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# Didcot Garden Town Housing Infrastructure Fund (HIF1)

**Transport Assessment** 

Oxfordshire County Council

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### 1. Introduction

- 1.1.1 This Transport Assessment (TA) has been prepared in support of a planning application for the HIF1 Didcot Garden Town Infrastructure project ('the HIF1 Scheme') on behalf of Oxfordshire County Council (OCC). The Scheme is designed to improve access to future housing and employment growth in the local area, including access by walking, cycling and public transport. The Scheme is policybacked and is the cornerstone of mitigation for the planned growth in the area. The Scheme does not aim to provide unlimited highway capacity for cars, or to remove all congestion; it forms part of a balanced transport strategy which also provides high-quality walking and cycling infrastructure, helping to engender modal shift to more sustainable modes.
- 1.1.2 Planning permission is sought for the following:

Planning application seeking full planning permission for the dualling of the A4130 carriageway (A4130 Widening) from the Milton Gate Junction eastwards, including the construction of three roundabouts; a road bridge over the Great Western Mainline (Didcot Science Bridge); realignment of the A4130 north east of the proposed road bridge including the relocation of a lagoon; construction of a new road between Didcot and Culham (Didcot to Culham River Crossing) including the construction of three roundabouts, a road bridge over the Appleford railway sidings and road bridge over the River Thames; construction of a new road between the B4015 and A415 (Clifton Hampden bypass), including the provision of one roundabout and associated junctions; and controlled crossings, footways and cycleways, landscaping, lighting, noise barriers and sustainable drainage systems.

At Land in the parishes of Milton, Didcot, Harwell, Sutton Courtenay, Appleford-on-Thames, Culham and Clifton Hampden.

#### **1.2 Scheme Background**

- 1.2.1 The HIF1 Scheme is essential for the economic and social prosperity of Science Vale UK, one of the first Enterprise Zones, in addition to other newer Enterprise Zones in the area. Whilst the HIF1 programme is based on future growth, the HIF1 infrastructure will also help to ameliorate the issues resulting from historic housing and employment growth.
- 1.2.2 Didcot is a historic growth area in Oxfordshire, led by the growth and development of Didcot Parkway Railway Station, and continues to rapidly expand whilst quickly becoming a destination in its own right. With large urban extensions of the 1990s (Ladygrove) and planned housing and employment growth in the 21st Century, highway infrastructure has failed to keep pace. Additionally, the location of employment centres on historic and relatively remote military bases (Harwell Innovation Campus and Culham Science Centre and Milton Park), compounds congestion in and around the town. The local vicinity is an important employment area recognised nationally by Enterprise Zone status. It forms part of the area known as the 'Science Vale' and is expected to deliver 20,000 additional jobs by 2031. The area is vitally important to the local and national economy. Didcot was awarded Garden Town status by the government in December 2015. Didcot and the surrounding area will deliver around 15,000 new homes up to 2040 in addition to circa 3,300 already built out at Great Western Park.
- 1.2.3 Figure 1.1 below shows Didcot's central position in Science Vale UK and how it contributes towards the Knowledge Spine, with key employment areas at Milton Park and Culham Science Centre, and other Enterprise Zones.



# Figure 1.1: Oxfordshire's critical economic sectors, assets and growth opportunities within the innovation ecosystem

Source: Oxfordshire Local Industrial Strategy (2019), Figure 5

1.2.4 Railway lines and the River Thames creates severance to effective movement and barriers to connectivity between homes, jobs and amenities in Didcot and surrounding areas. High levels of congestion are evident on the A4130, on the existing river crossings between Didcot and Culham/Clifton Hampden and within Clifton Hampden. This has led to Oxfordshire County Council (OCC), as local highway authority (LHA), objecting to the applications of single dwellings on grounds of highway safety, convenience and sustainability. These objections have led to Local Planning Authority (LPA) refusals which have been upheld at appeal by the Planning Inspectorate. Additionally, a Vale of White Horse District Council (VoWHDC) Local Plan strategic allocation for 200 new homes has also been refused planning permission on similar grounds. It is evident that the constrained highway network has already adversely affected growth in the area.

- 1.2.5 The Scheme is deemed as essential to deliver future growth as identified within Local Plans for both South Oxfordshire District Council (SODC) and the VoWHDC. The Scheme is also identified in OCC's Local Transport Plan 4.
- 1.2.6 The infrastructure investment will help relieve pressure on local transport networks and will facilitate economic growth across the Science Vale area whilst accommodating the expanding communities in the local area. The provision of walking and cycling facilities offer real mode choice for work and leisure, helping to encourage modal shift. Improving local roads and providing new roads will lead to more reliable journey times, less congestion, more job opportunities, and better community links.
- 1.2.7 Improving local roads which will lead to faster journeys, less congestion, more job opportunities, and better community links with additional benefits of providing key active travel links to provide real mode choice for work and leisure.
- 1.2.8 The HIF1 Scheme aims to address the following issues and opportunities:
  - Local and regional economy: The historic road network in Didcot and the surrounding areas is not currently fit for purpose and will be exacerbated with planned growth. There is congestion at key points, including where new and planned developments access the road network. The Scheme will unlock and support the delivery of circa 18,000 new homes in the area including affordable homes;
  - Local traffic issues: Didcot is a centre for distribution meaning there are more Heavy Goods Vehicles (HGVs) on the transport network than in other areas, adding to congestion and delay. There is also a need to plan now for all forms of travel, including modes that are only just starting to be tested (e.g. autonomous vehicles). Transport connectivity is poor in the area with limited links making it difficult to travel between existing/ planned housing and employment sites;
  - Environment: To uphold its "Garden Town" status, developments within Didcot should positively
    protect and enhance the natural, built and historic environment; including making effective use of
    land including using brownfield sites, helping to improve biodiversity, using natural resources
    prudently, providing green infrastructure, addressing issues such as flood risk, climate change and
    minimising waste and pollution; and
  - People and local communities: There have been increasing traffic impacts in Didcot and the surrounding villages and their historic cores due to congestion, noise and air quality. The location of railway lines creates physical barriers between some housing and employment sites, including areas proposed for new development because of limited crossings, which are already reaching capacity. The River Thames is also a barrier with limited bridge crossings. The Scheme will facilitate new movements across the Science Vale area. The Scheme will provide direct, safe and convenient walking cycling infrastructure across its full length and opens up opportunities for new and improved bus routes.

### 1.3 Consultation

- 1.3.1 The methodology and scope of this Transport Assessment was developed in conjunction with OCC. Highways England (HE) was also consulted due to the proximity of the HIF1 Scheme to the A34 at Milton Interchange, with the A34 being part of the Strategic Road Network (SRN) managed by HE. An assessment of the impact of the HIF1 Scheme on the A34 at Milton Interchange was requested by HE and this has been included in the TA.
- 1.3.2 Detailed information on the Scheme consultation processes can be found in the Statement of Community Involvement, included in the planning application. Key dates are summarised below:
  - The schemes were included in VoWHDC Local Plan 2031 Part 1, subject to consultation in 2014;
  - The schemes were included in OCC Local Transport Plan 4, subject to consultation in 2015;
  - The schemes were included in VoWHDC Local Plan 2031 Part 2, subject to consultation in 2017;
  - OCC held consultation events on the schemes in November 2018;
  - The schemes were included in SODC Local Plan 2035, subject to consultation in 2019;
  - OCC held an online consultation on the schemes in March/April 2020;
  - Ongoing liaison with Parish Councils;

- Ongoing liaison with Non-motorised user (NMU) groups and bus operators;
- Ongoing liaison with statutory bodies (Environment Agency etc);
- Ongoing liaison with businesses; and
- Ongoing liaison with landowners.

#### 1.4 Report Structure

- 1.4.1 Following this introduction, the report is set out as follows:
  - Section 2: Policy Context sets out the relevant national, regional and local policies related to transport and the proposed HIF1 Scheme;
  - Section 3: Baseline Conditions outlines the local existing walking, cycling, horse-riding, public transport and highway routes. This section also identifies the available data sources relating to transport network performance and junction capacity modelling for the 2020 base year;
  - Section 4: Development Proposals includes a description of the 4 highway schemes that comprise the HIF1 Scheme;
  - Section 5: Modelling Assessment summarises the methodology used to identify the impact of the HIF1 Scheme on the local highway network;
  - Section 6: Assessment of Impact assesses the impact of the Scheme on the local highway network in the 2024 and 2034 assessment years and provides commentary on impacts on pedestrian, cycle and public transport amenity;
  - Section 7: Construction Period Provides consideration of impacts of the Scheme during the construction period, forecast construction delivery activity and measures to minimise the impact of construction;
  - Section 8: Summary and Conclusion provides a summary of this TA and a conclusion on the impact of the proposals.

## 2. Policy Context

#### 2.1 Introduction

- 2.1.1 The proposed HIF1 Scheme has been considered with reference to the following relevant national, regional and local policies and guidance:
  - National Planning Policy Framework (2021)
  - Planning Policy Guidance (2014)
  - Oxfordshire County Council: Local Transport Plan 4 2015-2031 (2016)
  - Oxfordshire County Council 2020 Climate Action Framework
  - Oxfordshire Cycling Design Standards (2017)
  - Oxfordshire Walking Design Standards (2017)
  - Oxfordshire Local Industrial Strategy (2019)
  - Oxfordshire LIS The Investment Plan (2020)
  - The Oxfordshire Infrastructure Strategy (2017)
  - South Oxfordshire Local Plan 2035 (2020)
  - The Planning Inspectorate: Report on the Examination of the South Oxfordshire Local Plan 2011-2034 (2020)
  - South Oxfordshire Infrastructure Delivery Plan (2019)
  - Vale of White Horse Local Plan 2031 Part 1 (2016)
  - Vale of White Horse Local Plan 2031 Part 2 (2019)
  - Vale of White Horse Local Plan 2031 Part 1, Inspector's Report (2016)
  - Vale of White Horse Local Plan 2031 Part 2, Inspector's Report (2019)
  - Vale of White Horse Local Plan 2031 Part 1, Infrastructure Delivery Plan (2015)
  - Vale of White Horse Local Plan 2031 Part 2, Infrastructure Delivery Plan (2018)
  - Didcot Garden Town Delivery Plan (2017)
  - The Strategic Road Network Planning for the Future (2015)
  - Transport for New Developments: Transport Assessments and Travel Plans (2014)
  - Design Manual for Roads and Bridges (2020)
  - LTN 1/20 Cycle Infrastructure Design (2020)
  - Department of Transport Gear Change: A Bold Vision for Cycling and Walking (2020)

#### 2.2 National Policy

#### National Planning Policy Framework (2021)

- 2.2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England, providing a framework within which local people and councils can encourage development which reflects the needs and priorities of their communities.
- 2.2.2 A key principle of the NPPF is the presumption in favour of sustainable development that contributes to the economic, social, and environmental aspects of a community. The use of sustainable transport modes for the movement of goods and people is widely encouraged.
- 2.2.3 Chapter 9 sets out Promoting Sustainable Transport (paragraph 104 to 109). This chapter explains the variety of ways in which transport should be considered as part of the planning process. This includes setting out that transport issues should be considered from the earliest stages of the planmaking and development proposals.

- 2.2.4 Paragraph 106 states that planning policies should 'be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned'.
- 2.2.5 Policies on assessing the transport impact of development proposals are identified in paragraphs 110 to 112. These refer to highway safety as well as capacity and congestion to make clearer that pedestrian and cycle movements should be prioritised, followed by access to high quality public transport, to reflect the importance of creating a well-designed place.
- 2.2.6 Paragraph 113 states that a development that generates a significant amount of movement should be supported by a Transport Statement or Transport Assessment and should be required to provide a travel plan.

#### **Planning Practice Guidance**

2.2.7 In 2014, the Department for Communities and Local Government (DCLG) launched a website containing national planning practice guidance. The website contains guidance on a range of planning topics such as design, Local Plans, Neighbourhood Plans and Travel Plans / Transport Assessments. The section on 'Travel plans, transport assessments and statements in decision-taking' (ID 42 – https://www.gov.uk/guidance/travel-plans-transport-assessments-and-statements) provides advice on when Transport Assessments and Transport Statements are required and what they should contain.

#### 2.2.8 Paragraph 014 states:

'The need for, scale, scope and level of detail required of a Transport Assessment or Statement should be established as early in the development management process as possible as this may therefore positively influence the overall nature or the detailed design of the development.

Key issues to consider at the start of preparing a Transport Assessment or Statement may include:

- The planning context of the development proposal;
- Appropriate study parameters (i.e. area, scope and duration of study);
- Assessment of public transport capacity, walking/cycling capacity and road network capacity;
- Road trip generation and trip distribution methodologies and/ or assumptions about the development proposal;
- Measures to promote sustainable travel;
- Safety implications of development; and
- Mitigation measures (where applicable) including scope and implementation strategy.'
- 2.2.9 Paragraph 015, which sets out what information should be included in Transport Assessments, states:
  - 'Information about the proposed development, site layout, (particularly proposed transport access and layout across all modes of transport);
  - Information about neighbouring uses, amenity and character, existing functional classification of the nearby road network;
  - Data about existing public transport provision, including provision / frequency of services and proposed public transport changes;
  - A qualitative and quantitative description of the travel characteristics of the proposed development, including movements across all modes of transport that would result from the development and in the vicinity of the site;
  - An assessment of trips from all directly relevant committed development in the area (i.e. development that there is a reasonable degree of certainty will proceed within the next 3 years);
  - Data about current traffic flows on links and at junctions (including by different modes of transport and the volume and type of vehicles) within the study area and identification of critical links and junctions on the highways network;

- An analysis of the injury accident records on the public highway in the vicinity of the site access for the most recent 3-year period, or 5-year period if the proposed site has been identified as within a high accident area;
- An assessment of the likely associated environmental impacts of transport related to the development, particularly in relation to proximity to environmentally sensitive areas (such as air quality management areas or noise sensitive areas);
- Measures to improve the accessibility of the location (such as provision/enhancement of nearby footpath and cycle path linkages) where these are necessary to make the development acceptable in planning terms;
- A description of parking facilities in the area and the parking strategy of the development;
- Ways of encouraging environmental sustainability by reducing the need to travel; and
- Measures to mitigate the residual impacts of development (such as improvements to the public transport network, introducing walking and cycling facilities, physical improvements to existing roads.'

### 2.3 Regional Policy

#### Oxfordshire County Council: Local Transport Plan 4 2015-2031 (2016)

- 2.3.1 The Oxfordshire County Council: Local Transport Plan 4 (LTP4) outlines the policy and strategy for developing the transport network in Oxfordshire between 2015 and 2031. The LTP4 was adopted in September 2015 following public consultation and was updated in 2016, with emphasis on improving air quality and making better provision for walking and cycling.
- 2.3.2 The LTP4 has identified three overarching goals relating to transport with ten supporting objectives, which are outlined below:
  - **Goal 1:** Support jobs and housing growth and economic vitality:
    - **Objective 1**: Maintain and improve transport connections to support economic growth;
    - Objective 2: Make the most effective use of all available transport capacity through innovative management of the network;
    - Objective 3: Increase journey time reliability and minimise end-to-end public transport journey times on main routes; and
    - **Objective 4**: Develop a high-quality integrated transport system.
  - **Goal 2:** Reduce emissions, enhance air quality and support transition to a low carbon economy:
    - **Objective 5**: Minimise the need to travel;
    - Objective 6: Reduce the private car proportion of journeys and make public transport, walking and cycling more attractive;
    - Objective 7: Maximise the use of existing and planned sustainable transport investments through influencing the location and layout of developments; and
    - Objective 8: Reduce carbon emissions from transport in line with the UK government targets.
  - **Goal 3:** Protect, and where possible enhance Oxfordshire's environment and improve the quality of life, including public health, air quality, safety and individual wellbeing:
    - **Objective 9**: Mitigate and where possible enhance the impacts of transport; and
    - Objective 10: Increase the levels of walking and cycling to improve public health, reduce transport emissions, reduce casualties and enable inclusive access to jobs, education, training and services.
- 2.3.3 The LTP4 identifies a number of key policies relating to the development proposals, which include:

- Policy 01: Ensure the transport network supports sustainable economic and housing growth, while
  protecting and where possible enhancing the environment and supporting health and wellbeing of
  residents;
- **Policy 02:** Manage and where appropriate develop the road network to reduce congestion and minimise disruption and delays;
- Policy 03: Support measures and innovation that makes more efficient use of the transport network capacity by reducing the proportion of single occupancy car journeys and encouraging walking, cycling and public transport;
- **Policy 07**: Work with operators and partners to enhance the network of high quality, integrated public transport services, interchanges and supporting infrastructure;
- Policy 17: Seek that the location of developments make the best use of existing and planned infrastructure and provides new or improved infrastructure and supports walking, cycling and public transport;
- **Policy 24**: Seek to avoid negative environmental impacts of transport and where possible provide environmental improvements;
- Policy 28: Consult from an early stage in the development of schemes;
- **Policy 30**: Identify the parts of the highway network where significant number of accidents occur and propose solutions to prevent further accidents;
- **Policy 31**: Aim to work with partners to support road safety campaigns and education programmes aimed at reducing road accidents and keep speed limits under review;
- **Policy 33**: Seek external funding to support the delivery of transport infrastructure priorities as outlined in the Strategic Economic Plan and Oxfordshire Infrastructure Strategy; and
- **Policy 34**: Require the layout and design of new developments to encourage walking, cycling and to be served by frequent, reliable and efficient public transport.

#### Science Vale Transport Strategy

- 2.3.4 The Science Vale Transport Strategy is part of LTP4 and identifies that with the amount of housing and employment growth that is proposed in the Science Vale area, a number of transport schemes are required to mitigate the impact of the growth and support the area.
- 2.3.5 To improve journeys in the Science Vale area the following schemes are proposed (policy numbers shown in brackets):
  - Upgrade the cycle network and undertake maintenance on the existing network (SV 2.6);
  - Secure new bus services with associated infrastructure and improve existing bus services (SV 2.2);
  - Deliver the Science Bridge and widening of A4130 (SV 2.6);
  - Improve access to Culham Science Centre (Clifton Hampden Bypass SV 2.13);
  - Deliver the Didcot to Culham river crossing (SV 2.16); and
  - Provide strategic cycle network to encourage the use of sustainable transport. (SV 2.21 & SV 2.22)

#### **Bus and Rapid Transit Strategy**

- 2.3.6 The Bus and Rapid Transit Strategy has been developed to complement the LTP4 and identifies key outcomes in relation to the five key goals identified in the LTP4. The Bus and Rapid Transit Strategy key outcomes include:
  - Support jobs and Housing Growth and Economic Vitality: 'More people will be able to travel to more destinations by bus, improving access to work, shops and local centres';
  - **Support transition to a Low-Carbon Future**: 'Sustainable, energy-efficient bus transport will reduce sole-occupancy car usage and help manage car emission levels';
  - Support Social Inclusion and Equality of Opportunity: 'Accessible bus connections will enable disabled people, elderly people and those unable to drive will travel more'; and

• Improve Public Health, Safety and Individual Wellbeing: 'Regular walking and cycling to and from bus stops and interchange can be an important contributor to keeping fit'.

#### Active & Healthy Travel Strategy

- 2.3.7 The Active and Healthy Travel Strategy builds on the LTP4 with the aim to 'contribute to reducing pressure on the road network, contribute to economic growth and the reduction of emissions, quality of life and health, and link active travel with bus and rail options by enabling sustainable door to door journeys combining cycling or walking with public transport'.
- 2.3.8 As part of the Strategy, a Cycle Premium Route between Didcot and Culham Science Centre, via the existing National Cycle (NCN) Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network, as shown in Figure 2.1. This cycle network has been identified to be a focus for future investment in cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, the proposed Didcot to Culham River Crossing will provide an opportunity for a high-quality cycle route as an alternative to the existing.

## Figure 2.1: Proposed Science Vale Cycle Network Map



Source: https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science\_vale\_cycle\_network.pdf

#### **Oxfordshire County Council 2020 Climate Action Framework**

- 2.3.9 The 2020 Climate Action Framework sets out OCC's guiding principles and how it will mobilise to tackle climate change. The Council has set itself a target of becoming carbon neutral by 2030, and enabling a zero carbon Oxfordshire by 2050.
- 2.3.10 The Council intends to use its strategic policy roles and partnerships to take climate action. Through the Council's local transport planning role it will focus on the following:
  - Increase walking and cycling; it will be accessible and normal;
  - Enable safe, convenient electric public transport across and between towns;
  - Accelerate the rise of electric, shared and autonomous travel;
  - Increasingly deprioritise journeys by single occupancy private car;

- Implement post Covid schemes to support active travel; and
- Develop and implement local cycling and walking infrastructure plans.

Oxfordshire Cycling Design Standards (2017)

- 2.3.11 The Oxfordshire Cycling Design Standards (OCDS) is a live document which provides guidance on how to design cycle infrastructure for new developments that will support all cycle users.
- 2.3.12 The aim of the OCDS is to make cycling the first choice for travel by creating a better environment for cycling, making cycling a more attractive choice and ensuring that it is accessible to everyone.
- 2.3.13 This guidance outlines the application of contemporary cycle infrastructure design in the Oxfordshire context.
- 2.3.14 The OCDS outlines how cycle infrastructure in Oxfordshire should be designed based on the type of junction or road, amount of vehicular traffic and existing facilities in the area.

#### **Oxfordshire Walking Design Standards (2017)**

- 2.3.15 The Oxfordshire Walking Design Standards (OWDS) is a live document that provides guidance on how pedestrian infrastructure should be designed in Oxfordshire to encourage more people to walk journeys.
- 2.3.16 The aim of the OWDS is to make walking people's first choice in Oxfordshire and accessible for all. Streets should be designed with pedestrians at the top of the hierarchy giving them precedence over cyclist, buses and cars.
- 2.3.17 The OWDS outlines the standards for footways depending on the location, road / junction and amount of traffic. In addition, the standards also set out the different types of crossings and when each type of crossing should be used depending on pedestrian demand, road width, proximity to junctions and road speed.

#### Oxfordshire Local Industrial Strategy (2019)

- 2.3.18 The Oxfordshire Local Industrial Strategy (OxLIS) was published in June 2019 and sets out the plan to build on Oxfordshire's strong foundations and world-leading assets by 2040. OxLIS supports the objectives of the National Industrial Strategy.
- 2.3.19 The new river crossing proposed between Didcot and Culham is designed to link to major employment sites such as Milton Park, Culham and Harwell and enable housing growth in the area. In addition "Oxfordshire proposes establishing a CAV service between Culham and Harwell via Culham Railway Station, Didcot Parkway and Milton Park. In parallel with using existing rural roads, this CAV service would also use the new road and bridge."
- 2.3.20 The growth of the Didcot and Bicester Garden Towns, Oxfordshire Garden Village and the expansion of science parks would address critical connectivity issues in these area and release pressure on existing infrastructure.

#### OxLIS: The Investment Plan (2020)

- 2.3.21 The Investment Plan is part of a suite of documents which underpin OxLIS. In the Investment Plan Didcot Garden Town, Milton Park and Culham Science Park are outlined as critical economic sectors, assets and growth opportunities.
- 2.3.22 The HIF1 projects are identified as being requirements to support the delivery of science-based research and knowledge clusters at Harwell, Culham and Milton Park as well as unlocking homes in the Didcot Garden Town area.

#### The Oxfordshire Infrastructure Strategy (2017)

2.3.23 The Oxfordshire Infrastructure Strategy (OXIS) examines the emerging development and infrastructure requirements to support growth in the area from 2016 to 2031 and beyond.

2.3.24 Several road improvements are proposed to alleviate congestion in Oxfordshire and support planned growth in the area. These include the Didcot Science bridge, capacity improvements to the A4130 including Didcot North Perimeter Road, Culham to Didcot River Crossing and Clifton Hampden Bypass.

#### 2.4 Local Policy

#### Vale of White Horse Local Plan 2031 Part One (2016)

- 2.4.1 The Vale of White Horse Local Plan was adopted in December 2016 and sets out the vision for the district up to 2031.
- 2.4.2 The key challenges and opportunities that outlined in the Local Plan that the district faces are:
  - "Building healthy and sustainable communities;
  - Supporting economic prosperity;
  - Supporting sustainable transport and accessibility, and
  - Protecting the environment and responding to climate change".
- 2.4.3 The relevant core policies stated in the Local Plan are the following:
  - Core Policy 1: Presumption in Favour of Sustainable Development
    - States that planning applications that accord with the Local Plan and are not anticipated to have adverse impacts that outweigh the benefits will be granted planning permission.
  - Core Policy 7: Providing Supporting Infrastructure and Services
    - States that the Council will ensure that new infrastructure and services are delivered alongside new housing and employment.
  - Core Policy 17: Delivery of Strategic Highway Improvements with the South-East Vale Sub-Area
    - States that contributions will be made towards transport infrastructure improvements with the South-East Vale Sub-Area including:
      - Science Bridge and A4130 re-routing through the Didcot A site;
      - A4130 dualling between Milton Interchange and Science Bridge; and
      - A new strategic road connection between the A415 east of Abingdon on-Thames and the A4130 north of Didcot, including a new crossing of the River Thames.
  - Core Policy 18: Safeguarding Land for Strategic Highway Improvements
    - The Council seeks to ensure that land required for important transport infrastructure in the South East Vale Sub-Area.
  - Core Policy 33: Promoting Sustainable Transport and Accessibility
    - The Council will support improvements for accessing Oxford and support measures identified in the Local Transport Plan.
  - Core Policy 34: Promoting Public Transport, Cycling and Walking
    - The Council will seek to support the provision of new cycling routes and ensure that proposals for major development are supported by a Transport Assessment and Travel plan.

