



Eastfield, Shepley

Transport Assessment

September 2025

Banks Property Ltd

AMA Project Number: 23174

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1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1 Andrew Moseley Associates (AMA) has been commissioned by Banks Property Ltd to prepare a Transport Assessment (TA) and Residential Travel Plan (TP) for consideration as part of an outline planning application (including access) for residential development with an assumed capacity of 110 units, including associated open space, landscaping, drainage infrastructure and associated works on land to the southeast of Eastfield, Shepley. The site layout plan is attached at [Appendix A](#).
- 1.1.2 The Local Planning Authority (LPA) and the Local Highway Authority (LHA) is Kirklees Council (KC).
- 1.1.3 Vehicular, walking and cycling access is proposed to be taken from Eastfield to the northwest of the development.
- 1.1.4 This TA has been subject to pre-application scoping and KC have provided a pre-application responses which is appended to this report. A further pre-application meeting was held with KC highways on 1 May 2025 via MS Teams to discuss the pre-application comments received. The formal KC pre-application response is attached in [Appendix B](#).
- 1.1.5 This TA has also been prepared with reference to the Department for Communities and Local Government National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).
- 1.1.6 This TA will demonstrate that the site is well served by existing transport provision and is accessible to a range of key services and facilities. The report will also demonstrate that the traffic generated by the proposals will not result in a detrimental impact on the surrounding road network.
- 1.1.7 A TP has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

1.2 REPORT STRUCTURE

- 1.2.1 The structure of the report is set out as follows:
 - ▶ [Section 2](#) – outlines the policy background at a national and local level.
 - ▶ [Section 3](#) – provides a description of the site location, highway network surrounding the site, and examines the accessibility of the site by sustainable modes of travel. This section also considers the accessibility of a range of key services and facilities as well as a review of personal injury collisions
 - ▶ [Section 4](#) – describes the development proposals with regard to the proposed quantum of development, the proposed means of access to the site, servicing, parking provision and drive thru queue capacity.
 - ▶ [Section 5](#) – summarises the assessment parameters and trips rates that have been adopted within this TA.
 - ▶ [Section 6](#) – examines the impact of development traffic on the local highway network and presents the results of the future year junction assessments to determine the potential impact of the proposals.
 - ▶ [Section 7](#) – provides a summary of the TA.

2 POLICY BACKGROUND

2.1 NATIONAL POLICY

- 2.1.1 The National Planning Policy Framework (NPPF) came into effect in 2012. The document was designed to supersede and simplify previous national planning documents and their policies.
- 2.1.2 The NPPF was revised in response to the proposed reforms to the NPPF and other changes to the Planning system consultation on 12 December 2024 and sets out the government's planning policies for England and how these are expected to be applied.
- 2.1.3 This version of the NPPF was amended on 7 February 2025 to correct cross-references from footnotes 7 and 8 and amend the end of the first sentence of paragraph 155 to make its intent clear. For the avoidance of doubt the amendment to paragraph 155 is not intended to constitute a change to the policy set out in the Framework as published on 12 December 2024.
- 2.1.4 This revised framework replaces the previous NPPF published in March 2012, revised in July 2018, updated in February 2012, revised in July 2021, updated in September 2023 and revised in December 2023.
- 2.1.5 The preparation of this TA is consistent with national transport policy guidance set out in the NPPF which advocates the submission of such documents to support applications for new developments which generate traffic movements.
- 2.1.6 The NPPF states under the subheading 'Considering development proposals', within the 'Promoting Sustainable Transport' chapter that:

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

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

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

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code⁴⁸; 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

116. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.

117. Within this context, applications for development should:

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

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

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

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

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

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

2.1.7 NPPF also mentions in Paragraph 109 that: ‘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. This should involve:

a) making transport considerations an important part of early engagement with local communities;

b) ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;

c) understanding and addressing the potential impacts of development on transport networks;

d) realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;

e) identifying and pursuing opportunities to promote walking, cycling and public transport use; and

f) identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.

2.1.8 **Section 3** of this report highlights the existing sustainable travel modes within the vicinity of the site and demonstrates that the development will be well suited to this location.

2.1.9 **Section 6** of this report assesses the traffic associated with the development on the surrounding road network and will identify mitigation measures where necessary to ensure that the impact of the development is not severe.

2.1.10 The Government’s objectives set out in the revised 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 can be maximised.

2.2 LOCAL POLICY

West Yorkshire Transport Strategy 2040

2.2.1 The West Yorkshire Transport Strategy 2040 was adopted in August 2017 and was produced by the West Yorkshire Combined Authority and the West Yorkshire district councils of Bradford, Calderdale, Kirklees, Leeds and Wakefield.

2.2.2 The Transport Strategy 2040 sets out the partners ambitions for the region and although focused on the West Yorkshire it is recognising the importance and impact of links with the wider Leeds City Region and states the following vision;

“To enhance business success and people’s live by providing modern, world-class, well connected transport that makes travel around West Yorkshire easy and reliable.”

2.2.3 To achieve this vision the document states that the following objectives must be achieved;

- ▶ Economy: Create a more reliable, less congested, better connected transport network;
- ▶ Environment: Have a positive impact on our built and natural environment; and
- ▶ People and place: Put people first to create a strong sense of place.

2.2.4 With regard to the borough of Kirklees, the specific aim of the Transport Strategy is;

- ▶ “To achieve a balanced and integrated transport network that makes the most efficient and effective use of the road, rail and public transport.”

West Yorkshire Local Transport Plan (LTP)

2.2.5 The LTP3 replaced the LTP2 at the end of April 2011. LTP3 is a 15-year plan with three year Implementation Plans produced through this period.

2.2.6 Entitled “MyJourney”, the LTP for West Yorkshire sets out a strategy for improving local bus, road, rail, walking and cycling networks for the next 15 years up to 2026. MyJourney’s vision is for a people-focused, low-carbon transport system that supports economic activity and growth and enhances people’s quality of life, and has been designed to put the needs of all transport users at its heart.

2.2.7 The Plan sets out to tackle congestion and a lack of transport investment which are key contributory factors to lower than average economic performance in West Yorkshire. It also aims to prepare for the predicted, post-recession growth in employment, population and housing and their impact on the reliability of the transport network.

2.2.8 Four themes run through the Plan to help ensure it achieves its aims:

- ▶ Transport Assets focusing on the existing components of the transport network such as roads, bus stations / stops and traffic lights to ensure we are getting the most value out of them;
- ▶ Travel Choices enabling customers to make the most sustainable choices about when and how they travel;
- ▶ Connectivity ensuring people can make integrated and safe journeys using transport networks on which they can rely; and
- ▶ Enhancements improving the overall network to make it more fit for journeys in the future.

2.2.9 Priorities include schemes suggested by local communities, as well as the provision of bus priority schemes on main roads into town and city centres, major maintenance of roads across West Yorkshire, cycling and walking schemes, and the development larger schemes such as new rail stations and the New Generation Transport (NGT) trolleybus network.

2.2.10 The proposed development will contribute to the LTP objectives given the proximity to existing public transport services. Travel planning will be implemented at the development, ensuring that people can make an informed choice for all their journeys and can travel in a responsible manner. As such, the development proposals will encourage behavioural change to maximise use of more sustainable modes of transport to access the development.

Kirklees Local Plan

2.2.11 The Kirklees Local Plan was adopted in 2019 and is the statutory development plan setting out the policies necessary to achieve the development goals and strategy of the area. The plan covers:

- ▶ A vision and strategic objectives for the development of Kirklees up to 2031;
- ▶ A spatial strategy setting out how development will be accommodated across the district reflecting the distinctiveness of different parts of the district;
- ▶ Objectively assessed development needs particularly for housing and employment specifying the number of new homes and jobs to be provided during the plan period;
- ▶ Clear policies to guide decisions on planning applications;
- ▶ Site allocations showing land to be developed for housing, employment, retail, minerals and waste and other uses, identified on a Policies Map;
- ▶ Designations showing land to be protected from development and land subject to other policies in the plan;
- ▶ Infrastructure provision to support the delivery of the proposed development;
- ▶ An indication of how the policies will be delivered and implemented; and
- ▶ A monitoring framework setting out the performance measures that will show how successfully the plan's objectives and proposals are being delivered over time.

Kirklees Transport Vision

2.2.12 The 2025 Kirklees Transport Vision sets out the importance of sustainable travel and its role in alleviating congestion, poor air quality and environmental damage. The Vision aims to allow sustainable transport systems to flourish to benefit the wellbeing of citizens and build a thriving local economy. The vision provides:

- ▶ A top-class public transport system for everyone providing a first choice for travel for many more new customers and a real alternative to using the car;
- ▶ A sustainable transport system that encourages healthy citizens, promotes social inclusion and preserves and enhances the local environment; and
- ▶ A transport network that promotes a sustainable thriving economy for businesses to invest in.

3 EXISTING CONDITIONS AND SUSTAINABLE TRANSPORT

3.1 SITE LOCATION

3.1.1 The site currently consists mainly of agricultural land, as well as a farm building and livestock shelter. The site is bound to the north by residential dwellings and the Shepley Spring water company; to the east and south by undeveloped land; and to the west by residential dwellings and Shepley First School.

3.1.2 The location of the site is illustrated in **Figure 3-1**.

Figure 3-1 Site Location Plan



3.2 LOCAL HIGHWAY NETWORK

3.2.1 The site is expected to be accessed from the eastern end of Eastfield, a residential cul-de-sac. Eastfield is a two-way, single carriageway street, subject to a 30mph speed limit, with a typical width of 5.5m within the vicinity of the site access. There are footways provided on both sides of Eastfield, which continue to the north and west as Eastfield connects to Lea Drive and Knowle Park Avenue. Eastfield connects to Knowle Park Avenue approximately 35m to the north-west of the proposed site and connects to the Lea Drive approximately 135m to the north-west of the proposed site access.

3.2.2 Knowle Park Avenue is a two-way, single carriageway, subject to a 30mph speed limit, with a typical width of 5.0m within the vicinity of the priority T-junction with Eastfield. There are footways provided on both sides of Knowle Park Avenue, which continue to the north-east providing access to Lea Drive and The Knowle. Knowle Park Avenue connects to The Knowle via a priority T-junction, approximately 230m to the north-east of the proposed site access.

3.2.3 Lea Drive is a two-way, single carriageway, subject to a 30mph speed limit, with a typical width of 5.5m within the vicinity of the priority T-junction with Eastfield. There are footways provided on both sides of Lea Drive, which continue to the east and west, providing access to Knowle Park Avenue and A629 Abbey Road. Lea Drive connects to A629 Abbey Road South via a priority T-junction with a ghost island, which is of sub-standard provision, approximately 260m to the north-west of the proposed site access.

- 3.2.4 The Knowle is a two-way, single carriageway, subject to a 30mph speed limit, with a typical width of 4.5m within the vicinity of the priority T-junction with Knowle Park Avenue. There are footways provided on the southern side of The Knowle which provide access to A629 Abbey Road South. The Knowle connects to A629 Abbey Road South via a priority T-junction with a ghost island approximately 300m to the north of the proposed site access.
- 3.2.5 A629 Abbey Road South is a two-way, single carriageway, subject to a 30mph speed limit, with a typical width of 7.6m within the vicinity of the priority T-junction with Lea Drive. A629 Abbey Road is a primary route in Shepley, connecting Shepley to Huddersfield and Penistone. There are footways provided on both sides of A629 Abbey Road South, which continue to the various residential streets including Marsh Lane, Station Road and Yew Tree Road.

3.3 WALKING ACCESSIBILITY

- 3.3.1 The Government’s objectives set out in the 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 can be maximised. Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to walking:

“Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres” (Para 74)

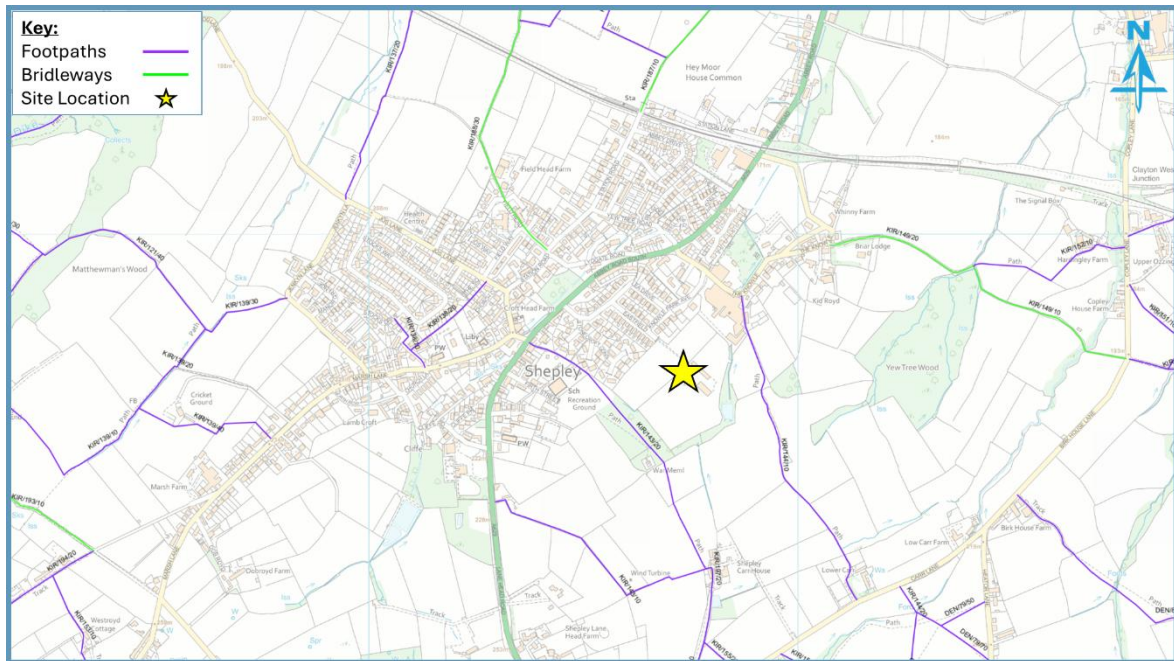
- 3.3.2 **Figure 3-2** shows a 2km walking catchment area from the centre of the site.

Figure 3-2 2km Walking Catchment Plan



- 3.3.3 As shown, the site is located within a suitable walking distance of the entirety of Shepley. Within the 2km catchment of the site, there are a number of local facilities and services including Central Co-op Food Shepley (c. 450m), Shepley Library (c. 500m), Shepley First School (c. 650m), Shepley Tennis Club (c. 650m), Shepley Bowling Club (c. 700m), St Paul’s Church Hall (c. 700m), Shepley Pharmacy (c. 750m), The Farmer’s Boy Pub (c. 800m), Cliffe House (c. 800m) and Shepley Station (c. 800m).
- 3.3.4 There are also a number of Public Rights of Way (PRoW) within the vicinity of the site that provide traffic-free walking facilities, details of which are provided in **Figure 3-3**.

Figure 3-3 Public Rights of Way Map



3.3.5 The map shows that there is a network of PRoW routes to provide safe pedestrian walking facilities within the vicinity of the site, with Footpath KIR/143/20 to the south of the site, providing access to Carr Lane. As part of the proposals, a potential connection to Footpath KIR/143/20 can be provided, which will link the site to the existing PRoW network. Furthermore, Footpath KIR/144/10 is provided to the east of the proposed site, and can be accessed from The Knowle; also connecting to Carr Lane to the south of the proposed site.

3.3.6 The development is therefore considered to be located within a sustainable location with a number of walkable destinations available.

3.4 CYCLING ACCESSIBILITY

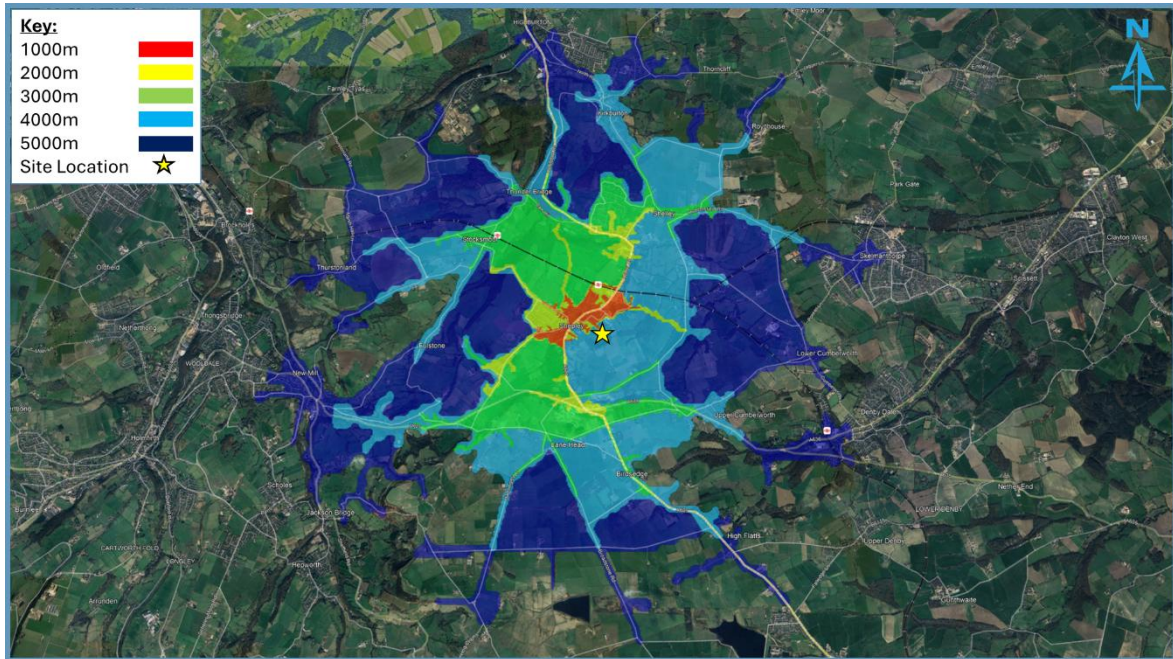
3.4.1 Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to cycling:

“Cycling also has potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport” (Para 77)

3.4.2 As such, all areas and facilities within a reasonable walking distance can also be considered to be within a reasonable cycling distance.

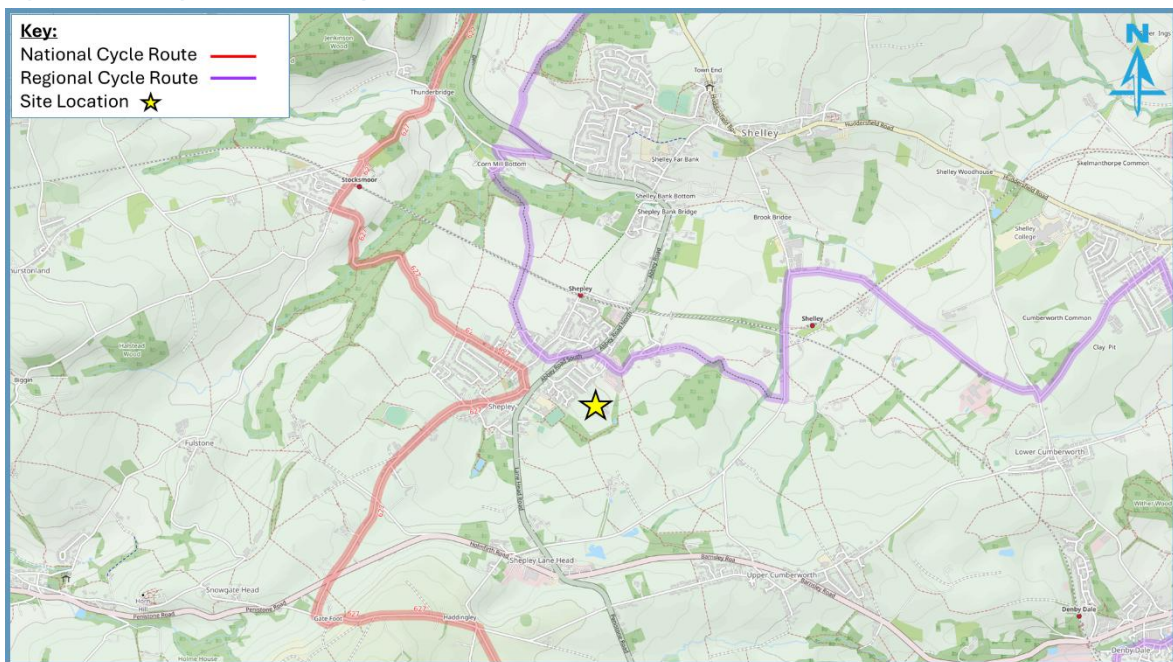
3.4.3 **Figure 3-4** shows a 5km cycling catchment area from the centre of the site. In addition to the entirety of Shepley within the 2km walking catchment, the wider catchment area of 5km includes Stockmoor, Thunder Bridge, Shelley, Kirkburton, Lane Head, Fulstone and the western extents of Skelmanthorpe and Denby Dale.

Figure 3-4 5km Cycling Catchment Plan



3.4.4 Within the vicinity of the site, there are a number of cycle routes, including the National Cycle Network (NCN) Route 627 which routes from Kirkburton to Millhouse Green. There is also access to a regional route which is provided on The Knowle, approximately 230m to the north of the proposed site, which provides access to Kirkburton and Denby Dale. The cycle network is detailed on the plan attached at **Figure 3-5**.

Figure 3-5 Cycle Network Map



3.4.5 Given the generally low speed environment on local roads, it is considered that the local environment within the vicinity of the site is generally conducive to encouraging cycling trips.

3.5 PUBLIC TRANSPORT

Bus Services

- 3.5.1 In line with current local and national transport objectives, particularly of encouraging modal shift away from the private car and increasing accessibility through sustainable travel, public transport has a major role to play. The IHT's 'Guidelines for Planning for Public Transport in Developments' (IHT 1999) recommend that the maximum walking distance to bus routes should not exceed 400 metres. Measures to facilitate the use of public transport are therefore an integral part of good land use and transport planning.
- 3.5.2 There is various bus stops located within the recommended 400m walking distance from the site. The stops detailed are set out on the attached plan at [Figure 3-6](#).

Figure 3-6 Public Transport Location Plan



- 3.5.3 The closest bus stops to the site is located approximately 350m to the north of the proposed site on A629 Abbey Road South. The westbound bus stop is equipped with a flagpole and timetable information. The eastbound bus stop is located approximately 350m to the west of the proposed site access junction and is provided with a shelter, seating, a flagpole and timetable information. This bus stop provides hourly weekday and Saturday services by Team Pennine on the D2/D3 route between Huddersfield and Denby Dale.
- 3.5.4 Approximately 500m to the west of the proposed site access, a bus stop on Marsh Lane provides access to the X1 hourly weekday and Saturday service operated by Team Pennine between Wakefield and Holmfirth.
- 3.5.5 Details of the services calling at the mentioned bus stops have been obtained from recent timetables produced by various bus operators. [Table 3-1](#) summarises local bus service details and route information and it is also attached as [Appendix B](#).

Table 3-1 Local Bus Services

Services	Route	Weekday	Saturday	Sunday
D2/D3 Denby Darts	Huddersfield - Denby Dale	06:58 – 18:49 (Hourly)	08:30 – 18:17 (Hourly)	N/A
X1 Holmfirth Explorer	Holmfirth - Wakefield	06:33 – 20:22 (Hourly)	07:53 – 20:22 (Hourly)	08:36 – 16:45 (Five services per day, c. 2 hourly service)

3.5.6 **Table 3-1** sets out that the local bus stops provide access to a wide range of areas in and beyond Shepley that provide a combined frequency of approximately two buses per hour serving Huddersfield, Denby Dale, Holmfirth and Wakefield.

Rail Services

3.5.7 Shepley Station is located approximately 875m walking distance to the north of the proposed site. Shepley Station currently has step free access provided on one of the two platforms available at the station.

3.5.8 In addition to pedestrian access, the railway station provides ten secure cycle storage spaces for those looking to access the railway station by bike. In addition, Northern Trains services usually provide facilities for in carriage cycle storage to facilitate journeys by bike.

3.5.9 The station provides an hourly service in each direction towards Huddersfield and Sheffield operated by Northern which also provide access to Penistone, Barnsley and Meadowhall.

3.5.10 The train timetables available at Shepley Station are provided at **Appendix D**.

3.6 SUMMARY

3.6.1 A range of facilities and amenities, including employment areas, education, food and health care facilities are all accessible to the site via walking, cycling and public transport services.

3.6.2 It is therefore considered that the location of the site is consistent with national and local policy objectives and future residents will not be reliant on the private car to undertake everyday journeys.

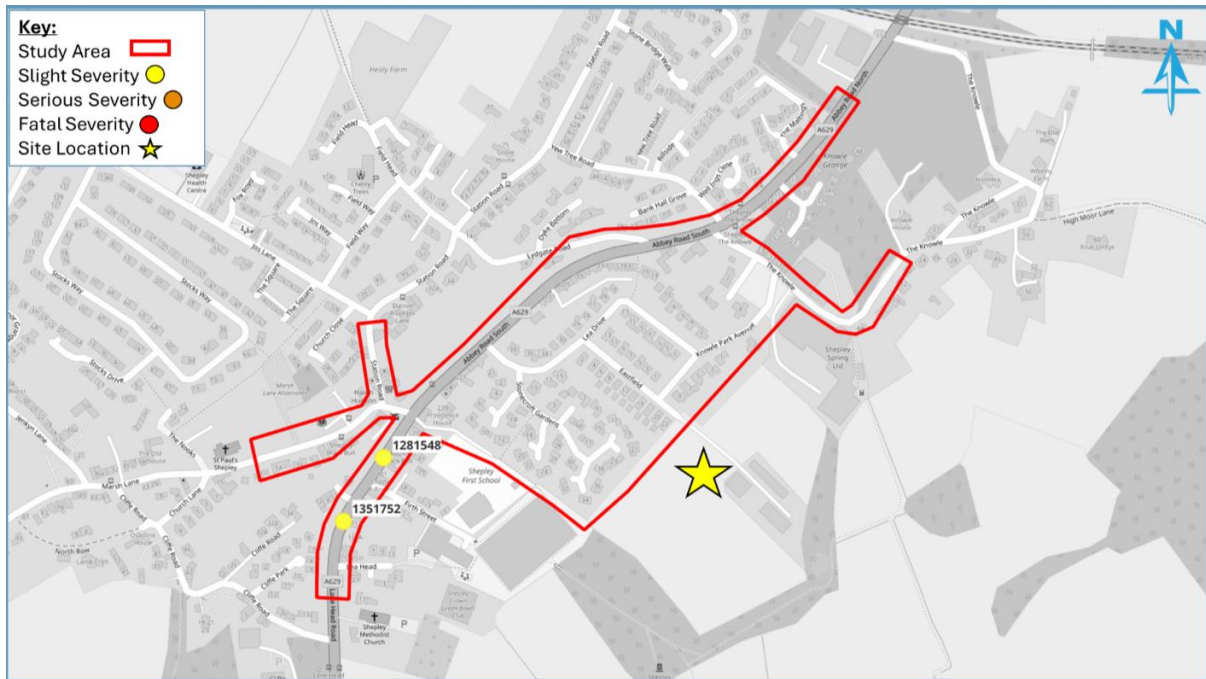
3.7 PERSONAL INJURY COLLISION RECORDS

3.7.1 Personal Injury Collision (PIC) data were reviewed for the most recently available 5-year time period covering 2019 to 2024, using data provided by KC for the highway network within the wider vicinity of the site.

3.7.2 The agreed study area with KC included Eastfield, Lea Drive, The Knowle and A629 Abbey Road South between the junction of Lea Head and The Maltings. The most recent period of available data from 2021 to 2025 was considered ensuring the study is up to date. The collision plot is set out in **Figure 3-7**, with the reports of each collision and the study area attached as **Appendix E**.

3.7.3 It is noted two further collisions recorded within the KC dataset upon further inspection were not located within the study area following examination of the accident description by police. These were excluded within the review below.

