILITY SPLAYS

CHECKED	APPROVED	DRG No.	
SC	SC	21069/IN/02	
DRAWN BY:	SCALE @ A2	DATE	REV.
RP	1:500	JULY 2025	B

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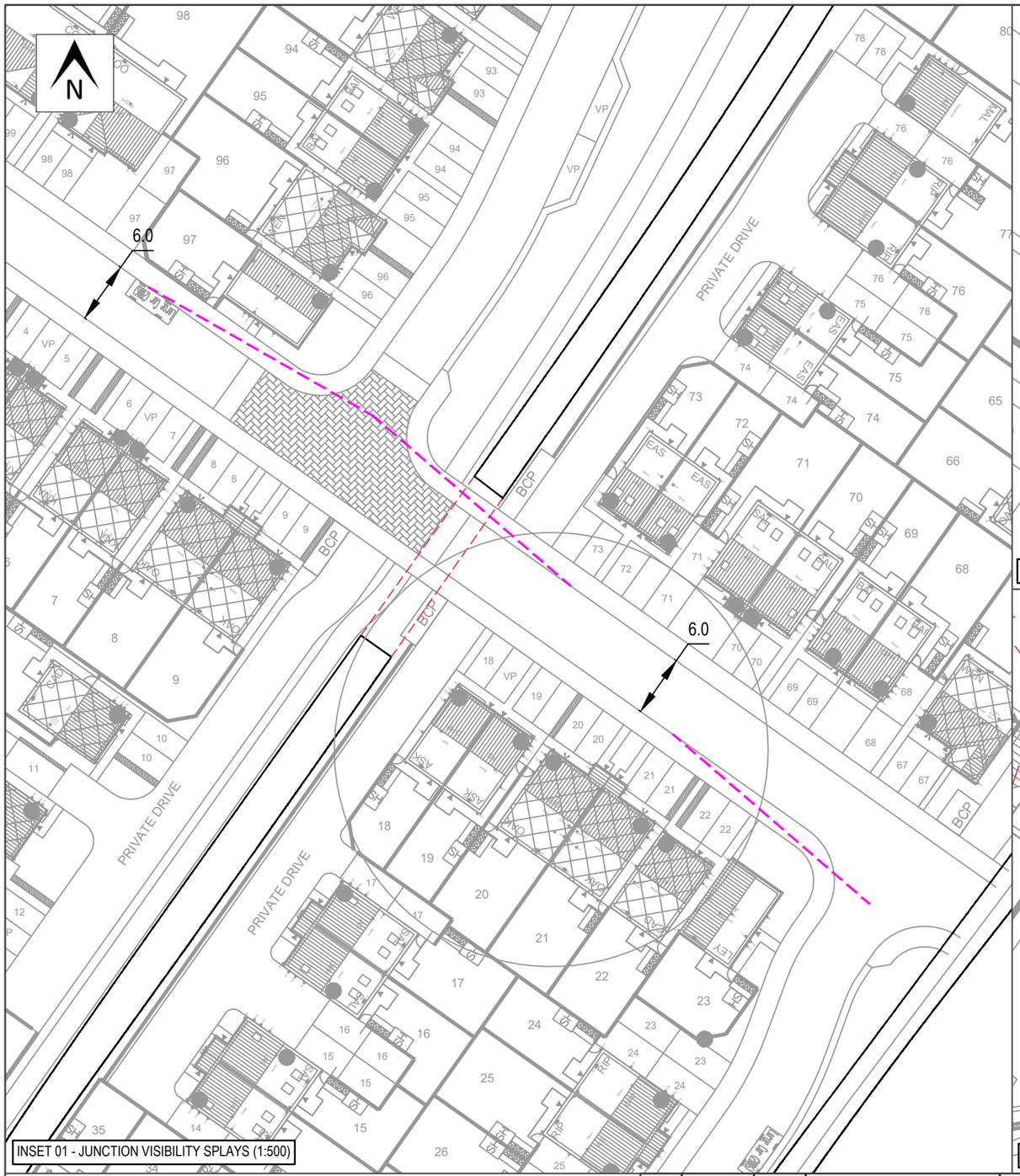

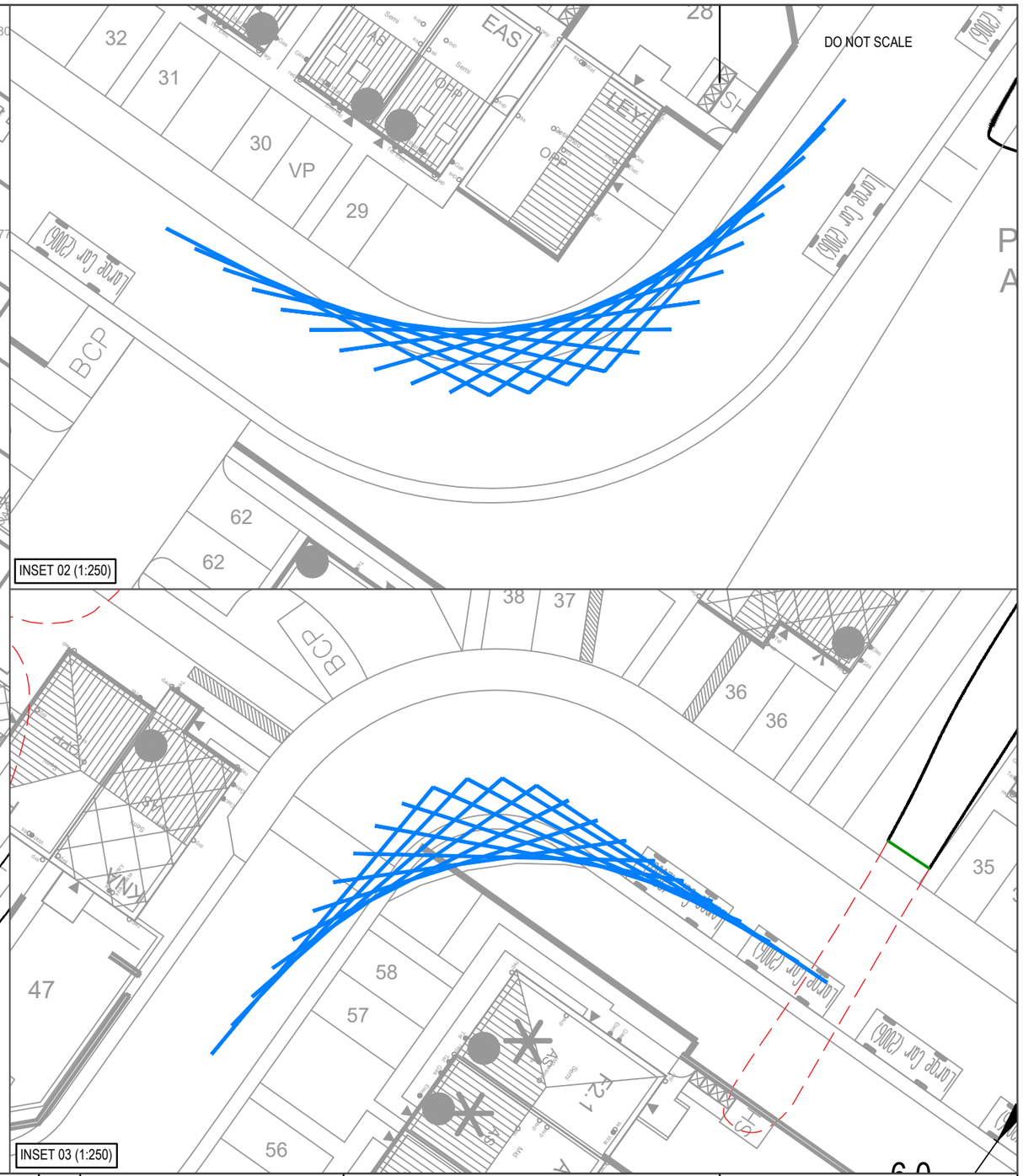

KEY:

- JUNCTION VISIBILITY SPLAY (2.4M X 25M)
- FORWARD VISIBILITY SPLAY (17M)

REV	DATE	BY	DESCRIPTION	CHK	APP
A	08/07/25	RP	UPDATED LAYOUT	SC	SC
-	16/05/24	RP	INITIAL ISSUE	SC	SC

STATUS: PRELIMINARY

PROJECT: HIGH STREET, GREAT HOUGHTON

CLIENT: AVANT HOMES

DRAWING TITLE: JUNCTION AND FORWARD VISIBILITY SPLAYS

CHECKED	APPROVED	DRG No.	
SC	SC	21069/IN/10	
DRAWN BY:	SCALE @ A3	DATE	REV.
RP	1:250 & 1:500	JULY 2025	A

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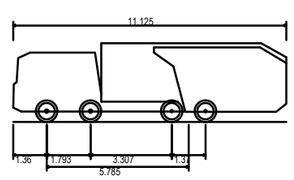

Phoenix 2-25W (with Volvo FM12 chassis)

Overall Length	11.125m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m

REV	DATE	BY	DESCRIPTION	CHK	APP
-	16/05/24	RP	INITIAL ISSUE	SC	SC

STATUS: PRELIMINARY

PROJECT: HIGH STREET, GREAT HOUGHTON

CLIENT: AVANT HOMES

DRAWING TITLE: SWEPT PATH ANALYSIS REFUSE VEHICLE TRACKING

CHECKED	APPROVED	DRG No.	
SC	SC	21069/ATR/10	
DRAWN BY:	SCALE @ A3	DATE	REV.
RP	1:250	MAY 2025	-

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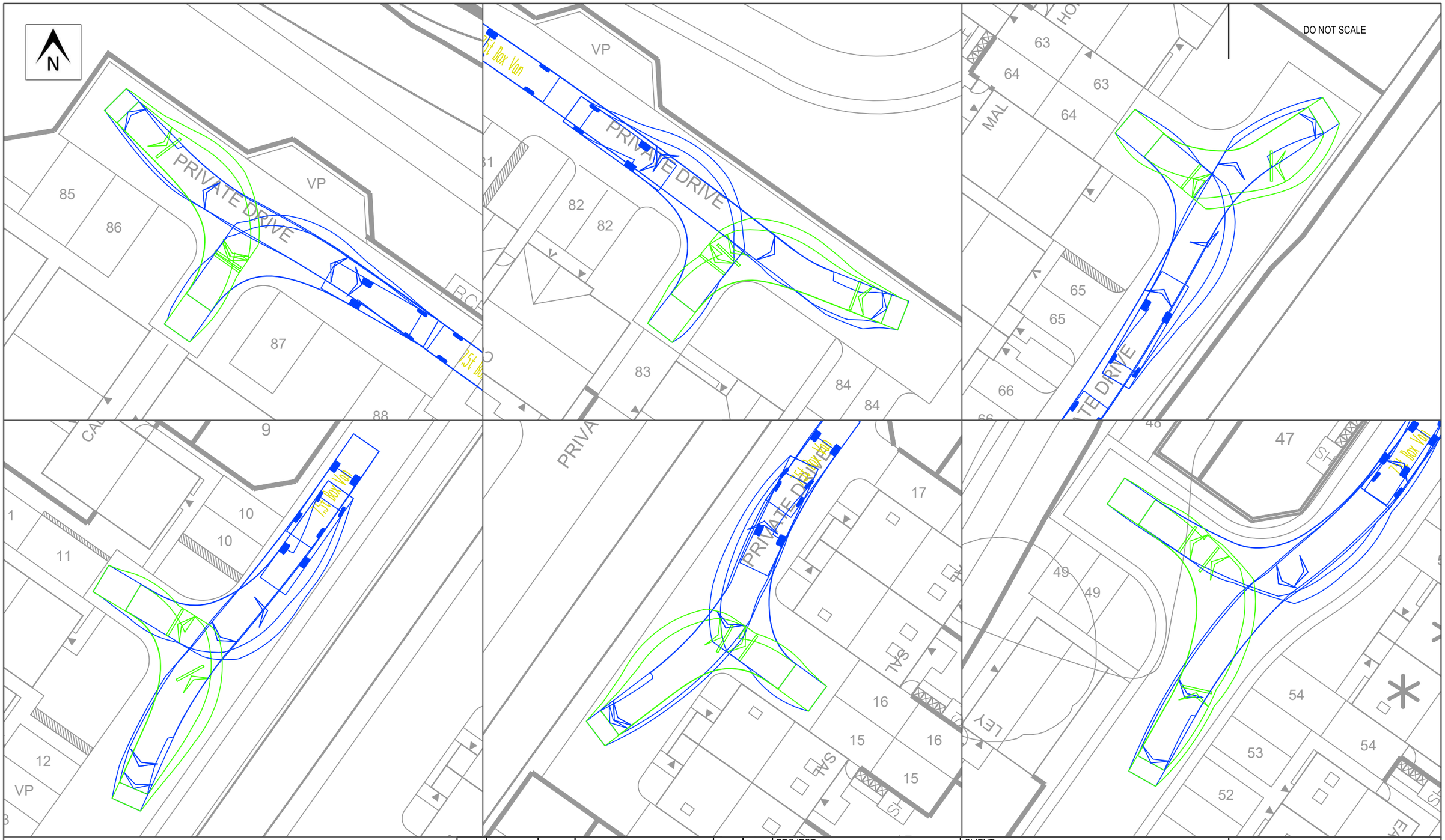

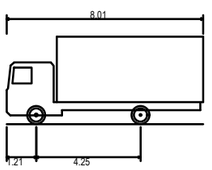

7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.400m

REV	DATE	BY	DESCRIPTION	CHK	APP
-	16/05/24	RP	INITIAL ISSUE	SC	SC

STATUS: PRELIMINARY

PROJECT: HIGH STREET, GREAT HOUGHTON

DRAWING TITLE: SWEPT PATH ANALYSIS DELIVERY VEHICLE TRACKING

CLIENT: AVANT HOMES

CHECKED	APPROVED	DRG No.	
SC	SC	21069/ATR/12	
DRAWN BY:	SCALE @ A3	DATE	REV.
RP	1:250	MAY 2025	-

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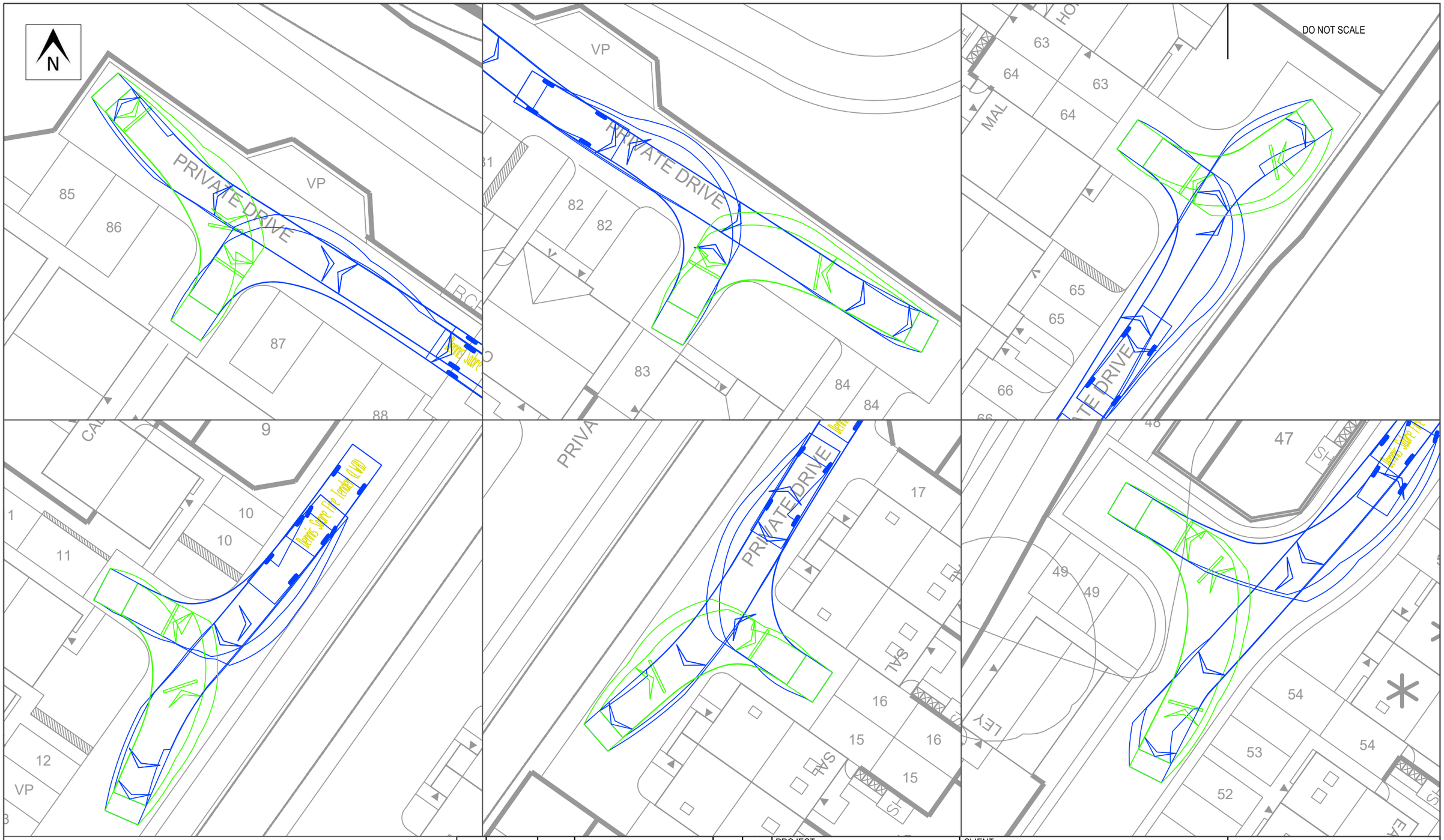

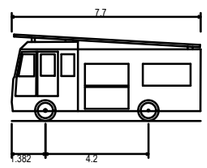

Dennis Sabre Fire Tender (LWB)	
Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to lock time	5.00s
Kerb to Kerb Turning Radius	7.400m

REV	DATE	BY	DESCRIPTION	CHK	APP
-	16/05/24	RP	INITIAL ISSUE	SC	SC

STATUS: PRELIMINARY

PROJECT: HIGH STREET, GREAT HOUGHTON

CLIENT: AVANT HOMES

DRAWING TITLE: SWEPT PATH ANALYSIS FIRE TENDER TRACKING

CHECKED	APPROVED	DRG No.	
SC	SC	21069/ATR/11	
DRAWN BY:	SCALE @ A3	DATE	REV.
RP	1:250	MAY 2025	-

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Appendix E TRICS Data

Calculation Reference: AUDIT-750701-231020-1059

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	HC	HAMPSHIRE	2 days
	KC	KENT	2 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	2 days
03	**SOUTH WEST**		
	DV	DEVON	2 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	2 days
05	**EAST MIDLANDS**		
	LE	LEICESTERSHIRE	1 days
08	**NORTH WEST**		
	AC	CHESHIRE WEST & CHESTER	1 days

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

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: 51 to 207 (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:

Monday	2 days
Tuesday	3 days
Wednesday	1 days
Thursday	6 days
Friday	3 days

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

Selected survey types:

Manual count	14 days
Directional ATC Count	1 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 undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Neighbourhood Centre (PPS6 Local Centre)	11

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	5
Village	10

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	6 days - Selected
Servicing vehicles Excluded	26 days - Selected

Secondary Filtering selection:

Use Class:

C3	15 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	6 days
5,001 to 10,000	5 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	1 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	4 days
50,001 to 75,000	3 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	1 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	1 days
1.1 to 1.5	11 days
1.6 to 2.0	3 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	7 days
No	8 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	15 days

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

LIST OF SITES relevant to selection parameters

1 **AC-03-A-06** **DETACHED HOUSES** **CHESHIRE WEST & CHESTER**
COMMON LANE
NEAR CHESTER
WAVERTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 99
Survey date: FRIDAY *29/04/22* *Survey Type: MANUAL*

2 **CA-03-A-06** **MIXED HOUSES** **CAMBRIDGESHIRE**
CRAFT'S WAY
NEAR CAMBRIDGE
BAR HILL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 207
Survey date: FRIDAY *22/06/18* *Survey Type: MANUAL*

3 **CA-03-A-08** **DETACHED & SEMI-DETACHED** **CAMBRIDGESHIRE**
GIDDING ROAD
SAWTRY

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 83
Survey date: THURSDAY *13/10/22* *Survey Type: MANUAL*

4 **DV-03-A-02** **HOUSES & BUNGALOWS** **DEVON**
MILLHEAD ROAD
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 116
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

