



Land North of Whychurch Farm and West of Crudwell
Road

Transport Assessment

Client: Gleeson Land

i-Transport Ref: MS/SG/ITS200270-002B

Date: 27 February 2025

Land North of Whychurch Farm and West of Crudwell Road

Transport Assessment

Client: Gleeson Land

i-Transport Ref: MS/SG/ITS200270-002B

Date: 27 February 2025

i-Transport LLP

Building 1000
Lakeside North Harbour
Western Road
Portsmouth
PO6 3EZ

Tel: 0331 6300 366

www.i-transport.co.uk

COPYRIGHT

The contents of this document must not be copied or reproduced in whole or in part without the written consent of i-Transport LLP

If this report is to be placed on any approved website for planning purposes, this should comply with data protection principles, please seek our permission and you must ensure that all the private and personal information and data within this report is redacted.

Quality Management

Report No.	Comments	Date	Author	Authorised
ITS200270-002	Draft	13/02/25	SG	MS
ITS200270-002A	Issue	20/02/25	SG	MS
ITS200270-002B	Re-Issue	27/02/25	SG	MS

File Ref: "S:\Projects\200000 Series\200270ITS - Malmesbury Phase 4\Admin\Report and Tech Notes\ITS200270-002B Transport Assessment.docx"

Contents

SECTION 1	Introduction	1
SECTION 2	Development Proposal	5
SECTION 3	Policy Context	7
SECTION 4	Existing Conditions	11
SECTION 5	Proposed Site Access, Parking and Servicing Arrangements	20
SECTION 6	Accessibility and Sustainable Transport Strategy	26
SECTION 7	Traffic Impact	35
SECTION 8	Summary and Conclusions	45

Figures

Figure 1	Site Location Plan
Figure 2	Local Facilities Plan
TF1	2024 AM Observed Traffic Flows
TF2	2024 PM Observed Traffic Flows
TF3	Backbridge Farm Committed Development AM Flows
TF4	Backbridge Farm Committed Development PM Flows
TF5	The Bloor Homes Scheme Committed Development AM Flows
TF6	The Bloor Homes Scheme Committed Development PM Flows
TF7	Outline Planning Application 71 Homes AM Flows
TF8	Outline Planning Application 71 Homes PM Flows
TF9	Total Committed Development AM Flows
TF10	Total Committed Development PM Flows
TF11	2030 AM Traffic Flows
TF12	2030 PM Traffic Flows
TF13	2030 AM Traffic Flows With Committed Development
TF14	2030 PM Traffic Flows With Committed Development
TF15	Two-Way Development Traffic Distribution (%)
TF16	Development Assignment AM Traffic Flows
TF17	Development Assignment PM Traffic Flows

TF18	2030 AM Traffic Flows Plus Committed Development Plus 180 Homes (Excluding The 71 Permitted Homes)
TF19	2030 PM Traffic Flows Plus Committed Development Plus 180 Homes (Excluding The 71 Permitted Homes)

Drawings

ITS200270-GA-003	Potential Access Arrangement
-------------------------	-------------------------------------

Appendices

APPENDIX A.	Illustrative Masterplan
APPENDIX B.	Traffic Survey Data
APPENDIX C.	Full PIA Report
APPENDIX D.	Swept Path Analysis - Refuse Vehicle
APPENDIX E.	Trip Rates
APPENDIX F.	Full Junctions 10 Outputs

SECTION 1 Introduction

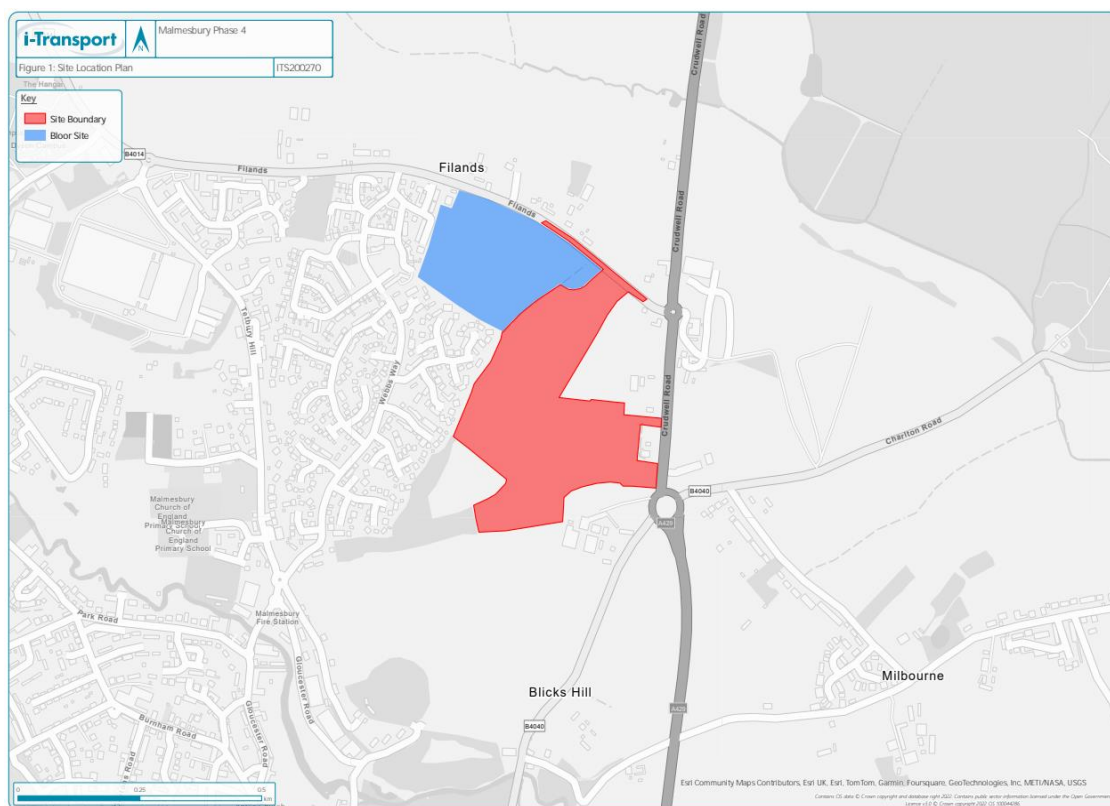
1.1 Background

- 1.1.1 Gleeson Land has appointed i-Transport LLP to provide transport and highways advice in relation to an outline planning application for a proposed residential development on land north of Whychurch Farm, Malmesbury.

1.2 Site Location

- 1.2.1 The northern part of the application site received outline planning permission in 2022 (*ref: PL/2021/08453*) for 71 homes. It is also the subject of a live reserved matters application (*ref: PL/2023/08687*). This latest planning application is for up to 149 homes and therefore seeks permission for an additional 77 homes.
- 1.2.2 Both the permitted 71 home scheme and the revised proposal take access from a new junction onto another access road serving a residential estate for 130 homes plus a nursery (*ref: PL/2023/00958*), now being built out by Bloor Homes. These in turn are accessed from a permitted ghost island priority junction on Filands, which has also been built out. On this basis, residential development at the site is acceptable from a highways point of view.
- 1.2.3 This Transport Assessment (TA) demonstrates that the site is acceptable in highway and transport terms.
- 1.2.4 A site location plan is provided at **Figure 1**, an excerpt of which is below.

Image 1.1: Site Location Plan



1.3 Scope

1.3.1 Having regard to the requirements of the National Planning Policy Framework (NPPF), this Transport Assessment has been prepared to consider the transport impacts that may arise from the proposed development, and to consider the proposal against relevant transport and planning policy. The report has been produced in accordance with guidance contained in the Planning Practice Guidance and where necessary, other local and national transport planning guidance.

1.3.2 This Transport Assessment considers the proposal against the following key tests at paragraph 115:

- Sustainable transport modes should be prioritised, taking account of the vision for the site, the type of development and its location.
- Safe and acceptable access can be provided for all users.
- The design of any internal streets and parking areas reflects current national and local design guidance.

- Any significant impacts from the development on the transport network (or on highway safety), can be cost effectively mitigated to an acceptable degree through a vision led approach. Development should only be refused if there are unacceptable road safety impacts or a 'severe' traffic impact, based on all reasonable future scenarios.

1.3.3 Planning permissions at this site and the adjoining site set a clear precedent that these tests are met:

- 1 Sustainability – Previous planning applications at both this site and at the Bloor Homes development to the west have been scrutinised and it has been found that they are in a suitable location for development from a transport sustainability point of view.
- 2 Access – The proposal is based on a design of access that is nearly identical to one that has previously been agreed by the outline planning permission for 71 homes at the site. Similarly, the ghost island junction on Filands has been scrutinised by the highway authority and found to provide safe and suitable access for all users. Junction capacity testing of the operation of the junction with additional homes accounted for has been undertaken within this report and is shown to work within capacity. Therefore, there is no reason why the same conclusion could not be made of this further planning application.
- 3 Design – Whilst the planning application is accompanied by an illustrative masterplan, a reserved matters application will demonstrate how the internal layout of the site can come forward in accordance with relevant design standards.
- 4 Traffic Impact – The previous traffic assessment at the site found the network to operate within capacity and was agreed to not have a 'severe' traffic impact on the local highway network. However, for completeness, a revised assessment based on up-to-date traffic data and taking account of locally permitted development has been provided and demonstrates that the junctions will continue to operate well within capacity. There will not be a 'severe' cumulative traffic impact.

1.4 Structure

1.4.1 The remainder of the transport assessment is structured as follows:

- Section 2 – Development Proposal.
- Section 3 – Policy Context.

- Section 4 – Existing Conditions.
- Section 5 – Proposed Site Access Arrangements, Parking and Servicing Arrangements.
- Section 6 – Accessibility and Promoting Sustainable Transport.
- Section 7 – Traffic Impact.
- Section 8 – Summary and Conclusions.

SECTION 2 Development Proposal

2.1 Introduction

2.1.1 The description of the outline planning application is as follows:

“Outline planning application (with all matters reserved except access) for residential development, including the construction of up to 149 dwellings, new vehicular access with footways and cycleways, public open space, landscape and associated infrastructure.”

2.1.2 At this stage only outline planning consent is sought, with all matters except access reserved for subsequent consideration.

2.1.3 The Illustrative Masterplan is provided at **Appendix A**.

2.2 Development Mix

2.2.1 As an outline application, the precise mix of development is not known at this stage, although an illustrative schedule of accommodation is provided below.

Table 2.1: Illustrative Schedule of Accommodation

House Type	Number
Open Market	
2 Bedroom	11
3 Bedroom	30
4 Bedroom	36
5 Bedroom	12
Total	89
Affordable Housing	
1 Bedroom	12
2 Bedroom	30

House Type	Number
3 Bedroom	15
4 Bedroom	3
Total	60

2.3 Proposed Access Arrangements

- 2.3.1 Access to the site is proposed via a simple priority junction onto the access road serving the permitted Bloor Homes development to the west (with adjacent footways). This in turn will be accessed via a permitted ghost island onto Filands which has recently been built. The proposed site access arrangements are considered further in Section 5 of this report.

SECTION 3 Policy Context

3.1.1 This section summarises the national and local transport planning policies that provide the context for the transport appraisal of the proposed development.

3.2 National Policy

National Planning Policy Framework (NPPF) December 2024

3.2.1 The revised NPPF was published in December 2024, the document sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally prepared plans can provide for housing and other development in a sustainable manner.

3.2.2 Paragraph 115 states that:

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

- ***Sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;***
- ***Safe and suitable access to the site can be achieved for all users;***
- ***The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and***
- ***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."***

3.2.3 Paragraph 116 states:

"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".

3.2.4 Accordingly, this TA has been developed for submission with the planning application, setting out how the key tests in paragraphs 115 and 116 of the NPPF are met.

National Planning Practice Guidance (NPPG) March 2014

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

3.3 Local Policy

Wiltshire Core Strategy 2015

- 3.3.1 Wiltshire Core Strategy is the adopted Local Plan and provides up to date strategic planning policy for Wiltshire and covers the period up to 2026. The aim of the document is to deliver sustainable growth for the communities of Wiltshire that best meets their needs now and for the future.

- 3.3.2 Core Policy 3 in the Wiltshire Core Strategy document states:

"All new developments will be required to provide for the necessary on-site and, where appropriate, off-site infrastructure requirements arising from the proposal."

- 3.3.3 Core Policy 60 for sustainable transport states:

"The council will use its planning and transport powers to help reduce the needs to travel particularly by private car... and this will be achieved by:

- ***Planning developments in accessible locations; and***
- ***Promoting sustainable transport alternatives to the use of the private car"***

- 3.3.4 Core Policy 61 then states:

"New development should be located and designed to reduce the need to travel particularly by private car, and to encourage the use of sustainable transport alternatives. As part of a required transport assessment, the following must be demonstrated:

- ***Consideration has been given to the needs of all transport users; and***
- ***The proposal is capable of being served by safe access to the highway network."***

Wiltshire Local Transport Plan 3 2026

3.3.5 WC's current Local Transport Plan 3 (LTP3) sets out the objectives, implementation plans and targets for transport policy until 2026. The overall vision of LTP3 is to:

"... develop a transport system which helps support economic growth across Wiltshire's communities, giving choice and opportunity for people to safely access essential services."

3.3.6 The strategic transport objectives are outlined as:

- ***"To provide, support and/or promote a choice of sustainable transport alternatives including walking, cycling, buses and rail;***
- ***To reduce the impact of traffic on people's quality of life and Wiltshire's built and natural environment;***
- ***To minimise traffic delays and disruption and improve journey time reliability on key routes;***
- ***To improve sustainable access to a full range of opportunities particularly for those without access to a car;***
- ***To improve safety for all road users and to reduce the number of casualties on Wiltshire's roads;***
- ***To support planned growth in Wiltshire and ensure that new developments adequately provide for their sustainable transport requirements and mitigate their traffic impacts;***
- ***To reduce the need to travel, particularly by private car;***
- ***To promote travel modes that are beneficial to health; and***
- ***To reduce barriers to transport and access for people with disabilities and mobility impairments."*** (ref: Wiltshire LTP3, pages 58 & 59)

3.3.7 The document requires all transport solutions to ***"... be sensitive to the built and natural environment."*** The LTP includes the County's 'Preferred Transport Options' which define the general approach to be taken to transport issues over the life of the plan. The preferred options for walking and cycling include the provision of a sympathetically designed, high quality and well-maintained network of routes between significant trip origins and destinations. For public transport, LTP3 seeks to retain overall levels of service to meet the needs of those without access to private transport within the constraints of available resources.

3.4 **Summary**

- 3.4.1 National and local policies confirm that safe and suitable access to sites should be achieved for all people. The site should provide opportunities for sustainable transport modes taken up, depending on the nature and location of the site, to ensure the need to travel will be minimised and the use of sustainable transport modes can be maximised. The design of the site should reflect national design guidance. Development should only be prevented or refused on transport grounds where the residual cumulative traffic impacts of development are severe.
- 3.4.2 The following sections describe how the proposed development in Malmesbury complies with these national and local transport planning policy considerations.

SECTION 4 Existing Conditions

4.1 Introduction

- 4.1.1 This section of the TA provides a review of the existing transport conditions within the vicinity of the site including walking, cycling, public transport and the local highway network, as well as an updated assessment of the recorded personal injury accidents (PIA) in the local area.

4.2 Walking and Cycling

Walking

- 4.2.1 The site is well located to the existing pedestrian network, providing opportunities to access a range of local services including in Malmesbury town centre.

Route to town Centre via Filands

- 4.2.2 There is a continuous footway on the southern side of the B4014 Filands extending east and west from the site access. The footway leads west to Tetbury Hill. From Tetbury Hill there is a footway located on the eastern side of the carriageway that is street lit.
- 4.2.3 The footway on Tetbury Hill continues south for circa 230m before meeting Beuttell Way where a signalised pedestrian crossing provides access to a further footway on the western side of the carriageway and Malmesbury Business Park.
- 4.2.4 The footway on the western side of Tetbury Hill continues for approximately 700m to the south to Poole Road. There are footways west to Malmesbury Primary School or south towards the Tetbury Hill / Gloucester Road mini roundabout.
- 4.2.5 A signal-controlled pedestrian crossing is provided on the Tetbury Hill arm of the Gloucester Road/ Tetbury Hill / Reeds Farm Road double mini roundabout junction, whilst the Webbs Way and Gloucester Road arms both have central pedestrian refuges with dropped kerbs to facilitate crossing and onward journeys towards the town centre.
- 4.2.6 From the Gloucester Road/ Tetbury Hill / Reeds Farm Road double mini roundabout junction there are footways through the Gloucester Road industrial estate along Old Station Mews and then into the town centre via the steps near Malmesbury Abbey. There are also footways along Gloucester Road and Abbey Row providing an alternative direct pedestrian link into the town centre avoiding the steps.

- 4.2.7 The Bloor Homes estate will provide a short cut between the application site and Tetbury Hill / the Reeds Farm estate, through new walking and cycling routes, described further below.

Route to Town Centre via MALM8 and Lacemakers Road / Webbs Way

- 4.2.8 MALM8 runs from north to south, west of the northern end of the site, linking the B4014 Filands and Webbs Way via Lacemakers Road. This provides a further route south towards the town centre and ties in with a path along the eastern periphery of the Reeds Farm estate just west of the site and leading to Reeds Farm Road.
- 4.2.9 A previously unsurfaced section of MALM8 is being upgraded within the Bloor Homes site so that it provides a hard surface. It will also become a 3m cycle route. There will therefore be a year-round traffic free route from Filands to Reeds Farm Road when the Bloor homes are complete.
- 4.2.10 The construction site to the west includes a pedestrian / cycle route from MALM8 to Webbs Way, via Jenner Lane, allowing trips to be made to the town centre without using Filands / Tetbury Hill.

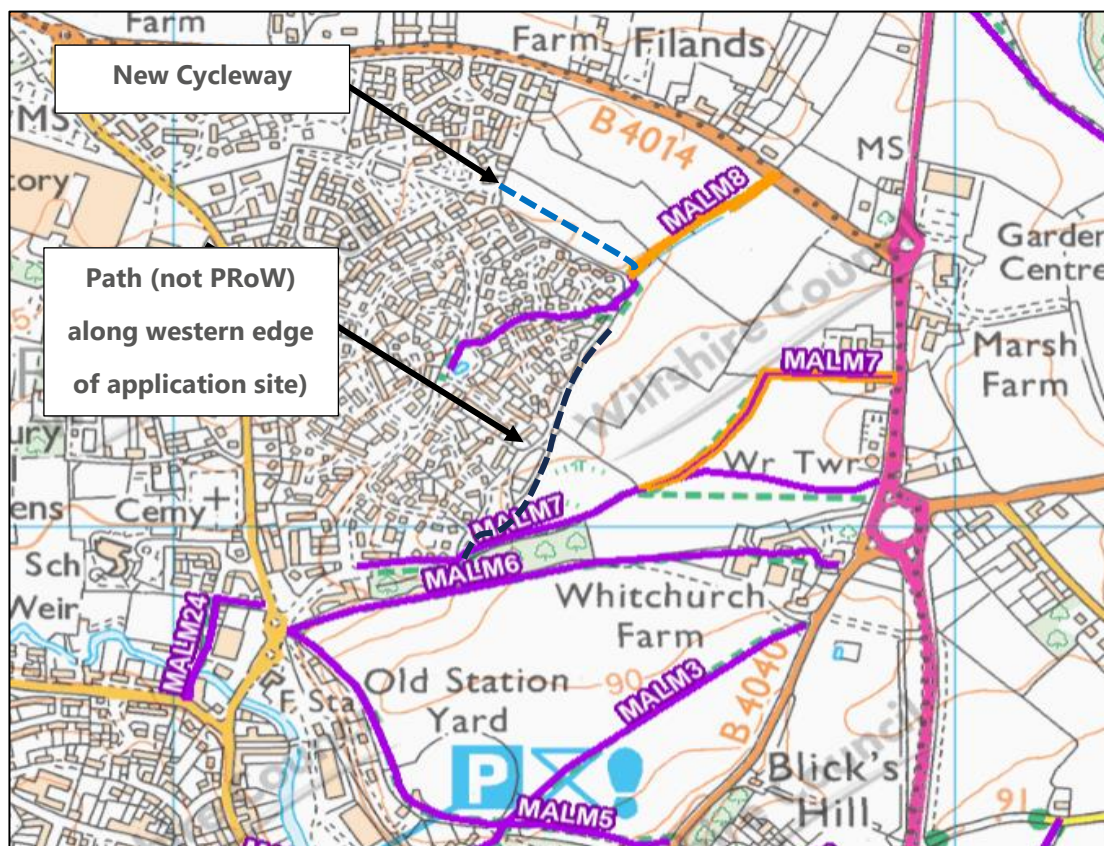
Route to Aldi supermarket

- 4.2.11 A cycleway on the southern side of Filands leads east between the new access to the Bloor Homes site and the A429 Crudwell Road roundabout, where dropped kerb crossings to Aldi and Malmesbury Garden Centre are provided on the southern side of the carriageway.

Public Rights of Way

- 4.2.12 There are various public rights of way (PRoWs) within the vicinity of the site, including the Footpaths mentioned above, providing further active connectivity around Malmesbury. These are illustrated below in **Image 4.1**.

Image 4.1: Public Rights of Way



Source: Wiltshire Council Map

- MALM8 runs from north to southwest of the application site, providing a route from Filands to the Reeds Farm Estate. The northern section (highlighted orange) is being realigned and will be upgraded to a bridleway using Section 106 funding from the Bloor Homes scheme. Condition 15 of the planning permission also requires the design of an upgraded route (hard-surfaced and 3m wide) within the site to be agreed and built out prior to occupation.
- A separate hard-surfaced path (see black dashed line above - not a PRoW) links MALM8 with Reeds Farm Road, largely adjacent to the western application site boundary.
- A further cycle route within the Bloor Homes land will be provided to connect MALM8 with Jenner Lane to the west, shortening the walking / cycle route to the Reeds Farm Estate and Tetbury Hill.

- MALM7 links Reeds Farm Road to the west with the A429 in the east. The eastern part lies within the application site, where it splits into two separate parts, the northern one of which (highlighted orange) is subject of an ongoing order for extinguishment. The section of the footpath west of the site is overgrown and cannot be accessed. Within the application site it cannot be accessed from the A429 from the footpath's definitive locations. The path is thus disused.
- MALM6 routes east to west through the field south of the site. It connects the Reeds Farm Road roundabout to the B4040 south of its junction with the A429.
- MALM3 routes east to west and connects B4040 to Lovers Lane providing a further connection south to the town centre.
- MALM5 runs from the B4040 to Reeds Farm Road roundabout.

Cycling

- 4.2.13 The roads within the Reeds Farm residential estate on Webbs Way are lightly trafficked and are deemed suitable for cycling. The Wiltshire Cycleway, a 160-mile cycleway through Wiltshire, intersects through Malmesbury providing onwards cycling connectivity to Callow Hill (S13) in the east, and Yatton Keynell in the south (S14). Passing from Foxley Road through Malmesbury town centre to the south of the site, crossing the A429 via Blinks Hill, and provides an advisory on-road route through Malmesbury.
- 4.2.14 MALM8 west of the site is to be upgraded to allow cycling within the Bloor Homes site. A cycle access will be provided between MALM8 and Jenner Lane to the west, providing a cycle route westwards / southwards that avoids roads such as Filands and Tetbury Hill.

4.3 **Public Transport**

Bus

- 4.3.1 The closest bus stops to the site are located on A429 Crudwell Road to the east of the site and south of its junction with Filands and the Aldi access. It is located circa 450m away from the centre of the site. Both bus stops provide a bus shelter with timetable information.
- 4.3.2 A further pair of bus stops is located on the B4040 Charlton Road, east of the roundabout junction with the A429. This is around 630m from the centre of the site and may be helpful to those living in the south of the site.
- 4.3.3 A summary of the local bus services from the A429 is provided in **Table 4.1**.

Table 4.1: Bus Service Frequency – A429

Service No.	Bus Stop	Route	Monday-Friday	Saturday	Sunday
99	Aldi Roundabout	Chippenham – Malmesbury – Wootton Bassett – Swindon	Hourly service, first service 06:47, last service 18:34	Hourly service, first service 07:29, last service 18:04	-
X99	Aldi Roundabout	Malmesbury – Chippenham	One service daily departing at 06:58	-	-
90	Aldi Roundabout	Malmesbury Town Service	Hourly service, first service at 08:59, last service at 17:29	1-2 services per hour, first service at 08:59, last service at 14:35	-

Source: Bustimes.org

4.3.4 A summary of services from the B4040 Charlton Road is provided below.

Table 4.2: Bus Service Frequency – Charlton Road

Service No.	Bus Stop	Route	Monday-Friday	Saturday	Sunday
99	Milbourne Lane	Chippenham – Malmesbury – Wootton Bassett – Swindon	A service every 2 hours between 06:48 and 18:34	A service every 2 hours between 08:56 and 18:04	-
X99	Aldi Roundabout	Malmesbury – Chippenham	One service daily departing at 06:58	-	-

Source: Bustime.org

4.3.5 The site can therefore be accessed by bus from local destinations including Malmesbury, Chippenham and Swindon. Route number 99 stops at Swindon train station providing onward travel to further destinations.

4.3.6 The C62 service, a dedicated Cirencester College bus, stops at the Aldi Roundabout on the A429 from Monday to Friday at 08:17am and returns at 16:35pm. This provides students from 16 to 19 years old and attending the college with a daily connection there.

4.4 Local Highway Network

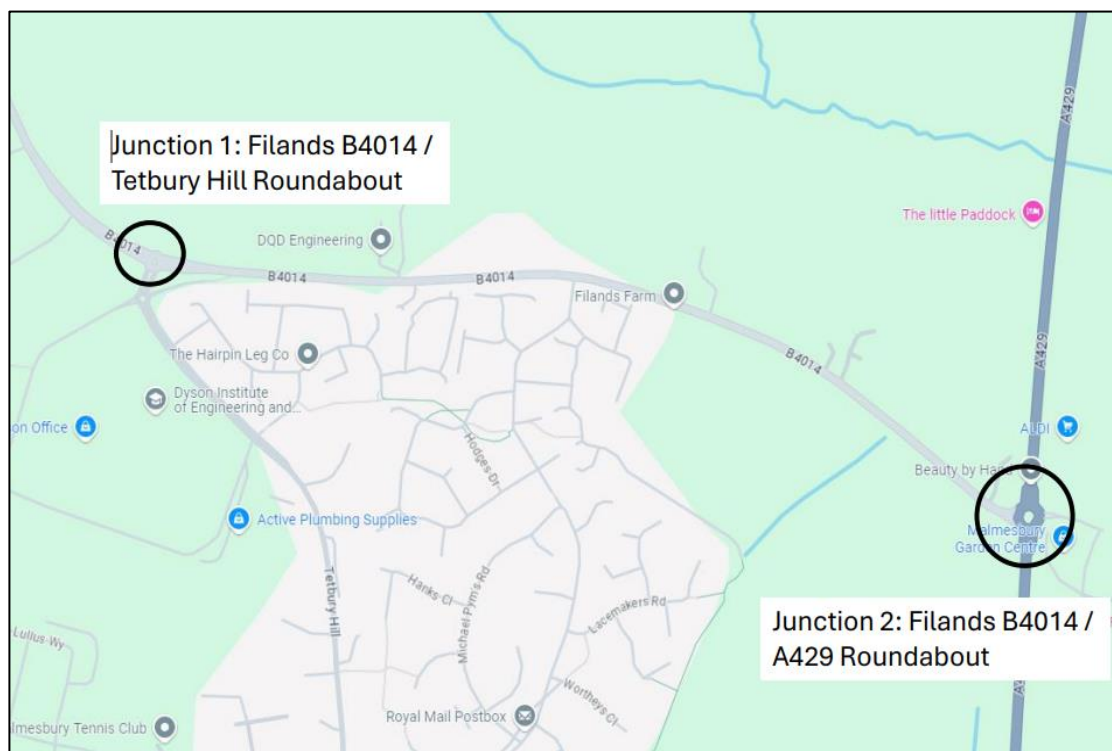
Background

- 4.4.1 The B4014 Filands is a two-way single carriageway road that passes to the north of the site and has a speed limit of 40mph, which then increases to 60mph west of the roundabout junction with Tetbury Hill as it heads north-west out of Malmesbury.
- 4.4.2 The B4014 Filands has a roundabout junction with Tetbury Hill to the west of the site. Tetbury Hill is a 30 mph, single carriageway road, which runs south providing access to Malmesbury town centre.
- 4.4.3 The junction of the A429 Crudwell Road with the B4014 Filands takes the form of a four-arm roundabout (the fourth / eastern arm being the access to a permitted Aldi store on the eastern side). It continues southwards, intersecting with the B4040 at a roundabout immediately east of the site.

Traffic Flow

- 4.4.4 In order to understand the existing traffic conditions of the local highway network, Manual Classified Counts (MCC's) and queue length surveys were undertaken at the key junctions below on Wednesday 19th June 2024, between 07:00 and 10:00 hours and 16:00 and 19:00 hours.
- 4.4.5 The key junctions in the study area are as follows:
- B4014 Filands / Tetbury Hill Roundabout
 - A249 Crudwell Road / B4014 Filands Roundabout
- 4.4.6 The study area is consistent with that of the Bloor Homes application and previous outline application for the site. It is illustrated below:

Image 4.3: Study Area



4.4.2 The surveys identified that the peak periods in terms of traffic flow occurred from 07:45-08:45 during the morning peak and 16:15-17:15 during the evening peak. The 2024 observed traffic flows in the morning peak hour are illustrated in **TF1** and the 2024 observed traffic flows in the evening peak hour are illustrated in **TF2**.

4.4.3 **Table 4.3** summarises the peak hour flows at the key junctions listed above during the peak periods. A full copy of the traffic survey data is provided in **Appendix B**.