Figure 3-7 Personal Injury Collision Plot



3.7.4 Table 3-2 provides a summary of the collisions that have occurred within the study area.

Table 3-2 Personal Injury Collision Data Summary

Study Area	Severity	Number of Collisions per Year					Total
		2019	2020	2021	2022	2023	
Abbey Road South	Slight	0	0	0	0	2	2
	Serious	0	0	0	0	0	0
	Fatal	0	0	0	0	0	0
Overall	Slight	0	0	0	0	2	2
	Serious	0	0	0	0	0	0
	Fatal	0	0	0	0	0	0

3.7.5 As detailed above, there were two ‘slight’ collisions recorded within the study period.

3.7.6 The two slight collisions have been reviewed below:

- ▶ 1351752 – This collision took place on Tuesday 12th September 2023 at 13:31 during the daylight hours, with rain and wet surfaces noted. This collision took place near the A629 Abbey Road South / Cliff Side junction, approximately 550m to the west of the proposed site access. The collision involved two vehicles, with a Van/Goods <3.5t vehicle colliding with a Van/Goods <3.5t vehicle due to skidding on a wet and damp road. There was a slight casualty involved, a 49-year-old male driver. This collision has been contributed to rain, sleet snow or fog affecting the driver/rider vision.
- ▶ 1281548 – This collision took place on Tuesday 28th February 2023 at 23:11 during the evening hours, with rain and wet surfaces noted. This collision took place near the A629 Abbey Road South / Firth Street junction, approximately 450m to the west of the proposed site access. The collision involved three vehicles, with a vehicle colliding with two stationary vehicles due to what was reported as impairment by alcohol and exceeding the speed limit. There was a slight casualty involved, who was an 18-year-old female passenger in the moving vehicle.

Summary

- 3.7.7 Given the low frequency and severity of the collisions recorded over the most recent five-year period, it is considered there are no existing highways safety concerns which the development would exacerbate. There are no obvious road geometry/layout factors which contributed to the collisions identified within the wider vicinity of the Site, with contributory factors identified as driver impairment due to alcohol and bad weather.

4 DEVELOPMENT PROPOSALS

4.1 DEVELOPMENT PROPOSALS AND SITE LAYOUT

4.1.1 The proposals form an outline planning application (including access) for residential development with an assumed capacity of 110 units, including associated open space, landscaping, drainage infrastructure and associated works on land to the southeast of Eastfield, Shepley. A copy of the indicative site layout is included in [Appendix A](#) but will be refined and subject to a separate reserved matters application.

4.2 SITE ACCESS DESIGN AND VISIBILITY SPLAYS

4.2.1 Site access for all modes will be taken from Eastfield at the northwest corner of the site. This will comprise a tie-in to the existing stub of Eastfield with a 5.5m wide carriageway and 2m footways in accordance with Street Type B Local Residential Street as per the Kirklees Highway Design Guide. This is detailed within drawing [AMA-23174-SK-001 P01](#) in [Appendix C](#).

4.3 A629 / LEA DRIVE AND A629 / THE KNOWLE JUNCTIONS

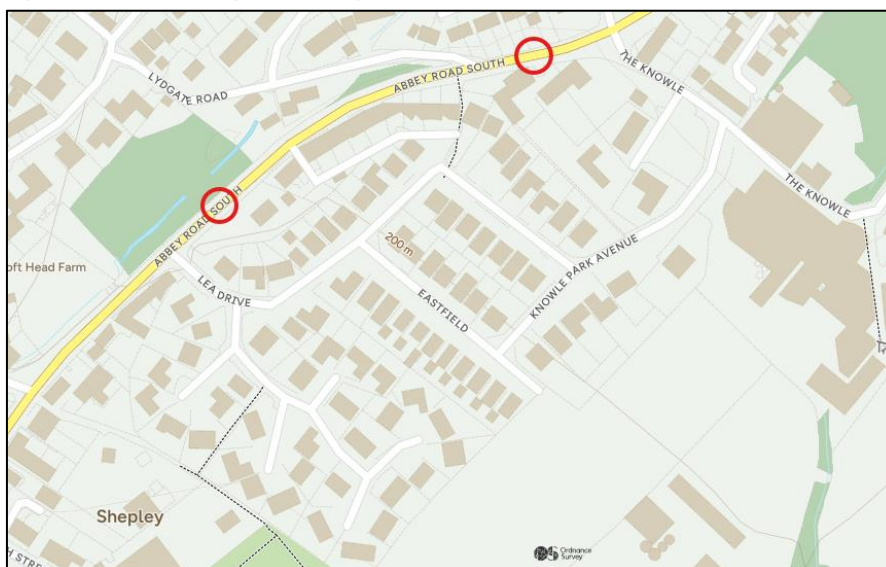
4.3.1 Vehicle access into the site from the local highway network will be from the A629 accessed either via priority junctions with Lea Drive to the west and The Knowle to the north with access through existing residential roads.

4.3.2 It was agreed with KC at pre-application stage that limited routing preference can be achieved of vehicles using either access onto the A629 and that vehicles will choose their preferred route.

4.3.3 Both A629 junctions have been reviewed using an up to date topographical survey, parking surveys and junction turning counts to understand their existing operation in the context of potential intensification as a result of the development.

4.3.4 Speed surveys were also undertaken to understand current vehicle speeds and inform appropriate visibility splays. The location and timings of the surveys were agreed in advance with KC Highways. These were carried out from Thursday 5th June to Wednesday 11th June at the below locations:

Figure 4-1 A629 Speed Survey Locations



4.3.5 The resulting 85th percentile recorded speeds were:

- ▶ A629 at Lea Drive Westbound: 34.4mph
- ▶ A629 at Lea Drive Eastbound: 36.1mph
- ▶ A629 at The Knowle Westbound: 30.9mph
- ▶ A629 at The Knowle Eastbound: 33.6mph

4.3.6 Full copies of the speed survey data are attached in [Appendix G](#).

4.3.7 Visibility splay drawings for the A629/Lea Drive junction based on the above recorded speeds demonstrate appropriate visibility can be achieved based on its current arrangement. This is shown in drawing [AMA-23174-SK-006 P01](#) attached in [Appendix C](#).

4.3.8 It is proposed double yellow lines will be provided around the junction bellmouth and for the initial 15m on both sides of Lea Drive to prevent vehicles parking within the junction to restrict visibility and improve the flow of vehicles using the junction. This arrangement is detailed within drawing [AMA-23174-SK-006 P02](#) attached in [Appendix C](#).

4.3.9 A Lambeth beat parking survey was agreed with KC Highways to understand existing levels of parking on the stretch of Lea Drive earmarked for double yellow lines. The scope and timing of the beat survey was agreed with KC Highways and was undertaken between the hours of 00:30 to 05:30 on Wednesday 4th June and Thursday 5th June. No vehicles were recorded as being parked overnight during either surveyed period within the proposed section of parking restrictions.

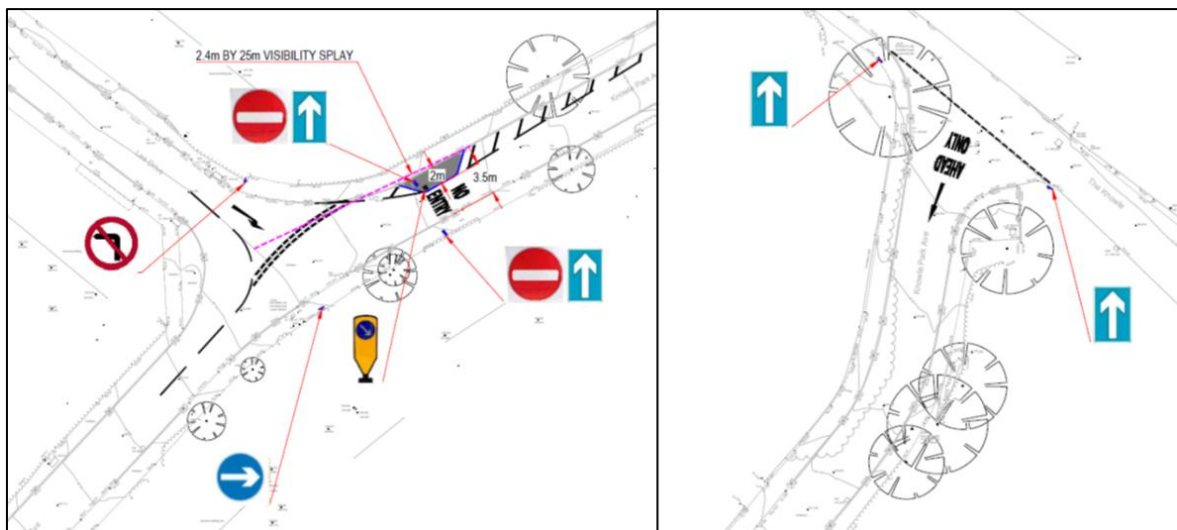
4.3.10 It is proposed the double yellow lines would be implemented through a Traffic Regulation Order (TRO) post consent.

4.3.11 Visibility splays for the A629/The Knowle Junction are presented in drawing [AMA-23174-SK-007 P01](#) attached in [Appendix C](#), which demonstrate visibilities in both directions can be achieved based on the recorded 85th percentile speeds.

4.3.12 Pre-application discussions with KC Highways raised concerns over increased traffic volumes using the 'northern' access route to the A629 via The Knowle owing to pinch pints along Knowle Park Avenue and substandard visibility at the priority junction of The Knowle/Knowle Park Avenue by Shepley Spring.

4.3.13 It is therefore proposed to convert Knowle Park Avenue to southbound only through the introduction of a kerb build out, signing and marking updates. The proposed arrangement is detailed in drawing [AMA-23174-SK-010 P01](#) attached in [Appendix C](#) and also shown below in Figure 4-2.

Figure 4-2 Knowle Park Avenue Proposed Southbound only arrangement



4.3.14 Under the proposals all vehicles departing the development would route via Eastfield and Lea Drive. Inbound vehicles to the site would still have a choice of either access point from the A629.

- 4.3.15 The proposals would therefore limit the level of development vehicle trips through the Knowle Park Avenue / The Knowle Junction and the potential interaction with existing vehicles using The Knowle such as local businesses located east of the junction.
- 4.3.16 As part of the proposals 'no through road' signs would be placed at the entrance to Lea Drive facing drivers entering from the A629.
- 4.3.17 It is also proposed a weight restriction should be added on Knowle Park Avenue to prevent HGV's from entering the housing estate using this route. The weight restriction threshold is to be agreed with Kirklees Highways.

4.4 SERVICING ARRANGEMENTS

- 4.4.1 Swept path analysis will be conducted for a KC standard refuse vehicle using the access as well as the internal layout as part of any reserved matters application.

4.5 PARKING

- 4.5.1 Parking for the dwellings is to be provided in line with the required KC standards set out within the '*Kirklees Council - Highway Design Guide - October 2018*' Parking for the residential units will be provided in line with Kirklees Council Parking Standards minimum parking requirements as outlined below:
 - ▶ 2-Bedrooms – 2 spaces per dwelling;
 - ▶ 3-Bedrooms – 2 spaces per dwelling;
 - ▶ 4-Bedrooms – 3 spaces per dwelling; and
 - ▶ 5-Bedrooms – 3 spaces per dwelling.
- 4.5.2 Where garages are provided as the spaces detailed above, these will have minimal internal dimensions of 3m x 6m, in line with KC requirements.
- 4.5.3 On-street visitor parking will be provided at a ratio of 1 space per 4 dwellings.
- 4.5.4 There will be 1 cycle space provided per bedroom, which will be secure and covered.
- 4.5.5 Each dwelling will be provided with the facilities for electric car charging.
- 4.5.6 The exact parking provision at the proposed site in relation to the parking requirements will be provided as part of any reserved matters application.

5 ASSESSMENT PARAMETERS

5.1 INTRODUCTION

5.1.1 This section sets out the methodology and assessment parameters used in assessing the proposed development and its potential impact on the highway network.

5.2 BASE TRAFFIC SURVEYS

5.2.1 Traffic surveys were undertaken at junctions predicted to experience an increase of more than 30 two-way trips as a result of the development proposals. These are as follows:

- ▶ A629 Abbey Road South / Lea Drive; and
- ▶ A629 Abbey Road South / The Knowle;

5.2.2 The scope and timings of the above traffic surveys were agreed in advance with KC Highways at scoping stage. Turning counts were undertaken on Thursday 5th June 2025, a neutral day, between the hours of 06:00 – 10:00 and 14:00 – 18:00, considering the AM and PM network peak periods. The resultant network peak periods were concluded to occur between:

- ▶ AM Peak – 07:30 – 08:30
- ▶ PM Peak – 16:15 – 17:15

5.2.3 To determine the percentage of traffic distributed across the internal cul-de-sac served by Lea Drive and The Knowle, the turning count information has been distributed by the percentage of houses served by the specific streets. This calculation is shown below in [Table 5-1](#).

Table 5-1 *Lea Drive/The Knowle Housing Mix Distribution*

Streets	No. of Dwellings	Dwellings served by		Percentage	
		Lea Drive	The Knowle	Lea Drive	The Knowle
Stonecroft Gardens	32	32	0	37%	0%
Lea Drive	30	21	9	24%	10%
Eastfield	18	18	0	21%	0%
Knowle Park Avenue	6	0	6	0%	7%
Total	86	71	15	82%	18%

**Percentages may not add up exactly due to rounding of figures*

5.2.4 As shown in [Table 5-1](#), this housing mix distribution has been assigned to the turning counts provided at both A629 Abbey Road South / Lea Drive and A629 Abbey Road South / The Knowle.

5.2.5 For the purposes of the junction capacity modelling, the above surveys have been converted to Passenger Car Units (PCUs). The resultant 2025 surveyed flows are illustrated at [Appendix C](#).

5.3 ASSESSMENT YEARS

5.3.1 A base year of 2025 will be assessed as the year of submission. In line with national guidance, a horizon period five years to 2030 has been assessed within this TA.

5.4 TRAFFIC GROWTH

5.4.1 The National Traffic Model (NTM) within the TEMPRO software package has been interrogated to provide local growth factors for Middle Super Output Area (MSOA) area ‘Kirklees 056’.

5.4.2 The resultant growth factors are set out in [Table 5-](#) and are attached as [Appendix D](#).

Table 5-2 TEMPro Growth Factors – Kirklees 056

Period	MSOA	AM Peak	PM Peak
2025 - 2030	Kirklees 056	1.0445	1.0452

5.4.3 Details of the resultant 2025 and 2030 base traffic flows are set out at [Appendix C](#) which sets out all traffic flow diagrams associated with the proposals.

5.5 COMMITTED DEVELOPMENT TRAFFIC

5.5.1 A review of local committed developments has been conducted which has found the below consented residential planning applications that could have an impact on the junctions considered within this TA. These are detailed as follows:

- ▶ Ref: 2019/91569 – Erection of 31 dwellings
- ▶ Ref: 2020/93358 (revised 2024/90991) – Erection of 52 dwellings

5.5.2 As the earlier planning application now effectively forms Phase 1 of the overall development on both sites, these sites have been combined together to create a committed development of 83 dwellings.

5.5.3 The traffic flows associated with the committed developments are set out in [Appendix G](#) and have been added to the 2030 Base traffic flows to form the 2030 Base + Committed scenario.

5.6 DEVELOPMENT TRAFFIC GENERATION

5.6.1 The TRICS database has been interrogated to obtain the vehicle-based trip rates of the proposed development. The full TRICS trip rates are provided in [Appendix I](#). The following criteria was applied to the TRICS category “Residential – Mixed Private/Affordable Housing”.

- ▶ Sites in London and Ireland were excluded;
- ▶ Sites in Neighbourhood Centre and Suburban Areas were included;
- ▶ Weekend surveys were excluded;
- ▶ Sites of less than 10 and more than 250 units were excluded; and
- ▶ Sites surveyed during COVID have been excluded.

5.6.2 The time period of 08:00 to 09:00 has been selected for the AM peak period, whilst the time period of 17:00 to 18:00 has been selected for the PM peak period which is in line with the observed network peak periods. Although these weekday TRICS peaks do not mirror the surveyed time periods set out above analysis of these trip rates ensures a worst-case peak hour for trip generation is considered.

5.6.3 The vehicle trip rates derived are summarised in [Table 5-](#) and have been factored against an assumed capacity of 110 dwellings.

Table 5-3 Peak Hour Trip Rates and Trip Generation

	AM Peak			PM Peak		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Trip Rate	0.114	0.375	0.489	0.338	0.171	0.509
Trip Generation	13	41	54	37	19	56

5.6.4 On this basis, the trip generation of the proposed residential development will generate the following approximate vehicular trips during the peak hours:

- ▶ AM Peak – 13 Arrivals and 41 Departure – 54 Two-Way Trips; and
- ▶ PM Peak – 37 Arrival and 19 Departures – 56 Two-Way Trips.

5.6.5 The impact of these trips at the site access is set out in [Section 6.2](#).

5.7 DEVELOPMENT TRAFFIC DISTRIBUTION AND ASSIGNMENT

5.7.1 Development traffic distribution has been undertaken based upon the aforementioned ATC data at Lea Drive and Knowle Park Avenue and the distribution of traffic which accesses the A629. The ATC data for the northbound and southbound movements at both A629 Abbey Road South / Lea Drive junction and A629 Abbey Road South / The Knowle are attached this report in [Appendix F](#).

5.7.2 [Table 5-](#) and [Table 5-](#) below the shows the distribution pattern obtained from the ATC survey data collected on Thursday 5th June 2025. A summary of the ATC Data and the calculations to derive the trip distribution is provided in [Appendix G](#).

Table 5-4 Distribution Assignment to/from Site Access

Peak Period	Towards Lea Drive (E)		Towards The Knowle (W)	
	Arrivals	Departures	Arrivals	Departures
07:30 – 08:30	50%	47%	50%	53%
16:15 – 17:15	49%	45%	51%	55%

Table 5-5 Distribution Assignment Eastbound/Westbound from Lea Drive and The Knowle

Peak Period	At Lea Drive		At The Knowle	
	Eastbound	Westbound	Eastbound	Westbound
07:30 – 08:30	50%	50%	50%	50%
16:15 – 17:15	50%	50%	50%	50%

5.7.3 As part of the proposals, southbound traffic will only be permitted from The Knowle, with development traffic departing from the site expected to solely use Lea Drive to access A629 Abbey Road South.

5.7.4 The AM and PM peak traffic distributions have been applied to the total development traffic generation set out in [Table 5-](#). The traffic flow diagrams for both the traffic distribution and generation are set out in [Appendix G](#).

5.8 VISION AND VALIDATE ASSESSMENT

5.8.1 As mentioned in NPPF Paragraph 109, all transport modes need to be considered as part of the trip generation process, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places.’

5.8.2 Furthermore, ATE’s ambition focuses on generating an environment that results in 50% of all ‘short’ trips be made via walking, wheeling or cycling by 2030. The scheme’s active travel proposals (complemented by the implementation of the Residential Travel Plan) will help ATE to achieve the said target.

5.8.3 It is not however possible to quantify the number of predicted trips to the proposed development that would be short trips, and data will need to be captured to monitor active travel use during the Travel Plan process to understand what mode of travel Site users typically use for their ‘short trips’.

5.8.4 Notwithstanding the above, a ‘Vision and Validate’ approach, based on NPPF Paragraph 109, is presented below that sets out modal split scenarios where a 20% reduction in single occupancy private car use is achieved.

5.8.5 In transport planning, ‘Vision and Validate’ is an approach that contrasts with the "Predict and Provide" model. It focuses on setting a long-term goal (vision) and then designing transport systems to achieve that vision, rather than simply reacting to projected traffic demand. In this instance, trips have been generated based on historical TRICS data, and in the Vision and Validate scenario, the car trips have been reduced by 20%, with 20% reallocated to active and sustainable travel modes.

5.8.6 **Table 5-** presents a modal split for the proposed development based on a 20% reduction in car driver trips. The car driver mode share percentage would reduce by 16.8% (20% of 84.2%), from 84.2% to 67.4%, with the 16.8% redistributed across the other mode types.

Table 5-7 Residential Modal Split Vision and Validate Targets

Mode	Census Modal Split	Vision and Validate Modal Split	% Change
Car Driver	84.2%	67.4%	-16.8%
Car Passenger	5.3%	10.4%	5.1%
Motorcycle	0.3%	2.0%	1.7%
Public Transport	3.8%	7.2%	3.4%
On Foot	4.7%	6.4%	1.7%
Bicycle	0.5%	5.6%	5.1%
Other	1.1%	1.1%	0.0%

5.8.7 The amended modal splits presented in **Table 5-** generates the multi-modal trip generation values presented in **Table 5-**.

Table 5-8 Residential Vision and Validate Trip Generation Scenario

Mode	AM Peak	PM Peak	Daily
Car Driver	43	45	200
Car Passenger	6	7	31
Motorcycle	1	1	6
Public Transport	5	5	21
On Foot	4	4	19
Bicycle	4	4	17
Other	1	1	3

5.8.8 **Table 5-** shows that in a scenario where car driver trips are reduced by 20%, the residential element of the Proposed Development would generate 43 and 45 two-way car driver trips in the AM and PM peaks respectively (includes both primary and non-primary trips).

5.8.9 The above scenario residential car driver trips will be used in the Vision and Validate highway assessment.

5.8.10 As well as aiming to ensure that as many 'short' trips are carried out by walking, wheeling and cycling where possible, the development is committed to promoting sustainable travel and the 20% reduction in single occupancy driver car use presented in the Vision and Validate scenario will be the target modal split change for the Site (as set out in the Framework Travel Plan).

5.9 SUMMARY

5.9.1 As detailed in the above section, the following scenarios have been modelled as part of this TA:

- ▶ 2025 Base
- ▶ 2030 + Committed
- ▶ 2030 + Committed + Development

5.9.2 The traffic flow diagrams are attached at **Appendix G**, and the modelling exercise is detailed in **Section 6** overleaf.

6 TRAFFIC MODELLING AND DEVELOPMENT IMPACTS

6.1 INTRODUCTION

6.1.1 To determine the impact of the proposed development traffic on the local highway network, the following junctions have been assessed:

- ▶ A629 Abbey Road South / Lea Drive; and
- ▶ A629 Abbey Road South / The Knowle;

6.1.2 Junctions9 software has been used to prepare models for the priority-controlled junctions. Junctions9 software analyses the traffic movements on each arm of the junction and assesses the junctions Ratio Flow to Capacity (RFC) and queue lengths in PCU's.

6.1.3 The detailed modelling outputs are in [Appendix J](#).

6.2 JUNCTION MODELLING RESULTS

A629 Abbey Road South / Lea Drive

6.2.1 **Table 6-1** sets out the operational capacity at the A629 Abbey Road South / Lea Drive priority T-junction.

Table 6-1 A629 Abbey Road South / Lea Drive Modelling Summary

Arms	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
2025 Base				
Lea Drive	0.04	0.0	0.05	0.1
A629 Abbey Road South	0.02	0.0	0.04	0.1
2030 Base				
Lea Drive	0.04	0.0	0.05	0.1
A629 Abbey Road South	0.02	0.0	0.05	0.1
2030 Base + Committed				
Lea Drive	0.04	0.0	0.05	0.1
A629 Abbey Road South	0.02	0.0	0.05	0.1
2030 Base + Committed + Development Traffic				
Lea Drive	0.14	0.2	0.10	0.1
A629 Abbey Road South	0.03	0.0	0.07	0.1
2030 Base + Committed + Development Traffic (Vision and Validate)				
Lea Drive	0.10	0.1	0.07	0.1
A629 Abbey Road South	0.02	0.0	0.05	0.1

6.2.2 **Table 6-1** identifies that all arms at the A629 Abbey Road South / Lea Drive priority-controlled T-junction are predicted to operate well within their theoretical and operational capacity in both the 2030 Base + Committed + Development and 'Vision and Validate' Sensitivity Test scenarios.

A629 Abbey Road South / The Knowle

6.2.3 **Table 6-1** sets out the operational capacity at the A629 Abbey Road South / The Knowle priority crossroads.

Table 6-2 A629 Abbey Road South / The Knowle Modelling Summary

Arms	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
2025 Base				
The Knowle	0.07	0.1	0.05	0.1
A629 Abbey Road South (E)	0.06	0.1	0.11	0.1
Yew Tree Road	0.11	0.1	0.08	0.1
A629 Abbey Road South (W)	0.01	0.0	0.03	0.0
2030 Base				
The Knowle	0.08	0.1	0.05	0.1
A629 Abbey Road South (E)	0.06	0.1	0.11	0.1
Yew Tree Road	0.12	0.1	0.08	0.1
A629 Abbey Road South (W)	0.02	0.0	0.03	0.0
2030 Base + Committed				
The Knowle	0.08	0.1	0.05	0.1
A629 Abbey Road South (E)	0.06	0.1	0.11	0.1
Yew Tree Road	0.12	0.1	0.08	0.1
A629 Abbey Road South (W)	0.02	0.0	0.03	0.0
2030 Base + Committed + Development Traffic				
The Knowle	0.08	0.1	0.06	0.1
A629 Abbey Road South (E)	0.06	0.1	0.11	0.1
Yew Tree Road	0.12	0.1	0.09	0.1
A629 Abbey Road South (W)	0.02	0.0	0.05	0.1
2030 Base + Committed + Development Traffic (Vision and Validate)				
The Knowle	0.06	0.1	0.04	0.0
A629 Abbey Road South (E)	0.05	0.0	0.09	0.1
Yew Tree Road	0.09	0.1	0.07	0.1
A629 Abbey Road South (W)	0.02	0.0	0.04	0.0

6.2.4 **Table 6-2** identifies that all arms at the A629 Abbey Road South / The Knowle priority-controlled crossroads are predicted to operate well within their theoretical and operational capacity in both the 2030 Base + Committed + Development and ‘Vision and Validate’ Sensitivity Test scenarios.

6.3 SUMMARY

6.3.1 The impact of the development-generated traffic associated with the development proposals on the surrounding area has been shown to be negligible and are expected to operate well in both the 2030 Base + Committed + Development and ‘Vision and Validate’ Sensitivity Test scenarios. It is therefore concluded that the development proposals could be accommodated without resulting any significant detrimental impact upon existing road safety or the capacity of the highway network.

7 SUMMARY

7.1.1 AMA has prepared this Transport Assessment to accompany an outline planning application (including access) for residential development with an assumed capacity of 110 units, including associated open space, landscaping, drainage infrastructure and associated works on land to the southeast of Eastfield, Shepley. The following summarises the key points:

- ▶ The proposed development has been assessed for residential development. The site fully accords with both national and local transport policy;
- ▶ Future residents of the development would have the opportunity to travel for all key journey purposes by modes other than the private car, including walking, cycling and public transport;
- ▶ All access to the site would be taken from Eastfield and it is proposed Knowle Park Avenue will be converted to one-way southbound to reduce the level of development trips using this road owing to local pinch points;
- ▶ Safe and suitable access can be achieved from the local highway network of the A629 with appropriate visibility splays based on up-to-date speed surveys;
- ▶ The development proposals are anticipated to generate 54 two-way trips in the AM peak hour and 56 two-way trips in the PM peak hour;
- ▶ Operational assessments of the local highway network have been undertaken based on 2025 survey data, grown to a future year of 2030 using TEMPro;
- ▶ The impact of the development-generated traffic associated with the development proposals on the surrounding area has been shown to be negligible and are expected to operate well in both the 2030 Base + Committed + Development and 'Vision and Validate' Sensitivity Test scenarios.
- ▶ The operational assessments demonstrate that the local highway network has sufficient capacity to accommodate the predicted traffic generation associated with the traffic flows generated by the proposed development;
- ▶ Car parking and cycle parking will be provided to meet KC standards; and
- ▶ A Travel Plan has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

7.1.2 This TA has demonstrated that the traffic associated with the development proposals can be accommodated on surrounding highway network without having a severe impact in accordance with the NPPF.

7.1.3 The internal layout of the site and matters relating to parking, refuse collection and internal geometry will be addressed as part of a separate reserved matters application at a later stage.

7.1.4 Therefore, there are no overriding traffic and transportation reasons preventing the local highway authority from recognising that the proposals are acceptable nor why planning permission could not be granted.