5 **DV-03-A-03** **TERRACED & SEMI DETACHED** **DEVON**
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

6 **HC-03-A-23** **HOUSES & FLATS** **HAMPSHIRE**
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 62
Survey date: TUESDAY *19/11/19* *Survey Type: MANUAL*

7 **HC-03-A-32** **MIXED HOUSES & FLATS** **HAMPSHIRE**
GREEN LANE
FARNHAM
WEYBOURNE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 105
Survey date: THURSDAY *29/06/23* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 **KC-03-A-03** **MIXED HOUSES & FLATS** **KENT**
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

9 **KC-03-A-08** **MIXED HOUSES** **KENT**
MAIDSTONE ROAD
CHARING

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 159
Survey date: TUESDAY *22/05/18* *Survey Type: MANUAL*

10 **LE-03-A-02** **DETACHED & OTHERS** **LEICESTERSHIRE**
MELBOURNE ROAD
IBSTOCK

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 85
Survey date: THURSDAY *28/06/18* *Survey Type: MANUAL*

11 **NF-03-A-27** **MIXED HOUSES & FLATS** **NORFOLK**
YARMOUTH ROAD
NEAR NORWICH
BLOFIELD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 93
Survey date: THURSDAY *16/09/21* *Survey Type: MANUAL*

12 **NF-03-A-44** **MIXED HOUSES** **NORFOLK**
MILL LANE
NEAR NORWICH
HORSFORD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 125
Survey date: WEDNESDAY *21/09/22* *Survey Type: DIRECTIONAL ATC COUNT*

13 **SC-03-A-09** **MIXED HOUSES & FLATS** **SURREY**
AMLETS LANE
CRANLEIGH

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 136
Survey date: TUESDAY *24/05/22* *Survey Type: MANUAL*

14 **WS-03-A-07** **BUNGALOWS** **WEST SUSSEX**
EMMS LANE
NEAR HORSHAM
BROOKS GREEN
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 57
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

15 WS-03-A-18 MIXED HOUSES & FLATS WEST SUSSEX
LONDON ROAD
HASSOCKS

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 156
Survey date: MONDAY *15/05/23* *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
DH-03-A-01	N/A
DH-03-A-02	N/A
SF-03-A-09	Covid
WS-03-A-16	N/A

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	15	107	0.062	15	107	0.278	15	107	0.340
08:00 - 09:00	15	107	0.138	**15**	**107**	**0.315**	15	107	0.453
09:00 - 10:00	15	107	0.137	15	107	0.182	15	107	0.319
10:00 - 11:00	15	107	0.130	15	107	0.164	15	107	0.294
11:00 - 12:00	15	107	0.128	15	107	0.152	15	107	0.280
12:00 - 13:00	15	107	0.170	15	107	0.161	15	107	0.331
13:00 - 14:00	15	107	0.149	15	107	0.154	15	107	0.303
14:00 - 15:00	15	107	0.139	15	107	0.171	15	107	0.310
15:00 - 16:00	15	107	0.224	15	107	0.142	15	107	0.366
16:00 - 17:00	15	107	0.262	15	107	0.160	15	107	0.422
17:00 - 18:00	**15**	**107**	**0.309**	15	107	0.147	**15**	**107**	**0.456**
18:00 - 19:00	15	107	0.247	15	107	0.135	15	107	0.382
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.095			2.161			4.256

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.*

Parameter summary

Trip rate parameter range selected:	51 - 207 (units:)
Survey date date range:	01/01/15 - 29/06/23
Number of weekdays (Monday-Friday):	15
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	13
Surveys manually removed from selection:	4

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.

Appendix F Traffic Distribution

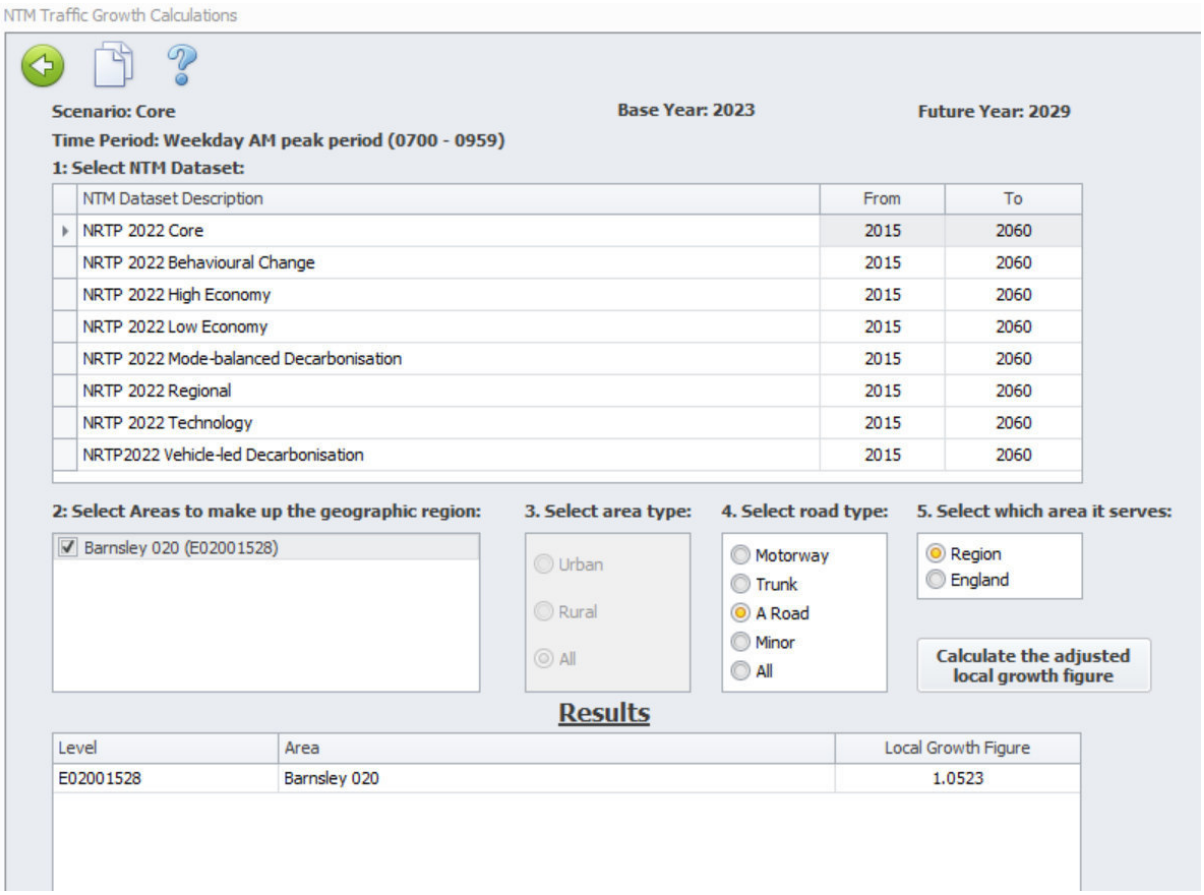
WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
usual residence	E02001528 : Barnsley 020 (2011 super output area - middle layer)

place of work : 2011 super output area - middle layer	All categories: Method of travel to work (2001 specification)	Driving a car or van	Percentage		Route				
E02001521 : Barnsley 013	305	226	8.5	10	A635W		A635W	34	34%
E02001579 : Rotherham 002	194	153	5.8	7	A6195S		A6195S	34	34%
E02001523 : Barnsley 015	170	125	4.7	6	A635W		B6273N	16	16%
E02001578 : Rotherham 001	161	120	4.5	5	A6195S		TL	8	8%
E02001531 : Barnsley 023	155	112	4.2	5	A635W		A635E	3	3%
E02001528 : Barnsley 020	292	93	3.5	4		Internal		4	4%
E02001520 : Barnsley 012	108	84	3.2	4	A635W		PSR	1	1%
E02001530 : Barnsley 022	102	70	2.6	3	A635E				
E02001534 : Barnsley 026	116	59	2.2	3	A6195S				
E02001560 : Doncaster 022	73	58	2.2	3	TL				
E02001522 : Barnsley 014	82	57	2.1	3	TL				
E02001510 : Barnsley 002	69	54	2.0	2	B6273N				
E02001518 : Barnsley 010	60	47	1.8	2	A635W				
E02001594 : Rotherham 017	37	37	1.4	2	A6195S				
E02001536 : Barnsley 028	39	35	1.3	2	A6195S				
E02001632 : Sheffield 022	37	32	1.2	1	A6195S				
E02001513 : Barnsley 005	40	31	1.2	1	A635W				
E02001514 : Barnsley 006	36	31	1.2	1	B6273N				
E02001515 : Barnsley 007	36	31	1.2	1	B6273N				
E02001519 : Barnsley 011	33	28	1.1	1	A635W				
E02002481 : Wakefield 044	31	28	1.1	1	B6273N				
E02001566 : Doncaster 028	28	27	1.0	1	TL				
E02001516 : Barnsley 008	30	23	0.9	1	PSR				
E02001614 : Sheffield 004	27	23	0.9	1	A6195S				
E02001628 : Sheffield 018	25	22	0.8	1	A6195S				
E02001525 : Barnsley 017	31	20	0.8	1	A635W				
E02001538 : Barnsley 030	20	20	0.8	1	A6195S				
E02002451 : Wakefield 014	20	19	0.7	1	B6273N				
E02002456 : Wakefield 019	20	19	0.7	1	B6273N				
E02001529 : Barnsley 021	21	18	0.7	1	A635W				
E02001602 : Rotherham 025	20	18	0.7	1	A6195S				
E02006875 : Leeds 111	24	18	0.7	1	B6273N				
E02001527 : Barnsley 019	27	17	0.6	1	A635W				
E02001526 : Barnsley 018	27	16	0.6	1	A635W				
E02002480 : Wakefield 043	25	16	0.6	1	B6273N				
E02001595 : Rotherham 018	15	15	0.6	1	A6195S				
E02006876 : Leeds 112	16	15	0.6	1	B6273N				
E02001533 : Barnsley 025	21	14	0.5	1	A6195S				
E02001593 : Rotherham 016	15	14	0.5	1	A6195S				
E02006843 : Sheffield 073	23	14	0.5	1	A6195S				
E02002454 : Wakefield 017	14	14	0.5	1	B6273N				
E02001537 : Barnsley 029	17	13	0.5	1	A6195S				
E02001569 : Doncaster 031	14	13	0.5	1	A6195S				
E02001580 : Rotherham 003	14	13	0.5	1	A6195S				
E02002479 : Wakefield 042	14	13	0.5	1	B6273N				
E02001532 : Barnsley 024	13	12	0.5	1	A6195S				
E02001568 : Doncaster 030	12	12	0.5	1	A6195S				
E02001600 : Rotherham 023	13	12	0.5	1	A6195S				
E02006013 : Shropshire 034	13	12	0.5	1	A6195S				
E02001524 : Barnsley 016	11	11	0.4	1	A635W				
E02001558 : Doncaster 020	13	11	0.4	1	TL				
E02001585 : Rotherham 008	12	11	0.4	1	A6195S				
E02001624 : Sheffield 014	13	11	0.4	1	A6195S				
E02001591 : Rotherham 014	13	10	0.4	0	A6195S				
E02005818 : Selby 010	9	9	0.3	0	B6273N				
E02001542 : Doncaster 004	9	9	0.3	0	B6273N				
E02001557 : Doncaster 019	11	9	0.3	0	TL				
E02006868 : Sheffield 075	12	9	0.3	0	A6195S				
E02002465 : Wakefield 028	10	9	0.3	0	B6273N				
E02001540 : Doncaster 002	10	8	0.3	0	B6273N				
E02001543 : Doncaster 005	8	8	0.3	0	B6273N				
E02001627 : Sheffield 017	8	8	0.3	0	A6195S				
E02002327 : Kirklees 057	8	8	0.3	0	B6273N				
E02001511 : Barnsley 003	9	7	0.3	0	B6273N				
E02001512 : Barnsley 004	12	7	0.3	0	B6273N				
E02001535 : Barnsley 027	9	7	0.3	0	A6195S				
E02001545 : Doncaster 007	7	7	0.3	0	TL				
E02001637 : Sheffield 027	7	7	0.3	0	A6195S				
E02002450 : Wakefield 013	8	7	0.3	0	B6273N				
E02002453 : Wakefield 016	8	7	0.3	0	B6273N				
E02002461 : Wakefield 024	7	7	0.3	0	B6273N				
E02001509 : Barnsley 001	6	6	0.2	0	B6273N				
E02001517 : Barnsley 009	17	6	0.2	0	A635W				
E02001553 : Doncaster 015	7	6	0.2	0	TL				
E02001567 : Doncaster 029	6	6	0.2	0	A6195S				