Table 4.3: Traffic Survey Summary

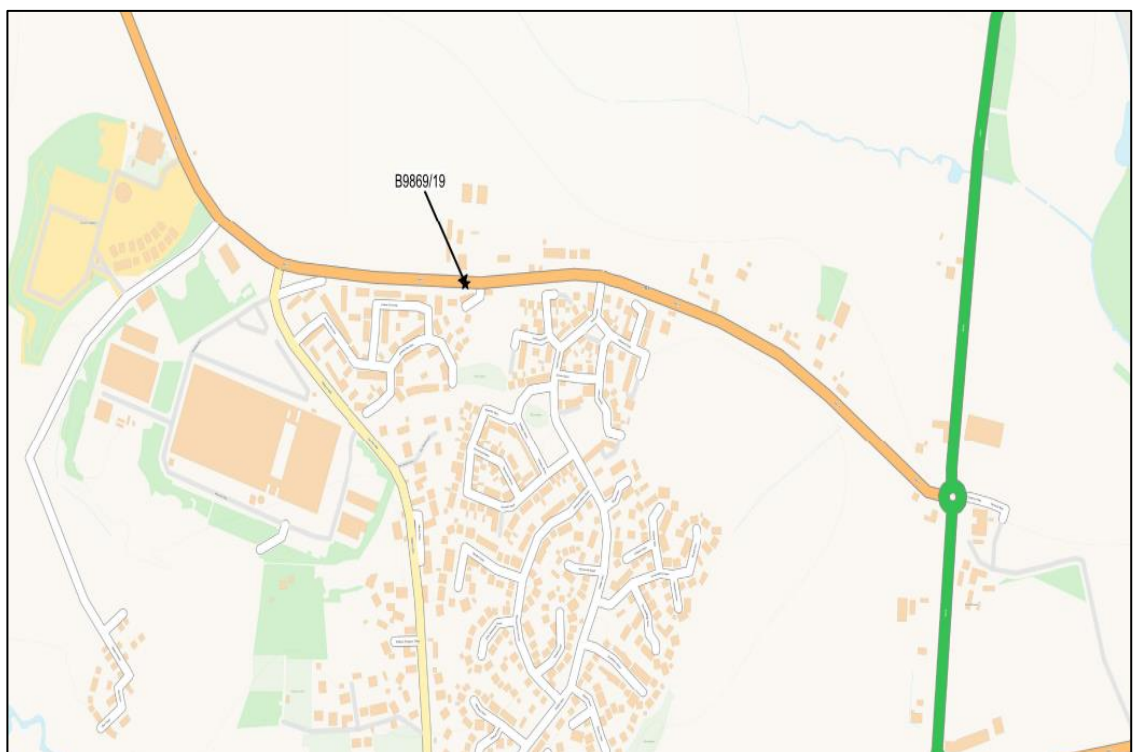
Road	Direction	Morning Peak Period (07:45-08:45)	Evening Peak Period (16:15-17:15)
Filands B4014 west of A429	Eastbound	505	782
	Westbound	783	482
A429 south of Filands	Northbound	942	612
	Southbound	601	974
Tetbury Hill	Northbound	362	633
	Southbound	661	382

Source: Traffic Surveys 2024

Personal Injury Accident Data

- 4.4.4 Personal Injury Accident (PIA) data has been obtained from Wiltshire Council for the most recently available data over the past five years. The data covers the period from 1st March 2019 to 29th February 2024 and the full PIA report is provided **Appendix C**.
- 4.4.5 In total, there has been one accident within the study area. The location of this accident is provided in **Image 4.4** and is summarised below.

Image 4.4: PIA Location



Source: Wiltshire Council

- 4.4.6 The 'slight' incident occurred along Filands B4014 in wet weather conditions as a vehicle was about to turn right onto Hitchlings Close when a vehicle behind collided with the vehicle causing slight damage.
- 4.4.7 The study does not identify any recurring issues in terms of location or causal factors. Whilst no material safety issue has been identified, the traffic implications of the proposal along Filands are considered in detail at Section 8.

4.5 **Summary**

- 4.5.1 The site is located to the north of Malmesbury, approximately 1.2km from the town centre.

- 4.5.2 The pedestrian routes in the vicinity of the site are of a good standard and provide direct connections to the surrounding residential area, the town centre, and the surrounding employment areas. There is a public right of way (MALM8) which runs from north to south, providing a shorter route from Filands to the Reeds Farm Estate and a path around the eastern edge of the estate. The northern section is being hard surfaced and upgraded to allow cycling in association with the Bloor Homes scheme.
- 4.5.3 There are bus stops on the A429, Crudwell Road, circa 550m from the site and on the B4040 Charlton Road. The services provide a connection to Chippenham, Swindon and Malmesbury town centre.
- 4.5.4 The accident data does not highlight any recurring highway issue problem on the local highway network.

SECTION 5 Proposed Site Access, Parking and Servicing Arrangements

5.1 Introduction

5.1.1 This section of the TA summarises the proposed site access arrangements from the local highway network, along with servicing and parking provision.

5.2 Proposed Site Access Arrangements

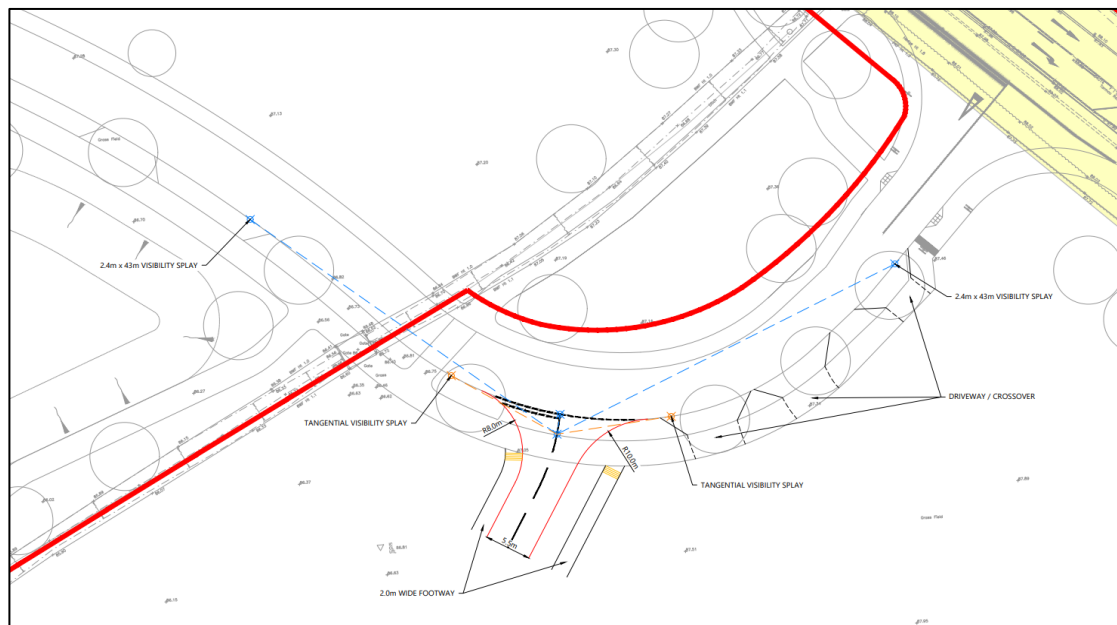
Vehicular Access

5.2.1 The Bloor Homes application site has brought forward a slightly different access to that which was permitted under the outline application for phase 2 (ref: 19/11569/OUT). The differences are listed below:

- Larger taper on major arm for traffic entering / exiting Filands.
- A new 3.0m wide cycleway on south side.
- A verge between carriageway and cycleway.

5.2.2 Whilst the changes are not material, the access has been designed to integrate with the revised Bloor Homes access which has recently been built. The proposed application site access onto the Bloor Homes access is illustrated in drawing **ITS200270-GA-003** and is extracted below.

Image 5.1: Proposed Access Arrangement



5.2.3 The main geometric characteristics of the proposed junction are set out below:

- Sightlines of 2.4m x 43m which accord with guidance in Manual for Streets (MfS) for a residential road with a 30mph speed limit.
- A minor arm of 5.5m in width.
- 2.0m footways on the northern side of the access and a 3.0m cycleway to the south, tying in with existing footway / cycleways on Filands.
- Able to accommodate the movements of a refuse collection vehicle, as shown in the drawing at **Appendix D**.

Pedestrian and Cycle Accesses

5.2.4 The proposal includes seven pedestrian or cycle accesses and these are described below.

- 1 Footways adjacent to the vehicular access on both sides.
- 2 A pedestrian / cycle connection onto MALMS 8 Footpath¹.
- 3 A pedestrian path opposite Lacemakers Road to the west (as far as the site boundary, in line with feedback from the previous reserved matters application at the site).
- 4 A pedestrian path towards the southwest (in line with earlier reserved matters application feedback).
- 5 A pedestrian path to the land to the south, enabling access onto the MALM6 footpath, which is under the same ownership as the application site.
- 6 A pedestrian access onto the eastern frontage of the site on the A429, following the alignment of the MALM7 footpath.
- 7 A further connection between the A429 and MALM7 immediately to the north.

¹ Land has been safeguarded to enable a connection onto MALMS 8 in the Bloor site to the west, through agreement reached with Bloor.

5.2.5 Footpath MALM7 within the site is being retained and the built form of the development will respect its alignment and upgrading its surface. As previously noted, two of its three routes into the site involve passing through third party land which has not been maintained, thus rendering it unusable. Whilst it is not within the applicant's gift to improve the footpath outside land under its control, the proposal does offer the benefit of formalising the southern intersection of MALM7 with the A429 (access 6 above).

5.2.6 The proposed access points are illustrated below.

Image 5.1: Proposed Site Accesses



5.3 Parameter Plan

5.3.1 At this outline application stage, whilst the details of the layout are still to be determined, the 'principles' of the site layout have been considered and established. The site layout will be

designed in accordance with contemporary design guidance, namely Manual for Streets (MfS), and will follow the principles outlined below:

- Main access road (primary street)– i.e. the approaches to the proposed site accesses. A design speed of 20mph with a typically 5.5m carriageway width and 2.0m footways on both sides.
- Internal community streets (secondary street) – connecting with the first main internal junction within the site. A design speed of 20mph with a minimum 5m carriageway width and 2.0m footways normally on one side.
- Shared surface – some secondary links will operate as shared surfaces, where pedestrians and cyclists share the carriageway on an equitable basis. Minimum carriageway width of 5m, with off-street parking provided.
- Green lanes (private drives) –a design speed of 5mph to 10mph, lowest possible vehicle speed, where pedestrians and vehicles can co-exist. Carriageways will typically be shared surfaces, 4.1m wide.

5.4 Parking Provision

Car Parking

5.4.1 Car parking is to be provided in accordance with WC's Local Transport Plan 2011-2026 'Car Parking Strategy' document. The document implements a set of minimum parking standards for residential development across Wiltshire. These standards should ensure that sufficient parking is provided in new developments to cater for demand, while Policy PS6 provides the flexibility to allow for a lower level of provision where specific circumstances can be demonstrated.

5.4.2 The parking standards are set out below in **Table 5.1**.

Table 5.1: Proposed Minimum Parking Standards

Bedrooms	Minimum Car Parking Spaces
1	1 Space
2 to 3	2 Spaces
4+	3 Spaces
Visitor Parking	0.2 spaces per dwelling (unallocated)

Source: Wiltshire Car Parking Strategy

5.4.3 This TA supports an outline planning application, and it is only at the future reserved matters stage that the details and mix of the development will be known. As such the quantum and

nature of car parking cannot be identified at this stage. However, the following principles are identified:

- Dimensions of parking spaces and garages are to be provided in accordance with the guidance or any other guidance that may be at that time adopted.
- Parking is to be generally provided within the curtilage of individual dwellings (typically at least two spaces per home) and within communal parking areas for apartments.
- A proportion of parking will be unallocated to provide for efficient use.
- Well-designed on-street visitor parking will be provided in dedicated lay-bys.
- Electric vehicle charging to be provided in accordance with standards in force at the time of a reserved matters application.

Cycle Parking

5.4.4 Cycle parking for the proposed houses will be provided in garages, or in sheds in back gardens, and cycle parking will be provided in covered and secured communal areas for apartments. The precise number of cycle spaces which will be provided is still undetermined at this stage.

5.5 Refuse Collection Arrangements

5.5.1 The reserved matters application will consider refuse collection arrangements to ensure that adequate provision will be made on site.

5.5.2 As a statement of intent, refuse from the proposed dwellings will be collected from the kerbside on the proposed internal site access roads. Where refuse vehicle access is required, the internal carriageways will be a minimum of 5.0m wide and be built to an adoptable standard, i.e. be constructed to accommodate traffic movements (including refuse vehicles).

5.5.3 The distance that residents will need to take their bins for collection will not exceed 30m, in accordance with Building Regulations and WC guidance. Collection personnel will not wheel bins more than 25m. A communal bin store will be provided for any apartments on the site.

5.6 Summary

- 5.6.1 The access has previously been found to be acceptable for the first outline planning application at the site (ref: *PL/2021/08453*), albeit the access has now undergone minor modifications in association with the neighbouring Bloor Homes scheme. Section 7 demonstrates that the access onto Filands will provide sufficient capacity to accommodate the additional traffic associated with development.
- 5.6.2 A reserved matters application will follow the same principles set by the site masterplan. The site will come forward in a manner that will be accessible to a refuse collection vehicle and provide servicing in accordance with MfS. Parking will be provided in accordance with any standards in force at the time of the application.
- 5.6.3 On this basis, safe and suitable access is provided into the site for all users and the development will comply with design standards (ref: *NPPF paragraph 115*).

SECTION 6 Accessibility and Sustainable Transport Strategy

6.1 Introduction

6.1.1 The highway authority raised no objection to the development of 130 homes at the adjacent Bloor Homes development, nor to the 71-home outline planning application at this site. The site was found to be in a sustainable location in transport terms. It follows that Land north of Whychurch Farm is also a sustainable location for development.

6.1.2 However, for completeness, and to demonstrate that the site prioritises sustainable transport in line with paragraph 115 of the NPPF, this section presents how local services and facilities can be access. It also provides a sustainable transport strategy.

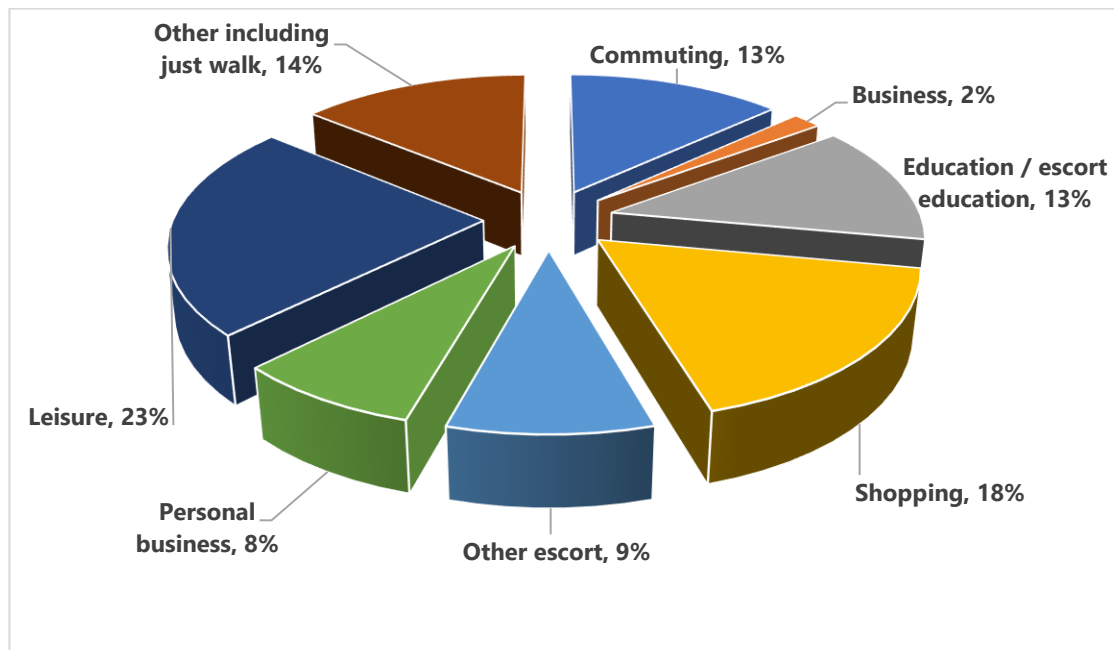
6.1.3 The section considers the accessibility of the site and sustainable transport strategy in the following sub sections:

- Travel patterns.
- Walking and Cycling Distances.
- Public transport.
- Sustainable Transport Strategy.

6.2 Travel Patterns

6.2.1 In promoting sustainable transport, it is important to consider the reasons why future residents of the proposed development will make journeys. The Department for Transport's National Travel Survey identifies the reasons for making a journey. The proportion of all trips by purpose (by all modes) is set out in **Image 6.1**.

Image 6.1: Proportion of Trips per Year by Journey Purpose – 2021



Source: Chart NTS0409a of Transport Statistics Great Britain – 2021 Edition

6.2.2 The main reasons for travelling are therefore for leisure, shopping, commuting / business and education.

6.3 Walking and Cycling Distances

Walking

6.3.1 The previous outline planning application at the site (*planning ref: PL/2021/08453*) included an assessment of the 'walkability' of that site based on the following walking distances (*ref: para 6.3*) to local facilities being acceptable:

- 1,600m - a distance where most people (circa 80%) will walk and offers "the greatest potential to replace short car trips"; and
- 3,200m – i.e. the distance within which a significant proportion (circa one-third) of journeys will be on foot.

6.3.2 Wiltshire Council raised no objections to the proposal. This development is assessed against the same distances.

Cycling

6.3.3 For the purposes of the TA, the sustainable transport strategy also sets out what constitutes a cyclable distance (in line with previously presented and agreed distances):

- 5km cycling distance - desirable cycling distance.
- 8km – acceptable cycling distance.

6.4 **Accessibility**

- 6.4.1 By having regard to the main journey purposes of future residents and the walking and cycling distances mentioned above, together with the walking and cycling access strategy outlined in the previous section, **Table 6.1** summaries the accessibility of the site. This includes facilities for education, leisure, retail, employment and healthcare.

Table 6.1: Local Facilities and Services

Purpose	Destination	Distance (m)	Walking (minutes)	Cycling (minutes)
Education	Malmesbury C of E Primary School	980	12	4
	St Joseph's Catholic Primary School	1580	19	6
	YMCA King's Nursery Malmesbury	1780	21	7
	Malmesbury Secondary School	1980	24	7
Retail	Aldi Store	690	8	3
	Malmesbury Garden Centre	740	9	3
	Co-op supermarket	830	10	3
	Malmesbury Town centre (various shops)	1180	14	4
	Waitrose & Partners	1800	22	7
Employment	Gloucester Road Industrial Estate	1080	13	4
	Malmesbury Business Park	1180	14	4
	Dyson	1280	15	5
	Buildbase	1300	18	6
	Malmesbury Town centre	1180	14	4
Leisure	Malmesbury Victoria Football Club	930	11	3
	Riverside Community Centre	880	10	3
	Malmesbury Tennis Club	1280	15	5
	Abbey House Gardens	1380	16	5
	The Activity Zone Leisure Centre	1780	21	7
	Malmesbury Bowls Club	1880	22	7
	Malmesbury Cricket Club	1100	15	5
	PD Fitness	800	12	4
Health	Barley Mow Dental Surgery	1180	14	4
	Boots Pharmacy	1680	20	6
	Malmesbury Primary Care Centre	2080	27	9
	mydentist	2080	27	9

Key:

	Within a 'comfortable' walking (1.6km) / cycling (5km) distance
	Within an 'acceptable' walking (3.2km) / cycling (8km) distance

6.4.3 The location of facilities in the context of the site are illustrated on **Figure 2**, extracted in **Image 6.2**.

6.5.1 Section 4 identifies local public transport opportunities. In particular bus service 99 provides a service twice per hour that operates around Chippenham, Malmsbury and Swindon, with bus stops on the A429 and Charlton Road a short walk from the site to enable access. Future residents will therefore have the opportunity to access a range of destinations by bus, thus the site has appropriate accessibility by public transport.

6.6 Sustainable Transport Strategy

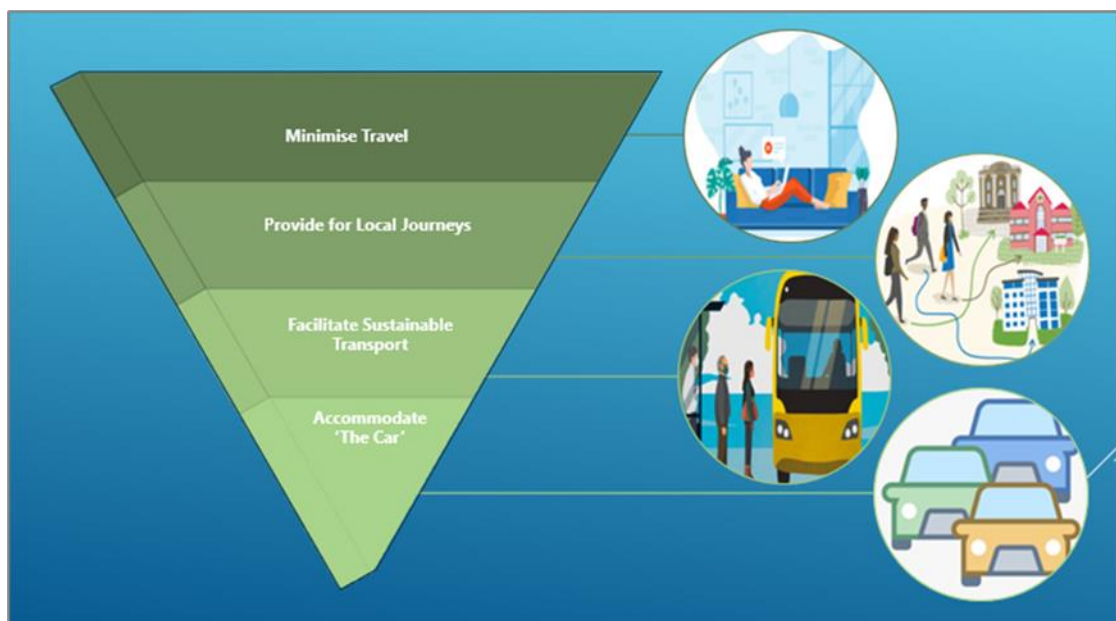
6.6.1 Paragraph 115 of the NPPF (first bullet) requires development to prioritise access by sustainable modes of travel. Developing a comprehensive sustainable transport strategy for the site is therefore highly important. Encouraging travel by sustainable modes has a key role to play in facilitating future growth against a background of differing pressures, including:

- Climate emergency.
- Reduced reliance on fossil fuels.
- Reduced congestion.
- Enhanced delivery of much-needed housing.
- Delivering a sustainable development in transport terms.

6.6.2 A Sustainable Transport Strategy has therefore been developed and is presented in the following paragraphs.

6.6.3 The sustainable transport strategy will seek to take a 'Reduce, Contain and Facilitate Alternatives' approach to travel demands – in line with emerging Government policy. It is only after these steps have been taken that the strategy should allow for the mitigation of vehicular impacts.

Image 6.2: Sustainable Transport Strategy



Reduce

- 6.6.4 There has been a significant change in working habits that has taken place since the pandemic. Providing the necessary support for employees to work remotely, through the provision of fast broadband connectivity, will reduce the need for residents to travel off-site for work purposes. For example, by ensuring fast internet connection are provided within the home.
- 6.6.5 The development will also be designed to accommodate shopping deliveries, including making provision for delivery vehicles, reducing the need for residents to have to travel off-site for retail purposes.
- 6.6.6 The provision of comprehensive on-plot electric vehicle charging will enable residents to reduce the reliance upon traditional combustion engines, and own private vehicles that have a lessened impact on the environment, while overcoming one of the major obstacles to electric car ownership by providing dedicated facilities to enable charging.

Contain

- 6.6.7 The site includes public open space, while the adjacent Bloor Homes site provides a nursery school. The provision of these facilities will help reduce the need for residents to make trips off site.

Facilitate Sustainable Travel

- 6.6.8 Whilst the reduce and contain aspects of the strategy will minimise the need to travel and distances travelled, there will still be a travel demand arising from the site. The site will therefore deliver improvements to the infrastructure surrounding the site, benefiting not only new residents but also those within the existing community. These are outlined below:

Proposed Site Layout and Infrastructure Improvements

- The delivery of a highly permeable site with seven points of access for pedestrians or cyclists, leading in all directions and tying in with existing infrastructure.
 - The delivery of a street layout that encourages sustainable travel by design, creating a speed that encourages low speeds, where residents will feel safe to walk or cycle.
- 6.6.9 The site will also benefit from improvements associated with the Bloor Homes development:
- A new cycleway between the site access and the roundabout junction with the A429 / Aldi access road.

- The hard surfacing of MALM8 within the Bloor Homes site – and associated upgrading to a bridleway to enable cycling.
- Pedestrian / cycle access westwards towards Jenner Lane.

Framework Travel Plan

- 6.6.10 A Framework Travel Plan has been prepared (*i-Transport report ref: ITS200270-003*) to accompany the planning application.
- 6.6.11 The soft measures (among other measures – see **Table 6.4**) include information provision (through Welcome Packs, Personalised Journey Planning, websites and maps), and incentives, to encourage residents to try cycling, or to assist with the purchase of bicycle equipment.
- 6.6.12 Central to the strategy is the appointment of a dedicated Travel Plan Co-ordinator, whose role it will be to deliver the Travel Plan and Sustainable Travel Strategy.
- 6.6.13 An Action Plan is provided in **Table 6.4** which summarises the comprehensive package of measures proposed to encourage sustainable access to and from the site. Further details are provided within the Framework Travel Plan.

Table 6.4: Action Plan

Objective	Measure	Timescale
Overall cross-objective	Appoint a Travel Plan Coordinator	Prior to Occupation
	Develop a Travel Plan Website	Prior to Occupation
	Distribute Welcome Packs	Prior to Occupation
Reduce the Need to Travel	Deliver connections to broadband network	Prior to Occupation
Promotion of Walking and Cycling	Walking maps and health information	Prior to Occupation
	Provision of footways adjacent to access roads	Prior to Occupation
	Delivery of permeable, low speed layout – interconnecting landscaped streets and shared surfaced.	Phased with Development
	Information provision – cycling maps and routes as well as health information	Prior to Occupation

Objective	Measure	Timescale
	Provision of cycle storage within each unit	Phased with Development
	Set up a Bicycle User Group (BUG) if enough interest	6 months after occupation
Promotion of Public Transport	Information provision – timetables etc	Prior to Occupation
	Negotiate and promote discount fares with local operators	Ongoing
Encourage Car Sharing	Promotion of car sharing schemes through https://wiltshire.liftshare.com	Prior to Occupation and Ongoing

Source: Framework Travel plan

6.7 Summary

6.7.1 The highway authority raised no objection to the development of 130 homes at the adjacent Bloor Homes development, nor to the 71-home outline planning application at this site. The site was found to be in a sustainable location in transport terms. It follows that Land north of Whychurch Farm is also a sustainable location for development.

6.7.2 There are a range of everyday services and facilities at Malmesbury located within a 'comfortable' walking and cycling distance, including retail, education, employment and leisure facilities, providing opportunities for many journey purposes to be satisfied locally on foot.

6.7.3 A strategy for promoting sustainable transport has been developed for the site to:

- Minimise the need for residents to travel.
- Provide destinations on site or close by; and contain trips.
- Promote opportunities for sustainable travel through:
 - Providing a highly permeable site that connects with surrounding walking / cycling infrastructure.
 - Design the site in a manner that encourages low vehicle speeds so that residents feel safe travelling by active modes.
 - Implementing a Framework Travel Plan, supported by a package of measures (including financial incentives) to travel by sustainable modes.

6.7.4 On this basis, the site is in a sustainable location and opportunities for travel by sustainable modes have been prioritised in accordance with paragraph 115 of the NPPF.

SECTION 7 Traffic Impact

7.1 Introduction

- 7.1.1 This section of the Transport Assessment sets out the traffic impact of the development proposal on the local highway network.
- 7.1.2 WC raised no objection to the previous planning application (ref: 19/11569/OUT) on the basis of the traffic analysis provided in the TA, which found the traffic impact of development to fall short of the critical 'severe' test in the NPPF. This continues to be the high bar set by the new NPPF at paragraph 116 as the only reason for resisting developments on traffic impact grounds.
- 7.1.3 Notwithstanding the agreed position, the traffic analysis has been fully re-cast with updated study years and up-to-date traffic survey data. The new traffic study also reflects the current position in terms of committed development.

7.2 Existing Conditions

- 7.2.1 As previously mentioned in Section 4, updated traffic surveys were undertaken in June 2024. The key junctions in the study area are as follows:
- B4014 Filands / Tetbury Hill Roundabout.
 - A249 Crudwell Road / B4014 Filands Roundabout.
- 7.2.2 The 2024 observed traffic flows in the morning peak hour are illustrated in Figure **TF1** and the 2024 observed traffic flows in the evening peak hour are illustrated in **TF2**.

7.3 Committed Developments

- 7.3.1 The Planning Practice Guidance states that trips from all directly relevant committed developments in the area should be considered where there is a reasonable degree of certainty that the development will proceed within the next three years. Based on this guidance the following sites, which have planning permission, are identified for inclusion in the traffic assessment:
- Backbridge Farm Committed Development (ref: 16/06401/FUL)
 - Bloor Homes Scheme to the south of Filands (ref: PL/2023/00958)

- Land north of Whychwood Farm² (ref: PL/2021/08453).

7.3.2 The committed development traffic is illustrated in the following traffic flow diagrams:

- Backbridge Farm Committed Development traffic flows are illustrated in **TF3** (morning peak and **TF4** (evening peak).
- The Bloor Homes scheme committed development traffic flows are illustrated in **TF5** and **TF6**.
- The outline planning application for 71 homes at the site are illustrated in **TF7** and **TF8**.
- Total committed development (including the outline application at the site is included at **TF9** and **TF10**.

7.4 Design Year and Background Traffic Growth

7.4.1 Traffic will be modelled based on year of application plus five years (i.e. 2030). Growth factors have been obtained from TEMPRO for the period of 2024 to 2030 in Wiltshire 002 (MSOA) and adjusted so not to double count the committed developments listed above.

7.4.2 The growth factors are presented in **Table 7.1**.

Table 7.1: Traffic Growth Factors

Period	Morning Peak	Evening Peak
2024 - 2030	1.0230	1.0315

Source: TEMPRO

7.4.3 The 2030 traffic flows are illustrated in **TF11** and **TF12** whilst the 2030 traffic flows with committed development (including the previous outline planning application at the site) are illustrated in **TF13** and **TF14**.

7.5 Trip Generation

7.5.1 Trip rates have been derived from the TRICS database using the following parameters:

- Category – Privately Owned Houses;
- Region – England excluding Greater London;

² This is the previous planning permission on the application site therefore 'without' development models include its development traffic flows. However, 'with' development models do not.