#### Vale of White Horse Local Plan 2031: Part 1, Infrastructure Delivery Plan (2015)

- 2.4.4 The Infrastructure Delivery Plan was prepared to support the Local Plan 2031: Part 1 which identifies the vision for the area up to 2031 and the infrastructure required to accommodate the growth of the area.
- 2.4.5 "The council has been working closely with Oxfordshire County Council and South Oxfordshire District Council so that cross-border infrastructure requirements are fully taken into account and that the Science Vale area is planned holistically."

#### 2.4.6 The relevant transport infrastructure that has been identified as part of the Science Vale Transport Package is outlined in Table 2.1 below.

Project	Cost	Funding	Rational
Widening A4130	£13,500,000	LGF, CIL	Improving Connectivity between Didcot and the Enterprise Zone.
Science Bridge	£26,000,000	LGF CIL	Capacity improvements for vehicles over the railway line along the A4130 in the vicinity of the Power station.
Cycle Network Improvements Across the Science Vale area	£10,000,000	LGF, GPF LSTF, CIL	Providing easier and greater connectivity by bike providing a key layer to the science Vale transport system and enabling and encouraging sustainable travel across the area.
Thames Crossing at Appleford /Culham and further link between Culham Science Centre and the B4017.	£40,000,000	LGF, CIL	To enable better access between Culham and Oxford. The Scheme will provide an alternative north south link to the A34, linking centres of economic growth.

#### Table 2.1: Science Vale Transport Package

Source: Vale of White Horse Local Plan 2031: Part 1, Infrastructure Delivery Plan (2015), Table 5.

#### Vale of White Horse Local Plan 2031: Part 1, Inspector's Report (2016)

2.4.7 In the Inspector's report for the VoWH Local Plan Part 1, the Inspector was satisfied that a mitigation strategy was identified to deal with growth associated with the Local Plan Part 1 and South Oxfordshire's Core Strategy 2016. This was in the knowledge that much of the highway infrastructure was unfunded and a large shortfall was identified to deliver necessary infrastructure. In acknowledgement of the existing traffic congestion, the Inspector noted that infrastructure (to which this Scheme seeking planning permission is part of a wider strategy) would largely mitigate the impact of development. The relevant paragraphs of the report related to highway infrastructure are copied below:

"144. In relation to transport Oxfordshire County Council, as Highway Authority, commissioned the November 2014 Evaluation of Transport Impacts Study to Inform the Vale of White Horse District Council Local Plan 2031: Part 1. Following several earlier stages this report assessed the likely transport impacts of the plan's proposed 20,560 new homes and 23,000 additional jobs in the district, based on a range of different transport interventions and improvements (one of medium scale and two of large scale). The report concludes that the Stage 5ETI mitigation package (which in essence comprises those transport improvements identified in the plan) would largely mitigate the impacts of the proposed new development in the district, albeit that some congestion issues would remain.

145. I have read and heard much debate about the robustness of the Impacts Study's findings and whether or not the residual congestion issues it identifies would be "severe" in terms of paragraph 32 of the NPPF. However, there is no convincing and detailed evidence to demonstrate that the study's conclusions are not robust, bearing in mind that they can only ever be a strategic-level forecast and that more detailed transport impact appraisals will be necessary as part of the consideration of specific development proposals. Moreover, whilst it is to a significant degree a matter of judgement, I have read and heard nothing which persuades me that the District and County Councils' conclusion that the likely residual transport impacts would be acceptable is not a soundly-based finding. In considering this point I have borne in mind that the "starting point" situation for the Vale is as a district which very much suffers from traffic congestion."

150. Policy CP7 states that all new development will be required to provide for the necessary on-site and off-site infrastructure requirements arising from the development. However, it goes on to indicate that, where viability constraints are demonstrated, the Council will (i) prioritise contributions sought, giving first priority to essential infrastructure and second priority to other infrastructure (ii) defer part of the contribution to a later date (iii) as a last resort, refuse planning permission if the development would be unsustainable without the unfunded infrastructure requirements. With reference to recent specific examples significant concern has been raised that this would lead to development being permitted without the timely implementation of necessary infrastructure, or even its provision at all. 151. The policy is written such that there is a presumption that the necessary infrastructure will be provided when required and that any relaxation of the requirements will only be considered where viability constraints are demonstrated. However, ultimately it is appropriate that the Council reaches a decision on this issue on a case by case basis at the planning application stage, balancing the benefits of the development against the harm likely to result from delayed or unfunded infrastructure. Consequently, and bearing in mind that it makes clear that ultimately proposals which are unsustainable because of an absence of supporting infrastructure will be refused, the policy is soundly-based. Nonetheless, to ensure the effectiveness of the policy, MM10 and MM11 are necessary to define "essential" and "other" infrastructure in the supporting text of the policy and to require collaboration between developers where infrastructure is necessary to serve more than one site. I have noted the suggested changes to the wording of MM10 but conclude that the modification is appropriate as consulted on, bearing in mind that the supporting text should not alter the meaning of the policy to which it relates."

#### Vale of White Horse Local Plan 2031 Part Two (2019)

- 2.4.8 The Vale of White Horse Local Plan Part Two was adopted in December 2019 and complements the Part 1 plan setting out policies and locations for housing up to 2031.
- 2.4.9 The Part 2 Local Plan includes Core Policy 16b which supports the implementation of Didcot Garden Town. This policy ensures that proposals for development support the successful implementation of the Garden Town.
- 2.4.10 The key relevant policies stated in part two of the Local Plan are the following:
  - Development Policy 17: Transport Assessments and Travel Plans
    - States that proposals for large developments will need to be supports by a Transport Assessment or Statement in accordance with Oxfordshire County Council guidance.
  - Development Policy 31: Protection of Public Rights or Way, National Trails and Open Access Areas
    - The Council will permit developments that can accommodate existing routes or provide alternative routes that are equally or more attractive and convenient for users.

#### Vale of White Horse Local Plan 2031: Part 2 Infrastructure Delivery Plan (2018)

- 2.4.11 The Infrastructure Delivery Plan was prepared to support the sites identified in the Local Plan 2031: Part 2. It is intended to be a 'live' document that will be updated and reviewed at regular intervals.
- 2.4.12 The Local Plan Part 2 identified seven sites for a total of 3,420 dwellings up to 2031.
- 2.4.13 In order to achieve a sustainable transport network in the VoWH area, the Council is working alongside OCC, South Oxfordshire, Oxfordshire Local Enterprise Partnership (OxLEP) and Oxfordshire Growth Board. The relevant required transport infrastructure that has been identified includes:
  - Delivering the Science Bridge and widening of A4130; and
  - Providing new and substantially upgraded strategic cycle routes to Milton Park, Harwell and Culham Science Centre through the Science Vale cycle strategy.

#### Vale of White Horse Local Plan 2031: Part 2, Inspector's Report (2019)

2.4.14 An Inspector's Report for the Local Plan 2031: Part 2 was published in June 2019, assessing the Local Plan. The report concluded that it *"provides an appropriate basis for the planning of the district alongside the existing Vale of White Horse Local Plan: Part 1 provided that a number of main modifications are made to it".* 

#### South Oxfordshire Local Plan 2035 (2020)

- 2.4.15 The South Oxfordshire Local Plan was adopted in December 2020 and sets out the vision and strategy for the area up to 2035.
- 2.4.16 Objective 4 of the Local Plan is relevant as it states that it should ensure that essential infrastructure is delivered to support our existing residents and services as well as growth and to make sustainable transport a more attractive and viable choice whilst recognising that car travel will continue to be important.

- 2.4.17 The relevant policies stated in the Local Plan are the following:
  - Policy STRAT1: The Overall Strategy
    - Development proposals should be in line with the overall strategy for South Oxfordshire.
       This includes "focusing major new development in Science Vale including Didcot Garden Town and Culham so that this area can play an enhanced role in providing homes, jobs and services with improved transport connectivity."
  - Policy TRANS1b: Supporting Strategic Transport Investment
    - "The Council will work with Oxfordshire County Council and others to:
      - deliver the transport infrastructure which improves movement in and around Didcot, including measures that help support delivery of the Didcot Garden Town; ii) support measures identified in the Local Transport Plan for the district including within the relevant area strategies;
      - support delivery of the safeguarded transport improvements as required to help deliver the development required in this Plan period and beyond;
      - understand any cross-border transport impacts from development and plan for associated mitigation."
  - Policy TRANS2: Promoting Sustainable Transport and Accessibility
    - "The Council will support, where relevant, sustainable transport improvements in the wider Didcot Garden Town area and in and around Oxford, particularly where they improve access to strategic development locations".
  - Policy TRANS3: Safeguarding of Land for Strategic Transport Schemes
    - States that land is safeguarded to support the delivery of identified transport schemes, including those forming this planning application (not exhaustive list)::
      - Clifton Hampden Bypass
      - A new Thames road crossing between Culham and Didcot Garden Town
      - Science Bridge, Didcot

#### South Oxfordshire Infrastructure Delivery Plan (2019)

- 2.4.18 The Infrastructure Delivery Plan (IDP) was produced to support the South Oxfordshire Local Plan 2034 Final Publication Version 2 which has now been adopted and identifies the infrastructure that is needed to support future growth in South Oxfordshire until 2035. The current IDP was last updated in January 2019 and supersedes the previous IDP published in 2017.
- 2.4.19 The IDP is considered to be a 'live document' meaning it will be regularly updated and monitored as new schemes are completed or new infrastructure requirements are identified.
- 2.4.20 In order to support the Didcot Garden Town the County Council has secured funding for the delivery of major transport infrastructure including, a new road crossing over the Thames between Culham and Didcot, capacity enhancements to the A4130 and a new 'Science Bridge' improving access to growing areas of Didcot and for a bypass through of Clifton Hampden. This planning application is for that infrastructure.

The Planning Inspectorate: Report on the Examination of the South Oxfordshire Local Plan 2011-2034 (2020)

2.4.21 This report predominantly focusses on the housing sites proposed, and whether the Plan's preparation had complied with the duty to co-operate. It proposed main modifications to the Plan to make it sound and capable of adoption. In relation to infrastructure, which includes this Scheme, the policies are found to be sound. A main modification (MM51) is proposed which further highlights the importance and policy standing of this Scheme, by adding it to the "list of supported projects". The relevant paragraphs of the report related to the Scheme are copied below:

<sup>1</sup>209. The plan's spatial strategy and its housing and employment provision will require adequate infrastructure to make it effective. The Council's Infrastructure Delivery Plan Update (April 2020) (Document PSD27) focuses on the Plan's strategic allocations and is supported by an updated Financial Viability Assessment Report and associated documents (PSD52, PSD52.1 and PSD53). The Infrastructure Delivery Plan Update is a thorough document that contains a list of infrastructure requirements for the allocations. Not all the costs can be known, because the allocations are strategic and will need to be worked up in detail through masterplans, and some of the infrastructure is not fully designed and costed. This is inevitable with long term masterplans and strategic allocations, and does not indicate any defect in either the viability assessment or the plan.'

213. The set of documents comprising the Evaluation of Transport Impacts (documents TRA06 to TRA06.6.1) examined various development scenarios and their transport impacts, and the evaluation underpins the range of transport improvements required by the Plan in connection with the allocations.

214. The success of the Housing Infrastructure Fund bid will bring about early delivery of a new crossing of the River Thames between Culham and Didcot, a bypass of Clifton Hampden, capacity enhancements to the A4130, and a new 'Science Bridge', which will enable STRAT8, STRAT9 and STRAT10 to proceed. They are part of a wider highway strategy to support the delivery of housing growth in the wider Didcot Garden Town area and to mitigate the impact of existing, approved and allocated developments.'

216. Policy TRANS1b: Supporting Strategic Transport Investment sets out the ways in which the Council intends to support such investment, and to ensure the policy is fully up to date, **MM51** adds the schemes that are linked to the Housing Infrastructure Funding to the list of supported projects. It also adds support for the re-opening of the Cowley Branch Line for passenger traffic which has the potential to provide an additional sustainable transport choice for sites STRAT11 and STRAT12.

217. Policy INF1: Infrastructure Provision provides a strategy for infrastructure delivery within South Oxfordshire, developed in partnership with Oxfordshire County Council who are responsible for education and highways. It requires new development to be supported by appropriate infrastructure, both on-site and off-site. Infrastructure required as a consequence of development, and provision for its maintenance, will be secured through planning conditions, obligations and other agreements and funding through the Community Infrastructure Levy. A clarification is inserted into Policy INF1 by **MM49** to the effect that where external forward funding for infrastructure necessary for development has been secured (for example from the Housing Infrastructure Fund), it will be recovered from the development. This is to assist the County Council to recycle funding to help support other future transport improvements, and is necessary to ensure an effective policy towards the provision of infrastructure.'

'226. Subject to the main modifications described above, the plan's policies, proposals and strategic allocations are viable and its infrastructure policies are sound.'

#### **Didcot Garden Town Delivery Plan (2017)**

- 2.4.22 This plan recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire, so even if the resident's movements around the town remain unchanged, town-wide journeys by car will double. This means that infrastructure investment is required, in terms of highways, pedestrian and cycle routes.
- 2.4.23 The east-west movement corridors like the A4130 and the Science Bridge have been identified as one of the key proposals to achieving sustainable movement across the area. The Clifton Hampden Bypass and the Didcot to Culham River Crossing are also identified in the Delivery Plan to encourage sustainable movement in the area.
- 2.4.24 A new cycle route between Harwell, Didcot and Culham, referred to as the Garden Line, has also been identified in the Delivery Plan. This is proposed to include upgrading of the route to Culham and a new river crossing to the east of the railway line.

#### 2.5 Other Policy and Guidance

#### The Strategic Road Network – Planning for the Future (September 2015)

2.5.1 Highways England document '*The Strategic Road Network – Planning for the Future*' (September 2015) provides guidance on the requirements for Transport Assessments and consideration of impacts on the SRN. Regarding assessment years, it states that assessments should be carried out for the following:

- The development and construction phase; and
- The opening year, assuming full build out and occupation; and
- Either a date ten years after the date of registration of the associated planning application or the end of the Local Plan period (whichever is the greater).

The assessment at opening will be used for the determination of impact mitigation needs whilst the latter is necessary to determine the risk which will transfer to us.

Transport for New Developments: Transport Assessments and Travel Plans (March 2014)

- 2.5.2 OCC requirements for Transport Assessments are set out in the document *'Transport for New Developments: Transport Assessments and Travel Plans'* (March 2014). The document includes a Scoping for Transport Assessment Form, to be completed by the applicant and submitted to the highway authority. The form includes the following under 'Assessment years':
  - Existing;
  - Year of opening;
  - Design Year;
  - Other sensitivity tests required, e.g. phasing
- 2.5.3 The OCC guidance refers to the methodology set out in DfT publication 'Guidance on Transport Assessments' (March 2007). This document states: 'For the SRN (Strategic Road Network), the future year should normally be ten years after registration of a planning application for the development, in line with the forward horizon of the RTS (Regional Transport Strategy). Should the development take place over a longer period than the horizon of the wider planning framework, a longer period of assessment will need to be agreed with the HA'.
- 2.5.4 The 'Guidance on Transport Assessments' document has now been superseded by MHCLG guidance 'Travel Plans, Transport Assessments and Statements'. With regard to assessment years, the MHCLG guidance states that 'The timeframe that the assessment covers should be agreed with the local planning authority in consultation with the relevant transport network operators and service providers.'

#### **Design Manual for Roads and Bridges (2020)**

2.5.5 The Design Manual for Roads and Bridges (DMRB) identifies the design standards for road layouts in the United Kingdom.

#### LTN 1/20 Cycle Infrastructure Design (2020)

- 2.5.6 This Local Transport Note provides guidance and good practice for the design of cycle infrastructure. LTN 1/20 also replaces LTN 1/12: Shared Use Routes for Pedestrians and Cyclists.
- 2.5.7 The key principles of this guidance are the following:
  - Ensuring cycle infrastructure is accessible for all;
  - Cycles should be treated as vehicles and separately from pedestrians;
  - Cyclists must be physically separated from high volume vehicular traffic;
  - Using side street routes that have been closed to through traffic as an alternative to segregated cycle facilities;
  - Cycle infrastructure should be designed for all forms of cycles and high volumes of cycles; and
  - Cycle schemes must be legible and understandable.

#### Department of Transport Gear Change: A Bold Vision for Cycling and Walking (2020)

- 2.5.8 This plan describes the vision for England to increase walking and cycling across the country. It sets out the actions required at all levels of government to make this a reality, grouped under four themes:
  - Better streets for cycling and people;
  - Putting cycling and walking at the heart of transport, place-making, and health policy;

- Empowering and encouraging local authorities;
- Enabling people to cycle and protecting them when they do.

## 3. Baseline Conditions

#### 3.1 Introduction

- 3.1.1 This section provides details of the existing baseline transport conditions relevant to the development proposals.
- 3.1.2 The proposed HIF1 Scheme is located to the north of Didcot and runs between Milton Gate and Clifton Hampden as shown in Figure 3.1. The HIF1 Scheme is made up of four components:
  - A4130 Widening;
  - Didcot Science Bridge;
  - Didcot to Culham River Crossing; and
  - Clifton Hampden Bypass.
- 3.1.3 Further details of the development proposals are provided in Section 4 of this report.

Figure 3.1: Scheme Location



3.1.4 The following section considers the baseline conditions with respect to the following:

- Walking, Cycling and Horse Riding;
- Public Transport;
- Highway Network;
- Traffic Data;
- Junction Capacity; and
- Road Safety.

## 3.2 Walking, Cycling and Horse-riding

#### Walking and Cycling Facilities and Routes

- 3.2.1 Key origins/destinations for individuals in the area include Culham Science Centre, Milton Park and Didcot. There is currently a lack of direct and attractive walking and cycling routes to these locations to encourage residents / employees to use these modes. For example, the existing route between Didcot and the Culham Science Centre is along NCN route 5 via Long Wittenham to Clifton Hampden and along the A415 Abingdon Road. However, part of NCN route 5 is not lit and are therefore unattractive to pedestrians and cyclists when it is dark due to feeling unsafe. In addition, there is no continuous provision of footpaths for pedestrians to complete this route without walking on the carriageway.
- 3.2.2 The lack of walking and cycling connectivity between key residential and employment areas is reflected in the proportion of people who walk and cycle to work in Didcot. Table 3.1 compares mode share data for the journey to work from the 2011 Census for Oxfordshire as a whole, Oxford and Didcot. The data represents mode share for residents in these areas. The combined walk and cycle mode share for Didcot is 15.6%, significantly lower than Oxford at 38% and even lower than Oxfordshire as a whole, at 20.9%. Bus use is also low, and as a consequence car driver mode share is above the average for Oxfordshire and significantly higher than Oxford.

Mode	Oxfordshire Oxford		Didcot	
Underground, metro, light rail, tram	0.2%	0.3%	0.1%	
Train	3.2%	2.7%	7.3%	
Bus, minibus or coach	7.5%	17.4%	4.0%	
Taxi	0.3%	0.4%	0.2%	
Motorcycle, scooter or moped	0.9%	0.7%	0.9%	
Driving a car or van	61.8%	36.2%	66.3%	
Passenger in a car or van	4.6%	3.4%	5.3%	
Bicycle	7.7%	18.7%	4.7%	
On foot	13.2%	19.3%	10.9%	
Other method of travel to work	0.6%	0.8%	0.4%	
TOTAL	100.0%	100.0%	100.0%	

#### Table 3.1: Journey to Work Mode Share

Source: 2011 Census, dataset QS701EW – Method of Travel to Work.

- 3.2.3 Between the Milton Interchange roundabout and the rail underpass at Backhill Tunnel (south of Milton Park), up to 3m wide shared use cycle-pedestrian footways are present on both sides of the A4130 carriageway. However, there is no shared use on the northern side nearer Milton Interchange. There is no northern footway along the A4130 east of the tunnel. There is a Toucan crossing at this location and it provides a connection between the northern and southern footways of the A4130 and the Backhill Tunnel which connects to Milton Park for pedestrians and cyclists only.
- 3.2.4 Between the Backhill Tunnel and the A4130/B4493/Mendip Heights roundabout a 2.5m wide shared use footway is present along the southern frontage. This has poor separation from the high-speed road, and NMUs experience buffeting from vehicles passing by, especially HGVs. This footway is shared by cyclists and pedestrians and links to the Public Rights of Way located to the south of the A4130.
- 3.2.5 There are poor NMU facilities linking to Manor Overbridge. There is a shared footway/cycleway along the western side of the A4130 between the A4130 / Milton Road / Basil Hill Road roundabout and the A4130 / Hawksworth / Purchas Road roundabout with a footway also present on the eastern side of the carriageway.
- 3.2.6 Due to the severance created by the River Thames and the historic road network, there are poor opportunities for walking and cycling north / south in this area. For example, residents of Didcot wishing to cycle to Culham Science Centre must use indirect routes, relying on the main carriageway for significant portions.
- 3.2.7 Along A415 Abingdon Road there is a 1.3m wide shared footway / cycleway along the northern side of the carriageway between Thame Lane and Culham Science Centre. There is a 1.5m wide shared

footpath / cycleway on the south side of the A415 Abingdon Road from Culham Science Centre to Clifton Hampden.

- 3.2.8 Further discussion and photographs of the existing NMU facilities are included in Section 6.2 NMU Impacts.
- 3.2.9 There are two National Cycling Network (NCN) routes across the Didcot area, as shown in Figure 3.2.

Figure 3.2: National Cycling Network



Source: https://www.sustrans.org.uk/national-cycle-network

- 3.2.10 The National Cycle Network Route 5 connects the area with the Didcot Parkway Station. NCN Route 5 is a long-distance route connecting Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor.
- 3.2.11 National Cycle Network Route 544 connects Didcot and Wantage. It is a 12-mile route on quiet roads, byways and purpose-built paths.

#### Figure 3.3: Local Public Rights of Way



- 3.2.12 Footpath 243/3/10 is located approximately 1.1km to the east of Milton Interchange and runs in a north-south direction connecting to Harwell to the south.
- 3.2.13 Bridleway 243/1/10 is located on the south side of the A4130, 1.6km east of Milton Interchange and runs in a north-south direction providing a bridge over the A34 to the south connecting to Harwell.
- 3.2.14 Bridleway 189/4/10 runs between Didcot Parkway station and the A4130 / Basil Hill Road / Milton Road roundabout. This connects to bridleway 189/27/10 which runs in a north-south direction along the A4130 to the A4130 / Hawksworth / Purchas Road Roundabout. The 189/27/10 bridleway joins to the 373/24/40 bridleway providing a connection to Sutton Courtenay.
- 3.2.15 Bridleway 189/26/20 runs along Collett between Basil Hill Road and the A4130 / Collett / New Link roundabout. Bridleway 106/3/10 runs in a north-south direction between Appleford Crossing and the A4130 / Collett / New Link roundabout.
- 3.2.16 Restricted byway 106/4/10 runs in an east-west direction connecting Appleford Crossing to byway 373/10/70 which provides a route to Sutton Courtney.
- 3.2.17 Footpaths 106/8/10, 373/31/10 and 373/12/50 provide a route between Appleford and Sutton Courtney.
- 3.2.18 Footpath 183/11/80 runs along the north side of the River Thames forming part of the Thames Path which runs between Woolwich and Kemble in the Cotswolds.
- 3.2.19 Footpath 171/10/10 is located approximately 200m to the west of the A415 Abingdon Road / High Street junction on the north side of the A415. This footpath is approximately 144m long and runs in a north-south direction connecting to Thame Lane and the Culham Science Centre campus. Footway 171/2/10 is located to the east of Clifton Hampden Village Hall and connects to the 171/10/10 footpath.
- 3.2.20 Footpath 171/4/10 is located approximately 550m to the east of the A415 / B4015 junction.

#### Walking, Cycling and Horse Riding Assessment and Review (WCHAR)

- 3.2.21 AECOM has undertaken four WCHAR reports for each element of the proposed Scheme, in accordance with the Design Manual for Roads and Bridges GG142. The purpose of the WCHAR is to facilitate the inclusion of all walking, cycling and horse-riding modes in the highway scheme design process from the earliest stage, enabling the design team to identify opportunities for improved facilities and integration with the local and national networks throughout the design process.
- 3.2.22 As the proposed Scheme does not form part of the trunk road network, a 1km radius of the Scheme has been deemed an appropriate study area for the WCHAR.
- 3.2.23 Walking, cycling and horse-riding surveys were undertaken between Monday 11<sup>th</sup> November and Sunday 17<sup>th</sup> November 2017. The locations of the surveys are identified below and illustrated in Figure 3.4. The WCHAR Reports are provided in Appendix A.
  - 1. Backhill Tunnel / A4130 Junction
  - 2. Sir Frank Williams Avenue / A4130 Junction
  - 3. Cow Lane/ A4130 Junction
  - 4. A4130/ B4493/ Mendip Heights Roundabout
  - 5. Milton Road / Purchas Road / A4130 / Basil Hill Road (PRoW 189/27/10)
  - 6. A4130 / Purchas Road / Hawksworth (PRoW 189/27/10)
  - 7. Culham Railway Station Entrance
  - 8. Station Road / Abingdon Road Junction
  - 9. Thames Path at Tollgate Road, Culham (PRoW 183/11/80)
  - 10. Appleford Railway Station
  - 11. Appleford Level Crossing (PRoW 106/4/10)
  - 12. A4130 and Collett Road Junction
  - 13. Junction of B4015
  - 14. Footpath North of Clifton Hampden (PRoW 171/4/10)
  - 15. Footpath, junction on A415 (PRoW 171/2/10)
  - 16. Culham Science Centre / A415 Junction
  - 17. Station Road / A415 Junction

### Figure 3.4: WCHAR Survey Locations



3.2.24 The total NMUs observed over the seven day survey period at each of the survey locations are shown in Figure 3.5 to Figure 3.21 below.