APPENDICES

Appendix A Site Layout Plan

Appendix B Kirklees Council Pre-Application Response

Appendix C Collision Data

Appendix D Bus Timetables

Appendix E Train Timetables

Appendix F Access Drawings and Interventions

Appendix G Traffic Survey Data

Appendix H Traffic Flows

Appendix I TRICS Data

Appendix J Junctions9 Outputs



Appendix A
Site Layout Plan



SHEPLEY, KIRKLEES – ILLUSTRATIVE FRAMEWORK

| PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: EA | APPROVED BY: ST | DATE: 19.09.25 | SCALE: 1:500@AO | DRWG: P25-0749.002 | REV: H | CLIENT: BANKS GROUP |



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Appendix B
Kirklees Council Pre-Application
Response

Kirklees HDM Comments 30/04/25 relating to pre-app 2025/20167

Ref.	Item	Parameters	Comments from KCHDM												
1	What is the level of planning approval sought? E.g. outline, full.	Planning permission is sought for the proposed erection of c. 120 dwellings. At the time of writing it is likely this will consist of an outline application. Based on the information detailed within this Scoping Note, it is proposed that a Transport Assessment (TA) and Residential Travel Plan (RTP) will be submitted alongside the planning application.	It is noted that an outline application is proposed. However, it is assumed that access will be a matter for consideration, which should be clarified. Assuming an outline application is proposed, with all matters reserved except for access, the following transport related information will be required (as a minimum): - Transport Assessment (Based on Vision-led principles); - Interim Travel Plan (To cover key measures to be incorporated in the final Travel Plan, which would usually be secured by S106 agreement with associated measures and financial contributions etc.); - Preliminary site access (for all modes) drawings to be provided, together with any off-site highway works proposals. - The Stage 1 Road Safety Audit (RSA) process completed for the site access and any off-site highway works. The RSA process must only progress once 'in-principle' arrangements have been agreed, which can take place during the planning determination period. However, it is recommended that a Draft RSA Brief (GG119 compliant) is provided to HDM for approval as soon as possible (which may be in advance of the 'in-principle' arrangements being agreed) to minimise any delay. It is noted that the agreement of the RSA Brief is essential, and any RSA undertaken without an approved RSA Brief will not be accepted.												
2	Size and description of development proposals	The proposals are for the development of c. 120 dwellings on land to the southeast of Eastfield, Shepley. The site is located 1km south of Shepley railway station. Access to the site is proposed to be taken from Eastfield to the northwest, via an existing unpaved access road, which will be upgraded under the new site plans. The site is bound to the north by residential dwellings; to the east and south by undeveloped land; and to the west by residential dwellings and Shepley First School. The indicative site layout plans are provided at Appendix A.	Noted. However, the 'Indicative Site Layout Plan' indicated that 140 dwellings. Therefore, clarification is required of the maximum number of units that would be proposed with the development description for outline planning purposes.												
3	Description of existing land uses, existing trip distribution	The site currently consists mainly of agricultural land, as well as a farm building and livestock shelter (Ref: 2003/62/92447/6E). The current trip distribution is solely allocated to the access from Eastfield. It is anticipated that vehicle movements are extremely limited and would not generate a notable level of traffic on the wider highway network. Although there is an existing lawful land use, to conduct a robust assessment it is considered that the site does not generate any traffic movements.	Noted. However, confirmation is required on the implications for the existing farm business, including any new/amended access proposals that are required to the retained farm land that is accessed from this site.												
4	Does the development involve the relocation of an existing use?	No.	As point 3, the existing farm site/access appears to be utilised to serve adjacent farm land beyond the development site boundary. If this is the case, then alternative access to the wider farm land will need to be maintained, and further clarification is required on this matter.												
5	How are existing land use flows going to be dealt with?	N/A	To be considered further - See point 3-4.												
6	Are traffic surveys of the existing conditions available or required?	Yes, traffic surveys will be undertaken over a neutral week to inform capacity assessments.	To inform the Transport Assessment, it is suggested that 1 week ATC surveys are undertaken at the existing site access and at the entry to Lea Drive and Knowle Park Avenue, to determine the existing traffic flows associated with the site, and the adjacent residential development. Weekday peak period turning counts will also be required at all junctions to be assessed. 1 week ATC data should also be obtained on the A629 to determine existing traffic speeds and volumes/types. It is recommended that 2 No. surveys are undertaken as a minimum, one 50m northeast of the Lea Drive junction and one 50m southwest of The Knowle junction, which appear to be the best locations to obtain 'free flow' speed data. 2 No. overnight parking spot surveys are also recommended to determine existing on-street parking issues on the local highway network (scope to be agreed).												
7	Details of any other developments to be considered.	Please advise of any committed developments which should be included as part of the junction capacity assessments.	The following sites that form part of Local Plan site HS203 should be incorporated as committed development: - 2019/01569 (although largely complete, but not yet fully occupied); - 2020/03358 (revised by via 2024/00981).												
8	Details of any adjacent highway improvement proposals by others	Please advise of any highway improvements planned within the vicinity of the proposed redevelopment site.	See Point 7.												
9	When are the critical periods for assessments?	The weekday AM (08:00 - 09:00) and PM (17:00 - 18:00) peak hours will be considered.	In line with current national guidance, the assessment of development trip should be undertaken during all time periods, to understand the transport implications of the development for all people and modes. However, for traffic capacity assessments, weekday AM and PM network peak periods should be assessed. These time periods should be informed by the base traffic count data, and the trip generation assessment for the development. For evening peak, separate development and network peaks may need to be assessed.												
10	What are the assessment years?	The 2025 base year scenario will be assessed, along with a 2030 future year scenario, which allows time for the application to be determined and the site to be built out. The following scenarios will be considered within the TA: - 2025 Base; - 2030 Do Nothing (2025 base traffic + background growth); - 2030 Do Minimum 1 (2030 Do Nothing + proposed development traffic);	On the basis of a 2025 submission, the proposed assessment years and scenarios are acceptable. However, it is noted that the NPPF now requires a Vision-led approach to Transport Assessment. Therefore, a range of potential development trip scenarios may need to be assessed.												
11	Traffic growth factors?	Traffic growth factors will be derived using TEMPro 8.1 for the Middle Super Output Area in which the site is located (Kirklees 0560). TEMPro uses information from the Local Plan in determining traffic growth for future year scenarios. Given that the site is allocated within the Local Plan, and the remaining element of the allocation will be considered in detail as a committed development, it is proposed to remove the housing growth associated with the allocation from TEMPro to avoid double counting. The growth rates derived from TEMPro are set out in Table 1. Table 1 – TEMPro Traffic Growth Factors – 2025 to 2030 <table border="1"> <thead> <tr> <th>Road Type</th> <th>AM Peak</th> <th>PM Peak</th> </tr> </thead> <tbody> <tr> <td>Minor</td> <td>1.04648</td> <td>1.04654</td> </tr> <tr> <td>A-Road</td> <td>1.04577</td> <td>1.04623</td> </tr> </tbody> </table>	Road Type	AM Peak	PM Peak	Minor	1.04648	1.04654	A-Road	1.04577	1.04623	Given the site is not allocated in the Kirklees Local Plan, the removal of the site development units from the TEMPro dataset is not appropriate. Instead, unadjusted TEMPro growth rates should be used based on 'Core' assumptions for 'A Roads' in MSOA Kirklees 056.			
Road Type	AM Peak	PM Peak													
Minor	1.04648	1.04654													
A-Road	1.04577	1.04623													
12	What will be the trip generation for the proposals?	In order to quantify the likely trip generation of the proposed redevelopment site, the TRICS database has been interrogated for a range of similar sites in similar locations. The average vehicle trip rates for the weekday AM (08:00 - 09:00) and PM (17:00 - 18:00) peak hours have been applied to the number of proposed dwellings to calculate the proposed vehicle trip generation. This is presented in Table 2. Table 2 – Proposed Vehicle Trip Rates and Trip Generation <table border="1"> <thead> <tr> <th></th> <th>Monday 08:00 - 09:00</th> <th>Monday 17:00 - 18:00</th> </tr> </thead> <tbody> <tr> <td>Activity</td> <td>Proposed</td> <td>Proposed</td> </tr> <tr> <td>Trip Rates</td> <td>0.114</td> <td>0.375</td> </tr> <tr> <td>Trip Generation</td> <td>12</td> <td>46</td> </tr> </tbody> </table> <p>As can be seen, the proposed site would generate 52 two-way vehicle trips in the AM peak hour and 55 two-way vehicle trips in the PM peak-hour. A copy of the TRICS output is attached to this Highways Scoping Note at Appendix B.</p>		Monday 08:00 - 09:00	Monday 17:00 - 18:00	Activity	Proposed	Proposed	Trip Rates	0.114	0.375	Trip Generation	12	46	In accordance with TRICS good practice guidance (including separate guidance on 'decide and provide' approach), sufficient detail must be provided to confirm that the trip generation data is representative of the proposed use. Therefore, further justification of the proposed trip rates (for all modes) is required. Also, as required by the NPPF, a Vision-led approach to transport planning is required. Therefore, it is important that trips by all transport modes are considered as part of the TA process. It may also be necessary to assess a range of trip generation scenarios, which should include a 'best case' scenario (in sustainable transport terms) and 'worst case' scenario assuming the modal shift that is targeted is not achieved. To inform the 'worst case' scenario for vehicle trip generation, and as mentioned at Point 6, 1-week ATC survey data should be obtained to determine the existing trips for the local residential areas served by Lea Drive and Knowle Park Avenue that current serve circa 86 dwellings. This should then help to validate the vehicle trip generation assumptions.
	Monday 08:00 - 09:00	Monday 17:00 - 18:00													
Activity	Proposed	Proposed													
Trip Rates	0.114	0.375													
Trip Generation	12	46													

13	What is the assumed trip distribution?	<p>The anticipated traffic distribution of the residential trips is based on 2011 Census data using a gravity model technique. The resultant distribution is as follows:</p> <table border="1" data-bbox="289 207 520 250"> <thead> <tr> <th>Route</th> <th>Distribution</th> <th>Split (%)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Abbey Road South (N)</td> <td>60%</td> </tr> <tr> <td>B</td> <td>Abbey Road South (S)</td> <td>40%</td> </tr> </tbody> </table>	Route	Distribution	Split (%)	A	Abbey Road South (N)	60%	B	Abbey Road South (S)	40%	<p>The assessment of development traffic distribution using 2011 census data is not considered to be the best approach. This is due to the data being out of date, and as this approach only take into account the distribution of commuter trips. Therefore, it is suggested that the aforementioned ATC data at Lea Drive and Knowle Park Avenue could be used to inform which routes are likely to be used to access the A629. Turning count data at the two junctions on to the A629 could then be used to inform the assessment.</p>
Route	Distribution	Split (%)										
A	Abbey Road South (N)	60%										
B	Abbey Road South (S)	40%										
14	Would traffic from adjacent sites be attracted to the site? Pass-by traffic / Transferred Trips.	<p>As it is a residential site, it is anticipated that the only traffic attracted to the site would be residents and occasional visitors.</p>	<p>Agreed. These flows would also be taken into account in the trip generation data, based on the approach recommended at Point 12.</p>									
15	Are capacity tests required?	<p>Based on the proposed development trip generation and distribution assessment outlined above, it is considered that capacity models of the following junction will be required to support the TA: Lea Drive / A629 Abbey Road South priority T-junction</p>	<p>Capacity assessment should be undertaken at the following locations: - Lea Drive / A629 Abbey Road South priority T-junction; - The Knowle / A629 Abbey Road South priority T-junction.</p>									
16	Are adjacent junctions or links likely to become overloaded?	<p>It is not expected that the proposed development will result in any severe impacts on the local highway network.</p>	<p>There are concerns regarding how The Knowle will operate following development, as this road is used to serve commercial premises, but is of insufficient width to allow large vehicles to pass. There are also concerns regarding the sub-standard nature of the Lea Drive/A629 junction, and some deficiencies with the residential street serving the development. Therefore, the TA should consider the implications of this and identify any suitable mitigation that may be deliverable - Also see point 17.</p>									
17	Is a new or modified highway access likely?	<p>A new highway access is proposed, including the continuation of the existing highway of Eastfield. The carriageway and footway are to be minimally narrowed/widened to accommodate KC standards. The carriageway is proposed to be 5.5m wide, with two 2m footways on either side, in accordance with Kirklees Highway Design Guide SPD. The preferred vehicle route to the A629 will be via Eastfield/Lea Drive. A range of potential highway options are included in Appendix C which seek to encourage vehicles to use this route instead of accessing the A629 via Knowle Park Avenue. These are: • Option 1: Give way markings from minor arms off Eastfield and Lea Drive to prioritise through route movements to the A629. • Option 2: Change in level of the Eastfield / Lea Drive junction. • Option 3: Speed cushions on Knowle Park Avenue to discourage drivers using this route to access the A629. Given the potential use of the Lea Drive / A629 priority junction it is considered this would benefit from double yellow lines under a TRO to discourage parking on the initial c.35m stretch of Lea Drive as shown in AMA-23174-SK-002. We would welcome feedback from Kirklees Highways on these highway options.</p>	<p>All new streets within the development site should be designed in full accordance with the Council's Highway Design Guide SPD and local S38 guidance documents, as well as other national guidance documents (e.g. National Design Guide, Manual for streets etc). Whilst it is appreciated that an outline application is proposed and that only a masterplan layout is likely to be provided, it is noted that the current indicative layout is not considered to be suitable, as it includes a high number of cul-de-sacs. Whilst some cul-de-sacs could be accepted, they cause significant operational/safety problems for waste collection, and do not provide for a well connected street network. Therefore, a better connected layout that removes the need for so many turning heads should be incorporated into the masterplan proposals. With regard to the existing residential streets that will provide access to the development site, these do not fully conform to current local guidance. In particular, the lack of visitor parking bays, carriageway widening on bends, visibility constraints, and lack of traffic calming features are significant issues. Given existing highway boundary constraints, it is unlikely that significant improvements to visitor parking and carriageway widening will be achievable (although this should be investigated further). However, it would be expected that traffic calming features are proposed on the existing estate road that accord with local guidance (e.g. with max. 60m spacing, based on a 20mph design speed). The preferred option for traffic calming would be speed tables at junctions and other appropriate locations, rather than speed cushions. In terms of the suggested highway improvement options (1-3) that have been proposed, the following feedback is provided: Option 1 - The introduction of give-way marking is not considered necessary in this residential situation, and provides little if any benefit. Therefore, this option should not be pursued. However, as mentioned above, speed tables at junctions are likely to be a better approach to discourage excessive speeds and manage conflicts at existing junctions. Option 2 - Whilst the change in priority may be desirable, there is insufficient land to enable this proposal to operate affectively. This includes a lack of adequate adequate width for vehicles to pass on the bend, and a lack of adequate forward visibility. The location of drives also makes this proposal problematic. Therefore, these changes are not supported. Option 3 - As stated above, speed tables at junctions (and other appropriate locations) would be preferred rather than speed cushions. Also, whilst some additional traffic calming features are necessary, the suggestion that these features would discourage traffic from using Knowle Park Avenue is unrealistic. DYL parking restrictions on the initial section of Lea Drive would be supporting in principle (see further comments below). HDM have consulted the Highway Safety and Highway Design Teams (S38 & S278) regarding the development proposals, with a summary of some of the key highway layout issues identified as follows: Lea Drive / Abbey Road junction •The existing ghost island arrangement is significantly below standard, which is a concern due to the likely increase in right turning traffic at the junction. •Junction visibility on the minor arm appears to be significantly below standard, particularly looking to the left (southwest), with visibility restricted by parked cars, bins, guard railing etc. Visibility to the right is better, but is also partially restricted by an overgrown hedge, and potentially by people waiting at the bus stop (which is a school bus stop). •To address visibility issues, some form of parking restrictions are likely to be necessary. However, on-street parking to the southwest of the junction is well used by residents who do not benefit from off-street parking and the nearby hairdressers and take-away. Therefore, any reduction in on-street parking capacity (or displacement of on-street parking) is a significant concern. •The suggestion to restrict parking on the initial section of Lea Drive is supported in principle. However, the implications on displaced parking are again a concern. The extent of any restrictions should be informed by robust operational assessment of likely queuing on the minor arm, and other relevant safety/operational factors (e.g. forward/junction visibility on Lea Drive), and kept to operational minimum requirements. Abbey Road •Improvements to pedestrian provision may be necessary, taking into account key desire lines. The Knowle / Abbey Road junction •This junction has some deficiencies in terms of layout. However, it is potentially a better standard junction than Lea Drive / Abbey Road, due to the higher levels of junction visibility that are available. However, the ghost island arrangements and junction stagger distance are sub-standard. The Knowle and Knowle Park Avenue junction •The Knowle is sub-standard in terms of width, which is insufficient to allow two-vehicles to pass for much of the length between the Abbey Road and the Knowle Park Junction. There is also restricted forward visibility along the route, particularly for vehicles turning left into The Knowle from Abbey Road, which compounds the carriageway width issues. These issues raise highway safety concerns due to the likely increase in traffic along this route. •It is unclear whether there is adequate junction visibility (contained within the highway boundary) at The Knowle / Knowle Park Avenue junction. The junction does not currently include give-way markings (edge of carriageway markings only), which should be incorporated, which may also help improve driver positioning/visibility. •Improvement to address these issues need to be investigated (utilising topographical survey data), although there appears to be limited scope for improvement without land acquisition. •One option to help reduce vehicle conflict along The Knowle could be to make it exit only from Knowle Park Avenue to the Knowle, which would divert inbound traffic to the existing and proposed residential development served by this route to be diverted to the Lea Drive junction, and this should be investigated further. However, this option is unlikely to be popular with existing residents, and local views should be sought by the applicant as part of any public consultation exercise that is undertaken for the development. Existing residential streets that provide access to the site, including Lea Drive, Eastfield and Knowle Park Avenue •The existing streets do not appear to comply with current standards. This includes lack of widening on bends, sub-standard forward visibility, lack of traffic calming features, steep gradients on some sections and potentially lighting issues. •There are no formalised visitor parking bays along the street, which results in some drivers parking on footways and on bends, which causes obstruction to pedestrian and vehicle movement and forward visibility. •Improvements to address these issues need to be investigated, although there appears to be limited scope for improvement without land acquisition.</p>									
18	What are the visibility requirements? Are those requirements met?	<p>As the site access will be an extension of Eastfield, there are no site access visibility requirements. The site layout will be designed in accordance with local highway design guidance and based on a 20mph design speed.</p>	<p>Noted/agreed.</p>									
19	What level of car parking is required?	<p>Car parking will be provided in line with KC standards. Cycle parking will be provided as one space per dwelling, also in line with KC standards. The proposed level of car and cycle parking, including accessible spaces and electric vehicle charging points, will be justified within any forthcoming TA to support the Planning Application.</p>	<p>Off-street parking should be provided in accordance with the Kirklees Highway Design Guide SPD, with the design of parking taking into account the Kirklees Housebuilders Design Guide SPD and other local/national guidance (e.g. National Design Guide and National Model Design Code). For garages spaces to be taken into account in the off-street parking provision, they must have a minimum internal dimension of 36m. On-street visitor parking should be provided at a ratio of 1 space per 4 dwellings. Ideally these spaces should be provided in dedicated parking bays parallel to the carriageway (min. 2.56m per space), or otherwise well integrated into the street scene and with additional carriageway widening. The provision of only 1 cycle space per dwelling is not considered to be ambitious, and is not in accordance with the more recent guidance contained in LTN 1/20 that recommends that 1 cycle parking space per bedroom is provided. Therefore, the guidance contained in LTN 1/20 regarding the number, type and quality of cycle parking provision should be taken taken into account and confirmed within the submission (although final details would be secured via condition). The EV charging provision should also be confirmed in the submission.</p>									
20	Are special provisions required for cyclists, pedestrians, the disabled or public transport?	<p>All sustainable transport modes will be considered and addressed in detail in any forthcoming TA.</p>	<p>This is a key element of the TA process and a thorough assessment of existing active/sustainable transport facilities is required. This must include a detailed qualitative assessment of the local network, and identify any gaps/deficiencies in provision. Measure should then be proposed to address any issues that are identified, with particular attention given to routes to local schools, public transport stops, and other local amenities. It is noted that the HDM are likely to review the proposals in accordance with the Active Travel England (ATE) Planning Application Assessment Toolkit (See link: https://www.gov.uk/government/publications/active-travel-england-planning-application-assessment-toolkit). Therefore, the applicant should ensure that all information that is mentioned in the toolkit is included in the TA. Otherwise HDM will not be in a position to review the proposals in detail, and are likely to provide a planning response that there is a lack of adequate information. Therefore, the applicant is encouraged to include their own review of the ATE checklist in the TA and/or wider planning submission. In terms of specific requirements, the development would be expected to provide high quality pedestrian and cycle links within the site, which then link to the local highway network. This should include connections (step free, hard surfaces and min. 3m wide in accordance with LTN 1/20) to PROW KIR/143/20 that is to the southwest of the site, which appear to be achievable. Links to PROW KIR/144/20 should also be investigated.</p>									
21	Do the proposals comply with Transport Policy?	<p>The proposals will be considered in-line with National and Local policy.</p>	<p>In accordance with NPPF requirements, a Vision-led approach to Transport Planning is required. Therefore, the TA/TP needs to clearly set out the transport vision for the development, which accords with local and national guidance. In terms of the local vision, Kirklees are currently consulting on a new Transport Strategy (See link: https://www.kirklees.gov.uk/beta/transport-roads-and-parking/transport-strategy-consultation.aspx). Whilst the Strategy has not yet been adopted, and is at a draft stage, this emerging strategy and policies should be taken into account, when establishing the transport vision for the development, including the key areas and draft policies relating to Economy, Environment, Health and Communities.</p>									

22	Are there any further transport related reports required? E.g. Travel Plans, Car Park Management Plans.	A Residential Travel Plan will be submitted as part of any forthcoming Planning Application.	<p>See comments at Point 1 regarding submission requirements for outline application (note more detailed drawing information etc. would be required for a full application).</p> <p>With regard to the Interim Travel Plan that is required to support the submission, this should be developed to achieve the transport vision for the development, and include details of all measures that are to be proposed. The package of measures must be meaningful and go beyond the provision of information and appointment of a Travel Plan Coordinator, which whilst necessary, are basic expectations for any Travel Plan.</p> <p>For all residential sites in Kirklees where a Travel Plan is required (for all sites of 50 units+ and smaller sites on a case by case basis), it is expected that either the WYMetro Residential MCard Scheme of a Travel Plan Fund to the same value is provided, would apply to this development site. Given the proximity of the site to Shepley railway station, it would be expected that the bus/rail (zone 2-5) Residential MCard scheme is proposed, which currently costs £832.37 per dwelling.</p> <p>Kirklees require a Travel Plan Monitoring contribution for all sites where a formal travel plan is required, to cover the Councils costs in monitoring the travel plan process (note this does not cover the development costs for implementing/monitoring the travel plan, which must be funded separately by the developer). For a development of this scale, which is classed as a 'small major' residential development the fee is £10,000 (£2,000 for the minimum 5 year monitoring period following full occupation).</p> <p>At the planning submission stage, the LPA would consult with WYCA to determine whether any other public transport related improvements may be necessary, which may include new bus shelters and realtime displays, alongside any improvements to public transport services. Therefore, it is recommended that applicant undertakes early engagement with WYCA to determine whether improvements are necessary.</p>
23	Will a review of Road Traffic Accidents (RTA's) be undertaken?	A review of accidents, for the latest 5-year period (2019-2023), within the vicinity of the site will be provided via CrashMap.	<p>Whilst Crashmap data can provide high level collision data to identify incident clusters, it lacks sufficient detail to enable a thorough highway safety assessment to be undertaken. The available crashmap data is also not up to date. Therefore, the use of Crashmap data is not supported. Instead full narrative data should be obtained, which can be procured from either Kirklees Council (via the Highway Safety Team) or Leeds Council.</p> <p>The collision assessment should include all streets between the site and the A629, and a length of the A629 between the junctions with First Street and The Mattings as a minimum.</p>



Appendix C
Collision Data

Full Details Report Summary - Eastfield Collision History - please note 2024 and 2025 data is provisional and may change

Accidents Found Date Range: 27/06/2021 - 12/09/2023

Grid Coordinate Range: 419291, 409636 - 419723, 409974

Accident Severity

	2021	2023	Total
Serious	2	0	2
Slight	0	2	2
Total	2	2	4

Casualty Severity

	2021	2023	Total
Serious	2	0	2
Slight	1	2	3
Total	3	2	5

Casualty KSI

	2021	2023	Total
Adult KSI	2	0	2
Slight	1	2	3
Total	3	2	5

1.3 Accident Reference: 1060083	Serious	ABBEY ROAD SOUTH (A629) AT JUNCTION WITH STATION ROAD	Accident 1 of 4
1.7 Date & 1.9 Time	Sunday 27/06/2021 17:40	1.15 Speed limit	40 Mph
1.11 Grid co-ordinates	419373 / 409758	1.14 Road type	Single c'way
1.10 Local Authority	Kirklees	1.16 Junction detail	Crossroads
1.12/1.13 1st road	A629	1.17 Junction control	Give way sign or uncontrolled
1.18/1.19 2nd road	U	1.24 Special conditions	None
1.22 Weather	Fine	1.25 Carriageway hazards	None
1.21 Light conditions	Daylight	1.5 Number of vehicles	2
1.20a Crossing(human)	No Human control within 50m	1.6 Number of casualties	1
1.20b Crossing(physical)	No crossing facility within 50m	1.23 Surface	Dry
Contributory Factors		Participant	Confidence
Aggressive driving (Driver/Rider - Behaviour)		Vehicle 001	Possible
Failed to look properly (Driver/Rider - Error)		Vehicle 001	Very likely
			Did a police officer attend?
			Yes

Accident Description

This is a 2 vehicle road traffic collision that has taken place on the cross roads of Lane Head Road and Cross Lane in Shepley Huddersfield. V1 is a motorcycle that is travelling along Cross Lane towards the junction of Lane Head Road from the direction of Denby Dale. V2 is a car that is on Lane Head Road towards the Sovergin cross roads from the direction of Huddersfield. V1 has failed to give way at the junction and has collided with V2. The force has snapped V1 in half and caused serious injury to its rider. All parties remained at scene. Road conditions were good and visibility was clear.

2 Vehicles

2.4 Veh ref no.	1	2.16 First impact	Offside
2.17 1st contact with veh 0		2.12 Hit object in c'way	None
2.5 Vehicle class	M/cycle <= 50cc	2.14 Hit object off c'way	None
2.10 Junction location	Mid junction	2.18 Parts damaged	/ /
2.9 Restricted location	On main carriageway	2.21 Driver gender	Male
2.8 Movement from/to	East / West	2.22 Driver age	16
2.7 Manoeuvres	Going ahead other	2.24 Hit and Run	No
2.11 Skidding	No	2.23 Breath test	Not provided
2.13 Left c'way	Did not leave c'way	2.29 Journey purpose	Other
2.6 Towing	No		
2.28 Foreign vehicle	Not foreign		
2.4 Veh ref no.	2	2.16 First impact	Front
2.17 1st contact with veh 0		2.12 Hit object in c'way	None
2.5 Vehicle class	Car	2.14 Hit object off c'way	None
2.10 Junction location	Mid junction	2.18 Parts damaged	/ /
2.9 Restricted location	On main carriageway	2.21 Driver gender	Female
2.8 Movement from/to	North / South	2.22 Driver age	53
2.7 Manoeuvres	Going ahead other	2.24 Hit and Run	No
2.11 Skidding	No	2.23 Breath test	Negative
2.13 Left c'way	Did not leave c'way	2.29 Journey purpose	Other
2.6 Towing	No		
2.28 Foreign vehicle	Not foreign		

1 Casualty

3.5 Cas ref no	1	3.15 Car passenger	No
3.6 Casualty class	Driver or Rider	3.16 PSV passenger	No
3.7 Gender	Male	3.14 Seat belt usage	Not applicable
3.8 Age	16	3.13 School pupil	Other
3.9 Severity	Serious	3.19 School	
3.4 Vehicle no	1	3.10 Pedestrian location	Not a pedestrian
3.12 Ped Direction	Not a pedestrian	3.11 Pedestrian movement	Not a pedestrian
		3.19 Roadworker injured	No

1.3 Accident Reference: 1064192	Serious	ABBEY ROAD NORTH (A629) NEAR JUNCTION WITH THE KNOWLE	Accident 2 of 4
1.7 Date & 1.9 Time	Thursday 08/07/2021 12:00	1.15 Speed limit	30 Mph
1.11 Grid co-ordinates	419723 / 409974	1.14 Road type	Single c'way
1.10 Local Authority	Kirklees	1.16 Junction detail	T or Staggered junction
1.12/1.13 1st road	A629	1.17 Junction control	Give way sign or uncontrolled
1.18/1.19 2nd road	U	1.24 Special conditions	None
1.22 Weather	Fine	1.25 Carriageway hazards	None
1.21 Light conditions	Daylight	1.5 Number of vehicles	2
1.20a Crossing(human)	No Human control within 50m	1.6 Number of casualties	2
1.20b Crossing(physical)	No crossing facility within 50m	1.23 Surface	Dry
Contributory Factors		Participant	Confidence
Failed to look properly (Driver/Rider - Error)		Vehicle 001	Very likely
Failed to judge other person's path/speed (Driver/Rider - Error)		Vehicle 001	Very likely
			Did a police officer attend?
			Yes

Accident Description

Vehicle one is travelling down locus towards huddersfield. Vehicle two is parked up outside 114, half on the pavement and half off. Vehicle one for an unknown reason has collided with Vehicle two shunting it forward into a wall. Vehicle one spins 90 degrees and comes to a stop. Driver of vehicle one cannot recall the collision and is unsure why he has not seen the parked car. Driver of vehicle one is left with a injury to his left thumb and the passenger has whiplash injuries.