- Survey Type – Multi-Modal;
- Location – Edge of Town; and
- Size relevance – 26 to 321 dwellings.

7.5.2 The trip rates are included as **Appendix E. Table 7.2** presents the trip rates used in the traffic assessment.

Table 7.2: Trip Rates

	Morning Peak (0800-0900)			Evening Peak (1700-1800)		
	In	Out	Two-Way	In	Out	Two-Way
Trip Rate	0.131	0.345	0.476	0.326	0.149	0.475

Source: TRICS

7.5.3 The trip rates follow a traditional 'predict and provide' approach, which uses historical data to predict future travel patterns. No adjustment has been made to allow for mode shift arising from the sustainable transport strategy presented in the previous section. Furthermore, no adjustment has been made to allow for affordable housing, which typically yields lower trip rates.

7.5.4 The planning application seeks permission for up to 149 homes. However, a robust assessment has been undertaken based on 180 homes. The traffic generation of 180 homes is presented below.

Table 7.3: Proposed Development Traffic Generation (180 homes)

	Morning Peak (0800-0900)			Evening Peak (0800-0900)		
	In	Out	Two-Way	In	Out	Two-Way
Trip Generation	24	62	86	59	27	86

Source: Consultants Estimates

7.5.5 The peak hour traffic flows on which the modelling is based will equate to around one to two vehicles per minute, based on 180 homes. However, it is important to note that the proposal is for up to 149 homes and that that figure is a net increase of only 78 above the permitted 71 homes at the site. The net traffic increases of the proposal above permitted levels are presented below.

Table 7.4: Net Traffic Increase of Site Development Traffic (net increase of 77 homes)

	Morning Peak (0800-0900)			Evening Peak (0800-0900)		
	In	Out	Two-Way	In	Out	Two-Way
Trip Generation	+10	+27	+37	+25	+11	+36

7.5.6 The proposal will increase traffic on the local highway network by a little over one vehicle every two minutes compared with the permitted scheme.

7.6 Traffic Distribution

7.6.1 The distribution of residential development traffic has been undertaken using the same methodology as that used in the previous outline planning application at the site, as follows:

- The distribution of commuting trips, which comprise 47%³ of all peak hour trips according to DfT data from the National Travel Survey, is in accordance with the employment destinations for local residents identified through Census Journey to Work datasets; and
- The distribution of all other peak hour vehicle trips, i.e. the remaining 53%, is in accordance with a gravity model.

7.6.2 The methodology has been agreed with WC and there is no reason why a different model would be necessary for this assessment given the two sites are adjacent to one another.

7.6.3 A summary of the agreed traffic distribution (for work and non-work trips) is provided in **Table 7.5** below.

³ The most recently available NTS dataset suggests the figure is now 44% - i.e. it is not materially different.

Table 7.5: Summary of Work Trips Distribution (Travel by Car)

Destination	Percentage
Malmesbury (including St Paul)	43.80%
Swindon	16.10%
Chippenham	11.30%
Cotswold	4.40%
Cirencester	3.20%
Royal Wootton Bassett	3.00%
Stroud	2.90%
South Gloucestershire	1.90%
Brinkworth & The Somerfords (North Wilts)	1.30%
Lyneham (North Wilts)	1.10%
Tetbury	1.00%
Bristol	0.90%
West Wiltshire	0.80%
Aston Keynes & Minety (North Wilts)	0.80%
Reading	0.70%
Bath & North East Somerset	0.60%
Kennet	0.60%
Calne (North Wilts)	0.60%
Kington (North Wilts)	0.50%
Corsham (North Wilts)	0.50%
Bremhill (North Wilts)	0.30%
Nettleton (North Wilts)	0.20%
Central & Greater London	0.20%
Other	3.10%
Total	100.0%

Source: 2016 TA

7.6.4 It can be seen from the above that Malmesbury is the main local destination for peak hour travel, accounting some 43.8% of car trips, followed by Swindon (16.1%) and Chippenham (circa 11.3%).

7.7 Traffic Assignment

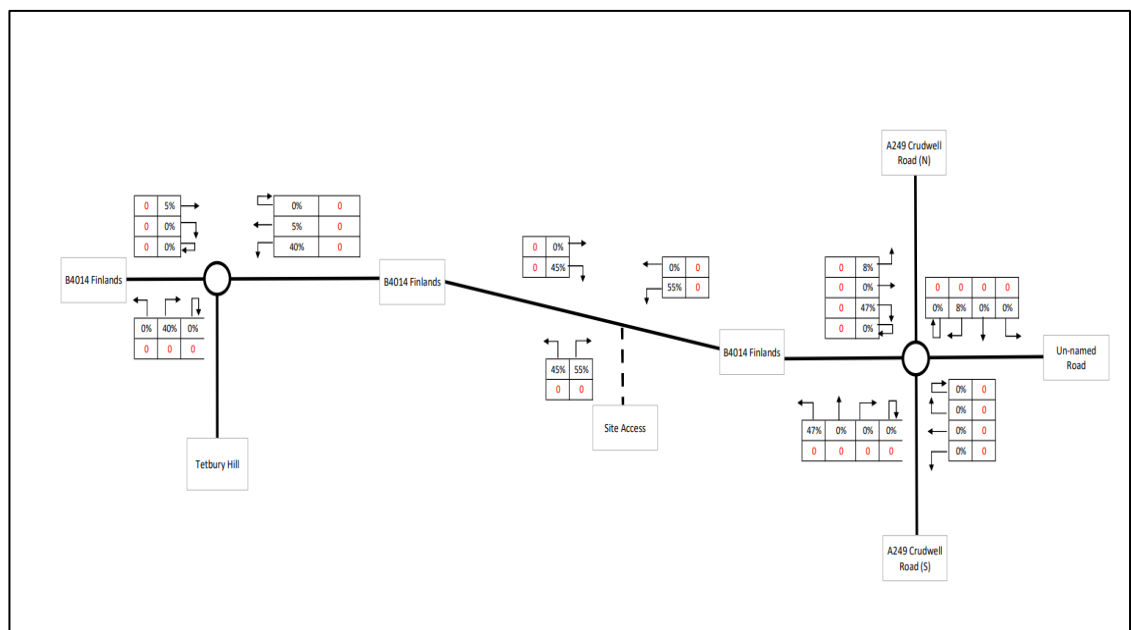
7.7.1 The traffic assignment is consistent with that of the permitted development site to the west and has been previously agreed with WC. The assignment is summarised below:

- Total heading east from site access – 55%, of which:
- A429 South – 47%; and

- A429 North – 8%.
- Total heading west from site access – 45%, of which:
- Tetbury Hill – 40%; and
- B4014 Filands west – 5%.

7.7.2 Development traffic distribution (%) routeing two-way through the junctions is illustrated in **TF15**, which is extracted below in **Image 7.1**.

Image 7.1: Development Traffic Distribution Two-Way (%)



7.8 'With Development' Traffic Flows

7.8.1 The assignment of development traffic two-way link flows in the morning peak hour is illustrated in **TF16** and evening peak hour in **TF17**.

7.8.2 2030 traffic flows plus committed development plus 180 homes at the application site (but excluding the 71 permitted homes associated with the previous outline application) are included in **TF18** and **TF19** (morning and evening peaks respectively).

7.9 Operational Assessments

7.9.1 Operational assessments have been undertaken for the 'with' and 'without' development scenarios in the weekday morning and evening peak hour periods. In line with the previously agreed approach, operational assessments of the following junctions have been undertaken:

- Site access junction to the B4014 Filands, serving application site and Bloor Homes site.
- B4014 Filands / Tetbury Hill Junction.
- B4014 Filands / A429 Junction.

7.9.2 The assessments are undertaken based on 2030 assessments using TRL's Junctions 10 software, the industry standard tool for modelling the operation of priority junctions and roundabouts. For robustness, the modelling has been undertaken based on a 'one hour' profile which in effect models a peak within a peak.

7.9.3 The key outputs are:

- Ratio of Flow to Capacity (RFC), where:
- A value under 0.85 indicates that an approach is operating within capacity.
- A value between 0.85 and 1.0 indicates it is approaching capacity and 'flow breakdown' may begin to occur.
- A value over 1.0 indicates it is at capacity and that its performance will continue to deteriorate.
- Queues (vehicles) – the average length of the queuing traffic on each individual arm of the junction during the busiest 15 minutes.
- Average Delay (seconds) – the time each driver will take to manoeuvre through the junction.

Permitted Site Access Junction to the B4014 Filands

7.9.4 Full Junctions 10 outputs are provided in **Appendix F**. The results of the assessment are shown in **Table 7.6**.

Table 7.6: Permitted Site Access Junction – Operational Assessments

	Morning Peak Hour			Evening Peak hour		
	RFC	Queue	Delay	RFC	Queue	Delay
2030 with Committed Development (including 71 homes on site)						
Site Access (Left-turn flare)	0.10	0.1	8.30	0.04	0.0	6.65
Site Access (Right-turn)	0.21	0.3	16.17	0.11	0.1	13.39
Filands	0.05	0.1	7.80	0.07	0.1	7.04
2030 with Committed Development + Development of 180 Homes						
Site Access (Left-turn flare)	0.14	0.2	9.06	0.06	0.1	6.84
Site Access (Right-turn)	0.29	0.4	18.37	0.14	0.2	14.38
Filands	0.07	0.1	7.97	0.11	0.1	7.38

Source: Junctions 10

B4014 Filands / Tetbury Hill Junction

7.9.5 The results of the assessment are shown in **Table 7.6**.

Table 7.7: B4014 Filands / Tetbury Hill Junction – Operational Assessments

	Morning Peak Hour			Evening Peak hour		
	RFC	Queue	Delay	RFC	Queue	Delay
2024 Observed Traffic						
Filands East	0.46	0.9	3.54	0.27	0.4	2.55
Tetbury Hill	0.23	0.3	2.67	0.38	0.6	0.38
Filands West	0.25	0.3	3.27	0.27	0.4	0.27
2030 with Committed Development (including 71 homes on site)						
Filands (East)	0.52	1.1	4.00	0.33	0.5	2.79
Tetbury Hill	0.26	0.3	2.82	0.45	0.8	3.69
Filands (West)	0.33	0.5	3.63	0.33	0.5	4.08
2030 with Committed Development + Development of 180 Homes						
Filands (East)	0.53	1.1	4.08	0.34	0.5	2.81
Tetbury Hill	0.26	0.4	2.84	0.45	0.8	3.75
Filands (West)	0.33	0.5	3.65	0.34	0.5	4.14

Source: Junctions 10

B4014 Filands / A429 Junction

7.9.6 The results of the assessment are shown in **Table 7.7**.

Table 7.8: B4014 Filands / A429 Junction – Operational Assessments

	Morning Peak Hour			Evening Peak hour		
	RFC	Queue	Delay	RFC	Queue	Delay
2024 Observed Traffic						
Crudwell Road (North)	0.27	0.4	3.75	0.39	0.6	5.17
Access Road (ALDI)	0.04	0.0	3.13	0.16	0.2	4.01
Crudwell Road (South)	0.56	1.2	4.33	0.36	0.6	2.99
Filands	0.38	0.6	3.91	0.56	1.3	5.29
2030 with Committed Development (including 71 homes on site)						
Crudwell Road (North)	0.30	0.4	4.14	0.44	0.8	5.98
Access Road (ALDI)	0.04	0.0	3.39	0.18	0.2	4.44
Crudwell Road (South)	0.60	1.5	4.81	0.44	0.8	3.43
Filands	0.47	0.9	4.53	0.63	1.7	6.28
2030 with Committed Development + Development of 180 Homes						
Crudwell Road (North)	0.31	0.4	4.21	0.45	0.8	6.06
Access Road (ALDI)	0.04	0.0	3.44	0.18	0.2	4.49
Crudwell Road (South)	0.60	1.5	4.88	0.45	0.8	3.51
Filands	0.48	0.9	4.67	0.63	1.7	6.38

Source: Junctions 10

7.9.7 The junctions will operate within capacity during the morning and evening peak periods in 2030.

7.9.8 Crucially, the permitted access junction will continue to operate within capacity with the additional development traffic. The modelling is very robust because:

- It assumes 180 homes at the site, rather than the proposed 149.
- It is based on a 'predict and provide' approach that takes no account of the sustainable transport strategy.
- No allowance is made for affordable houses.
- It is based on a 'peak within a peak' One Hour traffic profile.

7.10 Summary

7.10.1 Traffic modelling identifies that there is spare capacity at junctions in the study area to accommodate the additional traffic arising from development. Impacts arising from the development will not be of the 'severe' level identified by the NPPF (*ref: paragraph 115*) as the only traffic reason for resisting development. The traffic assessment is based on an agreed methodology, which has previously been agreed, but makes use of updated traffic survey data and the latest position on committed development.

SECTION 8 Summary and Conclusions

8.1 Summary

8.1.1 This TA considers the transport implications of a development of up to 149 residential dwellings on Land north of Whychurch Farm and west of Crduwell Road Malmesbury.

8.1.2 The TA tests the development proposal against the policy requirements at paragraph 115 of the NPPF, which requires that development sites:

- Provide safe and acceptable access for all modes.
- Prioritises opportunities for travel by sustainable travel modes have been 'taken up'.
- Reflects current national design guidance.
- Do not result in a 'severe' residual cumulative traffic impact or unacceptable safety impacts.

8.1.3 The proposal is adjacent to the permitted Bloor Homes development of 130 homes and on-site nursery, with access from B4014 Filands. It is also at the site of an earlier application for 71 homes. No objection to either planning application was raised by WC on highways and transportation grounds. A clear precedent has been set that development at the site is acceptable in transport terms.

8.1.4 Against that background, it follows that the latest planning application should also be acceptable in highways terms. The findings of the report are set out below.

- A simple priority junction access to the site is proposed from the permitted Bloor Homes scheme access road, that in turn provides access to B4014 Filands via a ghost island priority junction which will serve both the application and Bloor Homes sites. The proposed site access, together with the permitted ghost island, are shown in i-Transport drawing no **ITS200270-GA-003**. The access will operate within capacity with both the Bloor Homes and proposed developments in place.

- The site is within reasonable walking and cycling distance of a large range of local everyday services and facilities, including education, retail, leisure and employment facilities, and benefits from connections to the public transport network and the adjacent residential areas. The site was previously judged to be a sustainable location for development and distances from the site to local facilities are similar. There is no reason why the same conclusion would not continue to apply.
- To prioritise sustainable travel, the development proposal includes the delivery of an internal layout aimed at minimising traffic speed and providing convenient pedestrian links within the site. A highly permeable site with multiple points of access in all directions is also proposed. Additionally, a Framework Travel Plan is provided which will bring forward a package of sustainable travel initiatives.
- A reserved matters application will bring forward the design of the proposal in detail and in accordance with design guidance. The proposal will accord with parking standards, provide adequately for refuse collection vehicles and comply with standards for refuse collection.
- A full and robust assessment of the likely traffic impacts of the development has been carried out. This demonstrates that the development site is likely to have only a very small traffic impact on the local network. Operational assessments demonstrate that the proposal will not have a noticeable impact on queuing and delay during the weekday peak hours and that any residual impact of the development falls well short of the 'severe' impact test identified in the NPPF.

8.2 Conclusions

- 8.2.1 It is clear that the traffic impact of the scheme will not be severe; safe and suitable access will be provided; and that sustainable travel has been prioritised. The scheme will come forward in accordance with design guidance.
- 8.2.2 On this basis, there is no reason to prevent the application from proceeding on transport grounds.

FIGURES

Key

Site Boundary

Bloor Site

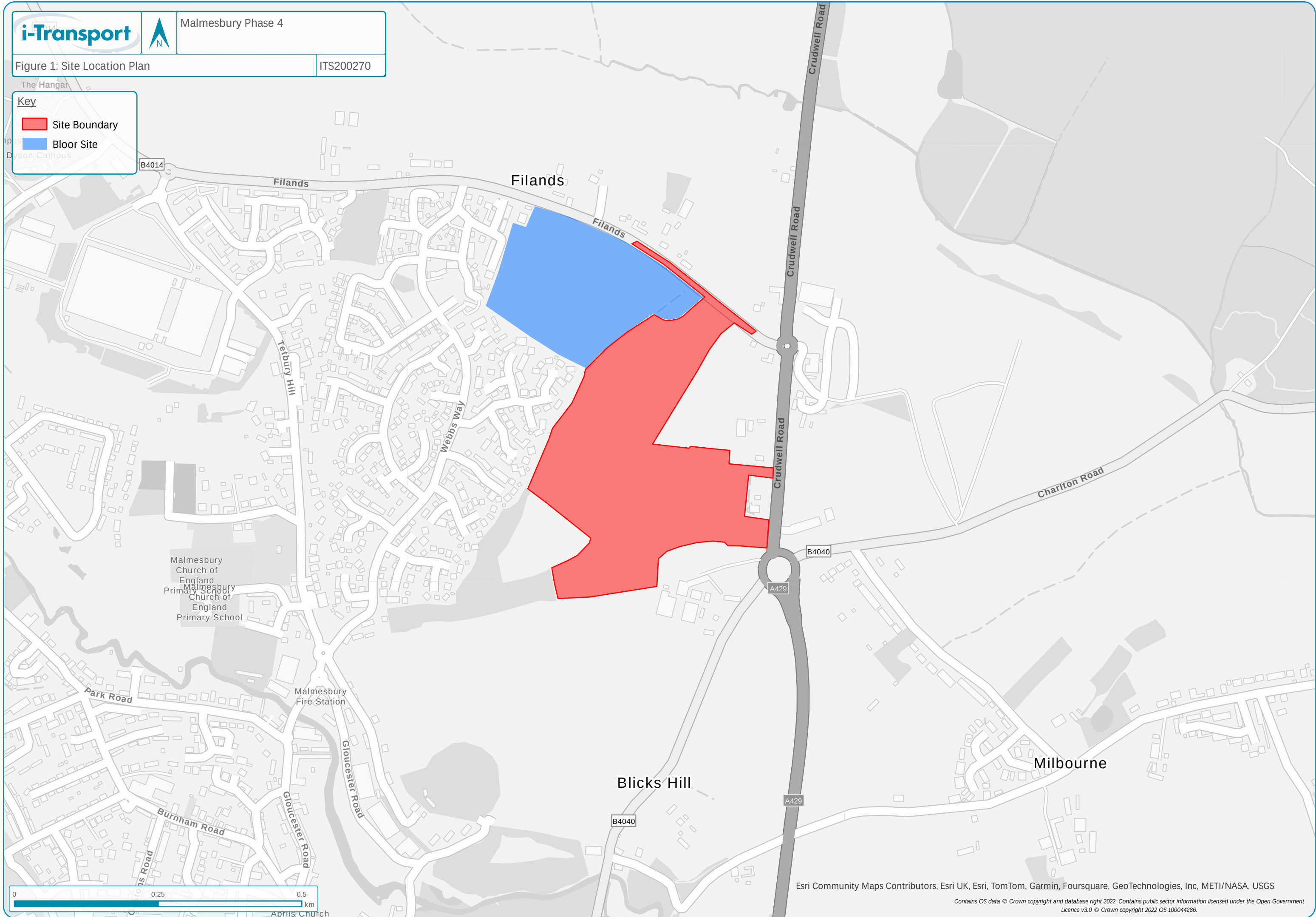




Figure 2: Local Facilities Plan

ITS200270

Key

Site Location

Health

- H¹ Barley Mow Dental Surgery
- H² Boots Pharmacy
- H³ Malmesbury Primary Care Centre
- H⁴ mydentist

Leisure

- L¹ Malmesbury Victoria Football Club
- L² Riverside Community Centre
- L³ Malmesbury Tennis Club
- L⁴ Abbey House Gardens
- L⁵ The Activity Zone Leisure Centre
- L⁶ Malmesbury Bowls Club
- L⁷ Malmesbury Cricket Club
- L⁸ PD Fitness

Education

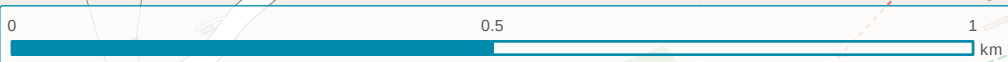
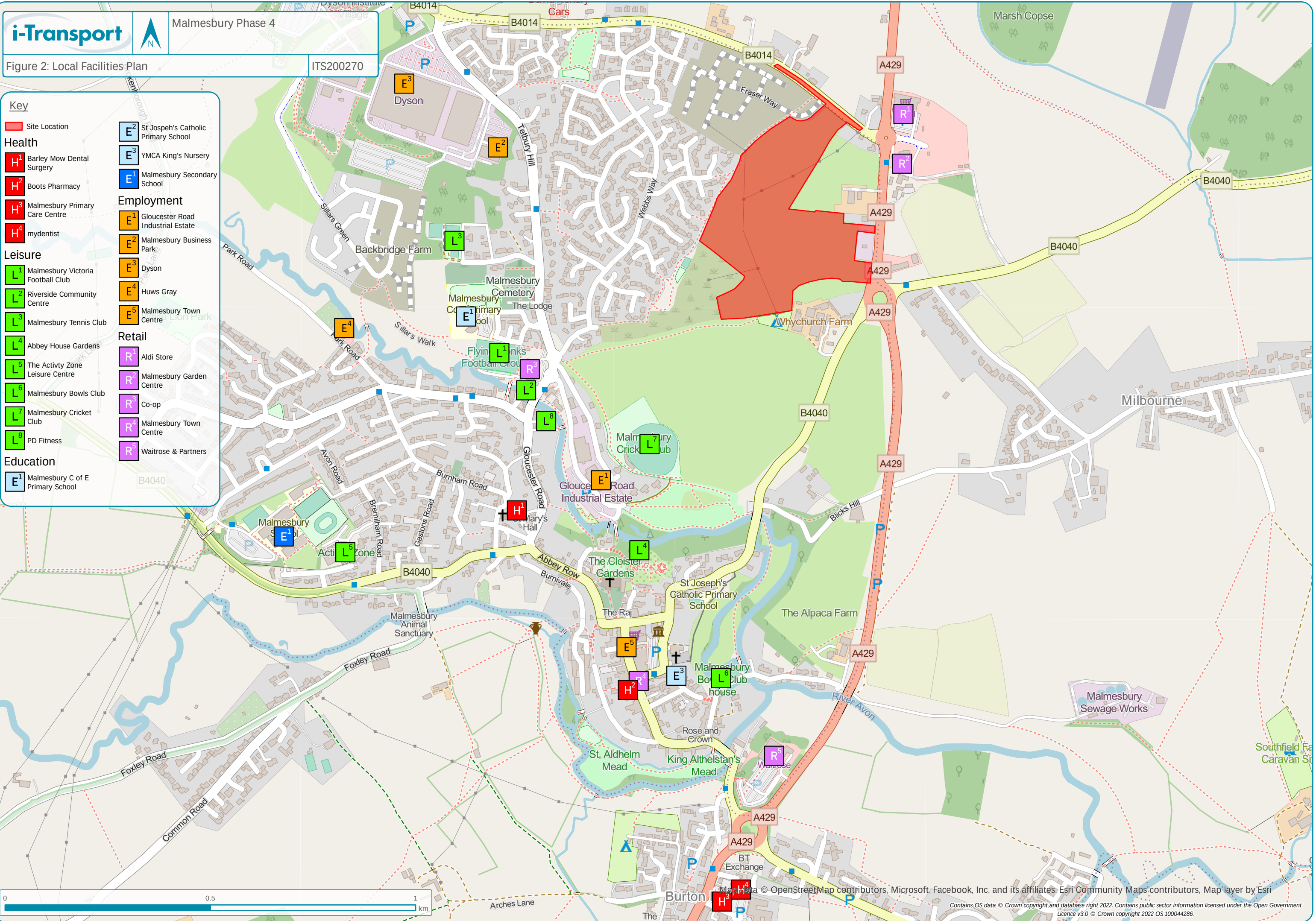
- E¹ Malmesbury C of E Primary School

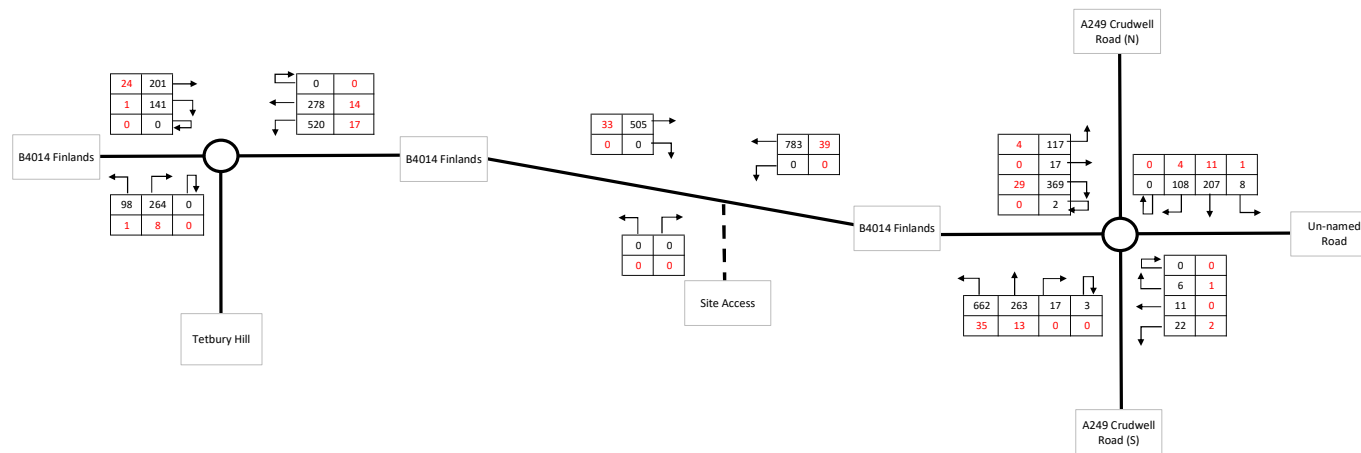
Employment

- E¹ Gloucester Road Industrial Estate
- E² Malmesbury Business Park
- E³ Dyson
- E⁴ Huws Gray
- E⁵ Malmesbury Town Centre

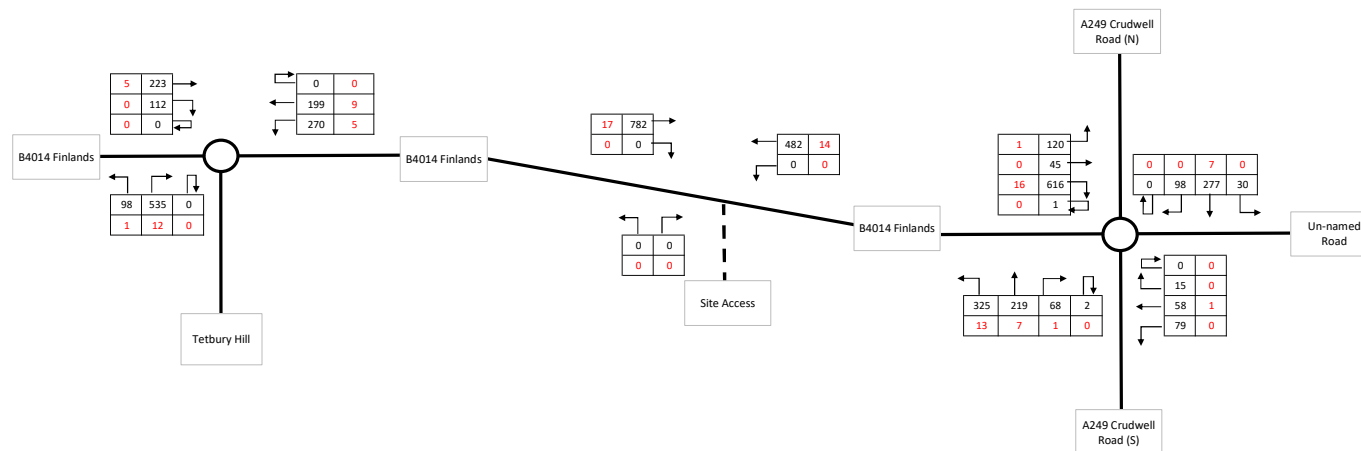
Retail

- R¹ Aldi Store
- R² Malmesbury Garden Centre
- R³ Co-op
- R⁴ Malmesbury Town Centre
- R⁵ Waitrose & Partners

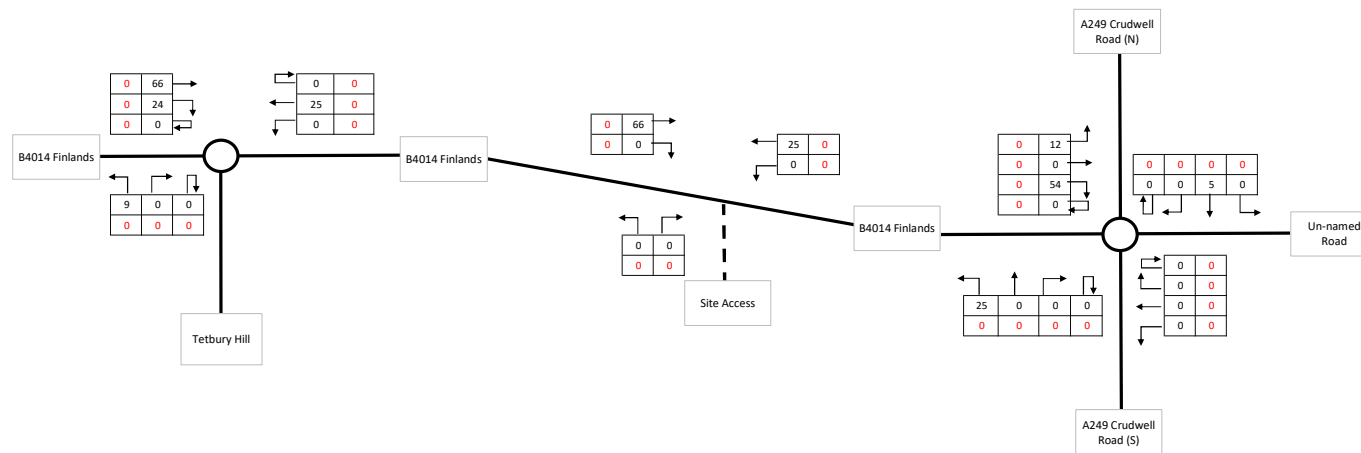


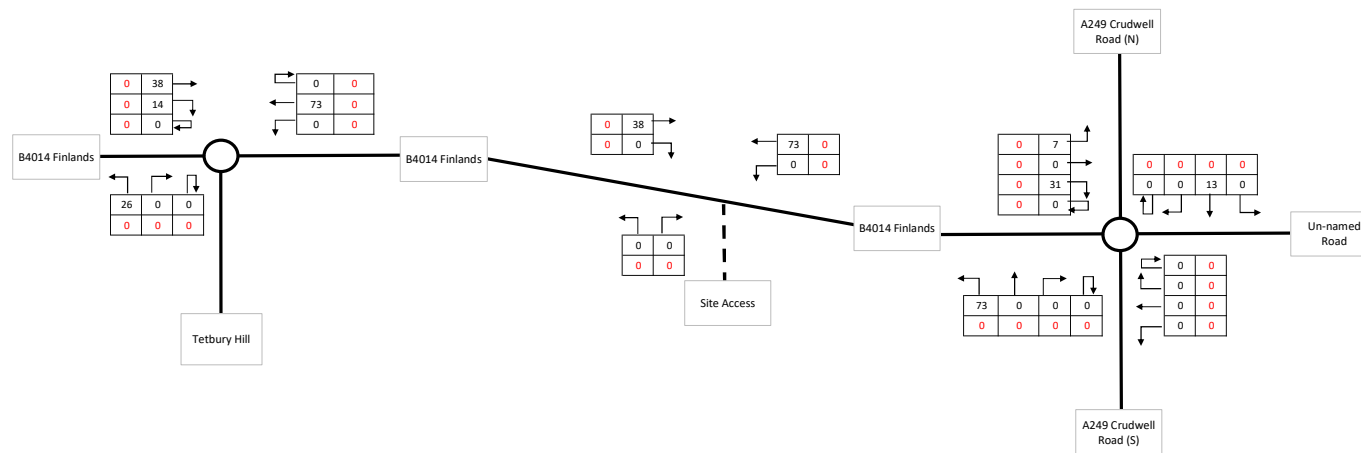


	The Square, Basing View, Basingstoke, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk	KEY
Land at Filands, Malmesbury		500 = TOTAL VEHICLES
TF1		25 = HGVs
2024 Observed Traffic AM Peak (07:45 - 08:45)		