Appendix G TEMPro Output

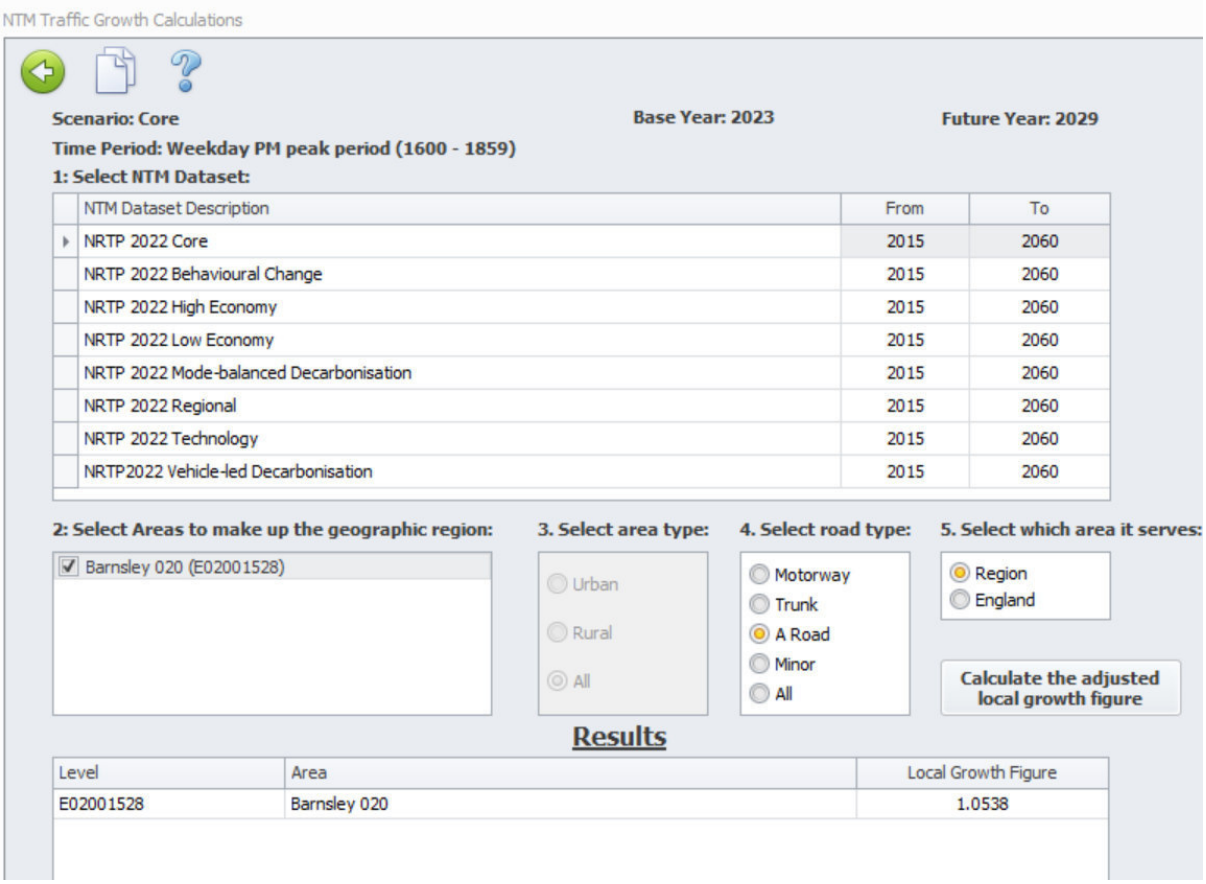
2023 – 2029 AM Growth



Level Area Local Growth Figure

E02001528 Barnsley 020 1.05234819357357

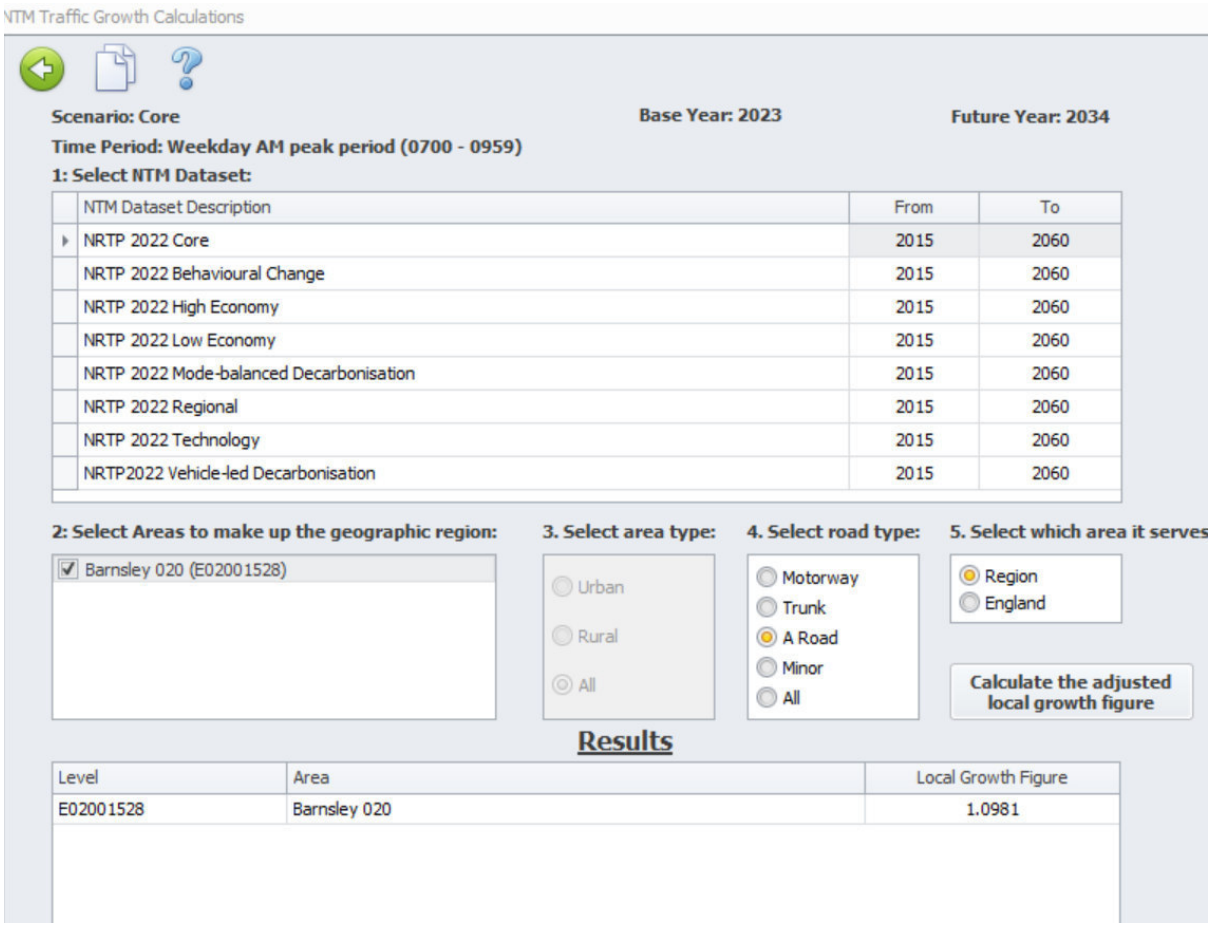
2023 – 2029 PM Growth



Level Area Local Growth Figure

E02001528 Barnsley 020 1.05380518286096

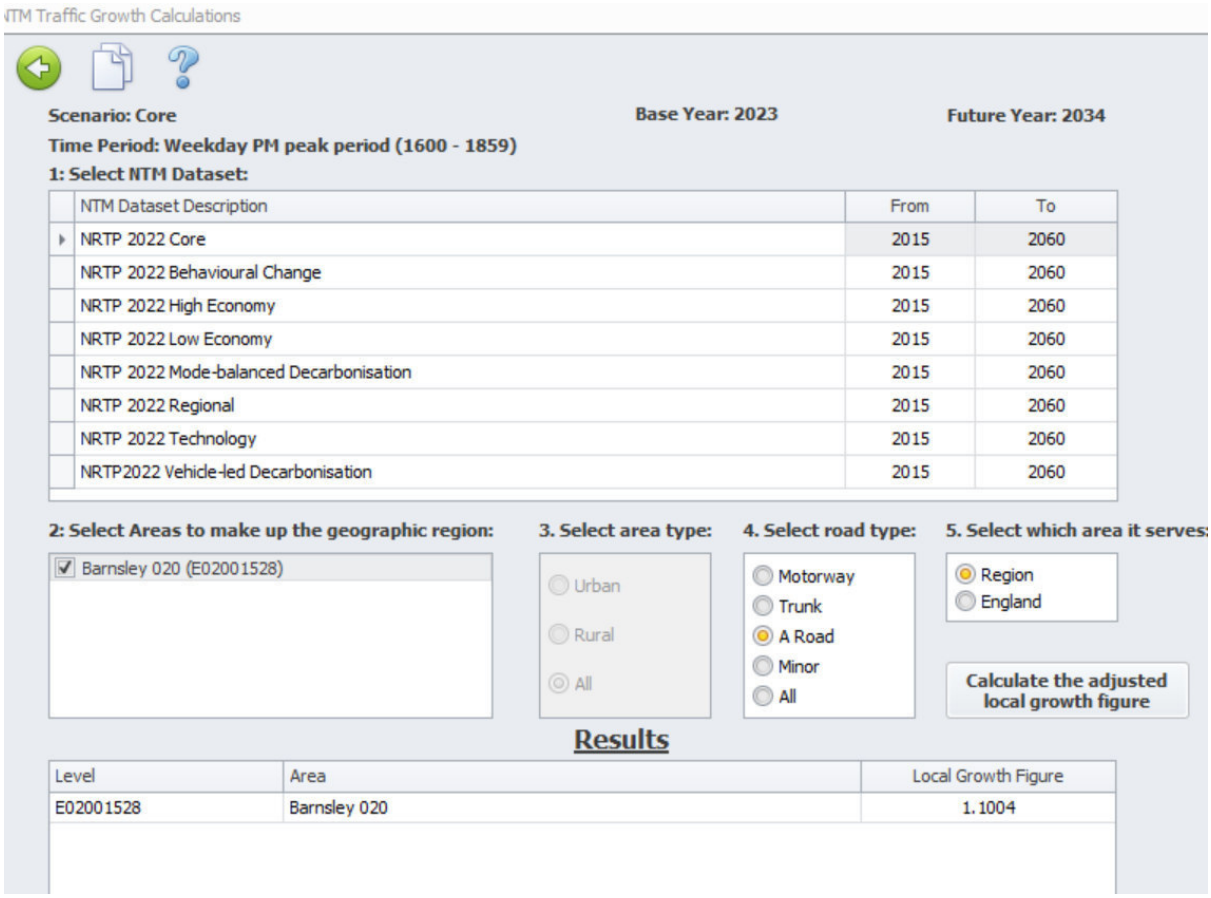
2023 – 2034 AM Growth



Level Area Local Growth Figure

E02001528 Barnsley 020 1.09809890448275

2023 – 2034 PM Growth



Level Area Local Growth Figure

E02001528 Barnsley 020 1.10044930928505

Appendix H Junctions 9 Output

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.2.1013

Filename: Site Access-High Street.j9
Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Priority Junctions\Site Access\2023
Report generation date: 05/06/2025 15:30:44

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity
	2029 DESIGN									
Stream B-AC	D1	0.1	7.31	0.07	227 % [Stream B-AC]	D2	0.0	7.24	0.03	207 % [Stream B-AC]
Stream C-A		0.4	4.96	0.17			0.6	5.37	0.23	
Stream C-B		0.0	4.84	0.18			0.0	5.43	0.25	
	2034 DESIGN									
Stream B-AC	D3	0.1	7.52	0.07	196 % [Stream B-AC]	D4	0.0	7.39	0.03	181 % [Stream B-AC]
Stream C-A		0.5	5.04	0.19			0.7	5.59	0.26	
Stream C-B		0.0	4.93	0.19			0.0	5.66	0.28	

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. 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	
Location	
Site number	
Date	09/05/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D2	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D3	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D4	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2029 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.47	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	227	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	High Street N		Major
B	Site Access		Minor
C	High Street S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - High Street S	7.21			230.0		-

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	3.46	19	18

Zebra Crossings

Arm	Space between crossing and junction entry (Right / All) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
C - High Street S	1.00	1.00		Distance	7.21	5.15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	515	0.089	0.225	0.141	0.321
B-C	665	0.096	0.244	-	-
C-B	707	0.260	0.260	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street N		ONE HOUR	✓	357	100.000
B - Site Access		ONE HOUR	✓	34	100.000
C - High Street S		ONE HOUR	✓	290	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - High Street N		
B - Site Access		
C - High Street S	[ONEHOUR]	10.00

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	2	355
	B - Site Access	5	0	29
	C - High Street S	279	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	0	2
	B - Site Access	0	0	0
	C - High Street S	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	7.31	0.1	A	31	47
C-A	0.17	4.96	0.4	A	256	384
C-B	0.18	4.84	0.0	A	10	15
A-B					2	3
A-C					326	489

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6		565	0.045	25	0.0	0.0	6.676	A
C-A	210	53	7.53	1792	0.117	209	0.0	0.3	4.621	A
C-B	8	2	7.53	68	0.123	8	0.0	0.0	4.484	A
A-B	2	0.38				2				
A-C	267	67				267				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8		550	0.056	31	0.0	0.1	6.927	A
C-A	251	63	8.99	1788	0.140	251	0.3	0.3	4.759	A
C-B	10	2	8.99	68	0.146	10	0.0	0.0	4.630	A
A-B	2	0.45				2				
A-C	319	80				319				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9		530	0.071	37	0.1	0.1	7.305	A
C-A	307	77	11.01	1783	0.172	307	0.3	0.4	4.955	A
C-B	12	3	11.01	68	0.179	12	0.0	0.0	4.838	A
A-B	2	0.55				2				
A-C	391	98				391				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9		530	0.071	37	0.1	0.1	7.306	A
C-A	307	77	11.01	1783	0.172	307	0.4	0.4	4.957	A
C-B	12	3	11.01	68	0.179	12	0.0	0.0	4.841	A
A-B	2	0.55				2				
A-C	391	98				391				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8		550	0.056	31	0.1	0.1	6.929	A
C-A	251	63	8.99	1788	0.140	251	0.4	0.3	4.762	A
C-B	10	2	8.99	68	0.146	10	0.0	0.0	4.633	A
A-B	2	0.45				2				
A-C	319	80				319				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6		564	0.045	26	0.1	0.0	6.680	A
C-A	210	53	7.53	1792	0.117	210	0.3	0.3	4.629	A
C-B	8	2	7.53	68	0.123	8	0.0	0.0	4.491	A
A-B	2	0.38				2				
A-C	267	67				267				

2029 DESIGN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	C - High Street S - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.89	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	207	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street N		ONE HOUR	✓	354	100.000
B - Site Access		ONE HOUR	✓	16	100.000
C - High Street S		ONE HOUR	✓	385	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - High Street N		
B - Site Access		
C - High Street S	[ONEHOUR]	0.00

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	5	349
	B - Site Access	3	0	13
	C - High Street S	357	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	0	2
	B - Site Access	0	0	0
	C - High Street S	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	7.24	0.0	A	15	22
C-A	0.23	5.37	0.6	A	328	491
C-B	0.25	5.43	0.0	A	26	39
A-B					5	7
A-C					320	480

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3		552	0.022	12	0.0	0.0	6.660	A
C-A	269	67	0.00	1718	0.156	267	0.0	0.4	4.878	A
C-B	21	5	0.00	124	0.170	21	0.0	0.0	4.858	A
A-B	4	0.94				4				
A-C	263	66				263				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4		537	0.027	14	0.0	0.0	6.889	A
C-A	321	80	0.00	1713	0.187	321	0.4	0.4	5.076	A
C-B	25	6	0.00	125	0.202	25	0.0	0.0	5.088	A
A-B	4	1				4				
A-C	314	78				314				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4		515	0.034	18	0.0	0.0	7.236	A
C-A	393	98	0.00	1707	0.230	393	0.4	0.6	5.365	A
C-B	31	8	0.00	125	0.247	31	0.0	0.0	5.424	A
A-B	6	1				6				
A-C	384	96				384				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4		515	0.034	18	0.0	0.0	7.237	A
C-A	393	98	0.00	1707	0.230	393	0.6	0.6	5.369	A
C-B	31	8	0.00	125	0.247	31	0.0	0.0	5.429	A
A-B	6	1				6				
A-C	384	96				384				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4		537	0.027	14	0.0	0.0	6.891	A
C-A	321	80	0.00	1713	0.187	321	0.6	0.4	5.081	A
C-B	25	6	0.00	125	0.202	25	0.0	0.0	5.094	A
A-B	4	1				4				
A-C	314	78				314				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3		552	0.022	12	0.0	0.0	6.664	A
C-A	269	67	0.00	1718	0.156	269	0.4	0.4	4.890	A
C-B	21	5	0.00	124	0.170	21	0.0	0.0	4.872	A
A-B	4	0.94				4				
A-C	263	66				263				

2034 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.44	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	196	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street N		ONE HOUR	✓	405	100.000
B - Site Access		ONE HOUR	✓	34	100.000
C - High Street S		ONE HOUR	✓	315	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - High Street N		
B - Site Access		
C - High Street S	[ONEHOUR]	10.00

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	2	403
	B - Site Access	5	0	29
	C - High Street S	304	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	0	2
	B - Site Access	0	0	0
	C - High Street S	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	7.52	0.1	A	31	47
C-A	0.19	5.04	0.5	A	279	418
C-B	0.19	4.93	0.0	A	10	15
A-B					2	3
A-C					370	555

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6		555	0.046	25	0.0	0.0	6.796	A
C-A	229	57	7.53	1799	0.127	228	0.0	0.3	4.663	A
C-B	8	2	7.53	62	0.133	8	0.0	0.0	4.531	A
A-B	2	0.38				2				
A-C	303	76				303				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8		539	0.057	31	0.0	0.1	7.083	A
C-A	273	68	8.99	1794	0.152	273	0.3	0.4	4.815	A
C-B	10	2	8.99	62	0.158	10	0.0	0.0	4.692	A
A-B	2	0.45				2				
A-C	362	91				362				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9		516	0.073	37	0.1	0.1	7.521	A
C-A	335	84	11.01	1789	0.187	334	0.4	0.5	5.034	A
C-B	12	3	11.01	62	0.194	12	0.0	0.0	4.923	A
A-B	2	0.55				2				
A-C	444	111				444				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9		516	0.073	37	0.1	0.1	7.521	A
C-A	335	84	11.01	1789	0.187	335	0.5	0.5	5.036	A
C-B	12	3	11.01	62	0.194	12	0.0	0.0	4.925	A
A-B	2	0.55				2				
A-C	444	111				444				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8		539	0.057	31	0.1	0.1	7.085	A
C-A	273	68	8.99	1794	0.152	274	0.5	0.4	4.818	A
C-B	10	2	8.99	62	0.158	10	0.0	0.0	4.695	A
A-B	2	0.45				2				
A-C	362	91				362				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	6		555	0.046	26	0.1	0.0	6.803	A
C-A	229	57	7.53	1799	0.127	229	0.4	0.3	4.671	A
C-B	8	2	7.53	63	0.132	8	0.0	0.0	4.538	A
A-B	2	0.38				2				
A-C	303	76				303				

2034 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.08	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	181	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street N		ONE HOUR	✓	380	100.000
B - Site Access		ONE HOUR	✓	16	100.000
C - High Street S		ONE HOUR	✓	437	100.000

Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - High Street N		
B - Site Access		
C - High Street S	[ONEHOUR]	10.00

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	5	375
	B - Site Access	3	0	13
	C - High Street S	409	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - High Street N	B - Site Access	C - High Street S
From	A - High Street N	0	0	2
	B - Site Access	0	0	0
	C - High Street S	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	7.39	0.0	A	15	22
C-A	0.26	5.59	0.7	A	375	563
C-B	0.28	5.66	0.0	A	26	39
A-B					5	7
A-C					344	516

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3		546	0.022	12	0.0	0.0	6.743	A
C-A	308	77	7.53	1727	0.178	306	0.0	0.4	4.985	A
C-B	21	5	7.53	111	0.191	21	0.0	0.0	4.976	A
A-B	4	0.94				4				
A-C	282	71				282				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4		529	0.027	14	0.0	0.0	6.998	A
C-A	368	92	8.99	1721	0.214	367	0.4	0.5	5.228	A
C-B	25	6	8.99	111	0.227	25	0.0	0.0	5.250	A
A-B	4	1				4				
A-C	337	84				337				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4		505	0.035	18	0.0	0.0	7.388	A
C-A	450	113	11.01	1713	0.263	450	0.5	0.7	5.587	A
C-B	31	8	11.01	111	0.278	31	0.0	0.0	5.658	A
A-B	6	1				6				
A-C	413	103				413				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4		505	0.035	18	0.0	0.0	7.389	A
C-A	450	113	11.01	1713	0.263	450	0.7	0.7	5.591	A
C-B	31	8	11.01	111	0.278	31	0.0	0.0	5.662	A
A-B	6	1				6				
A-C	413	103				413				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4		529	0.027	14	0.0	0.0	7.000	A
C-A	368	92	8.99	1721	0.214	368	0.7	0.5	5.235	A
C-B	25	6	8.99	111	0.227	25	0.0	0.0	5.259	A
A-B	4	1				4				
A-C	337	84				337				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	3		546	0.022	12	0.0	0.0	6.748	A
C-A	308	77	7.53	1727	0.178	308	0.5	0.4	5.000	A
C-B	21	5	7.53	111	0.190	21	0.0	0.0	4.993	A
A-B	4	0.94				4				
A-C	282	71				282				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.2.1013

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: HighSt-ThurnscoeLn-RotherhamRd.j9
Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Priority Junctions\HighSt-ThurnscoeLn-RotherhamRd\2025 Update
Report generation date: 11/06/2025 14:40:29

Summary of junction performance

	AM							PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
2023 SURVEYED														
Stream B-AC	D1	0.5	12.78	0.34	B	1.75	53 % [Stream B-AC]	D2	0.7	13.90	0.42	B	2.22	42 % [Stream B-AC]
Stream C-AB		0.0	5.02	0.02	A				0.0	5.20	0.03	A		
2029 BASE														
Stream B-AC	D3	0.6	13.65	0.37	B	1.86	46 % [Stream B-AC]	D4	0.8	15.08	0.45	C	2.41	34 % [Stream B-AC]
Stream C-AB		0.0	4.98	0.02	A				0.1	5.15	0.04	A		
2029 DESIGN														
Stream B-AC	D5	0.6	14.20	0.38	B	1.88	42 % [Stream B-AC]	D6	0.9	15.83	0.47	C	2.48	31 % [Stream B-AC]
Stream C-AB		0.0	4.96	0.02	A				0.1	5.04	0.04	A		
2034 BASE														
Stream B-AC	D7	0.7	15.17	0.41	C	2.01	35 % [Stream B-AC]	D8	1.0	17.53	0.51	C	2.79	24 % [Stream B-AC]
Stream C-AB		0.0	4.93	0.03	A				0.1	4.97	0.04	A		
2034 DESIGN														
Stream B-AC	D9	0.7	15.85	0.42	C	2.04	32 % [Stream B-AC]	D10	1.1	18.45	0.52	C	2.88	21 % [Stream B-AC]
Stream C-AB		0.0	4.92	0.03	A				0.1	4.89	0.04	A		
2034 DESIGN VISION LED														
Stream B-AC	D11	0.7	15.83	0.42	C	2.04	32 % [Stream B-AC]	D12	1.1	18.43	0.52	C	2.88	21 % [Stream B-AC]
Stream C-AB		0.0	4.92	0.03	A				0.1	4.90	0.04	A		

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	
Location	
Site number	
Date	23/06/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 SURVEYED	AM	ONE HOUR	00:00	01:30	15	✓
D2	2023 SURVEYED	PM	ONE HOUR	00:00	01:30	15	✓
D3	2029 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D4	2029 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D5	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D6	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D7	2034 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D8	2034 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D9	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D10	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D11	2034 DESIGN VISION LED	AM	ONE HOUR	00:00	01:30	15	✓
D12	2034 DESIGN VISION LED	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2023 SURVEYED, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.75	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	53	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	B6273 HIGH STREET		Major
B	B6411 THURNSCOE LANE		Minor
C	B6273 ROTHERHAM ROAD		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - B6273 ROTHERHAM ROAD	8.71			94.7	✓	0.00

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 - B6411 THURNSCOE LANE	One lane	4.73	48	89

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	630	0.101	0.256	0.161	0.366
B-C	798	0.108	0.273	-	-
C-B	629	0.215	0.215	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 SURVEYED	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	526	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	138	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	389	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	125	401
	B - B6411 THURNSCOE LANE	130	0	8
	C - B6273 ROTHERHAM ROAD	381	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	8
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.34	12.78	0.5	B	127	190
C-AB	0.02	5.02	0.0	A	14	21
C-A					343	515
A-B					115	172
A-C					368	552

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104	26	504	0.206	103	0.0	0.3	9.208	A
C-AB	10	2	744	0.013	10	0.0	0.0	5.013	A
C-A	283	71			283				
A-B	94	24			94				
A-C	302	75			302				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	31	478	0.260	124	0.3	0.4	10.447	B
C-AB	13	3	769	0.017	13	0.0	0.0	4.874	A
C-A	337	84			337				
A-B	112	28			112				
A-C	360	90			360				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	152	38	441	0.344	151	0.4	0.5	12.725	B
C-AB	18	5	806	0.023	18	0.0	0.0	4.698	A
C-A	410	102			410				
A-B	138	34			138				
A-C	442	110			442				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	152	38	441	0.344	152	0.5	0.5	12.783	B
C-AB	18	5	806	0.023	18	0.0	0.0	4.709	A
C-A	410	102			410				
A-B	138	34			138				
A-C	442	110			442				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	31	478	0.260	125	0.5	0.4	10.510	B
C-AB	13	3	769	0.017	13	0.0	0.0	4.897	A
C-A	337	84			337				
A-B	112	28			112				
A-C	360	90			360				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104	26	504	0.206	104	0.4	0.3	9.273	A
C-AB	10	2	744	0.013	10	0.0	0.0	5.023	A
C-A	283	71			283				
A-B	94	24			94				
A-C	302	75			302				

2023 SURVEYED, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.22	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	42	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 SURVEYED	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	500	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	169	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	440	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	146	354
	B - B6411 THURNSCOE LANE	157	0	12
	C - B6273 ROTHERHAM ROAD	429	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	6
	B - B6411 THURNSCOE LANE	0	0	0
	C - B6273 ROTHERHAM ROAD	4	14	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.42	13.90	0.7	B	155	233
C-AB	0.03	5.20	0.0	A	20	30
C-A					384	575
A-B					134	201
A-C					325	487

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	32	507	0.251	126	0.0	0.3	9.419	A
C-AB	14	4	773	0.018	14	0.0	0.0	5.202	A
C-A	317	79			317				
A-B	110	27			110				
A-C	267	67			267				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	152	38	481	0.316	151	0.3	0.5	10.909	B
C-AB	19	5	804	0.024	19	0.0	0.0	5.010	A
C-A	376	94			376				
A-B	131	33			131				
A-C	318	80			318				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	186	47	445	0.418	185	0.5	0.7	13.796	B
C-AB	27	7	849	0.032	27	0.0	0.0	4.754	A
C-A	457	114			457				
A-B	161	40			161				
A-C	390	97			390				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	186	47	445	0.418	186	0.7	0.7	13.897	B
C-AB	27	7	849	0.032	27	0.0	0.0	4.741	A
C-A	457	114			457				
A-B	161	40			161				
A-C	390	97			390				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	152	38	481	0.316	153	0.7	0.5	11.008	B
C-AB	19	5	804	0.024	19	0.0	0.0	4.977	A
C-A	376	94			376				
A-B	131	33			131				
A-C	318	80			318				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	32	507	0.251	128	0.5	0.3	9.509	A
C-AB	14	4	773	0.018	14	0.0	0.0	5.186	A
C-A	317	79			317				
A-B	110	27			110				
A-C	267	67			267				

2029 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.86	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	46	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2029 BASE	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	554	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	145	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	409	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	132	422
	B - B6411 THURNSCOE LANE	137	0	8
	C - B6273 ROTHERHAM ROAD	401	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	8
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.37	13.65	0.6	B	133	200
C-AB	0.02	4.98	0.0	A	14	21
C-A					361	542
A-B					121	182
A-C					387	581