2 Vehicles

2.4 Veh ref no.	1				
2.17 1st contact with veh 0		2.16 First impact	Front		
2.5 Vehicle class	Car	2.12 Hit object in c'way	None		
2.10 Junction location	Mid junction	2.14 Hit object off c'way	None		
2.9 Restricted location	On main carriageway	2.18 Parts damaged	/ /		
2.8 Movement from/to	South west / North east	2.21 Driver gender	Male		
2.7 Manoeuvres	Going ahead other	2.22 Driver age	77		
2.11 Skidding	No				
2.13 Left c'way	Did not leave c'way	2.24 Hit and Run	No		
2.6 Towing	No	2.23 Breath test	Not provided		
2.28 Foreign vehicle	Not foreign	2.29 Journey purpose	Other		
2.4 Veh ref no.	2				
2.17 1st contact with veh 0		2.16 First impact	Offside		
2.5 Vehicle class	Car	2.12 Hit object in c'way	None		
2.10 Junction location	Mid junction	2.14 Hit object off c'way	None		
2.9 Restricted location	On main carriageway	2.18 Parts damaged	/ /		
2.8 Movement from/to	Parked / Parked	2.21 Driver gender	Not known		
2.7 Manoeuvres	Parked	2.22 Driver age	-1		
2.11 Skidding	No				
2.13 Left c'way	Did not leave c'way	2.24 Hit and Run	No		
2.6 Towing	No	2.23 Breath test	Not applicable		
2.28 Foreign vehicle	Not foreign	2.29 Journey purpose	Unknown		

2 Casualties

3.5 Cas ref no	1				
3.6 Casualty class	Driver or Rider	3.15 Car passenger	No		
3.7 Gender	Male	3.16 PSV passenger	No		
3.8 Age	77	3.14 Seat belt usage	Worn but not independently confirmed		
		3.13 School pupil	Other		
3.9 Severity	Serious	3.19 School			
3.4 Vehicle no	1	3.10 Pedestrian location	Not a pedestrian		
3.12 Ped Direction	Not a pedestrian	3.11 Pedestrian movement	Not a pedestrian		
		3.19 Roadworker injured	No		
3.5 Cas ref no	2				
3.6 Casualty class	Passenger	3.15 Car passenger	Front		
3.7 Gender	Male	3.16 PSV passenger	No		
3.8 Age	77	3.14 Seat belt usage	Worn but not independently confirmed		
		3.13 School pupil	Other		
3.9 Severity	Slight	3.19 School			
3.4 Vehicle no	1	3.10 Pedestrian location	Not a pedestrian		
3.12 Ped Direction	Not a pedestrian	3.11 Pedestrian movement	Not a pedestrian		
		3.19 Roadworker injured	No		

1.3 Accident Reference: 1281548	Slight	LANE HEAD ROAD (A629) - 36 METRES FROM JUNCTION WITH FIRTH STREET, SHEPLEY, HUDDERSFIELD, KIRKLEES	Accident 3 of 4
1.7 Date & 1.9 Time	Tuesday 28/02/2023 23:11	1.15 Speed limit	30 Mph
1.11 Grid co-ordinates	419337 / 409711	1.14 Road type	Single c'way
1.10 Local Authority	Kirklees	1.16 Junction detail	Not at or within 20m of junction
1.12/1.13 1st road	A629	1.17 Junction control	
1.18/1.19 2nd road		1.24 Special conditions	None
1.22 Weather	Rain	1.25 Carriageway hazards	None
1.21 Light conditions	Dark/lights lit	1.5 Number of vehicles	3
1.20a Crossing(human)	No Human control within 50m	1.6 Number of casualties	1
1.20b Crossing(physical)	No crossing facility within 50m	1.23 Surface	Wet
Contributory Factors		Participant	Confidence
Impaired by alcohol (Driver/Rider - Impairment)		Vehicle 001	Very likely
Exceeding speed limit (Driver/Rider - Injudicious)		Vehicle 001	Possible
			Did a police officer attend?
			Yes

Accident Description

V1 is a Ford Fiesta containing the driver and a front seat passenger. V2 is a Ford Ranger parked to nearside of road facing uphill in a South direction. V3 is a Toyota Hilux parked to the nearside of the road facing uphill around 5 meters behind V2. V1 has been travelling down hill in a North direction, it has rounded an offside bend and lost control. V1 has crossed over onto the wrong side of the road, in contravention of solid white lines. V1 collides head on with V2. V2 is pushed back around 15 meters and collides with V3. V2 comes to a stop between a building and V3 and stops on the pavement. V1 continues further down the road and comes to a stop in the middle of the road.

3 Vehicles

2.4 Veh ref no.	1		
2.17 1st contact with veh 0		2.16 First impact	Front
2.5 Vehicle class	Car	2.12 Hit object in c'way	None
2.10 Junction location	Not at junction	2.14 Hit object off c'way	None
2.9 Restricted location	On main carriageway	2.18 Parts damaged	/ /
2.8 Movement from/to	South / North	2.21 Driver gender	Male
2.7 Manoeuvres	Going ahead other	2.22 Driver age	18
2.11 Skidding	No		
2.13 Left c'way	Did not leave c'way	2.24 Hit and Run	No
2.6 Towing	No	2.23 Breath test	Positive
2.28 Foreign vehicle	Not foreign	2.29 Journey purpose	Other
2.4 Veh ref no.	2		
2.17 1st contact with veh 0		2.16 First impact	Front
2.5 Vehicle class	Car	2.12 Hit object in c'way	None
2.10 Junction location	Not at junction	2.14 Hit object off c'way	None
2.9 Restricted location	On main carriageway	2.18 Parts damaged	/ /
2.8 Movement from/to	Parked / Parked	2.21 Driver gender	Not known
2.7 Manoeuvres	Parked	2.22 Driver age	-1
2.11 Skidding	No		
2.13 Left c'way	Left c'way near-side	2.24 Hit and Run	No
2.6 Towing	No	2.23 Breath test	Not applicable
2.28 Foreign vehicle	Not foreign	2.29 Journey purpose	Unknown
2.4 Veh ref no.	3		
2.17 1st contact with veh 0		2.16 First impact	Front
2.5 Vehicle class	Car	2.12 Hit object in c'way	None
2.10 Junction location	Not at junction	2.14 Hit object off c'way	None
2.9 Restricted location	On main carriageway	2.18 Parts damaged	/ /
2.8 Movement from/to	Parked / Parked	2.21 Driver gender	Not known
2.7 Manoeuvres	Parked	2.22 Driver age	-1
2.11 Skidding	No		
2.13 Left c'way	Did not leave c'way	2.24 Hit and Run	No
2.6 Towing	No	2.23 Breath test	Not applicable
2.28 Foreign vehicle	Not foreign	2.29 Journey purpose	Unknown

1 Casualty

3.5 Cas ref no	1	3.15 Car passenger	Front
3.6 Casualty class	Passenger	3.16 PSV passenger	No
3.7 Gender	Female	3.14 Seat belt usage	Worn and independently confirmed
3.8 Age	18	3.13 School pupil	Other
		3.19 School	
3.9 Severity	Slight	3.10 Pedestrian location	Not a pedestrian
3.4 Vehicle no	1	3.11 Pedestrian movement	Not a pedestrian
3.12 Ped Direction	Not a pedestrian	3.19 Roadworker injured	No

1.3 Accident Reference: 1351752	Slight	LANE HEAD ROAD (A629) - 23 METRES FROM JUNCTION WITH CLIFFE SIDE, SHEPLEY, HUDDERSFIELD, KIRKLEES	Accident 4 of 4
1.7 Date & 1.9 Time	Tuesday 12/09/2023 13:31	1.15 Speed limit	30 Mph
1.11 Grid co-ordinates	419291 / 409636	1.14 Road type	Single c'way
1.10 Local Authority	Kirklees	1.16 Junction detail	Not at or within 20m of junction
1.12/1.13 1st road	A629	1.17 Junction control	
1.18/1.19 2nd road		1.24 Special conditions	None
1.22 Weather	Rain	1.25 Carriageway hazards	None
1.21 Light conditions	Daylight	1.5 Number of vehicles	2
1.20a Crossing(human)	No Human control within 50m	1.6 Number of casualties	1
1.20b Crossing(physical)	No crossing facility within 50m	1.23 Surface	Wet
Contributory Factors		Participant	Confidence
Rain, sleet, snow or fog (Driver/Rider - Vision Affected)		Vehicle 002	Possible
			Did a police officer attend?
			Yes

Accident Description

BOTH VEHICLES TRAVELLING NORTH TO SOUTH DOWN LANE HEAD ROAD. VEHICLE 1 HAD STOPPED TO ALLOW FOR AN ARTIC LORRY TO PASS SOUTH TO NORTH AS IT WAS ALREADY OVERTAKING CARS ON THEIR SIDE OF THE ROAD, VEHICLE 2 HAD THEN TRIED TO STOP IN TIME AS COMING ROUND THE CORNER BUT SKIDDED IN THE WET AND COLLIDED WITH VEHICLE 1.

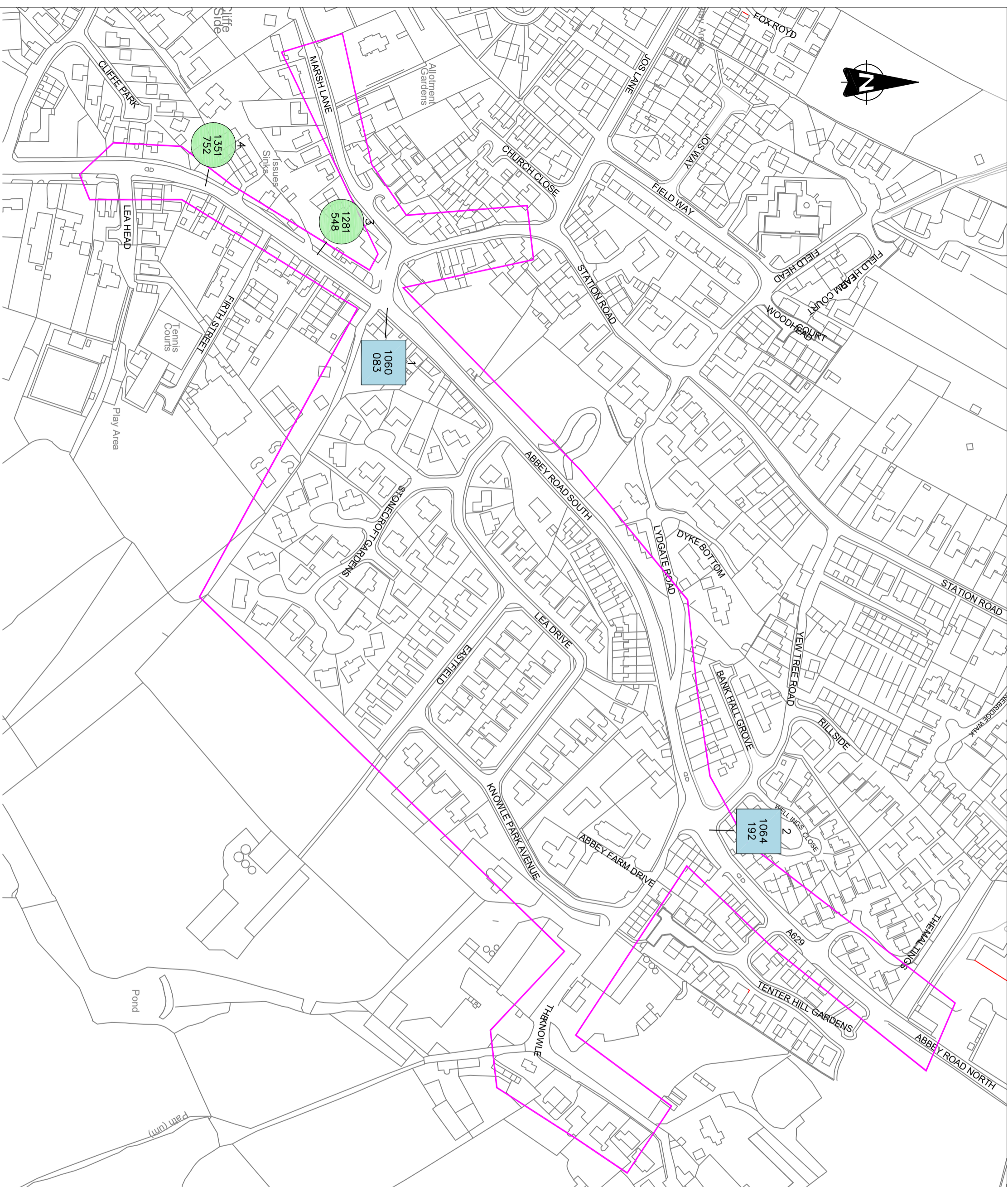
2 Vehicles

2.4 Veh ref no.	1	2.16 First impact	Back
2.17 1st contact with veh 0		2.12 Hit object in c'way	None
2.5 Vehicle class	Van/Goods < 3.5t	2.14 Hit object off c'way	None
2.10 Junction location	Not at junction	2.18 Parts damaged	/ /
2.9 Restricted location	On main carriageway	2.21 Driver gender	Male
2.8 Movement from/to	North / South	2.22 Driver age	49
2.7 Manoeuvres	Waiting to go ahead but held up	2.24 Hit and Run	No
2.11 Skidding	No	2.23 Breath test	Not applicable
2.13 Left c'way	Did not leave c'way	2.29 Journey purpose	Journey as part of work
2.6 Towing	No		
2.28 Foreign vehicle	Not foreign		

2.4 Veh ref no.	2	2.16 First impact	Front
2.17 1st contact with veh 0		2.12 Hit object in c'way	None
2.5 Vehicle class	Van/Goods < 3.5t	2.14 Hit object off c'way	None
2.10 Junction location	Not at junction	2.18 Parts damaged	/ /
2.9 Restricted location	On main carriageway	2.21 Driver gender	Male
2.8 Movement from/to	North / South	2.22 Driver age	38
2.7 Manoeuvres	Going ahead other	2.24 Hit and Run	No
2.11 Skidding	Yes	2.23 Breath test	Not applicable
2.13 Left c'way	Did not leave c'way	2.29 Journey purpose	Journey as part of work
2.6 Towing	No		
2.28 Foreign vehicle	Not foreign		

1 Casualty

3.5 Cas ref no	1	3.15 Car passenger	No
3.6 Casualty class	Driver or Rider	3.16 PSV passenger	No
3.7 Gender	Male	3.14 Seat belt usage	Worn and independently confirmed
3.8 Age	49	3.13 School pupil	Other
		3.19 School	
3.9 Severity	Slight	3.10 Pedestrian location	Not a pedestrian
3.4 Vehicle no	1	3.11 Pedestrian movement	Not a pedestrian
3.12 Ped Direction	Not a pedestrian	3.19 Roadworker injured	No





Appendix D
Bus Timetables

Mondays to Fridays

Denby Dale rail station	0503	0533	0558	0623	0650	0717	0750	0823	0853	then every 30 mins at	23 53	until	1423	1453	1528	1600	1630					
Clayton West Springfield Avenue	0512	0542	0607	0632	0701	0719	0729	0805	0820				0838	0903	33 03	1433	1503	1538	1610	1640		
Skelmanthorpe The Grove Inn	0523	0553	0620	0646	0717	0737	0747	0823	0836				0853	0917	47 17	1447	1518	1553	1625	1655		
Shelley Flying Ferret	0528	0558	0625	0652	0724	0745	0755	0814	0831				0842	0900	0923	53 23	1453	1513	1525	1600	1632	1702
Highburton Co-op	0537	0607	0635	0702	0735	0757	0807	0826	0842				0853	0911	0933	03 33	1503	1523	1536	1611	1643	1712
Waterloo Penistone Road	0544	0614	0643	0711	0746	0806	0816	0835	0851				0901	0919	0942	12 42	1512	1532	1546	1621	1653	1721
Huddersfield bus station	0556	0626	0658	0728	0805	0825	0835	0855	0910	0918	0936	0959	29 59	1530	1550	1604	1639	1711	1738			

this bus runs on school days only and starts from Shelley College at **0810**
this bus runs on school days only
this bus runs on school days only and starts from Shelley College at **1510**

Denby Dale rail station	1710	1732	1802	1832	1902	1945	2045	2145	2245
Clayton West Springfield Avenue	1720	1741	1811	1841	1911	1954	2054	2154	2254
Skelmanthorpe The Grove Inn	1735	1754	1824	1854	1924	2006	2106	2206	2306
Shelley Flying Ferret	1742	1801	1830	1900	1930	2011	2111	2211	2311
Highburton Co-op	1752	1811	1840	1910	1940	2020	2120	2220	2320
Waterloo Penistone Road	1801	1820	1849	1919	1949	2028	2128	2228	2328
Huddersfield bus station	1818	1837	1904	1934	2004	2040	2140	2240	2340

Saturdays

Denby Dale rail station	0553	0623	0653	0723	0753	0823	0853	0923	0953	then every 30 mins at	23 53	until	1523	1553	1623	1653	1723	1753	1823	1853	
Clayton West Springfield Avenue	0602	0632	0703	0733	0803	0833	0903	0933	1003				33 03	1533	1603	1633	1703	1733	1803	1833	1903
Skelmanthorpe The Grove Inn	0615	0645	0717	0747	0817	0847	0917	0947	1017				47 17	1547	1617	1647	1717	1747	1816	1846	1916
Shelley Flying Ferret	0620	0650	0723	0753	0823	0853	0923	0953	1023				53 23	1553	1623	1653	1723	1753	1822	1852	1922
Highburton Co-op	0630	0700	0733	0803	0833	0903	0933	1003	1033				03 33	1603	1633	1703	1733	1803	1832	1902	1932
Waterloo Penistone Road	0638	0708	0742	0812	0842	0912	0942	1012	1042				12 42	1612	1642	1712	1742	1812	1840	1910	1940
Huddersfield bus station	0653	0723	0759	0829	0859	0929	0959	1029	1059	29 59	1629	1659	1729	1759	1829	1855	1925	1955			

Denby Dale rail station	1945	2045	2145	2245
Clayton West Springfield Avenue	1954	2054	2154	2254
Skelmanthorpe The Grove Inn	2006	2106	2206	2306
Shelley Flying Ferret	2011	2111	2211	2311
Highburton Co-op	2020	2120	2220	2320
Waterloo Penistone Road	2028	2128	2228	2328
Huddersfield bus station	2040	2140	2240	2340

Sundays

Denby Dale rail station	0848	0948	1048	1148	1248	1348	1448	1548	1648	1748	1845	1945	2045	2145	2245
Clayton West Springfield Avenue	0857	0957	1057	1157	1257	1357	1457	1557	1657	1757	1854	1954	2054	2154	2254
Skelmanthorpe The Grove Inn	0910	1010	1110	1210	1310	1410	1510	1610	1710	1810	1906	2006	2106	2206	2306
Shelley Flying Ferret	0916	1016	1116	1216	1316	1416	1516	1616	1716	1816	1911	2011	2111	2211	2311
Highburton Co-op	0926	1026	1126	1226	1326	1426	1526	1626	1726	1826	1920	2020	2120	2220	2320
Waterloo Penistone Road	0935	1035	1135	1235	1335	1435	1535	1635	1735	1835	1928	2028	2128	2228	2328
Huddersfield bus station	0951	1051	1151	1251	1351	1451	1551	1651	1751	1851	1940	2040	2140	2240	2340

Mondays to Fridays

- Huddersfield** bus station stand E
- Waterloo** Penistone Road
- Highburton** Co-op
- Kirkburton** George Street
- Skelmanthorpe** Queen Street
- Clayton West** Holmfield Road
- Denby Dale** rail station

0540	0610	0640	0710		0740	0815	0845		15 45		1415	1430	1445	1515	1535	1555	1615	1635	1655
0555	0625	0657	0728	0743	0758	0833	0903		33 03		1433	1448	1504	1534	1554	1614	1637	1657	1717
0603	0633	0705	0738	0752	0807	0841	0911		41 11		1442	1457	1513	1543	1603	1623	1646	1706	1726
0609	0639	0712	0745	0759	0814	0848	0918		48 18	until	1449	1504	1521	1551	1611	1631	1653	1713	1733
0617	0647	0722	0757	0810	0825	0857	0927		57 27		1459		1531	1601	1621	1641	1703	1723	1743
0626	0656	0732	0807		0835	0905	0935		05 35		1509		1541	1611	1631	1651	1713	1733	1753
0638	0708	0745	0820		0848	0918	0948		18 48		1523		1555	1625	1705	1727	1747		

this bus runs on school days only and ends at Clayton West, Springfield Avenue at **0816**

this bus runs on school days only and ends at Shelley College at **1510**

- Huddersfield** bus station stand E
- Waterloo** Penistone road
- Highburton** Co-op
- Kirkburton** George Street
- Skelmanthorpe** Queen Street
- Clayton West** Holmfield Road
- Denby Dale** rail station

1720	1745	1815	1845	1945	2045	2145	2245
1742	1805	1832	1902	1958	2058	2158	2258
1751	1814	1840	1910	2005	2105	2205	2305
1758	1821	1846	1916	2011	2111	2211	2311
1808	1830	1855	1925	2019	2119	2219	2319
1817	1838	1903	1933	2027	2127	2227	2327
1830	1851	1915	1945	2039	2139	2239	2339

Saturdays

- Huddersfield** bus station stand E
- Waterloo** Penistone Road
- Highburton** Co-op
- Kirkburton** George Street
- Skelmanthorpe** Queen Street
- Clayton West** Holmfield Road
- Denby Dale** rail station

0645	0715	0745	0815	0845	0915	0945			15 45		1615	1645	1715	1745	1815	1845	1945	2045	2145	2245
0703	0733	0803	0833	0903	0933	1003			33 03		1633	1703	1733	1802	1832	1902	1958	2058	2158	2258
0711	0741	0811	0841	0911	0941	1011			41 11		1641	1711	1741	1810	1840	1910	2005	2105	2205	2305
0718	0748	0818	0848	0918	0948	1018			48 18	until	1648	1718	1748	1816	1846	1916	2011	2111	2211	2311
0727	0757	0827	0857	0927	0957	1027			57 27		1657	1727	1757	1825	1855	1925	2019	2119	2219	2319
0735	0805	0835	0905	0935	1005	1035			05 35		1705	1735	1805	1833	1903	1933	2027	2127	2227	2327
0748	0818	0848	0918	0948	1018	1048			18 48		1718	1748	1818	1845	1915	1945	2039	2139	2239	2339

Sundays

- Huddersfield** bus station stand E
- Waterloo** Penistone Road
- Highburton** Co-op
- Kirkburton** George Street
- Skelmanthorpe** Queen Street
- Clayton West** Holmfield Road
- Denby Dale** rail station

0945	1045	1145	1245	1345	1445	1545	1645	1745	1845	1945	2045	2145	2245
1002	1102	1202	1302	1402	1502	1602	1702	1802	1902	1958	2058	2158	2258
1010	1110	1210	1310	1410	1510	1610	1710	1810	1910	2005	2105	2205	2305
1016	1116	1216	1316	1416	1516	1616	1716	1816	1916	2011	2111	2211	2311
1024	1124	1224	1324	1424	1524	1624	1724	1824	1924	2019	2119	2219	2319
1033	1133	1233	1333	1433	1533	1633	1733	1833	1933	2027	2127	2227	2327
1045	1145	1245	1345	1445	1545	1645	1745	1845	1945	2039	2139	2239	2339

Mondays to Fridays

	D3	D2	D3	D2	D3	D2	D3	D2	D3	D2	D3	D3	D2
Denby Dale rail station	0634	0724	0834	0942	1054	1142	1254	1342	1514	1606	1717	1822	1912
Lower Cumberworth Foresters	▼	0730	▼	0947	▼	1147	▼	1347	▼	1611	▼	▼	1917
Upper Denby Church	0642	▼	0842	▼	1102	▼	1302	▼	1522	▼	1725	1830	▼
Shepley Sovereign Inn	0648	0736	0848	0953	1108	1153	1308	1353	1528	1618	1733	1836	1923
Shepley Black Bull	0651	0740	0851	0957	1111	1157	1311	1357	1531	1622	1736	1839	▼
North Road Liberal Club	▼	0752	▼	1009	▼	1209	▼	1409	▼	1634	▼	▼	▼
Penistone Road Shepley Spring	0701	▼	0900	▼	1120	▼	1320	▼	1540	▼	1745	1848	▼
Lepton Ings Way	▼	0804	▼	1017	▼	1217	▼	1417	▼	1642	▼	▼	▼
Waterloo Rise stand A	▼	0814	▼	1026	▼	1226	▼	1426	▼	1651	▼	▼	▼
Waterloo depot D	0709	▼	0907	▼	1127	▼	1327	▼	1547	▼	1752	1855	▼
Huddersfield bus station	0725	0831	0924	1042	1142	1242	1342	1442	1602	1707	1807	1910	▼

	D3	D2	D3	D2	D3	D2	D3	D2	D3	D2	D2	D3
Huddersfield bus station stand E	0630	0730	0850	0950	1050	1150	1250	1410	1510	1610	1715	1820
Waterloo Rise stand B	▼	0747	▼	1005	▼	1205	▼	1427	▼	1632	1737	▼
Waterloo depot C	0645	▼	0905	▼	1105	▼	1305	▼	1527	▼	▼	1835
Lepton Highgate Lane	▼	0754	▼	1013	▼	1213	▼	1435	▼	1639	1744	▼
North Road Liberal Club	▼	0802	▼	1021	▼	1221	▼	1443	▼	1647	1752	▼
Penistone Road Brookfield	0652	▼	0912	▼	1112	▼	1312	▼	1534	▼	▼	1842
Shepley Black Bull	0700	0812	0920	1032	1120	1232	1320	1454	1542	1657	1802	1851
Shepley Sovereign Inn	0704	0817	0924	1036	1124	1236	1324	1458	1546	1701	1806	1855
Upper Denby The George Inn	0711	▼	0931	▼	1131	▼	1331	▼	1553	▼	▼	1902
Lower Cumberworth Foresters	▼	0823	▼	1041	▼	1241	▼	1503	▼	1706	1811	▼
Denby Dale rail station	0719	0828	0939	1046	1139	1246	1339	1508	1601	1711	1816	1910

Saturdays

	D2	D3	D2	D3	D2	D3	D2	D3	D2	D3	D3	D2
Denby Dale rail station	0742	0854	0942	1054	1142	1254	1342	1454	1542	1654	1754	1840
Lower Cumberworth Foresters	0747	▼	0947	▼	1147	▼	1347	▼	1547	▼	▼	1845
Upper Denby Church	▼	0902	▼	1102	▼	1302	▼	1502	▼	1702	1802	▼
Shepley Sovereign Inn	0753	0908	0953	1108	1153	1308	1353	1508	1553	1708	1808	1851
Shepley Black Bull	0757	0911	0957	1111	1157	1311	1357	1511	1557	1711	1811	▼
North Road Liberal Club	0809	▼	1009	▼	1209	▼	1409	▼	1609	▼	▼	▼
Penistone Road Shepley Spring	▼	0920	▼	1120	▼	1320	▼	1520	▼	1720	1820	▼
Lepton Ings Way	0817	▼	1017	▼	1217	▼	1417	▼	1617	▼	▼	▼
Waterloo Rise stand A	0826	▼	1026	▼	1226	▼	1426	▼	1626	▼	▼	▼
Waterloo depot D	▼	0927	▼	1127	▼	1327	▼	1527	▼	1727	1827	▼
Huddersfield bus station	0842	0942	1042	1142	1242	1342	1442	1542	1642	1742	1842	▼

	D3	D2	D3	D2	D3	D2	D3	D2	D3	D2	D2	D3
Huddersfield bus station stand E	0750	0850	0950	1050	1150	1250	1350	1450	1550	1650	1750	▼
Waterloo Rise stand B	▼	0805	▼	1005	▼	1205	▼	1405	▼	1605	1705	▼
Waterloo depot C	▼	0905	▼	1105	▼	1305	▼	1505	▼	▼	▼	1804
Lepton Highgate Lane	▼	0813	▼	1013	▼	1213	▼	1413	▼	1613	1713	▼
North Road Liberal Club	▼	0821	▼	1021	▼	1221	▼	1421	▼	1621	1721	▼
Penistone Road Brookfield	▼	0912	▼	1112	▼	1312	▼	1512	▼	▼	▼	1810
Shepley Black Bull	▼	0832	0920	1032	1120	1232	1320	1432	1520	1632	1732	1819
Shepley Sovereign Inn	0724	0836	0924	1036	1124	1236	1324	1436	1524	1636	1736	1823
Upper Denby The George Inn	0731	▼	0931	▼	1131	▼	1331	▼	1531	▼	▼	1830
Lower Cumberworth Foresters	▼	0841	▼	1041	▼	1241	▼	1441	▼	1641	1741	▼
Denby Dale rail station	0739	0846	0939	1046	1139	1246	1339	1446	1539	1646	1746	1838