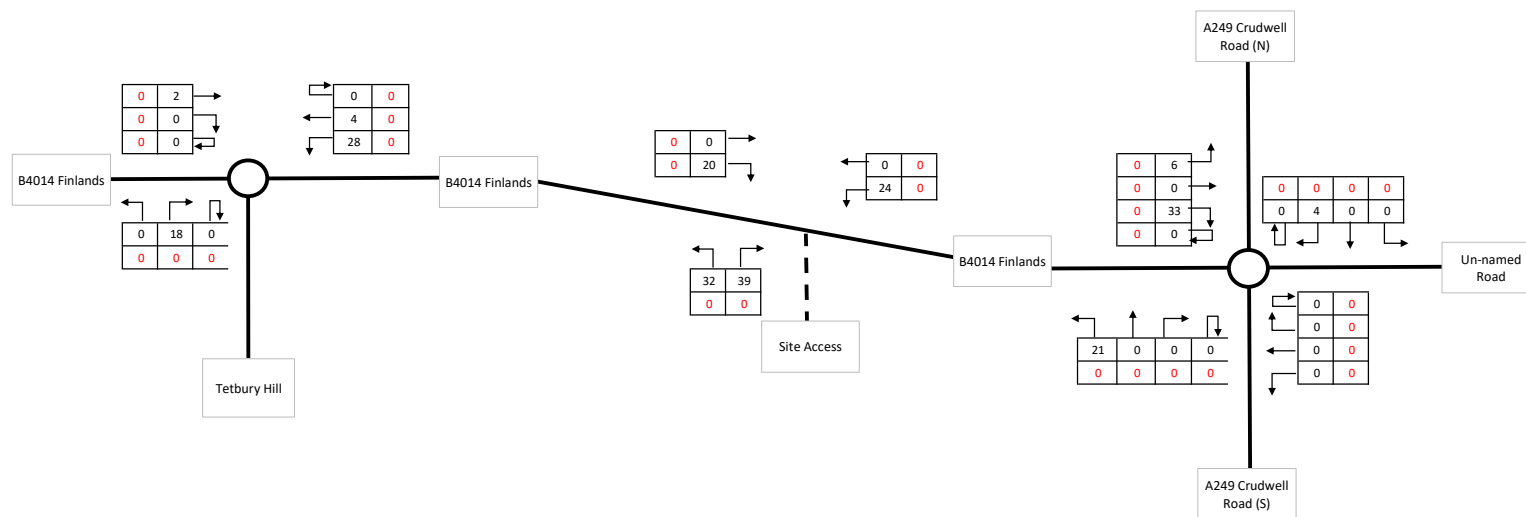


	The Square, Basing View, Basingstoke, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk	KEY
Land at Filands, Malmesbury		500 = TOTAL VEHICLES
TF2		25 = HGVs
2024 Observed Traffic PM Peak (16:15 - 17:15)		





	The Square, Basing View, Basingstoke, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk	KEY
Land at Filands, Malmesbury		500 = TOTAL VEHICLES
TF4		25 = HGVS
Backbridge Farm Committed Development 1 PM		



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

Land at Filands, Malmesbury

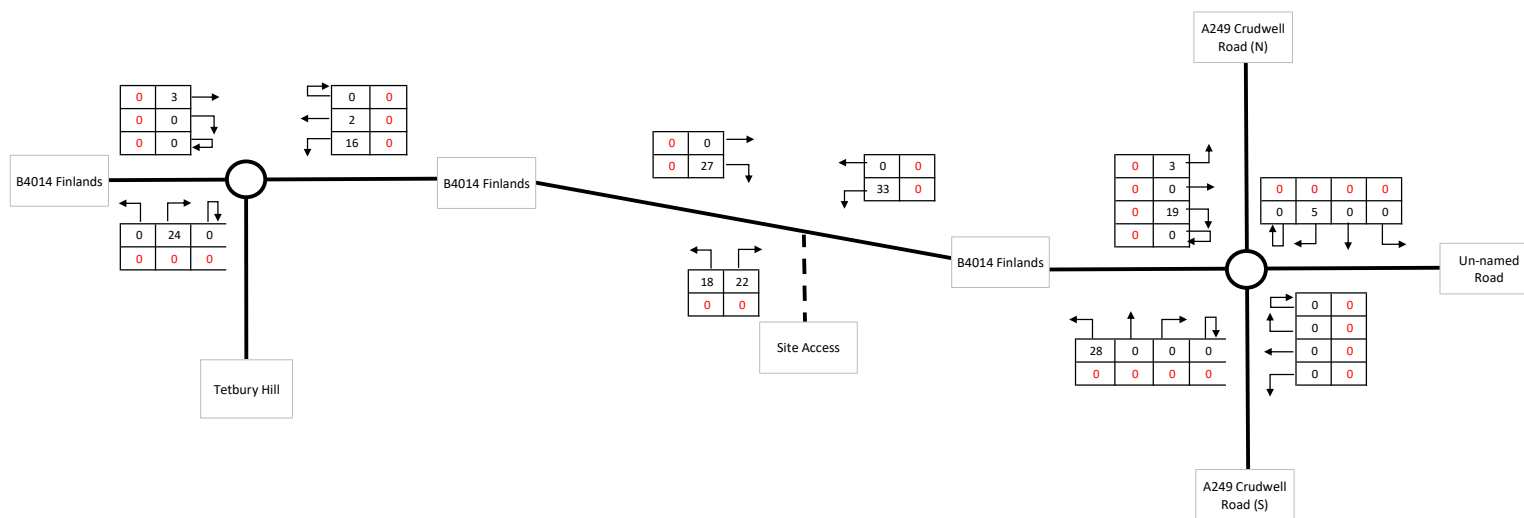
TF5

The Bloor Scheme Committed Development 2 AM

KEY

500 = TOTAL VEHICLES

25 = HGVs



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

Land at Filands, Malmesbury

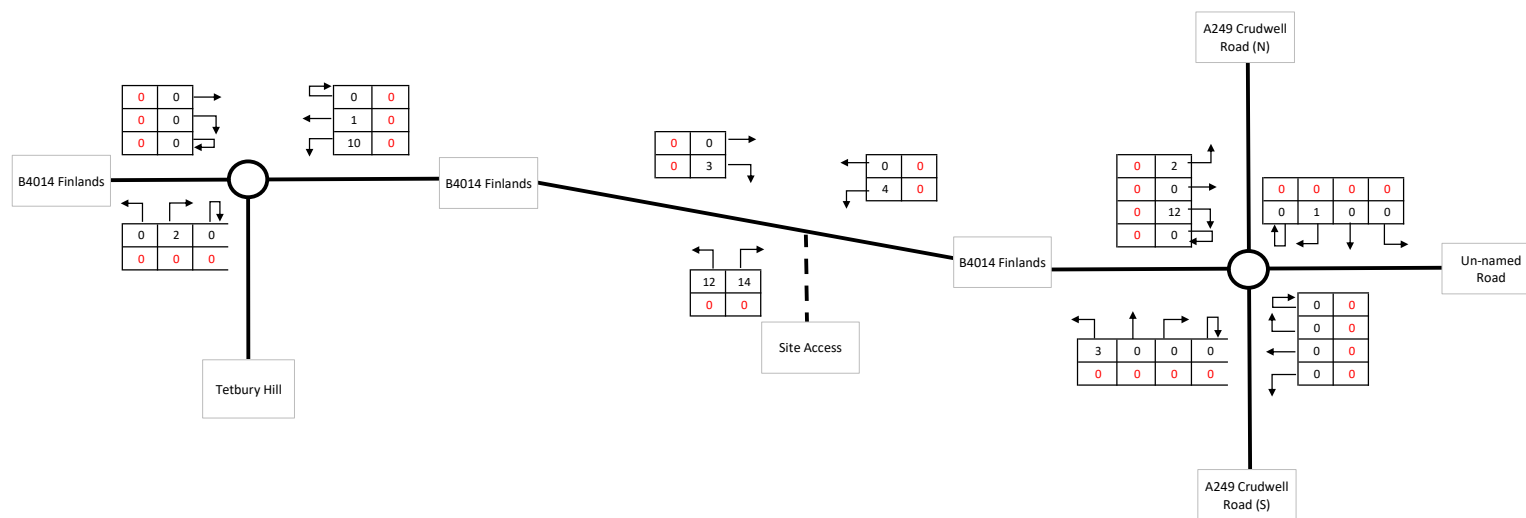
TF6

The Bloor Scheme Committed Development 2 PM

KEY

500 = TOTAL VEHICLES

25 = HGVs



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

Land at Filands, Malmesbury

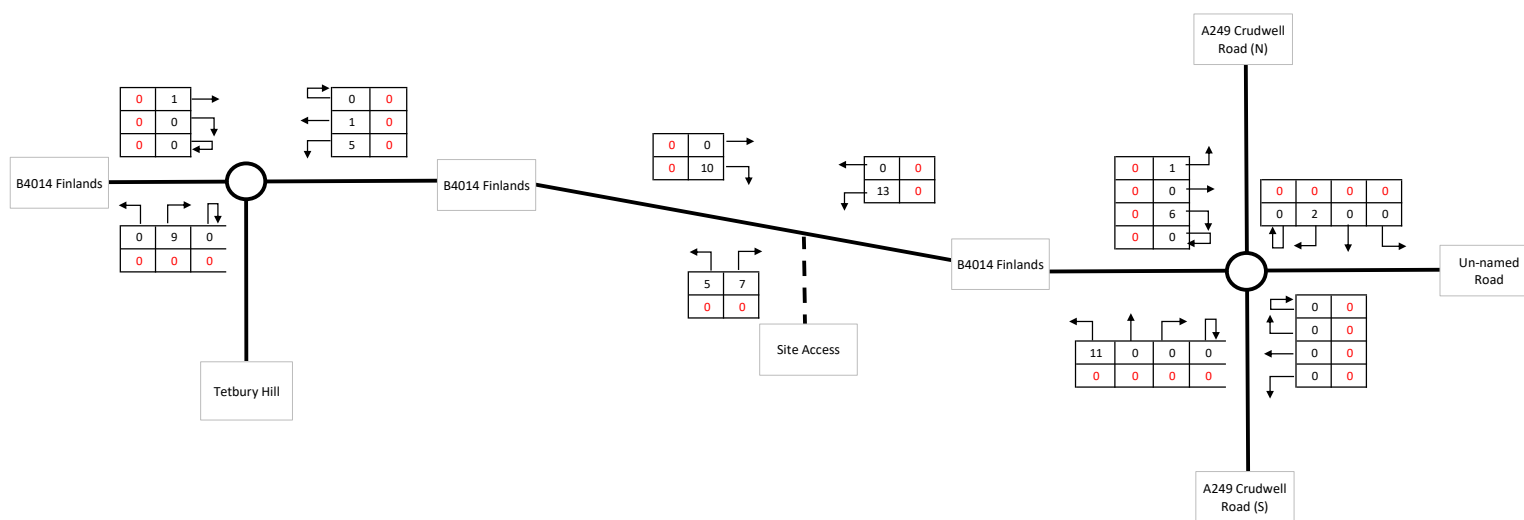
TF7

Malmesbury Phase 3 Committed Development 3 AM

KEY

500 = TOTAL VEHICLES

25 = HGVs



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

Land at Filands, Malmesbury

TF8

Malmesbury Phase 3 Committed Development 3 PM

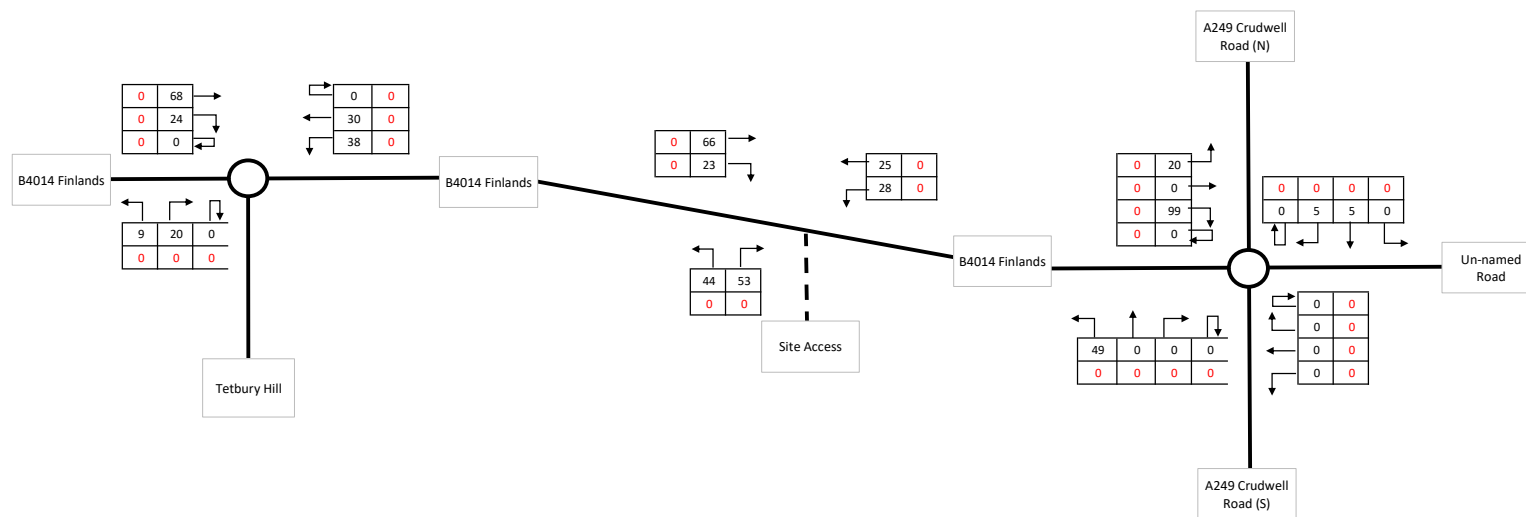
KEY

500

 = TOTAL VEHICLES

25

 = HGVs



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

KEY

500

 = TOTAL
VEHICLES

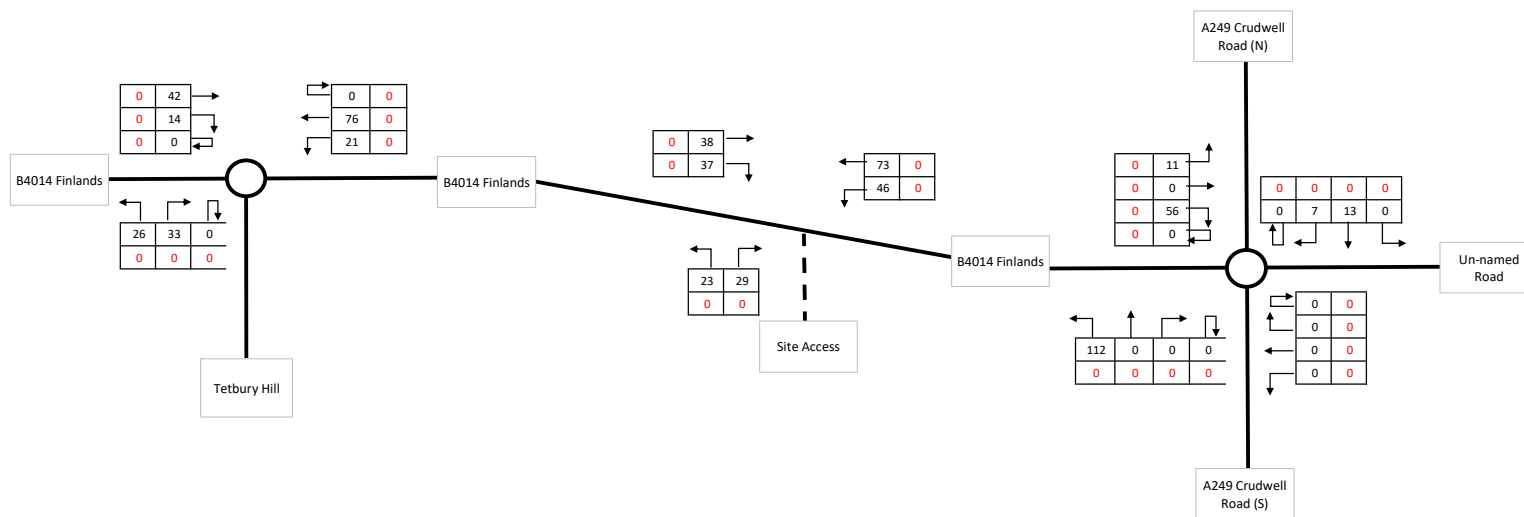
25

 = HGVs

Land at Filands, Malmesbury

TF9

Total Committed Development AM



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

KEY

500

 = TOTAL VEHICLES

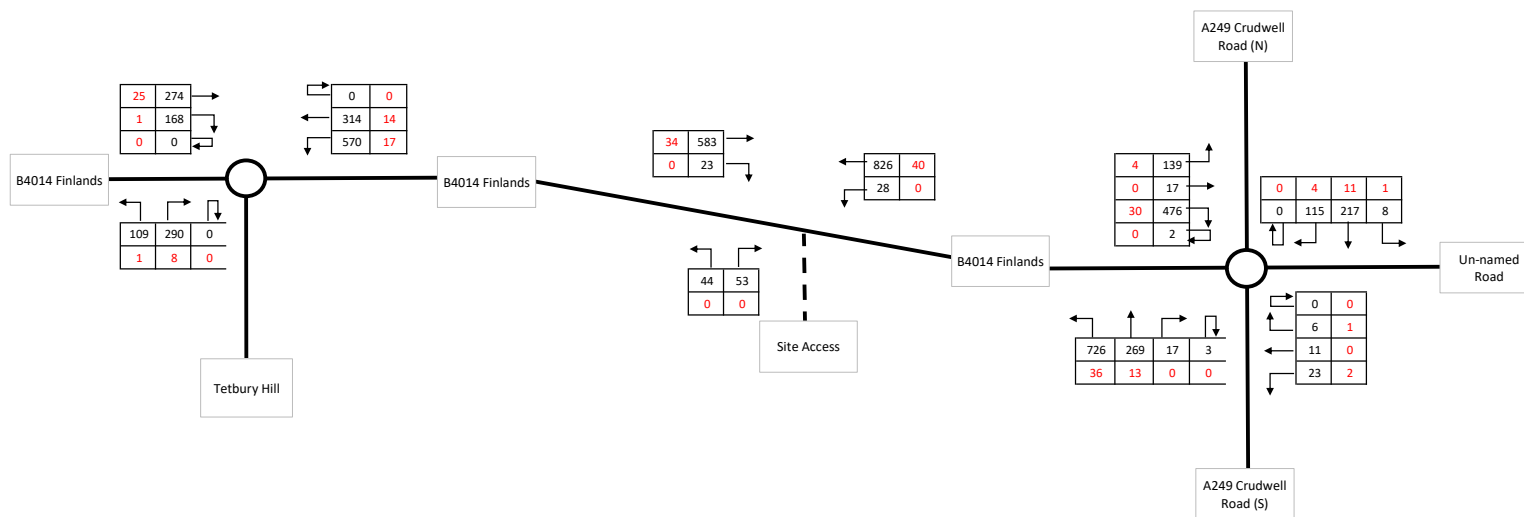
25

 = HGVs

Land at Filands, Malmesbury

TF10

Total Committed Development PM



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

Land at Filands, Malmesbury

TF11

2030 Plus Committed Development AM

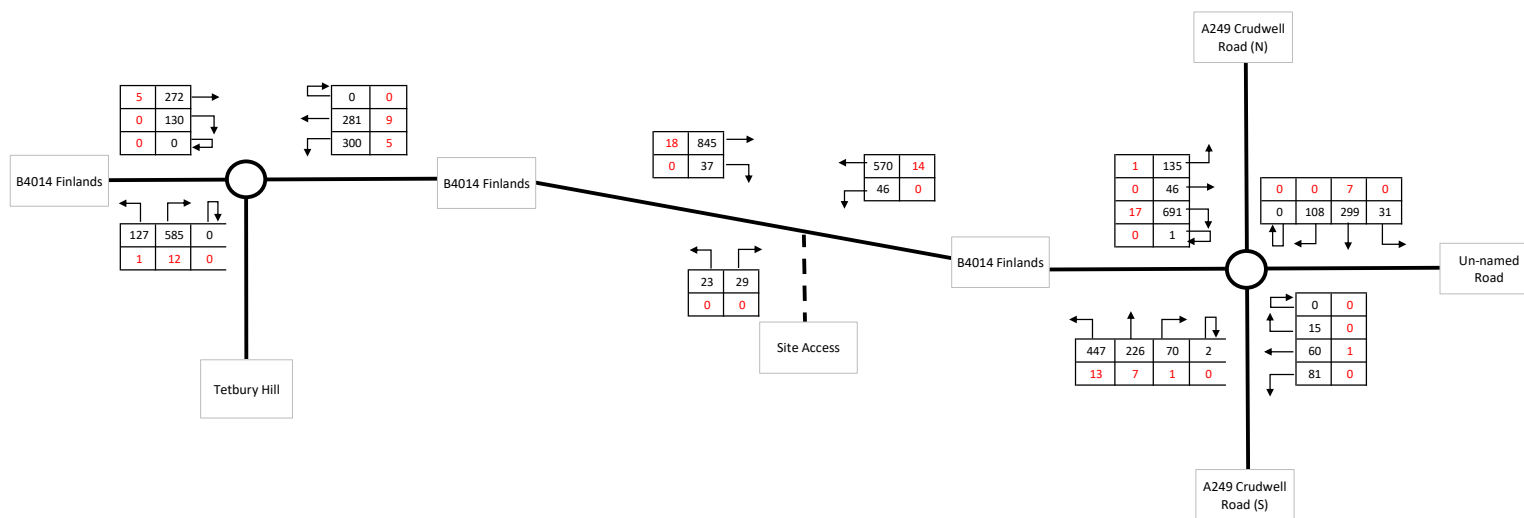
KEY

500

 = TOTAL VEHICLES

25

 = HGVs



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

Land at Filands, Malmesbury

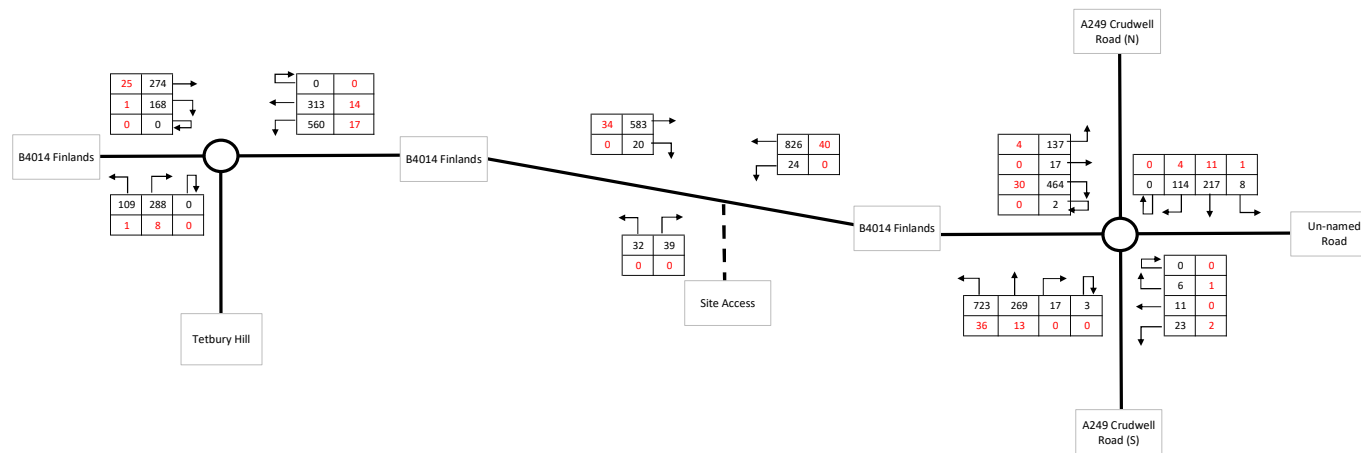
TF12

2030 Plus Committed Development PM

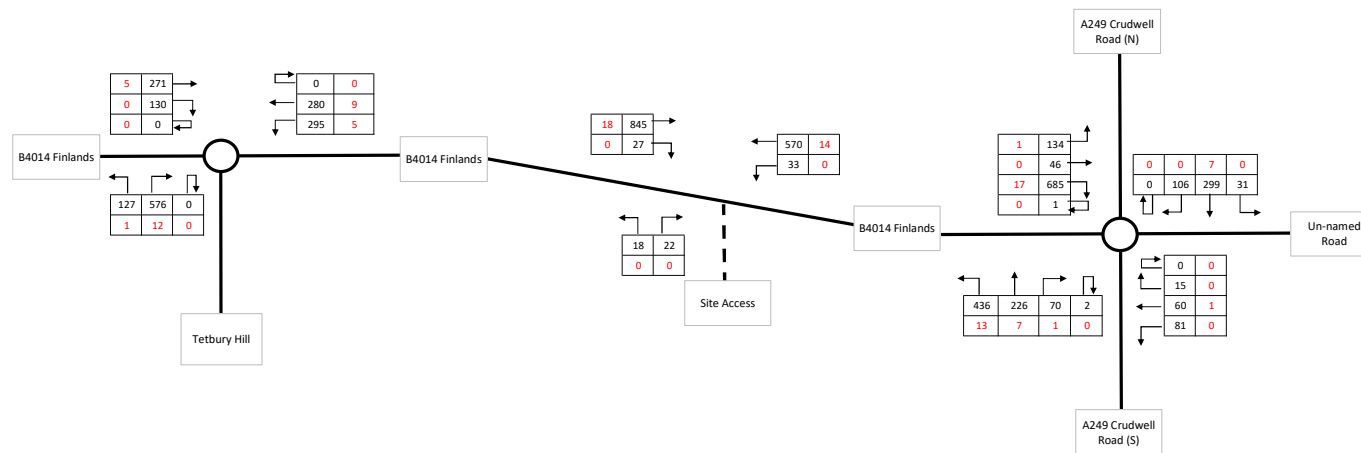
KEY

500 = TOTAL VEHICLES

25 = HGVs



	The Square, Basing View, Basingstoke, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk	KEY
Land at Filands, Malmesbury		500 = TOTAL VEHICLES
TF13		25 = HGVs
2030 Plus Committed Development AM		