#### Figure 3.5: Backhill Tunnel / A4130 Tunnel - Total NMUs observed (7-day survey period)

Map data © Google 2021

#### Figure 3.6: Sir Frank Williams Avenue / A4130 Junction - Total NMUs observed (7-day survey period)



Map data © Google 2021

#### Figure 3.7: Cow Lane/ A4130 Junction - Total NMUs observed (7-day survey period)



Map data © Google 2021

#### Figure 3.8: A4130/ B4493/ Mendip Heights Roundabout - Total NMUs observed (7-day survey period)



Map data © Google 2021

# Figure 3.9: Milton Road / Purchas Road / A4130 / Basil Hill Road (PRoW 189/27/10) - Total NMUs observed (7-day survey period)



Map data © Google 2021

# Figure 3.10: A4130 / Purchas Road / Hawksworth (PRoW 189/27/10) - Total NMUs observed (7-day survey period)



Map data © Google 2021

#### × 8 53 30 × 8 5 16 **∱** 5 С **∱** 3 53 31 Towards Culham A 杨 20 Railway Station Station Rd Towards Station Rd Culham Village Station Ref X 1 杨 50 Towards Culham В No.1 Site /Culham 15 Science Centre 杨 29 A415

#### Figure 3.11: Culham Railway Station Entrance - Total NMUs observed (7-day survey period)

Map data © Google 2021

#### Figure 3.12: Station Road / Abingdon Road Junction - Total NMUs observed (7-day survey period)



Map data © Google 2021

# Figure 3.13: Thames Path at Tollgate Road, Culham (PRoW 183/11/80) - Total NMUs observed (7-day survey period)



Map data © Google 2021

#### Figure 3.14: Appleford Railway Station - Total NMUs observed (7-day survey period)



Map data © Google 2021



#### Figure 3.15: Appleford Level Crossing (PRoW 106/4/10) - Total NMUs observed (7-day survey period)

Map data © Google 2021





Map data © Google 2021


## Figure 3.17: Junction of B4015 - Total NMUs observed (7-day survey period)

Map data © Google 2021

Figure 3.18: Footpath North of Clifton Hampden (PRoW 171/4/10) - Total NMUs observed (7-day survey period)



Map data © Google 2021



## Figure 3.19: Footpath, junction on A415 (PRoW 171/2/10) - Total NMUs observed (7-day survey period)

Map data © Google 2021

Figure 3.20: Culham Science Centre / A415 Junction - Total NMUs observed (7-day survey period)



Map data © Google 2021

#### Towards Culha No.1 Site G A D 656 🚲 160 \$ \$ 905 A 49 **1**20 杨 19 5 85 杨 t 157 🚲 49 杨 3 杨 1 杨 68 32 杨 431 Ŕ 122 b 2 Towards Culham 杨 4 Science Centre, Ε 杨 440 t 21 Main Avenue Towards 杨1 С Culham Village В 杨子 3 杨 54 杨后 私約 38

#### Figure 3.21: Station Road / A415 Junction - Total NMUs observed (7-day survey period)

Map data © Google 2021

3.2.25 General observations regarding walking and cycling movements in the WCHAR Report found:

- NMU flows were generally higher during 0800-0900 and 1630-1730 along the A415 Abingdon Road suggesting that this is used as a commuter route.
- Pedestrians using public rights of way were mainly recorded during the weekend.

## 3.3 Public Transport Accessibility

#### Bus

- 3.3.1 There are 10 existing bus stops (five pairs) located along the length of the Proposed Scheme or within close proximity. There are two bus stops on the A4130 between Milton Gate and Backhill Tunnel with shelters. In Milton Park along Park Drive there is a pair of bus stops, both with bus shelters. There is a pair of bus stops on Basil Hill Road, both with bus shelters and live bus information is available at the westbound bus stop. There are two bus stops on the A415 Abingdon Road opposite the Culham Science Centre, both with bus shelters. There are two bus stops on the A415 Abingdon Road opposite Clifton Hampden Village Hall, a bus shelter is provided at the westbound bus stop only.
- 3.3.2 The bus stops are shown in Figure 3.22 below.

## Figure 3.22: Public Transport Facilities



3.3.3 Table 3.2 identifies the bus routes that serve the bus stops along or near the Proposed Scheme.

Table 3.2: Loca	Bus Stops a	nd Bus Routes
-----------------	-------------	---------------

Bus Stop Name	Direction	Bus Routes
Milton Park, Sutton Courtenay	Eastbound	33, 99C, X2, X32, X36
Road Milton Park, Stop 14	Westbound	33, 99A, X2, X32, X36
Milton Coto	Eastbound	99A
Milton Gate	Westbound	99C
Fault all Manage David	Eastbound	33, 99C, X2, X32, X36
	Westbound	33, 99A, X2, X32, X36
Saianaa Cantra Entranca	Eastbound	45, 95
Science Centre Entrance	Westbound	45, 95
Clifton Homodon \/illogo Holl	Eastbound	45, 95
	Westbound	45, 95

## 3.3.4 Table 3.3 identifies the route and frequency of these services.

## Table 3.3: Frequency of Local Bus Routes (Single Direction)

Service	Route	AM Peak 0800-0900	Off-Peak <sup>1</sup>	PM Peak 1700-1800
33	Abingdon – Sutton Courtenay – Milton Park – Didcot – Wallingford	1	1	2
99A	Didcot – Milton Park – Great Western Park – Didcot	0	1	2

<sup>1</sup> Average number of buses per hour taken between 0900-1700

Service	Route	AM Peak 0800-0900	Off-Peak <sup>1</sup>	PM Peak 1700-1800
99C	Didcot – Great Western Park – Milton Park – Didcot	2	1	0
X2	Oxford – Abingdon – Steventon – Milton Park – Didcot	3	3	3
X32	Oxford – Milton Park – Didcot – Harwell – Wantage	2	2	2
X36	Wantage – Grove – Steventon – Milton Park – Didcot	1	2	2
45	Abingdon – Culham Science Centre – Berinsfield – Cowley	2	0.5	2
95/ 95B	Didcot – Culham Science Centre	1	0	1

3.3.5 Bus routes in Didcot are shown in Figure 3.23 (extract from Thames Travel website; https://www.thames-travel.co.uk/maps-guides/).



#### Figure 3.23: Bus Routes in Didcot

- 3.3.6 From January 2021 the 33, X2 and X32 bus services have been running on enhanced timetables. The X32 service operates every 30 minutes between Oxford and Wantage via Didcot. The 33 service operates every 30 minutes between Wallingford and Didcot Parkway with one bus per hour continuing to Abingdon via Sutton Courtenay and Culham. The X2 service operates every 20 minutes between Oxford, Abingdon and Didcot.
- 3.3.7 Due to the severance created by the River Thames and the historic road network with limited crossings, there are poor opportunities for bus routes to offer good journey time reliability north / south in this area due to existing congestion, particularly during the AM and PM peaks. Prior to January 2021, the only service operating over Clifton Hampden Bridge was a less-than-daily service providing access to Didcot from local villages. Route 95 is a new service which commenced in January 2021 to provide a peak hour service from Didcot to Culham Science Centre two morning journeys and three evening journeys. There is no off-peak service. The service is funded using S106 contributions from Culham Science Centre. Between peak times, three journeys in each direction operate a similar route from Didcot to Clifton Hampden, where they then go to Berinsfield (instead of Culham Science Centre). These journeys are numbered 95B and are operated with the bus that operates route 95, which would otherwise be unused.
- 3.3.8 The 33 is the only bus service that uses the Culham Cut and Sutton Bridge crossing of the River Thames. It operates a broadly hourly service running between Didcot and Abingdon via Sutton Courtenay and Culham village.

#### Rail

- 3.3.9 The nearest rail stations are Didcot Parkway, Appleford and Culham Stations. The Proposed Scheme passes within 1.8km of Didcot Parkway. The station serves the Great Western Mainline and Cherwell Valley Line, providing services to London Paddington, Oxford, Ealing Broadway, Bristol Temple Meads, Banbury and Cheltenham Spa. This station has an average of ten services per hour.
- 3.3.10 Appleford Station is located along the B4016 to the east of the Proposed Scheme and serves the Cherwell Valley Line, providing services to Banbury, Didcot and Oxford and has an average of one-two services per hour in the peaks, and fewer off-peak.
- 3.3.11 Culham Station is located in between Culham and Clifton Hampden and is served by Great Western Railway. Culham Station serves the Cherwell Valley Line, providing services to Banbury, Morton-in-Marsh, Oxford and Reading and has an average of one or two services per hour in the peaks, and fewer off-peak.

#### 3.4 Highway Network

- 3.4.1 Within the extent of the Scheme, the A4130 is a dual carriageway between the Milton Interchange Roundabout and the Milton Gate junction, this is subject to 40mph speed limit.
- 3.4.2 The A4130 between the A4130/ B4493/ Mendip Heights roundabout and to the east of the Backhill Tunnel is subject to the national speed limit.
- 3.4.3 The B4493 is a 40mph single carriageway road which runs between the A4130 and Station Road. There is a 2m wide shared footway and cycleway on the south side of the carriageway with street lighting present.
- 3.4.4 Mendip Heights is a 30mph single carriageway road which serves a residential area. A 2m wide shared footway and cycleway are present on the eastern side of the carriageway with street lighting.
- 3.4.5 The A4130 between the A4130/ B4493/ Mendip Heights roundabout and A4130/ Milton Road/ Basil Hill Road roundabout is a 50mph single carriageway road with a narrow circa. 1m footway present on the eastern side of the carriageway. Street lighting is present along the A4130.
- 3.4.6 Milton Road is a 40mph single carriageway road with a 2.5m wide shared footway and cycleway along the southern side of the carriageway. Street lighting is present.
- 3.4.7 Basil Hill Road is a 30mph single carriageway road with 2.2m shared footway and cycleway on the northern side of the carriageway near the A4130/ Milton Road/ Basil Hill Road roundabout which leads into a 0.8m wide on-street cycle lane. A 0.8m cycle lane is also present on the southern side of the carriageway with street lighting provided.
- 3.4.8 The A4130 between the A4130/ Milton Road/ Basil Hill Road roundabout and the A4130/ Purchas Road/ Hawksworth junction is a 50mph single carriageway road. There is a 2.2m footway present on both sides of the carriageway with street lighting provided.
- 3.4.9 Hawksworth is a 30mph road which serves an industrial estate. Footways 1.5m wide are present on both sides of the carriageway with street lighting.
- 3.4.10 The A4130 between the A4130/ Purchas Road/ Hawksworth junction and the A4130/ Collett Roundabout is a 50mph single carriageway road. A narrow 1m footway is present on the eastern side of the carriageway with street lighting provided.
- 3.4.11 The B4016 within the extent of the Scheme is a single carriageway road with a national speed limit restriction that runs in an east-west direction between Appleford and Sutton Courtenay.
- 3.4.12 The A415 Abingdon Road is a single carriageway road which runs between Abingdon and Burcot. This road is subject to a 30mph speed limit through Clifton Hampden and a 40mph speed limit through Burcot. There is a 2m shared footway/ cycleway along the northern side of the carriageway between Thame Lane and Culham Science Centre. A 2m wide shared footway/cycleway is present on the south side of the A415 Abingdon Road from Culham Science Centre to Clifton Hampden. Street lighting is present at the Culham Science Centre.
- 3.4.13 The key existing junctions within the Scheme extents are:

- A34/ A4130 grade separated Milton interchange includes a five-arm signalised hamburger roundabout with a three-lane circulatory flaring to four lanes between the A34 north approach and A34 south exit arms. The A34 north approach widens to four lanes with a dedicated lane for Milton Park. There is a cut-through from the A4130 east arm providing access to the A34 northbound. The A34 approach arm flares to three lanes at the approach including a slip road leading to the A34 southbound arm. Park Drive provides access to Milton Park flaring to four lanes at the approach to Milton Interchange;
- A4130/ Milton Gate is a signalised priority T-junction. Milton Gate is the minor arm at this junction, providing access to several car dealerships and food retail units;
- A4130/ B4493/ Mendip Heights roundabout has a one lane circulatory with all arms having one lane apart from the A4130 west arm that flares to two lanes at the approach;
- A4130/ Milton Road/ Basil Hill Road roundabout has a one lane circulatory with the A4130 south arm widening to two lanes at the approach;
- A4130/ Hawksworth/ Purchas Road roundabout has a one lane circulatory with the A4130 north and south arms widening to two lanes at the approach;
- A4130/ Collett roundabout is a single circulatory roundabout with the A4130 and Collett approach arms widening to two lanes at the approach;
- Culham Station access junction is a priority T-junction with single lanes at each arm;
- The eastern access to the Culham Station is a priority junction with a right turn ghost island;
- Culham Science Centre priority T-junction with right turn ghost island. The Culham Science Centre access widens to two lanes at the approach with a dedicated right turn lane;
- A415/ High Street (Clifton Hampden) and A415/ B4015 Oxford Road is a staggered signalised junction. The A415 west arm widens to two lanes at the junction to provide a narrow dedicated right turn lane. The southern arm from long Wittenham travels over the historic narrow bridge which operates under signalised shuttle-working. The northern and eastern arms have single lane approaches, providing access to north Clifton Hampden/A4074 and the Burcot/Berinsfield/A4074 respectively; and
- The existing river crossing at Culham Village (Sutton Bridge and Culham Cut) is a historic narrow bridge crossing which operates under signalised shuttle-working. At the northern end is the A415/ Tollgate Road signalised junction and at the southern end B4016 Appleford Road/ Abingdon Road priority T-junction.

#### 3.5 Junction Capacity Assessments

- 3.5.1 Capacity assessments of the junctions within the study area have been undertaken for the 2020 base year, using the following industry standard assessment tools:
  - Junctions 9 for priority junctions and roundabouts; and
  - LinSig for signalised junctions.
- 3.5.2 Figure 3.24 illustrates which junctions have been assessed below. The 2020 base year assessments are for the off-site junctions only (prefix 'OFF'). New or amended junctions that form part of the Scheme have the prefix 'SCH'.

#### Figure 3.24: Junction Locations



- 3.5.3 The following section provides a summary of the junction capacity modelling results, based on the modelled 2020 traffic flows, and provides a commentary on the junction operation.
- 3.5.4 Traffic data for the junction assessments has been obtained from the Didcot Paramics microsimulation model. This model was jointly funded by OCC, VoWHDC and SODC. The model is maintained and run on behalf of OCC by Systra. OCC/Systra provided the AM and PM peak hour junction turning movements for each of the scenarios considered. The 2020 modelled flows were calculated by adding housing and employment completions from 2017 to 2020, as advised by the Local Planning Authorities, to the Paramics 2017 base model. See 'Figure 5.2 Modelling Approach Methodology Diagram' for more information on the modelling methodology.
- 3.5.5 The performance of the priority junctions and roundabouts has been assessed by considering the ratio to flow capacity (RFC) for each of the approach arms. An RFC value of 0.85 or below indicates that the arm is operating within design capacity. An RFC value of 0.85 to 1.00 indicates that the approach is operating above design capacity but within theoretical capacity, while an RFC value of 1.00 or more indicates that the arm is operating above theoretical capacity and significant queuing and delays may occur.
- 3.5.6 Traffic flows have been entered into the models as 'one hour/ODTAB' profile which is a synthesised profile created from the peak hour Paramics turning movements. This profile includes 15 minutes

'warm up' and 'cool down' periods either side of the one hour traffic flows. This is to ensure that the model is sufficiently saturated at the beginning of the modelled hour and actual conditions on the network are simulated effectively. This also provides a level of robustness against a flat demand profile that can be used for congested junctions.

- 3.5.7 The performance of the signalised junctions has been assessed by considering the Degree of Saturation (DoS) for each of the approach arms. A DoS value of 90% or below indicates that the arm is operating within design capacity. A DoS value of 90% to 100% indicates that the approach is operating above design capacity but within theoretical capacity, while a DoS value of 100% or more indicates that the arm is operating above theoretical capacity where significant queuing and delays may occur. The results for the LinSig models also present the Mean Max Queue (MMQ) in PCUs. The Practical Reserve Capacity (PRC) of the signalised junctions is also presented in the modelling results tables along with the cycle time for the AM and PM peak hours.
- 3.5.8 For the signalised junctions, information was obtained from the local highway authority, OCC, regarding the existing signal timings including phasing, staging and intergreens. Junction operation has been optimised in LinSig, and cycle times have been set such that maximum green times for each phase as identified in the controller specification for the relevant time period are not exceeded. The input parameters for the junctions (cycle time, phase maximum, intergreens, etc) have been replicated for the 2024 and 2034 modelling without and with the Scheme, in order to provide a like-for-like comparison.
- 3.5.9 The DoS reported for signalised junctions is the equivalent to RFC reported for priority junctions and roundabouts for presenting the junction modelling results.
- 3.5.10 Geometric parameters for off-site junctions have been obtained from OS mapping.
- 3.5.11 A summary of the 2020 base junction capacity assessment results is set out in Table 3.4, with more detailed results provided in the following paragraphs. Milton interchange is currently subject to some congestion during the peaks, and due to the complexity of this junction the impact of the Scheme is considered separately (Section 6.9).

No.	Junction	Туре	AM	PM
OFF 1	A34 / A4130 Milton interchange	Grade separated interchange	Refer to Section interc	on 6.9 for Milton hange
OFF 2	A4130 / Service Area	Priority junction	0.60	0.55
OFF 3	A4130 / Milton Gate	Signalised junction	+7.4%	-2.0%
OFF 4	A4130 / B4493 / Mendip Heights	Roundabout	0.62	0.73
OFF 5	A4130 / Basil Hill Road / Milton Road (Power Station)	Roundabout	0.79	1.16
OFF 6	A415 / High Street (Clifton Hampden)	Signalised junction	0440/	0700/
OFF 7	A415 / B4015 Oxford Road (Clifton Hampden)	Signalised junction	-241%	-273%
OFF 8	Harwell Road / Milton Road / High Street	Mini roundabout	0.39	0.54
OFF 9	High Street / Church Street / Brook Street Junction	Priority junction	0.58	1.19
OFF 10	B4016 Appleford Road / Abingdon Road	Priority junction	00.0%	4.4.40/
OFF 11	A415 / Tollgate Road	Signalised junction	-22.3%	-14.1%
OFF 12	A4130 / Lady Grove	Priority junction	0.68	0.97
OFF 13	Lady Grove / Sires Hill	Priority junction	0.95	0.48
OFF 14	Sires Hill / Didcot Road	Priority junction	0.26	0.29

#### Table 3.4: 2020 Base Junction Capacity Assessment Summary (Maximum RFC/PRC)

#### A4130 / Service Area Junction (OFF 2)

3.5.12 Table 3.5 identifies the existing operation of A4130 / Service Area priority junction for the AM peak hour (0800-0900) and PM peak hour (1700-1800). The Junctions 9 (PICADY) model outputs are provided in Appendix B.

#### Table 3.5: Operation of A4130 / Service Area Junction (OFF 2)

Movement	A	л	РМ		
	Max RFC	Queue (Vehicles)	Max RFC	Queue (Vehicles)	
Service Area to A4130	0.60	2	0.55	1	
A4130	0.31	0	0.38	1	

<sup>3.5.13</sup> The results above indicate that the junction operates with RFCs within the satisfactory level of performance in both the AM and PM peaks.

#### A4130 / Milton Gate Signalised Junction (OFF 3)

3.5.14 Table 3.6 identifies the operation of A4130 / Milton Gate signalised junction in 2020. The LinSig model outputs are also provided in Appendix B.

Approach and Movement	A	N	PM		
	DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)	
A4130 West - Left Ahead	59.2%	8.0	40.6%	5.4	
A4130 West - Ahead	59.2%	8.7	42.8%	6.1	
Milton Gate - Right Left	25.0%	1.3	30.3%	1.5	
A4130 East - Ahead	44.3%	5.4	22.9%	4.4	
A4130 East - Ahead Right	88.3%	15.2	91.8%	18.3	
Cycle Time	66 seconds		66 seconds		
PRC	7.4%		-2.0%		

#### Table 3.6: Operation of A4130 / Milton Gate Junction (OFF 3)

3.5.15 The results above indicate that the junction operates within capacity in the AM peak hour with a PRC of 7.4% and a maximum DoS of 88% on the A4130 East ahead and right movement. The junction operates within theoretical capacity in the PM peak hour with a PRC of -2.0% and a maximum DoS of 92% on the A4130 ahead and east movement.

#### A4130 / B4493 / Mendip Heights Roundabout (OFF 4)

3.5.16 Table 3.7 identifies the existing operation of the A4130 / B4493 / Mendip Heights Roundabout in 2020. The Junctions 9 (ARCADY) model outputs are provided in Appendix B.

#### Table 3.7: Operation of A4130 / B4493 / Mendip Heights Roundabout (OFF 4)

1	AI	м	РМ		
Ann	Max RFC Queue (Vehicles)		Max RFC	Queue (Vehicles)	
A4130 (North)	0.49	1	0.66	2	
B4493	0.54	1	0.73	3	
Mendip Heights	0.08	0	0.10	0	
A4130 (West)	0.62	2	0.43	3	

3.5.17 The results indicate that the junction operates within capacity with an RFC of less than 0.85 in both peaks.

A4130 / Basil Hill Road / Milton Road (Power Station) Roundabout (OFF 5)

3.5.18 Table 3.8 identifies the existing operation of the A4130 / Basil Hill Road / Milton Road Roundabout. The Junctions 9 (ARCADY) model outputs are provided in Appendix B.

#### Table 3.8: Operation of A4130 / Basil Hill Road / Milton Road (Power Station) Roundabout (OFF 5)

Arm	А	м	РМ		
	Max RFC	Queue (Vehicles)	Max RFC	Queue (Vehicles)	
A4130 (North)	0.79	4	0.61	2	
Basil Hill Road	0.72	3	0.54	1	
A4130 (South)	0.59	1	0.29	0	
Milton Road	0.56	1	1.16	77	
Access Road	0.08	0	0.12	0	

3.5.19 The results of the junction assessment indicate that the A4130 (South) operates within capacity in the AM peak, with an RFC of less than 0.85. In the PM peak junction capacity is exceeded, with the RFC on the Milton Road approach at 1.16 and a queue of 77 vehicles. This results from the difficulty in turning out from Milton Road due to the high flows in the PM peak, which makes the model very sensitive to the levels of flow for this arm and the reported queue lengths become less reliable.

Clifton Hampden Signalised Junction (OFF 6 & OFF 7)

# 3.5.20 Table 3.9 identifies the operation of A415 / High Street / B4015 Oxford Road staggered signalised junction in 2020. The LinSig model outputs are provided in Appendix B.

#### Table 3.9: Operation of Clifton Hampden Signalised Junction (OFF 6 & OFF 7)

Annuar C. Mariana (	A	vi	РМ		
Approach & Movement	DoS (%)	Queue (PCUs)	DoS (%)	Queue (PCUs)	
A415 Abingdon - Ahead Right Left	194.0%	149	175.7%	185	
Internal Junction link Eastbound - East Ahead Left	62.6%	2	54.3%	2	
A415 Burcot - Ahead Right	307.1%	173	335.8%	194	
Internal Junction link Westbound - West Ahead Left Right	57.1%	6	51.8%	7	
High Street - Right Left Ahead	151.4%	106	159.7%	62	
Watery Lane Plough Inn - Left Right Ahead	0.0%	0	0.0%	0	
B4015 Oxford Road - Left Right	107.6%	19	138.2%	62	
Cycle Time	90 seconds		90 seconds		
PRC	-241.2% -273.1%		.1%		

3.5.21 The results above indicate the junction operates above capacity in both the AM and PM peak hours, with PRCs of -241% and 273% respectively and significant queues reported on the A415 and High Street. The maximum DoS reported is 335.8% on the A415 Dorchester East approach in the PM peak hour.

#### Harwell Road / Milton Road / High Street Mini Roundabout (OFF 8)

3.5.22 Table 3.10 identifies the existing operation of the Harwell Road / Milton Road / High Street Roundabout in 2020. The Junctions 9 (ARCADY) model outputs are provided in Appendix B.

#### Table 3.10: Operation of Harwell Road / Milton Road / High Street Mini Roundabout (OFF 8)

<b>A</b>	A	N	РМ		
Ann	Max RFC	Queue (Vehicles)	Max RFC	Queue (Vehicles)	
High Street	0.39	1	0.26	0	
Harwell Road	0.21	0	0.54	1	
Milton Road	0.27	0	0.17	0	

<sup>3.5.23</sup> The results of the assessment indicate that the junction operates within capacity with a maximum RFC below 0.85 in both peaks.

High Street / Church Street / Brook Street Junction (OFF 9)

3.5.24 Table 3.11 identifies the operation of High Street / Church Street / Brook Street priority junction in 2020. The junction is formed out of three small priority junctions forming a triangle, and each junction has been assessed separately. The Junctions 9 (PICADY) model outputs are provided in Appendix B.