Mondays to Fridays

-  **Holmfirth bus station stand B**
- Shepley** The Black Bull
-  **Denby Dale rail station**
- Skelmanthorpe** The Grove Inn
- Clayton West** Springfield Avenue
- Clayton West** The Green
- Calder Grove** Post Office
- Thornes Lane**
-  **Wakefield bus station**

	0625	0715	0745	0807	0940	1040	1140	1240	1340	1438	1450	1550	1655	1755	1845	2005
0540	0639	0729	0800	0821	0954	1054	1154	1254	1354	1452	1504	1608	1711	1808	1857	2018
0548	0647	0739	0810	0828	1002	1102	1202	1302	1402	1500	1512	1616	1719	1816		2025
0555	0655	0747	0820	0836	1011	1111	1211	1311	1411	1509	1521	1625	1727	1823		2031
0603	0702	0755	0844	0844	1018	1118	1218	1318	1418	1526	1528	1632	1734	1829		2038
	▼	▼	▼	▼	1020	1120	1220	1320	1420	1530	1532	▼	▼	▼		▼
0616	0718	0808	0857	0857	1034	1134	1234	1334	1434	1541	1543	1645	1747	1842		2051
0622	0725	0817	0905	0905	1041	1141	1241	1341	1441	1550	1552	1654	1755	1848		2057
0630	0738	0837	0920	0920	1051	1151	1251	1351	1451	1600	1602	1704	1805	1856		2105

this bus runs on school days only and also stops at Shelley College at 0825 and Scissett Middle School at 0841

this bus runs on school days only and also stops at Shelley College at 1515



these buses run on school holidays only

Saturdays

-  **Holmfirth bus station stand B**
- Shepley** The Black Bull
-  **Denby Dale rail station**
- Skelmanthorpe** The Grove Inn
- Clayton West** Springfield Avenue
- Clayton West** The Green
- Calder Grove** Post Office
- Thornes Lane**
-  **Wakefield bus station**

0740	0840	0940	1040	1140	1240	1340	1440	1540	1640	1745	1835	2005
0754	0854	0954	1054	1154	1254	1354	1454	1554	1654	1759	1847	2018
0802	0902	1002	1102	1202	1302	1402	1502	1602	1702	1807		2025
0811	0911	1011	1111	1211	1311	1411	1511	1611	1711	1816		2031
0818	0918	1018	1118	1218	1318	1418	1518	1618	1718	1823		2038
0820	0920	1020	1120	1220	1320	1420	1520	1620	1720	▼	▼	
0834	0934	1034	1134	1234	1334	1434	1534	1634	1734	1836		2051
0841	0941	1041	1141	1241	1341	1441	1541	1641	1741	1842		2057
0851	0951	1051	1151	1251	1351	1451	1551	1651	1751	1851		2105

Sundays

-  **Holmfirth bus station stand B**
- Shepley** The Black Bull
-  **Denby Dale rail station**
- Skelmanthorpe** The Grove Inn
- Clayton West** Springfield Avenue
- Calder Grove** Post Office
- Thornes Lane**
-  **Wakefield bus station**

0825	1035	1235	1435	1635
0836	1047	1247	1447	1647
0842	1053	1253	1453	1653
0848	1059	1300	1500	1700
0855	1106	1306	1507	1706
0908	1119	1319	1520	1719
0914	1126	1326	1527	1725
0924	1136	1336	1537	1735

Mondays to Fridays

-  **Wakefield** bus station stand 9
- Calder Grove** Post Office
- Clayton West** The Green
- Clayton West** Holmfield Road
- Skelmanthorpe** The Grove Inn
-  **Denby Dale** rail station
- Shepley** The Black Bull
-  **Holmfirth** bus station

	0635	0744	0753	0925	1025	1125	1225	1325	1425	1434	1525	1532	1625	1725	1900	2115		
	0647	0759	0807	0939	1039	1139	1239	1339	1441	1449	1541	1547	1648	1747	1913	2127		
				0952	1052	1152	1252	1352										
	0700	0814	0819	0954	1054	1154	1254	1354	1454	1501	1554	1557	1701	1800	1926	2140		
	0708	0825	0827	1002	1102	1202	1302	1402	1503	1510	1606	1606	1711	1809	1934	2148		
	0648	0717	0835	0835	1010	1110	1210	1310	1410	1519	1519	1616	1614	1718	1816	1940	2153	
	0605	0655	0725	0842	0842	1017	1117	1217	1317	1417	1527	1527	1629	1624	1727	1823	1947	2159
	0620	0710	0740	0857	0857	1032	1132	1232	1332	1432	1542	1542	1644	1639	1746	1836	1959	

this bus runs on school days only and also stops at Shelley College at 0828
this bus runs on school days only and also stops at Shelley College at 1510
this bus runs on school days only and also stops at Scissett Middle School at 1559
these buses run on school holidays only

Saturdays

-  **Wakefield** bus station stand 9
- Calder Grove** Post Office
- Clayton West** The Green
- Clayton West** Holmfield Road
- Skelmanthorpe** The Grove Inn
-  **Denby Dale** rail station
- Shepley** The Black Bull
-  **Holmfirth** bus station

	0825	0925	1025	1125	1225	1325	1425	1525	1625	1725	1900	2115				
	0839	0939	1039	1139	1239	1339	1439	1539	1639	1739	1913	2127				
	0852	0952	1052	1152	1252	1352	1452	1552	1652	1752						
	0854	0954	1054	1154	1254	1354	1454	1554	1654	1754	1926	2140				
	0902	1002	1102	1202	1302	1402	1502	1602	1702	1802	1934	2148				
		0910	1010	1110	1210	1310	1410	1510	1610	1710	1810	1940	2153			
	0720	0820	0917	1017	1117	1217	1317	1417	1517	1617	1717	1817	1947	2159		
	0735	0835	0932	1032	1132	1232	1332	1432	1532	1632	1732	1832	1959			

Sundays

-  **Wakefield** bus station stand 9
- Calder Grove** Post Office
- Clayton West** Holmfield Road
- Skelmanthorpe** The Grove Inn
-  **Denby Dale** rail station
- Shepley** The Black Bull
-  **Holmfirth** bus station

	0930	1140	1340	1540	1740									
	0944	1154	1354	1554	1753									
	0957	1207	1407	1607	1806									
	1005	1215	1415	1615	1814									
	1010	1221	1421	1621	1819									
	0812	1017	1229	1429	1629	1825								
	0825	1030	1242	1442	1642									



Appendix E
Train Timetables

Train times

18 May – 5 October 2025

43

Huddersfield to Sheffield (Penistone Line)

- Parking available
- Staff in attendance
- Bicycle store facility
- Supertram Interchange stations
- Disabled assistance available

- Huddersfield
- Lockwood
- Berry Brow
- Honley
- Brockholes
- Stocksmoor
- Shepley
- Denby Dale
- Penistone
- Silkstone Common
- Dodworth
- Barnsley
- Wombwell
- Elsecar
- Chapeltown
- Meadowhall
- Sheffield

This timetable shows all train services between **Huddersfield and Sheffield**.

How to read this timetable



Look down the left hand column for your departure station. Read across until you find a suitable departure time. Read down the column to find the arrival time at your destination. Through services are shown in bold type (this means you won't have to change trains). Connecting services are shown in light type. If you travel on a connecting service, change at the next station shown in bold or if you arrive on a connecting service, change at the last station shown in bold, unless a footnote advises otherwise.

Minimum connection times



All stations have a minimum connection time of 5 minutes unless stated. Sheffield 7 minutes.

Community Rail Partnerships and community groups



We support a number of active community rail partnerships (CRPs) across our network. CRPs bring together local communities and the rail industry to deliver benefits to both, and encourage use of the lines they represent.

Penistone Line Community Rail Partnership
www.penline.co.uk

Huddersfield, Penistone, Sheffield Rail User Association

Website –

<https://penline.co.uk/hpsrua-rail-users-association/>

Some stations on this route are adopted by local community groups. For more information visit northernrailway.co.uk/community

Planning your journey



National Rail Enquiries

For full details of all train times, fares and rail travel information anywhere on the national rail network, call **03457 48 49 50**, or visit nationalrail.co.uk

TrainTracker™

For up to date travel information and live departures direct to your mobile, text your station **name** or **location code** to **8 49 50**.

Customers with disabilities or restricted mobility are encouraged to contact our **Customer Experience Centre** who will book assistance for you.

Call: **0800 138 5560**

Textphone: **0800 138 5561**

Email: assistance@northernrailway.co.uk

Improving our railway



Engineering work to help improve our services sometimes affects trains, particularly at weekends and bank holidays.

Visit: northernrailway.co.uk/improvements or call National Rail Enquiries: **03457 48 49 50** to check before you travel.

Delay Repay



You can claim Delay Repay if one of our trains is late or cancelled and as a result you get to your destination station later than scheduled, whether it is our fault or not.

Visit northernrailway.co.uk/delayrepay for more information.

Whilst every care has been taken to ensure the accuracy of the information contained in this timetable, we can accept no liability for any inaccuracies, and reserve the right to change information without further notice. Visit our website for the most up to date timetables and check before you travel.

Huddersfield to Sheffield (Penistone Line)

Mondays to Saturdays

Huddersfield	d	0612	0712	0812	0912	1012	1112	1212	1312	1412	1512	
Lockwood		0615	0715	0815	0915	1015	1115	1215	1315	1415	1515	
Berry Brow		0618	0718	0818	0918	1018	1118	1218	1318	1418	1518	
Honley		0621	0721	0821	0921	1021	1121	1221	1321	1421	1521	
Brockholes		0624	0724	0824	0924	1024	1124	1224	1324	1424	1524	
Stocksmoor		0628	0728	0828	0928	1028	1128	1228	1328	1428	1528	
Shepley		0631	0730	0830	0930	1030	1130	1230	1330	1430	1530	
Denby Dale		0636	0736	0836	0936	1036	1136	1236	1336	1436	1536	
Penistone	a	0643	0743	0843	0943	1043	1143	1243	1343	1443	1543	
	d	0644	0743	0843	0943	1043	1143	1243	1343	1443	1543	
Silkstone Common		0649	0749	0849	0949	1049	1149	1249	1349	1449	1549	
Dodworth		0653	0752	0852	0952	1052	1152	1252	1352	1452	1552	
Barnsley	a	0700	0759	0859	0959	1059	1159	1259	1359	1459	1559	
	d	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	
Wombwell		0706	0805	0905	1005	1105	1205	1305	1405	1505	1605	
Elsecar		0710	0809	0909	1009	1109	1209	1309	1409	1509	1609	
Chapelton		0715	0815	0915	1015	1115	1215	1315	1415	1515	1615	
Meadowhall		0721	0821	0921	1021	1121	1221	1321	1421	1521	1621	
Sheffield	a	0729	0829	0929	1029	1129	1228	1328	1428	1528	1628	

Mondays to Saturdays

						SO	X	SX	SO	Y		
Huddersfield	d	1612	1712	1812	1912	2012	2112	2249	2251	2251	-	
Lockwood		1615	1715	1815	1915	2015	2115	2252	2254	2254	-	
Berry Brow		1618	1718	1818	1918	2018	2118	2255	2257	2257	-	
Honley		1621	1721	1821	1921	2021	2121	2258	2300	2300	-	
Brockholes		1624	1724	1824	1924	2024	2124	2301	2303	2303	-	
Stocksmoor		1628	1728	1828	1928	2028	2128	2306	2308	2308	-	
Shepley		1630	1730	1830	1930	2030	2130	2309	2310	2311	-	
Denby Dale		1636	1736	1836	1936	2036	2136	2314	2316	2316	-	
Penistone	a	1643	1743	1843	1943	2043	2143	2321	2323	2323	-	
	d	1643	1743	1843	1943	2043	2143	2324	2323	2324	-	
Silkstone Common		1649	1749	1849	1949	2049	2149	2329	2329	2329	-	
Dodworth		1652	1752	1852	1952	2052	2152	2333	2332	2333	-	
Barnsley	a	1659	1759	1859	1959	2059	2159	2339	2339	2339	-	
	d	1700	1800	1900	2000	2100	2200	2340	2339	2340	-	
Wombwell		1705	1805	1905	2005	2105	2205	2345	2345	2345	-	
Elsecar		1709	1809	1909	2009	2109	2209	2349	2349	2349	-	
Chapelton		1715	1815	1915	2015	2115	2215	2355	2354	2355	-	
Meadowhall		1721	1821	1921	2021	2123	2221	0002	0001	0002	-	
Sheffield	a	1728	1828	1930	2028	2131	2228	0009	0009	0009	-	

Notes
X Until 29 August.
Y From 1 September.
SO Saturdays only.
SX Mondays to Fridays only.

Huddersfield to Sheffield (Penistone Line)

Sundays

				L	L	L	LV	LW	L	L		
Huddersfield	d	0910	1015	1119	1216	1319	1415	1415	1515	1615	1715	
Lockwood		0913	1018	1122	1219	1322	1418	1418	1518	1618	1718	
Berry Brow		0916	1021	1125	1222	1325	1421	1421	1521	1621	1721	
Honley		0919	1024	1128	1225	1328	1424	1424	1524	1624	1724	
Brockholes		0922	1027	1131	1228	1331	1427	1427	1527	1627	1727	
Stocksmoor		0926	1031	1135	1232	1335	1431	1431	1531	1631	1731	
Shepley		0928	1033	1137	1234	1337	1433	1434	1533	1633	1733	
Denby Dale		0934	1039	1143	1240	1343	1439	1440	1538	1640	1739	
Penistone	a	0941	1046	1150	1247	1350	1446	1447	1545	1647	1746	
	d	0941	1047	1150	1247	1350	1446	1447	1546	1647	1746	
Silkstone Common		0947	1052	1156	1253	1356	1452	1453	1552	1653	1752	
Dodworth		0950	1056	1159	1256	1359	1455	1456	1555	1656	1755	
Barnsley	a	0957	1103	1206	1303	1406	1502	1503	1602	1703	1802	
	d	0958	1103	1207	1304	1407	1503	1504	1603	1704	1803	
Wombwell		1003	-	1212	-	1412	-	-	1608	-	1808	
Elsecar		1007	-	1216	-	1416	-	-	1612	-	1812	
Chapelton		1013	-	1222	-	1422	-	-	1618	-	1818	
Meadowhall		1022	1118	1228	1320	1428	1520	1520	1626	1720	1826	
Sheffield	a	1031	1126	1237	1328	1437	1529	1529	1637	1729	1833	

Sundays

Huddersfield	d	1815	1915	-	-	-	-	-	-	-	-	
Lockwood		1818	1918	-	-	-	-	-	-	-	-	
Berry Brow		1821	1921	-	-	-	-	-	-	-	-	
Honley		1824	1924	-	-	-	-	-	-	-	-	
Brockholes		1827	1927	-	-	-	-	-	-	-	-	
Stocksmoor		1833	1931	-	-	-	-	-	-	-	-	
Shepley		1836	1933	-	-	-	-	-	-	-	-	
Denby Dale		1842	1939	-	-	-	-	-	-	-	-	
Penistone	a	1849	1946	-	-	-	-	-	-	-	-	
	d	1849	1946	-	-	-	-	-	-	-	-	
Silkstone Common		1855	1952	-	-	-	-	-	-	-	-	
Dodworth		1858	1955	-	-	-	-	-	-	-	-	
Barnsley	a	1905	2002	-	-	-	-	-	-	-	-	
	d	1906	2003	-	-	-	-	-	-	-	-	
Wombwell		-	2008	-	-	-	-	-	-	-	-	
Elsecar		-	2012	-	-	-	-	-	-	-	-	
Chapelton		-	2018	-	-	-	-	-	-	-	-	
Meadowhall		1921	2024	-	-	-	-	-	-	-	-	
Sheffield	a	1930	2038	-	-	-	-	-	-	-	-	

Notes
L To Lincoln.
V Until 24 August.
W From 31 August.

Sheffield to Huddersfield (Penistone Line)

Mondays to Saturdays

										SX	SO		
Sheffield	d	0537	0630	0735	0835	0935	1033	1035	1135	1235	1335		
Meadowhall	a	0542	0635	0740	0840	0940	1040	1040	1140	1240	1340		
Chapelton	d	0549	0642	0747	0847	0947	1047	1047	1147	1247	1347		
Elsecar		0555	0648	0753	0853	0953	1053	1053	1153	1253	1353		
Wombwell		0558	0651	0756	0856	0956	1056	1056	1156	1256	1356		
Barnsley	a	0604	0658	0802	0902	1002	1102	1102	1202	1302	1402		
	d	0605	0701	0803	0903	1003	1103	1103	1203	1303	1403		
Dodworth		0611	0707	0809	0909	1009	1109	1109	1209	1309	1409		
Silkstone Common		0614	0710	0812	0912	1012	1112	1112	1212	1312	1412		
Penistone	a	0620	0717	0819	0919	1019	1119	1119	1219	1319	1419		
	d	0620	0717	0819	0919	1019	1119	1119	1219	1319	1419		
Denby Dale		0627	0724	0826	0926	1026	1126	1126	1226	1326	1426		
Shepley		0632	0729	0831	0931	1031	1131	1131	1231	1331	1431		
Stocksmoor		0638	0732	0834	0934	1034	1134	1134	1234	1334	1434		
Brockholes		0639	0736	0838	0938	1038	1138	1138	1238	1338	1438		
Honley		0641	0739	0841	0941	1041	1141	1141	1241	1341	1441		
Berry Brow		0644	0742	0844	0944	1044	1144	1144	1244	1344	1444		
Lockwood		0647	0744	0847	0947	1047	1147	1147	1247	1347	1447		
Huddersfield	a	0651	0749	0851	0951	1051	1151	1151	1251	1351	1451		

Mondays to Saturdays

										SX	SO		SX	Y	SX	X
Sheffield	d	1435	1535	1635	1735	1735	1835	1935	2035	2236	2238					
Meadowhall	a	1440	1540	1640	1740	1740	1840	1940	2040	2243	2243					
Chapelton	d	1447	1547	1647	1747	1747	1847	1947	2047	2250	2250					
Elsecar		1453	1553	1653	1753	1753	1853	1953	2053	2256	2256					
Wombwell		1456	1556	1656	1756	1756	1856	1956	2056	2300	2300					
Barnsley	a	1502	1602	1702	1802	1802	1902	2002	2102	2306	2306					
	d	1503	1603	1703	1803	1803	1903	2003	2103	2306	2306					
Dodworth		1509	1609	1709	1809	1809	1909	2009	2109	2312	2312					
Silkstone Common		1512	1612	1712	1813	1813	1912	2012	2112	2316	2316					
Penistone	a	1519	1619	1719	1819	1819	1919	2019	2119	2323	2323					
	d	1519	1619	1719	1819	1820	1919	2019	2119	2326	2326					
Denby Dale																

Sheffield to Huddersfield (Penistone Line)

Sheffield to Huddersfield (Penistone Line)

Useful contact details

Mondays to Saturdays

	SO									
Sheffield	d 2238	-	-	-	-	-	-	-	-	-
Meadowhall	a 2243	-	-	-	-	-	-	-	-	-
Chapelton	d 2251	-	-	-	-	-	-	-	-	-
Elsecar	2257	-	-	-	-	-	-	-	-	-
Wombwell	2300	-	-	-	-	-	-	-	-	-
Barnsley	a 2306	-	-	-	-	-	-	-	-	-
	d 2307	-	-	-	-	-	-	-	-	-
Dodworth	2313	-	-	-	-	-	-	-	-	-
Silkstone Common	2317	-	-	-	-	-	-	-	-	-
Penistone	a 2323	-	-	-	-	-	-	-	-	-
	d 2326	-	-	-	-	-	-	-	-	-
Denby Dale	2333	-	-	-	-	-	-	-	-	-
Shepley	2338	-	-	-	-	-	-	-	-	-
Stocksmoor	2340	-	-	-	-	-	-	-	-	-
Brockholes	2345	-	-	-	-	-	-	-	-	-
Honley	2347	-	-	-	-	-	-	-	-	-
Berry Brow	2350	-	-	-	-	-	-	-	-	-
Lockwood	2353	-	-	-	-	-	-	-	-	-
Huddersfield	a 2357	-	-	-	-	-	-	-	-	-

Sundays

			N	N	NW	NV	N	N		
Sheffield	d 0937	1038	1138	1238	1338	1340	1439	1537	1637	1740
Meadowhall	a 0943	1043	1144	1244	1344	1345	1444	1542	1642	1745
Chapelton	d 0950	1051	1150	1251	1350	1352	-	1550	-	1752
Elsecar	0956	1057	1156	1257	1356	1358	-	1556	-	1758
Wombwell	0959	1100	1200	1300	1400	1401	-	1600	-	1801
Barnsley	a 1005	1106	1206	1306	1406	1407	1459	1606	1658	1807
	d 1006	1107	1206	1307	1406	1408	1502	1606	1703	1808
Dodworth	1012	1113	1212	1313	1412	1414	1508	1612	1709	1814
Silkstone Common	1016	1117	1216	1317	1416	1418	1512	1616	1713	1818
Penistone	a 1022	1123	1223	1323	1423	1424	1518	1623	1719	1824
	d 1023	1124	1223	1324	1423	1425	1519	1623	1720	1825
Denby Dale	1030	1131	1230	1331	1430	1432	1526	1630	1727	1832
Shepley	1034	1135	1235	1335	1435	1436	1530	1635	1731	1836
Stocksmoor	1037	1138	1238	1338	1437	1439	1533	1637	1734	1839
Brockholes	1041	1142	1243	1342	1442	1443	1538	1642	1738	1843
Honley	1044	1145	1245	1345	1444	1446	1540	1644	1741	1846
Berry Brow	1047	1148	1248	1348	1447	1449	1543	1647	1744	1849
Lockwood	1049	1150	1251	1350	1450	1451	1546	1650	1747	1851
Huddersfield	a 1055	1156	1256	1355	1455	1456	1550	1655	1753	1856

Sundays

Sheffield	d 1839	1939	-	-	-	-	-	-	-	-
Meadowhall	a 1844	1944	-	-	-	-	-	-	-	-
Chapelton	d -	1951	-	-	-	-	-	-	-	-
Elsecar	-	1957	-	-	-	-	-	-	-	-
Wombwell	-	2000	-	-	-	-	-	-	-	-
Barnsley	a 1900	2006	-	-	-	-	-	-	-	-
	d 1905	2007	-	-	-	-	-	-	-	-
Dodworth	1911	2013	-	-	-	-	-	-	-	-
Silkstone Common	1915	2017	-	-	-	-	-	-	-	-
Penistone	a 1921	2023	-	-	-	-	-	-	-	-
	d 1922	2024	-	-	-	-	-	-	-	-
Denby Dale	1929	2031	-	-	-	-	-	-	-	-
Shepley	1933	2035	-	-	-	-	-	-	-	-
Stocksmoor	1936	2038	-	-	-	-	-	-	-	-
Brockholes	1941	2042	-	-	-	-	-	-	-	-
Honley	1943	2045	-	-	-	-	-	-	-	-
Berry Brow	1946	2048	-	-	-	-	-	-	-	-
Lockwood	1949	2050	-	-	-	-	-	-	-	-
Huddersfield	a 1953	2055	-	-	-	-	-	-	-	-

Notes
 N From Lincoln.
 V Until 24 August.
 W From 31 August.



Fares and service information

National Rail Enquiries
 visit nationalrail.co.uk
 call **03457 48 49 50**
 textphone **0345 60 50 600**



Customer helpline

For comments and enquiries
 visit northernrailway.co.uk/comments
 call **0800 200 6060**



facebook [/northernassist](https://www.facebook.com/northernassist)



@northernassist



Access or disabled information and assistance

call **0800 138 5560**
 email assistance@northernrailway.co.uk



Lost property

email lostproperty@northernrailway.co.uk
 call **0800 200 6060**

Correspondence

Customer Experience Centre
 Freepost NORTHERN RAILWAY



British Transport Police

call **0800 40 50 40** text **61016**

This timetable is also available online and you can download it to your mobile. This saves space in your pocket or bag, as well as paper and the planet! northernrailway.co.uk/timetables

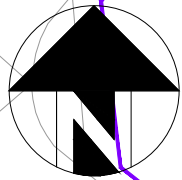
All our policy documents can be found at northernrailway.co.uk/legal

Northern Trains Limited is registered in England under company number 03076444 and whose registered office is located at: Albany House, Floor 8, 94-98 Petty France, London, SW1H 9EA. Northern Trains Ltd is a wholly owned subsidiary of DfT OLR Holdings Limited.

Notes
 SO Saturdays only.