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

KEY

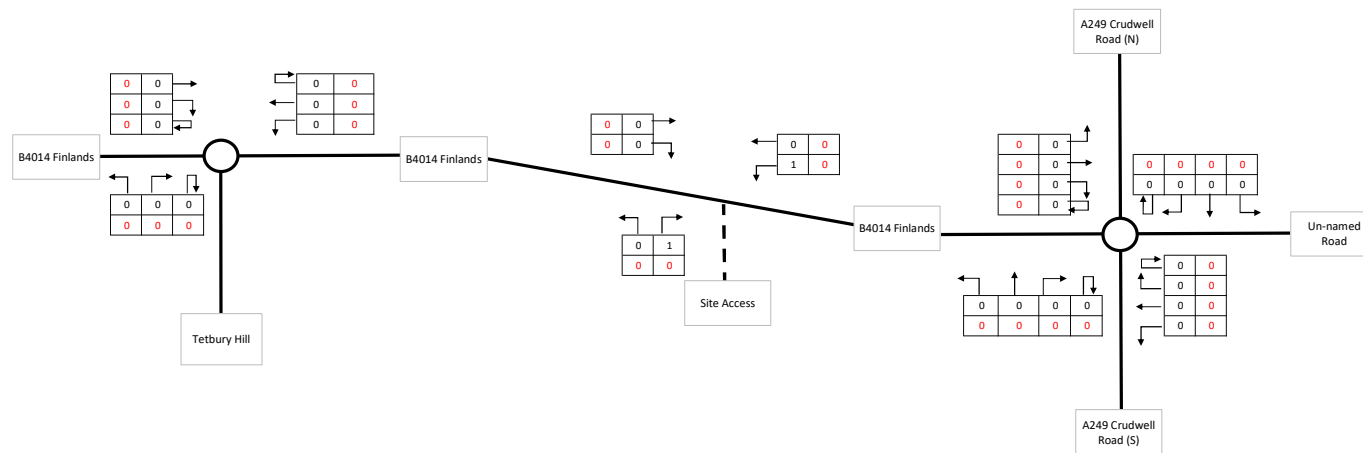
500 = TOTAL
VEHICLES

25 = HGVs

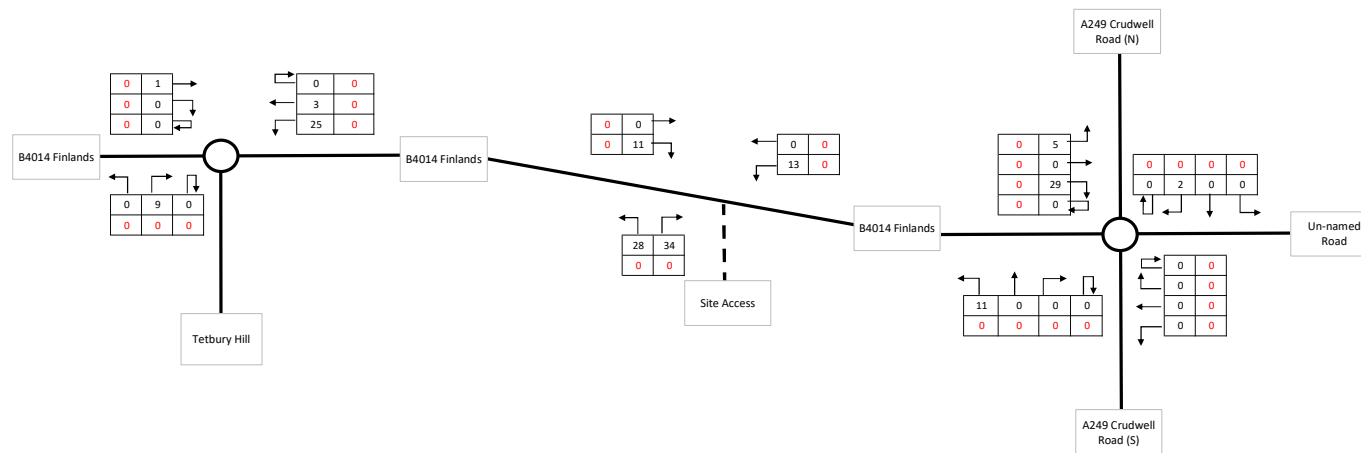
Land at Filands, Malmesbury

TF14

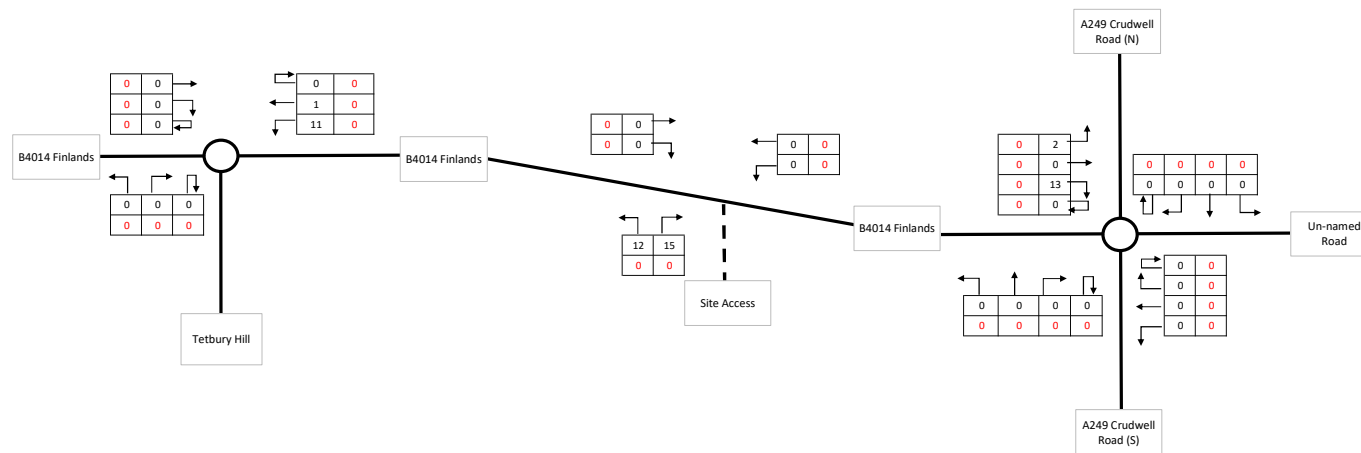
2030 Plus Committed Development PM



	The Square, Basing View, Basingstoke, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk	KEY
Land at Filands, Malmesbury		500 = TOTAL VEHICLES
TF15		25 = HGVS
Development Traffic Distribution Two way (%)		



	The Square, Basing View, Basingstoke, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk	KEY
Land at Filands, Malmesbury		500 = TOTAL VEHICLES
TF16		25 = HGVs
Development Traffic Assignment two way AM		



The Square, Basing View,
Basingstoke, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

KEY

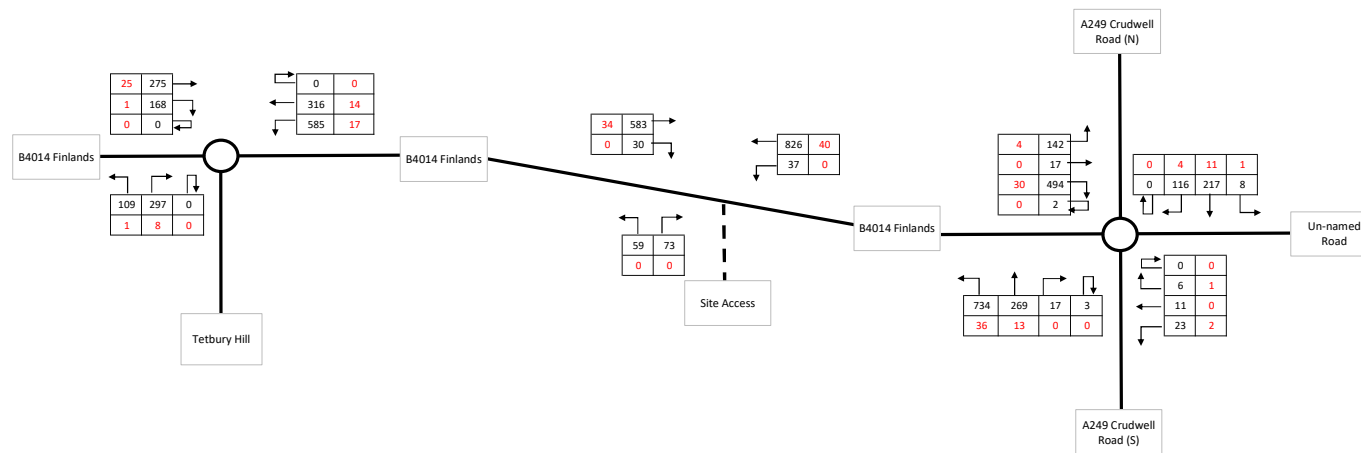
500 = TOTAL
VEHICLES

25 = HGVs

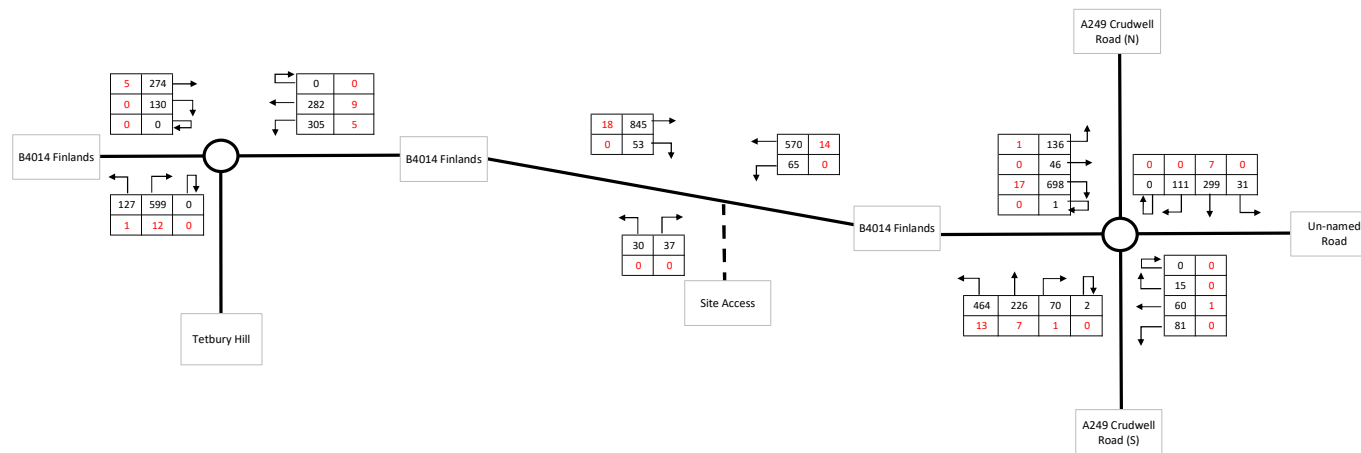
Land at Filands, Malmesbury

TF17

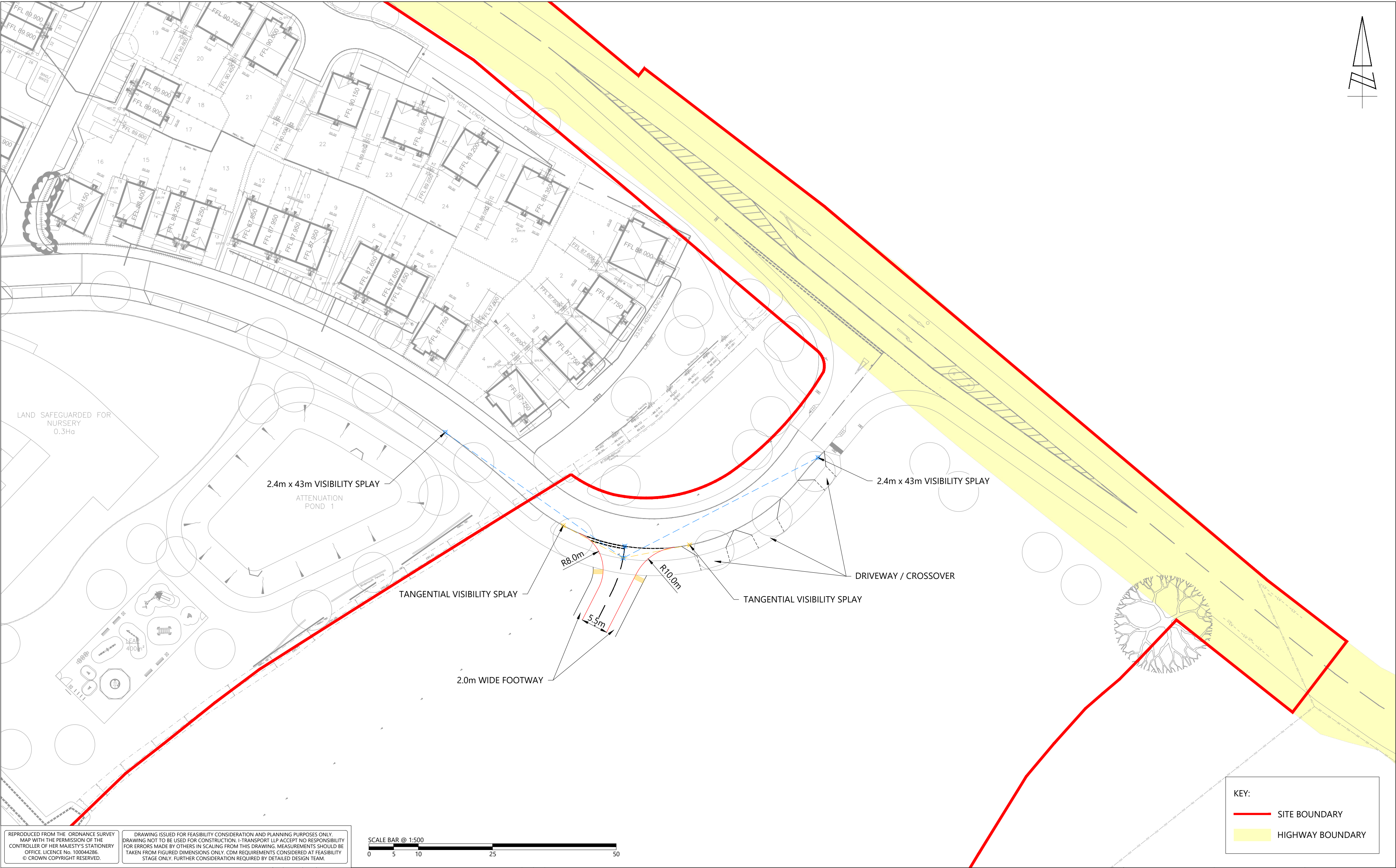
Development Traffic Assignment out PM



	The Square, Basing View, Basingstoke, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk	KEY
Land at Filands, Malmesbury	500 = TOTAL VEHICLES	25 = HGVs
TF18		
2030 Plus Committed Development Plus Development Traffic AM		

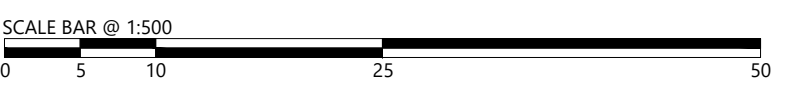


DRAWINGS



REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. LICENCE No. 100044286 © CROWN COPYRIGHT RESERVED.

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY. DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE TAKEN FROM FIGURED DIMENSIONS ONLY. COM REQUIREMENTS CONSIDERED AT FEASIBILITY STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.



KEY:	
—	SITE BOUNDARY
	HIGHWAY BOUNDARY

 The Square, Basingstoke, Hampshire, RG21 4EB Tel: 01256 637940 www.i-transport.co.uk				TITLE: PROPOSED SITE ACCESS		DRAWN: SGe		CHECKED: SGe		APPROVED: MS	
REV: DATE: BY: DESCRIPTION: CHK: APD:				PROJECT:		PROJECT No: ITS200270		SCALE @ A2: 1:500		DATE: 13.02.25	
STATUS: FOR INFORMATION				CLIENT: LAND NORTH OF WHYTCHURCH FARM		CLIENT: GLEESON LAND		DRAWING No: ITS200270-GA-003		REV: -	

APPENDIX A. Illustrative Masterplan



Romsey T: 01794 367703
Portishead T: 01275 407000
London T: 01794 367703

www.thrivearchitects.co.uk

This drawing is the copyright of Thrive Architects Ltd ©. All rights reserved. Ordnance Survey Data © Crown Copyright. All rights reserved. Licence No. 100007359. Permission is granted to scale from this drawing for the purposes of Local Authority Planning Applications only. For all other purposes DO NOT scale from this drawing. Contractors, Sub-Contractors and suppliers are to check all relevant dimensions and levels of the site and building before commencing any shop drawings or building work. Any discrepancies should be recorded to the Architect. Where applicable this drawing is to be read in conjunction with the Consultants' drawings / Clients' Construction Specification.

Rev	Description	Date	Au	Ch
A	Issued For Planning	24.02.25	NJ/TM	NJ

Project	Land north of Whychurch Farm and west of Crudwell Road		
Drawing	Illustrative Masterplan		

Client	Gleeson Land			Date	31.01.25
Job no.	GLEE240917			Rev.	A
Dwg no.	IMP.02			Scale	1:1250@A2
Author	NJ/TM	Checked	NJ	Office	1:1250@A2
Status	PLANNING			Office	Portishead
Client ref.	-				



APPENDIX B. Traffic Survey Data



AM QUEUES - Site 2 – Finlands B4014 / A429 Roundabout
Queue Length Survey

Junction 2 of 2
Unnamed Road (East)
A429 Crudwell Road (South)
B4014 (West)
A429 Crudwell Road (North)

Date
Wednesday 19th June 2024

Unnamed Road (East)

A429 Crudwell Road (South)

B4014 (West)

07:00 - 10:00 (Weekday AM Peak)

TIME (SNAPSHOT)	SINGLE LANE
07:01	0
07:02	0
07:03	0
07:04	0
07:05	0
07:06	0
07:07	0
07:08	0
07:09	0
07:10	0
07:11	0
07:12	0
07:13	0
07:14	0
07:15	0
07:16	0
07:17	0
07:18	0
07:19	0
07:20	0
07:21	0
07:22	0
07:23	0
07:24	0
07:25	0
07:26	0
07:27	0
07:28	0
07:29	0
07:30	0
07:31	1
07:32	0
07:33	0

07:00 - 10:00 (Weekday AM Peak)

TIME (SNAPSHOT)	INSIDE LANE	OUTSIDE LANE
07:01	0	0
07:02	0	0
07:03	0	0
07:04	0	0
07:05	0	0
07:06	0	0
07:07	0	0
07:08	0	0
07:09	0	0
07:10	0	0
07:11	0	0
07:12	0	0
07:13	0	0
07:14	0	0
07:15	0	0
07:16	0	0
07:17	0	0
07:18	0	0
07:19	0	0
07:20	0	0
07:21	0	0
07:22	0	0
07:23	0	0
07:24	0	0
07:25	0	0
07:26	0	0
07:27	0	0
07:28	0	0
07:29	0	0
07:30	0	0
07:31	0	0
07:32	0	0
07:33	0	0

07:00 - 10:00 (Weekday AM Peak)

TIME (SNAPSHOT)	INSIDE LANE	OUTSIDE LANE
07:01	0	0
07:02	0	0
07:03	0	0
07:04	0	0
07:05	0	
07:06	0	0
07:07	0	0
07:08	0	0
07:09	0	0
07:10	0	0
07:11	0	0
07:12	0	0
07:13	0	0
07:14	0	0
07:15	0	0
07:16	0	0
07:17	0	0
07:18	1	0
07:19	0	0
07:20	0	0
07:21	0	0
07:22	0	0
07:23	0	1
07:24	0	0
07:25	0	0
07:26	0	0
07:27	0	0
07:28	0	0
07:29	0	0
07:30	0	0
07:31	0	0
07:32	0	1
07:33	0	0

07:34	0
07:35	0
07:36	0
07:37	0
07:38	0
07:39	0
07:40	0
07:41	0
07:42	0
07:43	1
07:44	0
07:45	0
07:46	0
07:47	0
07:48	0
07:49	0
07:50	0
07:51	0
07:52	0
07:53	0
07:54	0
07:55	0
07:56	0
07:57	0
07:58	0
07:59	0
08:00	0
08:01	0
08:02	0
08:03	0
08:04	0
08:05	2
08:06	0
08:07	0
08:08	1
08:09	0
08:10	0
08:11	0
08:12	0
08:13	0
08:14	0
08:15	0
08:16	0
08:17	0
08:18	2
08:19	0
08:20	1
08:21	0
08:22	0
08:23	1
08:24	0
08:25	0
08:26	0
08:27	0
08:28	0
08:29	0
08:30	0
08:31	0
08:32	0
08:33	0
08:34	0
08:35	0
08:36	0
08:37	0
08:38	0
08:39	0

07:34	0	0
07:35	0	0
07:36	0	0
07:37	0	0
07:38	0	0
07:39	0	0
07:40	0	0
07:41	0	0
07:42	0	0
07:43	0	0
07:44	0	0
07:45	0	0
07:46	0	0
07:47	0	0
07:48	0	0
07:49	0	0
07:50	0	0
07:51	0	0
07:52	0	0
07:53	0	0
07:54	0	0
07:55	0	0
07:56	0	0
07:57	0	0
07:58	0	0
07:59	0	0
08:00	0	0
08:01	0	0
08:02	0	0
08:03	0	0
08:04	0	0
08:05	0	0
08:06	0	0
08:07	0	0
08:08	2	0
08:09	0	0
08:10	0	0
08:11	0	0
08:12	0	0
08:13	0	0
08:14	0	0
08:15	0	0
08:16	0	0
08:17	0	0
08:18	0	0
08:19	0	0
08:20	2	0
08:21	0	0
08:22	0	0
08:23	0	0
08:24	2	0
08:25	0	0
08:26	0	0
08:27	0	0
08:28	0	0
08:29	0	0
08:30	0	0
08:31	0	0
08:32	0	0
08:33	0	0
08:34	0	0
08:35	0	0
08:36	0	0
08:37	0	0
08:38	0	0
08:39	0	0

07:34	0	0
07:35	0	0
07:36	2	0
07:37	0	0
07:38	0	0
07:39	0	1
07:40	2	2
07:41	0	2
07:42	0	0
07:43	0	0
07:44	0	0
07:45	0	0
07:46	0	0
07:47	0	1
07:48	0	1
07:49	0	1
07:50	0	0
07:51	0	0
07:52	0	0
07:53	0	0
07:54	0	0
07:55	0	1
07:56	2	1
07:57	0	1
07:58	0	0
07:59	0	0
08:00	0	0
08:01	0	0
08:02	0	0
08:03	0	2
08:04	0	0
08:05	1	0
08:06	0	0
08:07	0	0
08:08	0	1
08:09	0	1
08:10	0	0
08:11	0	0
08:12	0	0
08:13	0	0
08:14	0	2
08:15	0	0
08:16	0	1
08:17	0	0
08:18	0	0
08:19	0	0
08:20	0	0
08:21	0	0
08:22	0	0
08:23	0	0
08:24	0	0
08:25	0	0
08:26	0	0
08:27	0	2
08:28	0	0
08:29	1	1
08:30	0	0
08:31	1	1
08:32	0	0
08:33	0	1
08:34	0	0
08:35	0	0
08:36	0	0
08:37	0	0
08:38	0	2
08:39	0	0

08:40	0
08:41	1
08:42	0
08:43	1
08:44	0
08:45	0
08:46	0
08:47	0
08:48	0
08:49	0
08:50	0
08:51	0
08:52	0
08:53	0
08:54	0
08:55	0
08:56	0
08:57	1
08:58	0
08:59	0
09:00	0
09:01	0
09:02	0
09:03	0
09:04	0
09:05	0
09:06	0
09:07	0
09:08	0
09:09	0
09:10	2
09:11	1
09:12	0
09:13	0
09:14	0
09:15	0
09:16	0
09:17	0
09:18	0
09:19	0
09:20	0
09:21	0
09:22	0
09:23	0
09:24	1
09:25	0
09:26	0
09:27	0
09:28	0
09:29	0
09:30	0
09:31	0
09:32	0
09:33	0
09:34	0
09:35	0
09:36	0
09:37	0
09:38	0
09:39	0
09:40	0
09:41	0
09:42	1
09:43	0
09:44	0
09:45	0

08:40	0	0
08:41	0	0
08:42	3	0
08:43	0	0
08:44	0	0
08:45	0	0
08:46	0	0
08:47	0	0
08:48	0	0
08:49	0	0
08:50	0	0
08:51	0	0
08:52	0	0
08:53	0	0
08:54	0	0
08:55	0	0
08:56	0	0
08:57	0	0
08:58	0	0
08:59	1	0
09:00	0	0
09:01	0	0
09:02	0	0
09:03	0	0
09:04	0	0
09:05	0	0
09:06	0	0
09:07	0	0
09:08	0	0
09:09	0	0
09:10	0	0
09:11	0	0
09:12	0	0
09:13	0	0
09:14	0	0
09:15	0	0
09:16	0	0
09:17	0	0
09:18	0	0
09:19	0	0
09:20	0	0
09:21	0	0
09:22	0	0
09:23	0	0
09:24	0	0
09:25	0	0
09:26	0	0
09:27	3	0
09:28	0	0
09:29	0	0
09:30	0	0
09:31	0	0
09:32	0	0
09:33	0	0
09:34	0	0
09:35	0	0
09:36	0	0
09:37	0	0
09:38	0	0
09:39	0	0
09:40	0	0
09:41	0	0
09:42	0	0
09:43	0	0
09:44	0	0
09:45	0	0

08:40	0	0
08:41	0	0
08:42	0	0
08:43	0	0
08:44	0	0
08:45	0	0
08:46	0	0
08:47	0	0
08:48	0	0
08:49	0	0
08:50	1	2
08:51	1	3
08:52	0	0
08:53	0	0
08:54	0	0
08:55	0	0
08:56	0	1
08:57	0	1
08:58	0	0
08:59	0	0
09:00	0	0
09:01	0	0
09:02	0	0
09:03	0	0
09:04	0	3
09:05	0	0
09:06	1	0
09:07	0	0
09:08	0	1
09:09	0	0
09:10	0	0
09:11	0	0
09:12	0	0
09:13	0	0
09:14	0	1
09:15	0	0
09:16	0	0
09:17	0	0
09:18	0	0
09:19	0	1
09:20	0	0
09:21	0	0
09:22	0	0
09:23	0	0
09:24	0	0
09:25	1	0
09:26	0	0
09:27	0	0
09:28	0	0
09:29	0	0
09:30	0	0
09:31	0	2
09:32	0	0
09:33	0	0
09:34	0	0
09:35	0	0
09:36	0	0
09:37	0	0
09:38	0	0
09:39	0	1
09:40	0	0
09:41	0	0
09:42	0	0
09:43	0	0
09:44	0	1
09:45	0	0

09:46	0
09:47	0
09:48	0
09:49	0
09:50	2
09:51	0
09:52	0
09:53	0
09:54	0
09:55	0
09:56	0
09:57	0
09:58	0
09:59	0
10:00	0

09:46	0	0
09:47	0	0
09:48	0	1
09:49	0	0
09:50	0	0
09:51	0	0
09:52	0	0
09:53	0	0
09:54	0	0
09:55	0	0
09:56	0	0
09:57	0	0
09:58	0	0
09:59	0	0
10:00	0	0

09:46	0	0
09:47	0	0
09:48	0	0
09:49	0	0
09:50	0	0
09:51	0	0
09:52	0	0
09:53	1	1
09:54	0	1
09:55	0	0
09:56	1	1
09:57	0	0
09:58	0	0
09:59	0	0
10:00	0	0

A429 Crudwell Road (North)

07:00 - 10:00 (Weekday AM Peak)

TIME (SNAPSHOT)	INSIDE LANE	OUTSIDE LANE
07:01	0	0
07:02	0	0
07:03	0	0
07:04	0	0
07:06	0	0
07:07	0	0
07:08	2	0
07:09	0	0
07:10	0	0
07:11	0	0
07:12	0	0
07:13	0	0
07:14	0	0
07:15	0	0
07:16	0	0
07:17	0	0
07:18	0	0
07:19	0	0
07:20	0	0
07:21	0	0
07:22	0	0
07:23	0	0
07:24	0	0
07:25	1	0
07:26	0	0
07:27	0	0
07:28	0	0
07:29	0	1
07:30	0	0
07:31	0	0
07:32	0	0
07:33	0	0

07:34	0	0
07:35	0	0
07:36	0	0
07:37	0	0
07:38	0	0
07:39	0	0
07:40	0	0
07:41	0	0
07:42	0	0
07:43	0	2
07:44	0	0
07:45	0	0
07:46	0	0
07:47	1	0
07:48	0	0
07:49	0	1
07:50	2	1
07:51	3	0
07:52	0	0
07:53	2	0
07:54	0	0
07:55	0	0
07:56	1	0
07:57	0	0
07:58	0	0
07:59	0	0
08:00	0	0
08:01	0	0
08:02	2	0
08:03	0	0
08:04	0	0
08:05	0	0
08:06	0	0
08:07	0	0
08:08	0	1
08:09	0	0
08:10	2	1
08:11	0	0
08:12	0	0
08:13	0	0
08:14	0	0
08:15	0	0
08:16	0	0
08:17	0	0
08:18	0	0
08:19	0	0
08:20	1	4
08:21	2	0
08:22	2	0
08:23	2	0
08:24	0	0
08:25	0	0
08:26	0	0
08:27	0	0
08:28	0	0
08:29	0	0
08:30	0	0
08:31	0	0
08:32	0	0
08:33	1	1
08:34	0	0
08:35	0	0
08:36	0	0
08:37	1	0
08:38	2	3
08:39	0	0

08:40	2	0
08:41	0	0
08:42	0	0
08:43	0	2
08:44	1	0
08:45	0	1
08:46	0	0
08:47	0	0
08:48	1	4
08:49	0	0
08:50	0	0
08:51	0	0
08:52	0	0
08:53	0	0
08:54	0	0
08:55	0	0
08:56	0	2
08:57	0	0
08:58	0	0
08:59	0	0
09:00	0	2
09:01	0	0
09:02	0	0
09:03	0	0
09:04	4	0
09:05	0	0
09:06	0	0
09:07	1	0
09:08	0	0
09:09	1	2
09:10	1	0
09:11	1	1
09:12	0	0
09:13	0	0
09:14	1	0
09:15	0	0
09:16	0	0
09:17	0	0
09:18	0	0
09:19	0	0
09:20	0	0
09:21	0	0
09:22	0	0
09:23	1	0
09:24	0	0
09:25	2	1
09:26	0	0
09:27	0	0
09:28	0	0
09:29	0	0
09:30	0	0
09:31	0	0
09:32	0	0
09:33	0	0
09:34	0	0
09:35	0	0
09:36	0	0
09:37	0	0
09:38	0	0
09:39	0	0
09:40	0	0
09:41	0	0
09:42	0	0
09:43	0	0
09:44	0	0
09:45	0	0

09:46	0	0
09:47	0	0
09:48	0	0
09:49	0	0
09:50	1	0
09:51	0	0
09:52	0	0
09:53	0	0
09:54	0	0
09:55	0	0
09:56	0	0
09:57	0	0
09:58	0	0
09:59	0	0
10:00	1	0

APPENDIX C. Full PIA Report

Details of Personal Injury Accidents for Period - 01/03/2019 to 29/02/2024 (60) months