#### Table 3.11: Operation of High Street / Church Street / Brook Street Junction (OFF 9)

Management	АМ		PM	
Movement	Max RFC	Queue (Vehicles)	Max RFC	Queue (Vehicles)
High Street to High Street				
High Street (North) to High Street	0.41	1	0.36	1
High Street (South) to High Street (North)	0.44	1	0.89	7
High Street to Church Street				
High Street to Brook Street/Church Street	0.58	1	1.19	47
Brook Street to High Street	0	0	0	0
High Street to Brook Street				
High Street to Brook Street/Church Street	0.11	0	0.16	0
Church Street to High Street	0.23	1	0.07	0

3.5.25 The results above indicate that the junction operates within capacity with a maximum RFC of less than 0.85 in the AM peak hour. In the PM peak, the junction operates above absolute capacity with a maximum RFC of 1.19 and right turn queue of 47 vehicles. This is a result of the difficulty in turning out of the junction due to the high flows on Brook Street / Church Street and makes the model very sensitive to the levels of flow for this movement. The reported queue lengths therefore become less reliable.

Tollgate Road / Abingdon Road Junctions (OFF 10 and OFF 11)

- 3.5.26 The operation of the B4016 Appleford Road/Abingdon Road junction (OFF 10) and A415 / Tollgate Road junction (OFF 11) have been assessed based on a LinSig network provided by OCC that includes both junctions as well as the traffic signals that control single lane running across the Culham Bridges located between the two junctions.
- 3.5.27 LinSig does not allow for the effect of queuing back from one junction to an adjacent junction and the impact this can have on junction capacity. This is known to occur at the B4016 Appleford Road/Abingdon Road and A415/Tollgate Road junctions. To account for this the model utilises the Underutilised Green Time function within LinSig.
- 3.5.28 Table 3.12 identifies the operation of the Tollgate Road/Abingdon Road junctions in 2020. The LinSig model outputs are provided in Appendix B.

#### Table 3.12: Operation of Tollgate Road / Abingdon Road Junctions (OFF 10 & OFF 11)

	4	M	РМ			
Approach & Movement	DoS (%)	Queue (PCUs)	DoS (%)	Queue (PCUs)		
A415 / Tollgate Road Junction Signals						
Abingdon Rd (E) - Ahead Left	67%	8	103%	37		
Tollgate Road – Right Left	110%	38	99%	16		
Abingdon Rd (W) - Ahead Right	100%	28	92%	10		
Culham Bridges Signals	·	·				
Culham Bridges Northbound - Ahead	110%	51	94%	20		
Culham Bridges Southbound – Ahead	49%	11	93%	24		
Appleford Road / Abingdon Road I	Priority Junction	·				
Appleford Rd (E) – Right Ahead	14%	0	13%	0		
Appleford Rd (W) – Left Ahead	30%	0	33%	0		
Abingdon Road – Left Right	29%	7	46%	18		
Cycle Time	154 / 11	1 seconds	154 / 111 seconds			
PRC (over all lanes)	-22.3%		-1	4.1%		

- 3.5.29 The results above indicate that the network is operating over capacity in both the AM and PM peaks, with PRCs of -22% and -14% respectively. In the AM peak long northbound queues are shown to occur at the Abingdon Road/Tollgate Road junction and at the Culham Bridges. In the PM peak queues are indicated on Abingdon Road (E) arm of the Tollgate Road junction and at the Culham Bridges in both directions.
- 3.5.30 These junctions are complex to model due to the interaction of queuing back between them, particularly the uncontrolled priority junction at the south. For example, the Culham Bridges Northbound AM predicted queue is 51 PCUs which would queue back to/through Appleford Road / Abingdon Road priority junction, however LinSig does not take account of this as shown by the predicted queue of 0 PCU on the Appleford Road (W) arm. There is a known queue on this arm in the AM peak. To further interrogate this, queue lengths have been extracted from the Paramics model to compare how the junction operates across different model platforms. Paramics takes account of the whole modelled network including interaction between adjacent junctions. In Paramics, a vehicle is determined to be in a queue when the speed drops below 4.47 mph and the distance to the vehicle in front is less than 10 metres.

#### Figure 3.25: Culham Crossing Queue Length



3.5.31 Figure 3.25 above shows that the Paramics model indicates a queue in the AM peak extending from the northbound signals before the bridge, back for 500m to 1180m across the 0800-0900 AM peak. This is known locally, with queues often extending past the George & Dragon Public House. The queueing in this area is the subject of OCC's objections to applications of single dwellings on grounds of highway safety, convenience and sustainability. These objections have led to Local Planning Authority (LPA) refusals which have been upheld at appeal by the Planning Inspectorate.

A4130 / Lady Grove Junction (OFF 12)

3.5.32 Table 3.13 identifies the existing operation of A4130 / Lady Grove priority junction in 2020. The Junctions 9 (PICADY) model outputs are provided in Appendix B.

Mariana		АМ	PM		
movement	Max RFC	Queue (Vehicles)	Max RFC	Queue (Vehicles)	
A4130 to Lady Grove (North)	0.52	1	0.15	0	
A4130 to Lady Grove (South)	0.68	2	0.61	2	
Lady Grove (North) to A4130	0.43	1	0.97	19	

#### Table 3.13: Operation of A4130 / Lady Grove Junction (OFF 12)

3.5.33 The results above indicate that the junction operates within capacity in the AM peak. In the PM peak the junction operates within capacity, although the maximum RFC exceeds the desirable maximum of 0.85 on the Lady Grove (North) arm, indicating that the junction is operating at close to its capacity.

#### Lady Grove / Sires Hill Junction (OFF 13)

3.5.34 Table 3.14 identifies the existing operation of Lady Grove / Sires Hill priority junction for the AM peak hour (0800-0900) and PM peak hour (1700-1800). The Junctions 9 (PICADY) model outputs are provided in Appendix B.

#### Table 3.14: Operation of Lady Grove / Sires Hill Junction (OFF 13)

Manager	AM	Λ	PM		
	Max RFC	Queue (Vehicles)	Max RFC	Queue (Vehicles)	
Lady Grove to Sires Hill (East)	0.94	4	0.10	0	
Lady Grove to Sires Hill (West)	0.95	10	0.47	1	
Sires Hill East to Sires Hill (West)	0.17	0	0.48	1	

3.5.35 The results above indicate that the junction operates within capacity in both the AM and PM peak hours. However, the maximum RFC exceeds the desirable maximum of 0.85 in the AM peak hour on the Lady Grove arm, indicating that the junction is operating at close to its capacity. The maximum RFC reported is on the Lady Grove to Sires Hill (west) movement with a maximum RFC of 0.95.

#### Sires Hill / Didcot Road Junction (OFF 14)

3.5.36 Table 3.15 identifies the existing operation of Sires Hill / Didcot Road priority junction in 2020. The Junctions 9 (PICADY) model outputs are provided in Appendix B.

#### Table 3.15: Operation of Sires Hill / Didcot Road Junction (OFF 14)

Mexament	A	N	РМ	
movement	Max RFC	Queue (Vehicles)	Max RFC	Queue (Vehicles)
Sires Hill (South) - Sires Hill (West)	0.16	0	0.29	0
Sires Hill (South) - Didcot Road	0.18	0	0.13	0
Sires Hill (West) - Sires Hill (South)	0.26	1	0.20	0

3.5.37 The results above indicate that the junction operates within capacity in both the AM and PM peaks.

## 3.6 Summary of Existing Road Network Performance

- 3.6.1 As per the VoWHDC Local Plan Part 1 Inspector's Report (2016), "*the 'starting point' situation for the Vale is as a district which very much suffers from traffic congestion.*" A high level of congestion is evident on the A4130, on the existing river crossings between Didcot and Culham/Clifton Hampden and within Clifton Hampden. The local highway infrastructure has failed to keep pace with growth in the area, and the railway lines and the River Thames clearly create barriers to connectivity between homes and jobs. This has led to Oxfordshire County Council (OCC), as local highway authority (LHA), objecting to the applications of single dwellings on grounds of highway safety, convenience and sustainability. These objections have led to Local Planning Authority (LPA) refusals which have been upheld at appeal by the Planning Inspectorate.
- 3.6.2 Table 3.4 above summarises the network performance, with many of the junctions at or over capacity in one or both peaks. This is particularly evident at the staggered signalised junction in Clifton Hampden (OFF 6 and OFF 7) and the existing river crossing at Culham / Sutton Courtenay (OFF 10 and OFF 11). The additional queue length data from the Paramics model used to support the analysis of the existing river crossing at Culham and Sutton Courtenay shows queues almost 1.2km long in the AM peak through Sutton Courtenay. Later sections of this report present the impact of additional growth on the road network, if unmitigated without the proposed Scheme. Consideration should also be given to non-motorised users (NMU), who in many locations are currently forced to share the congested road network with vehicles due to lack of suitable dedicated NMU provision.

## 3.7 Road Safety

- 3.7.1 Collision data has been obtained from Oxfordshire County Council for a five-year period between 9<sup>th</sup> June 2014 and 8<sup>th</sup> June 2019. There was a total of 150 collisions recorded within the Scheme extents resulting in 189 casualties. The injury severity is summarised by year for collisions in Table 3.16 and casualties in Table 3.17. The data does not show any clear evidence of deterioration or improvement in road safety in the study area.
- 3.7.2 The collision data includes part of the A34 road and the Milton Interchange roundabout. As a consequence, the results show more collisions than the immediate Scheme area.

#### Table 3.16: Total Collisions by Severity

Severity/ Year	2014 (part)	2015	2016	2017	2018	2019 (part)	Total	
Fatal	0	0	0	0	1	0	1	
Serious	4	6	7	7	3	0	27	
Slight	24	26	19	28	15	10	122	
Total	28	32	26	35	19	10	150	

#### Table 3.17: Total Casualties by Severity

Severity/ Year	2014 (part)	2015	2016	2017	2018	2019 (part)	Total	
Fatal	0	0	0	0	1	0	1	
Serious	4	6	7	8	3	0	28	
Slight	33	31	29	34	22	11	156	
Total	37	37	36	42	26	11	189	

- 3.7.3 Between 9<sup>th</sup> June 2014 and 8<sup>th</sup> June 2019, 31 incidents were recorded at the A4130 Milton Interchange There was one fatal collision recorded which involved a car and a motorcycle rider at the A4130 Milton Interchange Roundabout junction with the A4130. The speed limit of the road was 40 mph. A contributory factor to this incident was disobeying traffic signals. Approximately half of the incidents recorded at the Milton Interchange occurred in 2014 and 2015 before the Milton Interchange improvement scheme was implemented changing the layout of the roundabout to a hamburger roundabout.
- 3.7.4 For the purposes of this assessment, a cluster site has been defined as an area with seven or more collisions within a 100m radius over a 5-year period. A cluster site was identified in the study area at the A4130 / Milton Road / Basil Hill Road roundabout. A total of 12 collisions were reported within the study period, of which five were serious and seven were slight in severity. All five serious collisions involved vehicles entering the roundabout from the A4130 and failure to give way to cyclists negotiating the roundabout from Milton Road on the west towards Basil Hill Road on the east. Three of these collisions occurred during the hours of darkness and two during daylight hours.
- 3.7.5 Of the seven slight collisions, five collisions involved a vehicle entering the roundabout from the A4130 and failure to give way to cyclists negotiating the roundabout from Milton Road on the west towards Basil Hill Road on the east. All these collisions occurred during daylight hours, and three of these took place in wet conditions. The two remaining slight collisions involved a HGV failing to give way to a motorcyclist during dry, dark conditions, and an incident involving a vehicle colliding with a cyclist travelling on the nearside on the A4130 approach to the A4130 / Milton Road / Basil Hill Road roundabout.
- 3.7.6 There is a developer promoted scheme being submitted to alter the 5-arm roundabout which will provide additional crossing points, new footway/cycleway provision and traffic calming features on the roundabout approaches to improve safety for cyclists (refer to Figure 6.16). Therefore, no significant sites have been identified that need to be changed as part of the Scheme.
- 3.7.7 The collision data and maps can be found in Appendix C.

## 4. Development Proposals

## 4.1 Introduction

- 4.1.1 This section of the TA identifies the key aspects of the development proposals. The objectives of the proposed Scheme are:
  - Directly unlock delivery of new homes in the area as allocated in Vale of White Horse District Council and South Oxfordshire District Council Local Plans;
  - Unlock thousands of new jobs across existing and new employments sites in the area;
  - Ensure the impact of additional housing on the transport network is acceptable;
  - Provide real mode choice by future proofing new infrastructure; and
  - Reduce congestion in the parishes surrounding Didcot to the north.
- 4.1.2 The Scheme comprises of the following four separate but interdependent highway schemes:
  - A4130 Widening;
  - Didcot Science Bridge;
  - Didcot to Culham River Crossing; and
  - Clifton Hampden Bypass.
- 4.1.3 Details of the Scheme are shown on the following drawings, which form part of the planning application submission, and are described in Sections 4.2 to 4.5 of this report.

#### **Highways General Arrangement Plans**

• Drawing numbers GEN\_PD-ACM-GEN-DGT\_ZZ\_ZZ\_DR-T-0001 to 0019

#### **Typical Cross Sections**

• Drawing numbers GEN\_PD-ACM-GEN-DGT\_ZZ\_ZZ\_DR-T-0021 to 0026

#### **Highway Swept Paths**

Drawing numbers GEN\_PD-ACM-HSP-DGT\_ZZ\_ZZ\_DR-T-0001 to 0039

#### **Highway Visibility Splays**

• Drawing numbers GEN\_PD-ACM-HML-DGT\_ZZ\_ZZ\_DR-T-0001 to 0019

## 4.2 A4130 Widening

4.2.1 The A4130 Widening proposed layout is shown in the following Figure.

### Figure 4.1: A4130 Widening Layout Plan



Map data © Google 2021

- 4.2.2 This part of the Scheme comprises a dual-carriageway from a point approximately 250 m east of Milton Interchange at the junction with Milton Gate, eastwards for approximately 1.6 km to the proposed eastern roundabouts connecting into the future development at Valley Park and the Didcot Science Bridge scheme. Dualling of the A4130 will consist of modifications to the existing single carriageway, establishment of a central reserve and provision of two additional lanes to the south. The existing single carriageway will form the eastbound carriageway towards Didcot and the newly constructed lanes will form the westbound carriageway to the A34 Milton Interchange.
- 4.2.3 A four-arm roundabout at the western end of the scheme is proposed to serve an area located immediately south-west of this roundabout, which has been subject to approved outline development proposals for Roadside Services and Facilities (planning application reference P15/V2880/O). This 'Backhill roundabout' will also provide access to the 'North West of Valley Park' strategic housing allocation site, to the south and east.
- 4.2.4 A new signalised T-junction is proposed approximately 600 m east of the Backhill roundabout, which will provide access to the 'Valley Park' strategic housing allocation site, which is the subject of an outline planning application P14/V2873/O, with a resolution to grant permission subject to Section 106 agreement.
- 4.2.5 A new three-arm 'Old A4130' roundabout is proposed 600 m east of the signalised junction. The eastern arm will be the current A4130, that is to be retained as a single carriageway, providing access into Didcot. The south eastern arm is proposed to be an approximately 260 m single carriageway road connecting to the new Didcot Science Bridge three-arm roundabout. The Didcot Science Bridge roundabout will provide access to the new Didcot Science Bridge to the north, and Valley Park housing development to the south. Access at this location is already being secured through the outline planning application for Valley Park.
- 4.2.6 The road corridor will also include a bi-directional segregated cycleway and a footway on the southern side of the dual carriageway, as well as several formal crossing points and buffer.
- 4.2.7 Along the length of this section of the Scheme, dedicated two-way, off-carriageway, cycling and walking facilities will be provided. East of the Milton Gate junction, the Scheme will include a shared, cycle and footway adjacent to the eastbound and westbound carriageways. This will link to the existing NMU only Backhill Tunnel, and extend around the northern side of Backhill roundabout, where an inline Toucan crossing (east of the roundabout) will be provided allowing users to cross both carriageways. Dedicated cycling and walking facilities and raised Parallel crossings will also be included around the southern side of Backhill roundabout. The existing toucan crossing by Backhill Tunnel will be replaced by an in-line Toucan crossing over the new dual carriageway to the west of the new roundabout. To the east of Backhill roundabout, a dedicated two-way cycleway and new footway will be provided to the south of the widened and new sections of the road, up to and including the Science Bridge roundabout, and will continue over the Science Bridge.

- 4.2.8 A shared walking and cycling crossing will be included at the access to the Valley Park development (western access). Additionally, a shared crossing will be provided across both carriageways, which will provide access to the eastbound bus stop (with bus shelter and cycle stands on the southern side). A Toucan crossing will be included across the new A4130 immediately south of the Northern roundabout. This will provide access to the existing shared path for cyclists and pedestrians along the current alignment of the A4130 linking to Didcot.
- 4.2.9 An indicative cross section for the A4130 widening scheme is presented in Figure 4.2 below.

## Figure 4.2: A4130 Widening - Proposed Layout



4.2.10 Figure 4.2 shows that the proposed A4130 widening scheme includes a 3m wide bi-directional cycleway and a 2m wide footway which is raised 60mm above the cycleway. There is a grass verge and swale area separating the bi-directional cycleway from the highway creating a more pleasant environment for NMUs. The GA plans listed in paragraph 4.1.2 show how it is proposed to maintain pedestrian and cycle priority across side roads.

## 4.3 Didcot Science Bridge

4.3.1 The Didcot Science Bridge proposed layout is shown in the following Figure.

Figure 4.3: Didcot Science Bridge Layout Plan



Map data © Google 2021

- 4.3.2 This section of the proposed scheme is a new north-south bridge from the proposed Didcot Science Bridge roundabout, over the existing A4130, the Great Western Railway Mainline, and Milton Road, into the former Didcot A Power Station site. The proposed Science Bridge Link Road (SBLR) will connect the bridge with the A4130 Northern Perimeter Road north of the Purchas Road/Hawksworth roundabout, close to the existing Southmead Industrial Estate.
- 4.3.3 Planning permission (P15/S1880/O and P15/V1304/O) has been granted for a mixed-use development in the power station site and this includes the reservation of land for the SBLR and Didcot Science

Bridge. There will be various embankments associated with the road bridge approaches, and they will vary in width. The road bridge will be approximately 16m in width, including a single carriageway, a bidirectional segregated cycleway and a footway on one side of the road.

- 4.3.4 The SBLR will be a single carriageway, with segregated footways and bi-directional cycleways on both sides of the road for most of its length. Various accesses are planned off the road alignment for the proposed development in the power station site (P15/S1880/O and P15/V1304/O). Other works required include the diversion of a watercourse, which will cross underneath the new road in a culvert, and provision of formal Non-Motorised User (NMU) crossings, including a toucan crossing where a National Cycle Route crosses the road alignment.
- 4.3.5 A dedicated two-way cycleway and adjacent footway will be provided over the Didcot Science Bridge on the eastern side of the bridge. East of the Science Bridge and northern approach embankment dedicated bi-directional cycleways and adjacent footways are to be provided on both sides of the road. Three parallel crossings will allow users to cross the Science Bridge Link Road and there will be one Toucan crossing. Where the Scheme ties-in with the existing A4130 Northern Perimeter Road, a Toucan crossing will be provided to allow those using the north-south bridleway (and National Cycle Network route 5) to safely cross the new road. East of this crossing, a dedicated two-way cycleway and adjacent footway will be located away from the carriageway. The existing footway on the southern side of the A4130 will be realigned to the new carriageway.
- 4.3.6 Four bus stops (two eastbound and two westbound) will be provided as part of the Didcot Science Bridge scheme.
- 4.3.7 An indicative cross section for the Didcot Science Bridge proposed layout is presented in Figure 4.4 below.

## Figure 4.4: Didcot Science Bridge - Proposed Layout



4.3.8 Figure 4.4 indicates that the proposed layout for the Didcot Bridge scheme includes a 3m wide bidirectional cycleway and a 2m wide footway along the eastern side of the carriageway when on the bridge structure (cross-section G-G). When off the structure and in the proposed development site (cross-section H-H) there is a 3m bi-dictional cycleway and 2m footway on both sides of the road. The GA plans listed in paragraph 4.1.2 show how it is proposed to maintain pedestrian and cycle priority across side roads.

LANE

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## 4.4 Didcot to Culham River Crossing

PED FENCE

4.4.1 The Didcot to Culham River Crossing proposed layout is shown in the following Figure.

PED FENCE



### Figure 4.5: Didcot to Culham River Crossing Layout Plan

Map data © Google 2021

- 4.4.2 This section of the Scheme will provide a new 3.6 km single carriageway link road west of the Cherwell Valley railway line and NMU facilities between Didcot and Culham. It will extend north from the A4130 Collett roundabout in Didcot to the A415 Abingdon Road west of CSC.
- 4.4.3 An improved and enlarged four-arm A4130 Collett roundabout will be provided. This will connect with the Didcot Science Bridge scheme to the west, the Didcot to Culham Link Road to the north, Southmead Industrial Estate to the south and to the existing A4130 to the east.

- 4.4.4 Agricultural land, private residential properties, a pallet and wood recycling centre, Sutton Courtenay landfill, and Hanson aggregate operations all lay north of Collett roundabout. A Local Development Order is being prepared to enable this agricultural area to become an employment site called D-Tech, in this 'Didcot Growth Accelerator' Enterprise Zone.
- 4.4.5 North of Collett roundabout to the southern edge of Sutton Courtenay Landfill the new single carriageway road will be approximately 20 m wide, with verges, hard strips, and segregated footways and bi-directional cycleways on both sides. Two accesses, one on either side of the proposed road, will be provided to maintain access to the adjacent agricultural land, private residential properties, and businesses.
- 4.4.6 The road will extend north along the east edge of Sutton Courtenay Landfill. In this area on the west side of the road a 3.0 m shared use bridleway is provided with the segregated footways and bidirectional cycleways and continues to the east side. On the west side of the road a new priority junction and access road will be provided to Sutton Courtenay Landfill (operated by FCC Environment), and Hanson Aggregates and Appleford Railway Sidings (operated by Hanson). This will replace the existing Portway Road access further north.
- 4.4.7 The road extends north to Appleford railway sidings passing along the eastern boundary of a large surface water management pond. The Cherwell Valley Line and Appleford Level Crossing is located to the east of the proposed road. Appleford Sidings bridge will be provided to bridge the road over the railway sidings and connect the north and south approach embankments.
- 4.4.8 The road will traverse 90 Acre Field, an area of restored historic landfill, and link to the B4016 to the west of Appleford. A priority T-junction with a ghost island right turn lane will be provided at this location. Sutton Courtenay roundabout will be provided to the north west with a severed section of the B4016 retained to be a footway cycleway. Sutton Courtenay roundabout will be an at grade, three-arm roundabout providing access to the crossing over the River Thames whilst maintaining links between Appleford, Sutton Courtenay and the surrounding areas.
- 4.4.9 Extending north from Sutton Courtenay roundabout, a 336 m approach viaduct will be provided to cross the River Thames flood plain with a 155 m bridge provided to span over the River Thames. The River Thames is navigable at this location the bridge height has been designed to accommodate river traffic.
- 4.4.10 North of the River Thames, the new link road will continue north through existing agricultural land towards A415 where a new at grade four-arm roundabout will be constructed to connect with the A415 and a new development to the north, which is an allocated site in the Local Plan.
- 4.4.11 Shared-use footway/cycleways are proposed at the Collett roundabout. An in-line Toucan crossing on eastern arm, raised parallel crossing on southern arm, and uncontrolled crossing points on the other two arms.
- 4.4.12 North of the Collett roundabout, there will be dedicated, off-road, two-way cycleways and footways located either side of the highway. The facilities adjacent to the northbound lane will cease at a parallel crossing. The facilities provided alongside the southbound lane will continue to the northern extent of the Scheme at the A415. There are proposed two parallel crossings and one toucan crossing on the southern section of the new road.
- 4.4.13 After the point at which the Scheme forms a junction with the B4016 Appleford Road, the cycleway and pedestrian footway will continue along the current alignment of the B4016. There will be an uncontrolled crossing immediately north of the B4016 junction. This will connect with a shared-use pedestrian and cycleway facility, which will extend alongside the northbound lane of the Scheme and continue beside the westbound lane of the B4016 from the Sutton Courtenay roundabout. This crossing serves the new bus stops and connections with existing PRoWs. The bus stops have shelters and cycle stands.
- 4.4.14 A shared facility will also be located alongside the eastbound lane of the B4016, which will be accessed via a Toucan crossing located across the arm for the River Thames bridge. This route offers connection towards Sutton Courtenay.
- 4.4.15 A shared-use cycleway and pedestrian footway will be created adjacent to the eastbound lane of the B4106, in order to connect the Scheme with the village of Appleford.
- 4.4.16 There will be dedicated, off-road, two-way cycleway and footway facilities located adjacent to the southbound lane on the bridge across the River Thames. These will continue to the northern A415 roundabout, where they will extend east adjacent to the westbound lane of the A415. This will continue

as a shared use facility along the southern side of the A415 to connect with the existing provision at Culham Science Centre. An in-line Toucan crossing is proposed on the eastern arm of the new roundabout, which connects to an improved segregated two-way cycleway and footway on the northern side of the A415, separated from the carriageway. The northern arm of the roundabout is s stub to serve a future housing development allocated in the adopted SODC Local Plan. A raised parallel crossing will be provided across the northern arm of the roundabout.

4.4.17 The indicative cross sections of the proposed layout for the Didcot to Culham River Crossing Scheme is presented in Figure 4.6.

## Figure 4.6: Didcot to Culham River Crossing - Proposed Layout



4.4.18 Figure 4.6 illustrates the high quality NMU facilities that are included in the Didcot to Culham River Crossing proposed layout. Cross section N-N shows that a 2m wide footway and a 3m wide bidirectional cycleway is proposed on both sides of the carriageway with the footway being raised above the cycleway to provide separation between the cyclists and the pedestrians. This is the proposal at the southern end of the Scheme, through the proposed employment site.