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	27	496	0.220	108	0.0	0.3	9.505	A
C-AB	10	3	751	0.013	10	0.0	0.0	4.974	A
C-A	298	74			298				
A-B	99	25			99				
A-C	318	79			318				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	33	469	0.278	130	0.3	0.4	10.909	B
C-AB	13	3	778	0.017	13	0.0	0.0	4.829	A
C-A	354	89			354				
A-B	119	30			119				
A-C	379	95			379				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160	40	431	0.371	159	0.4	0.6	13.573	B
C-AB	19	5	817	0.024	19	0.0	0.0	4.645	A
C-A	431	108			431				
A-B	145	36			145				
A-C	465	116			465				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160	40	431	0.371	160	0.6	0.6	13.652	B
C-AB	19	5	817	0.024	19	0.0	0.0	4.654	A
C-A	431	108			431				
A-B	145	36			145				
A-C	465	116			465				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	130	33	469	0.278	131	0.6	0.4	10.988	B
C-AB	13	3	778	0.017	13	0.0	0.0	4.852	A
C-A	354	89			354				
A-B	119	30			119				
A-C	379	95			379				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	27	496	0.220	110	0.4	0.3	9.581	A
C-AB	10	3	751	0.013	10	0.0	0.0	4.985	A
C-A	298	74			298				
A-B	99	25			99				
A-C	318	79			318				

2029 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.41	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	34	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2029 BASE	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	527	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	178	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	464	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	154	373
	B - B6411 THURNSCOE LANE	165	0	13
	C - B6273 ROTHERHAM ROAD	452	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	6
	B - B6411 THURNSCOE LANE	0	0	0
	C - B6273 ROTHERHAM ROAD	4	14	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.45	15.08	0.8	C	163	245
C-AB	0.04	5.15	0.1	A	23	34
C-A					403	604
A-B					141	212
A-C					342	513

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	500	0.268	133	0.0	0.4	9.763	A
C-AB	16	4	781	0.021	16	0.0	0.0	5.148	A
C-A	333	83			333				
A-B	116	29			116				
A-C	281	70			281				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160	40	473	0.339	159	0.4	0.5	11.475	B
C-AB	22	5	814	0.027	22	0.0	0.0	4.951	A
C-A	396	99			396				
A-B	138	35			138				
A-C	335	84			335				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	196	49	435	0.451	195	0.5	0.8	14.933	B
C-AB	31	8	862	0.036	31	0.0	0.1	4.691	A
C-A	480	120			480				
A-B	170	42			170				
A-C	411	103			411				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	196	49	435	0.451	196	0.8	0.8	15.076	C
C-AB	31	8	862	0.036	31	0.1	0.1	4.679	A
C-A	480	120			480				
A-B	170	42			170				
A-C	411	103			411				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160	40	473	0.339	161	0.8	0.5	11.606	B
C-AB	22	5	814	0.027	22	0.1	0.0	4.917	A
C-A	396	99			396				
A-B	138	35			138				
A-C	335	84			335				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	500	0.268	135	0.5	0.4	9.871	A
C-AB	16	4	781	0.021	16	0.0	0.0	5.132	A
C-A	333	83			333				
A-B	116	29			116				
A-C	281	70			281				

2029 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.88	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	42	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	582	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	146	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	419	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	134	448
	B - B6411 THURNSCOE LANE	138	0	8
	C - B6273 ROTHERHAM ROAD	411	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	8
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.38	14.20	0.6	B	134	201
C-AB	0.02	4.96	0.0	A	15	22
C-A					370	555
A-B					123	184
A-C					411	617

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	490	0.224	109	0.0	0.3	9.681	A
C-AB	10	3	752	0.014	10	0.0	0.0	4.948	A
C-A	305	76			305				
A-B	101	25			101				
A-C	337	84			337				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	33	461	0.285	131	0.3	0.4	11.191	B
C-AB	14	3	780	0.018	14	0.0	0.0	4.800	A
C-A	363	91			363				
A-B	120	30			120				
A-C	403	101			403				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	161	40	421	0.382	160	0.4	0.6	14.110	B
C-AB	20	5	820	0.024	20	0.0	0.0	4.611	A
C-A	442	110			442				
A-B	148	37			148				
A-C	493	123			493				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	161	40	421	0.382	161	0.6	0.6	14.199	B
C-AB	20	5	820	0.024	20	0.0	0.0	4.620	A
C-A	442	110			442				
A-B	148	37			148				
A-C	493	123			493				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	33	461	0.285	132	0.6	0.4	11.277	B
C-AB	14	3	780	0.018	14	0.0	0.0	4.820	A
C-A	363	91			363				
A-B	120	30			120				
A-C	403	101			403				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	490	0.224	110	0.4	0.3	9.764	A
C-AB	10	3	752	0.014	10	0.0	0.0	4.960	A
C-A	305	76			305				
A-B	101	25			101				
A-C	337	84			337				

2029 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.48	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	31	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	540	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	181	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	489	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	155	385
	B - B6411 THURNSCOE LANE	168	0	13
	C - B6273 ROTHERHAM ROAD	477	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	6
	B - B6411 THURNSCOE LANE	0	0	0
	C - B6273 ROTHERHAM ROAD	3	14	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.47	15.83	0.9	C	166	249
C-AB	0.04	5.04	0.1	A	24	36
C-A					425	637
A-B					142	213
A-C					353	530

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	136	34	494	0.276	135	0.0	0.4	9.971	A
C-AB	17	4	793	0.021	16	0.0	0.0	5.044	A
C-A	352	88			352				
A-B	117	29			117				
A-C	290	72			290				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	163	41	466	0.349	162	0.4	0.5	11.825	B
C-AB	22	6	828	0.027	22	0.0	0.0	4.838	A
C-A	417	104			417				
A-B	139	35			139				
A-C	346	87			346				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	199	50	427	0.467	198	0.5	0.9	15.658	C
C-AB	33	8	880	0.037	33	0.0	0.1	4.568	A
C-A	506	126			506				
A-B	171	43			171				
A-C	424	106			424				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	199	50	427	0.467	199	0.9	0.9	15.827	C
C-AB	33	8	880	0.037	33	0.1	0.1	4.553	A
C-A	505	126			505				
A-B	171	43			171				
A-C	424	106			424				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	163	41	466	0.349	164	0.9	0.5	11.971	B
C-AB	22	6	828	0.027	23	0.1	0.0	4.803	A
C-A	417	104			417				
A-B	139	35			139				
A-C	346	87			346				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	136	34	494	0.276	137	0.5	0.4	10.091	B
C-AB	17	4	793	0.021	17	0.0	0.0	5.024	A
C-A	352	88			352				
A-B	117	29			117				
A-C	290	72			290				

2034 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.01	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 BASE	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	608	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	153	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	440	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	143	465
	B - B6411 THURNSCOE LANE	144	0	9
	C - B6273 ROTHERHAM ROAD	431	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	8
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.41	15.17	0.7	C	140	211
C-AB	0.03	4.93	0.0	A	17	25
C-A					387	580
A-B					131	197
A-C					427	640

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	29	484	0.238	114	0.0	0.3	9.970	A
C-AB	12	3	759	0.016	12	0.0	0.0	4.915	A
C-A	319	80			319				
A-B	108	27			108				
A-C	350	88			350				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	34	454	0.303	137	0.3	0.4	11.663	B
C-AB	16	4	789	0.020	16	0.0	0.0	4.763	A
C-A	380	95			380				
A-B	129	32			129				
A-C	418	105			418				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	168	42	412	0.409	167	0.4	0.7	15.057	C
C-AB	23	6	832	0.028	23	0.0	0.0	4.569	A
C-A	461	115			461				
A-B	157	39			157				
A-C	512	128			512				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	168	42	412	0.409	168	0.7	0.7	15.173	C
C-AB	23	6	832	0.028	23	0.0	0.0	4.578	A
C-A	461	115			461				
A-B	157	39			157				
A-C	512	128			512				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	34	454	0.303	139	0.7	0.5	11.776	B
C-AB	16	4	789	0.020	16	0.0	0.0	4.783	A
C-A	380	95			380				
A-B	129	32			129				
A-C	418	105			418				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	29	484	0.238	116	0.5	0.3	10.068	B
C-AB	12	3	759	0.016	12	0.0	0.0	4.927	A
C-A	319	80			319				
A-B	108	27			108				
A-C	350	88			350				

2034 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.79	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	24	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 BASE	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	559	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	193	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	511	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	162	397
	B - B6411 THURNSCOE LANE	180	0	13
	C - B6273 ROTHERHAM ROAD	498	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	6
	B - B6411 THURNSCOE LANE	0	0	0
	C - B6273 ROTHERHAM ROAD	3	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.51	17.53	1.0	C	177	266
C-AB	0.04	4.97	0.1	A	27	40
C-A					442	663
A-B					149	223
A-C					364	546

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	145	36	488	0.298	144	0.0	0.4	10.404	B
C-AB	18	5	801	0.023	18	0.0	0.0	4.970	A
C-A	366	92			366				
A-B	122	30			122				
A-C	299	75			299				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	174	43	458	0.378	173	0.4	0.6	12.567	B
C-AB	25	6	839	0.030	25	0.0	0.0	4.763	A
C-A	434	109			434				
A-B	146	36			146				
A-C	357	89			357				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	212	53	418	0.509	211	0.6	1.0	17.281	C
C-AB	37	9	894	0.042	37	0.0	0.1	4.495	A
C-A	525	131			525				
A-B	178	45			178				
A-C	437	109			437				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	212	53	418	0.509	212	1.0	1.0	17.534	C
C-AB	37	9	894	0.042	37	0.1	0.1	4.484	A
C-A	525	131			525				
A-B	178	45			178				
A-C	437	109			437				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	174	43	458	0.378	175	1.0	0.6	12.772	B
C-AB	25	6	839	0.030	25	0.1	0.0	4.732	A
C-A	434	109			434				
A-B	146	36			146				
A-C	357	89			357				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	145	36	488	0.298	146	0.6	0.4	10.551	B
C-AB	18	5	801	0.023	19	0.0	0.0	4.954	A
C-A	366	92			366				
A-B	122	30			122				
A-C	299	75			299				

2034 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	636	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	154	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	146	490
	B - B6411 THURNSCOE LANE	145	0	9
	C - B6273 ROTHERHAM ROAD	441	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	7
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.42	15.85	0.7	C	141	212
C-AB	0.03	4.92	0.0	A	17	26
C-A					396	593
A-B					134	201
A-C					450	674

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	29	478	0.243	115	0.0	0.3	10.166	B
C-AB	12	3	761	0.016	12	0.0	0.0	4.908	A
C-A	327	82			327				
A-B	110	27			110				
A-C	369	92			369				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	35	446	0.310	138	0.3	0.5	11.981	B
C-AB	16	4	791	0.021	16	0.0	0.0	4.753	A
C-A	388	97			388				
A-B	131	33			131				
A-C	440	110			440				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	170	42	403	0.421	168	0.5	0.7	15.684	C
C-AB	24	6	835	0.028	24	0.0	0.0	4.557	A
C-A	472	118			472				
A-B	161	40			161				
A-C	540	135			540				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	170	42	403	0.421	170	0.7	0.7	15.848	C
C-AB	24	6	835	0.028	24	0.0	0.0	4.564	A
C-A	472	118			472				
A-B	161	40			161				
A-C	540	135			540				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	35	446	0.310	140	0.7	0.5	12.107	B
C-AB	16	4	791	0.021	16	0.0	0.0	4.774	A
C-A	388	97			388				
A-B	131	33			131				
A-C	440	110			440				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	29	478	0.243	116	0.5	0.3	10.267	B
C-AB	12	3	761	0.016	12	0.0	0.0	4.918	A
C-A	327	82			327				
A-B	110	27			110				
A-C	369	92			369				

2034 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.88	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	21	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	572	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	195	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	536	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	163	409
	B - B6411 THURNSCOE LANE	182	0	13
	C - B6273 ROTHERHAM ROAD	523	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	3
	B - B6411 THURNSCOE LANE	0	0	0
	C - B6273 ROTHERHAM ROAD	3	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.52	18.45	1.1	C	179	268
C-AB	0.04	4.89	0.1	A	28	42
C-A					464	696
A-B					150	224
A-C					375	563

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	147	37	483	0.304	145	0.0	0.4	10.614	B
C-AB	19	5	813	0.023	19	0.0	0.0	4.894	A
C-A	385	96			385				
A-B	123	31			123				
A-C	308	77			308				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	175	44	452	0.388	175	0.4	0.6	12.940	B
C-AB	26	7	853	0.031	26	0.0	0.0	4.680	A
C-A	456	114			456				
A-B	147	37			147				
A-C	368	92			368				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	215	54	410	0.524	213	0.6	1.1	18.145	C
C-AB	39	10	911	0.043	39	0.0	0.1	4.405	A
C-A	551	138			551				
A-B	179	45			179				
A-C	450	113			450				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	215	54	410	0.524	215	1.1	1.1	18.448	C
C-AB	39	10	912	0.043	39	0.1	0.1	4.392	A
C-A	551	138			551				
A-B	179	45			179				
A-C	450	113			450				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	175	44	452	0.388	177	1.1	0.6	13.177	B
C-AB	26	7	853	0.031	26	0.1	0.0	4.649	A
C-A	456	114			456				
A-B	147	37			147				
A-C	368	92			368				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	147	37	483	0.304	148	0.6	0.4	10.777	B
C-AB	19	5	813	0.023	19	0.0	0.0	4.876	A
C-A	384	96			384				
A-B	123	31			123				
A-C	308	77			308				

2034 DESIGN VISION LED, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2034 DESIGN VISION LED	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	635	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	154	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	450	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	146	489
	B - B6411 THURNSCOE LANE	145	0	9
	C - B6273 ROTHERHAM ROAD	441	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	7
	B - B6411 THURNSCOE LANE	3	0	0
	C - B6273 ROTHERHAM ROAD	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.42	15.83	0.7	C	141	212
C-AB	0.03	4.92	0.0	A	17	26
C-A					396	593
A-B					134	201
A-C					449	673

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	29	478	0.243	115	0.0	0.3	10.161	B
C-AB	12	3	761	0.016	12	0.0	0.0	4.907	A
C-A	327	82			327				
A-B	110	27			110				
A-C	368	92			368				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	35	447	0.310	138	0.3	0.5	11.972	B
C-AB	16	4	791	0.021	16	0.0	0.0	4.752	A
C-A	388	97			388				
A-B	131	33			131				
A-C	440	110			440				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	170	42	403	0.420	168	0.5	0.7	15.690	C
C-AB	24	6	835	0.028	24	0.0	0.0	4.556	A
C-A	472	118			472				
A-B	161	40			161				
A-C	538	135			538				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	170	42	403	0.420	170	0.7	0.7	15.828	C
C-AB	24	6	835	0.028	24	0.0	0.0	4.565	A
C-A	472	118			472				
A-B	161	40			161				
A-C	538	135			538				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	35	447	0.310	140	0.7	0.5	12.098	B
C-AB	16	4	791	0.021	16	0.0	0.0	4.771	A
C-A	388	97			388				
A-B	131	33			131				
A-C	440	110			440				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	116	29	478	0.243	116	0.5	0.3	10.260	B
C-AB	12	3	761	0.016	12	0.0	0.0	4.919	A
C-A	327	82			327				
A-B	110	27			110				
A-C	368	92			368				

2034 DESIGN VISION LED, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.88	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	21	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2034 DESIGN VISION LED	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - B6273 HIGH STREET		ONE HOUR	✓	572	100.000
B - B6411 THURNSCOE LANE		ONE HOUR	✓	195	100.000
C - B6273 ROTHERHAM ROAD		ONE HOUR	✓	535	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	163	409
	B - B6411 THURNSCOE LANE	182	0	13
	C - B6273 ROTHERHAM ROAD	522	13	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B6273 HIGH STREET	B - B6411 THURNSCOE LANE	C - B6273 ROTHERHAM ROAD
From	A - B6273 HIGH STREET	0	5	3
	B - B6411 THURNSCOE LANE	0	0	0
	C - B6273 ROTHERHAM ROAD	3	13	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.52	18.43	1.1	C	179	268
C-AB	0.04	4.90	0.1	A	28	42
C-A					463	694
A-B					150	224
A-C					375	563

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	147	37	483	0.304	145	0.0	0.4	10.610	B
C-AB	19	5	812	0.023	19	0.0	0.0	4.898	A
C-A	384	96			384				
A-B	123	31			123				
A-C	308	77			308				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	175	44	452	0.388	175	0.4	0.6	12.934	B
C-AB	26	7	852	0.031	26	0.0	0.0	4.684	A
C-A	455	114			455				
A-B	147	37			147				
A-C	368	92			368				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	215	54	410	0.524	213	0.6	1.1	18.128	C
C-AB	39	10	911	0.043	39	0.0	0.1	4.409	A
C-A	550	138			550				
A-B	179	45			179				
A-C	450	113			450				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	215	54	410	0.524	215	1.1	1.1	18.431	C
C-AB	39	10	911	0.043	39	0.1	0.1	4.398	A
C-A	550	138			550				
A-B	179	45			179				
A-C	450	113			450				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	175	44	452	0.388	177	1.1	0.6	13.170	B
C-AB	26	7	853	0.031	26	0.1	0.0	4.651	A
C-A	455	114			455				
A-B	147	37			147				
A-C	368	92			368				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	147	37	483	0.304	148	0.6	0.4	10.771	B
C-AB	19	5	812	0.023	19	0.0	0.0	4.880	A
C-A	384	96			384				
A-B	123	31			123				
A-C	308	77			308				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: RotherhamRd-ParkSpringRd.j9
Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Roundabouts\RotherhamRd-ParkSpringRd\2025
Report generation date: 11/06/2025 14:48:53

Summary of junction performance

	AM							PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
2023 SURVEYED														
1 - A6195 Rotherham Road	D1	0.9	4.34	0.45	A	6.89	26 % [3 - B6273 Rotherham Road]	D2	2.1	6.71	0.66	A	6.59	42 % [1 - A6195 Rotherham Road]
2 - A6195 Park Spring Road		0.5	3.97	0.29	A				0.8	4.75	0.42	A		
3 - B6273 Rotherham Road		2.4	10.90	0.69	B				1.4	8.02	0.58	A		
2029 BASE														
1 - A6195 Rotherham Road	D3	1.0	4.55	0.48	A	7.75	19 % [3 - B6273 Rotherham Road]	D4	2.5	7.51	0.70	A	7.30	35 % [1 - A6195 Rotherham Road]
2 - A6195 Park Spring Road		0.5	4.09	0.31	A				0.8	5.04	0.44	A		
3 - B6273 Rotherham Road		3.0	12.77	0.74	B				1.7	8.93	0.61	A		
2029 DESIGN														
1 - A6195 Rotherham Road	D5	1.1	4.60	0.48	A	8.24	17 % [3 - B6273 Rotherham Road]	D6	2.7	7.89	0.71	A	7.59	32 % [1 - A6195 Rotherham Road]
2 - A6195 Park Spring Road		0.5	4.12	0.31	A				0.9	5.15	0.45	A		
3 - B6273 Rotherham Road		3.3	13.79	0.76	B				1.7	9.20	0.63	A		
2034 BASE														
1 - A6195 Rotherham Road	D7	1.2	4.92	0.52	A	10.06	9 % [3 - B6273 Rotherham Road]	D8	3.4	9.46	0.76	A	8.87	24 % [1 - A6195 Rotherham Road]
2 - A6195 Park Spring Road		0.6	4.43	0.36	A				1.1	5.84	0.51	A		
3 - B6273 Rotherham Road		4.5	18.32	0.82	C				2.1	10.70	0.67	B		
2034 DESIGN														
1 - A6195 Rotherham Road	D9	1.3	4.97	0.53	A	11.24	7 % [3 - B6273 Rotherham Road]	D10	3.7	10.08	0.77	B	9.33	22 % [1 - A6195 Rotherham Road]
2 - A6195 Park Spring Road		0.7	4.46	0.36	A				1.1	5.99	0.52	A		
3 - B6273 Rotherham Road		5.3	21.02	0.84	C				2.2	11.10	0.68	B		
2034 DESIGN VISION LED														
1 - A6195 Rotherham Road	D11	1.3	4.97	0.53	A	11.19	7 % [3 - B6273 Rotherham Road]	D12	3.7	10.06	0.77	B	9.31	22 % [1 - A6195 Rotherham Road]
2 - A6195 Park Spring Road		0.7	4.46	0.36	A				1.1	5.98	0.52	A		
3 - B6273 Rotherham Road		5.3	20.90	0.84	C				2.2	11.07	0.68	B		