Selection:
Selected using Manual Selection

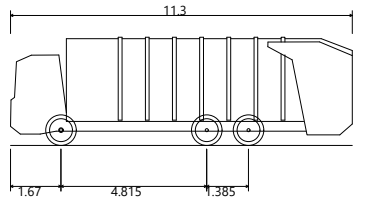
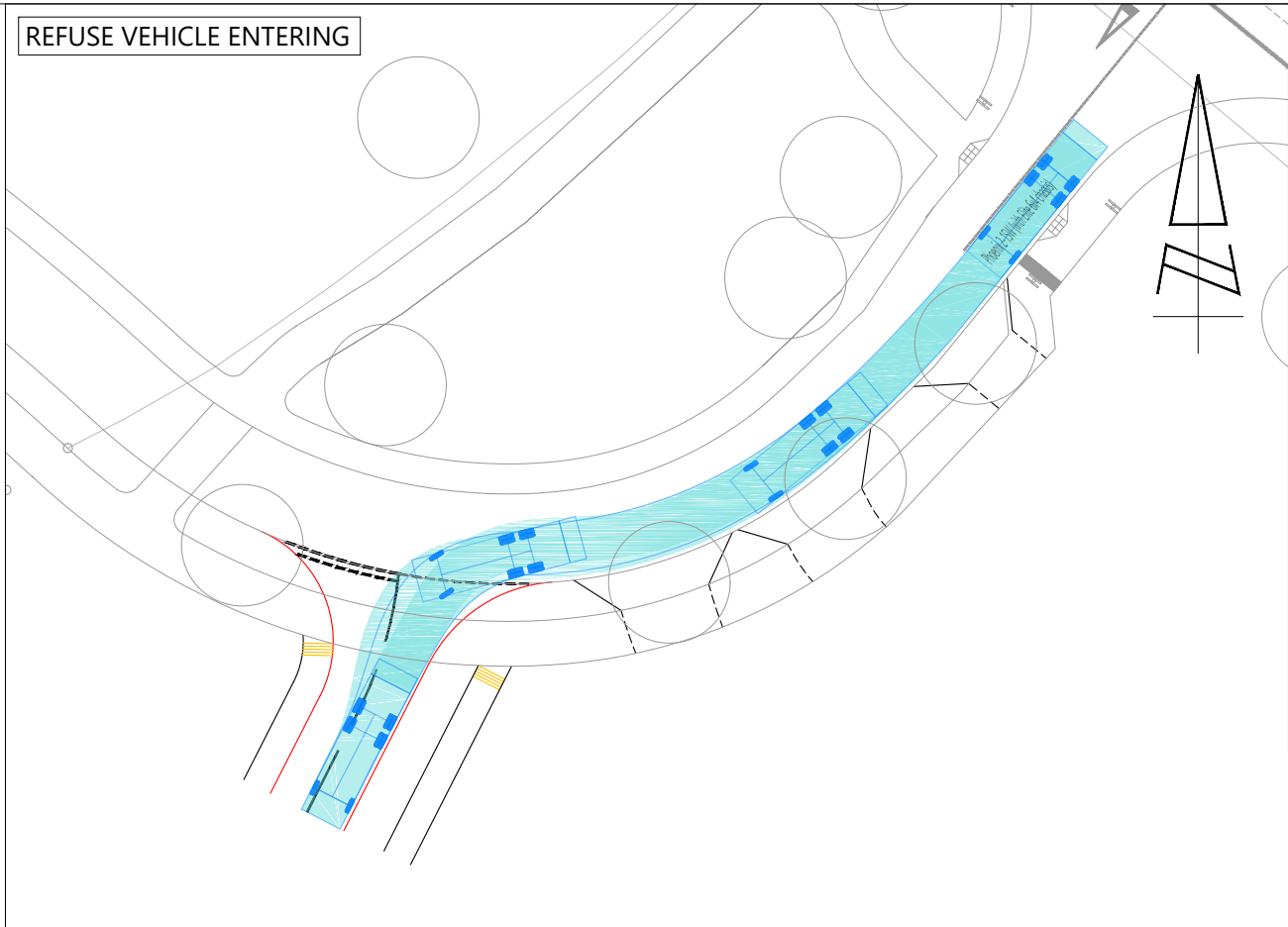
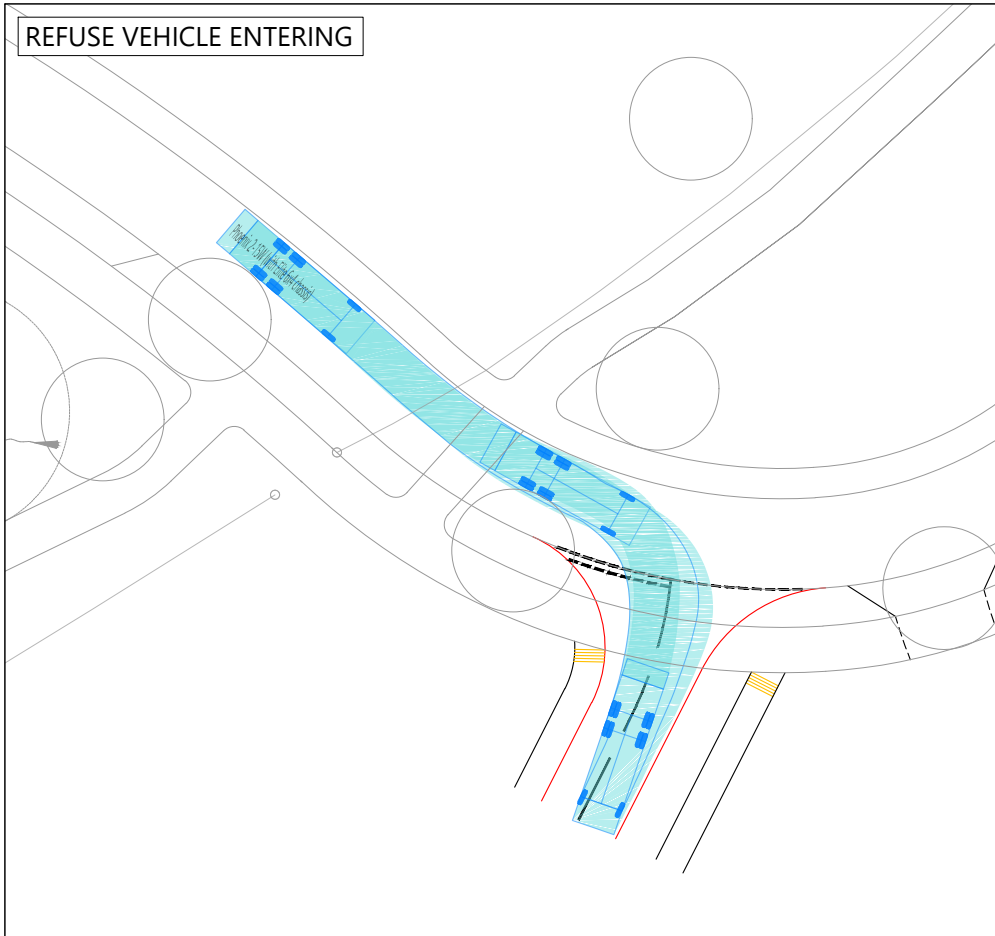
Notes:
B4014 Filands for i-transport

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

B9869/19	Tuesday	B4014 FILANDS, JCT WITH	Veh 1	Car	Going ahead	W	to	E		
	03/12/2019	HITCHINGS CL, MALMESBURY	Veh 2	Car	Wait to turn right	W	to	S		
R1: B 4014	1747hrs		Veh 3	Car	Stopping	W	to	E		
R2: U	Darkness: no street lighting		Veh 4	Car	Stopping	W	to	E		
E 393,159	Wet/Damp		Veh 5	Car	Going ahead	W	to	E	FSP	F 20 Slight
N 188,679	Fine without high winds									
	40 mph									

Causation Factor:		Participant:	Confidence:
1st:	Following too close	Vehicle 1	Very Likely
2nd:	Failed to look properly	Vehicle 1	Very Likely
3rd:	Sudden braking	Vehicle 1	Very Likely
4th:	Following too close	Vehicle 5	Very Likely
5th:	Failed to look properly	Vehicle 5	Very Likely
6th:	Sudden braking	Vehicle 5	Very Likely
V1 (CAR) TRAV E, V2 (CAR) TRAV E, V3 (CAR) TRAV E, V4 (CAR) TRAV E. V2 SLOWED TO TURN RIGHT, V1 COLLIDED REAR V2. V3 STOPPED BEHIND V1, V4 STOPPED BEHIND V3, V5 COLLIDED REAR V4. V4 SHUNTED REAR V3. TN			

APPENDIX D. Swept Path Analysis - Refuse Vehicle



Phoenix 2-15W (with Elite 6x4 chassis)
Overall Length 11.300m
Overall Width 2.900m
Overall Body Height 3.580m
Min Body Ground Clearance 0.350m
Track Width 2.900m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.250m



REV	DATE	BY	DESCRIPTION	CHK	APD
-----	------	----	-------------	-----	-----

STATUS: FOR INFORMATION



The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
Tel: 01256 637940
www.i-transport.co.uk

TITLE:
SWEPT PATH ANALYSIS - REFUSE VEHICLE

PROJECT:
LAND NORTH OF WHYTCHURCH FARM

CLIENT:
GLEESON LAND

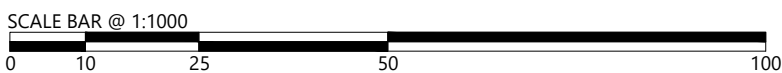
DRAWN: TA	CHECKED: SGe	APPROVED: MS
PROJECT No: ITS200270	SCALE @ A3: 1:500	DATE: 13.02.25

DRAWING No:
ITS200270-GA-004
REV:
-

S:\Projects\20000 Series\20027015 - Malmesbury Phase 4\ITech\Acad\Transport Drawings\Working Drawings\ITS200270-GA-004.dwg

REPRODUCED FROM THE ORDNANCE SURVEY
MAP WITH THE PERMISSION OF THE
CONTROLLER OF HER MAJESTY'S STATIONERY
OFFICE. LICENCE No. 100044286.
© CROWN COPYRIGHT RESERVED.

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY.
DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY
FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE
TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY
STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.



APPENDIX E. Trip Rates

Calculation Reference: AUDIT-236601-240709-0756

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	2 days
	HC HAMPSHIRE	2 days
	KC KENT	1 days
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	NF NORFOLK	6 days

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

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	4 days
10,001 to 15,000	6 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	5 days
25,001 to 50,000	3 days
50,001 to 75,000	5 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	12 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	13 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	13 days
-----------------	---------

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

i-Transport The Square Basingstoke

Licence No: 236601

LIST OF SITES relevant to selection parameters

1	DC-03-A-10 ADDISON CLOSE GILLINGHAM	MIXED HOUSES	DORSET
	Edge of Town Residential Zone Total No of Dwellings:	26	
	Survey date: WEDNESDAY	09/11/22	Survey Type: MANUAL
2	ES-03-A-07 NEW ROAD HAILSHAM HELLINGLY	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:	91	
	Survey date: THURSDAY	07/11/19	Survey Type: MANUAL
3	ES-03-A-09 THE FAIRWAY NEWHAVEN	DETACHED & SEMI-DETACHED	EAST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:	47	
	Survey date: MONDAY	13/03/23	Survey Type: MANUAL
4	HC-03-A-27 DAIRY ROAD ANDOVER	MIXED HOUSES	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	73	
	Survey date: TUESDAY	16/11/21	Survey Type: MANUAL
5	HC-03-A-33 CROW LANE RINGWOOD CROW	MIXED HOUSES & FLATS	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings:	195	
	Survey date: TUESDAY	04/07/23	Survey Type: MANUAL
6	KC-03-A-12 WESTERN LINK FAVERSHAM DAVINGTON	MIXED HOUSES & FLATS	KENT
	Edge of Town Residential Zone Total No of Dwellings:	186	
	Survey date: TUESDAY	19/09/23	Survey Type: MANUAL
7	NF-03-A-31 BRANDON ROAD SWAFFHAM	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:	321	
	Survey date: THURSDAY	22/09/22	Survey Type: DIRECTIONAL ATC COUNT
8	NF-03-A-32 HUNSTANTON ROAD HUNSTANTON	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:	164	
	Survey date: WEDNESDAY	21/09/22	Survey Type: DIRECTIONAL ATC COUNT

i-Transport The Square Basingstoke

Licence No: 236601

LIST OF SITES relevant to selection parameters (Cont.)

9	NF-03-A-33 LONDON ROAD ATTLEBOROUGH	MIXED HOUSES		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		143	
	Survey date: THURSDAY		29/09/22	Survey Type: MANUAL
10	NF-03-A-37 GREENFIELDS ROAD DEREHAM	MIXED HOUSES		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		44	
	Survey date: TUESDAY		27/09/22	Survey Type: MANUAL
11	NF-03-A-39 HEATH DRIVE HOLT	MIXED HOUSES		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		212	
	Survey date: TUESDAY		27/09/22	Survey Type: MANUAL
12	NF-03-A-47 BURGH ROAD AYLSHAM	MIXED HOUSES & FLATS		NORFOLK
	Edge of Town Residential Zone Total No of Dwellings:		300	
	Survey date: WEDNESDAY		21/09/22	Survey Type: DIRECTIONAL ATC COUNT
13	WS-03-A-19 TURNERS HILL ROAD EAST GRINSTEAD	MIXED HOUSES & FLATS		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		92	
	Survey date: MONDAY		15/05/23	Survey Type: MANUAL

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

i-Transport The Square Basingstoke

Licence No: 236601

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

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	13	146	0.068	13	146	0.273	13	146	0.341
08:00 - 09:00	13	146	0.131	13	146	0.345	13	146	0.476
09:00 - 10:00	13	146	0.134	13	146	0.158	13	146	0.292
10:00 - 11:00	13	146	0.121	13	146	0.136	13	146	0.257
11:00 - 12:00	13	146	0.143	13	146	0.127	13	146	0.270
12:00 - 13:00	13	146	0.140	13	146	0.130	13	146	0.270
13:00 - 14:00	13	146	0.157	13	146	0.144	13	146	0.301
14:00 - 15:00	13	146	0.157	13	146	0.190	13	146	0.347
15:00 - 16:00	13	146	0.252	13	146	0.165	13	146	0.417
16:00 - 17:00	13	146	0.233	13	146	0.141	13	146	0.374
17:00 - 18:00	13	146	0.326	13	146	0.149	13	146	0.475
18:00 - 19:00	13	146	0.222	13	146	0.142	13	146	0.364
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.084			2.100			4.184

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	26 - 321 (units:)
Survey date range:	01/01/16 - 27/03/24
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	19
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 F. Full Junctions 10 Outputs

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023		
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com		
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution		

Filename: Crudwell Roundabout.j10

Path: S:\Projects\200000 Series\200270ITS - Malmesbury Phase 4\Tech\Junction Assessments\Arcady

Report generation date: 16/10/2024 12:00:42

- »2024 Observed Traffic, AM
- »2024 Observed Traffic , PM
- »2030 with Committed Development (71 Homes), AM
- »2030 with Committed Development (71 Homes), PM
- »2030 with Committed Development + Development of 180 Homes, AM
- »2030 with Committed Development + Development of 180 Homes, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2024 Observed Traffic						
1 - A429 Crudwell Road (North)	0.4	3.75	0.27	0.6	5.17	0.39
2 - Access Road	0.0	3.13	0.04	0.2	4.01	0.16
3 - A429 Crudwell Road (South)	1.2	4.33	0.56	0.6	2.99	0.36
4 - B4014 Finlands	0.6	3.91	0.38	1.3	5.29	0.56
2030 with Committed Development (71 Homes)						
1 - A429 Crudwell Road (North)	0.4	4.14	0.30	0.8	5.98	0.44
2 - Access Road	0.0	3.39	0.04	0.2	4.44	0.18
3 - A429 Crudwell Road (South)	1.5	4.81	0.60	0.8	3.43	0.44
4 - B4014 Finlands	0.9	4.53	0.47	1.7	6.28	0.63
2030 with Committed Development + Development of 180 Homes						
1 - A429 Crudwell Road (North)	0.4	4.21	0.31	0.8	6.06	0.45
2 - Access Road	0.0	3.44	0.04	0.2	4.49	0.18
3 - A429 Crudwell Road (South)	1.5	4.88	0.60	0.8	3.51	0.45
4 - B4014 Finlands	0.9	4.67	0.48	1.7	6.38	0.63

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	11/07/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D2	2024 Observed Traffic	PM	ONE HOUR	16:00	17:30	15	✓
D3	2030 with Committed Development (71 Homes)	AM	ONE HOUR	07:30	09:00	15	✓
D4	2030 with Committed Development (71 Homes)	PM	ONE HOUR	16:00	17:30	15	✓
D5	2030 with Committed Development + Development of 180 Homes	AM	ONE HOUR	07:30	09:00	15	✓
D6	2030 with Committed Development + Development of 180 Homes	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

2024 Observed Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A429 Crudwell Road (North) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A429 Crudwell Road (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crudwell Roundabout	Standard Roundabout		1, 2, 3, 4	4.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.08	A

Arms

Arms

Arm	Name	Description	No give-way line
1	A429 Crudwell Road (North)		
2	Access Road		
3	A429 Crudwell Road (South)		
4	B4014 Finlands		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - A429 Crudwell Road (North)	3.00	6.00	35.0	25.0	37.5	19.0		
2 - Access Road	4.20	7.00	12.2	25.0	37.5	20.0		
3 - A429 Crudwell Road (South)	4.00	7.00	51.0	30.0	37.5	21.0		
4 - B4014 Finlands	3.50	7.00	24.0	15.0	37.5	23.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A429 Crudwell Road (North)	0.662	1700
2 - Access Road	0.689	1840
3 - A429 Crudwell Road (South)	0.736	2071
4 - B4014 Finlands	0.669	1798

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed Traffic	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A429 Crudwell Road (North)		ONE HOUR	✓	323	100.000
2 - Access Road		ONE HOUR	✓	39	100.000
3 - A429 Crudwell Road (South)		ONE HOUR	✓	945	100.000
4 - B4014 Finlands		ONE HOUR	✓	505	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	8	207	108
	2 - Access Road	6	0	22	11
	3 - A429 Crudwell Road (South)	263	17	3	662
	4 - B4014 Finlands	117	17	369	2

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	13	5	4
	2 - Access Road	17	0	9	0
	3 - A429 Crudwell Road (South)	5	0	0	5
	4 - B4014 Finlands	3	0	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A429 Crudwell Road (North)	0.27	3.75	0.4	1.0	A	297	445
2 - Access Road	0.04	3.13	0.0	0.5	A	36	54
3 - A429 Crudwell Road (South)	0.56	4.33	1.2	1.6	A	868	1301
4 - B4014 Finlands	0.38	3.91	0.6	2.7	A	464	696

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	243	61	307	1413	0.172	242	290	0.0	0.2	3.074	A
2 - Access Road	30	7	517	1357	0.022	30	32	0.0	0.0	2.711	A
3 - A429 Crudwell Road (South)	712	178	96	1904	0.374	709	451	0.0	0.6	3.006	A
4 - B4014 Finlands	381	95	217	1544	0.246	379	588	0.0	0.3	3.087	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	291	73	367	1372	0.212	290	347	0.2	0.3	3.327	A
2 - Access Road	35	9	619	1287	0.028	35	39	0.0	0.0	2.874	A
3 - A429 Crudwell Road (South)	850	212	114	1891	0.450	849	540	0.6	0.8	3.453	A
4 - B4014 Finlands	454	114	260	1516	0.300	454	703	0.3	0.4	3.389	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	356	89	450	1317	0.270	355	425	0.3	0.4	3.743	A
2 - Access Road	43	11	758	1193	0.036	43	47	0.0	0.0	3.131	A
3 - A429 Crudwell Road (South)	1041	260	140	1872	0.556	1039	661	0.8	1.2	4.315	A
4 - B4014 Finlands	556	139	318	1478	0.377	556	861	0.4	0.6	3.902	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	356	89	450	1316	0.270	356	425	0.4	0.4	3.747	A
2 - Access Road	43	11	759	1192	0.036	43	47	0.0	0.0	3.132	A
3 - A429 Crudwell Road (South)	1041	260	140	1872	0.556	1041	662	1.2	1.2	4.333	A
4 - B4014 Finlands	556	139	319	1477	0.377	556	862	0.6	0.6	3.908	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	291	73	368	1372	0.212	291	348	0.4	0.3	3.334	A
2 - Access Road	35	9	620	1286	0.028	35	39	0.0	0.0	2.877	A
3 - A429 Crudwell Road (South)	850	212	115	1890	0.450	852	541	1.2	0.8	3.473	A
4 - B4014 Finlands	454	114	261	1516	0.300	455	706	0.6	0.4	3.395	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	243	61	308	1412	0.172	244	291	0.3	0.2	3.080	A
2 - Access Road	30	7	519	1355	0.022	30	32	0.0	0.0	2.717	A
3 - A429 Crudwell Road (South)	712	178	96	1904	0.374	713	453	0.8	0.6	3.025	A
4 - B4014 Finlands	381	95	218	1544	0.247	381	590	0.4	0.3	3.098	A

Queue Variation Results for each time segment

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2 - Access Road	0.02	0.00	0.00	0.02	0.02			N/A	N/A
3 - A429 Crudwell Road (South)	0.59	0.55	1.00	1.40	1.45			N/A	N/A
4 - B4014 Finlands	0.33	0.00	0.00	0.33	0.33			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - Access Road	0.03	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.81	0.08	0.82	1.01	1.55			N/A	N/A
4 - B4014 Finlands	0.43	0.00	0.00	0.43	0.43			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.37	0.03	0.25	0.45	0.48			N/A	N/A
2 - Access Road	0.04	0.00	0.00	0.04	0.04			N/A	N/A
3 - A429 Crudwell Road (South)	1.24	0.03	0.26	1.24	1.24			N/A	N/A
4 - B4014 Finlands	0.60	0.03	0.25	0.60	0.60			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.37	0.03	0.32	1.05	1.05			N/A	N/A
2 - Access Road	0.04	0.00	0.00	0.04	0.04			N/A	N/A
3 - A429 Crudwell Road (South)	1.25	0.03	0.26	1.25	1.25			N/A	N/A
4 - B4014 Finlands	0.60	0.03	0.29	1.20	2.72			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2 - Access Road	0.03	0.00	0.00	0.03	0.03			N/A	N/A
3 - A429 Crudwell Road (South)	0.82	0.52	0.98	1.40	1.45			N/A	N/A
4 - B4014 Finlands	0.43	0.00	0.00	0.43	0.43			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2 - Access Road	0.02	0.00	0.00	0.02	0.02			N/A	N/A
3 - A429 Crudwell Road (South)	0.60	0.08	0.77	1.35	1.43			N/A	N/A
4 - B4014 Finlands	0.33	0.00	0.00	0.33	0.33			N/A	N/A

2024 Observed Traffic , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A429 Crudwell Road (North) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A429 Crudwell Road (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crudwell Roundabout	Standard Roundabout		1, 2, 3, 4	4.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.44	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Observed Traffic	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A429 Crudwell Road (North)		ONE HOUR	✓	405	100.000
2 - Access Road		ONE HOUR	✓	152	100.000
3 - A429 Crudwell Road (South)		ONE HOUR	✓	614	100.000
4 - B4014 Finlands		ONE HOUR	✓	782	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	30	277	98
	2 - Access Road	15	0	79	58
	3 - A429 Crudwell Road (South)	219	68	2	325
	4 - B4014 Finlands	120	45	616	1

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	0	2	0
	2 - Access Road	0	0	0	2
	3 - A429 Crudwell Road (South)	3	1	0	3
	4 - B4014 Finlands	1	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A429 Crudwell Road (North)	0.39	5.17	0.6	2.9	A	372	557
2 - Access Road	0.16	4.01	0.2	0.5	A	140	210
3 - A429 Crudwell Road (South)	0.36	2.99	0.6	2.6	A	563	845
4 - B4014 Finlands	0.56	5.29	1.3	1.5	A	718	1076

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	305	76	549	1312	0.232	304	266	0.0	0.3	3.564	A
2 - Access Road	115	29	745	1307	0.088	114	107	0.0	0.1	3.018	A
3 - A429 Crudwell Road (South)	462	116	129	1922	0.241	461	731	0.0	0.3	2.462	A
4 - B4014 Finlands	589	147	229	1613	0.365	586	362	0.0	0.6	3.499	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	364	91	657	1240	0.294	364	318	0.3	0.4	4.104	A
2 - Access Road	137	34	893	1205	0.114	137	128	0.1	0.1	3.370	A
3 - A429 Crudwell Road (South)	552	138	155	1903	0.290	552	875	0.3	0.4	2.663	A
4 - B4014 Finlands	703	176	274	1583	0.444	702	433	0.6	0.8	4.083	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	446	111	804	1143	0.390	445	390	0.4	0.6	5.154	A
2 - Access Road	168	42	1092	1066	0.157	168	157	0.1	0.2	4.006	A
3 - A429 Crudwell Road (South)	676	169	190	1878	0.360	675	1070	0.4	0.6	2.991	A
4 - B4014 Finlands	861	215	335	1542	0.559	859	530	0.8	1.2	5.262	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	446	111	806	1142	0.391	446	390	0.6	0.6	5.174	A
2 - Access Road	168	42	1094	1064	0.158	168	157	0.2	0.2	4.015	A
3 - A429 Crudwell Road (South)	676	169	190	1878	0.360	676	1072	0.6	0.6	2.994	A
4 - B4014 Finlands	861	215	335	1541	0.559	861	531	1.2	1.3	5.291	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	364	91	660	1239	0.294	365	319	0.6	0.4	4.125	A
2 - Access Road	137	34	896	1203	0.114	137	129	0.2	0.1	3.381	A
3 - A429 Crudwell Road (South)	552	138	155	1903	0.290	553	878	0.6	0.4	2.668	A
4 - B4014 Finlands	703	176	274	1583	0.444	705	434	1.3	0.8	4.109	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	305	76	552	1310	0.233	305	267	0.4	0.3	3.585	A
2 - Access Road	115	29	750	1304	0.088	115	108	0.1	0.1	3.025	A
3 - A429 Crudwell Road (South)	462	116	130	1921	0.241	463	734	0.4	0.3	2.468	A
4 - B4014 Finlands	589	147	229	1613	0.365	590	363	0.8	0.6	3.521	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - Access Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
3 - A429 Crudwell Road (South)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4 - B4014 Finlands	0.57	0.55	1.00	1.40	1.45			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
2 - Access Road	0.13	0.00	0.00	0.13	0.13			N/A	N/A
3 - A429 Crudwell Road (South)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
4 - B4014 Finlands	0.79	0.09	0.83	1.38	1.38			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.63	0.03	0.25	0.63	0.63			N/A	N/A
2 - Access Road	0.19	0.03	0.26	0.46	0.49			N/A	N/A
3 - A429 Crudwell Road (South)	0.56	0.03	0.25	0.56	0.56			N/A	N/A
4 - B4014 Finlands	1.25	0.03	0.26	1.25	1.25			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.64	0.03	0.29	1.27	2.90			N/A	N/A
2 - Access Road	0.19	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.56	0.03	0.30	1.33	2.63			N/A	N/A
4 - B4014 Finlands	1.26	0.03	0.27	1.26	1.26			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.42	0.00	0.00	0.42	0.42			N/A	N/A
2 - Access Road	0.13	0.00	0.00	0.13	0.13			N/A	N/A
3 - A429 Crudwell Road (South)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
4 - B4014 Finlands	0.81	0.31	0.96	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - Access Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
3 - A429 Crudwell Road (South)	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4 - B4014 Finlands	0.58	0.06	0.67	1.33	1.42			N/A	N/A

2030 with Committed Development (71 Homes), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A429 Crudwell Road (North) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A429 Crudwell Road (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crudwell Roundabout	Standard Roundabout		1, 2, 3, 4	4.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.59	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2030 with Committed Development (71 Homes)	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A429 Crudwell Road (North)		ONE HOUR	✓	340	100.000
2 - Access Road		ONE HOUR	✓	40	100.000
3 - A429 Crudwell Road (South)		ONE HOUR	✓	1016	100.000
4 - B4014 Finlands		ONE HOUR	✓	634	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	8	217	115
	2 - Access Road	6	0	23	11
	3 - A429 Crudwell Road (South)	269	17	3	726
	4 - B4014 Finlands	139	17	476	2

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	13	5	4
	2 - Access Road	17	0	9	0
	3 - A429 Crudwell Road (South)	5	0	0	5
	4 - B4014 Finlands	3	0	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A429 Crudwell Road (North)	0.30	4.14	0.4	1.7	A	312	468
2 - Access Road	0.04	3.39	0.0	0.5	A	37	55
3 - A429 Crudwell Road (South)	0.60	4.81	1.5	2.0	A	932	1398
4 - B4014 Finlands	0.47	4.53	0.9	1.9	A	582	873

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	256	64	387	1363	0.188	255	311	0.0	0.2	3.245	A
2 - Access Road	30	8	610	1297	0.023	30	32	0.0	0.0	2.839	A
3 - A429 Crudwell Road (South)	765	191	101	1900	0.402	762	539	0.0	0.7	3.156	A
4 - B4014 Finlands	478	119	222	1562	0.306	476	641	0.0	0.4	3.310	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	306	76	463	1312	0.233	305	372	0.2	0.3	3.574	A
2 - Access Road	36	9	730	1216	0.029	36	39	0.0	0.0	3.049	A
3 - A429 Crudwell Road (South)	913	228	121	1886	0.484	912	645	0.7	0.9	3.693	A
4 - B4014 Finlands	570	143	265	1532	0.372	570	767	0.4	0.6	3.738	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	374	94	567	1243	0.301	374	455	0.3	0.4	4.139	A
2 - Access Road	44	11	894	1106	0.040	44	47	0.0	0.0	3.389	A
3 - A429 Crudwell Road (South)	1118	280	148	1866	0.599	1116	790	0.9	1.5	4.786	A
4 - B4014 Finlands	699	175	325	1493	0.468	697	939	0.6	0.9	4.520	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	374	94	568	1243	0.301	374	456	0.4	0.4	4.145	A
2 - Access Road	44	11	895	1105	0.040	44	47	0.0	0.0	3.391	A
3 - A429 Crudwell Road (South)	1118	280	148	1866	0.599	1118	791	1.5	1.5	4.813	A
4 - B4014 Finlands	699	175	326	1492	0.468	699	941	0.9	0.9	4.535	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	306	76	465	1311	0.233	306	373	0.4	0.3	3.584	A
2 - Access Road	36	9	732	1215	0.030	36	39	0.0	0.0	3.055	A
3 - A429 Crudwell Road (South)	913	228	121	1886	0.484	915	647	1.5	0.9	3.719	A
4 - B4014 Finlands	570	143	266	1532	0.372	571	770	0.9	0.6	3.752	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	256	64	389	1362	0.188	256	312	0.3	0.2	3.255	A
2 - Access Road	30	8	613	1295	0.023	30	32	0.0	0.0	2.846	A
3 - A429 Crudwell Road (South)	765	191	101	1900	0.402	766	541	0.9	0.7	3.178	A
4 - B4014 Finlands	478	119	223	1561	0.306	478	644	0.6	0.4	3.329	A