- 4.4.19 Cross section P-P shows that a 2m wide footway and 4m wide bidirectional cycleway is proposed on the eastern side of the carriageway with a 2m wide segregation strip of grass/ water channel between the highway and the cycleway providing separation between vehicles and cyclists. This is the proposal when the Scheme is not on a raised structure.
- 4.4.20 Cross section W-W illustrates that a 3m wide bi-directional cycleway and 2m wide footway is proposed on the eastern side of the carriageway providing high quality facilities for pedestrians and cyclists. A 2m wide segregation strip is proposed to provide separation between the cyclists and moving vehicles to create a more safe and pleasant environment for cyclists. The footway is raised above the cycleway to provide physical separation between the pedestrians and cyclists.
- 4.4.21 The GA plans listed in paragraph 4.1.2 show how it is proposed to maintain pedestrian and cycle priority across side roads.

## 4.5 Clifton Hampden Bypass

4.5.1 The Clifton Hampden Bypass proposed layout is shown in the following Figure.

#### Figure 4.7: Clifton Hampden Bypass Layout Plan



Map data © Google 2021

- 4.5.2 The Clifton Hampden Bypass will re-route traffic on the A415 around the village of Clifton Hampden, which currently experiences a large amount of through traffic as people travel between the A415 to A4074 northwest of the village.
- 4.5.3 The link road will provide a bypass northwest of Clifton Hampden village and will be approximately 2.2 km long. The new road will be a single carriageway with adjacent hard strips, grass verges, and a shared-use cycleway / footway. The bypass will be aligned in a south-west to north-east direction and will be a single carriageway, approximately 9.3 m in width including hard strips.
- 4.5.4 The proposed works also include the construction of a large four-arm roundabout at the western end of the Scheme, providing access to the SODC Local Plan allocated housing site, a railway station and LEDA owned farmland / businesses north of CSC coming off the northern arm, and CSC on the northeast arm. A new T-junction with a ghost island right turn lane connecting the existing B4015 Oxford Road is proposed at the eastern extent of the Scheme.
- 4.5.5 The current alignment of the A415 will be realigned north into the proposed bypass, with the existing A415 west of this point as a 'no through road' to serve existing residences. All roundabout exits will

include one lane, except the eastern bypass arm which will have two lanes. The roundabout will have a segregated left turn lane from the eastern bypass arm to the western A415 arm.

- 4.5.6 Station Road will be realigned and will join with a new entrance to the industrial properties located northwest of the roundabout. The existing main access into the CSC will be converted into a shared use footway / cycleway. The northeast roundabout arm will provide access to CSC via the main gate, and a stub towards Perimeter Road for a potential future connection to be delivered by CSC.
- 4.5.7 The A415 connection road east of the roundabout will provide access from the bypass to the existing A415 and Clifton Hampden.
- 4.5.8 Along the bypass, four access points will be included on the south side of the road; one will link to the existing alignment of the A415 (as described); one to a Thames Water sewage treatment works; and one to an existing farm track. The bypass will tie-in with the current alignment of the B4015 Oxford Road (east) and a T-junction with a ghost island right turn will be included, to provide access to the current alignment of the B4015 Oxford Road (south-west).
- 4.5.9 On the north side of the road, two accesses will be created; one will be a new second access into the CSC, the other will link with an existing farm track.
- 4.5.10 A dedicated, off-road, two-way cycleway and footway will be provided adjacent to both carriageways of the A415, west of the roundabout.
- 4.5.11 There will be several shared and segregated cycleways and footways, with crossings, created around the roundabout with the CSC and Clifton Hampden Bypass. A new segregated cycleway / footway is proposed to link Culham Station and CSC, in anticipation of heavy NMU demand between these two points. Three raised parallel crossings are proposed to maintain direct NMU links. The stopped-up existing A415 carriageway will be used as a shared-use footway / cycleway, which links up to a new shared-use footway / cycleway on the south side of the A415. This new route extends west across the existing rail bridge and into the Didcot to Culham River Crossing scheme. The existing main entrance to the CSC will be repurposed as a shared-use cycleway / footway. A toucan crossing is proposed where this route meets the bypass, which also serves a pair of new bus stops with shelters and cycle parking.
- 4.5.12 Along the bypass, a shared-use cycleway / footway will be provided along the north side of the road. Several crossings across adjoining roads will be provided and links to existing footpaths will be provided. Additionally, two uncontrolled crossings over the bypass will be provided.
- 4.5.13 A shared-use cycleway / footway will be provided along the west side of the realigned B4015 to connect in with the northern end of Clifton Hampden Village.
- 4.5.14 The indicative cross section of the proposed layout for the Clifton Hampden Bypass is illustrated in Figure 4.8 below.

## Figure 4.8: Clifton Hampden Bypass - Proposed Layout



4.5.15 Figure 4.8 shows that a 3.5m wide shared footway/cycleway is proposed on the northern side of the carriageway. A 2m grassed surface channel is also proposed between the main carriageway and the shared footway/cycleway to provide separation between the moving vehicles and the NMUs providing a more pleasant and safe environment for the NMUs. The GA plans listed in paragraph 4.1.2 show how it is proposed to maintain pedestrian and cycle priority across side roads,

## 4.6 Road Safety Audit

4.6.1 AECOM was commissioned by Oxfordshire County Council to complete a Stage 1 Road Safety Audit (RSA) for the four sections of the Scheme. These were undertaken between December 2019 and May 2020. The RSA reports also include the Design Organisation Response logs. The RSA reports can be found in Appendix D.

## 5. Modelling Assessment

## 5.1 Introduction

5.1.1 This section of the report sets out the traffic modelling that has been undertaken to assess the impact of the Scheme.

## 5.2 Assessment Scenarios

- 5.2.1 Completion of the Scheme is currently planned for 2024. The adopted Vale of White Horse District Council (VoWHDC) Local Plan Part 1 and 2 period ends in 2031. The adopted South Oxfordshire District Council (SODC) Local Plan period ends in 2035, although little growth is expected between 2034 and 2035. Therefore, based on the guidance set out in Section 2.5 of this report and the available model years, and as agreed with the highway authority, the following assessments have been undertaken for the purposes of this TA:
  - 2020 Baseline;
  - 2024 (year of Scheme opening) without Scheme;
  - 2024 (year of Scheme opening) with Scheme;
  - 2034 (design year) without Scheme; and
  - 2034 (design year) with Scheme

## 5.3 Paramics Model

- 5.3.1 As discussed in Section 3.5.4, traffic data for the junction assessments has been obtained from the Didcot Paramics microsimulation model, which is maintained and run on behalf of OCC by Systra. Data extracted from the Didcot Paramics microsimulation model was provided to AECOM by OCC/Systra for the assessment of impacts on the road network.
- 5.3.2 The model area extends from the A417 East of East Hendred in the west, through to A4130 Hadden Hill in the East. The network includes the A34 (Chilton Through to Milton Interchange), and up to A4074 Golden Balls Roundabout in the North. The Paramics model extent is shown in Figure 5.1 below.

#### Figure 5.1: Paramics Model Extent



- 5.3.3 Traffic demands for each period of the model have been developed using traffic count data collected late in 2016 and in 2017. This included detailed turning count surveys at the key junctions within the study area. Traffic demands were informed by data from OSM to ensure that the traffic patterns within the study area were as consistent as possible with those in the strategic model. Journey time data was utilised to validate the model against WebTAG criteria. Details of the development of the base model are provided in the Systra report 'Didcot Microsimulation Base Model Development Report' (2018) in Appendix E.
- 5.3.4 The model includes housing and employment completion trajectories as supplied by the relevant LPAs (VoWHDC and SODC). These were updated in June-August 2020, in preparation for the work to support this planning application. Refer to the Systra reports in Appendix F and G for more information on the trajectories and site accesses in the model. Table 5.1 and Table 5.2 below show the additional residential units and employment floor area assumed to be complete over the 2017 base year for the 2020, 2024 and 2034 scenarios.

#### **Table 5.1: Housing Completion Trajectories**

Site Name	Units Additional to Base Year			
Site Name	2020	2024	2034	
Ladygrove East - Land off A4130, Hadden Hill, Didcot	0	107	642	
Land at Didcot Road, Great Western Park	514	514	514	
Land to the south of Blenheim Hill Harwell	60	60	60	
Land at Barnett Road Steventon OX13 6AJ	65	65	65	
Land south of Appleford Road, Phase 1	85	101	101	
Land south of Appleford Road, Phase 2	0	91	91	
Land at Abingdon Road Steventon	15	15	15	
Land to south of Hadden Hill Didcot	74	74	74	
Land to the West of Great Western Park (Valley Park)	0	384	4,254	
Land at Reading Road Harwell	3	16	16	

Offen Marine	Units Additional to Base Year			
Site Name	2020	2024	2034	
Land at former Didcot A	0	0	120	
Land at former Didcot A	0	0	280	
Land North of Grove Road Harwell	191	207	207	
Land off Hanney Road Steventon OX13 6AS	44	44	44	
Land to the north east of Didcot	27	548	1,880	
Land north of Appleford Road	0	43	93	
Land off Drayton Road, Milton	18	18	18	
Land to north of Manor Close	18	18	18	
Land to the South of A4130 Didcot	31	166	166	
Milton Heights (Allocation - Site 9)	56	186	458	
Land at Milton Hill, Milton Heights	32	53	53	
East of Sutton Courtenay (Allocation - Site 5)	0	0	200	
Chailey House Bessels Way	22	22	22	
Land adjacent Culham Science centre	0	0	1,850	
Great Western Park	818	1,155	1,155	
Orchard Centre Phase 2	0	0	300	
North West Valley Park (Allocation - Site 8)	0	0	800	
Vauxhall Baracks	0	0	300	
Land at Berinsfeld	0	0	1,600	
Long Reach, Didcot Road	0	19	19	
Didcot Gateway South	0	100	300	
Land Adjacent to the Village Hall	0	70	74	
Land off fieldside track	0	36	36	
TOTAL	2,073	4,112	15,825	

## Table 5.2: Employment Completion Trajectories

Cite Name		Floor Area Additional to Base Year (sqm)			
Site Name	Use Class -	2020	2024	2034	
Southmead Industrial Estate	B1	656	656	9,076	
Culham Science Centre	B1	0	13,632	56,079	
Land West of CSC Inc No.1 Site	B1	0	4,851	4,851	
	B2	0	255	255	
Berinsfield Regeneration	B1	0	0	9,671	
	B2	0	0	10,768	
	B8 (Storage)	0	0	11,350	
Milton Park	B1	11,472	31,411	76,889	
	C1	10,563	10,563	10,563	
Harwell Campus	B1	11,723	75,427	103,434	
	B2	0	6,993	35,000	
Other Premises Adjacent to Didcot Power	B8 (Storage)	0	28,907	28,907	
Station - Diageo	B8 (Data)	0	68,750	68,750	

Site Neme		Floor Area Additiona		Year (sqm)
Site Name		2020	2024	2034
Didcot A	B1	0	2,502	25,000
	B2	0	5,505	55,000
	B8 (Storage)	22,483	27,988	77,483
	A1	0	1,351	13,500
Milton Hill Business and Technology Park	B8 (Storage)	0	0	11,338
D-Tech- EZ 2	B2	0	1,000	5,000
	B8 (Data)	0	22,000	110,000
Milton Interchange Site- EZ2	B1	0	0	9,380
	A1	0	0	2,704
	C1	0	0	1,294
Orchard Centre Expansion	A1	11,155	11,155	11,155
TOTAL		68,052	312,946	747,446

5.3.5 In addition to the Proposed Scheme infrastructure in the with HIF scheme modelling, the infrastructure outlined in Table 5.3 has been included in the Paramics modelling. The infrastructure outlined in the table is cumulative and therefore once present in the modelling is also present for any future year scenarios. Further details are provided in the Systra Technical Note 'HIF1 Paramics Modelling – Future Year Infrastructure Note' (September 2021) in Appendix G.

Table 5.3. Infrastructure included in Paramics Mode	Table 5.3:	Infrastructure	included in	<b>Paramics</b>	Model
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Model	Infrastructure
2010 / 2020 Base	Harwell Link Road
20197 2020 Base	A4185 Newbury Road/Thompson Avenue signals
	Power Station/Manor Bridge Roundabout improvements
	Featherbed Lane Improvements
2024 without HIF / 2024 with HIF	NPR3
	Park Drive/High Street Junction (Milton Park access)
	Eastbound widening between Steventon Lights and Milton Interchange
	Signalised one way shuttle working on the B4016, of approximately 150m, over the bridge adjacent to Appleford Rail Station
	Various development related accesses
	Valley Park Spine Road
	Milton Interchange improvements
	Rowstock Bypass
2034 without HIF / 2034 with HIF	Chilton Interchange Signals
	Golden Balls Improvements
	Milton Road/Park Drive/Sutton Courtenay Road junction alteration
	Various development related accesses

5.3.6 Figure 5.2 below summarises the modelling methodology approach:

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#### Figure 5.2: Modelling Approach Methodology



- 5.3.7 SYSTRA provided flow turning counts for the peak hours for the junctions. The peak hours are AM (08:00-09:00) and PM (17:00-18:00). These flows were then used in detailed junction modelling as presented in this TA.
- 5.3.8 For the 2034 scenarios the model assumes 100% demand of existing trips present in the 2017 base, and 80% of demand for new growth. The justification for this approach is set out in Systra Technical Note 'HIF1 Paramics Modelling – Forecasting Note' (September 2021) in Appendix F, and is summarised below (Section 6 of the Systra Technical Note refers):
  - The model uses a generic trip rate across all development in the area. A demand reduction is required to align the trip generation with trip rates recently accepted by OCC TDC for planning applications sites in Didcot. This accounts for approximately half of the demand reduction. See below paragraph for more information.
  - It is assumed that the Garden Town principles will continue to be enacted in this area over the next 14 years, increasing the usage of sustainable modes. Modal shift from these developments later in the plan period (over a decade away) is more likely as they are coming alongside significantly improved pedestrian / cycle / public transport provisions. The Paramics model is not multi-modal so cannot automatically account for improved NMU infrastructure, therefore a demand reduction is used as a proxy. This and the following point account for approximately half of the demand reduction.
  - The largest new sites follow good spatial strategies and are in more sustainable locations near public transport hubs and / or are located nearer the growing employment areas which will have significantly improved NMU routes.
- 5.3.9 Table 5.4 compares the Paramics model trips rates with planning applications in the area:

Site / Model	AM	РМ
Paramics at 100% demand	0.571	0.529
Valley Park P14/V2873/O	0.517	0.572
North East Didcot P15/S2902/O	0.5	0.56
South of A4130 P16/S3609/O	0.497	0.489
Paramics equivalent at 80% demand	0.457	0.423

#### Table 5.4: Paramics Model Trip Rates

- 5.3.10 The table above shows how the Paramics model trip rates are overall higher than trip rates accepted for the three development sites. Using 80% demand brings the trip rate lower than the development site trip rates, to account for the Didcot Garden Town principles, modal shift, and spatial strategies. As explained above and in Figure 5.2, this is only for the new growth in the 2034 scenarios, the 2017 base demand is still 100% e.g. it assumes existing residents in the model area do not change travel patterns. This is a robust assumption as it is likely that some would change travel patterns by 2034, due to the improved NMU infrastructure, additional bus stops, future bus routes, and other schemes in LCWIPs etc.
- 5.3.11 Initial model runs exhibited significant congestion in 2034 with the full development demand in place. To enable results to be extracted for comparisons, in the 2034 without HIF scenarios the model has been run at 70% total demand (70% of everything, after the demand reduction explained in paragraph 5.3.8) as this value enabled the model to run without gridlock. Modelled journeys were able to be completed, and therefore data could be extracted. These data have then been factored back up to 100% to calculate the 'factored' flow e.g. how many vehicles would have wanted to go through that junction, if the network had not been gridlocked. As shown in Figure 5.2, the 70% factoring exercise was not undertaken for the 2034 without HIF journey time and speed data presented in this TA.
- 5.3.12 This methodology was agreed between Systra and OCC, and further details are provided in the Systra Technical Note in Appendix F.

## 5.4 Methodology

5.4.1 All major new and existing junctions along the route of the Scheme have been included in the assessment. The extent of off-site junction assessments required has been agreed with the highway authority. The following junctions as shown in Figure 5.3 have been assessed in this report:

#### Scheme Junctions:

- SCH 1 A4130 / Service Area / North West Valley Park roundabout
- SCH 2 A4130 / Valley Park access signalised junction
- SCH 3 A4130 / Science Bridge Link roundabout
- SCH 4 Valley Park Spine Road / Science Bridge Link roundabout
- SCH 5 Science Bridge Link Road and New Purchas Road priority junction
- SCH 6 A4130 / Science Bridge priority junction
- SCH 7 A4130 / New Thames River Crossing / Collett roundabout
- SCH 8 New Thames River Crossing / Hanson and FCC Access Road priority junction
- SCH 9 New Thames River Crossing / B4016 priority junction
- SCH 10 New Thames River Crossing / B4016 roundabout
- SCH 11 New Thames River Crossing / A415 roundabout
- SCH 12 A415 / Clifton Hampden Bypass / Culham Science Centre roundabout
- SCH 13 Clifton Hampden Bypass / realigned A415 priority junction
- SCH 14 Clifton Hampden Bypass / B4015 priority junction
- SCH 15 Clifton Hampden Bypass / Culham Science Centre Access

#### Off-site Junctions:

- OFF 1 A34 / A4130 Milton interchange
- OFF 2 A4130 / Service Area priority junction
- OFF 3 A4130 / Milton Gate signalised junction
- OFF 4 A4130 / B4493 / Mendip Heights roundabout
- OFF 5 A4130 / Basil Hill Road / Milton Road (Power Station) roundabout
- OFF 6 A415 / High Street signalised junction (Clifton Hampden)
- OFF 7 A415 / B4015 Oxford Road signalised junction (Clifton Hampden)
- OFF 8 Harwell Road / Milton Road / High Street mini roundabout junction
- OFF 9 High Street / Church Street / Brook Street priority junction
- OFF 10 B4016 Appleford Road / Abingdon Road priority junction
- OFF 11 A415 / Tollgate Road signalised junction
- OFF 12 A4130 / Lady Grove priority junction / roundabout
- OFF 13 Lady Grove / Sires Hill priority junction
- OFF 14 Sires Hill / Didcot Road priority junction

## Figure 5.3: Junction Locations



5.4.2 The selected junctions have been assessed using the appropriate stand-alone junction capacity modelling software (Junctions 9 for roundabouts and priority junctions, LinSig v3.2 for signal-controlled junctions) for all scenarios. In discussions with Highways England, the impact of the HIF1 Scheme on the A34 and at the A34/A4130 Milton Interchange (OFF 1) has been demonstrated by comparing journey times along the A34, as explained in paragraph 6.9.1.
# 6. Assessment of Impacts

## 6.1 Introduction

6.1.1 This section of the report sets out the forecast impact of the Scheme on the highway network in terms of junction capacity assessments, impact on non-motorised users (NMUs) and the impact on public transport users.

# 6.2 NMU impacts

- 6.2.1 There are limited existing opportunities for walking and cycling north/south in this area to the north Didcot due to the severance created by the River Thames, with just two crossing points at Culham and Clifton Hampden. For example, residents of Didcot wishing to cycle to Culham Science Centre must use indirect routes, cycling on road for significant parts of the journey.
- 6.2.2 The development proposals will have a very positive impact on NMU travel in the area by directly providing high-quality infrastructure. The provision of additional and improved crossing points for all NMU modes will help to maintain direct routes, connecting footways/bridleways and providing safe access to and from bus stops.
- 6.2.3 The Scheme has been designed in line with the LTN1/20 guidance, providing priority to cyclists over side roads as appropriate. Details of the Scheme are shown on the following drawings, which form part of the planning application submission.

## **Highways General Arrangement Plans**

• Drawing numbers GEN\_PD-ACM-GEN-DGT\_ZZ\_ZZ\_DR-T-0001 to 0019

## **Typical Cross Sections**

- Drawing numbers GEN\_PD-ACM-GEN-DGT\_ZZ\_ZZ\_DR-T-0021 to 0026
- 6.2.4 As part of the A4130 Widening scheme the following NMU facilities are proposed to increase connectivity for NMUs:
  - At or near the proposed bus stops, cycle parking facilities will be provided as appropriate to enable the bus stops to act as an interchange and improve connectivity for cyclists.
  - Dedicated two-way, off-carriageway cycling and walking facilities will be provided. East of the Milton Gate junction, the Scheme will include a shared cycle and footway adjacent to the eastbound and westbound carriageways. This will link to the existing NMU only Backhill Tunnel, and extend around the northern side of Backhill roundabout, where an in-line Toucan crossing (east of the roundabout) will be provided allowing users to cross both carriageways. Dedicated cycling and walking facilities and raised parallel crossings will also be included around the southern side of Backhill roundabout. The existing Toucan crossing by Backhill Tunnel will be replaced by an in-line Toucan crossing over the new dual carriageway to the west of the new roundabout. To the east of Backhill roundabout, a dedicated two-way cycleway and new footway will be provided to the south of the widened and new sections of the road, up to and including the Didcot Science Bridge roundabout, and will continue over the Didcot Science Bridge.
  - A shared walking and cycling crossing will be included at the access to the Valley Park development (western access). Additionally, a shared crossing will be provided across both carriageways, which will provide access to the eastbound bus stop. A Toucan crossing will be included across the new A4130 immediately south of the Northern roundabout. This will provide access to the existing shared path for cyclists and pedestrians along the current alignment of the A4130 linking to Didcot.
  - The segregated footway and two-way cycleway will connect to bridleway 243/1/10 (Cow Lane) and the planned Valley Park development (east access) improving NMU connectivity. The footway will connect to footpath 243/3/10 adjacent to Stert Brook.
- 6.2.5 On the A4130 to the east of the proposed Backhill roundabout, the existing shared use NMU facility is on the southern side only and is approximately 2.0m usable width including the white line buffer zone. Photograph taken 15<sup>th</sup> September 2021, looking east.

## Figure 6.1: Photograph East of the proposed Backhill Roundabout



6.2.6 In approximately the same location as the photograph the Scheme proposes significantly improved NMU facilities, provided on the southern side of the carriageway:





- 6.2.7 As part of the Didcot Science Bridge scheme the following NMU facilities are proposed to increase connectivity for NMUs:
  - The Didcot Science Bridge scheme includes a footway and cycleway along the extents of the scheme with crossing points to increase accessibility for pedestrians and cyclists.
  - Three parallel crossing points along the Scheme to facilitate movement across the route, and another parallel crossing on a side road.
  - A toucan crossing is proposed over the A4130 at the eastern extent of the Scheme, to provide NMU access to Southmead Industrial Estate / NCN Route 5 (which connects to Sutton Courtenay).
  - The existing bridge structure over the Great Western Main Line is Manor Bridge, which forms part
    of the Didcot Northern Perimeter Road (A4130). There are no formal NMU provisions over the
    bridge, however NMUs are known to use the grass verges, as shown in the photo below. A
    developer scheme which seeks to implement a shared use facility at this bridge is undergoing
    technical review with the OCC Road Agreements Team. This structure does not address the
    severance to north-south NMU movements. Photograph taken 15<sup>th</sup> September 2021, looking north.

## Figure 6.3: Photograph of Manor Bridge (Didcot Northern Perimeter Road)



6.2.8 In contrast, the new Didcot Science Bridge structure (which is an alternative to the above Manor Bridge) does address the severance to north-south NMU movements, by providing NMU facilities segregated from the carriageway:





- The Didcot Science Bridge NMU facilities will connect to the River Crossing Scheme NMU facilities behind the hedge on the northern side of the existing A4130 Northern Perimeter Road.
- On the A4130 Northern Perimeter Road, the existing NMU facility is on the southern side only and is a footway of approximately 1.5m width, with no buffer from the carriageway. Photograph taken 15<sup>th</sup> September 2021, looking northeast.

## Figure 6.5: Photograph of NMU Facilities on A4130 Northern Perimeter Road



6.2.9 In approximately the same location as the photograph the Scheme proposes significantly improved NMU facilities, provided on the northern side behind the existing trees and ditch:





6.2.10 As part of the River Crossing Scheme the following NMU crossing facilities are proposed to increase connectivity for NMUs:

- The NMU connection to the Didcot Science Bridge Scheme, as described above.
- At the southern end at Collett Roundabout, an in-line signalised Toucan crossing is proposed on the eastern arm to cater for onwards journeys to Didcot. On the southern arm a raised parallel crossing is proposed. A new section of bridleway between 373/24/40 (Sustrans NCN5) and the Scheme near Hill Farm is shown on application drawings, however this could be delivered by other parties. This would enable a direct link for residents from the southern end of Sutton Courtenay to access the new route northwards over the River Thames, for work at Culham Science Centre for example. The reverse is also true, future residents of the SODC Local Plan proposed housing site would be provided with a direct cycling route towards Milton Park, Didcot centre etc.
- At the southern end of the Scheme, segregated NMU provision is proposed on both sides of the road through the potential future employment site. Two parallel crossings are proposed to cater for east-west movement, and the pair of bus stops. The NMU route has bus stop bypasses and floating bus stop shelters. The cycle routes maintain priority across the two side road accesses for the future employment site.