Appendix F
Access Drawings and Interventions



EASTFIELD

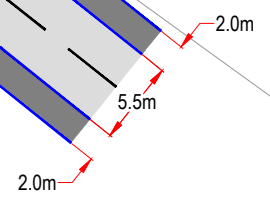
KNOWLE PARK AVENUE

NOTES

EXISTING ADOPTED HIGHWAY BOUNDARY

CARRIAGEWAY AND FOOTWAY TO BE MINIMALLY
NARROWED / WIDENED @ 1 IN 10 TAPER

PROPOSED CONTINUATION OF EXISTING HIGHWAY



P01	Preliminary Issue	30.01.25	AMM
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Transport & Infrastructure Consultants
15 St Paul's Street
Second Floor
Leeds
LS1 2JG
www.amatp.co.uk

Project:
EASTFIELD, SHEPLEY

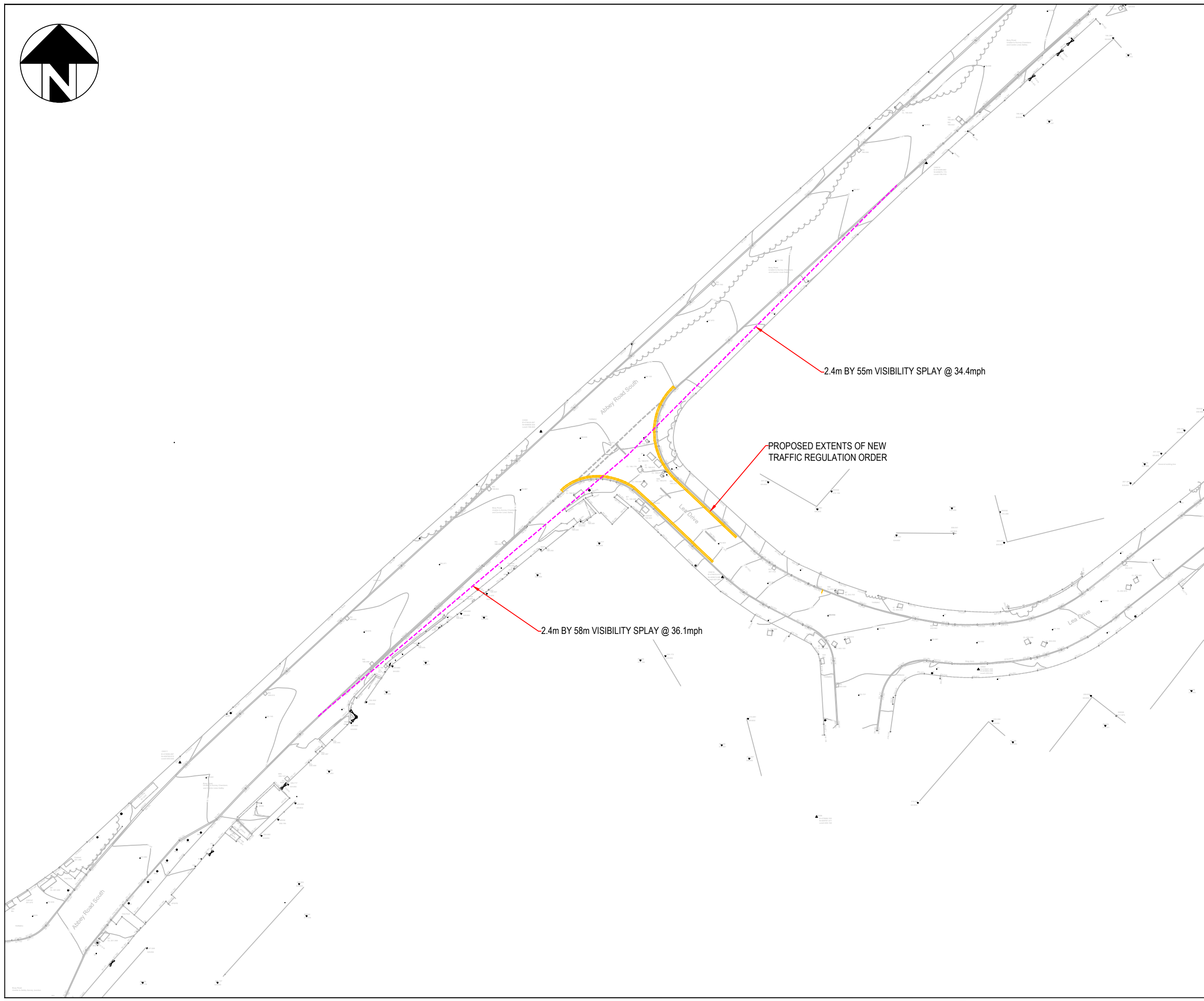
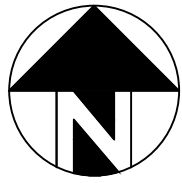
Client:
BANKS GROUP

Drawing:
PROPOSED ACCESS ARRANGEMENTS

Drawn By: MSF	Date: 20.01.2025
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Checked: GDM	Scale: 1:500	Paper: A3
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Drawing No. AMA-23174-SK-001	Rev. P01
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NOTES

P02	Revision to Client Comments	20.08.25	RCW
P01	Preliminary Issue	21.07.25	MSF

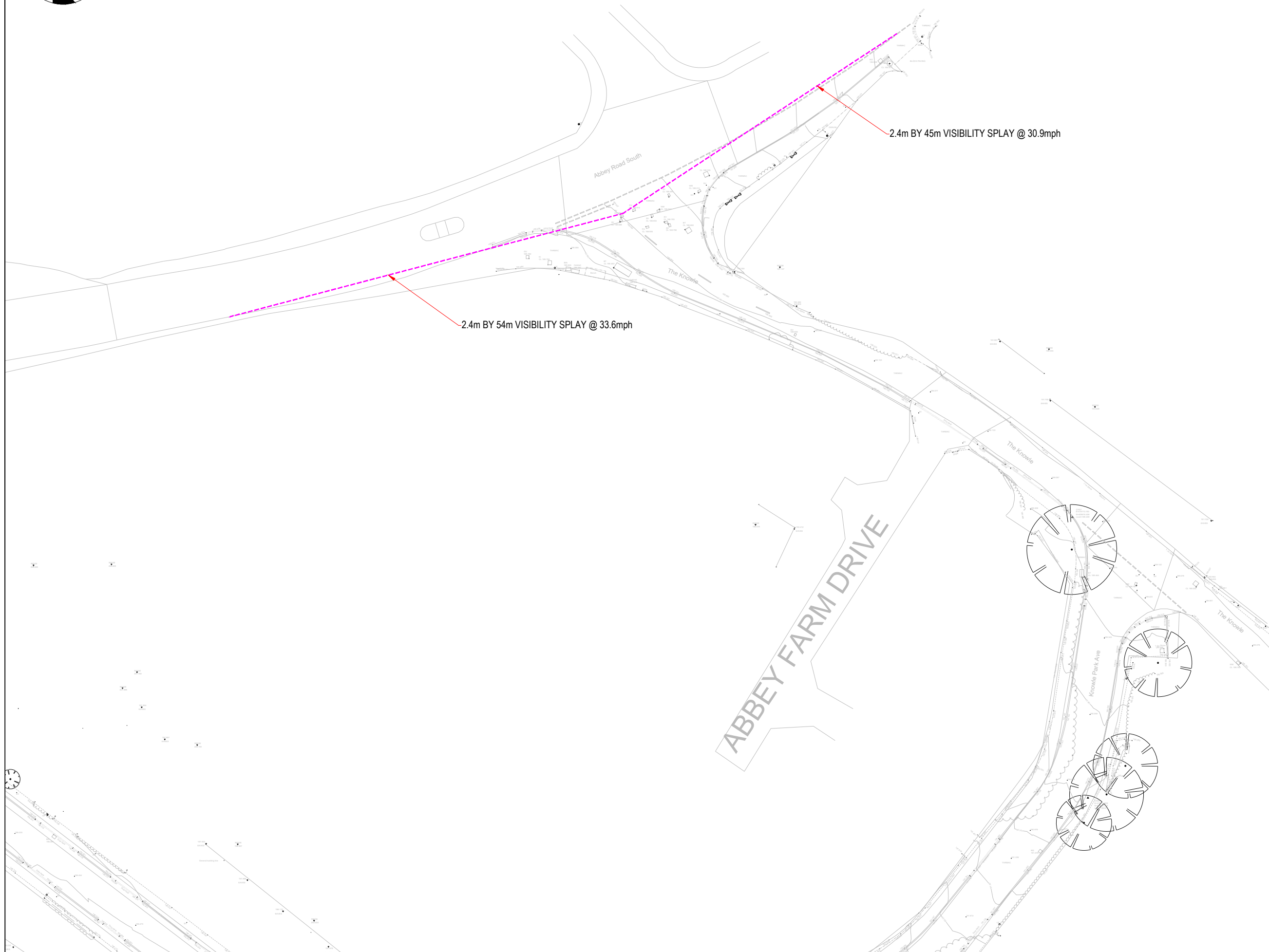
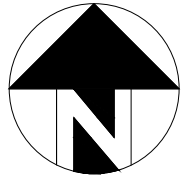
Project:

EASTFIELD, SHEPLEY

Client:
BANKS GROUP

Drawing:
PROPOSED HIGHWAY IMPROVEMENTS - LEA DRIVE / ABBEY ROAD JUNCTION

Drawn By: MSF	Date: 14.07.2025	
Checked: GDM	Scale: 1:500	Paper: A3
Drawing No. AMA-23174-SK-006		Rev. P02



NOTES

P01	Preliminary Issue	21.07.25	MSF
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Transport & Infrastructure Consultants
15 St Paul's Street
Second Floor
Leeds
LS1 2JG
www.amatp.co.uk

Project:
EASTFIELD, SHEPLEY

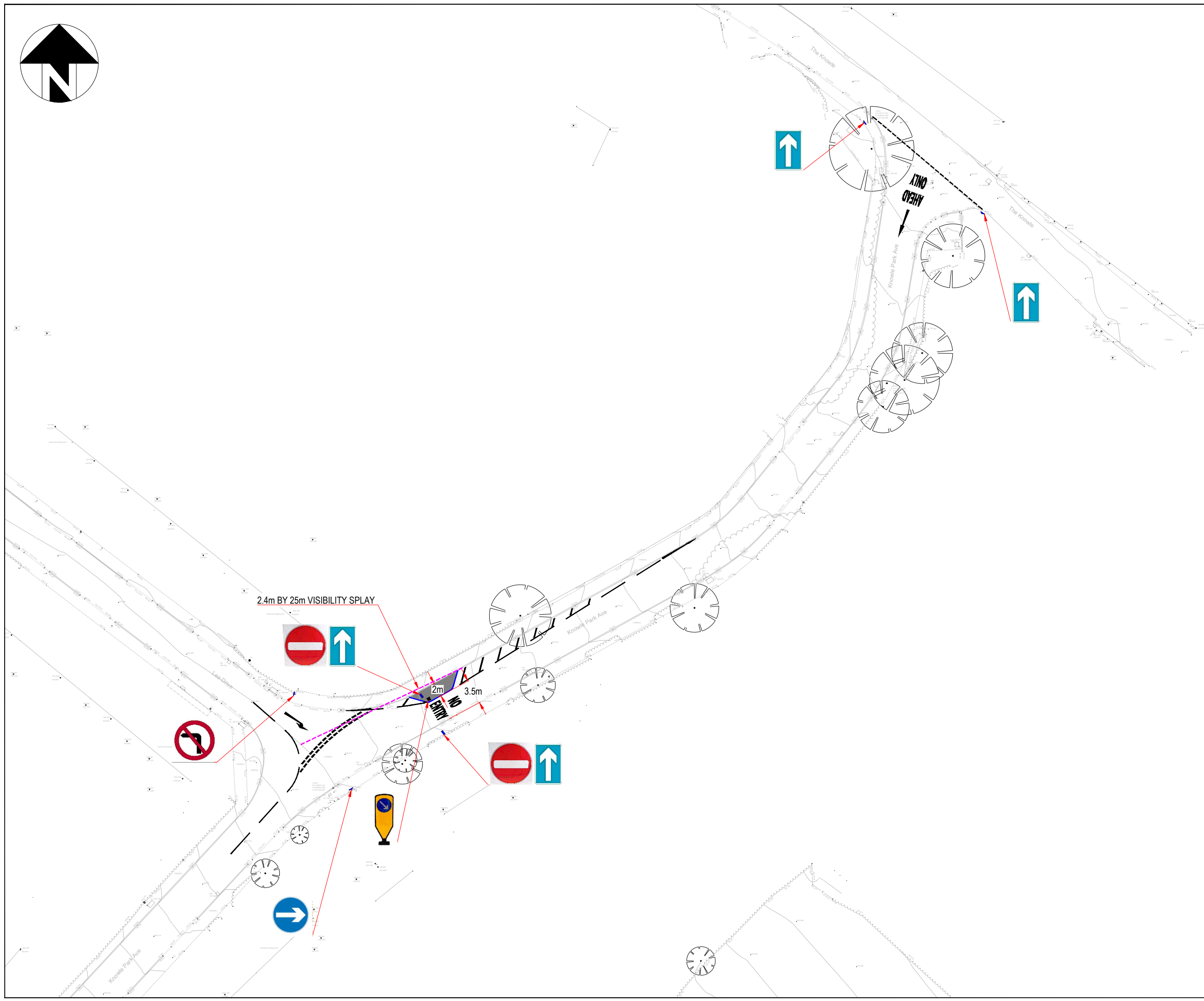
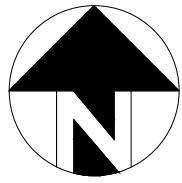
Client:
BANKS GROUP

Drawing:
PROPOSED HIGHWAY IMPROVEMENTS - THE KNOWLE / ABBEY ROAD JUNCTION

Drawn By: MSF	Date: 14.07.2025
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Checked: GDM	Scale: 1:500	Paper: A3
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Drawing No. AMA-23174-SK-007	Rev. P01
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NOTES

P01	Preliminary Issue	21.07.25	JH
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Project:
EASTFIELD, SHEPLEY

Client:
BANKS GROUP

Drawing:
PROPOSED HIGHWAY IMPROVEMENTS - ONE-WAY SYSTEM - SOUTHBOUND

Drawn By: MSF	Date: 17.07.2025
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Checked: GDM	Scale: 1:500	Paper: A3
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Drawing No. AMA-23174-SK-010	Rev. P01
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Appendix G
Traffic Survey Data

Shepley - ATC 1 - Eastfield

Produced by Streetwise Services Ltd.



Channel - Northbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	4	4	5	0	11	9	3	6	6
Mean Speed	8.4	13.1	7.7	-	9.6	10.1	8.6	10.0	9.6
85%ile Speed	9.9	17.8	8.6	-	10.2	11.5	9.9	11.9	11.3
No. Vehicles > 30 MPH Limit	0	0	0	0	0	0	0	-	-
% Vehicles > 30 MPH	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-

Channel - Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	8	5	8	4	10	13	5	8	8
Mean Speed	11.3	10.8	10.4	9.4	11.9	12.3	11.7	11.6	11.1
85%ile Speed	12.8	13.0	12.2	10.6	15.6	14.9	12.2	13.7	13.1
No. Vehicles > 30 MPH Limit	0	0	0	0	0	0	0	-	-
% Vehicles > 30 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Northbound & Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	12	9	13	4	21	22	8	14	13
Mean Speed	10.4	11.9	9.3	9.4	10.7	11.4	10.5	11.0	10.5
85%ile Speed	12.8	14.6	10.3	10.6	13.8	14.1	12.0	13.5	12.8
No. Vehicles > 30 MPH Limit	0	0	0	0	0	0	0	-	-
% Vehicles > 30 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Class	Axes	Groups	Description	Parameters	Dominant Vehicle	Aggregate
1	SV	2	1 OR 2	Short - Car, light Van	d(1)=1.7m, d(1)<=3.2m & axes=2	Light
2	SVT	3, 4 OR 5	3	Short Towing - Trailer, Caravan, Boat, etc.	groups=3, d(1)=2.1m, d(1)<=3.2m, d(2)=2.1m & axes=3,4,5	Light
3	TB2	2	2	Two axle truck or Bus	d(1)>3.2m & axes=2	Medium
4	TB3	3	2	Three axle truck or Bus	axes=3 & groups=2	Medium
5	T4	>3	2	Four axle truck	axes>3 & groups=2	Medium
6	ART3	3	3	Three axle articulated vehicle or Rigid vehicle and trailer	d(1)>3.2m, axes=3 & groups=3	Heavy
7	ART4	4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 4 & groups>2	Heavy
8	ART5	5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 5 & groups>2	Heavy
9	ART6	>6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	axes=6 & groups>2 or axes>6 & groups=3	Heavy
10	BD	>6	4	B-Double or Heavy truck and trailer	groups=4 & axes=6	Heavy
11	DRT	>6	5	Double road train or Heavy truck and two trailers	groups=5,6 & axes=6	Heavy
12	TRT	>6	>6	Triple road train or Heavy truck and three (or more) trailers	groups=6 & axes=6	Heavy
14	M/C	2	1 OR 2	Motorcycle	d(1)=1.18m, d(1)<=1.7m & axes=2	Light
15	CYCLE	2	1 OR 2	Cycle	d(1)<1.18 & axes=2	Light

Appendix H
Traffic Flows



Shepley - Manual Traffic and Queue Length Survey: Thursday, 05 June 2025

Prepared by: Simulation Services Ltd

Junction: A - (North East) A629 Abbey Road / B - Lea Drive / C - (South West) A629 Abbey Road

Approach: A - (North East) A629 Abbey Road

Table with columns for TIME, CAR, LGV, OGV1, OGV2, BUS, PCYCLE, MCVLE, PCU, TOTAL, and sub-sections A/B, A/C, A/D. Rows include time intervals from 06:00-06:15 to 17:00-17:15 and a Session Total row.

Table with columns for TIME, CAR, LGV, OGV1, OGV2, BUS, PCYCLE, MCVLE, PCU, TOTAL, and sub-sections E/F, G/H. Rows include time intervals from 16:00-16:15 to 17:00-17:15 and a Session Total row.



Shepley - Manual Traffic and Queue Length Survey, Thursday, 05 June 2025

Prepared by: Simulation Services Ltd

A - (North East) A629 Abbey Road / B - Lea Drive / C - (South West) A629 Abbey Road

Junction:

B - Lea Drive

Table with columns for TIME, CAR, LGV, OGV1, OGV2, BUS, PCYCLE, MCVLE, PCU, TOTAL, and sub-columns for B+C and B+A. Rows include time intervals from 06:00-06:15 to 17:00-17:15 and a final Session Total row.

Table with columns for TIME, CAR, LGV, OGV1, OGV2, BUS, PCYCLE, MCVLE, PCU, TOTAL, and sub-columns for E+H and T+U. Rows include time intervals from 18:00-18:15 to 17:00-17:15 and a final Session Total row.



Shepley - Manual Traffic and Queue Length Survey: Thursday, 05 June 2025

Prepared by: Operations Services Ltd

Junction: A - (North East) A629 Abbey Road / B - Lea Drive / C - (South West) A629 Abbey Road

Approach: C - (South West) A629 Abbey Road

Table with 17 columns: TIME, CAR, LGV, OVW1, OVW2, BUS, PCYCLE, MICYCLE, PCU, TOTAL, CAR, LGV, OVW1, OVW2, BUS, PCYCLE, MICYCLE, PCU, TOTAL. Contains data for junction C across various time intervals from 06:00-06:15 to 17:00-17:15.

Table with 17 columns: TIME, CAR, LGV, OVW1, OVW2, BUS, PCYCLE, MICYCLE, PCU, TOTAL, CAR, LGV, OVW1, OVW2, BUS, PCYCLE, MICYCLE, PCU, TOTAL. Contains data for junction C across various time intervals from 18:00-18:15 to 19:00-19:15.



Display - Manual Traffic and Queue Length Survey: Thursday, 05 June 2025

Produced by Wintona Systems Ltd

Location: A - A633 Abbey Road South / B - The Braes / C - A633 Abbey Road South / D - The Tree Road

Approach:

A - A633 Abbey Road North

Table with columns for Time, CAR, LOW, OBT, ODO, BUS, PCICLA, MICOLA, PCU, TOTAL, and sub-sections for A633, A633, A633, and A633. Each sub-section contains 12 columns of data.



Shopify - Manual Traffic and Queue Length Survey: Thursday, 05 June 2025
Prepared by Wavemeter Systems Ltd

Location: A - A125 Abbey Road South / B - The Branch / C - A253 Abbey Road South / D - The Tree Road
Approach: C - A253 Abbey Road South

Table with 10 columns (Time, CAR, LOW, OBST, BUS, PCICOLA, MICOLA, PCU, TOTAL) and 100 rows of data for approaches C-U, C-W, C-X, and C-Y.

Shepley - ATC 2 - Lea Drive

Produced by Streetwise Services Ltd.



Channel - Northbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	264	259	171	118	240	239	230	246	217
Mean Speed	14.3	14.1	13.9	14.3	14.4	14.4	14.5	14.4	14.3
85%ile Speed	17.0	16.9	16.6	16.7	17.0	16.9	17.2	17.0	16.9
No. Vehicles > 30 MPH Limit	0	0	0	0	0	0	0	-	-
% Vehicles > 30 MPH Limit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Channel - Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	281	286	175	131	246	251	242	261	230
Mean Speed	14.5	14.4	15.0	14.8	14.6	14.7	14.8	14.6	14.7
85%ile Speed	16.6	16.6	17.2	17.1	17.2	16.9	17.1	16.9	17.0
No. Vehicles > 30 MPH Limit	0	0	0	0	0	0	0	-	-
% Vehicles > 30 MPH Limit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Northbound & Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	545	545	346	249	492	490	472	508	448
Mean Speed	14.4	14.3	14.4	14.5	14.5	14.5	14.6	14.5	14.5
85%ile Speed	16.9	16.7	16.9	16.8	17.1	16.9	17.2	17.0	16.9
No. Vehicles > 30 MPH Limit	0	0	0	0	0	0	0	-	-
% Vehicles > 30 MPH Limit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Class	Axes	Groups	Description	Parameters	Dominant Vehicle	Aggregate	
1	SV	2	1 OR 2	Short - Car, light Van	d(1)=1.7m, d(1)<=3.2m & axes=2		Light
2	SVT	3, 4 OR 5	3	Short Towing - Trailer, Caravan, Boat, etc.	groups=3, d(1)=2.1m, d(1)<=3.2m, d(2)=2.1m & axes=3,4,5		Light
3	TB2	2	2	Two axle truck or Bus	d(1)>3.2m & axes=2		Medium
4	TB3	3	2	Three axle truck or Bus	axes=3 & groups=2		Medium
5	T4	>3	2	Four axle truck	axes>3 & groups=2		Medium
6	ART3	3	3	Three axle articulated vehicle or Rigid vehicle and trailer	d(1)>3.2m, axes=3 & groups=3		Medium
7	ART4	4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 4 & groups>2		Medium
8	ART5	5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 5 & groups>2		Heavy
9	ART6	>6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	axes=6 & groups>2 or axes>6 & groups=3		Heavy
10	BD	>6	4	B-Double or Heavy truck and trailer	groups=4 & axes=6		Heavy
11	DRT	>6	5	Double road train or Heavy truck and two trailers	groups=5,6 & axes=6		Heavy
12	TRT	>6	>6	Triple road train or Heavy truck and three (or more) trailers	groups=6 & axes=6		Heavy
14	M/C	2	1 OR 2	Motorcycle	d(1)=1.18m, d(1)<=1.7m & axes=2		Light
15	CYCLE	2	1 OR 2	Cycle	d(1)<1.18 & axes=2		Light

Shepley - ATC 3 - The Knowle

Produced by Streetwise Services Ltd.



Channel - Northbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	282	255	163	141	266	269	285	271	237
Mean Speed	17.8	18.1	17.5	17.1	17.8	17.8	17.9	17.8	17.7
85%ile Speed	21.5	22.1	22.5	22.1	21.9	21.9	22.2	21.9	22.0
No. Vehicles > 30 MPH Limit	0	3	1	0	1	1	1	2	1
% Vehicles > 30 MPH	0.0	1.2	0.6	0.0	0.4	0.4	0.4	0.6	0.6
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Channel - Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	289	245	150	132	265	258	269	265	230
Mean Speed	17.5	18.0	17.5	18.0	18.3	17.5	17.8	17.8	17.8
85%ile Speed	20.8	21.3	21.2	22.2	22.3	21.3	21.5	21.4	21.5
No. Vehicles > 30 MPH Limit	0	1	0	1	2	0	3	2	2
% Vehicles > 30 MPH	0.0	0.4	0.0	0.8	0.8	0.0	1.1	0.8	0.8
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Northbound & Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	571	500	313	273	531	527	554	537	467
Mean Speed	17.6	18.1	17.5	17.6	17.9	17.6	17.8	17.8	17.7
85%ile Speed	21.2	21.7	21.9	22.1	22.1	21.8	22.0	21.7	21.8
No. Vehicles > 30 MPH Limit	0	4	1	1	3	1	4	3	2
% Vehicles > 30 MPH	0.0	0.8	0.3	0.4	0.6	0.2	0.7	0.6	0.5
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Class	Axes	Groups	Description	Parameters	Dominant Vehicle	Aggregate	
1	SV	2	1 OR 2	Short - Car, light Van	d(1)=1.7m, d(1)<=3.2m & axes=2		Light
2	SVT	3, 4 OR 5	3	Short Towing - Trailer, Caravan, Boat, etc.	groups=3, d(1)=2.1m, d(1)<=3.2m, d(2)=2.1m & axes=3,4,5		Light
3	TB2	2	2	Two axle truck or Bus	d(1)>3.2m & axes=2		Medium
4	TB3	3	2	Three axle truck or Bus	axes=3 & groups=2		Medium
5	T4	>3	2	Four axle truck	axes>3 & groups=2		Medium
6	ART3	3	3	Three axle articulated vehicle or Rigid vehicle and trailer	d(1)>3.2m, axes=3 & groups=3		Medium
7	ART4	4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 4 & groups>2		Heavy
8	ART5	5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 5 & groups>2		Heavy
9	ART6	>6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	axes=6 & groups>2 or axes>6 & groups=3		Heavy
10	BD	>6	4	B-Double or Heavy truck and trailer	groups=4 & axes=6		Heavy
11	DRT	>6	5	Double road train or Heavy truck and two trailers	groups=5,6 & axes>6		Heavy
12	TRT	>6	>6	Triple road train or Heavy truck and three (or more) trailers	groups>6 & axes>6		Heavy
14	M/C	2	1 OR 2	Motorcycle	d(1)=1.18m, d(1)<=1.7m & axes=2		Light
15	CYCLE	2	1 OR 2	Cycle	d(1)<1.18 & axes=2		Light

Shepley - ATC 4 - The Knowle

Produced by Streetwise Services Ltd.



Channel - Northbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	199	154	101	70	176	180	191	180	183
Mean Speed	18.5	18.9	18.9	19.4	18.1	18.3	18.6	18.5	18.7
85%ile Speed	23.2	23.6	24.6	24.8	24.2	24.2	23.7	23.8	24.1
No. Vehicles > 30 MPH Limit	0	5	1	0	1	1	2	2	2
% Vehicles > 30 MPH Limit	0.0	3.2	1.0	0.0	0.6	0.6	1.0	1.4	1.3
No. Vehicles > 45 MPH	0	1	0	0	0	0	0	1	1
% Vehicles > 45 MPH	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.6

Channel - Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	216	165	102	81	202	196	213	188	188
Mean Speed	18.4	18.9	18.5	18.9	18.0	17.6	17.9	18.1	18.3
85%ile Speed	23.6	24.0	23.6	23.7	24.2	23.2	24.0	23.8	24.0
No. Vehicles > 30 MPH Limit	3	5	2	1	4	2	3	3	3
% Vehicles > 30 MPH Limit	1.4	3.0	2.0	1.2	2.0	1.0	1.4	1.8	1.7
No. Vehicles > 45 MPH	0	0	0	0	0	0	0	-	-
% Vehicles > 45 MPH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-

Northbound & Southbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	415	319	203	151	378	376	404	378	371
Mean Speed	18.4	18.9	18.6	19.1	18.0	17.9	18.3	18.3	18.5
85%ile Speed	23.5	23.9	24.7	24.7	24.2	24.1	24.0	23.9	24.2
No. Vehicles > 30 MPH Limit	3	10	3	1	5	3	5	5	4
% Vehicles > 30 MPH Limit	0.7	3.1	1.5	0.7	1.3	0.8	1.2	1.4	1.3
No. Vehicles > 45 MPH	0	1	0	0	0	0	0	1	1
% Vehicles > 45 MPH	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.3

Class	Axes	Groups	Description	Parameters	Dominant Vehicle	Aggregate	
1	SV	2	1 OR 2	Short - Car, light Van	d(1)=1.7m, d(1)<=3.2m & axes=2		Light
2	SVT	3, 4 OR 5	3	Short Towing - Trailer, Caravan, Boat, etc.	groups=3, d(1)=2.1m, d(1)<=3.2m, d(2)=2.1m & axes=3,4,5		Light
3	TB2	2	2	Two axle truck or Bus	d(1)>3.2m & axes=2		Medium
4	TB3	3	2	Three axle truck or Bus	axes=3 & groups=2		Medium
5	T4	>3	2	Four axle truck	axes>3 & groups=2		Medium
6	ART3	3	3	Three axle articulated vehicle or Rigid vehicle and trailer	d(1)>3.2m, axes=3 & groups=3		Medium
7	ART4	4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 4 & groups>2		Heavy
8	ART5	5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 5 & groups>2		Heavy
9	ART6	>=6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	axes=6 & groups>2 or axes>6 & groups=3		Heavy
10	BD	>6	4	B-Double or Heavy truck and trailer	groups=4 & axes=6		Heavy
11	DRT	>6	5	Double road train or Heavy truck and two trailers	groups=5,6 & axes=6		Heavy
12	TRT	>6	>6	Triple road train or Heavy truck and three (or more) trailers	groups=6 & axes=6		Heavy
14	M/C	2	1 OR 2	Motorcycle	d(1)=1.18m, d(1)<=1.7m & axes=2		Light
15	CYCLE	2	1 OR 2	Cycle	d(1)<1.18 & axes=2		Light

Shepley - ATC 5 - A629 Abbey Road South

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Channel - Eastbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	4505	4980	3471	2920	4429	4558	4555	4626	4217
Mean Speed	32.1	32.3	32.8	32.8	32.4	32.5	32.5	32.4	32.5
85%ile Speed	35.7	35.9	36.6	36.5	36.1	36.1	36.1	36.0	36.1
No. Vehicles > 30 MPH Limit	3213	3630	2647	2252	3258	3426	3522	3410	3135
% Vehicles > 30 MPH Limit	71.3	72.9	76.3	77.1	73.8	75.2	75.7	73.7	74.8
No. Vehicles > 45 MPH	29	38	46	31	45	44	33	36	38
% Vehicles > 45 MPH	0.6	0.8	1.3	1.1	1.0	1.0	0.7	0.8	0.9

Channel - Westbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	4803	4955	3690	3036	4710	4783	4922	4831	4411
Mean Speed	30.0	30.3	31.2	31.6	30.5	29.9	30.7	30.3	30.6
85%ile Speed	33.8	34.0	34.9	35.3	34.2	33.9	34.5	34.1	34.4
No. Vehicles > 30 MPH Limit	2356	2538	2245	1976	2524	2439	2845	2540	2418
% Vehicles > 30 MPH Limit	49.1	51.2	60.8	65.1	53.6	51.2	57.8	52.6	55.5
No. Vehicles > 45 MPH	10	23	28	16	22	21	17	19	20
% Vehicles > 45 MPH	0.2	0.5	0.8	0.5	0.5	0.4	0.3	0.4	0.5

Eastbound & Westbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	9308	9935	7161	5956	9139	9321	9577	9456	8628
Mean Speed	31.0	31.3	32.0	32.2	31.4	31.2	31.6	31.3	31.5
85%ile Speed	34.9	35.2	35.9	35.9	35.2	35.0	35.4	35.3	35.3
No. Vehicles > 30 MPH Limit	5559	6168	4892	4226	5762	5865	6367	5850	5553
% Vehicles > 30 MPH Limit	59.8	62.1	68.3	71.0	63.3	62.9	66.5	62.9	64.8
No. Vehicles > 45 MPH	39	61	74	47	67	65	50	56	58
% Vehicles > 45 MPH	0.4	0.6	1.0	0.8	0.7	0.7	0.5	0.6	0.7

Class	Axes	Groups	Description	Parameters	Dominant Vehicle	Aggregate
1	SV	2	1 OR 2	Short - Car, light Van	d(1)=1.7m, d(1)<=3.2m & axes=2	Light
2	SVT	3, 4 OR 5	3	Short Towing - Trailer, Caravan, Boat, etc.	groups=3, d(1)=2.1m, d(1)<=3.2m, d(2)=2.1m & axes=3,4,5	Light
3	TB2	2	2	Two axle truck or Bus	d(1)>3.2m & axes=2	Medium
4	TB3	3	2	Three axle truck or Bus	axes=3 & groups=2	Medium
5	T4	>3	2	Four axle truck	axes>3 & groups=2	Medium
6	ART3	3	3	Three axle articulated vehicle or Rigid vehicle and trailer	d(1)>3.2m, axes=3 & groups=3	Heavy
7	ART4	4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 4 & groups>2	Heavy
8	ART5	5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 5 & groups>2	Heavy
9	ART6	>6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	axes=6 & groups>2 or axes>6 & groups=3	Heavy
10	BD	>6	4	B-Double or Heavy truck and trailer	groups=4 & axes=6	Heavy
11	DRT	>6	5	Double road train or Heavy truck and two trailers	groups=5,6 & axes=6	Heavy
12	TRT	>6	>6	Triple road train or Heavy truck and three (or more) trailers	groups=6 & axes=6	Heavy
14	M/C	2	1 OR 2	Motorcycle	d(1)=1.18m, d(1)<=1.7m & axes=2	Light
15	CYCLE	2	1 OR 2	Cycle	d(1)<=1.18 & axes=2	Light

Shepley - ATC 6 - A629 Abbey Road South

Produced by Streetwise Services Ltd.