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	
Location	
Site number	
Date	24/06/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 SURVEYED	AM	ONE HOUR	00:00	01:30	15	✓
D2	2023 SURVEYED	PM	ONE HOUR	00:00	01:30	15	✓
D3	2029 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D4	2029 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D5	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D6	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D7	2034 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D8	2034 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D9	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D10	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D11	2034 DESIGN VISION LED	AM	ONE HOUR	00:00	01:30	15	✓
D12	2034 DESIGN VISION LED	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2023 SURVEYED, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.89	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	3 - B6273 Rotherham Road

Arms

Arms

Arm	Name	Description
1	A6195 Rotherham Road	
2	A6195 Park Spring Road	
3	B6273 Rotherham 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)	Exit only
1 - A6195 Rotherham Road	6.19	6.58	2.9	27.3	57.8	59.8	
2 - A6195 Park Spring Road	5.03	7.34	5.1	27.6	59.4	54.4	
3 - B6273 Rotherham Road	3.50	6.47	10.4	40.3	58.1	68.2	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A6195 Rotherham Road	0.560	1782
2 - A6195 Park Spring Road	0.538	1681
3 - B6273 Rotherham Road	0.479	1365

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 SURVEYED	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	713	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	393	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	1	413	299
	2 - A6195 Park Spring Road	359	0	34
	3 - B6273 Rotherham Road	674	67	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	16	14
	2 - A6195 Park Spring Road	18	0	19
	3 - B6273 Rotherham Road	9	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.45	4.34	0.9	A	654	981
2 - A6195 Park Spring Road	0.29	3.97	0.5	A	361	541
3 - B6273 Rotherham Road	0.69	10.90	2.4	B	680	1020

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	537	134	50	1754	0.306	535	774	0.0	0.5	3.394	A
2 - A6195 Park Spring Road	296	74	225	1560	0.190	295	360	0.0	0.3	3.356	A
3 - B6273 Rotherham Road	558	139	270	1235	0.452	554	250	0.0	0.9	5.724	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	641	160	60	1748	0.367	640	928	0.5	0.7	3.739	A
2 - A6195 Park Spring Road	353	88	269	1536	0.230	353	431	0.3	0.4	3.592	A
3 - B6273 Rotherham Road	666	167	323	1210	0.551	664	299	0.9	1.3	7.162	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	785	196	73	1741	0.451	784	1134	0.7	0.9	4.328	A
2 - A6195 Park Spring Road	433	108	330	1504	0.288	432	527	0.4	0.5	3.965	A
3 - B6273 Rotherham Road	816	204	396	1175	0.694	812	366	1.3	2.4	10.657	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	785	196	74	1740	0.451	785	1138	0.9	0.9	4.337	A
2 - A6195 Park Spring Road	433	108	330	1503	0.288	433	528	0.5	0.5	3.969	A
3 - B6273 Rotherham Road	816	204	396	1175	0.695	816	367	2.4	2.4	10.900	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	641	160	61	1748	0.367	642	934	0.9	0.7	3.750	A
2 - A6195 Park Spring Road	353	88	270	1536	0.230	354	433	0.5	0.4	3.599	A
3 - B6273 Rotherham Road	666	167	324	1209	0.551	670	300	2.4	1.4	7.328	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	537	134	51	1753	0.306	537	780	0.7	0.5	3.412	A
2 - A6195 Park Spring Road	296	74	226	1559	0.190	296	362	0.4	0.3	3.367	A
3 - B6273 Rotherham Road	558	139	271	1235	0.452	560	251	1.4	0.9	5.819	A

2023 SURVEYED, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.59	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	42	1 - A6195 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 SURVEYED	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1048	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	522	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	585	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	6	546	496
	2 - A6195 Park Spring Road	458	0	64
	3 - B6273 Rotherham Road	531	54	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	17	5
	2 - A6195 Park Spring Road	6	0	13
	3 - B6273 Rotherham Road	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.66	6.71	2.1	A	962	1442
2 - A6195 Park Spring Road	0.42	4.75	0.8	A	479	718
3 - B6273 Rotherham Road	0.58	8.02	1.4	A	537	805

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	789	197	40	1759	0.449	785	745	0.0	0.9	4.085	A
2 - A6195 Park Spring Road	393	98	376	1479	0.266	391	450	0.0	0.4	3.532	A
3 - B6273 Rotherham Road	440	110	348	1198	0.368	438	420	0.0	0.6	5.006	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	942	236	48	1755	0.537	941	893	0.9	1.3	4.895	A
2 - A6195 Park Spring Road	469	117	451	1439	0.326	469	539	0.4	0.5	3.962	A
3 - B6273 Rotherham Road	526	131	417	1165	0.451	525	503	0.6	0.9	5.952	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1154	288	59	1749	0.660	1151	1093	1.3	2.1	6.638	A
2 - A6195 Park Spring Road	575	144	551	1385	0.415	574	659	0.5	0.8	4.736	A
3 - B6273 Rotherham Road	644	161	510	1120	0.575	642	615	0.9	1.4	7.944	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1154	288	59	1748	0.660	1154	1095	2.1	2.1	6.710	A
2 - A6195 Park Spring Road	575	144	553	1384	0.415	575	661	0.8	0.8	4.752	A
3 - B6273 Rotherham Road	644	161	511	1120	0.575	644	617	1.4	1.4	8.019	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	942	236	49	1754	0.537	945	897	2.1	1.3	4.954	A
2 - A6195 Park Spring Road	469	117	453	1437	0.326	470	541	0.8	0.5	3.980	A
3 - B6273 Rotherham Road	526	131	418	1164	0.452	528	505	1.4	0.9	6.017	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	789	197	41	1759	0.449	791	751	1.3	0.9	4.129	A
2 - A6195 Park Spring Road	393	98	379	1477	0.266	394	453	0.5	0.4	3.551	A
3 - B6273 Rotherham Road	440	110	350	1197	0.368	441	422	0.9	0.6	5.057	A

2029 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.75	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	3 - B6273 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2029 BASE	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	751	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	414	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	780	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	1	435	315
	2 - A6195 Park Spring Road	378	0	36
	3 - B6273 Rotherham Road	709	71	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	16	14
	2 - A6195 Park Spring Road	18	0	19
	3 - B6273 Rotherham Road	9	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.48	4.55	1.0	A	689	1034
2 - A6195 Park Spring Road	0.31	4.09	0.5	A	380	570
3 - B6273 Rotherham Road	0.74	12.77	3.0	B	716	1074

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	565	141	53	1752	0.323	563	814	0.0	0.5	3.481	A
2 - A6195 Park Spring Road	312	78	237	1554	0.201	311	379	0.0	0.3	3.416	A
3 - B6273 Rotherham Road	587	147	284	1228	0.478	583	263	0.0	1.0	6.037	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	675	169	64	1746	0.387	674	976	0.5	0.7	3.865	A
2 - A6195 Park Spring Road	372	93	284	1528	0.244	372	454	0.3	0.4	3.675	A
3 - B6273 Rotherham Road	701	175	340	1201	0.584	699	315	1.0	1.5	7.766	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	827	207	78	1738	0.476	826	1192	0.7	1.0	4.534	A
2 - A6195 Park Spring Road	456	114	347	1494	0.305	455	556	0.4	0.5	4.090	A
3 - B6273 Rotherham Road	859	215	417	1165	0.737	853	386	1.5	2.9	12.345	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	827	207	78	1738	0.476	827	1198	1.0	1.0	4.548	A
2 - A6195 Park Spring Road	456	114	348	1494	0.305	456	557	0.5	0.5	4.094	A
3 - B6273 Rotherham Road	859	215	417	1165	0.737	859	386	2.9	3.0	12.769	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	675	169	64	1746	0.387	676	984	1.0	0.7	3.880	A
2 - A6195 Park Spring Road	372	93	285	1528	0.244	373	456	0.5	0.4	3.680	A
3 - B6273 Rotherham Road	701	175	341	1201	0.584	707	316	3.0	1.6	8.017	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	565	141	54	1752	0.323	566	821	0.7	0.6	3.497	A
2 - A6195 Park Spring Road	312	78	238	1553	0.201	312	382	0.4	0.3	3.425	A
3 - B6273 Rotherham Road	587	147	286	1228	0.478	589	265	1.6	1.0	6.157	A

2029 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.30	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	1 - A6195 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2029 BASE	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1104	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	550	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	617	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	6	575	523
	2 - A6195 Park Spring Road	483	0	67
	3 - B6273 Rotherham Road	560	57	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	17	5
	2 - A6195 Park Spring Road	6	0	13
	3 - B6273 Rotherham Road	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.70	7.51	2.5	A	1013	1520
2 - A6195 Park Spring Road	0.44	5.04	0.8	A	505	757
3 - B6273 Rotherham Road	0.61	8.93	1.7	A	566	849

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	831	208	43	1758	0.473	827	786	0.0	1.0	4.272	A
2 - A6195 Park Spring Road	414	104	396	1468	0.282	412	474	0.0	0.4	3.632	A
3 - B6273 Rotherham Road	465	116	367	1189	0.391	462	442	0.0	0.7	5.230	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	992	248	51	1753	0.566	991	941	1.0	1.4	5.223	A
2 - A6195 Park Spring Road	494	124	475	1426	0.347	494	567	0.4	0.6	4.123	A
3 - B6273 Rotherham Road	555	139	439	1154	0.481	553	529	0.7	1.0	6.340	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1216	304	63	1747	0.696	1211	1152	1.4	2.5	7.399	A
2 - A6195 Park Spring Road	606	151	580	1369	0.442	604	693	0.6	0.8	5.023	A
3 - B6273 Rotherham Road	679	170	537	1107	0.614	677	647	1.0	1.6	8.811	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1216	304	63	1747	0.696	1215	1155	2.5	2.5	7.510	A
2 - A6195 Park Spring Road	606	151	582	1368	0.443	606	696	0.8	0.8	5.043	A
3 - B6273 Rotherham Road	679	170	538	1107	0.614	679	650	1.6	1.7	8.927	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	992	248	51	1753	0.566	997	946	2.5	1.5	5.308	A
2 - A6195 Park Spring Road	494	124	478	1424	0.347	496	571	0.8	0.6	4.144	A
3 - B6273 Rotherham Road	555	139	441	1153	0.481	557	532	1.7	1.0	6.429	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	831	208	43	1758	0.473	833	791	1.5	1.0	4.325	A
2 - A6195 Park Spring Road	414	104	399	1466	0.282	415	477	0.6	0.4	3.659	A
3 - B6273 Rotherham Road	465	116	369	1188	0.391	466	445	1.0	0.7	5.295	A

2029 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.24	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	3 - B6273 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	760	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	414	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	805	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	1	435	324
	2 - A6195 Park Spring Road	378	0	36
	3 - B6273 Rotherham Road	733	72	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	16	14
	2 - A6195 Park Spring Road	18	0	19
	3 - B6273 Rotherham Road	7	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.48	4.60	1.1	A	697	1046
2 - A6195 Park Spring Road	0.31	4.12	0.5	A	380	570
3 - B6273 Rotherham Road	0.76	13.79	3.3	B	739	1108

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	572	143	54	1752	0.327	570	832	0.0	0.6	3.501	A
2 - A6195 Park Spring Road	312	78	244	1550	0.201	310	380	0.0	0.3	3.426	A
3 - B6273 Rotherham Road	606	152	284	1228	0.493	602	270	0.0	1.0	6.117	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	683	171	65	1746	0.391	683	997	0.6	0.7	3.895	A
2 - A6195 Park Spring Road	372	93	292	1524	0.244	372	455	0.3	0.4	3.689	A
3 - B6273 Rotherham Road	724	181	340	1201	0.602	721	323	1.0	1.6	7.993	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	837	209	79	1738	0.482	835	1218	0.7	1.1	4.586	A
2 - A6195 Park Spring Road	456	114	357	1489	0.306	455	557	0.4	0.5	4.111	A
3 - B6273 Rotherham Road	886	222	417	1165	0.761	880	396	1.6	3.2	13.229	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	837	209	79	1737	0.482	837	1224	1.1	1.1	4.601	A
2 - A6195 Park Spring Road	456	114	358	1489	0.306	456	558	0.5	0.5	4.115	A
3 - B6273 Rotherham Road	886	222	417	1165	0.761	886	396	3.2	3.3	13.787	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	683	171	65	1745	0.391	684	1006	1.1	0.7	3.911	A
2 - A6195 Park Spring Road	372	93	293	1524	0.244	373	457	0.5	0.4	3.697	A
3 - B6273 Rotherham Road	724	181	341	1201	0.603	730	324	3.3	1.7	8.301	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	572	143	54	1751	0.327	573	840	0.7	0.6	3.520	A
2 - A6195 Park Spring Road	312	78	245	1549	0.201	312	382	0.4	0.3	3.438	A
3 - B6273 Rotherham Road	606	152	286	1228	0.494	608	271	1.7	1.1	6.251	A

2029 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.59	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	1 - A6195 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1127	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	552	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	629	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	6	575	546
	2 - A6195 Park Spring Road	483	0	69
	3 - B6273 Rotherham Road	571	58	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	17	5
	2 - A6195 Park Spring Road	6	0	12
	3 - B6273 Rotherham Road	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.71	7.89	2.7	A	1034	1551
2 - A6195 Park Spring Road	0.45	5.15	0.9	A	507	760
3 - B6273 Rotherham Road	0.63	9.20	1.7	A	577	866

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	848	212	43	1757	0.483	844	794	0.0	1.0	4.348	A
2 - A6195 Park Spring Road	416	104	414	1459	0.285	414	474	0.0	0.4	3.670	A
3 - B6273 Rotherham Road	474	118	367	1189	0.398	471	461	0.0	0.7	5.290	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1013	253	52	1753	0.578	1011	951	1.0	1.5	5.364	A
2 - A6195 Park Spring Road	496	124	495	1415	0.351	496	568	0.4	0.6	4.177	A
3 - B6273 Rotherham Road	565	141	439	1154	0.490	564	552	0.7	1.0	6.450	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1241	310	64	1746	0.711	1236	1163	1.5	2.6	7.751	A
2 - A6195 Park Spring Road	608	152	606	1355	0.448	607	694	0.6	0.9	5.124	A
3 - B6273 Rotherham Road	693	173	537	1107	0.626	690	675	1.0	1.7	9.073	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1241	310	64	1746	0.711	1241	1167	2.6	2.7	7.886	A
2 - A6195 Park Spring Road	608	152	608	1354	0.449	608	697	0.9	0.9	5.146	A
3 - B6273 Rotherham Road	693	173	538	1107	0.626	692	677	1.7	1.7	9.202	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1013	253	52	1752	0.578	1018	957	2.7	1.5	5.462	A
2 - A6195 Park Spring Road	496	124	498	1413	0.351	497	572	0.9	0.6	4.200	A
3 - B6273 Rotherham Road	565	141	441	1153	0.490	568	555	1.7	1.0	6.549	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	848	212	44	1757	0.483	850	800	1.5	1.0	4.408	A
2 - A6195 Park Spring Road	416	104	417	1457	0.285	416	478	0.6	0.4	3.692	A
3 - B6273 Rotherham Road	474	118	369	1188	0.399	475	464	1.0	0.7	5.358	A

2034 BASE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	10.06	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	9	3 - B6273 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 BASE	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	819	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	480	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	838	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	1	480	338
	2 - A6195 Park Spring Road	440	0	40
	3 - B6273 Rotherham Road	756	82	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	13	14
	2 - A6195 Park Spring Road	17	0	18
	3 - B6273 Rotherham Road	8	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.52	4.92	1.2	A	752	1127
2 - A6195 Park Spring Road	0.36	4.43	0.6	A	440	661
3 - B6273 Rotherham Road	0.82	18.32	4.5	C	769	1153

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	617	154	61	1747	0.353	614	896	0.0	0.6	3.594	A
2 - A6195 Park Spring Road	361	90	254	1544	0.234	360	421	0.0	0.4	3.553	A
3 - B6273 Rotherham Road	631	158	331	1206	0.523	626	283	0.0	1.2	6.647	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	736	184	73	1741	0.423	735	1073	0.6	0.8	4.057	A
2 - A6195 Park Spring Road	432	108	304	1517	0.284	431	504	0.4	0.5	3.877	A
3 - B6273 Rotherham Road	753	188	396	1175	0.641	750	339	1.2	1.9	9.093	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	902	225	89	1732	0.521	900	1308	0.8	1.2	4.900	A
2 - A6195 Park Spring Road	528	132	373	1481	0.357	528	617	0.5	0.6	4.421	A
3 - B6273 Rotherham Road	923	231	485	1132	0.815	913	415	1.9	4.3	16.992	C

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	902	225	90	1731	0.521	902	1317	1.2	1.2	4.920	A
2 - A6195 Park Spring Road	528	132	373	1480	0.357	528	619	0.6	0.6	4.427	A
3 - B6273 Rotherham Road	923	231	486	1132	0.815	922	416	4.3	4.5	18.318	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	736	184	75	1740	0.423	738	1086	1.2	0.8	4.079	A
2 - A6195 Park Spring Road	432	108	305	1517	0.284	432	507	0.6	0.5	3.890	A
3 - B6273 Rotherham Road	753	188	397	1174	0.642	763	341	4.5	2.0	9.679	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	617	154	62	1747	0.353	617	904	0.8	0.6	3.615	A
2 - A6195 Park Spring Road	361	90	256	1544	0.234	362	424	0.5	0.4	3.569	A
3 - B6273 Rotherham Road	631	158	332	1205	0.523	634	285	2.0	1.2	6.836	A

2034 BASE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.87	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	24	1 - A6195 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 BASE	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1202	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	623	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	652	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	7	632	563
	2 - A6195 Park Spring Road	544	0	79
	3 - B6273 Rotherham Road	589	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	16	5
	2 - A6195 Park Spring Road	6	0	11
	3 - B6273 Rotherham Road	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.76	9.46	3.4	A	1103	1654
2 - A6195 Park Spring Road	0.51	5.84	1.1	A	572	858
3 - B6273 Rotherham Road	0.67	10.70	2.1	B	598	897

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	905	226	47	1755	0.516	900	854	0.0	1.2	4.626	A
2 - A6195 Park Spring Road	469	117	427	1451	0.323	467	520	0.0	0.5	3.891	A
3 - B6273 Rotherham Road	491	123	413	1167	0.421	488	481	0.0	0.8	5.592	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1081	270	56	1750	0.617	1078	1023	1.2	1.8	5.897	A
2 - A6195 Park Spring Road	560	140	511	1406	0.398	559	623	0.5	0.7	4.529	A
3 - B6273 Rotherham Road	586	147	495	1127	0.520	585	576	0.8	1.1	7.003	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1323	331	69	1743	0.759	1317	1250	1.8	3.3	9.196	A
2 - A6195 Park Spring Road	686	171	625	1345	0.510	684	762	0.7	1.1	5.794	A
3 - B6273 Rotherham Road	718	179	605	1074	0.668	714	704	1.1	2.1	10.471	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1323	331	69	1743	0.759	1323	1255	3.3	3.4	9.458	A
2 - A6195 Park Spring Road	686	171	627	1344	0.511	686	765	1.1	1.1	5.835	A
3 - B6273 Rotherham Road	718	179	607	1074	0.669	718	707	2.1	2.1	10.696	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1081	270	57	1750	0.618	1087	1030	3.4	1.8	6.055	A
2 - A6195 Park Spring Road	560	140	515	1404	0.399	562	629	1.1	0.7	4.565	A
3 - B6273 Rotherham Road	586	147	497	1126	0.520	590	580	2.1	1.2	7.152	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	905	226	48	1755	0.516	907	860	1.8	1.2	4.705	A
2 - A6195 Park Spring Road	469	117	430	1450	0.324	470	525	0.7	0.5	3.920	A
3 - B6273 Rotherham Road	491	123	416	1165	0.421	492	485	1.2	0.8	5.677	A

2034 DESIGN, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	11.24	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	3 - B6273 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	828	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	481	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	864	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	1	480	347
	2 - A6195 Park Spring Road	440	0	41
	3 - B6273 Rotherham Road	780	84	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	13	13
	2 - A6195 Park Spring Road	17	0	18
	3 - B6273 Rotherham Road	8	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.53	4.97	1.3	A	760	1140
2 - A6195 Park Spring Road	0.36	4.46	0.7	A	441	662
3 - B6273 Rotherham Road	0.84	21.02	5.3	C	793	1189