Queue Variation Results for each time segment

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.23	0.00	0.00	0.23	0.23			N/A	N/A
2 - Access Road	0.02	0.00	0.00	0.02	0.02			N/A	N/A
3 - A429 Crudwell Road (South)	0.67	0.55	1.00	1.40	1.45			N/A	N/A
4 - B4014 Finlands	0.44	0.00	0.00	0.44	0.44			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.30	0.00	0.00	0.30	0.30			N/A	N/A
2 - Access Road	0.03	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.93	0.07	0.81	1.64	2.02			N/A	N/A
4 - B4014 Finlands	0.59	0.09	0.81	1.36	1.43			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.43	0.03	0.25	0.45	0.48			N/A	N/A
2 - Access Road	0.04	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	1.48	0.03	0.26	1.48	1.48			N/A	N/A
4 - B4014 Finlands	0.87	0.03	0.25	0.87	0.87			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.43	0.03	0.32	1.36	1.69			N/A	N/A
2 - Access Road	0.04	0.00	0.00	0.04	0.04			N/A	N/A
3 - A429 Crudwell Road (South)	1.49	0.03	0.26	1.49	1.49			N/A	N/A
4 - B4014 Finlands	0.88	0.03	0.27	0.88	1.91			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - Access Road	0.03	0.00	0.00	0.03	0.03			N/A	N/A
3 - A429 Crudwell Road (South)	0.95	0.33	1.00	1.30	1.30			N/A	N/A
4 - B4014 Finlands	0.60	0.55	1.00	1.40	1.45			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.23	0.00	0.00	0.23	0.23			N/A	N/A
2 - Access Road	0.02	0.00	0.00	0.02	0.02			N/A	N/A
3 - A429 Crudwell Road (South)	0.68	0.08	0.76	1.38	1.45			N/A	N/A
4 - B4014 Finlands	0.44	0.00	0.00	0.44	0.44			N/A	N/A

2030 with Committed Development (71 Homes), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A429 Crudwell Road (North) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A429 Crudwell Road (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crudwell Roundabout	Standard Roundabout		1, 2, 3, 4	5.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.13	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2030 with Committed Development (71 Homes)	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A429 Crudwell Road (North)		ONE HOUR	✓	438	100.000
2 - Access Road		ONE HOUR	✓	157	100.000
3 - A429 Crudwell Road (South)		ONE HOUR	✓	745	100.000
4 - B4014 Finlands		ONE HOUR	✓	873	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	31	299	108
	2 - Access Road	15	0	81	60
	3 - A429 Crudwell Road (South)	226	70	2	447
	4 - B4014 Finlands	135	46	691	1

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	0	2	0
	2 - Access Road	0	0	0	2
	3 - A429 Crudwell Road (South)	3	1	0	3
	4 - B4014 Finlands	1	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A429 Crudwell Road (North)	0.44	5.98	0.8	3.0	A	402	602
2 - Access Road	0.18	4.44	0.2	0.5	A	144	216
3 - A429 Crudwell Road (South)	0.44	3.43	0.8	2.1	A	684	1026
4 - B4014 Finlands	0.63	6.28	1.7	2.4	A	801	1202

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	330	82	608	1273	0.259	328	282	0.0	0.3	3.804	A
2 - Access Road	118	30	825	1252	0.094	118	111	0.0	0.1	3.174	A
3 - A429 Crudwell Road (South)	561	140	138	1915	0.293	559	805	0.0	0.4	2.652	A
4 - B4014 Finlands	658	164	235	1608	0.409	655	462	0.0	0.7	3.764	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	393	98	728	1194	0.330	393	338	0.3	0.5	4.493	A
2 - Access Road	141	35	988	1138	0.124	141	132	0.1	0.1	3.608	A
3 - A429 Crudwell Road (South)	670	167	165	1895	0.353	669	963	0.4	0.5	2.935	A
4 - B4014 Finlands	785	196	282	1577	0.498	784	553	0.7	1.0	4.532	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	482	120	890	1086	0.444	481	414	0.5	0.8	5.939	A
2 - Access Road	173	43	1209	985	0.175	172	162	0.1	0.2	4.430	A
3 - A429 Crudwell Road (South)	820	205	203	1868	0.439	819	1179	0.5	0.8	3.428	A
4 - B4014 Finlands	962	240	345	1535	0.627	959	677	1.0	1.6	6.224	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	482	120	892	1084	0.445	482	414	0.8	0.8	5.978	A
2 - Access Road	173	43	1212	983	0.176	173	162	0.2	0.2	4.444	A
3 - A429 Crudwell Road (South)	820	205	203	1868	0.439	820	1182	0.8	0.8	3.435	A
4 - B4014 Finlands	962	240	345	1534	0.627	962	678	1.6	1.7	6.281	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	393	98	731	1191	0.330	395	339	0.8	0.5	4.525	A
2 - Access Road	141	35	993	1135	0.124	141	133	0.2	0.1	3.622	A
3 - A429 Crudwell Road (South)	670	167	166	1895	0.354	671	968	0.8	0.5	2.945	A
4 - B4014 Finlands	785	196	282	1577	0.498	788	555	1.7	1.0	4.579	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	330	82	611	1271	0.259	330	284	0.5	0.4	3.827	A
2 - Access Road	118	30	830	1248	0.095	118	111	0.1	0.1	3.187	A
3 - A429 Crudwell Road (South)	561	140	139	1914	0.293	561	809	0.5	0.4	2.661	A
4 - B4014 Finlands	658	164	236	1608	0.409	659	464	1.0	0.7	3.797	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2 - Access Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
3 - A429 Crudwell Road (South)	0.41	0.00	0.00	0.41	0.41			N/A	N/A
4 - B4014 Finlands	0.69	0.55	1.00	1.40	1.45			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.49	0.00	0.00	0.49	0.49			N/A	N/A
2 - Access Road	0.14	0.00	0.00	0.14	0.14			N/A	N/A
3 - A429 Crudwell Road (South)	0.54	0.07	0.72	1.34	1.42			N/A	N/A
4 - B4014 Finlands	0.98	0.07	0.83	1.77	2.36			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.79	0.03	0.26	0.79	0.79			N/A	N/A
2 - Access Road	0.21	0.03	0.26	0.46	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.78	0.03	0.25	0.78	0.78			N/A	N/A
4 - B4014 Finlands	1.65	0.03	0.26	1.65	1.65			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.80	0.03	0.28	0.87	3.00			N/A	N/A
2 - Access Road	0.21	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.78	0.03	0.27	0.78	2.13			N/A	N/A
4 - B4014 Finlands	1.66	0.03	0.27	1.66	1.66			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - Access Road	0.14	0.00	0.00	0.14	0.14			N/A	N/A
3 - A429 Crudwell Road (South)	0.55	0.55	1.00	1.40	1.45			N/A	N/A
4 - B4014 Finlands	1.00	0.15	1.00	1.43	1.77			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2 - Access Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
3 - A429 Crudwell Road (South)	0.42	0.00	0.00	0.42	0.42			N/A	N/A
4 - B4014 Finlands	0.70	0.06	0.66	1.33	1.33			N/A	N/A

2030 with Committed Development + Development of 180 Homes, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A429 Crudwell Road (North) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A429 Crudwell Road (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crudwell Roundabout	Standard Roundabout		1, 2, 3, 4	4.67	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.67	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030 with Committed Development + Development of 180 Homes	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A429 Crudwell Road (North)		ONE HOUR	✓	341	100.000
2 - Access Road		ONE HOUR	✓	40	100.000
3 - A429 Crudwell Road (South)		ONE HOUR	✓	1024	100.000
4 - B4014 Finlands		ONE HOUR	✓	655	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	8	217	116
	2 - Access Road	6	0	23	11
	3 - A429 Crudwell Road (South)	269	17	3	734
	4 - B4014 Finlands	142	17	494	2

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	13	5	4
	2 - Access Road	17	0	9	0
	3 - A429 Crudwell Road (South)	5	0	0	5
	4 - B4014 Finlands	3	0	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A429 Crudwell Road (North)	0.31	4.21	0.4	1.8	A	313	469
2 - Access Road	0.04	3.44	0.0	0.5	A	37	55
3 - A429 Crudwell Road (South)	0.60	4.88	1.5	2.2	A	939	1409
4 - B4014 Finlands	0.48	4.67	0.9	1.7	A	601	902

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	257	64	400	1354	0.190	256	313	0.0	0.2	3.274	A
2 - Access Road	30	8	624	1288	0.023	30	32	0.0	0.0	2.861	A
3 - A429 Crudwell Road (South)	771	193	102	1900	0.406	768	552	0.0	0.7	3.172	A
4 - B4014 Finlands	493	123	222	1561	0.316	492	648	0.0	0.5	3.359	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	307	77	479	1302	0.235	306	375	0.2	0.3	3.616	A
2 - Access Road	36	9	747	1205	0.030	36	39	0.0	0.0	3.079	A
3 - A429 Crudwell Road (South)	920	230	122	1885	0.488	919	661	0.7	0.9	3.723	A
4 - B4014 Finlands	589	147	265	1532	0.385	589	775	0.5	0.6	3.813	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	375	94	587	1230	0.305	375	458	0.3	0.4	4.206	A
2 - Access Road	44	11	914	1092	0.040	44	47	0.0	0.0	3.434	A
3 - A429 Crudwell Road (South)	1127	282	149	1865	0.604	1125	809	0.9	1.5	4.846	A
4 - B4014 Finlands	722	180	325	1493	0.484	720	949	0.6	0.9	4.655	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	375	94	588	1229	0.305	375	459	0.4	0.4	4.214	A
2 - Access Road	44	11	916	1091	0.040	44	47	0.0	0.0	3.437	A
3 - A429 Crudwell Road (South)	1127	282	149	1865	0.604	1127	811	1.5	1.5	4.876	A
4 - B4014 Finlands	722	180	326	1492	0.484	722	950	0.9	0.9	4.672	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	307	77	481	1301	0.236	307	376	0.4	0.3	3.624	A
2 - Access Road	36	9	749	1203	0.030	36	39	0.0	0.0	3.085	A
3 - A429 Crudwell Road (South)	920	230	122	1885	0.488	922	663	1.5	1.0	3.750	A
4 - B4014 Finlands	589	147	266	1532	0.385	590	778	0.9	0.6	3.829	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	257	64	402	1353	0.190	257	315	0.3	0.2	3.285	A
2 - Access Road	30	8	627	1286	0.023	30	32	0.0	0.0	2.866	A
3 - A429 Crudwell Road (South)	771	193	102	1900	0.406	772	555	1.0	0.7	3.194	A
4 - B4014 Finlands	493	123	223	1561	0.316	494	651	0.6	0.5	3.379	A

Queue Variation Results for each time segment

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.23	0.00	0.00	0.23	0.23			N/A	N/A
2 - Access Road	0.02	0.00	0.00	0.02	0.02			N/A	N/A
3 - A429 Crudwell Road (South)	0.68	0.55	1.00	1.40	1.45			N/A	N/A
4 - B4014 Finlands	0.46	0.00	0.00	0.46	0.46			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - Access Road	0.03	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.95	0.07	0.81	1.69	2.17			N/A	N/A
4 - B4014 Finlands	0.62	0.10	0.82	1.37	1.43			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.44	0.03	0.25	0.46	0.48			N/A	N/A
2 - Access Road	0.04	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	1.51	0.03	0.26	1.51	1.51			N/A	N/A
4 - B4014 Finlands	0.93	0.03	0.26	0.93	0.93			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.44	0.03	0.32	1.37	1.75			N/A	N/A
2 - Access Road	0.04	0.00	0.00	0.04	0.04			N/A	N/A
3 - A429 Crudwell Road (South)	1.52	0.03	0.26	1.52	1.52			N/A	N/A
4 - B4014 Finlands	0.93	0.03	0.27	0.93	1.68			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.31	0.00	0.00	0.31	0.31			N/A	N/A
2 - Access Road	0.03	0.00	0.00	0.03	0.03			N/A	N/A
3 - A429 Crudwell Road (South)	0.96	0.30	1.00	1.43	1.43			N/A	N/A
4 - B4014 Finlands	0.63	0.55	1.00	1.40	1.45			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2 - Access Road	0.02	0.00	0.00	0.02	0.02			N/A	N/A
3 - A429 Crudwell Road (South)	0.69	0.08	0.76	1.38	1.46			N/A	N/A
4 - B4014 Finlands	0.46	0.00	0.00	0.46	0.46			N/A	N/A

2030 with Committed Development + Development of 180 Homes, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A429 Crudwell Road (North) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A429 Crudwell Road (South) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Crudwell Roundabout	Standard Roundabout		1, 2, 3, 4	5.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2030 with Committed Development + Development of 180 Homes	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - A429 Crudwell Road (North)		ONE HOUR	✓	441	100.000
2 - Access Road		ONE HOUR	✓	157	100.000
3 - A429 Crudwell Road (South)		ONE HOUR	✓	762	100.000
4 - B4014 Finlands		ONE HOUR	✓	881	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
From	1 - A429 Crudwell Road (North)	0	31	299	111
	2 - Access Road	15	0	81	60
	3 - A429 Crudwell Road (South)	226	70	2	464
	4 - B4014 Finlands	136	46	698	1

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - A429 Crudwell Road (North)	2 - Access Road	3 - A429 Crudwell Road (South)	4 - B4014 Finlands
	1 - A429 Crudwell Road (North)	0	0	2	0
	2 - Access Road	0	0	0	2
	3 - A429 Crudwell Road (South)	3	1	0	3
	4 - B4014 Finlands	1	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - A429 Crudwell Road (North)	0.45	6.06	0.8	3.0	A	404	607
2 - Access Road	0.18	4.49	0.2	0.5	A	144	216
3 - A429 Crudwell Road (South)	0.45	3.51	0.8	1.9	A	699	1049
4 - B4014 Finlands	0.63	6.38	1.7	2.5	A	809	1213

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	332	83	613	1270	0.261	330	283	0.0	0.4	3.827	A
2 - Access Road	118	30	833	1247	0.095	118	111	0.0	0.1	3.189	A
3 - A429 Crudwell Road (South)	574	143	140	1913	0.300	572	810	0.0	0.4	2.681	A
4 - B4014 Finlands	664	166	235	1608	0.413	661	477	0.0	0.7	3.788	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	396	99	734	1189	0.333	396	339	0.4	0.5	4.532	A
2 - Access Road	141	35	997	1132	0.125	141	132	0.1	0.1	3.631	A
3 - A429 Crudwell Road (South)	685	171	168	1893	0.362	685	970	0.4	0.6	2.977	A
4 - B4014 Finlands	792	198	282	1577	0.502	791	571	0.7	1.0	4.573	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	485	121	898	1081	0.449	484	415	0.5	0.8	6.022	A
2 - Access Road	173	43	1220	977	0.177	172	162	0.1	0.2	4.472	A
3 - A429 Crudwell Road (South)	839	210	206	1866	0.450	838	1186	0.6	0.8	3.499	A
4 - B4014 Finlands	970	243	345	1535	0.632	968	699	1.0	1.7	6.319	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	485	121	900	1079	0.450	485	415	0.8	0.8	6.061	A
2 - Access Road	173	43	1223	975	0.177	173	162	0.2	0.2	4.486	A
3 - A429 Crudwell Road (South)	839	210	206	1866	0.450	839	1189	0.8	0.8	3.505	A
4 - B4014 Finlands	970	243	345	1534	0.632	970	700	1.7	1.7	6.380	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	396	99	737	1187	0.334	397	340	0.8	0.5	4.566	A
2 - Access Road	141	35	1002	1129	0.125	141	133	0.2	0.1	3.645	A
3 - A429 Crudwell Road (South)	685	171	169	1893	0.362	686	974	0.8	0.6	2.987	A
4 - B4014 Finlands	792	198	282	1577	0.503	795	573	1.7	1.0	4.622	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - A429 Crudwell Road (North)	332	83	617	1267	0.262	332	284	0.5	0.4	3.852	A
2 - Access Road	118	30	838	1243	0.095	118	111	0.1	0.1	3.200	A
3 - A429 Crudwell Road (South)	574	143	141	1913	0.300	574	815	0.6	0.4	2.692	A
4 - B4014 Finlands	664	166	236	1608	0.413	665	479	1.0	0.7	3.824	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.35	0.00	0.00	0.35	0.35			N/A	N/A
2 - Access Road	0.10	0.00	0.00	0.10	0.10			N/A	N/A
3 - A429 Crudwell Road (South)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
4 - B4014 Finlands	0.70	0.55	1.00	1.40	1.45			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.50	0.00	0.00	0.50	0.50			N/A	N/A
2 - Access Road	0.14	0.00	0.00	0.14	0.14			N/A	N/A
3 - A429 Crudwell Road (South)	0.56	0.08	0.76	1.35	1.43			N/A	N/A
4 - B4014 Finlands	1.00	0.07	0.82	1.82	2.48			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.81	0.03	0.26	0.81	0.81			N/A	N/A
2 - Access Road	0.21	0.03	0.26	0.46	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.81	0.03	0.25	0.81	0.81			N/A	N/A
4 - B4014 Finlands	1.69	0.03	0.27	1.69	1.69			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.81	0.03	0.28	0.82	3.00			N/A	N/A
2 - Access Road	0.21	0.03	0.25	0.45	0.48			N/A	N/A
3 - A429 Crudwell Road (South)	0.81	0.03	0.27	0.81	1.93			N/A	N/A
4 - B4014 Finlands	1.70	0.03	0.27	1.70	1.70			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.50	0.50	1.00	1.40	1.45			N/A	N/A
2 - Access Road	0.14	0.00	0.00	0.14	0.14			N/A	N/A
3 - A429 Crudwell Road (South)	0.57	0.55	1.00	1.40	1.45			N/A	N/A
4 - B4014 Finlands	1.02	0.14	1.00	1.51	1.82			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - A429 Crudwell Road (North)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - Access Road	0.11	0.00	0.00	0.11	0.11			N/A	N/A
3 - A429 Crudwell Road (South)	0.43	0.00	0.00	0.43	0.43			N/A	N/A
4 - B4014 Finlands	0.71	0.06	0.65	1.43	1.43			N/A	N/A

Junctions 10						
PICADY 10 - Priority Intersection Module						
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023						
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com						
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution						

Filename: Site Access (NEW).j10

Path: S:\Projects\200000 Series\200270ITS - Malmesbury Phase 4\Tech\Junction Assessments\Picady

Report generation date: 16/10/2024 11:27:29

- »2024 Observed Traffic , AM
- »2024 Observed Traffic, PM
- »2030 with Committed Development (71 homes), AM
- »2030 with Committed Development (71 homes), PM
- »2030 with Committed Development + Development of 180 Homes , AM
- »2030 with Committed Development + Development of 180 Homes , PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Observed Traffic						
Stream B-C	0.0	0.00	0.00	0.0	0.00	0.00
Stream B-A	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
2030 with Committed Development (71 homes)						
Stream B-C	0.1	8.30	0.10	0.0	6.65	0.04
Stream B-A	0.3	16.17	0.21	0.1	13.39	0.11
Stream C-AB	0.1	7.80	0.05	0.1	7.04	0.07
2030 with Committed Development + Development of 180 Homes						
Stream B-C	0.2	9.06	0.14	0.1	6.84	0.06
Stream B-A	0.4	18.37	0.29	0.2	14.38	0.14
Stream C-AB	0.1	7.97	0.07	0.1	7.38	0.11

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	17/07/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D2	2024 Observed Traffic	PM	ONE HOUR	16:00	17:30	15	✓
D3	2030 with Committed Development (71 homes)	AM	ONE HOUR	07:30	09:00	15	✓
D4	2030 with Committed Development (71 homes)	PM	ONE HOUR	16:00	17:30	15	✓
D5	2030 with Committed Development + Development of 180 Homes	AM	ONE HOUR	07:30	09:00	15	✓
D6	2030 with Committed Development + Development of 180 Homes	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

2024 Observed Traffic , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

Arms

Arms

Arm	Name	Description	Arm type
A	Filands (East)		Major
B	Site Access		Minor
C	Filands (West)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Filands (West)	8.50		✓	3.50	100.0	✓	6.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane plus flare	10.00	5.60	3.60	3.40	3.40	✓	1.00	120	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	630	0.102	0.259	0.163	0.369
B-C	763	0.104	0.263	-	-
C-B	721	0.249	0.249	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed Traffic	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Filands (East)		ONE HOUR	✓	783	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - Filands (West)		ONE HOUR	✓	505	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	0	783
	B - Site Access	0	0	0
	C - Filands (West)	505	0	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	0	5
	B - Site Access	0	0	0
	C - Filands (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					463	695
A-B					0	0
A-C					718	1078

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	607	0.000	0	0.0	0.0	0.000	A
B-A	0	0	416	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1149	0.000	0	0.0	0.0	0.000	A
C-A	380	95			380				
A-B	0	0			0				
A-C	589	147			589				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	577	0.000	0	0.0	0.0	0.000	A
B-A	0	0	374	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1092	0.000	0	0.0	0.0	0.000	A
C-A	454	113			454				
A-B	0	0			0				
A-C	704	176			704				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	536	0.000	0	0.0	0.0	0.000	A
B-A	0	0	317	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1013	0.000	0	0.0	0.0	0.000	A
C-A	556	139			556				
A-B	0	0			0				
A-C	862	216			862				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	536	0.000	0	0.0	0.0	0.000	A
B-A	0	0	317	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1013	0.000	0	0.0	0.0	0.000	A
C-A	556	139			556				
A-B	0	0			0				
A-C	862	216			862				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	577	0.000	0	0.0	0.0	0.000	A
B-A	0	0	374	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1092	0.000	0	0.0	0.0	0.000	A
C-A	454	113			454				
A-B	0	0			0				
A-C	704	176			704				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	607	0.000	0	0.0	0.0	0.000	A
B-A	0	0	416	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1149	0.000	0	0.0	0.0	0.000	A
C-A	380	95			380				
A-B	0	0			0				
A-C	589	147			589				

2024 Observed Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Observed Traffic	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Filands (East)		ONE HOUR	✓	482	100.000
B - Site Access		ONE HOUR	✓	0	100.000
C - Filands (West)		ONE HOUR	✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	0	482
	B - Site Access	0	0	0
	C - Filands (West)	782	0	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	0	3
	B - Site Access	0	0	0
	C - Filands (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					718	1076
A-B					0	0
A-C					442	663

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	667	0.000	0	0.0	0.0	0.000	A
B-A	0	0	441	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1262	0.000	0	0.0	0.0	0.000	A
C-A	589	147			589				
A-B	0	0			0				
A-C	363	91			363				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	648	0.000	0	0.0	0.0	0.000	A
B-A	0	0	404	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1227	0.000	0	0.0	0.0	0.000	A
C-A	703	176			703				
A-B	0	0			0				
A-C	433	108			433				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	623	0.000	0	0.0	0.0	0.000	A
B-A	0	0	353	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1178	0.000	0	0.0	0.0	0.000	A
C-A	861	215			861				
A-B	0	0			0				
A-C	531	133			531				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	623	0.000	0	0.0	0.0	0.000	A
B-A	0	0	353	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1178	0.000	0	0.0	0.0	0.000	A
C-A	861	215			861				
A-B	0	0			0				
A-C	531	133			531				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	648	0.000	0	0.0	0.0	0.000	A
B-A	0	0	404	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1227	0.000	0	0.0	0.0	0.000	A
C-A	703	176			703				
A-B	0	0			0				
A-C	433	108			433				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	667	0.000	0	0.0	0.0	0.000	A
B-A	0	0	441	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1262	0.000	0	0.0	0.0	0.000	A
C-A	589	147			589				
A-B	0	0			0				
A-C	363	91			363				

2030 with Committed Development (71 homes), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	Two-way	Two-way		0.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.90	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2030 with Committed Development (71 homes)	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Filands (East)		ONE HOUR	✓	854	100.000
B - Site Access		ONE HOUR	✓	97	100.000
C - Filands (West)		ONE HOUR	✓	606	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	28	826
	B - Site Access	53	0	44
	C - Filands (West)	583	23	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	0	5
	B - Site Access	0	0	0
	C - Filands (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	8.30	0.1	A	40	61
B-A	0.21	16.17	0.3	C	49	73
C-AB	0.05	7.80	0.1	A	21	32
C-A					535	802
A-B					26	39
A-C					758	1137

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	33	8	574	0.058	33	0.0	0.1	6.650	A
B-A	40	10	394	0.101	39	0.0	0.1	10.143	B
C-AB	17	4	561	0.031	17	0.0	0.0	6.616	A
C-A	439	110			439				
A-B	21	5			21				
A-C	622	155			622				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	10	537	0.074	39	0.1	0.1	7.237	A
B-A	48	12	347	0.137	47	0.1	0.2	12.027	B
C-AB	21	5	530	0.039	21	0.0	0.0	7.066	A
C-A	524	131			524				
A-B	25	6			25				
A-C	743	186			743				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	483	0.100	48	0.1	0.1	8.287	A
B-A	58	15	281	0.208	58	0.2	0.3	16.118	C
C-AB	25	6	487	0.052	25	0.0	0.1	7.794	A
C-A	642	160			642				
A-B	31	8			31				
A-C	909	227			909				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	48	12	482	0.100	48	0.1	0.1	8.299	A
B-A	58	15	281	0.208	58	0.3	0.3	16.171	C
C-AB	25	6	487	0.052	25	0.1	0.1	7.795	A
C-A	642	160			642				
A-B	31	8			31				
A-C	909	227			909				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	10	536	0.074	40	0.1	0.1	7.251	A
B-A	48	12	347	0.137	48	0.3	0.2	12.068	B
C-AB	21	5	530	0.039	21	0.1	0.0	7.068	A
C-A	524	131			524				
A-B	25	6			25				
A-C	743	186			743				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	33	8	573	0.058	33	0.1	0.1	6.663	A
B-A	40	10	394	0.101	40	0.2	0.1	10.177	B
C-AB	17	4	561	0.031	17	0.0	0.0	6.622	A
C-A	439	110			439				
A-B	21	5			21				
A-C	622	155			622				

2030 with Committed Development (71 homes), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	Two-way	Two-way		0.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.52	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2030 with Committed Development (71 homes)	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Filands (East)		ONE HOUR	✓	616	100.000
B - Site Access		ONE HOUR	✓	52	100.000
C - Filands (West)		ONE HOUR	✓	882	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	46	570
	B - Site Access	29	0	23
	C - Filands (West)	845	37	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	0	3
	B - Site Access	0	0	0
	C - Filands (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	6.65	0.0	A	21	32
B-A	0.11	13.39	0.1	B	27	40
C-AB	0.07	7.04	0.1	A	34	51
C-A					775	1163
A-B					42	63
A-C					523	785

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	628	0.028	17	0.0	0.0	5.897	A
B-A	22	5	408	0.054	22	0.0	0.1	9.316	A
C-AB	28	7	606	0.046	28	0.0	0.0	6.226	A
C-A	636	159			636				
A-B	35	9			35				
A-C	429	107			429				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	603	0.034	21	0.0	0.0	6.185	A
B-A	26	7	363	0.072	26	0.1	0.1	10.683	B
C-AB	33	8	583	0.057	33	0.0	0.1	6.543	A
C-A	760	190			760				
A-B	41	10			41				
A-C	512	128			512				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	567	0.045	25	0.0	0.0	6.647	A
B-A	32	8	301	0.106	32	0.1	0.1	13.379	B
C-AB	41	10	552	0.074	41	0.1	0.1	7.035	A
C-A	930	233			930				
A-B	51	13			51				
A-C	628	157			628				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	567	0.045	25	0.0	0.0	6.650	A
B-A	32	8	301	0.106	32	0.1	0.1	13.393	B
C-AB	41	10	552	0.074	41	0.1	0.1	7.035	A
C-A	930	233			930				
A-B	51	13			51				
A-C	628	157			628				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	602	0.034	21	0.0	0.0	6.190	A
B-A	26	7	363	0.072	26	0.1	0.1	10.697	B
C-AB	33	8	583	0.057	33	0.1	0.1	6.547	A
C-A	760	190			760				
A-B	41	10			41				
A-C	512	128			512				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	627	0.028	17	0.0	0.0	5.903	A
B-A	22	5	408	0.054	22	0.1	0.1	9.327	A
C-AB	28	7	606	0.046	28	0.1	0.0	6.229	A
C-A	636	159			636				
A-B	35	9			35				
A-C	429	107			429				

2030 with Committed Development + Development of 180 Homes , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	Two-way	Two-way		1.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.32	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030 with Committed Development + Development of 180 Homes	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Filands (East)		ONE HOUR	✓	863	100.000
B - Site Access		ONE HOUR	✓	133	100.000
C - Filands (West)		ONE HOUR	✓	613	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Filands (East)	B - Site Access	C - Filands (West)
	A - Filands (East)	0	37	826
	B - Site Access	73	0	60
	C - Filands (West)	583	30	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
	A - Filands (East)	0	0	5
	B - Site Access	0	0	0
	C - Filands (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.14	9.06	0.2	A	55	83
B-A	0.29	18.37	0.4	C	67	100
C-AB	0.07	7.97	0.1	A	28	41
C-A					535	802
A-B					34	51
A-C					758	1137

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	11	566	0.080	45	0.0	0.1	6.899	A
B-A	55	14	391	0.140	54	0.0	0.2	10.661	B
C-AB	23	6	559	0.040	22	0.0	0.0	6.702	A
C-A	439	110			439				
A-B	28	7			28				
A-C	622	155			622				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	526	0.103	54	0.1	0.1	7.621	A
B-A	66	16	343	0.191	65	0.2	0.2	12.943	B
C-AB	27	7	528	0.051	27	0.0	0.1	7.183	A
C-A	524	131			524				
A-B	33	8			33				
A-C	743	186			743				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	17	464	0.142	66	0.1	0.2	9.039	A
B-A	80	20	276	0.291	80	0.2	0.4	18.254	C
C-AB	33	8	485	0.068	33	0.1	0.1	7.970	A
C-A	642	160			642				
A-B	41	10			41				
A-C	909	227			909				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	17	463	0.143	66	0.2	0.2	9.064	A
B-A	80	20	276	0.291	80	0.4	0.4	18.366	C
C-AB	33	8	485	0.068	33	0.1	0.1	7.971	A
C-A	642	160			642				
A-B	41	10			41				
A-C	909	227			909				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	13	525	0.103	54	0.2	0.1	7.647	A
B-A	66	16	343	0.191	66	0.4	0.2	13.026	B
C-AB	27	7	528	0.051	27	0.1	0.1	7.188	A
C-A	524	131			524				
A-B	33	8			33				
A-C	743	186			743				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	11	566	0.080	45	0.1	0.1	6.919	A
B-A	55	14	391	0.140	55	0.2	0.2	10.717	B
C-AB	23	6	559	0.040	23	0.1	0.0	6.708	A
C-A	439	110			439				
A-B	28	7			28				
A-C	622	155			622				