Channel - Eastbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	4584	5053	3547	2963	4529	4673	4718	4711	4295
Mean Speed	29.5	29.8	30.3	30.3	29.7	29.8	29.8	29.7	29.5
85%ile Speed	33.2	33.2	34.2	34.1	33.4	33.7	33.6	33.4	33.6
No. Vehicles > 30 MPH Limit	1896	2115	1745	1483	2032	2059	2038	2028	1910
% Vehicles > 30 MPH Limit	41.4	41.9	49.2	50.1	44.9	44.1	43.2	43.1	44.9
No. Vehicles > 45 MPH	10	14	19	16	14	22	20	16	16
% Vehicles > 45 MPH	0.2	0.3	0.5	0.5	0.3	0.5	0.4	0.3	0.4

Channel - Westbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	4801	4950	3685	3028	4716	4754	4887	4824	4404
Mean Speed	26.9	27.1	28.0	28.2	27.2	26.8	27.3	27.1	27.3
85%ile Speed	30.6	30.6	31.4	31.5	30.7	30.6	30.9	30.7	30.9
No. Vehicles > 30 MPH Limit	908	932	932	812	936	907	1038	944	924
% Vehicles > 30 MPH Limit	18.9	18.8	25.3	26.8	19.8	19.1	21.2	19.6	21.4
No. Vehicles > 45 MPH	0	2	8	1	5	3	9	4	4
% Vehicles > 45 MPH	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1

Eastbound & Westbound

	05/06/2025 Thursday	06/06/2025 Friday	07/06/2025 Saturday	08/06/2025 Sunday	09/06/2025 Monday	10/06/2025 Tuesday	11/06/2025 Wednesday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	9385	10003	7232	5991	9245	9427	9605	9535	8700
Mean Speed	28.2	28.3	29.1	29.2	28.4	28.3	28.5	28.3	28.6
85%ile Speed	32.0	32.2	33.0	33.0	32.3	32.3	32.4	32.2	32.5
No. Vehicles > 30 MPH Limit	2924	3047	2877	2295	2968	2966	3076	2972	2833
% Vehicles > 30 MPH Limit	29.9	30.5	37.0	38.3	32.1	31.5	32.0	31.2	33.0
No. Vehicles > 45 MPH	10	16	27	17	19	25	25	19	20
% Vehicles > 45 MPH	0.1	0.2	0.4	0.3	0.2	0.3	0.3	0.2	0.2

Class	Axes	Groups	Description	Parameters	Dominant Vehicle	Aggregate
1	SV	2	1 OR 2	Short - Car, light Van	d(1)=1.7m, d(1)<=3.2m & axes=2	Light
2	SVT	3, 4 OR 5	3	Short Towing - Trailer, Caravan, Boat, etc.	groups=3, d(1)=2.1m, d(1)<=3.2m, d(2)=2.1m & axes=3,4,5	Light
3	TB2	2	2	Two axle truck or Bus	d(1)>3.2m & axes=2	Medium
4	TB3	3	2	Three axle truck or Bus	axes=3 & groups=2	Medium
5	T4	>3	2	Four axle truck	axes>3 & groups=2	Medium
6	ART3	3	3	Three axle articulated vehicle or Rigid vehicle and trailer	d(1)>3.2m, axes=3 & groups=3	Heavy
7	ART4	4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 4 & groups>2	Heavy
8	ART5	5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axes = 5 & groups>2	Heavy
9	ART6	>6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	axes=6 & groups>2 or axes>6 & groups=3	Heavy
10	BD	>6	4	B-Double or Heavy truck and trailer	groups=4 & axes=6	Heavy
11	DRT	>6	5	Double road train or Heavy truck and two trailers	groups=5,6 & axes=6	Heavy
12	TRT	>6	>6	Triple road train or Heavy truck and three (or more) trailers	groups=6 & axes=6	Heavy
14	M/C	2	1 OR 2	Motorcycle	d(1)=1.18m, d(1)<=1.7m & axes=2	Light
15	CYCLE	2	1 OR 2	Cycle	d(1)<1.18 & axes=2	Light

Appendix I
TRICS Data

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : M - MIXED PRIVATE/AFFORDABLE HOUSING
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	3 days
	SC SURREY	1 days
	WS WEST SUSSEX	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	3 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days

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

AMA - Leeds

Licence No: 710001

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: 16 to 240 (units:)
Range Selected by User: 9 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: 01/01/16 to 07/10/24

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	2 days
Wednesday	5 days
Friday	1 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	3 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Neighbourhood Centre (PPS6 Local Centre)	9

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	1
Village	9

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	15 days - Selected
Servicing vehicles Excluded	53 days - Selected

Secondary Filtering selection:

Use Class:

C3	10 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	7 days
5,001 to 10,000	3 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	1 days
25,001 to 50,000	9 days

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

Car ownership within 5 miles:

1.1 to 1.5	6 days
1.6 to 2.0	4 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	8 days
No	2 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	10 days
-----------------	---------

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	CA-03-M-02 FORDHAM ROAD SOHAM	MIXED HOUSES & FLATS	CAMBRI DGESHI RE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 87 <i>Survey date: WEDNESDAY 26/05/21</i>		<i>Survey Type: MANUAL</i>
2	ES-03-M-09 STATION ROAD NORTHIAM	DETACHED/SEMI -DETACHED	EAST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 16 <i>Survey date: WEDNESDAY 17/05/17</i>		<i>Survey Type: MANUAL</i>
3	ES-03-M-20 HOREBEECH LANE HORAM	MIXED HOUSES & FLATS	EAST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 47 <i>Survey date: TUESDAY 05/10/21</i>		<i>Survey Type: MANUAL</i>
4	ES-03-M-22 GOLDBRIDGE ROAD NEWICK	MIXED HOUSES & FLATS	EAST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 23 <i>Survey date: MONDAY 07/10/24</i>		<i>Survey Type: MANUAL</i>
5	NF-03-M-13 MACMILLAN WAY NEAR NORWICH LITTLE PLUMSTEAD	MIXED HOUSES	NORFOLK
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 75 <i>Survey date: FRIDAY 20/09/19</i>		<i>Survey Type: DIRECTIONAL ATC COUNT</i>
6	NF-03-M-32 MACMILLAN WAY NEAR NORWICH LITTLE PLUMSTEAD	MIXED HOUSES & FLATS	NORFOLK
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 240 <i>Survey date: WEDNESDAY 12/09/18</i>		<i>Survey Type: DIRECTIONAL ATC COUNT</i>
7	NF-03-M-52 STALHAM ROAD HOVETON	MIXED HOUSES	NORFOLK
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 120 <i>Survey date: WEDNESDAY 21/09/22</i>		<i>Survey Type: DIRECTIONAL ATC COUNT</i>

LIST OF SITES relevant to selection parameters (Cont.)

8	SC-03-M-11 HEWITT' S ROAD CRANLEIGH	SEMI -DETACHED & FLATS	SURREY
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	110	
	Survey date: MONDAY	17/10/22	Survey Type: MANUAL
9	WK-03-M-03 STOCKTON ROAD LONG ITCHINGTON	MIXED HOUSES	WARWICKSHIRE
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	124	
	Survey date: WEDNESDAY	27/06/18	Survey Type: MANUAL
10	WS-03-M-29 MILL STRAIGHT SOUTHWATER	MIXED HOUSES & FLATS	WEST SUSSEX
	Neighbourhood Centre (PPS6 Local Centre) Village		
	Total No of Dwellings:	193	
	Survey date: TUESDAY	05/03/24	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.

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	104	0.066	10	104	0.271	10	104	0.337
08:00 - 09:00	10	104	0.114	10	104	0.375	10	104	0.489
09:00 - 10:00	10	104	0.121	10	104	0.151	10	104	0.272
10:00 - 11:00	10	104	0.100	10	104	0.112	10	104	0.212
11:00 - 12:00	10	104	0.132	10	104	0.125	10	104	0.257
12:00 - 13:00	10	104	0.129	10	104	0.116	10	104	0.245
13:00 - 14:00	10	104	0.138	10	104	0.125	10	104	0.263
14:00 - 15:00	10	104	0.147	10	104	0.156	10	104	0.303
15:00 - 16:00	10	104	0.241	10	104	0.177	10	104	0.418
16:00 - 17:00	10	104	0.269	10	104	0.152	10	104	0.421
17:00 - 18:00	10	104	0.338	10	104	0.171	10	104	0.509
18:00 - 19:00	10	104	0.251	10	104	0.137	10	104	0.388
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.046			2.068			4.114

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

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

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Parameter summary

Trip rate parameter range selected: 16 - 240 (units:)
Survey date range: 01/01/16 - 07/10/24
Number of weekdays (Monday-Friday): 14
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 10
Surveys manually removed from selection: 0

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix J
Junctions9 Outputs

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: A629 Abbey Road Lea Drive.j9
Path: C:\AMA\AMA\AMA - Documents\001 - Projects\23174 - Eastfield, Shepley\D Models and Drawings\JUNCTION MODELLING
Report generation date: 20/08/2025 09:06:28

- »2025, AM
- »2025, PM
- »2030, AM
- »2030, PM
- »2030 + Committed, AM
- »2030 + Committed, PM
- »2030 + Committed + Development, AM
- »2030 + Committed + Development, PM
- »2030 + Committed + Development (Vision & Validate), AM
- »2030 + Committed + Development (Vision & Validate), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2025										
Stream B-AC	D1	0.0	7.39	0.04	A	D2	0.1	6.92	0.05	A
Stream C-AB		0.0	4.64	0.02	A		0.1	4.91	0.04	A
2030										
Stream B-AC	D3	0.0	7.52	0.04	A	D4	0.1	7.03	0.05	A
Stream C-AB		0.0	4.60	0.02	A		0.1	4.89	0.05	A
2030 + Committed										
Stream B-AC	D5	0.0	7.59	0.04	A	D6	0.1	7.07	0.05	A
Stream C-AB		0.0	4.60	0.02	A		0.1	4.85	0.05	A
2030 + Committed + Development										
Stream B-AC	D7	0.2	8.93	0.14	A	D8	0.1	8.38	0.10	A
Stream C-AB		0.0	4.63	0.03	A		0.1	4.94	0.07	A
2030 + Committed + Development (Vision & Validate)										
Stream B-AC	D9	0.1	7.86	0.10	A	D10	0.1	7.38	0.07	A
Stream C-AB		0.0	4.81	0.02	A		0.1	5.07	0.05	A

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	20/08/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2025	AM	ONE HOUR	07:30	09:00	15
D2	2025	PM	ONE HOUR	16:15	17:45	15
D3	2030	AM	ONE HOUR	07:30	09:00	15
D4	2030	PM	ONE HOUR	16:15	17:45	15
D5	2030 + Committed	AM	ONE HOUR	07:30	09:00	15
D6	2030 + Committed	PM	ONE HOUR	16:15	17:45	15
D7	2030 + Committed + Development	AM	ONE HOUR	07:30	09:00	15
D8	2030 + Committed + Development	PM	ONE HOUR	16:15	17:45	15
D9	2030 + Committed + Development (Vision & Validate)	AM	ONE HOUR	07:30	09:00	15
D10	2030 + Committed + Development (Vision & Validate)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A629 Abbey Road (E)		Major
B	Lea Drive		Minor
C	A629 Abbey Road (W)		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 - A629 Abbey Road (W)	5.99			110.0	✓	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 - Lea Drive	One lane	4.88	22	18

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	586	0.107	0.270	0.170	0.386
B-C	755	0.116	0.293	-	-
C-B	638	0.247	0.247	-	-

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)
D1	2025	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	424	100.000
B - Lea Drive		✓	17	100.000
C - A629 Abbey Road (W)		✓	445	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	12	412
	B - Lea Drive	6	0	11
	C - A629 Abbey Road (W)	437	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	7.39	0.0	A
C-AB	0.02	4.64	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	564	0.023	13	0.0	6.525	A
C-AB	10	786	0.013	10	0.0	4.643	A
C-A	325			325			
A-B	9			9			
A-C	310			310			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	540	0.028	15	0.0	6.859	A
C-AB	14	818	0.017	14	0.0	4.478	A
C-A	386			386			
A-B	11			11			
A-C	370			370			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	506	0.037	19	0.0	7.393	A
C-AB	20	864	0.023	20	0.0	4.265	A
C-A	470			470			
A-B	13			13			
A-C	454			454			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	506	0.037	19	0.0	7.393	A
C-AB	20	864	0.023	20	0.0	4.267	A
C-A	470			470			
A-B	13			13			
A-C	454			454			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	540	0.028	15	0.0	6.863	A
C-AB	14	818	0.017	14	0.0	4.480	A
C-A	386			386			
A-B	11			11			
A-C	370			370			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	564	0.023	13	0.0	6.526	A
C-AB	10	786	0.013	10	0.0	4.645	A
C-A	325			325			
A-B	9			9			
A-C	310			310			

2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D2	2025	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	512	100.000
B - Lea Drive		✓	24	100.000
C - A629 Abbey Road (W)		✓	410	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	10	502
	B - Lea Drive	3	0	21
	C - A629 Abbey Road (W)	396	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	6.92	0.1	A
C-AB	0.04	4.91	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	606	0.030	18	0.0	6.124	A
C-AB	17	751	0.023	17	0.0	4.909	A
C-A	291			291			
A-B	8			8			
A-C	378			378			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	581	0.037	22	0.0	6.434	A
C-AB	23	776	0.030	23	0.0	4.780	A
C-A	345			345			
A-B	9			9			
A-C	451			451			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	547	0.048	26	0.1	6.919	A
C-AB	33	814	0.041	33	0.1	4.612	A
C-A	418			418			
A-B	11			11			
A-C	553			553			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	547	0.048	26	0.1	6.920	A
C-AB	33	814	0.041	33	0.1	4.615	A
C-A	418			418			
A-B	11			11			
A-C	553			553			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	581	0.037	22	0.0	6.435	A
C-AB	23	776	0.030	23	0.0	4.781	A
C-A	345			345			
A-B	9			9			
A-C	451			451			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	606	0.030	18	0.0	6.130	A
C-AB	18	751	0.023	18	0.0	4.910	A
C-A	291			291			
A-B	8			8			
A-C	378			378			

2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D3	2030	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	442	100.000
B - Lea Drive		✓	17	100.000
C - A629 Abbey Road (W)		✓	464	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	12	430
	B - Lea Drive	6	0	11
	C - A629 Abbey Road (W)	456	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	7.52	0.0	A
C-AB	0.02	4.60	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	559	0.023	13	0.0	6.589	A
C-AB	11	793	0.013	11	0.0	4.602	A
C-A	339			339			
A-B	9			9			
A-C	324			324			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	534	0.029	15	0.0	6.945	A
C-AB	14	827	0.017	14	0.0	4.431	A
C-A	403			403			
A-B	11			11			
A-C	387			387			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	497	0.038	19	0.0	7.519	A
C-AB	21	875	0.024	21	0.0	4.212	A
C-A	490			490			
A-B	13			13			
A-C	473			473			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	497	0.038	19	0.0	7.519	A
C-AB	21	875	0.024	21	0.0	4.214	A
C-A	490			490			
A-B	13			13			
A-C	473			473			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	534	0.029	15	0.0	6.946	A
C-AB	14	827	0.017	14	0.0	4.432	A
C-A	403			403			
A-B	11			11			
A-C	387			387			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	559	0.023	13	0.0	6.589	A
C-AB	11	793	0.013	11	0.0	4.604	A
C-A	339			339			
A-B	9			9			
A-C	324			324			

2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D4	2030	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	535	100.000
B - Lea Drive		✓	25	100.000
C - A629 Abbey Road (W)		✓	428	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	10	525
	B - Lea Drive	3	0	22
	C - A629 Abbey Road (W)	413	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	7.03	0.1	A
C-AB	0.05	4.89	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	601	0.031	19	0.0	6.177	A
C-AB	19	756	0.025	19	0.0	4.884	A
C-A	303			303			
A-B	8			8			
A-C	395			395			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	576	0.039	22	0.0	6.506	A
C-AB	26	783	0.033	26	0.0	4.752	A
C-A	359			359			
A-B	9			9			
A-C	472			472			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	540	0.051	27	0.1	7.028	A
C-AB	37	823	0.045	37	0.1	4.582	A
C-A	434			434			
A-B	11			11			
A-C	578			578			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	540	0.051	28	0.1	7.028	A
C-AB	37	823	0.045	37	0.1	4.585	A
C-A	434			434			
A-B	11			11			
A-C	578			578			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	576	0.039	23	0.0	6.508	A
C-AB	26	783	0.033	26	0.0	4.754	A
C-A	359			359			
A-B	9			9			
A-C	472			472			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	601	0.031	19	0.0	6.183	A
C-AB	19	756	0.025	19	0.0	4.887	A
C-A	303			303			
A-B	8			8			
A-C	395			395			

2030 + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D5	2030 + Committed	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	454	100.000
B - Lea Drive		✓	17	100.000
C - A629 Abbey Road (W)		✓	469	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	12	442
	B - Lea Drive	6	0	11
	C - A629 Abbey Road (W)	461	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	7.59	0.0	A
C-AB	0.02	4.60	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	556	0.023	13	0.0	6.625	A
C-AB	11	794	0.013	11	0.0	4.597	A
C-A	342			342			
A-B	9			9			
A-C	333			333			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	530	0.029	15	0.0	6.994	A
C-AB	14	828	0.017	14	0.0	4.426	A
C-A	407			407			
A-B	11			11			
A-C	397			397			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	493	0.038	19	0.0	7.591	A
C-AB	21	877	0.024	21	0.0	4.206	A
C-A	495			495			
A-B	13			13			
A-C	487			487			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	493	0.038	19	0.0	7.591	A
C-AB	21	877	0.024	21	0.0	4.208	A
C-A	495			495			
A-B	13			13			
A-C	487			487			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	530	0.029	15	0.0	6.998	A
C-AB	14	828	0.017	14	0.0	4.427	A
C-A	407			407			
A-B	11			11			
A-C	397			397			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	556	0.023	13	0.0	6.626	A
C-AB	11	794	0.014	11	0.0	4.600	A
C-A	342			342			
A-B	9			9			
A-C	333			333			

2030 + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D6	2030 + Committed	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	542	100.000
B - Lea Drive		✓	25	100.000
C - A629 Abbey Road (W)		✓	440	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	10	532
	B - Lea Drive	3	0	22
	C - A629 Abbey Road (W)	425	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	7.07	0.1	A
C-AB	0.05	4.85	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	599	0.031	19	0.0	6.197	A
C-AB	19	761	0.026	19	0.0	4.852	A
C-A	312			312			
A-B	8			8			
A-C	401			401			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	573	0.039	22	0.0	6.534	A
C-AB	26	790	0.033	26	0.0	4.715	A
C-A	369			369			
A-B	9			9			
A-C	478			478			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	537	0.051	27	0.1	7.069	A
C-AB	38	831	0.046	38	0.1	4.540	A
C-A	447			447			
A-B	11			11			
A-C	586			586			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	537	0.051	28	0.1	7.069	A
C-AB	38	831	0.046	38	0.1	4.541	A
C-A	446			446			
A-B	11			11			
A-C	586			586			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	573	0.039	23	0.0	6.535	A
C-AB	26	790	0.033	26	0.0	4.717	A
C-A	369			369			
A-B	9			9			
A-C	478			478			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	599	0.031	19	0.0	6.201	A
C-AB	20	761	0.026	20	0.0	4.855	A
C-A	312			312			
A-B	8			8			
A-C	401			401			

2030 + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D7	2030 + Committed + Development	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	458	100.000
B - Lea Drive		✓	58	100.000
C - A629 Abbey Road (W)		✓	472	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	16	442
	B - Lea Drive	26	0	32
	C - A629 Abbey Road (W)	461	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.14	8.93	0.2	A
C-AB	0.03	4.63	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	533	0.082	43	0.1	7.346	A
C-AB	15	793	0.019	15	0.0	4.625	A
C-A	341			341			
A-B	12			12			
A-C	333			333			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	506	0.103	52	0.1	7.934	A
C-AB	20	827	0.024	20	0.0	4.460	A
C-A	404			404			
A-B	14			14			
A-C	397			397			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	467	0.137	64	0.2	8.923	A
C-AB	29	876	0.033	29	0.0	4.249	A
C-A	491			491			
A-B	18			18			
A-C	487			487			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	467	0.137	64	0.2	8.930	A
C-AB	29	876	0.033	29	0.0	4.251	A
C-A	491			491			
A-B	18			18			
A-C	487			487			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	506	0.103	52	0.1	7.945	A
C-AB	20	827	0.024	20	0.0	4.460	A
C-A	404			404			
A-B	14			14			
A-C	397			397			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	533	0.082	44	0.1	7.358	A
C-AB	15	793	0.019	15	0.0	4.627	A
C-A	341			341			
A-B	12			12			
A-C	333			333			

2030 + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D8	2030 + Committed + Development	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	552	100.000
B - Lea Drive		✓	44	100.000
C - A629 Abbey Road (W)		✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	20	532
	B - Lea Drive	13	0	31
	C - A629 Abbey Road (W)	425	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	0	0
	B - Lea Drive	0	0	0
	C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	8.38	0.1	A
C-AB	0.07	4.94	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	550	0.060	33	0.1	6.962	A
C-AB	31	760	0.041	31	0.1	4.938	A
C-A	307			307			
A-B	15			15			
A-C	401			401			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	520	0.076	39	0.1	7.491	A
C-AB	42	788	0.053	42	0.1	4.828	A
C-A	362			362			
A-B	18			18			
A-C	478			478			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	478	0.101	48	0.1	8.376	A
C-AB	61	829	0.074	61	0.1	4.689	A
C-A	433			433			
A-B	22			22			
A-C	586			586			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	478	0.101	48	0.1	8.380	A
C-AB	61	829	0.074	61	0.1	4.690	A
C-A	433			433			
A-B	22			22			
A-C	586			586			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	520	0.076	40	0.1	7.498	A
C-AB	42	788	0.053	42	0.1	4.831	A
C-A	362			362			
A-B	18			18			
A-C	478			478			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	550	0.060	33	0.1	6.973	A
C-AB	31	760	0.041	31	0.1	4.942	A
C-A	307			307			
A-B	15			15			
A-C	401			401			

2030 + Committed + Development (Vision & Validate), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D9	2030 + Committed + Development (Vision & Validate)	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	365	100.000
B - Lea Drive		✓	47	100.000
C - A629 Abbey Road (W)		✓	378	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	12	353
	B - Lea Drive	21	0	26
	C - A629 Abbey Road (W)	369	9	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
A - A629 Abbey Road (E)	0	0	0
B - Lea Drive	0	0	0
C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	7.86	0.1	A
C-AB	0.02	4.81	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	561	0.063	35	0.1	6.838	A
C-AB	11	760	0.014	11	0.0	4.806	A
C-A	274			274			
A-B	9			9			
A-C	266			266			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	540	0.078	42	0.1	7.234	A
C-AB	14	786	0.018	14	0.0	4.664	A
C-A	326			326			
A-B	11			11			
A-C	317			317			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	510	0.102	52	0.1	7.858	A
C-AB	20	823	0.024	20	0.0	4.479	A
C-A	397			397			
A-B	13			13			
A-C	389			389			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	510	0.102	52	0.1	7.862	A
C-AB	20	823	0.024	20	0.0	4.481	A
C-A	397			397			
A-B	13			13			
A-C	389			389			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	42	540	0.078	42	0.1	7.237	A
C-AB	14	786	0.018	14	0.0	4.666	A
C-A	326			326			
A-B	11			11			
A-C	317			317			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	561	0.063	35	0.1	6.848	A
C-AB	11	760	0.014	11	0.0	4.808	A
C-A	274			274			
A-B	9			9			
A-C	266			266			

2030 + Committed + Development (Vision & Validate), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - A629 Abbey Road (W) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D10	2030 + Committed + Development (Vision & Validate)	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road (E)		✓	442	100.000
B - Lea Drive		✓	35	100.000
C - A629 Abbey Road (W)		✓	359	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
From	A - A629 Abbey Road (E)	0	16	426
	B - Lea Drive	10	0	25
	C - A629 Abbey Road (W)	340	19	0

Vehicle Mix

Heavy Vehicle Percentages

From	To		
	A - A629 Abbey Road (E)	B - Lea Drive	C - A629 Abbey Road (W)
A - A629 Abbey Road (E)	0	0	0
B - Lea Drive	0	0	0
C - A629 Abbey Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	7.38	0.1	A
C-AB	0.05	5.07	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	582	0.045	26	0.0	6.476	A
C-AB	22	732	0.030	22	0.0	5.066	A
C-A	248			248			
A-B	12			12			
A-C	321			321			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	559	0.056	31	0.1	6.826	A
C-AB	29	754	0.038	29	0.1	4.966	A
C-A	294			294			
A-B	14			14			
A-C	383			383			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	526	0.073	38	0.1	7.380	A
C-AB	40	784	0.051	40	0.1	4.837	A
C-A	355			355			
A-B	18			18			
A-C	469			469			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	526	0.073	39	0.1	7.380	A
C-AB	40	784	0.051	40	0.1	4.839	A
C-A	355			355			
A-B	18			18			
A-C	469			469			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	559	0.056	32	0.1	6.831	A
C-AB	29	754	0.038	29	0.1	4.968	A
C-A	294			294			
A-B	14			14			
A-C	383			383			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	582	0.045	26	0.0	6.480	A
C-AB	22	732	0.030	22	0.0	5.070	A
C-A	248			248			
A-B	12			12			
A-C	321			321			

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
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Filename: A629 Abbey Road The Knowle.j9

Path: C:\AMA\AMA\AMA - Documents\001 - Projects\23174 - Eastfield, Shepley\D Models and Drawings\JUNCTION MODELLING

Report generation date: 04/09/2025 16:08:04

-
- »2025, AM
 - »2025, PM
 - »2030, AM
 - »2030, PM
 - »2030 + Committed, AM
 - »2030 + Committed, PM
 - »2030 + Committed + Development, AM
 - »2030 + Committed + Development, PM
 - »2030 + Committed + Development (Vision and Validate), AM
 - »2030 + Committed + Development (Vision and Validate), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2025										
Stream B-ACD	D1	0.1	9.37	0.07	A	D2	0.1	8.94	0.05	A
Stream A-BCD		0.1	7.12	0.06	A		0.1	7.35	0.11	A
Stream D-ABC		0.1	7.01	0.11	A		0.1	6.51	0.08	A
Stream C-ABD		0.0	7.05	0.01	A		0.0	7.71	0.03	A
2030										
Stream B-ACD	D3	0.1	9.70	0.08	A	D4	0.1	9.36	0.05	A
Stream A-BCD		0.1	7.21	0.06	A		0.1	7.45	0.11	A
Stream D-ABC		0.1	7.12	0.12	A		0.1	6.59	0.08	A
Stream C-ABD		0.0	7.13	0.02	A		0.0	7.82	0.03	A
2030 + Committed										
Stream B-ACD	D5	0.1	9.82	0.08	A	D6	0.1	9.46	0.05	A
Stream A-BCD		0.1	7.23	0.06	A		0.1	7.50	0.11	A
Stream D-ABC		0.1	7.15	0.12	A		0.1	6.64	0.08	A
Stream C-ABD		0.0	7.17	0.02	A		0.0	7.86	0.03	A
2030 + Committed + Development										
Stream B-ACD	D7	0.1	9.86	0.08	A	D8	0.1	9.57	0.06	A
Stream A-BCD		0.1	7.25	0.06	A		0.1	7.55	0.11	A
Stream D-ABC		0.1	7.25	0.12	A		0.1	6.91	0.09	A
Stream C-ABD		0.0	7.23	0.02	A		0.1	8.07	0.05	A
2030 + Committed + Development (Vision and Validate)										
Stream B-ACD	D9	0.1	8.68	0.06	A	D10	0.0	8.32	0.04	A
Stream A-BCD		0.0	6.80	0.05	A		0.1	7.01	0.09	A
Stream D-ABC		0.1	6.55	0.09	A		0.1	6.49	0.07	A
Stream C-ABD		0.0	6.84	0.02	A		0.0	7.43	0.04	A