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	623	156	63	1747	0.357	621	913	0.0	0.6	3.606	A
2 - A6195 Park Spring Road	362	91	261	1541	0.235	361	423	0.0	0.4	3.566	A
3 - B6273 Rotherham Road	650	163	331	1206	0.539	645	291	0.0	1.2	6.864	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	744	186	75	1740	0.428	743	1094	0.6	0.8	4.079	A
2 - A6195 Park Spring Road	432	108	312	1513	0.286	432	506	0.4	0.5	3.897	A
3 - B6273 Rotherham Road	777	194	396	1175	0.661	774	348	1.2	2.0	9.593	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	912	228	91	1731	0.527	910	1333	0.8	1.2	4.946	A
2 - A6195 Park Spring Road	530	132	382	1475	0.359	529	619	0.5	0.7	4.449	A
3 - B6273 Rotherham Road	951	238	485	1132	0.840	939	426	2.0	5.0	19.041	C

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	912	228	92	1730	0.527	912	1343	1.2	1.3	4.969	A
2 - A6195 Park Spring Road	530	132	383	1475	0.359	530	621	0.7	0.7	4.458	A
3 - B6273 Rotherham Road	951	238	486	1132	0.840	950	427	5.0	5.3	21.018	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	744	186	77	1739	0.428	746	1110	1.3	0.9	4.104	A
2 - A6195 Park Spring Road	432	108	314	1512	0.286	433	509	0.7	0.5	3.907	A
3 - B6273 Rotherham Road	777	194	397	1174	0.661	789	350	5.3	2.2	10.389	B

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	623	156	64	1746	0.357	624	923	0.9	0.6	3.627	A
2 - A6195 Park Spring Road	362	91	262	1540	0.235	363	425	0.5	0.4	3.583	A
3 - B6273 Rotherham Road	650	163	332	1205	0.540	654	293	2.2	1.3	7.086	A

2034 DESIGN, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.33	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	1 - A6195 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1226	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	625	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	664	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	7	632	587
	2 - A6195 Park Spring Road	544	0	81
	3 - B6273 Rotherham Road	601	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	16	5
	2 - A6195 Park Spring Road	6	0	11
	3 - B6273 Rotherham Road	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.77	10.08	3.7	B	1125	1687
2 - A6195 Park Spring Road	0.52	5.99	1.1	A	574	860
3 - B6273 Rotherham Road	0.68	11.10	2.2	B	609	914

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	923	231	47	1755	0.526	918	863	0.0	1.2	4.718	A
2 - A6195 Park Spring Road	471	118	445	1442	0.326	468	520	0.0	0.5	3.936	A
3 - B6273 Rotherham Road	500	125	413	1167	0.429	497	500	0.0	0.8	5.666	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1102	276	56	1750	0.630	1100	1034	1.2	1.8	6.083	A
2 - A6195 Park Spring Road	562	140	533	1394	0.403	561	623	0.5	0.7	4.602	A
3 - B6273 Rotherham Road	597	149	495	1127	0.529	595	599	0.8	1.2	7.142	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1350	337	69	1743	0.774	1343	1263	1.8	3.6	9.751	A
2 - A6195 Park Spring Road	688	172	651	1331	0.517	686	761	0.7	1.1	5.938	A
3 - B6273 Rotherham Road	731	183	605	1074	0.680	727	732	1.2	2.2	10.847	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1350	337	69	1743	0.774	1350	1268	3.6	3.7	10.075	B
2 - A6195 Park Spring Road	688	172	654	1329	0.518	688	765	1.1	1.1	5.985	A
3 - B6273 Rotherham Road	731	183	607	1074	0.681	731	735	2.2	2.2	11.104	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1102	276	57	1750	0.630	1109	1041	3.7	1.9	6.272	A
2 - A6195 Park Spring Road	562	140	537	1392	0.404	563	629	1.1	0.7	4.643	A
3 - B6273 Rotherham Road	597	149	497	1126	0.530	601	604	2.2	1.2	7.308	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	923	231	48	1755	0.526	926	870	1.9	1.2	4.807	A
2 - A6195 Park Spring Road	471	118	449	1440	0.327	471	525	0.7	0.5	3.966	A
3 - B6273 Rotherham Road	500	125	416	1165	0.429	502	504	1.2	0.8	5.756	A

2034 DESIGN VISION LED, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	11.19	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	3 - B6273 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2034 DESIGN VISION LED	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	828	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	481	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	863	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	1	480	347
	2 - A6195 Park Spring Road	440	0	41
	3 - B6273 Rotherham Road	779	84	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	13	13
	2 - A6195 Park Spring Road	17	0	18
	3 - B6273 Rotherham Road	8	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.53	4.97	1.3	A	760	1140
2 - A6195 Park Spring Road	0.36	4.46	0.7	A	441	662
3 - B6273 Rotherham Road	0.84	20.90	5.3	C	792	1188

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	623	156	63	1747	0.357	621	913	0.0	0.6	3.606	A
2 - A6195 Park Spring Road	362	91	261	1541	0.235	361	423	0.0	0.4	3.566	A
3 - B6273 Rotherham Road	650	162	331	1206	0.539	645	291	0.0	1.2	6.854	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	744	186	75	1740	0.428	743	1093	0.6	0.8	4.079	A
2 - A6195 Park Spring Road	432	108	312	1513	0.286	432	506	0.4	0.5	3.897	A
3 - B6273 Rotherham Road	776	194	396	1175	0.660	773	348	1.2	2.0	9.574	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	912	228	91	1731	0.527	910	1332	0.8	1.2	4.946	A
2 - A6195 Park Spring Road	530	132	382	1475	0.359	529	619	0.5	0.7	4.449	A
3 - B6273 Rotherham Road	950	238	485	1132	0.839	938	426	2.0	5.0	18.952	C

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	912	228	92	1730	0.527	912	1342	1.2	1.3	4.969	A
2 - A6195 Park Spring Road	530	132	383	1475	0.359	530	621	0.7	0.7	4.458	A
3 - B6273 Rotherham Road	950	238	486	1132	0.840	949	427	5.0	5.3	20.899	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	744	186	77	1739	0.428	746	1109	1.3	0.9	4.103	A
2 - A6195 Park Spring Road	432	108	314	1512	0.286	433	509	0.7	0.5	3.909	A
3 - B6273 Rotherham Road	776	194	397	1174	0.661	788	350	5.3	2.2	10.360	B

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	623	156	64	1746	0.357	624	922	0.9	0.6	3.627	A
2 - A6195 Park Spring Road	362	91	262	1540	0.235	363	425	0.5	0.4	3.583	A
3 - B6273 Rotherham Road	650	162	332	1205	0.539	653	293	2.2	1.3	7.073	A

2034 DESIGN VISION LED, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.31	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	22	1 - A6195 Rotherham Road

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2034 DESIGN VISION LED	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 Rotherham Road		ONE HOUR	✓	1225	100.000
2 - A6195 Park Spring Road		ONE HOUR	✓	625	100.000
3 - B6273 Rotherham Road		ONE HOUR	✓	663	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	7	632	586
	2 - A6195 Park Spring Road	544	0	81
	3 - B6273 Rotherham Road	600	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1 - A6195 Rotherham Road	2 - A6195 Park Spring Road	3 - B6273 Rotherham Road
From	1 - A6195 Rotherham Road	0	16	5
	2 - A6195 Park Spring Road	6	0	11
	3 - B6273 Rotherham Road	6	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 Rotherham Road	0.77	10.06	3.7	B	1124	1686
2 - A6195 Park Spring Road	0.52	5.98	1.1	A	574	860
3 - B6273 Rotherham Road	0.68	11.07	2.2	B	608	913

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	922	231	47	1755	0.525	917	862	0.0	1.2	4.714	A
2 - A6195 Park Spring Road	471	118	444	1442	0.326	468	520	0.0	0.5	3.934	A
3 - B6273 Rotherham Road	499	125	413	1167	0.428	496	500	0.0	0.8	5.660	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1101	275	56	1750	0.629	1099	1033	1.2	1.8	6.074	A
2 - A6195 Park Spring Road	562	140	532	1395	0.403	561	623	0.5	0.7	4.599	A
3 - B6273 Rotherham Road	596	149	495	1127	0.529	594	598	0.8	1.2	7.133	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1349	337	69	1743	0.774	1342	1262	1.8	3.6	9.726	A
2 - A6195 Park Spring Road	688	172	649	1332	0.517	686	761	0.7	1.1	5.933	A
3 - B6273 Rotherham Road	730	182	605	1074	0.679	726	731	1.2	2.2	10.815	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1349	337	69	1743	0.774	1348	1267	3.6	3.7	10.064	B
2 - A6195 Park Spring Road	688	172	653	1330	0.517	688	765	1.1	1.1	5.980	A
3 - B6273 Rotherham Road	730	182	607	1074	0.680	730	734	2.2	2.2	11.068	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	1101	275	57	1750	0.629	1108	1040	3.7	1.9	6.262	A
2 - A6195 Park Spring Road	562	140	537	1392	0.404	563	629	1.1	0.7	4.640	A
3 - B6273 Rotherham Road	596	149	497	1126	0.529	600	603	2.2	1.2	7.297	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 Rotherham Road	922	231	48	1755	0.525	925	869	1.9	1.2	4.803	A
2 - A6195 Park Spring Road	471	118	448	1440	0.327	471	525	0.7	0.5	3.964	A
3 - B6273 Rotherham Road	499	125	416	1165	0.428	501	504	1.2	0.8	5.749	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: A635-A6195.j9
Path: O:\High Street, Great Houghton\ANALYSIS\CAPACITY\Roundabouts\A635-A6195\2023
Report generation date: 11/06/2025 15:03:22

Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
2023 SURVEYED												
1 - A6195 South	1.6	4.54	0.59	A	5.04	32 % [4 - A635 East]	2.1	5.48	0.67	A	5.66	21 % [4 - A635 East]
2 - A635 Doncaster Road West	1.0	4.81	0.49	A			0.8	4.40	0.45	A		
3 - A6195 Rotherham Road North	1.4	4.70	0.56	A			1.2	3.98	0.52	A		
4 - A635 East	1.9	6.08	0.62	A			2.9	7.79	0.73	A		
2029 BASE												
1 - A6195 South	1.8	5.08	0.63	A	5.71	26 % [4 - A635 East]	2.6	6.47	0.71	A	6.77	14 % [4 - A635 East]
2 - A635 Doncaster Road West	1.2	5.33	0.53	A			1.0	4.86	0.48	A		
3 - A6195 Rotherham Road North	1.7	5.29	0.60	A			1.4	4.41	0.56	A		
4 - A635 East	2.3	7.06	0.67	A			3.8	9.88	0.78	A		
2029 DESIGN												
1 - A6195 South	1.9	5.18	0.63	A	5.84	25 % [4 - A635 East]	2.7	6.67	0.72	A	6.91	14 % [4 - A635 East]
2 - A635 Doncaster Road West	1.2	5.39	0.53	A			1.0	5.00	0.49	A		
3 - A6195 Rotherham Road North	1.8	5.47	0.61	A			1.4	4.47	0.56	A		
4 - A635 East	2.4	7.26	0.68	A			3.9	10.07	0.79	B		
2034 BASE												
1 - A6195 South	3.9	9.26	0.78	A	12.40	8 % [4 - A635 East]	5.4	12.72	0.84	B	62.55	-10 % [4 - A635 East]
2 - A635 Doncaster Road West	4.3	14.22	0.81	B			1.6	6.84	0.61	A		
3 - A6195 Rotherham Road North	4.1	11.93	0.79	B			2.0	5.92	0.65	A		
4 - A635 East	5.8	14.70	0.84	B			99.6	160.87	1.10	F		
2034 DESIGN												
1 - A6195 South	4.0	9.53	0.79	A	13.01	7 % [4 - A635 East]	5.7	13.36	0.85	B	64.42	-10 % [4 - A635 East]
2 - A635 Doncaster Road West	4.4	14.57	0.81	B			1.7	7.12	0.62	A		
3 - A6195 Rotherham Road North	4.5	12.95	0.81	B			2.0	6.02	0.65	A		
4 - A635 East	6.1	15.53	0.85	C			103.2	166.50	1.10	F		
2034 DESIGN VISION LED												
1 - A6195 South	4.0	9.52	0.79	A	12.97	7 % [4 - A635 East]	5.7	13.31	0.85	B	64.43	-10 % [4 - A635 East]
2 - A635 Doncaster Road West	4.4	14.57	0.81	B			1.7	7.09	0.62	A		
3 - A6195 Rotherham Road North	4.5	12.86	0.80	B			2.0	6.02	0.65	A		
4 - A635 East	6.1	15.46	0.85	C			103.2	166.50	1.10	F		

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	
Location	
Site number	
Date	24/06/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 SURVEYED	AM	ONE HOUR	00:00	01:30	15	✓
D2	2023 SURVEYED	PM	ONE HOUR	00:00	01:30	15	✓
D3	2029 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D4	2029 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D5	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D6	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D7	2034 BASE	AM	ONE HOUR	00:00	01:30	15	✓
D8	2034 BASE	PM	ONE HOUR	00:00	01:30	15	✓
D9	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓
D10	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓
D11	2034 DESIGN VISION LED	AM	ONE HOUR	00:00	01:30	15	✓
D12	2034 DESIGN VISION LED	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2023 SURVEYED, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.04	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	32	4 - A635 East

Arms

Arms

Arm	Name	Description
1	A6195 South	
2	A635 Doncaster Road West	
3	A6195 Rotherham Road North	
4	A635 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A6195 South	7.68	10.00	45.0	27.3	76.0	59.8	
2 - A635 Doncaster Road West	6.02	9.20	25.0	27.6	78.4	54.4	
3 - A6195 Rotherham Road North	7.30	10.00	25.0	33.2	79.4	44.3	
4 - A635 East	7.30	10.00	10.0	35.6	74.2	52.8	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A6195 South	0.608	2666
2 - A635 Doncaster Road West	0.554	2330
3 - A6195 Rotherham Road North	0.620	2735
4 - A635 East	0.597	2498

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023 SURVEYED	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1133	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	710	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	995	100.000
4 - A635 East		ONE HOUR	✓	1030	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	67	576	490
	2 - A635 Doncaster Road West	176	0	72	462
	3 - A6195 Rotherham Road North	584	276	0	135
	4 - A635 East	498	392	140	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	10	6	17
	2 - A635 Doncaster Road West	9	0	13	8
	3 - A6195 Rotherham Road North	13	13	0	17
	4 - A635 East	17	10	26	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.59	4.54	1.6	A	1040	1559
2 - A635 Doncaster Road West	0.49	4.81	1.0	A	652	977
3 - A6195 Rotherham Road North	0.56	4.70	1.4	A	913	1370
4 - A635 East	0.62	6.08	1.9	A	945	1418

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	853	213	606	2298	0.371	850	944	0.0	0.7	2.750	A
2 - A635 Doncaster Road West	535	134	905	1829	0.292	533	551	0.0	0.4	3.016	A
3 - A6195 Rotherham Road North	749	187	846	2211	0.339	747	591	0.0	0.6	2.786	A
4 - A635 East	775	194	778	2034	0.381	773	816	0.0	0.7	3.286	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1019	255	725	2225	0.458	1017	1129	0.7	0.9	3.297	A
2 - A635 Doncaster Road West	638	160	1083	1731	0.369	638	660	0.4	0.6	3.580	A
3 - A6195 Rotherham Road North	894	224	1013	2108	0.424	893	708	0.6	0.8	3.362	A
4 - A635 East	926	231	930	1942	0.477	925	976	0.7	1.0	4.075	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1247	312	887	2127	0.586	1245	1382	0.9	1.6	4.507	A
2 - A635 Doncaster Road West	782	195	1325	1597	0.490	780	807	0.6	1.0	4.784	A
3 - A6195 Rotherham Road North	1096	274	1239	1967	0.557	1093	866	0.8	1.4	4.664	A
4 - A635 East	1134	284	1138	1818	0.624	1131	1194	1.0	1.9	6.011	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1247	312	890	2126	0.587	1247	1385	1.6	1.6	4.539	A
2 - A635 Doncaster Road West	782	195	1328	1595	0.490	782	809	1.0	1.0	4.812	A
3 - A6195 Rotherham Road North	1096	274	1242	1966	0.557	1095	868	1.4	1.4	4.696	A
4 - A635 East	1134	284	1141	1817	0.624	1134	1197	1.9	1.9	6.078	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1019	255	729	2223	0.458	1021	1134	1.6	0.9	3.324	A
2 - A635 Doncaster Road West	638	160	1087	1728	0.369	640	663	1.0	0.6	3.600	A
3 - A6195 Rotherham Road North	894	224	1017	2105	0.425	897	710	1.4	0.8	3.389	A
4 - A635 East	926	231	934	1940	0.477	929	980	1.9	1.1	4.121	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	853	213	609	2296	0.372	854	949	0.9	0.7	2.768	A
2 - A635 Doncaster Road West	535	134	909	1827	0.293	535	554	0.6	0.5	3.034	A
3 - A6195 Rotherham Road North	749	187	850	2208	0.339	750	594	0.8	0.6	2.804	A
4 - A635 East	775	194	781	2031	0.382	777	819	1.1	0.7	3.312	A

2023 SURVEYED, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.66	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	21	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023 SURVEYED	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1250	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	617	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	958	100.000
4 - A635 East		ONE HOUR	✓	1228	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	113	620	517
	2 - A635 Doncaster Road West	133	0	103	381
	3 - A6195 Rotherham Road North	567	274	0	117
	4 - A635 East	607	434	187	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	0	5	7
	2 - A635 Doncaster Road West	3	0	13	1
	3 - A6195 Rotherham Road North	7	9	0	12
	4 - A635 East	12	5	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.67	5.48	2.1	A	1147	1721
2 - A635 Doncaster Road West	0.45	4.40	0.8	A	566	849
3 - A6195 Rotherham Road North	0.52	3.98	1.2	A	879	1319
4 - A635 East	0.73	7.79	2.9	A	1127	1690

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	941	235	671	2258	0.417	938	981	0.0	0.7	2.867	A
2 - A635 Doncaster Road West	465	116	994	1780	0.261	463	616	0.0	0.4	2.820	A
3 - A6195 Rotherham Road North	721	180	774	2256	0.320	719	683	0.0	0.5	2.530	A
4 - A635 East	925	231	731	2061	0.449	921	762	0.0	0.9	3.450	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1124	281	803	2178	0.516	1122	1173	0.7	1.1	3.587	A
2 - A635 Doncaster Road West	555	139	1189	1672	0.332	554	737	0.4	0.5	3.323	A
3 - A6195 Rotherham Road North	861	215	926	2162	0.398	860	817	0.5	0.7	2.991	A
4 - A635 East	1104	276	875	1975	0.559	1102	911	0.9	1.4	4.506	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1376	344	982	2070	0.665	1373	1435	1.1	2.1	5.411	A
2 - A635 Doncaster Road West	679	170	1453	1525	0.445	678	901	0.5	0.8	4.381	A
3 - A6195 Rotherham Road North	1055	264	1133	2033	0.519	1053	999	0.7	1.2	3.964	A
4 - A635 East	1352	338	1071	1859	0.727	1346	1115	1.4	2.8	7.612	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1376	344	985	2068	0.666	1376	1439	2.1	2.1	5.483	A
2 - A635 Doncaster Road West	679	170	1458	1523	0.446	679	904	0.8	0.8	4.405	A
3 - A6195 Rotherham Road North	1055	264	1135	2032	0.519	1055	1002	1.2	1.2	3.984	A
4 - A635 East	1352	338	1072	1858	0.728	1352	1117	2.8	2.9	7.792	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1124	281	808	2175	0.517	1127	1179	2.1	1.1	3.631	A
2 - A635 Doncaster Road West	555	139	1195	1669	0.332	556	741	0.8	0.5	3.343	A
3 - A6195 Rotherham Road North	861	215	929	2159	0.399	863	821	1.2	0.7	3.009	A
4 - A635 East	1104	276	877	1974	0.559	1110	915	2.9	1.4	4.597	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	941	235	675	2256	0.417	943	986	1.1	0.8	2.889	A
2 - A635 Doncaster Road West	465	116	998	1777	0.261	465	619	0.5	0.4	2.833	A
3 - A6195 Rotherham Road North	721	180	777	2254	0.320	722	686	0.7	0.5	2.543	A
4 - A635 East	925	231	734	2059	0.449	927	765	1.4	0.9	3.489	A