2030 with Committed Development + Development of 180 Homes , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Site Access - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Site Access	T-Junction	Two-way	Two-way	Two-way		0.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.71	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2030 with Committed Development + Development of 180 Homes	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Filands (East)		ONE HOUR	✓	635	100.000
B - Site Access		ONE HOUR	✓	67	100.000
C - Filands (West)		ONE HOUR	✓	899	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
From	A - Filands (East)	0	65	570
	B - Site Access	37	0	30
	C - Filands (West)	845	54	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Filands (East)	B - Site Access	C - Filands (West)
	A - Filands (East)	0	0	3
	B - Site Access	0	0	0
	C - Filands (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	6.84	0.1	A	28	41
B-A	0.14	14.38	0.2	B	34	51
C-AB	0.11	7.38	0.1	A	50	74
C-A					775	1163
A-B					60	89
A-C					523	785

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	625	0.036	22	0.0	0.0	5.977	A
B-A	28	7	401	0.069	28	0.0	0.1	9.640	A
C-AB	41	10	602	0.068	40	0.0	0.1	6.405	A
C-A	636	159			636				
A-B	49	12			49				
A-C	429	107			429				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	598	0.045	27	0.0	0.0	6.302	A
B-A	33	8	355	0.094	33	0.1	0.1	11.188	B
C-AB	49	12	579	0.084	48	0.1	0.1	6.784	A
C-A	760	190			760				
A-B	58	15			58				
A-C	512	128			512				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	33	8	560	0.059	33	0.0	0.1	6.833	A
B-A	41	10	291	0.140	41	0.1	0.2	14.360	B
C-AB	59	15	547	0.109	59	0.1	0.1	7.377	A
C-A	930	233			930				
A-B	72	18			72				
A-C	628	157			628				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	33	8	559	0.059	33	0.1	0.1	6.837	A
B-A	41	10	291	0.140	41	0.2	0.2	14.384	B
C-AB	59	15	547	0.109	59	0.1	0.1	7.380	A
C-A	930	233			930				
A-B	72	18			72				
A-C	628	157			628				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	598	0.045	27	0.1	0.0	6.308	A
B-A	33	8	355	0.094	33	0.2	0.1	11.210	B
C-AB	49	12	579	0.084	49	0.1	0.1	6.790	A
C-A	760	190			760				
A-B	58	15			58				
A-C	512	128			512				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	624	0.036	23	0.0	0.0	5.985	A
B-A	28	7	401	0.069	28	0.1	0.1	9.652	A
C-AB	41	10	602	0.068	41	0.1	0.1	6.414	A
C-A	636	159			636				
A-B	49	12			49				
A-C	429	107			429				

Junctions 10		
ARCADY 10 - Roundabout Module		
Version: 10.1.0.1820 © Copyright TRL Software Limited, 2023		
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com		
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution		

Filename: Tetbury Hill Roundabout.j10

Path: S:\Projects\200000 Series\200270ITS - Malmesbury Phase 4\Tech\Junction Assessments\Arcady

Report generation date: 16/10/2024 11:48:36

- »2024 Observed Traffic, AM
- »2024 Observed Traffic, PM
- »2030 with Committed Development (71 Homes), AM
- »2030 with Committed Development (71 Homes), PM
- »2030 with Committed Development + Development of 180 Homes, AM
- »2030 with Committed Development + Development of 180 Homes, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2024 Observed Traffic						
1 - B4014 Finlands (East)	0.9	3.54	0.46	0.4	2.55	0.27
2 - Tetbury Hill	0.3	2.67	0.23	0.6	3.19	0.38
3 - B4014 Finlands (West)	0.3	3.27	0.25	0.4	3.62	0.27
2030 with Committed Development (71 Homes)						
1 - B4014 Finlands (East)	1.1	4.00	0.52	0.5	2.79	0.33
2 - Tetbury Hill	0.3	2.82	0.26	0.8	3.69	0.45
3 - B4014 Finlands (West)	0.5	3.63	0.33	0.5	4.08	0.33
2030 with Committed Development + Development of 180 Homes						
1 - B4014 Finlands (East)	1.1	4.08	0.53	0.5	2.81	0.34
2 - Tetbury Hill	0.4	2.84	0.26	0.8	3.75	0.45
3 - B4014 Finlands (West)	0.5	3.65	0.33	0.5	4.14	0.34

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	11/07/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	I-TRANSPORT\basingstoke.hotdesk
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓					0.85	36.00	20.00		500

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed Traffic	AM	ONE HOUR	07:30	09:00	15	✓
D2	2024 Observed Traffic	PM	ONE HOUR	16:00	17:30	15	✓
D3	2030 with Committed Development (71 Homes)	AM	ONE HOUR	07:30	09:00	15	✓
D4	2030 with Committed Development (71 Homes)	PM	ONE HOUR	16:00	17:30	15	✓
D5	2030 with Committed Development + Development of 180 Homes	AM	ONE HOUR	07:30	09:00	15	✓
D6	2030 with Committed Development + Development of 180 Homes	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

2024 Observed Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4014 Finlands (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B4014 Finlands (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tetbury Hill Roundabout	Standard Roundabout		1, 2, 3	3.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.27	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B4014 Finlands (East)		
2	Tetbury Hill		
3	B4014 Finlands (West)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - B4014 Finlands (East)	3.25	7.25	69.0	20.0	28.0	19.0		
2 - Tetbury Hill	6.50	6.50	0.0	15.0	28.0	17.0		
3 - B4014 Finlands (West)	4.00	6.25	30.5	30.0	28.0	30.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B4014 Finlands (East)	0.750	2084
2 - Tetbury Hill	0.736	2026
3 - B4014 Finlands (West)	0.684	1792

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed Traffic	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4014 Finlands (East)		ONE HOUR	✓	798	100.000
2 - Tetbury Hill		ONE HOUR	✓	362	100.000
3 - B4014 Finlands (West)		ONE HOUR	✓	342	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
From				
	1 - B4014 Finlands (East)	0	520	278
	2 - Tetbury Hill	264	0	98
	3 - B4014 Finlands (West)	201	141	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
From				
	1 - B4014 Finlands (East)	0	3	5
	2 - Tetbury Hill	3	0	1
	3 - B4014 Finlands (West)	12	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4014 Finlands (East)	0.46	3.54	0.9	1.6	A	732	1098
2 - Tetbury Hill	0.23	2.67	0.3	1.2	A	332	498
3 - B4014 Finlands (West)	0.25	3.27	0.3	1.4	A	314	471

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	601	150	106	1932	0.311	599	349	0.0	0.4	2.697	A
2 - Tetbury Hill	273	68	209	1820	0.150	272	496	0.0	0.2	2.323	A
3 - B4014 Finlands (West)	257	64	198	1538	0.167	257	282	0.0	0.2	2.809	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	717	179	127	1917	0.374	717	418	0.4	0.6	2.998	A
2 - Tetbury Hill	325	81	250	1789	0.182	325	594	0.2	0.2	2.458	A
3 - B4014 Finlands (West)	307	77	237	1512	0.203	307	338	0.2	0.3	2.987	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	879	220	155	1896	0.463	878	512	0.6	0.9	3.531	A
2 - Tetbury Hill	399	100	306	1747	0.228	398	727	0.2	0.3	2.669	A
3 - B4014 Finlands (West)	377	94	290	1477	0.255	376	414	0.3	0.3	3.269	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	879	220	155	1896	0.463	879	512	0.9	0.9	3.537	A
2 - Tetbury Hill	399	100	306	1747	0.228	399	728	0.3	0.3	2.669	A
3 - B4014 Finlands (West)	377	94	291	1477	0.255	377	414	0.3	0.3	3.270	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	717	179	127	1917	0.374	718	418	0.9	0.6	3.006	A
2 - Tetbury Hill	325	81	250	1789	0.182	326	595	0.3	0.2	2.462	A
3 - B4014 Finlands (West)	307	77	238	1512	0.203	308	338	0.3	0.3	2.992	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	601	150	106	1932	0.311	601	350	0.6	0.5	2.706	A
2 - Tetbury Hill	273	68	209	1820	0.150	273	498	0.2	0.2	2.329	A
3 - B4014 Finlands (West)	257	64	199	1537	0.167	258	283	0.3	0.2	2.813	A

Queue Variation Results for each time segment

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - Tetbury Hill	0.18	0.00	0.00	0.18	0.18			N/A	N/A
3 - B4014 Finlands (West)	0.20	0.00	0.00	0.20	0.20			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.59	0.09	0.80	1.36	1.43			N/A	N/A
2 - Tetbury Hill	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3 - B4014 Finlands (West)	0.25	0.00	0.00	0.25	0.25			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.86	0.03	0.25	0.86	0.86			N/A	N/A
2 - Tetbury Hill	0.29	0.03	0.25	0.45	0.48			N/A	N/A
3 - B4014 Finlands (West)	0.34	0.03	0.25	0.45	0.48			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.86	0.03	0.27	0.86	1.63			N/A	N/A
2 - Tetbury Hill	0.30	0.03	0.30	0.92	1.22			N/A	N/A
3 - B4014 Finlands (West)	0.34	0.03	0.32	1.15	1.40			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.60	0.55	1.00	1.40	1.45			N/A	N/A
2 - Tetbury Hill	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3 - B4014 Finlands (West)	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.45	0.00	0.00	0.45	0.45			N/A	N/A
2 - Tetbury Hill	0.18	0.00	0.00	0.18	0.18			N/A	N/A
3 - B4014 Finlands (West)	0.20	0.00	0.00	0.20	0.20			N/A	N/A

2024 Observed Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4014 Finlands (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B4014 Finlands (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tetbury Hill Roundabout	Standard Roundabout		1, 2, 3	3.08	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.08	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024 Observed Traffic	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4014 Finlands (East)		ONE HOUR	✓	469	100.000
2 - Tetbury Hill		ONE HOUR	✓	633	100.000
3 - B4014 Finlands (West)		ONE HOUR	✓	335	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
From	1 - B4014 Finlands (East)	0	270	199
	2 - Tetbury Hill	535	0	98
	3 - B4014 Finlands (West)	223	112	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
	1 - B4014 Finlands (East)	0	2	5
	2 - Tetbury Hill	2	0	1
	3 - B4014 Finlands (West)	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4014 Finlands (East)	0.27	2.55	0.4	1.5	A	430	646
2 - Tetbury Hill	0.38	3.19	0.6	2.7	A	581	871
3 - B4014 Finlands (West)	0.27	3.62	0.4	1.5	A	307	461

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	353	88	84	1957	0.180	352	569	0.0	0.2	2.242	A
2 - Tetbury Hill	477	119	149	1876	0.254	475	287	0.0	0.3	2.567	A
3 - B4014 Finlands (West)	252	63	402	1492	0.169	251	223	0.0	0.2	2.900	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	422	105	101	1945	0.217	421	681	0.2	0.3	2.363	A
2 - Tetbury Hill	569	142	179	1854	0.307	569	343	0.3	0.4	2.801	A
3 - B4014 Finlands (West)	301	75	481	1438	0.209	301	267	0.2	0.3	3.166	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	516	129	123	1928	0.268	516	834	0.3	0.4	2.549	A
2 - Tetbury Hill	697	174	219	1823	0.382	696	420	0.4	0.6	3.192	A
3 - B4014 Finlands (West)	369	92	588	1364	0.270	368	327	0.3	0.4	3.614	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	516	129	123	1928	0.268	516	835	0.4	0.4	2.549	A
2 - Tetbury Hill	697	174	219	1823	0.382	697	421	0.6	0.6	3.195	A
3 - B4014 Finlands (West)	369	92	589	1363	0.271	369	327	0.4	0.4	3.619	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	422	105	101	1944	0.217	422	682	0.4	0.3	2.366	A
2 - Tetbury Hill	569	142	179	1854	0.307	570	344	0.6	0.4	2.807	A
3 - B4014 Finlands (West)	301	75	482	1437	0.210	302	267	0.4	0.3	3.170	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	353	88	84	1956	0.180	353	571	0.3	0.2	2.247	A
2 - Tetbury Hill	477	119	150	1876	0.254	477	288	0.4	0.3	2.575	A
3 - B4014 Finlands (West)	252	63	403	1491	0.169	252	224	0.3	0.2	2.905	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2 - Tetbury Hill	0.34	0.00	0.00	0.34	0.34			N/A	N/A
3 - B4014 Finlands (West)	0.20	0.00	0.00	0.20	0.20			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - Tetbury Hill	0.44	0.00	0.00	0.44	0.44			N/A	N/A
3 - B4014 Finlands (West)	0.26	0.00	0.00	0.26	0.26			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.36	0.03	0.25	0.45	0.48			N/A	N/A
2 - Tetbury Hill	0.62	0.03	0.25	0.62	0.62			N/A	N/A
3 - B4014 Finlands (West)	0.37	0.03	0.25	0.45	0.48			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.37	0.03	0.33	1.20	1.46			N/A	N/A
2 - Tetbury Hill	0.62	0.03	0.29	1.14	2.72			N/A	N/A
3 - B4014 Finlands (West)	0.37	0.03	0.33	1.23	1.50			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.28	0.00	0.00	0.28	0.28			N/A	N/A
2 - Tetbury Hill	0.44	0.00	0.00	0.44	0.44			N/A	N/A
3 - B4014 Finlands (West)	0.27	0.00	0.00	0.27	0.27			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.22	0.00	0.00	0.22	0.22			N/A	N/A
2 - Tetbury Hill	0.34	0.00	0.00	0.34	0.34			N/A	N/A
3 - B4014 Finlands (West)	0.20	0.00	0.00	0.20	0.20			N/A	N/A

2030 with Committed Development (71 Homes), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4014 Finlands (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B4014 Finlands (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tetbury Hill Roundabout	Standard Roundabout		1, 2, 3	3.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2030 with Committed Development (71 Homes)	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4014 Finlands (East)		ONE HOUR	✓	884	100.000
2 - Tetbury Hill		ONE HOUR	✓	399	100.000
3 - B4014 Finlands (West)		ONE HOUR	✓	443	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
From	1 - B4014 Finlands (East)	0	570	314
	2 - Tetbury Hill	290	0	109
	3 - B4014 Finlands (West)	274	168	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
	1 - B4014 Finlands (East)	0	3	5
	2 - Tetbury Hill	3	0	1
	3 - B4014 Finlands (West)	9	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4014 Finlands (East)	0.52	4.00	1.1	1.5	A	811	1217
2 - Tetbury Hill	0.26	2.82	0.3	1.4	A	366	550
3 - B4014 Finlands (West)	0.33	3.63	0.5	2.2	A	406	609

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	666	166	126	1917	0.347	663	424	0.0	0.5	2.867	A
2 - Tetbury Hill	301	75	236	1800	0.167	300	554	0.0	0.2	2.398	A
3 - B4014 Finlands (West)	333	83	218	1547	0.215	332	318	0.0	0.3	2.961	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	795	199	151	1899	0.419	794	507	0.5	0.7	3.257	A
2 - Tetbury Hill	359	90	282	1765	0.203	359	663	0.2	0.3	2.559	A
3 - B4014 Finlands (West)	398	99	261	1518	0.262	398	380	0.3	0.4	3.212	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	973	243	185	1874	0.519	972	621	0.7	1.1	3.985	A
2 - Tetbury Hill	440	110	345	1717	0.256	439	812	0.3	0.3	2.817	A
3 - B4014 Finlands (West)	487	122	319	1479	0.329	487	466	0.4	0.5	3.624	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	973	243	185	1874	0.520	973	621	1.1	1.1	3.998	A
2 - Tetbury Hill	440	110	346	1717	0.256	440	813	0.3	0.3	2.817	A
3 - B4014 Finlands (West)	487	122	319	1479	0.329	487	466	0.5	0.5	3.628	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	795	199	151	1898	0.419	796	508	1.1	0.7	3.271	A
2 - Tetbury Hill	359	90	283	1764	0.203	359	665	0.3	0.3	2.564	A
3 - B4014 Finlands (West)	398	99	261	1518	0.262	398	381	0.5	0.4	3.216	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	666	166	127	1916	0.347	666	425	0.7	0.5	2.880	A
2 - Tetbury Hill	301	75	237	1799	0.167	301	556	0.3	0.2	2.404	A
3 - B4014 Finlands (West)	333	83	218	1546	0.215	333	319	0.4	0.3	2.971	A

Queue Variation Results for each time segment

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.53	0.53	1.00	1.40	1.45			N/A	N/A
2 - Tetbury Hill	0.20	0.00	0.00	0.20	0.20			N/A	N/A
3 - B4014 Finlands (West)	0.27	0.00	0.00	0.27	0.27			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.72	0.09	0.81	1.39	1.46			N/A	N/A
2 - Tetbury Hill	0.25	0.00	0.00	0.25	0.25			N/A	N/A
3 - B4014 Finlands (West)	0.35	0.00	0.00	0.35	0.35			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	1.07	0.03	0.26	1.07	1.07			N/A	N/A
2 - Tetbury Hill	0.34	0.03	0.25	0.45	0.48			N/A	N/A
3 - B4014 Finlands (West)	0.49	0.03	0.25	0.49	0.49			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	1.08	0.03	0.27	1.08	1.21			N/A	N/A
2 - Tetbury Hill	0.34	0.03	0.33	1.14	1.38			N/A	N/A
3 - B4014 Finlands (West)	0.49	0.03	0.31	1.40	2.17			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.72	0.55	1.00	1.40	1.45			N/A	N/A
2 - Tetbury Hill	0.26	0.00	0.00	0.26	0.26			N/A	N/A
3 - B4014 Finlands (West)	0.36	0.00	0.00	0.36	0.36			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.53	0.06	0.67	1.33	1.42			N/A	N/A
2 - Tetbury Hill	0.20	0.00	0.00	0.20	0.20			N/A	N/A
3 - B4014 Finlands (West)	0.28	0.00	0.00	0.28	0.28			N/A	N/A

2030 with Committed Development (71 Homes), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4014 Finlands (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B4014 Finlands (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tetbury Hill Roundabout	Standard Roundabout		1, 2, 3	3.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.47	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2030 with Committed Development (71 Homes)	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4014 Finlands (East)		ONE HOUR	✓	581	100.000
2 - Tetbury Hill		ONE HOUR	✓	712	100.000
3 - B4014 Finlands (West)		ONE HOUR	✓	402	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
1 - B4014 Finlands (East)		0	300	281
2 - Tetbury Hill		585	0	127
3 - B4014 Finlands (West)		272	130	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
	1 - B4014 Finlands (East)	0	2	3
	2 - Tetbury Hill	2	0	1
	3 - B4014 Finlands (West)	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4014 Finlands (East)	0.33	2.79	0.5	2.2	A	533	799
2 - Tetbury Hill	0.45	3.69	0.8	2.1	A	654	980
3 - B4014 Finlands (West)	0.33	4.08	0.5	2.2	A	369	553

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	437	109	97	1962	0.223	436	643	0.0	0.3	2.358	A
2 - Tetbury Hill	536	134	211	1833	0.293	535	322	0.0	0.4	2.768	A
3 - B4014 Finlands (West)	302	76	439	1466	0.206	301	306	0.0	0.3	3.087	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	522	131	116	1948	0.268	522	770	0.3	0.4	2.524	A
2 - Tetbury Hill	640	160	252	1802	0.355	640	386	0.4	0.5	3.095	A
3 - B4014 Finlands (West)	361	90	526	1407	0.257	361	366	0.3	0.3	3.442	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	639	160	142	1929	0.332	639	943	0.4	0.5	2.789	A
2 - Tetbury Hill	784	196	309	1760	0.446	783	472	0.5	0.8	3.682	A
3 - B4014 Finlands (West)	442	111	643	1326	0.334	442	449	0.3	0.5	4.070	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	639	160	143	1929	0.332	639	944	0.5	0.5	2.791	A
2 - Tetbury Hill	784	196	309	1760	0.446	784	473	0.8	0.8	3.688	A
3 - B4014 Finlands (West)	442	111	644	1325	0.334	442	449	0.5	0.5	4.077	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	522	131	117	1948	0.268	523	772	0.5	0.4	2.526	A
2 - Tetbury Hill	640	160	253	1802	0.355	641	387	0.8	0.6	3.103	A
3 - B4014 Finlands (West)	361	90	527	1406	0.257	362	367	0.5	0.3	3.449	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	437	109	98	1962	0.223	438	646	0.4	0.3	2.363	A
2 - Tetbury Hill	536	134	212	1832	0.293	537	324	0.6	0.4	2.781	A
3 - B4014 Finlands (West)	302	76	441	1465	0.206	303	307	0.3	0.3	3.100	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2 - Tetbury Hill	0.41	0.00	0.00	0.41	0.41			N/A	N/A
3 - B4014 Finlands (West)	0.26	0.00	0.00	0.26	0.26			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.36	0.00	0.00	0.36	0.36			N/A	N/A
2 - Tetbury Hill	0.55	0.07	0.73	1.35	1.42			N/A	N/A
3 - B4014 Finlands (West)	0.34	0.00	0.00	0.34	0.34			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.49	0.03	0.25	0.49	0.49			N/A	N/A
2 - Tetbury Hill	0.80	0.03	0.25	0.80	0.80			N/A	N/A
3 - B4014 Finlands (West)	0.50	0.03	0.25	0.50	0.50			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.49	0.03	0.31	1.41	2.20			N/A	N/A
2 - Tetbury Hill	0.80	0.03	0.27	0.80	2.14			N/A	N/A
3 - B4014 Finlands (West)	0.50	0.03	0.31	1.42	2.23			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - Tetbury Hill	0.55	0.55	1.00	1.40	1.45			N/A	N/A
3 - B4014 Finlands (West)	0.35	0.00	0.00	0.35	0.35			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2 - Tetbury Hill	0.42	0.00	0.00	0.42	0.42			N/A	N/A
3 - B4014 Finlands (West)	0.26	0.00	0.00	0.26	0.26			N/A	N/A

2030 with Committed Development + Development of 180 Homes, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4014 Finlands (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B4014 Finlands (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tetbury Hill Roundabout	Standard Roundabout		1, 2, 3	3.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.69	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2030 with Committed Development + Development of 180 Homes	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4014 Finlands (East)		ONE HOUR	✓	901	100.000
2 - Tetbury Hill		ONE HOUR	✓	406	100.000
3 - B4014 Finlands (West)		ONE HOUR	✓	443	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
From	1 - B4014 Finlands (East)	0	585	316
	2 - Tetbury Hill	297	0	109
	3 - B4014 Finlands (West)	275	168	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
	1 - B4014 Finlands (East)	0	3	5
	2 - Tetbury Hill	3	0	1
	3 - B4014 Finlands (West)	9	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4014 Finlands (East)	0.53	4.08	1.1	1.5	A	827	1240
2 - Tetbury Hill	0.26	2.84	0.4	1.4	A	373	559
3 - B4014 Finlands (West)	0.33	3.65	0.5	2.2	A	406	610

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	678	170	126	1917	0.354	676	429	0.0	0.5	2.896	A
2 - Tetbury Hill	306	76	237	1799	0.170	305	565	0.0	0.2	2.409	A
3 - B4014 Finlands (West)	333	83	223	1543	0.216	332	319	0.0	0.3	2.970	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	810	202	151	1899	0.427	809	514	0.5	0.7	3.302	A
2 - Tetbury Hill	365	91	284	1764	0.207	365	677	0.2	0.3	2.574	A
3 - B4014 Finlands (West)	398	100	267	1514	0.263	398	382	0.3	0.4	3.225	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	992	248	185	1874	0.529	991	629	0.7	1.1	4.068	A
2 - Tetbury Hill	447	112	347	1716	0.261	447	828	0.3	0.4	2.837	A
3 - B4014 Finlands (West)	488	122	327	1474	0.331	487	468	0.4	0.5	3.645	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	992	248	185	1874	0.529	992	629	1.1	1.1	4.081	A
2 - Tetbury Hill	447	112	348	1715	0.261	447	829	0.4	0.4	2.838	A
3 - B4014 Finlands (West)	488	122	327	1474	0.331	488	468	0.5	0.5	3.648	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	810	202	151	1899	0.427	811	514	1.1	0.7	3.317	A
2 - Tetbury Hill	365	91	285	1763	0.207	366	678	0.4	0.3	2.578	A
3 - B4014 Finlands (West)	398	100	267	1514	0.263	399	383	0.5	0.4	3.231	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	678	170	127	1917	0.354	679	431	0.7	0.6	2.912	A
2 - Tetbury Hill	306	76	238	1798	0.170	306	568	0.3	0.2	2.413	A
3 - B4014 Finlands (West)	333	83	224	1543	0.216	334	320	0.4	0.3	2.978	A

Queue Variation Results for each time segment

07:30 - 07:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.54	0.54	1.00	1.40	1.45			N/A	N/A
2 - Tetbury Hill	0.20	0.00	0.00	0.20	0.20			N/A	N/A
3 - B4014 Finlands (West)	0.27	0.00	0.00	0.27	0.27			N/A	N/A

07:45 - 08:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.74	0.09	0.81	1.41	1.49			N/A	N/A
2 - Tetbury Hill	0.26	0.00	0.00	0.26	0.26			N/A	N/A
3 - B4014 Finlands (West)	0.36	0.00	0.00	0.36	0.36			N/A	N/A

08:00 - 08:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	1.11	0.03	0.26	1.11	1.11			N/A	N/A
2 - Tetbury Hill	0.35	0.03	0.25	0.45	0.48			N/A	N/A
3 - B4014 Finlands (West)	0.49	0.03	0.25	0.49	0.49			N/A	N/A

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	1.12	0.03	0.27	1.12	1.12			N/A	N/A
2 - Tetbury Hill	0.35	0.03	0.33	1.17	1.41			N/A	N/A
3 - B4014 Finlands (West)	0.49	0.03	0.31	1.40	2.20			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.75	0.53	0.99	1.40	1.45			N/A	N/A
2 - Tetbury Hill	0.26	0.00	0.00	0.26	0.26			N/A	N/A
3 - B4014 Finlands (West)	0.36	0.00	0.00	0.36	0.36			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.55	0.07	0.71	1.34	1.42			N/A	N/A
2 - Tetbury Hill	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3 - B4014 Finlands (West)	0.28	0.00	0.00	0.28	0.28			N/A	N/A

2030 with Committed Development + Development of 180 Homes, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4014 Finlands (East) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - B4014 Finlands (West) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Tetbury Hill Roundabout	Standard Roundabout		1, 2, 3	3.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.52	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2030 with Committed Development + Development of 180 Homes	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4014 Finlands (East)		ONE HOUR	✓	587	100.000
2 - Tetbury Hill		ONE HOUR	✓	726	100.000
3 - B4014 Finlands (West)		ONE HOUR	✓	404	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
	1 - B4014 Finlands (East)	0	305	282
	2 - Tetbury Hill	599	0	127
	3 - B4014 Finlands (West)	274	130	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		1 - B4014 Finlands (East)	2 - Tetbury Hill	3 - B4014 Finlands (West)
	1 - B4014 Finlands (East)	0	2	3
	2 - Tetbury Hill	2	0	1
	3 - B4014 Finlands (West)	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4014 Finlands (East)	0.34	2.81	0.5	2.3	A	539	808
2 - Tetbury Hill	0.45	3.75	0.8	2.0	A	666	999
3 - B4014 Finlands (West)	0.34	4.14	0.5	2.3	A	370	555

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	442	110	97	1962	0.225	441	655	0.0	0.3	2.365	A
2 - Tetbury Hill	547	137	212	1832	0.298	545	326	0.0	0.4	2.793	A
3 - B4014 Finlands (West)	304	76	450	1459	0.208	303	307	0.0	0.3	3.110	A

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	528	132	116	1948	0.271	527	784	0.3	0.4	2.534	A
2 - Tetbury Hill	653	163	253	1801	0.362	652	390	0.4	0.6	3.131	A
3 - B4014 Finlands (West)	363	91	538	1398	0.259	362	368	0.3	0.3	3.476	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	646	162	142	1929	0.335	646	960	0.4	0.5	2.803	A
2 - Tetbury Hill	799	200	310	1759	0.454	798	478	0.6	0.8	3.744	A
3 - B4014 Finlands (West)	444	111	659	1315	0.338	444	450	0.3	0.5	4.129	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	646	162	143	1929	0.335	646	961	0.5	0.5	2.806	A
2 - Tetbury Hill	799	200	310	1759	0.455	799	478	0.8	0.8	3.751	A
3 - B4014 Finlands (West)	444	111	660	1314	0.338	444	450	0.5	0.5	4.136	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	528	132	117	1948	0.271	528	786	0.5	0.4	2.538	A
2 - Tetbury Hill	653	163	254	1801	0.362	654	391	0.8	0.6	3.140	A
3 - B4014 Finlands (West)	363	91	539	1397	0.260	363	368	0.5	0.4	3.486	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - B4014 Finlands (East)	442	110	98	1962	0.225	442	658	0.4	0.3	2.369	A
2 - Tetbury Hill	547	137	212	1832	0.298	547	327	0.6	0.4	2.805	A
3 - B4014 Finlands (West)	304	76	451	1458	0.208	304	308	0.4	0.3	3.121	A

Queue Variation Results for each time segment

16:00 - 16:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2 - Tetbury Hill	0.42	0.00	0.00	0.42	0.42			N/A	N/A
3 - B4014 Finlands (West)	0.26	0.00	0.00	0.26	0.26			N/A	N/A

16:15 - 16:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - Tetbury Hill	0.57	0.08	0.76	1.35	1.43			N/A	N/A
3 - B4014 Finlands (West)	0.35	0.00	0.00	0.35	0.35			N/A	N/A

16:30 - 16:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.50	0.03	0.25	0.50	0.50			N/A	N/A
2 - Tetbury Hill	0.83	0.03	0.25	0.83	0.83			N/A	N/A
3 - B4014 Finlands (West)	0.51	0.03	0.25	0.51	0.51			N/A	N/A

16:45 - 17:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.50	0.03	0.31	1.41	2.27			N/A	N/A
2 - Tetbury Hill	0.83	0.03	0.27	0.83	1.96			N/A	N/A
3 - B4014 Finlands (West)	0.51	0.03	0.31	1.42	2.30			N/A	N/A

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.37	0.00	0.00	0.37	0.37			N/A	N/A
2 - Tetbury Hill	0.57	0.55	1.00	1.40	1.45			N/A	N/A
3 - B4014 Finlands (West)	0.35	0.00	0.00	0.35	0.35			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1 - B4014 Finlands (East)	0.29	0.00	0.00	0.29	0.29			N/A	N/A
2 - Tetbury Hill	0.43	0.00	0.00	0.43	0.43			N/A	N/A
3 - B4014 Finlands (West)	0.26	0.00	0.00	0.26	0.26			N/A	N/A