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	20/08/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
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

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2025	AM	ONE HOUR	07:30	09:00	15
D2	2025	PM	ONE HOUR	16:15	17:45	15
D3	2030	AM	ONE HOUR	07:30	09:00	15
D4	2030	PM	ONE HOUR	16:15	17:45	15
D5	2030 + Committed	AM	ONE HOUR	07:30	09:00	15
D6	2030 + Committed	PM	ONE HOUR	16:15	17:45	15
D7	2030 + Committed + Development	AM	ONE HOUR	07:30	09:00	15
D8	2030 + Committed + Development	PM	ONE HOUR	16:15	17:45	15
D9	2030 + Committed + Development (Vision and Validate)	AM	ONE HOUR	07:30	09:00	15
D10	2030 + Committed + Development (Vision and Validate)	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A629 Abbey Road South (E)		Major
B	The Knowle		Minor
C	A629 Abbey Road South (W)		Major
D	Yew Tree Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A629 Abbey Road South (E)	6.53		✓	2.20	150.0	✓	5.72
C - A629 Abbey Road South (W)	6.53		✓	2.20	110.0	✓	2.30

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 - The Knowle	One lane	4.01	45	26
D - Yew Tree Road	One lane	4.85	24	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	661	-	-	-	-	-	-	0.250	0.357	0.250	-	-	-
B-A	556	0.099	0.250	0.250	-	-	-	0.157	0.357	-	0.250	0.250	0.125
B-C	705	0.106	0.267	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	556	0.099	0.250	0.250	-	-	-	0.157	0.357	0.157	-	-	-
B-D, offside lane	556	0.099	0.250	0.250	-	-	-	0.157	0.357	0.157	-	-	-
C-B	638	0.241	0.241	0.345	-	-	-	-	-	-	-	-	-
D-A	755	-	-	-	-	-	-	0.286	-	0.113	-	-	-
D-B, nearside lane	587	0.166	0.166	0.377	-	-	-	0.264	0.264	0.104	-	-	-
D-B, offside lane	587	0.166	0.166	0.377	-	-	-	0.264	0.264	0.104	-	-	-
D-C	587	-	0.166	0.377	0.132	0.264	0.264	0.264	0.264	0.104	-	-	-

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)
D1	2025	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	438	100.000
B - The Knowle		✓	27	100.000
C - A629 Abbey Road South (W)		✓	444	100.000
D - Yew Tree Road		✓	58	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	6	403	29
	B - The Knowle	15	0	11	1
	C - A629 Abbey Road South (W)	433	7	0	4
	D - Yew Tree Road	52	1	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.07	9.37	0.1	A
A-BCD	0.06	7.12	0.1	A
A-B				
A-C				
D-ABC	0.11	7.01	0.1	A
C-ABD	0.01	7.05	0.0	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	20	478	0.043	20	0.0	7.868	A
A-BCD	22	577	0.038	22	0.0	6.485	A
A-B	5			5			
A-C	303			303			
D-ABC	44	628	0.070	43	0.1	6.154	A
C-ABD	5	556	0.009	5	0.0	6.538	A
C-D	3			3			
C-A	326			326			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	24	451	0.054	24	0.1	8.431	A
A-BCD	26	560	0.047	26	0.0	6.737	A
A-B	5			5			
A-C	362			362			
D-ABC	52	607	0.086	52	0.1	6.486	A
C-ABD	6	540	0.012	6	0.0	6.745	A
C-D	4			4			
C-A	389			389			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	414	0.072	30	0.1	9.368	A
A-BCD	32	538	0.059	32	0.1	7.116	A
A-B	7			7			
A-C	444			444			
D-ABC	64	578	0.111	64	0.1	7.005	A
C-ABD	8	518	0.015	8	0.0	7.054	A
C-D	4			4			
C-A	477			477			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	414	0.072	30	0.1	9.372	A
A-BCD	32	538	0.059	32	0.1	7.116	A
A-B	7			7			
A-C	444			444			
D-ABC	64	577	0.111	64	0.1	7.007	A
C-ABD	8	518	0.015	8	0.0	7.055	A
C-D	4			4			
C-A	477			477			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	24	451	0.054	24	0.1	8.439	A
A-BCD	26	560	0.047	26	0.0	6.739	A
A-B	5			5			
A-C	362			362			
D-ABC	52	607	0.086	52	0.1	6.489	A
C-ABD	6	540	0.012	6	0.0	6.746	A
C-D	4			4			
C-A	389			389			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	20	478	0.043	20	0.0	7.875	A
A-BCD	22	577	0.038	22	0.0	6.491	A
A-B	5			5			
A-C	303			303			
D-ABC	44	628	0.070	44	0.1	6.161	A
C-ABD	5	556	0.009	5	0.0	6.541	A
C-D	3			3			
C-A	326			326			

2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D2	2025	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	569	100.000
B - The Knowle		✓	19	100.000
C - A629 Abbey Road South (W)		✓	403	100.000
D - Yew Tree Road		✓	42	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	11	505	53
	B - The Knowle	8	0	11	0
	C - A629 Abbey Road South (W)	382	12	0	9
	D - Yew Tree Road	39	0	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.05	8.94	0.1	A
A-BCD	0.11	7.35	0.1	A
A-B				
A-C				
D-ABC	0.08	6.51	0.1	A
C-ABD	0.03	7.71	0.0	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	493	0.029	14	0.0	7.516	A
A-BCD	40	584	0.068	40	0.1	6.610	A
A-B	8			8			
A-C	380			380			
D-ABC	32	645	0.049	31	0.1	5.862	A
C-ABD	9	530	0.017	9	0.0	6.907	A
C-D	7			7			
C-A	288			288			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	464	0.037	17	0.0	8.050	A
A-BCD	48	569	0.084	48	0.1	6.903	A
A-B	10			10			
A-C	454			454			
D-ABC	38	626	0.060	38	0.1	6.115	A
C-ABD	11	509	0.021	11	0.0	7.221	A
C-D	8			8			
C-A	343			343			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	423	0.049	21	0.1	8.941	A
A-BCD	58	548	0.106	58	0.1	7.342	A
A-B	12			12			
A-C	556			556			
D-ABC	46	599	0.077	46	0.1	6.506	A
C-ABD	13	480	0.028	13	0.0	7.705	A
C-D	10			10			
C-A	421			421			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	423	0.049	21	0.1	8.944	A
A-BCD	58	548	0.106	58	0.1	7.345	A
A-B	12			12			
A-C	556			556			
D-ABC	46	599	0.077	46	0.1	6.507	A
C-ABD	13	480	0.028	13	0.0	7.706	A
C-D	10			10			
C-A	421			421			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	464	0.037	17	0.0	8.055	A
A-BCD	48	569	0.084	48	0.1	6.906	A
A-B	10			10			
A-C	454			454			
D-ABC	38	626	0.060	38	0.1	6.117	A
C-ABD	11	509	0.021	11	0.0	7.223	A
C-D	8			8			
C-A	343			343			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	493	0.029	14	0.0	7.522	A
A-BCD	40	584	0.068	40	0.1	6.618	A
A-B	8			8			
A-C	380			380			
D-ABC	32	645	0.049	32	0.1	5.867	A
C-ABD	9	530	0.017	9	0.0	6.909	A
C-D	7			7			
C-A	288			288			

2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D3	2030	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	457	100.000
B - The Knowle		✓	28	100.000
C - A629 Abbey Road South (W)		✓	464	100.000
D - Yew Tree Road		✓	60	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	6	421	30
	B - The Knowle	16	0	11	1
	C - A629 Abbey Road South (W)	453	7	0	4
	D - Yew Tree Road	54	1	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.08	9.70	0.1	A
A-BCD	0.06	7.21	0.1	A
A-B				
A-C				
D-ABC	0.12	7.12	0.1	A
C-ABD	0.02	7.13	0.0	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	469	0.045	21	0.0	8.030	A
A-BCD	23	573	0.039	22	0.0	6.538	A
A-B	5			5			
A-C	317			317			
D-ABC	45	624	0.072	45	0.1	6.211	A
C-ABD	5	552	0.010	5	0.0	6.580	A
C-D	3			3			
C-A	341			341			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	441	0.057	25	0.1	8.654	A
A-BCD	27	556	0.049	27	0.1	6.806	A
A-B	5			5			
A-C	378			378			
D-ABC	54	602	0.090	54	0.1	6.564	A
C-ABD	6	536	0.012	6	0.0	6.799	A
C-D	4			4			
C-A	407			407			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	402	0.077	31	0.1	9.700	A
A-BCD	33	532	0.062	33	0.1	7.211	A
A-B	7			7			
A-C	464			464			
D-ABC	66	571	0.116	66	0.1	7.120	A
C-ABD	8	513	0.015	8	0.0	7.127	A
C-D	4			4			
C-A	499			499			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	402	0.077	31	0.1	9.705	A
A-BCD	33	532	0.062	33	0.1	7.211	A
A-B	7			7			
A-C	464			464			
D-ABC	66	571	0.116	66	0.1	7.123	A
C-ABD	8	513	0.015	8	0.0	7.127	A
C-D	4			4			
C-A	499			499			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	441	0.057	25	0.1	8.660	A
A-BCD	27	556	0.049	27	0.1	6.810	A
A-B	5			5			
A-C	378			378			
D-ABC	54	602	0.090	54	0.1	6.570	A
C-ABD	6	536	0.012	6	0.0	6.803	A
C-D	4			4			
C-A	407			407			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	469	0.045	21	0.0	8.043	A
A-BCD	23	573	0.039	23	0.0	6.544	A
A-B	5			5			
A-C	317			317			
D-ABC	45	624	0.072	45	0.1	6.220	A
C-ABD	5	552	0.010	5	0.0	6.581	A
C-D	3			3			
C-A	341			341			

2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D4	2030	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	594	100.000
B - The Knowle		✓	20	100.000
C - A629 Abbey Road South (W)		✓	420	100.000
D - Yew Tree Road		✓	44	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	11	528	55
	B - The Knowle	9	0	11	0
	C - A629 Abbey Road South (W)	399	12	0	9
	D - Yew Tree Road	41	0	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.05	9.36	0.1	A
A-BCD	0.11	7.45	0.1	A
A-B				
A-C				
D-ABC	0.08	6.59	0.1	A
C-ABD	0.03	7.82	0.0	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	480	0.031	15	0.0	7.733	A
A-BCD	41	581	0.071	41	0.1	6.668	A
A-B	8			8			
A-C	398			398			
D-ABC	33	642	0.052	33	0.1	5.906	A
C-ABD	9	525	0.017	9	0.0	6.970	A
C-D	7			7			
C-A	300			300			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	450	0.040	18	0.0	8.335	A
A-BCD	49	565	0.087	49	0.1	6.979	A
A-B	10			10			
A-C	475			475			
D-ABC	40	622	0.064	40	0.1	6.174	A
C-ABD	11	504	0.021	11	0.0	7.303	A
C-D	8			8			
C-A	359			359			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22	407	0.054	22	0.1	9.360	A
A-BCD	61	544	0.111	60	0.1	7.447	A
A-B	12			12			
A-C	581			581			
D-ABC	48	594	0.082	48	0.1	6.593	A
C-ABD	13	474	0.028	13	0.0	7.820	A
C-D	10			10			
C-A	439			439			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22	406	0.054	22	0.1	9.363	A
A-BCD	61	544	0.111	61	0.1	7.450	A
A-B	12			12			
A-C	581			581			
D-ABC	48	594	0.082	48	0.1	6.593	A
C-ABD	13	473	0.028	13	0.0	7.821	A
C-D	10			10			
C-A	439			439			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	450	0.040	18	0.0	8.341	A
A-BCD	49	565	0.087	50	0.1	6.982	A
A-B	10			10			
A-C	475			475			
D-ABC	40	622	0.064	40	0.1	6.176	A
C-ABD	11	504	0.021	11	0.0	7.308	A
C-D	8			8			
C-A	359			359			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	480	0.031	15	0.0	7.741	A
A-BCD	41	581	0.071	41	0.1	6.676	A
A-B	8			8			
A-C	398			398			
D-ABC	33	642	0.052	33	0.1	5.912	A
C-ABD	9	525	0.017	9	0.0	6.975	A
C-D	7			7			
C-A	300			300			

2030 + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D5	2030 + Committed	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	469	100.000
B - The Knowle		✓	28	100.000
C - A629 Abbey Road South (W)		✓	469	100.000
D - Yew Tree Road		✓	60	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	6	433	30
	B - The Knowle	16	0	11	1
	C - A629 Abbey Road South (W)	458	7	0	4
	D - Yew Tree Road	54	1	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.08	9.82	0.1	A
A-BCD	0.06	7.23	0.1	A
A-B				
A-C				
D-ABC	0.12	7.15	0.1	A
C-ABD	0.02	7.17	0.0	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	466	0.045	21	0.0	8.082	A
A-BCD	23	572	0.039	22	0.0	6.549	A
A-B	5			5			
A-C	326			326			
D-ABC	45	623	0.073	45	0.1	6.226	A
C-ABD	5	550	0.010	5	0.0	6.606	A
C-D	3			3			
C-A	345			345			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	438	0.058	25	0.1	8.726	A
A-BCD	27	555	0.049	27	0.1	6.821	A
A-B	5			5			
A-C	389			389			
D-ABC	54	601	0.090	54	0.1	6.584	A
C-ABD	6	533	0.012	6	0.0	6.833	A
C-D	4			4			
C-A	412			412			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	397	0.078	31	0.1	9.814	A
A-BCD	33	531	0.062	33	0.1	7.231	A
A-B	7			7			
A-C	477			477			
D-ABC	66	569	0.116	66	0.1	7.150	A
C-ABD	8	510	0.015	8	0.0	7.172	A
C-D	4			4			
C-A	504			504			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	397	0.078	31	0.1	9.819	A
A-BCD	33	531	0.062	33	0.1	7.231	A
A-B	7			7			
A-C	477			477			
D-ABC	66	569	0.116	66	0.1	7.153	A
C-ABD	8	510	0.015	8	0.0	7.172	A
C-D	4			4			
C-A	504			504			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	438	0.058	25	0.1	8.735	A
A-BCD	27	555	0.049	27	0.1	6.822	A
A-B	5			5			
A-C	389			389			
D-ABC	54	601	0.090	54	0.1	6.587	A
C-ABD	6	533	0.012	6	0.0	6.833	A
C-D	4			4			
C-A	412			412			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	466	0.045	21	0.0	8.093	A
A-BCD	23	572	0.039	23	0.0	6.556	A
A-B	5			5			
A-C	326			326			
D-ABC	45	623	0.073	45	0.1	6.233	A
C-ABD	5	550	0.010	5	0.0	6.607	A
C-D	3			3			
C-A	345			345			

2030 + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D6	2030 + Committed	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	602	100.000
B - The Knowle		✓	20	100.000
C - A629 Abbey Road South (W)		✓	431	100.000
D - Yew Tree Road		✓	44	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	11	536	55
	B - The Knowle	9	0	11	0
	C - A629 Abbey Road South (W)	410	12	0	9
	D - Yew Tree Road	41	0	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.05	9.46	0.1	A
A-BCD	0.11	7.50	0.1	A
A-B				
A-C				
D-ABC	0.08	6.64	0.1	A
C-ABD	0.03	7.86	0.0	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	478	0.032	15	0.0	7.775	A
A-BCD	41	579	0.072	41	0.1	6.694	A
A-B	8			8			
A-C	404			404			
D-ABC	33	640	0.052	33	0.1	5.930	A
C-ABD	9	524	0.017	9	0.0	6.989	A
C-D	7			7			
C-A	309			309			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	447	0.040	18	0.0	8.395	A
A-BCD	49	563	0.088	49	0.1	7.012	A
A-B	10			10			
A-C	482			482			
D-ABC	40	619	0.064	40	0.1	6.207	A
C-ABD	11	502	0.022	11	0.0	7.329	A
C-D	8			8			
C-A	369			369			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22	403	0.055	22	0.1	9.457	A
A-BCD	61	541	0.112	60	0.1	7.494	A
A-B	12			12			
A-C	590			590			
D-ABC	48	591	0.082	48	0.1	6.640	A
C-ABD	13	471	0.028	13	0.0	7.856	A
C-D	10			10			
C-A	451			451			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22	403	0.055	22	0.1	9.460	A
A-BCD	61	541	0.112	61	0.1	7.497	A
A-B	12			12			
A-C	590			590			
D-ABC	48	591	0.082	48	0.1	6.640	A
C-ABD	13	471	0.028	13	0.0	7.857	A
C-D	10			10			
C-A	451			451			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	447	0.040	18	0.0	8.399	A
A-BCD	49	563	0.088	50	0.1	7.016	A
A-B	10			10			
A-C	482			482			
D-ABC	40	619	0.064	40	0.1	6.211	A
C-ABD	11	502	0.022	11	0.0	7.334	A
C-D	8			8			
C-A	369			369			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	478	0.032	15	0.0	7.783	A
A-BCD	41	579	0.072	41	0.1	6.701	A
A-B	8			8			
A-C	404			404			
D-ABC	33	640	0.052	33	0.1	5.937	A
C-ABD	9	524	0.017	9	0.0	6.994	A
C-D	7			7			
C-A	309			309			

2030 + Committed + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D7	2030 + Committed + Development	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	472	100.000
B - The Knowle		✓	28	100.000
C - A629 Abbey Road South (W)		✓	472	100.000
D - Yew Tree Road		✓	61	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	9	433	30
	B - The Knowle	16	0	11	1
	C - A629 Abbey Road South (W)	458	10	0	4
	D - Yew Tree Road	54	2	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.08	9.86	0.1	A
A-BCD	0.06	7.25	0.1	A
A-B				
A-C				
D-ABC	0.12	7.25	0.1	A
C-ABD	0.02	7.23	0.0	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	465	0.045	21	0.0	8.101	A
A-BCD	23	571	0.040	22	0.0	6.559	A
A-B	7			7			
A-C	326			326			
D-ABC	46	618	0.074	46	0.1	6.285	A
C-ABD	8	550	0.014	7	0.0	6.640	A
C-D	3			3			
C-A	345			345			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	436	0.058	25	0.1	8.753	A
A-BCD	27	554	0.049	27	0.1	6.833	A
A-B	8			8			
A-C	389			389			
D-ABC	55	595	0.092	55	0.1	6.657	A
C-ABD	9	532	0.017	9	0.0	6.876	A
C-D	4			4			
C-A	412			412			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	396	0.078	31	0.1	9.857	A
A-BCD	33	530	0.062	33	0.1	7.248	A
A-B	10			10			
A-C	477			477			
D-ABC	67	564	0.119	67	0.1	7.249	A
C-ABD	11	509	0.022	11	0.0	7.230	A
C-D	4			4			
C-A	504			504			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	396	0.078	31	0.1	9.862	A
A-BCD	33	530	0.062	33	0.1	7.248	A
A-B	10			10			
A-C	477			477			
D-ABC	67	563	0.119	67	0.1	7.252	A
C-ABD	11	509	0.022	11	0.0	7.231	A
C-D	4			4			
C-A	504			504			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	436	0.058	25	0.1	8.762	A
A-BCD	27	554	0.049	27	0.1	6.835	A
A-B	8			8			
A-C	389			389			
D-ABC	55	595	0.092	55	0.1	6.661	A
C-ABD	9	532	0.017	9	0.0	6.877	A
C-D	4			4			
C-A	412			412			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	465	0.045	21	0.0	8.114	A
A-BCD	23	571	0.040	23	0.0	6.565	A
A-B	7			7			
A-C	326			326			
D-ABC	46	618	0.074	46	0.1	6.292	A
C-ABD	8	550	0.014	8	0.0	6.641	A
C-D	3			3			
C-A	345			345			

2030 + Committed + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D8	2030 + Committed + Development	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	611	100.000
B - The Knowle		✓	20	100.000
C - A629 Abbey Road South (W)		✓	440	100.000
D - Yew Tree Road		✓	46	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	20	536	55
	B - The Knowle	9	0	11	0
	C - A629 Abbey Road South (W)	410	21	0	9
	D - Yew Tree Road	41	2	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.06	9.57	0.1	A
A-BCD	0.11	7.55	0.1	A
A-B				
A-C				
D-ABC	0.09	6.91	0.1	A
C-ABD	0.05	8.07	0.1	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	475	0.032	15	0.0	7.820	A
A-BCD	41	576	0.072	41	0.1	6.724	A
A-B	15			15			
A-C	404			404			
D-ABC	35	625	0.055	34	0.1	6.092	A
C-ABD	16	522	0.030	16	0.0	7.101	A
C-D	7			7			
C-A	309			309			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	443	0.041	18	0.0	8.461	A
A-BCD	49	560	0.088	49	0.1	7.052	A
A-B	18			18			
A-C	482			482			
D-ABC	41	603	0.069	41	0.1	6.411	A
C-ABD	19	500	0.038	19	0.0	7.480	A
C-D	8			8			
C-A	369			369			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22	398	0.055	22	0.1	9.566	A
A-BCD	61	537	0.113	60	0.1	7.550	A
A-B	22			22			
A-C	590			590			
D-ABC	51	571	0.089	51	0.1	6.914	A
C-ABD	23	469	0.049	23	0.1	8.066	A
C-D	10			10			
C-A	451			451			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	22	398	0.055	22	0.1	9.569	A
A-BCD	61	537	0.113	61	0.1	7.553	A
A-B	22			22			
A-C	590			590			
D-ABC	51	571	0.089	51	0.1	6.914	A
C-ABD	23	469	0.049	23	0.1	8.068	A
C-D	10			10			
C-A	451			451			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	443	0.041	18	0.0	8.465	A
A-BCD	49	560	0.088	50	0.1	7.059	A
A-B	18			18			
A-C	482			482			
D-ABC	41	603	0.069	41	0.1	6.416	A
C-ABD	19	500	0.038	19	0.0	7.486	A
C-D	8			8			
C-A	369			369			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	475	0.032	15	0.0	7.829	A
A-BCD	41	576	0.072	41	0.1	6.732	A
A-B	15			15			
A-C	404			404			
D-ABC	35	625	0.055	35	0.1	6.100	A
C-ABD	16	522	0.030	16	0.0	7.107	A
C-D	7			7			
C-A	309			309			

2030 + Committed + Development (Vision and Validate), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D9	2030 + Committed + Development (Vision and Validate)	AM	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	377	100.000
B - The Knowle		✓	23	100.000
C - A629 Abbey Road South (W)		✓	377	100.000
D - Yew Tree Road		✓	48	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	7	346	24
	B - The Knowle	13	0	9	1
	C - A629 Abbey Road South (W)	366	8	0	3
	D - Yew Tree Road	43	1	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.06	8.68	0.1	A
A-BCD	0.05	6.80	0.0	A
A-B				
A-C				
D-ABC	0.09	6.55	0.1	A
C-ABD	0.02	6.84	0.0	A
C-D				
C-A				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	494	0.035	17	0.0	7.545	A
A-BCD	18	589	0.031	18	0.0	6.300	A
A-B	5			5			
A-C	260			260			
D-ABC	36	644	0.056	36	0.1	5.917	A
C-ABD	6	567	0.011	6	0.0	6.413	A
C-D	2			2			
C-A	276			276			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	472	0.044	21	0.0	7.982	A
A-BCD	22	575	0.038	22	0.0	6.501	A
A-B	6			6			
A-C	311			311			
D-ABC	43	627	0.069	43	0.1	6.169	A
C-ABD	7	554	0.013	7	0.0	6.587	A
C-D	3			3			
C-A	329			329			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	440	0.058	25	0.1	8.676	A
A-BCD	26	556	0.048	26	0.0	6.796	A
A-B	8			8			
A-C	381			381			
D-ABC	53	602	0.088	53	0.1	6.555	A
C-ABD	9	535	0.016	9	0.0	6.844	A
C-D	3			3			
C-A	403			403			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	25	440	0.058	25	0.1	8.679	A
A-BCD	26	556	0.048	26	0.0	6.796	A
A-B	8			8			
A-C	381			381			
D-ABC	53	602	0.088	53	0.1	6.555	A
C-ABD	9	535	0.016	9	0.0	6.844	A
C-D	3			3			
C-A	403			403			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	21	472	0.044	21	0.0	7.985	A
A-BCD	22	575	0.038	22	0.0	6.504	A
A-B	6			6			
A-C	311			311			
D-ABC	43	627	0.069	43	0.1	6.171	A
C-ABD	7	554	0.013	7	0.0	6.588	A
C-D	3			3			
C-A	329			329			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	494	0.035	17	0.0	7.554	A
A-BCD	18	589	0.031	18	0.0	6.303	A
A-B	5			5			
A-C	260			260			
D-ABC	36	644	0.056	36	0.1	5.922	A
C-ABD	6	567	0.011	6	0.0	6.416	A
C-D	2			2			
C-A	276			276			

2030 + Committed + Development (Vision and Validate), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		0.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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)
D10	2030 + Committed + Development (Vision and Validate)	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A629 Abbey Road South (E)		✓	488	100.000
B - The Knowle		✓	16	100.000
C - A629 Abbey Road South (W)		✓	353	100.000
D - Yew Tree Road		✓	38	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	16	428	44
	B - The Knowle	7	0	9	0
	C - A629 Abbey Road South (W)	328	17	0	8
	D - Yew Tree Road	33	2	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - A629 Abbey Road South (E)	B - The Knowle	C - A629 Abbey Road South (W)	D - Yew Tree Road
From	A - A629 Abbey Road South (E)	0	0	0	0
	B - The Knowle	0	0	0	0
	C - A629 Abbey Road South (W)	0	0	0	0
	D - Yew Tree Road	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.04	8.32	0.0	A
A-BCD	0.09	7.01	0.1	A
A-B				
A-C				
D-ABC	0.07	6.49	0.1	A
C-ABD	0.04	7.43	0.0	A
C-D				
C-A				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	510	0.024	12	0.0	7.234	A
A-BCD	33	593	0.056	33	0.1	6.424	A
A-B	12			12			
A-C	322			322			
D-ABC	29	640	0.045	28	0.0	5.887	A
C-ABD	13	546	0.023	13	0.0	6.755	A
C-D	6			6			
C-A	247			247			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	485	0.030	14	0.0	7.649	A
A-BCD	40	580	0.068	39	0.1	6.663	A
A-B	14			14			
A-C	385			385			
D-ABC	34	622	0.055	34	0.1	6.123	A
C-ABD	15	528	0.029	15	0.0	7.024	A
C-D	7			7			
C-A	295			295			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	450	0.039	18	0.0	8.321	A
A-BCD	48	562	0.086	48	0.1	7.015	A
A-B	18			18			
A-C	471			471			
D-ABC	42	597	0.070	42	0.1	6.486	A
C-ABD	19	503	0.037	19	0.0	7.431	A
C-D	9			9			
C-A	361			361			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	18	450	0.039	18	0.0	8.322	A
A-BCD	48	562	0.086	48	0.1	7.015	A
A-B	18			18			
A-C	471			471			
D-ABC	42	597	0.070	42	0.1	6.486	A
C-ABD	19	503	0.037	19	0.0	7.432	A
C-D	9			9			
C-A	361			361			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	485	0.030	14	0.0	7.651	A
A-BCD	40	580	0.068	40	0.1	6.665	A
A-B	14			14			
A-C	385			385			
D-ABC	34	622	0.055	34	0.1	6.127	A
C-ABD	15	528	0.029	15	0.0	7.029	A
C-D	7			7			
C-A	295			295			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	509	0.024	12	0.0	7.236	A
A-BCD	33	593	0.056	33	0.1	6.433	A
A-B	12			12			
A-C	322			322			
D-ABC	29	640	0.045	29	0.0	5.890	A
C-ABD	13	546	0.023	13	0.0	6.757	A
C-D	6			6			
C-A	247			247			



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