- Restricted byway 106/4/10 is proposed to be replaced by a new bridleway around the south and west sides of the lake, connecting with a new north-south route down to Hill Farm, in addition to a new toucan crossing north of Hartwright House to enable NMU's from the west (e.g. from Sutton Courtenay) to access the proposed segregated NMU route on the eastern side of the Scheme, catering for onwards north or south travel.
- A shared-use facility is proposed on the northern side of B4016 towards Appleford Village. An
  uncontrolled refuge island crossing is proposed on the Scheme to cater for the proposed bus laybys
  near Appleford, and for east-west NMU movements across the Scheme connecting to PROWs
  between Appleford and Sutton Courtenay.
- North of the proposed Sutton Courtenay roundabout, it is proposed that the existing B4016 highway
  is re-used to create a shared footway / cycleway from Sutton Courtenay direction, in addition to a
  shared footway / cycleway running along the western side of the carriageway with crossing points
  provided. A toucan crossing is proposed on the northern arm of the roundabout, and an
  uncontrolled refuge island crossing on the western arm.
- An NMU facility down from the proposed new bridge over the River Thames is proposed to connect to the Thames Path on the northern side of the river, providing access for NMUs. This improves the connectivity to the countryside to existing residents in the area, particularly Appleford Village.
- Along the length of the Scheme, high quality NMU infrastructure is proposed on the eastern side, segregated from the carriageway. This caters for local and longer distance north/south journeys, combatting the existing severance created by the river and existing highway layout at current bridges at Culham and Clifton Hampden. The poor NMU provisions on these existing routes over the River Thames are shown below, compared to the Scheme proposals:
- The existing bridge structure over the River Thames at Sutton Bridge and Culham Cut has a narrow footway immediately adjacent to the carriageway, on the eastern side only. It is approximately 1.5m wide, with pinch points of approximately 1m. This structure does not address the severance to north-south NMU movements. Photograph taken 15<sup>th</sup> September 2021, looking north.

## Figure 6.7: Photograph of Existing NMU Facilities at Sutton Bridge



The existing bridge structure over the River Thames at Clifton Hampden Bridge has no NMU facilities, although some pedestrians try to use the narrow kerb upstand (approximately 0.6m on western side and 0.4m on eastern side), which does not tie into and NMU provision either side of the structure: This structure does not address the severance to north-south NMU movements. Photograph taken 15<sup>th</sup> September 2021, looking north.

## Figure 6.8: Photograph showing lack of NMU facilities at Clifton Hampden Bridge



 In contrast, the new Didcot to Culham River Crossing structure (which is an alternative to the above Sutton Bridge / Culham Cut and Clifton Hampden Bridge) does address the severance to northsouth NMU movements, by providing NMU facilities segregated from the carriageway:



Figure 6.9: Proposed Layout of Didcot to Culham River Crossing

- 6.2.11 At the proposed northern roundabout which connects to the existing A415 Abingdon Road, the development proposals include an in-line toucan crossing on the eastern arm and a raised parallel crossing on the northern arm. This helps cater for connection with future a housing site allocated in the adopted SODC Local Plan here. The Scheme proposes to tie into the existing shared use facility on the northern side of A415, and proposes to include a new shared use facility on the southern side of A415, connecting with the existing provision near Culham Science Centre. As part of the Clifton Hampden Bypass Scheme, a network of shared and segregated footway / cycleways are proposed, increasing accessibility to Culham Science Centre, Culham Rail Station, future housing and employment here, Clifton Hampden, Burcot and Berinsfield. The following NMU facilities are proposed as part of the Scheme:
  - To the west of the A415 / Clifton Hampden Bypass / Culham Science Centre roundabout a shared footway and cycleway is proposed on both sides of the carriageway; there is an existing provision on the northern side of the A415 that the Scheme will tie into. On the southern side, a new facility will extend from the Didcot to Culham River Crossing, as described above.
  - On the A415 to the east of the proposed A415 roundabout, in the vicinity of the high-voltage overhead powerline the existing NMU facility is on the northern side only and is approximately 1.2m

wide shared use with 1.6m grass buffer from the carriageway. There is no provision for NMUs on the southern side. Photograph taken 14<sup>th</sup> July 2021, looking east.

Figure 6.10: Photograph of Existing NMU Facilities on the A415 east of Proposed Roundabout



• In approximately the same location as the photograph the Scheme proposes significantly improved NMU facilities, provided on both sides of the carriageway:





 On the A415 to the west of Station Road (west) the existing NMU facility is on the northern side only and is approximately 1.2m wide shared use with 1.6m grass buffer from the carriageway. There is no provision for NMUs on the southern side. Photograph taken 14<sup>th</sup> July 2021, looking east.

#### Figure 6.12: Photograph of Existing NMU Facilities on A415 west of Station Road



 In approximately the same location as the photograph the Scheme proposes significantly improved NMU facilities, provided on both sides of the carriageway:



Figure 6.13: Proposed Layout of A415 west of Station Road

- A segregated footway and cycleway is proposed from the entrance road of Culham Rail Station directly to Culham Science Centre. The pedestrian facility is proposed to be wider than standard to better cater for groups of pedestrians to/from the train. Two raised parallel crossings are proposed to provide convenient routes for NMUs. The segregated footway and cycleway will be separated from the carriageway. Future works at the Culham Science Centre entrance will connect to this route.
- The route from the rail station continues over the Culham Science Centre access arm of the new
  roundabout on a raised parallel crossing as a shared footway / cycleway, which then continues
  along the northern side of the Clifton Hampden Bypass for its full length, providing a high quality
  link from the northern end of Clifton Hampden village. It is separated from the carriageway.
- The Scheme includes a new Toucan signalised crossing on the bypass directly outside the Culham Science Centre, providing direct and convenient access for NMUs. This crossing ties in to sections of existing carriageway which are to be repurposed as NMU routes, and the new bus stops on the bypass.

- The shared footways and cycleways along the Clifton Hampden Bypass connect into existing PRoWs providing increased pedestrian accessibility to the footpaths.
- A raised parallel crossing is proposed over the new Culham Science Centre secondary access.
- At the Clifton Hampden Bypass / B4015 Oxford Road Junction, an uncontrolled refuge island crossing is proposed to provide access to the NMU route on the northern side of the new bypass, and for the new bus stops. The shared footway and cycleway is proposed to run along the south side of the Clifton Hampden Bypass from the southbound bus stop and continuing alongside the B4015, connecting to the existing village and PRoWs.
- A section of existing highway that is made redundant by the Scheme is proposed to become a shared footway/cycleway to help NMUs make more direct journeys in a northbound direction.

# 6.3 **Pedestrian and cycle routes delivered and enabled by the Scheme**

6.3.1 The Scheme both directly delivers and indirectly enables a significant number of new and/or improved walking and cycling routes in the area. This helps to engender modal shift away from the private motor car, particularly for commuting purposes for employment and education, but also for important access to amenities such as retail and healthcare, and for leisure trips. As reported above, the journey to work mode share for bicycle in Didcot is only 4.7%. This section of the report does not exhaustively list all routes but aims to highlight some of the significantly improved routes the scheme delivers / facilitates. The potential future NMU schemes that could link to the Scheme may be delivered by OCC, housing or employment developers, or other bodies. There may be other schemes identified through the planning application processes for other developments, or through the Didcot Local Cycling and Walking Infrastructure Plan (LCWIP) which has yet to be undertaken.

## Origin: Great Western Park / Valley Park / North West Valley Park / Existing Didcot

#### Destination: Milton Park (Enterprise Zone)

6.3.2 The existing NMU route is on the narrow, shared use facility on the southern side of the A4130, with no significant buffer from the carriageway. This is not an attractive route, due to the narrow width and wind buffeting experienced by passing vehicles, particularly HGVs. The WCHAR surveys illustrate this, with a low number of just over 600 cyclists (two-way) counted over a 7-day period at the A4130 near Cow Lane. As illustrated in the cross-sections above (Figure 6.2), the scheme directly delivers a significantly improved route along the southern side of A4130, addressing the above issues. This route is also likely to be used by residents from central / southern Didcot, especially when the Valley Park site is constructed which includes NMU infrastructure on the north-south spine road. Additionally, this is likely to be used by residents from Harwell Village, who would access it from Valley Park either from Didcot Road and along the spine road, or along Cow Lane and then up the spine road.

#### **Destination: Culham Science Centre**

- 6.3.3 The existing NMU route is neither convenient nor direct, and for large sections has no NMU facilities which requires NMUs to use the carriageway. For many people this is not attractive, as shown by the low census mode share percentage. The route would include the A415, which the WCHAR surveys show a low number of cyclists, just over 800 (two-way), counted over a 7-day period. The Scheme delivers a convenient, high quality NMU route along the A4130, over the Great Western Main Line railway, north over the River Thames, and directly to Culham Science Centre (CSC). For comparison purposes, approximate routes for cycling to CSC from the junction of Cow Lane/A4130 in the centre of the Valley Park site were measured, using existing facilities. These ranged from 8.97km to 10.29km without HIF and required the use of carriageway in some sections, and narrow shared-use facilities. With the Scheme, the equivalent route is approximately 7.54km, with high-quality off-carriageway facility facilities for the full length.
- 6.3.4 The same improved route to CSC is accessible to residents of existing Didcot from Collett Roundabout, for example by using the NCN5 from Station Road to access Southmead Industrial Estate.

#### Origin: Land adjacent to Culham Science Centre (residential)

#### Destination: Milton Park Enterprise Zone

6.3.5 The future housing site allocation in the adopted SODC Local Plan 2035 would be provided with high quality and direct NMU routes to a significant number of destinations. Without the Scheme, the existing

routes are not conducive to promoting mode shift as they require a large portion of on-carriageway on congested roads.

6.3.6 The Scheme provides a route to Milton Park that is approximately one kilometre longer than the existing route through Sutton Courtenay, but is off-carriageway for the full length as opposed to the existing route which is predominantly on carriageway. Additionally, the traffic reductions the scheme enables through Sutton Courtenay would make the existing on-carriageway route more pleasant for cyclists who wish to use it.

## Destination: Didcot Centre / Didcot Railway Station

6.3.7 The Scheme ties in with Collett Roundabout on the A4130 Northern Perimeter Road, which is a short distance from NCN5 inside Southmead Industrial Estate. For comparison purposes, approximate routes for cycling from the proposed housing site to the NCN5 route inside Southmead Industrial Estate (for onwards existing connections to Didcot, Railway Station, etc.) were measured using existing facilities. Without the Scheme, the likely route is approximately 7.44km long, with a large proportion of on-carriageway cycling. With the scheme, this is reduced to approximately 3.97km, all off-carriageway except a small section inside Southmead Industrial Estate.

## **Origin: Appleford**

#### Destination: CSC

6.3.8 The existing routes via Clifton Hampden or Culham are neither convenient nor direct (approx. 5.68km and 5.62km respectively), and require on-carriageway cycling, using narrow shared-use facilities, some use of bridleway (to Long Wittenham). With the Scheme, the route is approximately 3.67km, formed of high-quality off-carriageway provision (on-carriageway from the western built-up edge of Appleford into the village).

#### Destination: Milton Park Enterprise Zone

6.3.9 As above for Land adjacent to Culham Science Centre, Appleford also benefits from significantly improved NMU routes to Milton Park.

#### Destination: Didcot Centre / Didcot Railway Station

6.3.10 As above for Land adjacent to Culham Science Centre, Appleford also benefits from significantly improved NMU routes to Didcot Centre / Railway Station (Appleford has a railway station, however not all trains stop there).

#### Origin: Berinsfield, Burcot, Clifton Hampden

#### Destination: Various – Didcot, Milton Park etc

- 6.3.11 The significant reduction in traffic flow along the A415 through Burcot as a result of the Scheme creates improved conditions for future NMU schemes to be implemented from Berinsfield towards Abingdon/Didcot etc. In the SODC Local Plan, the policy wording for the Berinsfield housing site allocation says:
  - "2. The proposals to develop land at Berinsfield will be expected to deliver:

vi) all necessary transport infrastructure, referring to the Infrastructure Delivery Plan, which is likely to include:

e. high quality infrastructure to encourage cycling and walking, and provide links through the site and to adjacent employment and into the village of Berinsfield and to other surrounding locations including Culham; specifically (but not limited to) improving the existing pedestrian/cyclist infrastructure along the A415 from Berinsfield to Culham, and providing for a cycle route from Berinsfield to Oxford."

6.3.12 The existing shared-use facility will join the Scheme near Culham Science Centre, which then enables village residents to access the Scheme NMU facilities for onwards journeys to Didcot and Milton Park etc, as described in the above sections. With other potential future schemes as described below, this also includes onwards connections to Abingdon and Oxford.

#### Origin: Various – Didcot, Valley Park, Appleford, Berinsfield, etc.

#### Destination: Abingdon, Oxford

- 6.3.13 The scheme NMU facilities are designed to tie into the future housing proposal at Land adjacent to Culham Science Centre. In the SODC Local Plan, the policy wording for this site says:
  - "2. Proposals to develop Culham will be expected to deliver:
  - vi) all necessary infrastructure, referring to the Infrastructure Delivery Plan, which is likely to include:

b. provision of a new cycle bridge and associated connectivity and paths across the River Thames to connect appropriately with Abingdon on Thames to the north of the site"

6.3.14 With a new future NMU bridge over the River Thames into southeast Abingdon provided by that site, and other NMU schemes currently being worked on between Abingdon and Oxford via Radley and Kennington, the Scheme NMU facilities will form the missing link between a predominantly off-carriageway cycle route from Oxford City Centre to Didcot. Using sections of NCN5 and 544 in Didcot, this then extends the route from Oxford to Harwell Campus and beyond.

#### **Origin: Milton Heights (residential)**

#### Destination: Various - Milton Park Enterprise Zone (employment) / Didcot Centre / Didcot Railway Station / Culham Science Centre

6.3.15 Another scheme is being progressed by OCC to deliver an NMU bridge over the A34, south of Milton Interchange. This would connect with the Scheme at the new Backhill Roundabout on A4130, enabling onwards journeys.

## 6.4 Public Transport Impact

- 6.4.1 As part of the HIF1 Scheme, the following new, fully accessible bus stops are proposed as shown in Figure 6.14:
  - Four bus stops (two eastbound and two westbound) along the A4130;
  - Four bus stops (two eastbound and two westbound) as part of the Didcot Science Bridge section;
  - Six bus stops (a pair on the A4130 to the east of Collett Roundabout, a pair at the southern end inside the future employment site, and a pair near Appleford) as part of the River Crossing section; and
  - Four bus stops (a pair at Culham Science Centre and a pair north of Clifton Hampden Village) as part of the Clifton Hampden Bypass Scheme.

## Figure 6.14: Proposed Bus Stop Locations



- 6.4.2 These additional bus stops will increase the accessibility and catchment of the existing bus services in this area, whilst also helping to cater for new or improved services in the future. The locations have been determined in liaison with the bus operators serving this area.
- 6.4.3 The stops are proposed to include shelters and bicycle parking as appropriate.
- 6.4.1 The journey time data in Section 6.10 below demonstrates that the HIF1 Scheme will significantly improve journey times over the existing river crossings at Culham Cut / Sutton Bridge and Clifton Hampden Bridge. Any routes that use these bridges in the future, currently the 95 and 33 services, would benefit from the improved journey times and reliability.
- 6.4.2 As explained in Section 3.3, there are currently poor opportunities for bus routes to offer good journey time reliability north / south in this area due to the severance created by the River Thames and the historic road network. The South Oxfordshire Infrastructure Delivery Plan (IDP) includes requirements for several new bus routes to support planned growth. It is the intention for two of these routes to use the new Didcot to Culham River Crossing road, and as such the future bus network has been planned assuming the new road is in place. Without the new road it is unlikely the new bus routes could be delivered; the routes would take longer and be less reliable, increasing operating costs, while at the same time being less attractive to use, suppressing revenue. It is unlikely the proposed new routes would be viable without the new road, which would cause several strategic new developments to be more car dependent and less acceptable in planning terms.
- 6.4.3 The exact routes of the new services is not yet finalised, however the intention is for them to provide links from the development areas at Chalgrove to Culham Science Centre then via the new Didcot to Culham River Crossing road towards Didcot, and from Oxford's Eastern Arc, covering the Bayswater Brook, Northfield and Grenoble Road development sites, again to Culham Science Centre and onwards towards Didcot via the new road. These services will also serve the proposed strategic housing development at Culham. It is intended that both routes will eventually operate half-hourly, combining to provide four buses per hour along the new road in each direction.
- 6.4.4 The new services will be initially funded through S106 contributions from the development sites that they will serve. This will cover the start-up period where passenger use is built-up over time and as development build-out progresses. The requirement for subsidy will decline over this time as

passenger numbers and associated revenue increases, with the routes eventually becoming selffunding through passenger revenue alone.

# 6.5 Impact on the Highway Network

6.5.1 The following sections set out the performance of the junctions along the Scheme, and the impact of the Scheme on off-site junctions, in the 2024 and 2034 scenarios without and with the HIF1 Scheme.

# 6.6 Scheme Junctions

6.6.1 Table 6.1 summarises the results of the capacity assessments of the junctions along the Scheme. Junction model outputs (Junctions 9 and LinSig) are provided in Appendix H.

				2024	With		2034 With			
Junctio	n	Junction	A	M	P	M	A	M	P	M
		Туре	RFC/ PRC	Queue	RFC/ PRC	Queue	RFC/ PRC	Queue	RFC/ PRC	Queue
SCH1	A4130 / Service Area / North West Valley Park	Roundabout	0.79	4	0.64	2	0.73	3	0.94	14
SCH2	A4130 / Valley Park access signalised junction	Signalised Junction	32%	16	64%	11	48%	13	33%	14
SCH3	A4130 / Science Bridge	Roundabout	0.95	14	0.79	4	0.93	11	0.97	19
SCH4	Valley Park Spine Road / Science Bridge Link	Roundabout	0.38	1	0.39	1	0.77	3	0.83	5
SCH5	Science Bridge Link Road / New Purchas Road	Priority Junction	0.41	1	0.39	1	0.73	4	0.79	6
SCH6	A4130 / Science Bridge	Priority Junction	1.01	12	1.37	71	1.99	65	1.95	48
SCH7	A4130 / New Thames River Crossing / Collett	Roundabout	0.65	2	0.59	2	0.77	3	0.81	4
SCH8	New Thames River Crossing / Hanson and FCC Access Road	Priority Junction	0.24	1	0.08	0	0.75	3	0.21	0
SCH9	New Thames River Crossing / B4016	Priority Junction	0.20	0	0.41	1	1.00	7	0.99	5
SCH10	New Thames River Crossing / B4016	Roundabout	0.42	1	0.56	1	0.69	2	0.91	9
SCH11	New Thames River Crossing / A415	Roundabout	0.48	1	0.35	0	0.61	2	0.59	1
SCH12	A415 / Clifton Hampden Bypass / Culham Science Centre	Roundabout	0.67	2	0.35	1	0.94	13	0.58	1
SCH13	Clifton Hampden Bypass / realigned A415	Priority Junction	0.29	0	0.32	1	***	59	1.28	19
SCH14	Clifton Hampden Bypass / B4015	Priority Junction	0.56	1	0.26	0	***	49	***	29
SCH15	Clifton Hampden Bypass / Culham Science Centre Access	Left In / Left Out Junction	0.05	0	0.13	0	0.10	0	0.44	1

\*\*\* Indicates that Junctions 9 predicts that the flow is significantly in excess of capacity and is unable to calculate a maximum RFC.

## A4130 / Service Area / North West Valley Park (SCH1)

6.6.2 The results of the 2024 and 2034 capacity assessments for the A4130 / Service Area / North West Valley Park access junction are presented in the following table.

#### Table 6.2: Operation of A4130 / Service Area / North West Valley Park (SCH1)

Arm		202	24		2034					
	АМ		РМ		АМ		РМ			
	Max RFC	Queue								
A4130 (E)	0.79	4	0.64	2	0.73	3	0.67	2		
NW Valley Park	0.00	0	0.00	0	0.13	0	0.13	0		
Mays/Minscombe Services	0.09	0	0.11	0	0.05	0	0.24	0		
A4130 (W)	0.52	1	0.61	2	0.71	3	0.94	14		

6.6.3 The results indicate that the junction will operate within capacity in 2024. In 2034 the junction is shown to be approaching capacity in the PM peak, with the RFC on the A4130(W) arm exceeding the desirable maximum value of 0.85, but still within capacity.

A4130 / Valley Park access signalised junction (SCH2)

6.6.4 The results of the 2024 and 2034 capacity assessments for the A4130 / Valley Park access signalised junction are presented in the following table.

#### Table 6.3: Operation of A4130 / Valley Park access signalised junction (SCH2)

Arm		202	24		2034				
	АМ		РМ		AM		РМ		
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ	
A4130 (E)	68%	17	55%	12	61%	14	64%	14	
Valley Park	11%	1	4%	0	51%	4	32%	2	
A4130 (W)	38%	6	45%	8	49%	9	68%	14	
Cycle time	108s		108s		108s		108s		
PRC	32%		64%		48%		33%		

<sup>6.6.5</sup> The results indicate that the junction will operate within capacity in 2024 and 2034, with PRCs in excess of 30% in all scenarios and time periods.

#### A4130 / Science Bridge junction (SCH3)

6.6.6 The results of the 2024 and 2034 capacity assessments for the A4130 / Science Bridge junction are presented in the following table.

## Table 6.4: Operation of A4130 / Science Bridge junction (SCH3)

Arm		2034							
	A	AM		РМ		AM		РМ	
	Max RFC	Queue							
A4130 (E)	0.95	14	0.79	4	0.64	2	0.77	3	
Science Bridge Link	0.81	4	0.62	2	0.93	11	0.84	5	
A4130 (W)	0.58	2	0.68	2	0.78	4	0.97	19	

6.6.7 The results indicate that the junction will operate within capacity in 2024, although the desirable maximum RFC is exceeded on the A4130(E) arm in the AM peak. In 2034 the junction is shown to be approaching but within capacity in both peaks, with the desirable maximum RFC exceeded on the Science Bridge link arm in the AM peak and the A4130(W) arm in the PM peak.

6.6.8 The overall flow change from 2024 to 2034 shows an increase. However, the A4130(E) arm has a significant decrease in flow, causing it to show a reduction in RFC (although the other two arms show an increase in RFC). Whilst traffic overall has increased from 2024 to 2034, it is being distributed more efficiently across the arms of the roundabout in 2034, producing a slightly lower maximum RFC in the AM peak.

Valley Park Spine Road / Science Bridge Link (SCH4)

6.6.9 The results of the 2024 and 2034 capacity assessments for the Valley Park Spine Road / Science Bridge Link junction are presented in the following table.

# Table 6.5: Operation of Valley Park Spine Road / Science Bridge Link junction (SCH4)

Arm		202	24			203	2034		
	A	AM		РМ		AM		РМ	
	Max RFC	Queue							
Science Bridge	0.37	1	0.35	1	0.57	2	0.75	3	
Valley Park Spine Road	0.07	0	0.03	0	0.77	3	0.61	2	
Science Bridge Link	0.38	1	0.39	1	0.65	2	0.83	5	

6.6.10 The results indicate that the junction will operate within capacity in 2024 and 2034.

Science Bridge Link Road / New Purchas Road (SCH5)

6.6.11 The results of the 2024 and 2034 capacity assessments for the Valley Park Spine Road / Science Bridge Link junction are presented in the following table.

## Table 6.6: Operation of Science Bridge Link Road / New Purchas Road junction (SCH5)

Movement		20	24		2034				
	АМ		РМ		АМ		РМ		
	Max RFC	Queue							
New Purchas Rd - A4130(W)	0.04	0	0.05	0	0.29	0	0.30	0	
New Purchas Rd - A4130(E)	0.27	0	0.19	0	0.73	3	0.79	3	
A4130(W) - A4130(E)	0.39	1	0.37	1	0.69	4	0.76	6	
A4130(W) - New Purchas Rd	0.41	0	0.39	0	0.68	1	0.72	1	

6.6.12 The results indicate that the junction will operate within capacity in 2024 and 2034.

A4130 / Science Bridge (SCH6)

6.6.13 The results of the 2024 and 2034 capacity assessments for the A4130 / Science Bridge junction are presented in the following table.

Movement		20	24		2034				
	AM		РМ		АМ		РМ		
	Max RFC	Queue							
Old A4130 - A4130(W)	1.01	3	1.37	5	1.99	21	1.95	28	
Old A4130 - A4130(E)	1.01	12	1.37	71	1.96	65	1.92	48	
A4130(W) - Old A4130(E)	0.16	0	0.07	0	0.25	0	0.15	0	
A4130(E) - Old A4130(W)	0.62	2	0.53	1	0.75	3	0.69	2	

6.6.14 The results indicate that the junction would be operating over capacity in both 2024 and 2034. Queuing and delays are predicted to occur on the minor arm (old A4130) in both peaks, although the new Science Bridge link road operates within capacity with no queuing or delays.