2029 BASE, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.71	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	26	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2029 BASE	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1193	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	747	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1047	100.000
4 - A635 East		ONE HOUR	✓	1084	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	71	606	516
	2 - A635 Doncaster Road West	185	0	76	486
	3 - A6195 Rotherham Road North	615	290	0	142
	4 - A635 East	524	413	147	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	10	6	17
	2 - A635 Doncaster Road West	9	0	13	8
	3 - A6195 Rotherham Road North	13	13	0	17
	4 - A635 East	17	10	26	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.63	5.08	1.8	A	1095	1642
2 - A635 Doncaster Road West	0.53	5.33	1.2	A	685	1028
3 - A6195 Rotherham Road North	0.60	5.29	1.7	A	961	1441
4 - A635 East	0.67	7.06	2.3	A	995	1492

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	898	225	638	2279	0.394	895	993	0.0	0.7	2.875	A
2 - A635 Doncaster Road West	562	141	952	1803	0.312	560	581	0.0	0.5	3.141	A
3 - A6195 Rotherham Road North	788	197	891	2183	0.361	786	622	0.0	0.6	2.919	A
4 - A635 East	816	204	818	2009	0.406	813	858	0.0	0.8	3.461	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1072	268	763	2203	0.487	1071	1189	0.7	1.0	3.521	A
2 - A635 Doncaster Road West	672	168	1139	1699	0.395	671	695	0.5	0.7	3.801	A
3 - A6195 Rotherham Road North	941	235	1066	2075	0.454	940	744	0.6	0.9	3.598	A
4 - A635 East	974	244	979	1913	0.509	973	1027	0.8	1.2	4.407	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1314	328	933	2099	0.626	1310	1453	1.0	1.8	5.032	A
2 - A635 Doncaster Road West	822	206	1394	1559	0.528	820	850	0.7	1.2	5.290	A
3 - A6195 Rotherham Road North	1153	288	1304	1927	0.598	1150	910	0.9	1.7	5.236	A
4 - A635 East	1194	298	1197	1783	0.669	1189	1257	1.2	2.3	6.939	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1314	328	936	2098	0.626	1313	1458	1.8	1.8	5.084	A
2 - A635 Doncaster Road West	822	206	1397	1557	0.528	822	852	1.2	1.2	5.331	A
3 - A6195 Rotherham Road North	1153	288	1307	1925	0.599	1153	913	1.7	1.7	5.288	A
4 - A635 East	1194	298	1200	1781	0.670	1193	1260	2.3	2.3	7.059	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1072	268	767	2200	0.487	1076	1195	1.8	1.1	3.554	A
2 - A635 Doncaster Road West	672	168	1144	1697	0.396	674	698	1.2	0.7	3.835	A
3 - A6195 Rotherham Road North	941	235	1070	2072	0.454	944	748	1.7	1.0	3.631	A
4 - A635 East	974	244	983	1911	0.510	979	1031	2.3	1.2	4.474	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	898	225	641	2277	0.395	899	999	1.1	0.7	2.897	A
2 - A635 Doncaster Road West	562	141	957	1800	0.312	563	584	0.7	0.5	3.165	A
3 - A6195 Rotherham Road North	788	197	895	2181	0.361	789	625	1.0	0.6	2.941	A
4 - A635 East	816	204	822	2007	0.407	818	863	1.2	0.8	3.497	A

2029 BASE, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.77	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2029 BASE	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1317	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	650	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1010	100.000
4 - A635 East		ONE HOUR	✓	1294	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	119	653	545
	2 - A635 Doncaster Road West	140	0	109	401
	3 - A6195 Rotherham Road North	598	289	0	123
	4 - A635 East	640	457	197	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	0	5	7
	2 - A635 Doncaster Road West	3	0	13	1
	3 - A6195 Rotherham Road North	7	9	0	12
	4 - A635 East	12	5	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.71	6.47	2.6	A	1209	1813
2 - A635 Doncaster Road West	0.48	4.86	1.0	A	596	895
3 - A6195 Rotherham Road North	0.56	4.41	1.4	A	927	1390
4 - A635 East	0.78	9.88	3.8	A	1187	1781

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	992	248	707	2236	0.443	988	1034	0.0	0.8	3.031	A
2 - A635 Doncaster Road West	489	122	1047	1751	0.280	488	649	0.0	0.4	2.939	A
3 - A6195 Rotherham Road North	760	190	815	2230	0.341	758	719	0.0	0.6	2.642	A
4 - A635 East	974	244	771	2037	0.478	970	802	0.0	1.0	3.682	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1184	296	846	2152	0.550	1182	1237	0.8	1.3	3.903	A
2 - A635 Doncaster Road West	584	146	1252	1637	0.357	584	776	0.4	0.6	3.528	A
3 - A6195 Rotherham Road North	908	227	975	2131	0.426	907	861	0.6	0.8	3.177	A
4 - A635 East	1163	291	922	1947	0.597	1161	960	1.0	1.6	5.002	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1450	363	1033	2038	0.711	1445	1511	1.3	2.5	6.337	A
2 - A635 Doncaster Road West	716	179	1530	1483	0.483	714	948	0.6	1.0	4.825	A
3 - A6195 Rotherham Road North	1112	278	1192	1996	0.557	1110	1052	0.8	1.3	4.381	A
4 - A635 East	1425	356	1128	1824	0.781	1416	1174	1.6	3.7	9.479	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1450	363	1038	2035	0.712	1450	1517	2.5	2.6	6.471	A
2 - A635 Doncaster Road West	716	179	1536	1480	0.484	716	952	1.0	1.0	4.864	A
3 - A6195 Rotherham Road North	1112	278	1196	1994	0.558	1112	1056	1.3	1.4	4.412	A
4 - A635 East	1425	356	1131	1823	0.782	1424	1177	3.7	3.8	9.878	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1184	296	853	2148	0.551	1189	1245	2.6	1.3	3.976	A
2 - A635 Doncaster Road West	584	146	1260	1633	0.358	586	782	1.0	0.6	3.558	A
3 - A6195 Rotherham Road North	908	227	980	2128	0.427	910	866	1.4	0.8	3.201	A
4 - A635 East	1163	291	925	1945	0.598	1172	964	3.8	1.7	5.156	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	992	248	712	2234	0.444	993	1039	1.3	0.8	3.063	A
2 - A635 Doncaster Road West	489	122	1052	1748	0.280	490	653	0.6	0.4	2.957	A
3 - A6195 Rotherham Road North	760	190	819	2228	0.341	761	723	0.8	0.6	2.656	A
4 - A635 East	974	244	774	2035	0.479	977	806	1.7	1.0	3.733	A

2029 DESIGN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	5.84	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1198	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	751	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1071	100.000
4 - A635 East		ONE HOUR	✓	1085	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	71	611	516
	2 - A635 Doncaster Road West	185	0	80	486
	3 - A6195 Rotherham Road North	626	302	0	143
	4 - A635 East	524	413	148	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	10	6	17
	2 - A635 Doncaster Road West	9	0	13	8
	3 - A6195 Rotherham Road North	13	13	0	17
	4 - A635 East	17	10	26	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.63	5.18	1.9	A	1099	1649
2 - A635 Doncaster Road West	0.53	5.39	1.2	A	689	1034
3 - A6195 Rotherham Road North	0.61	5.47	1.8	A	983	1474
4 - A635 East	0.68	7.26	2.4	A	996	1493

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	902	225	647	2273	0.397	899	1001	0.0	0.7	2.895	A
2 - A635 Doncaster Road West	565	141	957	1800	0.314	563	590	0.0	0.5	3.159	A
3 - A6195 Rotherham Road North	806	202	891	2183	0.369	804	630	0.0	0.7	2.957	A
4 - A635 East	817	204	835	1999	0.409	814	859	0.0	0.8	3.494	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1077	269	775	2196	0.491	1076	1198	0.7	1.1	3.554	A
2 - A635 Doncaster Road West	675	169	1145	1696	0.398	674	706	0.5	0.7	3.826	A
3 - A6195 Rotherham Road North	963	241	1066	2075	0.464	962	753	0.7	1.0	3.668	A
4 - A635 East	975	244	999	1901	0.513	974	1028	0.8	1.2	4.468	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1319	330	947	2091	0.631	1316	1465	1.1	1.9	5.121	A
2 - A635 Doncaster Road West	827	207	1400	1555	0.532	825	863	0.7	1.2	5.347	A
3 - A6195 Rotherham Road North	1179	295	1304	1927	0.612	1176	921	1.0	1.8	5.416	A
4 - A635 East	1195	299	1222	1768	0.676	1190	1258	1.2	2.3	7.126	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1319	330	950	2089	0.631	1319	1470	1.9	1.9	5.176	A
2 - A635 Doncaster Road West	827	207	1404	1553	0.532	827	865	1.2	1.2	5.391	A
3 - A6195 Rotherham Road North	1179	295	1307	1925	0.612	1179	924	1.8	1.8	5.475	A
4 - A635 East	1195	299	1225	1766	0.676	1194	1261	2.3	2.4	7.257	A

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1077	269	779	2193	0.491	1080	1205	1.9	1.1	3.594	A
2 - A635 Doncaster Road West	675	169	1150	1694	0.399	677	709	1.2	0.7	3.861	A
3 - A6195 Rotherham Road North	963	241	1070	2072	0.465	966	757	1.8	1.0	3.706	A
4 - A635 East	975	244	1004	1898	0.514	980	1032	2.4	1.2	4.544	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	902	225	651	2271	0.397	903	1007	1.1	0.7	2.917	A
2 - A635 Doncaster Road West	565	141	961	1798	0.314	566	593	0.7	0.5	3.180	A
3 - A6195 Rotherham Road North	806	202	895	2181	0.370	808	633	1.0	0.7	2.980	A
4 - A635 East	817	204	839	1997	0.409	819	863	1.2	0.8	3.531	A

2029 DESIGN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	6.91	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1329	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	661	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1021	100.000
4 - A635 East		ONE HOUR	✓	1295	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	119	665	545
	2 - A635 Doncaster Road West	140	0	120	401
	3 - A6195 Rotherham Road North	603	294	0	124
	4 - A635 East	640	457	198	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	0	5	7
	2 - A635 Doncaster Road West	3	0	13	1
	3 - A6195 Rotherham Road North	7	9	0	12
	4 - A635 East	12	5	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.72	6.67	2.7	A	1220	1829
2 - A635 Doncaster Road West	0.49	5.00	1.0	A	607	910
3 - A6195 Rotherham Road North	0.56	4.47	1.4	A	937	1405
4 - A635 East	0.79	10.07	3.9	B	1188	1782

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1001	250	712	2234	0.448	997	1038	0.0	0.8	3.059	A
2 - A635 Doncaster Road West	498	124	1056	1745	0.285	496	653	0.0	0.4	2.976	A
3 - A6195 Rotherham Road North	769	192	815	2230	0.345	766	737	0.0	0.6	2.657	A
4 - A635 East	975	244	778	2033	0.480	971	803	0.0	1.0	3.700	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1195	299	852	2149	0.556	1193	1241	0.8	1.3	3.960	A
2 - A635 Doncaster Road West	594	149	1264	1630	0.364	594	781	0.4	0.6	3.589	A
3 - A6195 Rotherham Road North	918	229	975	2131	0.431	917	882	0.6	0.8	3.203	A
4 - A635 East	1164	291	931	1942	0.600	1162	961	1.0	1.6	5.040	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1463	366	1040	2034	0.719	1458	1517	1.3	2.6	6.519	A
2 - A635 Doncaster Road West	728	182	1544	1475	0.493	726	954	0.6	1.0	4.958	A
3 - A6195 Rotherham Road North	1124	281	1192	1997	0.563	1122	1078	0.8	1.4	4.440	A
4 - A635 East	1426	356	1139	1817	0.785	1417	1175	1.6	3.8	9.655	A

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1463	366	1045	2031	0.720	1463	1522	2.6	2.7	6.667	A
2 - A635 Doncaster Road West	728	182	1550	1472	0.494	728	958	1.0	1.0	5.002	A
3 - A6195 Rotherham Road North	1124	281	1196	1994	0.564	1124	1082	1.4	1.4	4.473	A
4 - A635 East	1426	356	1142	1816	0.785	1425	1178	3.8	3.9	10.068	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1195	299	858	2145	0.557	1200	1249	2.7	1.3	4.038	A
2 - A635 Doncaster Road West	594	149	1272	1626	0.365	596	786	1.0	0.6	3.621	A
3 - A6195 Rotherham Road North	918	229	980	2128	0.431	920	888	1.4	0.8	3.228	A
4 - A635 East	1164	291	935	1940	0.600	1173	965	3.9	1.7	5.205	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1001	250	716	2231	0.448	1002	1043	1.3	0.9	3.092	A
2 - A635 Doncaster Road West	498	124	1062	1742	0.286	498	656	0.6	0.4	2.996	A
3 - A6195 Rotherham Road North	769	192	819	2228	0.345	770	742	0.8	0.6	2.673	A
4 - A635 East	975	244	782	2031	0.480	978	807	1.7	1.0	3.752	A

2034 BASE, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.40	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	8	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 BASE	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1405	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1029	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1153	100.000
4 - A635 East		ONE HOUR	✓	1340	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	74	633	698
	2 - A635 Doncaster Road West	193	0	79	757
	3 - A6195 Rotherham Road North	641	303	0	209
	4 - A635 East	614	539	185	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	10	6	17
	2 - A635 Doncaster Road West	9	0	13	8
	3 - A6195 Rotherham Road North	13	13	0	17
	4 - A635 East	17	9	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.78	9.26	3.9	A	1289	1934
2 - A635 Doncaster Road West	0.81	14.22	4.3	B	944	1416
3 - A6195 Rotherham Road North	0.79	11.93	4.1	B	1058	1587
4 - A635 East	0.84	14.70	5.8	B	1230	1844

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1058	264	771	2198	0.481	1054	1085	0.0	1.0	3.493	A
2 - A635 Doncaster Road West	775	194	1138	1700	0.456	771	687	0.0	0.9	4.192	A
3 - A6195 Rotherham Road North	868	217	1237	1969	0.441	864	673	0.0	0.9	3.694	A
4 - A635 East	1009	252	852	1989	0.507	1004	1249	0.0	1.2	4.154	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1263	316	923	2106	0.600	1261	1298	1.0	1.6	4.732	A
2 - A635 Doncaster Road West	925	231	1362	1576	0.587	923	821	0.9	1.5	5.956	A
3 - A6195 Rotherham Road North	1037	259	1480	1818	0.570	1034	805	0.9	1.5	5.204	A
4 - A635 East	1205	301	1020	1889	0.638	1201	1494	1.2	2.0	5.946	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1547	387	1123	1984	0.780	1538	1580	1.6	3.8	8.836	A
2 - A635 Doncaster Road West	1133	283	1661	1410	0.803	1123	1000	1.5	4.1	13.124	B
3 - A6195 Rotherham Road North	1269	317	1803	1618	0.785	1260	981	1.5	3.9	11.132	B
4 - A635 East	1475	369	1242	1756	0.840	1461	1821	2.0	5.5	13.336	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1547	387	1132	1978	0.782	1546	1593	3.8	3.9	9.264	A
2 - A635 Doncaster Road West	1133	283	1671	1405	0.806	1132	1008	4.1	4.3	14.216	B
3 - A6195 Rotherham Road North	1269	317	1816	1610	0.788	1269	987	3.9	4.1	11.932	B
4 - A635 East	1475	369	1251	1751	0.843	1474	1833	5.5	5.8	14.697	B

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1263	316	936	2098	0.602	1272	1316	3.9	1.7	4.906	A
2 - A635 Doncaster Road West	925	231	1375	1569	0.590	936	833	4.3	1.6	6.280	A
3 - A6195 Rotherham Road North	1037	259	1498	1807	0.574	1047	813	4.1	1.6	5.454	A
4 - A635 East	1205	301	1033	1881	0.640	1220	1512	5.8	2.1	6.345	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1058	264	777	2194	0.482	1060	1094	1.7	1.0	3.548	A
2 - A635 Doncaster Road West	775	194	1146	1696	0.457	777	692	1.6	0.9	4.268	A
3 - A6195 Rotherham Road North	868	217	1246	1963	0.442	871	677	1.6	0.9	3.757	A
4 - A635 East	1009	252	859	1985	0.508	1012	1258	2.1	1.2	4.239	A

2034 BASE, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	62.55	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-10	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 BASE	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1437	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	759	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1095	100.000
4 - A635 East		ONE HOUR	✓	1789	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	124	682	631
	2 - A635 Doncaster Road West	146	0	113	500
	3 - A6195 Rotherham Road North	624	302	0	169
	4 - A635 East	823	690	275	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	0	5	7
	2 - A635 Doncaster Road West	3	0	13	1
	3 - A6195 Rotherham Road North	7	9	0	12
	4 - A635 East	12	5	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.84	12.72	5.4	B	1319	1978
2 - A635 Doncaster Road West	0.61	6.84	1.6	A	696	1045
3 - A6195 Rotherham Road North	0.65	5.92	2.0	A	1005	1507
4 - A635 East	1.10	160.87	99.6	F	1642	2462

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1082	270	949	2089	0.518	1077	1193	0.0	1.1	3.732	A
2 - A635 Doncaster Road West	571	143	1191	1671	0.342	569	836	0.0	0.5	3.361	A
3 - A6195 Rotherham Road North	824	206	958	2141	0.385	822	802	0.0	0.7	2.947	A
4 - A635 East	1347	337	804	2017	0.668	1338	976	0.0	2.2	5.726	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1292	323	1133	1978	0.653	1289	1426	1.1	2.0	5.479	A
2 - A635 Doncaster Road West	682	171	1424	1542	0.442	681	998	0.5	0.8	4.303	A
3 - A6195 Rotherham Road North	984	246	1146	2025	0.486	983	958	0.7	1.0	3.737	A
4 - A635 East	1608	402	962	1923	0.836	1596	1167	2.2	5.2	11.623	B

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1582	396	1288	1883	0.840	1569	1660	2.0	5.1	11.641	B
2 - A635 Doncaster Road West	836	209	1707	1385	0.603	833	1150	0.8	1.5	6.682	A
3 - A6195 Rotherham Road North	1206	301	1399	1868	0.645	1202	1141	1.0	1.9	5.816	A
4 - A635 East	1970	492	1177	1795	1.097	1772	1424	5.2	54.6	70.346	F

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1582	396	1299	1877	0.843	1581	1671	5.1	5.4	12.716	B
2 - A635 Doncaster Road West	836	209	1721	1377	0.607	836	1159	1.5	1.6	6.841	A
3 - A6195 Rotherham Road North	1206	301	1406	1864	0.647	1206	1150	1.9	2.0	5.920	A
4 - A635 East	1970	492	1180	1793	1.098	1790	1432	54.6	99.6	160.867	F

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1292	323	1298	1877	0.688	1304	1569	5.4	2.4	6.751	A
2 - A635 Doncaster Road West	682	171	1484	1508	0.452	685	1118	1.6	0.9	4.520	A
3 - A6195 Rotherham Road North	984	246	1157	2018	0.488	988	1013	2.0	1.0	3.799	A
4 - A635 East	1608	402	967	1920	0.838	1899	1177	99.6	26.8	123.093	F

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1082	270	1008	2054	0.527	1087	1246	2.4	1.2	3.944	A
2 - A635 Doncaster Road West	571	143	1216	1657	0.345	573	879	0.9	0.5	3.425	A
3 - A6195 Rotherham Road North	824	206	965	2137	0.386	826	823	1.0	0.7	2.975	A
4 - A635 East	1347	337	809	2015	0.668	1445	983	26.8	2.3	8.179	A

2034 DESIGN, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	13.01	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2034 DESIGN	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1409	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1033	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1178	100.000
4 - A635 East		ONE HOUR	✓	1340	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	74	637	698
	2 - A635 Doncaster Road West	193	0	83	757
	3 - A6195 Rotherham Road North	653	315	0	210
	4 - A635 East	614	539	185	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	10	6	17
	2 - A635 Doncaster Road West	9	0	13	8
	3 - A6195 Rotherham Road North	13	13	0	17
	4 - A635 East	17	9	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.79	9.53	4.0	A	1293	1939
2 - A635 Doncaster Road West	0.81	14.57	4.4	B	948	1422
3 - A6195 Rotherham Road North	0.81	12.95	4.5	B	1081	1621
4 - A635 East	0.85	15.53	6.1	C	1230	1844