- 6.6.15 Although the stand-alone junction model indicated this junction would be operating over capacity, the applicant views this as acceptable for the following reasons:
  - The strategy for the Scheme is to prioritise the mainline flow over side arm flows, particularly
    in this location. The intention is for vehicles coming from the west on the A4130 wishing to
    travel north on Didcot to Culham River crossing or east on the A4130 Didcot Northern
    Perimeter Road to use the new Didcot Science Bridge, rather than continue along the old
    A4130 past Sir Frank Williams Avenue and use the A4130 / B4493 / Mendip Heights
    roundabout (OFF4) and A4130 / Basil Hill Road / Milton Road (Power Station) roundabout
    (OFF5), A level of queuing on the side arm of SCH6 will help to achieve this by influencing
    driver behaviour.
  - One of the main ways this can be achieved is to discourage traffic from using the existing A4130 between the Mendip Heights and Purchas Road roundabouts by creating a priority T-junction instead of a roundabout where the existing A4130 meets the new A4130, thus giving priority to the peripheral route. The roundabout at the Collett access to the Southmead Industrial Estate will still remain and so provides easier access for HGV movements eastwards.
  - The traffic modelling data indicates that 78% of the minor arm traffic at the junction is turning
    right in the AM peak, and 65% in the PM peak in 2034. There is an alternative route to travel
    north / east by turning right at the A4130/Purchas Road/Hawksworth Road junction and
    travelling via the industrial estate to the improved A4130/New Thames River Crossing/Collett
    roundabout (SCH7), from where traffic can either continue north on the New Thames River
    Crossing or east along the A4130 eastbound. The southern arm of the proposed A4130/New
    Thames River Crossing/Collett roundabout has spare capacity to accommodate re-routing
    traffic (refer to results for SCH7).
  - The traffic modelling data indicates that 22% of the minor arm traffic at the junction is turning left in the AM peak, and 35% in the PM peak in 2034. There is an alternative route to travel south / west by turning left at the A4130 / Basil Hill Road / Milton Road (Power Station) roundabout (OFF5) to access the new Didcot Science Bridge Road at SCH5.
  - When updating the Paramics model assumptions to support the HIF application the LPA had advised 400 dwellings should be included on the Didcot A site. However, it is understood that this is no longer likely, therefore, if the 400 units do not come forward, the model is assuming too many trips in this area.
  - Any drivers from existing housing in Didcot are likely to be heading north over the new Didcot to Culham River Crossing. Without the HIF Scheme, their route north would have been through Long Wittenham / Clifton Hampden or Sutton Courtenay / Culham. Therefore, if they are queuing at SCH6 junction they are taking a different route to baseline conditions, where they would have been queuing through the villages.
  - Stand-alone junction models do not account for breaks in the mainline traffic flow as a result of junctions or crossings further upstream and downstream. The results are therefore likely to show longer queues on side arms of priority junctions. For example, in this location of SCH6, the mainline flow is likely to have more gaps in vehicles than predicted by the stand-alone

junction model due to the signalised crossing, bus stop, and roundabout to the north, and to the south the bus stop, three parallel crossings, the other side road accesses from future development, and the roundabout.

## A4130 / New Thames River Crossing / Collett (SCH7)

6.6.16 The results of the 2024 and 2034 capacity assessments for the A4130 / New Thames River Crossing / Collett junction are presented in the following table.

Table 6.6. Operation of A41307 New Thames River Crossing / Conett (SCH	Table 6.8: 0	Operation of A4130 /	<b>New Thames</b>	<b>River Crossing</b>	g / Collett	(SCH7)
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Arm		20	24		2034				
	A	АМ		PM		AM		РМ	
	Max RFC	Queue							
New Culham Crossing	0.33	1	0.59	2	0.69	2	0.74	3	
A4130 (E)	0.65	2	0.44	1	0.77	3	0.68	2	
Collett	0.16	0	0.13	0	0.32	1	0.40	1	
A4130(W)	0.47	1	0.58	1	0.71	3	0.81	4	

6.6.17 The results indicate that the junction will operate within capacity in 2024 and 2034.

New Thames River Crossing / Hanson & FCC Access Road (SCH8)

6.6.18 The results of the 2024 and 2034 capacity assessments for the New Thames River Crossing / Hanson & FCC Access Road junction are presented in the following table.

#### Table 6.9: Operation of New Thames River Crossing / Hanson & FCC Access Road (SCH8)

Movement		202	24		2034				
	АМ		РМ		АМ		РМ		
	Max RFC	Queue							
FCC/Hanson - New Culham Crossing(N)	0.03	0	0.03	0	0.08	0	0.05	0	
FCC/Hanson - New Culham Crossing(S)	0.24	1	0.08	0	0.75	3	0.21	0	
New Culham Crossing (N) - New Culham Crossing (S) / FCC/Hanson	0.04	0	0.02	0	0.06	0	0.02	0	

6.6.19 The results indicate that the junction will operate within capacity in 2024 and 2034.

New Thames River Crossing / B4016 (SCH9)

6.6.20 The results of the 2024 and 2034 capacity assessments for the New Thames River Crossing / B4016 junction are presented in the following table.

#### Table 6.10: Operation of New Thames River Crossing / B4016 (SCH9)

Movement		202	24		2034				
	A	N	РМ		A	Λ	РМ		
	Max RFC	Queue							
B4016 - New Thames Crossing (S)	0.01	0	0.02	0	1.00	1	0.99	1	
B4016 – New Thames Crossing (N)	0.20	0	0.41	1	0.98	7	0.92	5	
New Thames Crossing (S) – New Thames Crossing (N) / B4016	0.04	0	0.02	0	0.06	0	0.06	0	

- The results indicate that the junction will operate within capacity in 2024. In 2034 the junction is 6.6.21 predicted to operate at very close to capacity. Whilst RFC values are predicted to be between 0.92 and 1.00 in 2034, the maximum queue length on the B4016 is only seven vehicles.
- Although the stand-alone junction model indicated this junction would be operating at very close to 6.6.22 capacity in 2034, the applicant views this as acceptable for the following reasons:
  - The strategy for the Scheme is to prioritise the mainline flow over side arm flows, particularly in this location. The intention is for vehicles coming from existing areas of Didcot and future new housing on the north and eastern sides of Didcot (North East Didcot 1,880 dwellings in the model, Ladygrove East 642 dwellings in model) to access the new Didcot to Culham River Crossing from the Collett roundabout (SCH7). A different junction type in this location could be more attractive to drivers from the locations stated above, potentially resulting in more trips through Appleford Village. Therefore, a level of queuing on the side arm is deemed reasonable as it will operate as a village access whilst not being too attractive for throughtrips.
  - Any drivers from existing housing in Didcot, North East Didcot or Ladygrove East are likely to be heading north over the new Didcot to Culham River Crossing. Without the HIF Scheme, their route north would have likely been through Appleford Village and then Sutton Courtenay / Culham. Therefore, the Scheme is reducing flows through the villages by offering a more suitable route from Collett roundabout (SCH7). Any delay to Appleford residents experienced at this junction SCH9 is significantly outweighed by the reduction in through traffic in the village.
  - Stand-alone junction models do not account for breaks in the mainline traffic flow as a result of junctions or crossings further upstream and downstream. The results are therefore likely to show longer queues on side arms of priority junctions. For example, in this location of SCH9, the mainline flow is likely to have more gaps in vehicles than predicted by the stand-alone junction model due to the signalised crossing, bus stops, and roundabout to the north, and to the south the signalised crossing, two parallel crossings, bus stops, the other side road accesses from future development, and the roundabout.

#### New Thames River Crossing / B4016 Appleford Road (SCH10)

The results of the 2024 and 2034 capacity assessments for the New Thames River Crossing / B4016 6623 Appleford Road junction are presented in the following table.

Table 6.11: Operation	of New Tham	es River Crossing	/ B4016 Appleford R	load (SCH10)

Arm		202	24		2034					
	A	Λ	РМ		A	Λ	PM			
	Max RFC	Queue								
New Thames Crossing	0.32	1	0.56	1	0.69	2	0.91	9		
B4016 Appleford Road (S)	0.42	1	0.39	1	0.69	2	0.67	2		
B4016 Appleford Road (N)	0.41	1	0.25	0	0.42	1	0.37	1		

6.6.24 The results indicate that the junction will operate within capacity in 2024 and 2034, although the desirable maximum RFC of 0.85 will be exceeded in the 2034 PM peak with a small queue of nine vehicles.

New Thames River Crossing / A415 Abingdon Road (SCH11)

6.6.25 The results of the 2024 and 2034 capacity assessments for the New Thames River Crossing / A415 Abingdon Road junction are presented in the following table.

## Table 6.12: Operation of New Thames River Crossing / A415 Abingdon Road (SCH11)

Arm		202	203	2034				
	AM		РМ		A	Л	РМ	
	Max RFC	Queue						
New Access Road	0.00	0	0.01	0	0.03	0	0.06	0
A415 Abingdon Road (E)	0.22	0	0.35	1	0.33	1	0.52	1
New Thames Crossing	0.48	1	0.33	1	0.61	2	0.59	1
A415 Abingdon Road (W)	0.33	1	0.20	0	0.61	2	0.39	1

6.6.26 The results indicate that the junction will operate within capacity in 2024 and 2034.

A415 / Clifton Hampden Bypass / Culham Science Centre (SCH12)

6.6.27 The results of the 2024 and 2034 capacity assessments for the A415 / Clifton Hampden Bypass / Culham Science Centre junction are presented in the following table.

#### Table 6.13: Operation of A415 / Clifton Hampden Bypass / Culham Science Centre (SCH12)

Arm		20	24		2034				
	АМ		РМ		A	Λ	РМ		
	Max RFC	Queue							
CSC Access	0.05	0	0.28	0	0.11	0	0.38	1	
Clifton Hampden Bypass (E)	0.21	0	0.12	0	0.34	1	0.25	0	
Clifton Hampden Bypass (W)	0.67	2	0.35	1	0.94	13	0.58	1	
CSV Access	0.04	0	0.07	0	0.50	1	0.15	0	

6.6.28 The results indicate that the junction will operate within capacity in 2024. In 2034 the junction is shown to be operating within capacity in both peaks, although the desirable maximum RFC of 0.85 is exceeded on the Clifton Hampden Bypass (W) arm in the AM peak.

Clifton Hampden Bypass / Realigned A415 (SCH13)

6.6.29 The results of the 2024 and 2034 capacity assessments for the Clifton Hampden Bypass / Realigned A415 priority junction are presented in the following table.

#### Table 6.14: Operation of Clifton Hampden Bypass / Realigned A415 (SCH13)

Movement		202	24		2034				
	A	N	РМ		A	И	РМ		
	Max RFC	Queue							
A415 - Clifton Hampden Bypass(W)	0.29	0	0.19	0	***	59	1.28	19	
A415 - Clifton Hampden Bypass(E)	0.04	0	0.01	0	***	30	1.16	5	
Clifton Hampden Bypass(W) - A415	0.22	0	0.32	1	0.20	0	0.26	0	

\*\*\* Indicates that Junctions 9 predicts that the flow is significantly in excess of capacity and is unable to calculate a maximum RFC.

- 6.6.30 The results indicate that the junction will operate within capacity in 2024. In 2034 capacity is exceeded in both peaks with queues and delays occurring on the minor arm (realigned section of the A415). No delays are experienced on the Clifton Hampden Bypass.
- 6.6.31 Although the stand-alone junction model indicated this junction would be operating over capacity in 2034, the applicant views this as acceptable for the following reasons:
  - The strategy for the Scheme is to prioritise the mainline flow over side arm flows. The intention is for vehicles coming from the south of the River Thames and wishing to head north / east of SCH13 to make the journey from Collett Roundabout (SCH7). A different junction type in this location could be more attractive to drivers, reducing the rerouting benefits of the Scheme that remove trips through Long Wittenham and Clifton Hampden. Therefore, a level of queuing on the side arm in the peaks deemed acceptable as it will operate as a village access whilst not being too attractive for through-trips.
  - The traffic modelling data indicates that 34% of the minor arm traffic at the junction is turning right in the AM peak, and 29% in the PM peak in 2034. As this traffic is heading east, there is an alternative route through Clifton Hampden via Abingdon Road and Oxford Road (SCH14), and this would appear to be the more logical route selection to travel east. If the right turn movements are removed from the 2034 scenarios the junction would then operate within capacity. There is also another existing alternative route via A415 through Burcot.
  - Any drivers in a queue on this side arm are trying to travel east or west on the Clifton Hampden Bypass. Without the HIF Scheme, significantly more drivers would be travelling through the staggered signalised junction in Clifton Hampden Village (OFF6 and OFF7, see results in Table 6.26 and Table 6.27). Delays at the signalised junction in the 'No HIF' scenario are significantly higher than those predicted at this junction in the 'With HIF' scenario.
  - Stand-alone junction models do not account for breaks in the mainline traffic flow as a result
    of junctions or crossings further upstream and downstream. The results are therefore likely to
    show longer queues on side arms of priority junctions. For example, in this location, the
    mainline flow is likely to have more gaps in vehicles than predicted by the stand-alone
    junction model due to the bus stops to the north-east, and bus stops, Toucan crossing and
    roundabout to the south-west.

## Clifton Hampden Bypass / B4015 (SCH14)

6.6.32 The results of the 2024 and 2034 capacity assessments for the Clifton Hampden Bypass / B4015 priority junction are presented in the following table.

#### Table 6.15: Operation of Clifton Hampden Bypass / B4015 (SCH14)

Movement		202	24		2034				
	АМ		PM		A	Λ	РМ		
	Max RFC	Queue							
B4015 - Clifton Hampden Bypass (W)	0.05	0	0.06	0	***	18	***	16	
B4015 - Clifton Hampden Bypass (E)	0.56	1	0.26	0	***	49	***	29	
Clifton Hampden Bypass (W) - Clifton Hampden Bypass (E) / B4015	0.05	0	0.05	0	0.07	0	0.33	1	

\*\*\* Indicates that Junctions 9 predicts that the flow is significantly in excess of capacity and is unable to calculate a maximum RFC.

- 6.6.33 The results indicate that the junction will operate within capacity in 2024. In 2034 capacity is exceeded in both peaks with queues and delays occurring on the minor arm (B4015). No delays are experienced on the Clifton Hampden Bypass.
- 6.6.34 Although the stand-alone junction model indicated this junction would be operating over capacity in 2034, the applicant views this as acceptable for the following reasons:
  - The strategy for the Scheme is to prioritise the mainline flow over side arm flows. The intention is for vehicles coming from the south of the River Thames and wishing to head north / east of SCH14 to make the journey from Collett Roundabout (SCH7). A different junction type in this location could be more attractive to drivers, reducing the rerouting benefits of the Scheme that remove trips through Long Wittenham and Clifton Hampden. Therefore, a level of queuing on the side arm in the peaks is deemed acceptable as it will operate as a village access whilst not being too attractive for through-trips.
  - There is another existing alternative route via A415 through Burcot.
  - Any drivers in a queue on this side arm are trying to travel east or west on the Clifton Hampden Bypass. Without the HIF Scheme, significantly more drivers would be travelling through the staggered signalised junction in Clifton Hampden Village (OFF6 and OFF7, see results in Table 6.26 and Table 6.27 Delays at the signalised junction in the 'No HIF' scenario are significantly higher than those predicted at this junction in the 'With HIF' scenario.

#### Clifton Hampden Bypass / Culham Science Centre Access (SCH15)

6.6.35 The results of the 2024 and 2034 capacity assessments for the Clifton Hampden Bypass / Culham Science Centre Access junction (left turn egress only) are presented in the following table.

Arm		202	24		2034				
	A	Л	РМ		A	Л	РМ		
	Max RFC	Queue							
CSC Access – Clifton Hampden Bypass (E)	0.05	0	0.13	0	0.10	0	0.44	1	
Clifton Hampden Bypass (E) – CSC Access	0.00	0	0.00	0	0.00	0	0.00	0	

## Table 6.16: Clifton Hampden Bypass / Culham Science Centre (SCH15)

6.6.36 The results indicate that the junction will operate within capacity in 2024 and 2034. There is no right turn movement allowed from the bypass into this junction, resulting in 0 RFC values for that movement.

# 6.7 Off-Site Junctions

6.7.1 Junction capacity assessment results for 2024 and 2034, with and without the HIF1 Scheme, are summarised in the following table. The 2020 baseline scenario results are also shown for comparison purposes (ref. Table 3.4). Impacts at Milton Interchange (OFF 1) are considered in Section 6.9

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# Table 6.17: Summary of Off-site Junction Capacity Results

				2020 B	aseline		20	024 Wit	hout Hll	F1	:	2024 W	ith HIF 1	l i	20	34 Witl	hout HIF	F 1	:	2034 W	ith HIF1	1
Junctio	1	Junction Type	Α	М	Р	м	A	М	Р	М	A	М	Р	м	A	м	Р	М	Α	м	Р	м
			RFC/ PRC	<b>Q</b> (PCU)	RFC/ PRC	Q (PCU)																
OFF2	A4130 / Service Area	Priority Junction	0.60	2	0.55	1	0.61	2	0.59	1	0.49	1	0.66	2	1.07	18	0.77	3	0.71	2	0.40	1
OFF3	A4130 / Milton Gate	Signalised Junction	+7%	15	-2%	18	-5%	22	-2%	20	-6%	24	-3%	21	-52%	220	-25%	93	-5%	22	-6%	25
OFF4	A4130 / B4493 / Mendip Heights	Roundabout	0.62	2	0.73	3	1.02	31	1.02	33	0.74	3	0.74	3	1.47	459	1.42	229	0.73	3	0.54	1
OFF5	A4130 / Basil Hill Rd / Milton Rd (Power Station)	Roundabout	0.79	4	1.16	77	0.73	2	0.83	5	0.42	1	0.59	1	1.10	122	1.11	57	0.54	1	0.65	2
OFF6 & OFF7	A415 / High Street/ B4015 Oxford Rd	Signalised Junction	-241%	173	-273%	194	-270%	192	-122%	160	34%	7	19%	6	-606%	539	-348%	455	12%	9	3%	11
OFF8	Harwell Road / Milton Road / High Street	Mini Roundabout	0.39	1	0.54	1	0.47	1	0.63	2	0.37	1	0.29	0	0.97	15	1.00	25	0.49	1	0.44	1
	High St / High St	Priority Junction	0.44	1	0.89	7	1.00	18	1.10	44	0.43	1	0.45	1	1.88	494	1.76	447	0.55	1	0.69	2
OFF9	High St /Church St	Priority Junction	0.58	1	1.19	47	1.35	87	1.47	135	0.62	2	0.58	1	2.69	654	2.43	557	0.84	4	1.06	20
	High St / Brook St	Priority Junction	0.23	1	0.16	0	0.26	1	0.18	0	0.20	0	0.15	0	0.31	1	0.24	0	0.26	1	0.49	0
OFF10	B4016 / Abingdon Road	Priority Junction																				
OFF11	A415 / Tollgate Road	Signalised Junction	-22%	51	-14%	37	-26%	58	20%	15	25%	6	47%	9	-47%	109	-11%	30	7%	18	13%	16
OFF12	A4130 / Lady Grove	Priority junction / Roundabout *	0.68	2	0.97	19	0.53	1	0.50	1	0.53	1	0.45	1	0.58	1	0.62	2	0.72	3	0.61	2
OFF13	Lady Grove / Sires Hill	Priority Junction	0.95	10	0.48	1	0.79	3	0.43	1	0.50	1	0.39	1	1.37	49	1.07	13	0.80	4	0.61	2
OFF14	Sires Hill / Didcot Road	Priority Junction	0.26	1	0.29	0	0.35	1	0.38	1	0.30	1	0.33	1	0.96	25	1.54	45	0.65	2	0.70	1

\* Priority junction in 2020 baseline scenario; roundabout in 2024 and 2034 scenarios

# 6.8 Future Year Junction Capacity Assessments – Off Site Junctions

6.8.1 The following section provides a summary of the 2024 and 2034 capacity assessments for the off-site junctions, without and with the HIF1 Scheme. Junction model outputs (Junctions 9 and LinSig) are provided in Appendix B.

#### A4130 / Service Area Junction (OFF 2)

6.8.2 The results of the capacity assessments for the A4130 / Service Area priority junction are presented in Table 6.18 and Table 6.19for 2024 and 2034 respectively.

## Table 6.18: Operation of A4130 / Service Area Junction (OFF 2) – 2024

Movement		Withou	t HIF1		With HIF1					
	A	Λ	РМ		A	Λ	РМ			
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue		
Service Area to A4130	0.61	2	0.59	1	0.49	1	0.66	1		
A4130	0.33	1	0.40	1	0.34	0	0.43	1		

## Table 6.19: Operation of A4130 / Service Area Junction (OFF 2) – 2034

Movement		Withou	t HIF1		With HIF1						
	A	Λ	РМ		A	Λ	РМ				
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue			
Service Area to A4130	1.07	18	0.77	3	0.71	2	0.40	1			
A4130	0.60	1	0.47	1	0.35	1	0.38	1			

- 6.8.3 The results indicate that without the HIF1 Scheme, the junction would operate within capacity in 2024 but capacity would be exceeded in the AM peak in 2034, with excessive queuing occurring on the service area access.
- 6.8.4 The HIF1 Scheme is expected to result in a significant improvement in junction performance, and the junction is predicted to operate within capacity in 2024 and 2034, with minimal queuing on any arm.

#### A4130 / Milton Gate Signalised Junction (OFF 3)

6.8.5 The results of the capacity assessments for the A4130 / Milton Gate signalised junction are presented in Table 6.20 and Table 6.21 for 2024 and 2034 respectively.

	Table 6.20: Op	eration of A4130 /	Milton Gate Sig	gnalised Junction	OFF 3	- 2024
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Approach &		Withou	t HIF1		With HIF1				
movement	AM		РМ		АМ		РМ		
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ	
A4130 (W) Left Ahead	51.3%	6.5	57.3%	7.8	56.7%	7.4	62.3%	8.7	
A4130 (W) Ahead	53.7%	7.5	59.0%	8.6	58.7%	8.6	63.9%	9.8	
Milton Gate Right Left	27.5%	1.4	28.4%	1.4	25.5%	1.3	26.6%	1.3	
A4130 (E) Ahead	61.8%	8.5	31.2%	3.4	73.3%	11.3	47.7%	5.8	
A4130 (E) Ahead Right	94.1%	22.2	92.1%	20.3	95.0%	23.5	93.1%	21.3	
Cycle time	66 seconds		66 seconds		66 seconds		66 seconds		
PRC	-4.5	6%	-2.4%		-5.6%		-3.3%		

#### Table 6.21: Operation of A4130 / Milton Gate Signalised Junction (OFF 3) - 2034

Approach &		Withou	it HIF1		With HIF1				
wovement	AM		РМ		AM		PM		
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ	
A4130 (W) Left Ahead	90.3%	18.4	112.7%	86.4	76.2%	12.1	95.4%	23.5	
A4130 (W) Ahead	91.2%	20.3	112.7%	93.1	77.8%	13.7	95.8%	25.4	
Milton Gate Right Left	32.7%	1.7	25.4%	1.2	25.3%	1.2	26.2%	1.3	
A4130 (E) Ahead	134.2%	183.7	84.6%	14.9	61.2%	8.3	50.8%	6.4	
A4130 (E) Ahead Right	136.5%	219.6	96.5%	25.7	94.1%	22.2	93.3%	21.5	
Cycle time	66 sec	conds	66 sec	66 seconds		66 seconds		66 seconds	
PRC	-51.	7%	-25.2%		-4.6%		-6.4%		

- 6.8.6 The results indicate that without the HIF1 Scheme, the design capacity of the junction would be exceeded in 2024 in both peaks with a PRC between -2.4% and -4.5%, although the junction would still be operating within theoretical capacity. By 2034 junction performance would deteriorate further, with theoretical capacity exceeded in both peaks and significant queuing on both the A4130(E) and A4130(W) approaches. The PRC for the junction would decrease significantly to between -51.7% and -25.2%.
- 6.8.7 With the HIF1 Scheme, the junction is predicted to operate within theoretical capacity in 2024 and 2034, although the DoS on the A4130(W) and A4130(E) approaches is predicted to exceed 90%, indicating that the junction is approaching its theoretical capacity and resulting in PRCs of -5% and -6% in the AM and PM peaks respectively. The HIF1 Scheme creates a significant improvement in junction operation in 2034, with performance and queues similar to those in the 2020 baseline assessment.

#### A4130 / B4493 / Mendip Heights Roundabout (OFF 4)

6.8.8 As explained in Table 5.3, an improvement scheme has been proposed for this junction as S278 works related to a nearby housing site, which is currently undergoing review by OCC Road Agreements Team. The future year assessments have been based on the proposed scheme. The scheme layout is shown below (Drawing 1207 Rev A1, '*Manor Bridge Roundabout Marking and Signage Layout*', Jubb, 17/07/2020).



## Figure 6.15: Proposed Layout for A4130/B4493/Mendip Heights Junction

6.8.9 The results of the capacity assessments for the A4130 / B4493 / Mendip Heights junction are presented in Table 6.22 and Table 6.23 for 2024 and 2034 respectively.

#### Table 6.22: Operation of A4130 / B4493 / Mendip Heights Roundabout (OFF 4) - 2024

Movement		Withou	it HIF1		With HIF1				
	АМ		РМ		AM		РМ		
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
A4130 (North)	0.78	3	0.87	6	0.24	0	0.52	1	
B4493	1.02	31	1.02	33	0.74	3	0.74	3	
Mendip Heights	0.14	0	0.09	0	0.14	0	0.07	0	
A4130 (West)	0.56	1	0.52	1	0.41	1	0.29	0	

# Table 6.23: Operation of A4130 / B4493 / Mendip Heights Roundabout (OFF 4) - 2034

Movement		Withou	t HIF1		With HIF1				
	АМ		РМ		АМ		РМ		
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
A4130 (North)	1.27	144	1.42	229	0.32	1	0.53	1	
B4493	1.47	459	1.29	261	0.73	3	0.54	1	
Mendip Heights	0.22	0	0.14	0	0.20	0	0.08	0	
A4130 (West)	0.93	12	0.90	8	0.58	1	0.34	1	

- 6.8.10 The results indicate that without the HIF1 Scheme, junction capacity would be exceeded in both peaks in 2024 and 2034, with long queues on the A4130(N) and the B4493.
- 6.8.11 With the HIF1 Scheme, operation of the junction is significantly improved and it is predicted to operate within capacity in 2024 and 2034.