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1061	265	780	2192	0.484	1057	1094	0.0	1.0	3.518	A
2 - A635 Doncaster Road West	778	194	1141	1698	0.458	774	696	0.0	0.9	4.213	A
3 - A6195 Rotherham Road North	887	222	1237	1969	0.450	883	679	0.0	0.9	3.758	A
4 - A635 East	1009	252	870	1978	0.510	1004	1250	0.0	1.2	4.198	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1267	317	933	2099	0.603	1264	1309	1.0	1.7	4.789	A
2 - A635 Doncaster Road West	929	232	1365	1574	0.590	926	832	0.9	1.5	6.008	A
3 - A6195 Rotherham Road North	1059	265	1480	1818	0.582	1056	812	0.9	1.6	5.353	A
4 - A635 East	1205	301	1041	1876	0.642	1201	1495	1.2	2.0	6.057	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1551	388	1135	1976	0.785	1542	1593	1.7	3.9	9.060	A
2 - A635 Doncaster Road West	1137	284	1665	1408	0.808	1127	1012	1.5	4.2	13.395	B
3 - A6195 Rotherham Road North	1297	324	1802	1618	0.801	1286	989	1.6	4.3	11.940	B
4 - A635 East	1475	369	1267	1741	0.847	1460	1821	2.0	5.8	13.949	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1551	388	1145	1970	0.787	1551	1606	3.9	4.0	9.530	A
2 - A635 Doncaster Road West	1137	284	1675	1403	0.811	1136	1021	4.2	4.4	14.568	B
3 - A6195 Rotherham Road North	1297	324	1816	1610	0.805	1296	996	4.3	4.5	12.951	B
4 - A635 East	1475	369	1277	1735	0.850	1474	1834	5.8	6.1	15.533	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1267	317	948	2090	0.606	1276	1328	4.0	1.7	4.976	A
2 - A635 Doncaster Road West	929	232	1379	1567	0.593	940	844	4.4	1.6	6.348	A
3 - A6195 Rotherham Road North	1059	265	1498	1807	0.586	1071	821	4.5	1.6	5.642	A
4 - A635 East	1205	301	1055	1868	0.645	1221	1514	6.1	2.1	6.499	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1061	265	786	2188	0.485	1063	1103	1.7	1.1	3.572	A
2 - A635 Doncaster Road West	778	194	1149	1694	0.459	780	701	1.6	0.9	4.290	A
3 - A6195 Rotherham Road North	887	222	1246	1963	0.452	890	683	1.6	0.9	3.821	A
4 - A635 East	1009	252	877	1974	0.511	1012	1259	2.1	1.2	4.289	A

2034 DESIGN, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	64.42	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-10	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2034 DESIGN	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1449	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	771	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1105	100.000
4 - A635 East		ONE HOUR	✓	1790	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	124	694	631
	2 - A635 Doncaster Road West	146	0	125	500
	3 - A6195 Rotherham Road North	629	307	0	169
	4 - A635 East	823	690	276	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	0	5	7
	2 - A635 Doncaster Road West	3	0	13	1
	3 - A6195 Rotherham Road North	7	9	0	12
	4 - A635 East	12	5	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.85	13.36	5.7	B	1330	1994
2 - A635 Doncaster Road West	0.62	7.12	1.7	A	707	1061
3 - A6195 Rotherham Road North	0.65	6.02	2.0	A	1014	1521
4 - A635 East	1.10	166.50	103.2	F	1643	2464

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1091	273	954	2087	0.523	1086	1197	0.0	1.1	3.776	A
2 - A635 Doncaster Road West	580	145	1201	1665	0.349	578	839	0.0	0.5	3.408	A
3 - A6195 Rotherham Road North	832	208	958	2141	0.388	829	820	0.0	0.7	2.964	A
4 - A635 East	1348	337	812	2013	0.669	1339	976	0.0	2.2	5.768	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1303	326	1138	1975	0.660	1299	1430	1.1	2.0	5.588	A
2 - A635 Doncaster Road West	693	173	1435	1536	0.451	692	1002	0.5	0.8	4.395	A
3 - A6195 Rotherham Road North	993	248	1146	2025	0.491	992	981	0.7	1.0	3.769	A
4 - A635 East	1609	402	971	1918	0.839	1597	1167	2.2	5.3	11.821	B

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1595	399	1291	1882	0.848	1582	1663	2.0	5.4	12.142	B
2 - A635 Doncaster Road West	849	212	1720	1378	0.616	846	1153	0.8	1.6	6.937	A
3 - A6195 Rotherham Road North	1217	304	1398	1869	0.651	1213	1167	1.0	2.0	5.910	A
4 - A635 East	1971	493	1187	1789	1.102	1767	1424	5.3	56.4	72.317	F

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1595	399	1302	1875	0.851	1594	1673	5.4	5.7	13.357	B
2 - A635 Doncaster Road West	849	212	1734	1370	0.619	849	1162	1.6	1.7	7.115	A
3 - A6195 Rotherham Road North	1217	304	1406	1864	0.653	1217	1176	2.0	2.0	6.020	A
4 - A635 East	1971	493	1191	1787	1.103	1784	1432	56.4	103.2	166.501	F

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1303	326	1301	1876	0.694	1316	1571	5.7	2.5	6.924	A
2 - A635 Doncaster Road West	693	173	1496	1502	0.462	696	1120	1.7	0.9	4.628	A
3 - A6195 Rotherham Road North	993	248	1157	2018	0.492	997	1035	2.0	1.1	3.831	A
4 - A635 East	1609	402	977	1915	0.840	1895	1178	103.2	31.8	131.119	F

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1091	273	1023	2044	0.534	1096	1258	2.5	1.2	4.022	A
2 - A635 Doncaster Road West	580	145	1229	1650	0.352	582	890	0.9	0.6	3.483	A
3 - A6195 Rotherham Road North	832	208	965	2137	0.389	833	845	1.1	0.7	2.993	A
4 - A635 East	1348	337	816	2010	0.670	1466	983	31.8	2.3	8.950	A

2034 DESIGN VISION LED, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.97	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	7	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2034 DESIGN VISION LED	AM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1409	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	1033	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1176	100.000
4 - A635 East		ONE HOUR	✓	1340	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	74	637	698
	2 - A635 Doncaster Road West	193	0	83	757
	3 - A6195 Rotherham Road North	652	314	0	210
	4 - A635 East	614	539	185	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	10	6	17
	2 - A635 Doncaster Road West	9	0	13	8
	3 - A6195 Rotherham Road North	13	13	0	17
	4 - A635 East	17	9	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.79	9.52	4.0	A	1293	1939
2 - A635 Doncaster Road West	0.81	14.57	4.4	B	948	1422
3 - A6195 Rotherham Road North	0.80	12.86	4.5	B	1079	1619
4 - A635 East	0.85	15.46	6.1	C	1230	1844

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1061	265	779	2193	0.484	1057	1094	0.0	1.0	3.517	A
2 - A635 Doncaster Road West	778	194	1141	1698	0.458	774	695	0.0	0.9	4.213	A
3 - A6195 Rotherham Road North	885	221	1237	1969	0.450	882	679	0.0	0.9	3.752	A
4 - A635 East	1009	252	869	1979	0.510	1004	1250	0.0	1.2	4.194	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1267	317	932	2100	0.603	1264	1308	1.0	1.7	4.786	A
2 - A635 Doncaster Road West	929	232	1365	1574	0.590	926	831	0.9	1.5	6.008	A
3 - A6195 Rotherham Road North	1057	264	1480	1818	0.581	1055	812	0.9	1.6	5.341	A
4 - A635 East	1205	301	1039	1877	0.642	1201	1495	1.2	2.0	6.048	A

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1551	388	1134	1977	0.785	1543	1592	1.7	3.9	9.048	A
2 - A635 Doncaster Road West	1137	284	1665	1408	0.808	1127	1011	1.5	4.2	13.396	B
3 - A6195 Rotherham Road North	1295	324	1802	1618	0.800	1284	990	1.6	4.3	11.872	B
4 - A635 East	1475	369	1265	1742	0.847	1460	1821	2.0	5.7	13.895	B

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1551	388	1144	1971	0.787	1551	1605	3.9	4.0	9.517	A
2 - A635 Doncaster Road West	1137	284	1675	1403	0.811	1136	1020	4.2	4.4	14.569	B
3 - A6195 Rotherham Road North	1295	324	1816	1610	0.804	1294	996	4.3	4.5	12.863	B
4 - A635 East	1475	369	1275	1736	0.850	1474	1834	5.7	6.1	15.460	C

01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1267	317	947	2091	0.606	1276	1327	4.0	1.7	4.972	A
2 - A635 Doncaster Road West	929	232	1379	1567	0.593	940	843	4.4	1.6	6.346	A
3 - A6195 Rotherham Road North	1057	264	1498	1807	0.585	1069	821	4.5	1.6	5.627	A
4 - A635 East	1205	301	1053	1869	0.645	1221	1513	6.1	2.1	6.488	A

01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1061	265	786	2189	0.485	1063	1102	1.7	1.1	3.574	A
2 - A635 Doncaster Road West	778	194	1149	1694	0.459	780	700	1.6	0.9	4.290	A
3 - A6195 Rotherham Road North	885	221	1246	1963	0.451	888	683	1.6	0.9	3.818	A
4 - A635 East	1009	252	875	1975	0.511	1012	1259	2.1	1.2	4.283	A

2034 DESIGN VISION LED, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A6195 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	64.43	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-10	4 - A635 East

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2034 DESIGN VISION LED	PM	ONE HOUR	00:00	01:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A6195 South		ONE HOUR	✓	1448	100.000
2 - A635 Doncaster Road West		ONE HOUR	✓	770	100.000
3 - A6195 Rotherham Road North		ONE HOUR	✓	1105	100.000
4 - A635 East		ONE HOUR	✓	1790	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	124	693	631
	2 - A635 Doncaster Road West	146	0	124	500
	3 - A6195 Rotherham Road North	629	307	0	169
	4 - A635 East	823	690	276	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A6195 South	2 - A635 Doncaster Road West	3 - A6195 Rotherham Road North	4 - A635 East
From	1 - A6195 South	0	0	5	7
	2 - A635 Doncaster Road West	3	0	13	1
	3 - A6195 Rotherham Road North	7	9	0	12
	4 - A635 East	12	5	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A6195 South	0.85	13.31	5.7	B	1329	1993
2 - A635 Doncaster Road West	0.62	7.09	1.7	A	707	1060
3 - A6195 Rotherham Road North	0.65	6.02	2.0	A	1014	1521
4 - A635 East	1.10	166.50	103.2	F	1643	2464

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1090	273	954	2087	0.522	1086	1197	0.0	1.1	3.773	A
2 - A635 Doncaster Road West	580	145	1200	1666	0.348	578	839	0.0	0.5	3.404	A
3 - A6195 Rotherham Road North	832	208	958	2141	0.388	829	819	0.0	0.7	2.964	A
4 - A635 East	1348	337	812	2013	0.669	1339	976	0.0	2.2	5.768	A

00:15 - 00:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1302	325	1138	1975	0.659	1298	1430	1.1	2.0	5.581	A
2 - A635 Doncaster Road West	692	173	1434	1536	0.451	691	1002	0.5	0.8	4.387	A
3 - A6195 Rotherham Road North	993	248	1146	2025	0.491	992	979	0.7	1.0	3.769	A
4 - A635 East	1609	402	971	1918	0.839	1597	1167	2.2	5.3	11.821	B

00:30 - 00:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1594	399	1291	1882	0.847	1581	1663	2.0	5.4	12.103	B
2 - A635 Doncaster Road West	848	212	1719	1379	0.615	845	1153	0.8	1.6	6.915	A
3 - A6195 Rotherham Road North	1217	304	1399	1869	0.651	1213	1165	1.0	2.0	5.910	A
4 - A635 East	1971	493	1187	1789	1.102	1767	1424	5.3	56.4	72.318	F

00:45 - 01:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1594	399	1302	1875	0.850	1593	1673	5.4	5.7	13.307	B
2 - A635 Doncaster Road West	848	212	1733	1371	0.618	848	1162	1.6	1.7	7.091	A
3 - A6195 Rotherham Road North	1217	304	1406	1864	0.653	1217	1174	2.0	2.0	6.020	A
4 - A635 East	1971	493	1191	1787	1.103	1784	1432	56.4	103.2	166.502	F

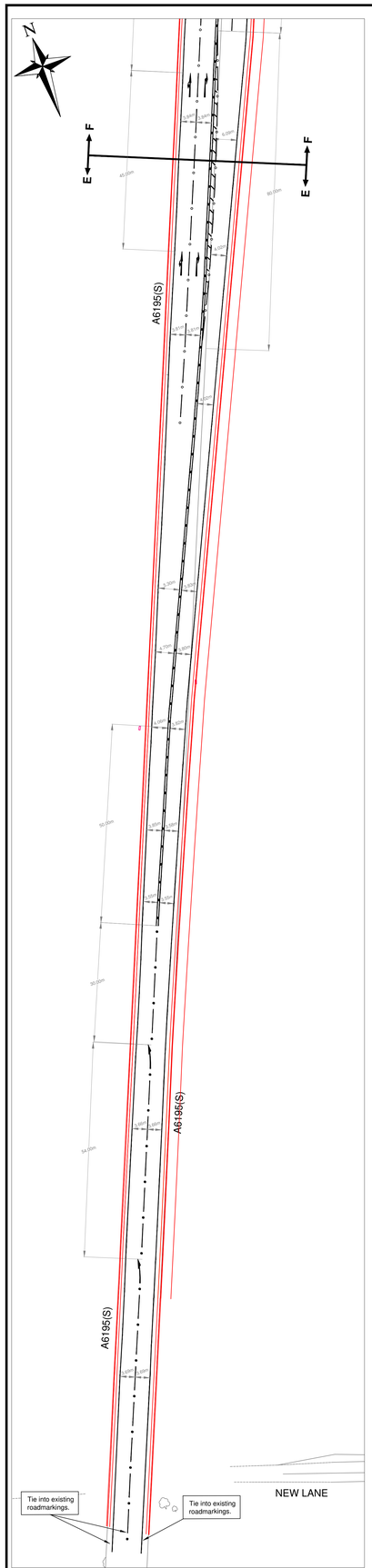
01:00 - 01:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1302	325	1301	1876	0.694	1315	1571	5.7	2.4	6.911	A
2 - A635 Doncaster Road West	692	173	1495	1502	0.461	695	1120	1.7	0.9	4.617	A
3 - A6195 Rotherham Road North	993	248	1157	2018	0.492	997	1033	2.0	1.1	3.831	A
4 - A635 East	1609	402	977	1915	0.840	1895	1178	103.2	31.8	131.120	F

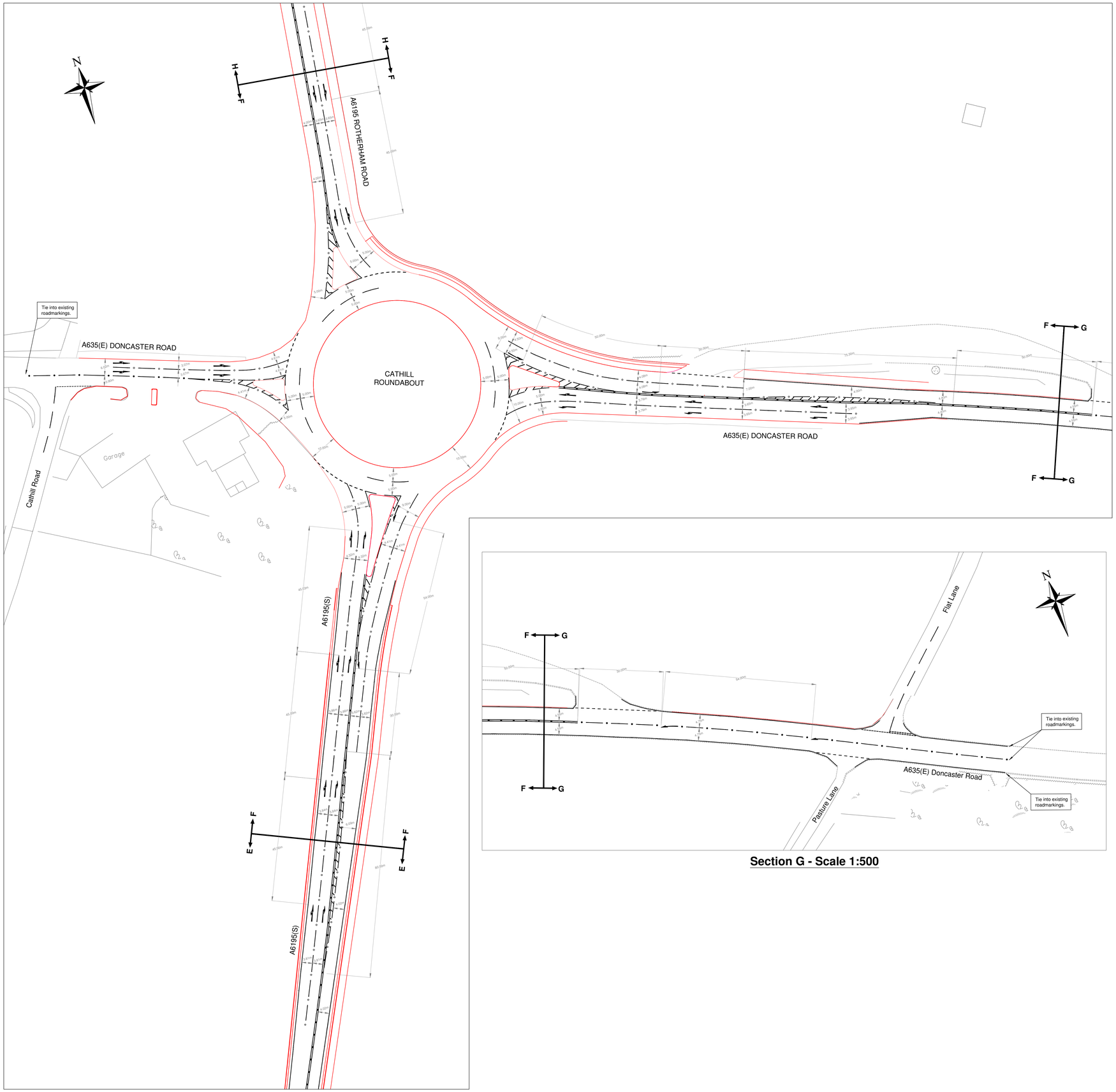
01:15 - 01:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A6195 South	1090	273	1023	2044	0.533	1095	1258	2.4	1.2	4.018	A
2 - A635 Doncaster Road West	580	145	1228	1650	0.351	581	890	0.9	0.6	3.478	A
3 - A6195 Rotherham Road North	832	208	965	2137	0.389	833	844	1.1	0.7	2.993	A
4 - A635 East	1348	337	816	2010	0.670	1466	983	31.8	2.3	8.950	A

Appendix I BMBC Drg no HD/A6195.69.1/1200/03



Section E - Scale 1:500



Section F - Scale 1:500

Section G - Scale 1:500

Key (N.T.S.)

- WL/1003A/200mm
- WL/1003.1/200mm
- WL/1004.1/150mm (De-restricted speed limit)
- WL/1009A/150mm
- WL/1010/150mm
- WL/1012.3/150mm (ribbed)
- WL/1013.1/150mm White bi-directional roadstuds (see description below) Spaced at 4.5m intervals
- WL/1014/6000mm
- WA/1038/6000mm
- WA/1039/16000mm (De-restricted speed limit)
- WL/1040/150mm (De-restricted) Hatching 200mm width Spaced at 3m centres
- WL/1041/100mm Hatching 150mm width, Spaced at 3000mm centres
- Bi-directional reflecting road studs (white) with 3M Series 290 inserts placed in Fleming & Co. 301 shoe (Or similar approved placed at 4.5m (diag 1013.1) / 9m (diag1004.1) intervals at locations shown).
- Uni-directional reflecting road studs (white) with 3M Series 290 inserts placed in Fleming & Co. 301 shoe (Or similar approved placed at 9m intervals in location shown).

Notes

1. All Lining must comply with Traffic Signs Regulations and General Directions 2016 and BMBC Appendix 12/3 Specifications. Further details can be obtained from the working drawings available on the DfT website.
2. All roadmarkings to be thermoplastic screed.
3. All white thermoplastic roadmarkings to have integral and surface hot applied solid glass beads.
4. Approximate positions of speed limits shown.
5. For sections A & B refer to drawing: HD/A6195.69.1/1200/01.
6. For sections C & D refer to drawing: HD/A6195.69.1/1200/02.
7. For section H refer to drawing: HD/A6195.69.1/1200/04.

Rev.	By	Amendments	Date
A	R.W.	Deflection arrows and dimensions added	07/2019

BARNSLEY
Metropolitan Borough Council

Project
A6195 Goldthorpe Interventions

Drawing title
Roadmarkings Layout (Sheet 3 of 4)

Scale	Drawn	Checked	Date
1:500 @ A0	R.W.	A.D.	03/2019

Drawing No.	Revision	File
HD/A6195.69.1/1200/03	A	A6195.69.1

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COMPUTER FILE