**Power Station Roundabout (OFF 5)** 

6.8.12 As explained in Table 5.3, an improvement scheme has been proposed for this junction as S278 works related to a nearby housing site, which is currently undergoing review by OCC Road Agreements Team. The future year assessments have been based on the proposed scheme. The scheme layout is shown below (Drawing No. 701 Rev P7, '*Power Station Roundabout General Arrangement*", Jubb, 17/03/2020).

Figure 6.16: Proposed Layout for Power Station Roundabout



6.8.13 The results of the capacity assessments for the Power Station roundabout are presented in Table 6.24 and Table 6.25 for 2024 and 2034 respectively.

Table 6.24: Operation	n of Power Station	Roundabout (OFF 5)	) - 2024
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Movement		Withou	t HIF1		With HIF1				
	АМ		РМ		AM		PM		
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
A4130 (North)	0.67	2	0.46	1	0.22	0	0.23	0	
Basil Hill Road	0.73	2	0.25	0	0.42	1	0.26	0	
A4130 (South)	0.72	3	0.53	1	0.33	1	0.18	0	
Milton Road	0.49	1	0.83	5	0.25	0	0.59	1	
Access Road	0.05	0	0.08	0	0.10	0	0.08	0	

|--|

Movement		Withou	t HIF1		With HIF1				
	АМ		РМ		АМ		РМ		
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
A4130 (North)	0.94	12	0.70	2	0.26	0	0.15	0	
Basil Hill Road	38.0	122	0.58	1	0.54	1	0.37	1	
A4130 (South)	1.10	54	0.98	18	0.37	1	0.15	0	
Milton Road	0.67	2	1.11	57	0.34	1	0.65	2	
Access Road	0.25	0	0.31	0	0.19	0	0.18	0	

<sup>6.8.14</sup> The results indicate that without the HIF1 Scheme, the junction would operate within capacity in 2024, but capacity would be exceeded in both peaks in 2034, with capacity exceeded on the A4130(S) and Basil Hill Road arms in the AM peak, and on the Milton Road arm in the PM peak.

## Clifton Hampden Signalised Junction (OFF6 & OFF7)

The results of the capacity assessments for the Clifton Hampden staggered signalised junction are presented in Table 6.26 and Table 6.27 for 2024 and 2034 respectively. Table 6.26: Operation of Clifton Hampden Signalised Junction (OFF6 & OFF7) - 2024

	1	I
Movement	Without HIF1	With HIF1

Movement		Withou	t HIF1		With HIF1			
	AM		PI	N	АМ		РМ	
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
A415 Abingdon Ahead Right Left	166.8%	109.5	90.0%	12.4	41.7%	2.0	45.2%	3.0
Internal Junction link Eastbound East Ahead Left	61.9%	2.2	48.0%	1.8	32.7%	0.5	24.3%	0.6
A415 Burcot Ahead Right	333.0%	192.7	199.3%	160.2	66.2%	4.0	75.5%	5.8
Internal Junction link Westbound West Ahead Left Right	57.1%	6.4	66.3%	6.3	27.2%	1.3	45.8%	4.4
High Street Right Left Ahead	165.5%	132.1	190.8%	101.5	67.4%	6.6	59.6%	3.2
Watery Lane Plough Inn	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
B4015 Left Right	105.8%	17.0	175.4%	96.3	30.4%	1.6	71.9%	5.9
Cycle time	90 sec	conds	90 sec	conds	90 sec	conds	90 sec	conds
PRC	-270	0%	-12	2%	34	%	19	%

<sup>6.8.15</sup> With the HIF1 Scheme, performance of the junction significantly improves. It is forecast to operate within capacity in both 2024 and 2034.

Movement		Withou	t HIF1		With HIF1			
	AM		PI	РМ		AM		N
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
A415 Abingdon Ahead Right Left	345.5%	405.4	273.4%	410.1	29.0%	1.3	34.4%	1.6
Internal Junction link Eastbound East Ahead Left	58.7%	2.1	51.5%	1.9	31.0%	0.7	18.0%	0.6
A415 Burcot Ahead Right	635.7%	446.4	385.9%	455.2	39.8%	1.9	87.6%	7.2
Internal Junction link Westbound West Ahead Left Right	58.4%	6.5	69.9%	7.1	18.5%	0.4	63.4%	9.4
High Street Right Left Ahead	376.2%	539.3	403.3%	406.3	80.6%	9.2	76.0%	4.5
Watery Lane Plough Inn	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
B4015 Left Right	260.2%	198.1	281.5%	223.8	30.9%	1.7	85.7%	10.5
Cycle time	90 sec	conds	90 sec	conds	90 sec	conds	90 seo	conds
PRC	-606	6%	-34	8%	+12	%	+3	%

#### Table 6.27: Operation of Clifton Hampden Signalised Junction (OFF6 & OFF7) - 2034

- 6.8.16 Based on the same signal timings as the 2020 model, the junction is forecast to operate above capacity in 2024 without the HIF1 Scheme, with significant queuing in both AM and PM peaks and a PRC of -270% in the AM peak. By 2034, without the HIF1 Scheme the operation of the junction would deteriorate further, with a PRC of -606% in the AM peak and -348% in the PM peak.
- 6.8.17 With the HIF1 Scheme there is a significant improvement in the operation of the junction. It is forecast to operate within capacity in both 2024 and 2034 with significantly reduced queues in the village.

#### Harwell Road / Milton Road / High Street Mini Roundabout (OFF 8)

6.8.18 The results of the capacity assessments for the Harwell Road / Milton Road / High Street mini roundabout are presented in Table 6.28 and Table 6.29 for 2024 and 2034 respectively.

## Table 6.28: Operation of Harwell Rd / Milton Rd / High Street Mini Roundabout (OFF 8) - 2024

Movement		Withou	t HIF1		With HIF1				
	AM		РМ		AM		РМ		
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
High Street	0.44	1	0.29	0	0.37	1	0.22	0	
Harwell Road	0.47	1	0.63	2	0.17	0	0.29	0	
Milton Road	0.36	1	0.21	0	0.27	0	0.15	0	

# Table 6.29: Operation of Harwell Rd / Milton Rd / High Street Mini Roundabout (OFF 8) - 2034

Movement		Withou	it HIF1		With HIF1				
AM		И	PN				РМ		
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
High Street	0.54	1	0.33	1	0.49	1	0.43	1	
Harwell Road	0.97	15	1.00	25	0.24	0	0.44	1	
Milton Road	0.74	3	0.44	1	0.29	0	0.22	0	

- 6.8.19 The results indicate that without HIF1 the junction would operate within capacity in 2024, but would be reaching theoretical capacity in 2034 with RFCs exceeding the desirable maximum of 0.85 in both the AM and PM peaks and operating with an RFC of 1.00 in the PM peak without HIF1.
- 6.8.20 With the HIF1 Scheme there is a significant improvement in the operation of the junction, and it is forecast to operate well within capacity in both 2024 and 2034 with minimal queuing.

High Street / Church Street / Brook Street Junction (OFF 9)

6.8.21 The results of the capacity assessments for the High Street / Church Street / Brook Street junction are presented in Table 6.30 and Table 6.31 for 2024 and 2034 respectively.

#### Table 6.30: Operation of High Street / Church Street / Brook Street Junction (OFF 9) - 2024

Movement		Witho	ut HIF1		With HIF1			
	АМ		РМ		АМ		PI	N
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue
High Street to High Street	-				-			
High St (N) to High St	0.49	1	0.39	1	0.43	1	0.30	0
High St (S) to High St (N)	1.00	18	1.10	44	0.43	1	0.45	1
High Street to Church Street							•	•
High St to Brook St/ Church St	1.35	87	1.47	135	0.62	2	0.58	1
Brook St to High St	0	0	0	0	0	0	0	0
High Street to Brook Street							•	•
High St to Brook St/ Church St	0.11	0	0.18	0	0.09	0	0.15	0
Church St to High St	0.26	1	0.11	0	0.20	0	0.08	0

### Table 6.31: Operation of High Street / Church Street / Brook Street Junction (OFF 9) - 2034

Movement		Witho	out HIF1			With HIF1			
	A	M	PI	VI	A	АМ		Λ	
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
High Street to High Street									
High St (N) to High St	0.54	1	0.40	1	0.53	1	0.62	2	
High St (S) to High St (N)	1.88	494	1.76	447	0.55	1	0.69	2	
High Street to Church Street					-		-		
High St to Brook St/ Church St	2.69	654	2.43	577	0.84	4	1.06	20	
Brook St to High St	0	0	0	0	0	0	0	0	
High Street to Brook Street					•		·		
High St to Brook St/ Church St	0.16	0	0.24	0	0.11	0	0.49	0	
Church St to High St	0.31	1	0.13	0	0.26	1	0.21	0	

6.8.22 Without the HIF1 Scheme, the junction is forecast to operate above capacity in the AM peak and PM peak hours in 2024, and the performance of the junction deteriorates further by 2034.

6.8.23 With the HIF1 Scheme there is a significant improvement in junction performance. It is forecast to operate within capacity in 2024. In 2034, capacity is exceeded in the PM peak, with a maximum RFC

of 1.06 on the High Street to Brook Street/Church Street movement and a maximum queue of 20 vehicles. This is low compared to the same without HIF1 scenario with a forecast RFC of 2.43 and a maximum queue of 577.

6.8.24 Junction performance in the 2034 With HIF1 scenario is predicted to be similar to 2020 in the AM, and better in the PM, with a maximum RFC of 1.06 and associated queue of 20 vehicles in 2034 compared to RFC of 1.19 and queue of 47 vehicles in 2020 as shown in Table 3.11.

Tollgate Road / Abingdon Road Junctions (OFF 10 and OFF 11)

6.8.25 The results of the capacity assessments for the B4016 Appleford Road/Abingdon Road junction (OFF 10) and A415 / Tollgate Road junction (OFF 11) are presented in Table 6.32 and Table 6.33 for 2024 and 2034 respectively.

Movement		Withou	ut HIF1		With HIF1			
	AM		PM		A	N	PI	vi
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
A415 / Tollgate Road Junction S	ignals							
Abingdon Rd (E) - Ahead Left	64%	7	74%	9	52%	6	61%	9
Tollgate Road – Right Left	112%	42	73%	6	72%	3	54%	2
Abingdon Rd (W) - Ahead Right	99%	28	62%	5	44%	6	38%	3
Culham Bridges Signals			•		-			•
Culham Br N/bound - Ahead	113%	58	73%	13	24%	4	20%	3
Culham Br S/bound – Ahead	49%	12	75%	15	13%	3	14%	3
Appleford Road / Abingdon Roa	d Priority	Junction						
Appleford Rd (E) – Right Ahead	15%	0	20%	0	21%	0	21%	0
Appleford Rd (W) – Left Ahead	47%	0	39%	0	33%	0	24%	0
Abingdon Road – Left Right	40%	12	50%	14	16%	0	14%	0
Cycle time	154 / 111	seconds	154 / 111	seconds	154 / 111	seconds	154 / 111	seconds
PRC	-26.	0%	+19.	9%	+24.	7%	+46.	5%

#### Table 6.33: Operation of Tollgate Road / Abingdon Road Junctions (OFF 10 & OFF 11) - 2034

Movement		Withou	t HIF1		With HIF1			
	АМ		PI	Λ	A	Λ	PI	Λ
	DoS	MMQ	DoS	MMQ	DoS	MMQ	DoS	MMQ
A415 / Tollgate Road Junction S	Signals							
Abingdon Rd (E) - Ahead Left	81%	11	75%	7	78%	14	80%	16
Tollgate Road – Right Left	93%	16	78%	10	84%	11	73%	5
Abingdon Rd (W) - Ahead Right	91%	13	64%	5	70%	18	54%	7
Culham Bridges Signals								
Culham Br N/bound - Ahead	133%	109	100%	30	82%	17	45%	8
Culham Br S/bound – Ahead	65%	16	84%	16	16%	3	20%	4
Appleford Road / Abingdon Roa	d Priority	Junction			•			
Appleford Rd (E) – Right Ahead	26%	0	31%	0	34%	0	36%	0
Appleford Rd (W) – Left Ahead	73%	1	57%	0	39%	0	34%	0
Abingdon Road – Left Right	121%	87	85%	17	24%	3	44%	6
Cycle time	154 / 111	seconds	154 / 111	seconds	154 / 111	seconds	154 / 111	seconds
PRC	-47.	2%	-10.7	7%	+6.9	9%	+12.	9%

- 6.8.26 The results indicate that in 2024 without the HIF1 Scheme the junctions will operate above capacity in the AM peak and within capacity in the PM peak. Interrogation of the traffic flows for the 2024 PM peak scenario indicate that total traffic flows are lower than in the 2020 scenario. However, journey time data for the routes through this part of the network indicate higher journey times in 2024 compared to 2020 (ref Section 6.10). Congestion elsewhere on the network is therefore reducing the traffic flows through this part of the network, giving a false indication that network operation has improved when solely modelling this junction in a stand-alone manner.
- 6.8.27 In 2034 there is further deterioration in network performance in the AM peak. Network performance in the PM peak is indicated to be similar to the 2020 scenario, however this is related to congestion on the network elsewhere preventing traffic reaching these junctions, as for the 2024 scenario.
- 6.8.28 In the 'with HIF1' scenarios there is a significant improvement in network operation, with all junctions operating within capacity in both 2024 and 2034 and predicted queue lengths at a level that would not block back to adjacent junctions. The forecast PRC for all junctions in 2024 is between 24.7% and 46.5% and in 2034 it is forecast to be between 6.9% and 12.9% indicating that there will be spare capacity at these junctions with the HIF1 Scheme.
- 6.8.29 As explained in the baseline section, these junctions are complex to model due to the interaction of queuing back between them, particularly the uncontrolled priority junction at the south. As done for the baseline scenario, queue length data has been extracted from the Paramics model to further understand the predicted operation of these junctions across future scenarios. The model queue data uses the demand scenarios as shown in Figure 5.2, excluding the 70% factoring exercise for 2034 without HIF scenario.





6.8.30 Figure 6.17 above shows that the Paramics model indicates significant reductions in queue length from the northbound signals before the bridge as a result of the HIF1 Scheme in both 2024 and 2034 AM scenarios. There is no predicted queueing from the crossing signals that would block back to the southern Appleford Road / Abingdon Road priority junction (approximately 290m distance). This contrasts to the base, 2024 without HIF and 2034 without HIF where queuing is predicted to extend back to the junction (and further through Sutton Courtenay) for large portions of the AM peak. It should be noted that the shorter queue lengths in 2024 and 2034 without HIF when compared to base are not due to an improved performance at this junction, but are a result of vehicles being stuck in queues elsewhere in the model network preventing them from reaching the junction. Regardless of this, the model shows a significant improvement at this junction as a result of the HIF1 Scheme.



#### Figure 6.18: Culham Crossing Queue Comparison (Southbound)

6.8.31 Figure 6.18 above shows that the Paramics model indicates significant reductions in queue length from the southbound signals before the bridge as a result of the HIF1 Scheme in both 2024 and 2034 PM scenarios. There is no predicted queueing from the crossing signals that would block back to the northern A415 / Tollgate Road signalised junction (approximately 430m distance). This contrasts to the

base year which shows a queue approximately 200m long throughout the PM peak hour, and 2024 without HIF and 2034 without HIF where queuing is predicted to extend back to and through the northern junction (and further along the A415) for almost all of the PM peak hour. Therefore, the model shows a significant improvement at this junction as a result of the HIF1 Scheme.

## A4130 / Lady Grove Roundabout (OFF 12)

6.8.32 The capacity of the A4130 / Lady Grove roundabout has been assessed based on the proposed roundabout scheme for the junction, which is included in the Paramics model in 2024 and 2034 as explained in Table 5.3. The results of the capacity assessments are presented in Table 6.34 and Table 6.35 for 2024 and 2034 respectively.

Movement		Withou	t HIF1		With HIF1				
	АМ		РМ		AM		PM		
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	
Lady Grove	0.27	0	0.50	1	0.12	0	0.25	0	
Abington Road	0.53	1	0.41	1	0.53	1	0.43	1	
A4130	0.34	1	0.32	1	0.50	1	0.45	1	

#### Table 6.34: Operation of A4130 / Lady Grove Roundabout (OFF 12) - 2024

## Table 6.35: Operation of A4130 / Lady Grove Roundabout (OFF 12) - 2034

Movement		Withou	t HIF1		With HIF1			
	АМ		PI	РМ		AM		Λ
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue
Lady Grove	0.46	1	0.62	2	0.17	0	0.46	1
Abington Road	0.58	1	0.41	1	0.72	3	0.60	2
A4130	0.19	0	0.17	0	0.66	2	0.61	2

6.8.33 The results indicate that without the HIF1 Scheme the junction will operate within capacity in 2024 and 2034.

6.8.34 With the HIF1 Scheme there are slight changes to results on each arm with some increasing and others decreasing, and it is forecast to operate within capacity in both 2024 and 2034.

Lady Grove / Sires Hill Junction (OFF 13)

6.8.35 The results of the capacity assessments for the Lady Grove / Sires Hill junction are presented in Table 6.36 and Table 6.37 for 2024 and 2034 respectively.

#### Table 6.36: Operation of Lady Grove / Sires Hill Junction (OFF 13) - 2024

Movement		Without	HIF1		With HIF1			
	AM		РМ		A	АМ		1
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue
Lady Grove to Sires Hill (East)	0.16	0	0.05	0	0	0	0	0
Lady Grove to Sires Hill (West)	0.79	3	0.43	1	0.50	1	0.39	1
Sires Hill East to Sires Hill (West)	0.23	1	0.40	1	0	0	0.1	0

Movement		HIF1		With HIF1				
	АМ		РМ		AM		РМ	
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue
Lady Grove to Sires Hill (East)	1.37	6	1.06	3	0.11	0	0.01	0
Lady Grove to Sires Hill (West)	1.35	49	1.07	13	0.80	4	0.61	2
Sires Hill East to Sires Hill (West)	0.64	4	0.88	13	0.01	0	0.58	2

## Table 6.37: Operation of Lady Grove / Sires Hill Junction (OFF 13) - 2034

- 6.8.36 Without the HIF1 Scheme, the junction is forecast to operate within capacity in both the AM and PM peak hour in 2024. The maximum RFC forecast of 0.79 on the Lady Grove to Sires Hill (west) movement. In 2034, junction capacity is forecast to be exceeded in both the AM and PM peaks, with long queues forming on all arms.
- 6.8.37 With the HIF1 Scheme there is a significant improvement in the operation of the junction, and it is forecast to operate within capacity in both 2024 and 2034. Junction performance in the 2034 With HIF1 scenario is better than that for 2020, where junction capacity is exceeded in the AM peak with an RFC of 0.95 as shown in Table 6.17.

## Sires Hill / Didcot Road Junction (OFF 14)

6.8.38 The results of the capacity assessments for the Sires Hill / Didcot Road junction are presented in Table 6.38 and Table 6.39 for 2024 and 2034 respectively.

Movement		Withou	t HIF1		With HIF1			
	AM		РМ		AM		РМ	
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue
Sires Hill (South) to- Sires Hill (West)	0.16	0	0.38	1	0.17	0	0.33	1
Sires Hill (South) - Didcot Road	0.27	0	0.32	1	0.15	0	0.10	0
Sires Hill (West)-Sires Hill (South)	0.35	1	0.32	1	0.30	1	0.28	1

## Table 6.38: Sires Hill / Didcot Road Junction (OFF 14) - 2024

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Table 6.39: Sir	es Hill / Didco	t Road Junction	(OFF 14) – 2034
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Movement	Without HIF1				With HIF1			
	AM		РМ		AM		РМ	
	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue	Max RFC	Queue
Sires Hill (South) to- Sires Hill (West)	0.39	1	1.54	45	0.06	0	0.01	0
Sires Hill (South) - Didcot Road	0.73	2	1.51	25	0.65	2	0.52	1
Sires Hill (West)-Sires Hill (South)	0.96	25	0.68	5	0.01	0	0.70	0

- 6.8.39 Without the HIF1 Scheme, the junction is forecast to operate within capacity in 2024. In 2034 the junction is forecast to operate at close to capacity in the AM peak, and capacity is exceeded in the PM peak with long queues forming on all arms.
- 6.8.40 With the HIF1 Scheme there is a significant improvement in the operation of the junction, and it is forecast to operate within capacity in both 2024 and 2034.

# 6.9 Impacts at Milton Interchange Junction (OFF 1)

6.9.1 In discussions with Highways England, the impact of the HIF1 Scheme on the A34 and at the A34/A4130 Milton Interchange has been demonstrated by comparing journey times along the A34. This was extracted from the Paramics model along the full length of the A34 covered by the model (approximately 13km), for ten minute intervals 07:00 to 10:00 and 16:00 to 19:00, northbound and southbound, without and with HIF across the scenario years. The demand scenarios are explained in Figure 5.2. Figure 6.19 to Figure 6.22 below show the journey time results.

## Figure 6.19: A34 Northbound Average Journey Time (AM)



6.9.2 Figure 6.19 shows the northbound AM average journey time along the A34 is similar in the base, 2024 with and without HIF scenarios. The 2034 with HIF scenarios shows a slight increase which is to be expected due to the 14 years of growth above base. The 2034 without HIF scenario shows a significant increase in journey time particularly after 09:00, with vehicles taking over two hours to complete a journey of approximately 13km.




6.9.3 Figure 6.20 shows the northbound PM average journey time along the A34 is similar in the base, 2024 with and without HIF scenarios. The 2034 without HIF scenario shows a significant increase in journey time particularly after 17:30, with vehicles taking over one hour to complete a journey of approximately 13km. After 17:50 the journey time drops to zero as the network is congested and vehicles are not able to complete the journey.

## Figure 6.21: A34 Southbound Average Journey Time (AM)



6.9.4 Figure 6.21 shows the southbound AM average journey time along the A34 is similar in the base, 2024 with and without HIF scenarios. The 2034 with HIF scenarios shows a slight increase which is to be expected due to the 14 years of growth above base. The 2034 without HIF scenario shows a significant increase in journey time particularly after 09:00, with vehicles taking over two hours to complete a journey of approximately 13km.





- 6.9.5 Figure 6.22 shows the southbound PM average journey time along the A34 is similar in the base, 2024 with and without HIF scenarios. The 2034 with HIF scenarios shows an increase which is to be expected due to the 14 years of growth above base. The 2034 without HIF scenario shows a significant increase in journey time particularly after 17:20, with vehicles taking over 41 minutes to complete a journey of approximately 13km. After 17:30 the journey time drops to zero as the network is congested and vehicles are not able to complete the journey.
- 6.9.6 Interrogation of the model network towards Didcot, across Milton Interchange and travelling east away from it explains the above journey time results on the A34. Figure 6.23 and Figure 6.25 below show the average eastbound journey times in the AM and PM peak hours, for the approximately comparable sections of the model (to the next junction) across the different scenarios. The journey times are across the following distances: 2020 base is 786 metres, 2024 without HIF is 1,032 metres, 2024 with HIF is 724 metres, 2034 without HIF is 1,032 metres, and 2034 with HIF is 717 metres. To allow further comparisons across the scenarios, Figure 6.24 and Figure 6.26 show the average speeds across the section in each scenario, which takes into account the different section lengths.

## Figure 6.23: Average Eastbound AM Peak Hour Journey Times



Figure 6.24: Average Eastbound AM Peak Hour Speeds



6.9.7 Figure 6.23 above shows that in 2034 AM peak hour, without HIF the journey takes 276 seconds compared to 84 seconds with HIF. This equates to approximately 8.4 mph and 19.1 mph respectively, as shown in Figure 6.24. The Scheme is allowing vehicles to travel away from Milton Interchange approximately twice as fast, at a speed similar to 2020 base. The effect of this is seen on the A34 as shown in Figure 6.19 and Figure 6.21 above, where significantly increased journey times are seen without HIF, due to the blocking back to Milton Interchange.

#### Figure 6.25: Average Eastbound PM Peak Hour Journey Times







- 6.9.8 Figure 6.25 above shows that in 2034 PM peak hour, without HIF the journey takes 684 seconds compared to 108 seconds with HIF. This equates to approximately 3.4 mph and 14.9 mph respectively, as shown in Figure 6.26. The Scheme is allowing vehicles to travel away from Milton Interchange approximately four times faster, at a speed similar to 2020 base. The effect of this is seen on the A34 as shown in Figure 6.20 and Figure 6.22 above, where significantly increased journey times are seen without HIF, due to the blocking back to Milton Interchange.
- 6.9.9 In summary, HIF enables the A4130 eastbound from Milton Interchange to operate more efficiently, allowing vehicles to travel away from the junction. This reduces blocking back through the junction, enabling it to operate more efficiently, which in turn reduces queueing on the A34 off slip roads. The effect of this on the A34 is reduced journey times, as shown in above figures. The greatest impact of the Scheme is shown to be in PM peak.

#### 6.10 Journey Time

6.10.1 Journey time data has been extracted from the Paramics model to enable comparisons of network operation across multiple routes on the highway network. The demand scenarios are explained in Figure 5.2. These four routes, as shown in Figure 6.27, were selected as they represent a good geographic spread across the Scheme area, and they cover the significant areas of existing congestion that the Scheme intends to relieve. They also cover the north/south sections of the existing bus routes over the River Thames, routes 33 and 95.

### Figure 6.27: Journey Time Routes



Map data © Google 2021

6.10.2 Journey times for the 2020, 2024 and 2034 scenarios without and with the HIF1 Scheme are presented in Table 6.40 (AM peak) and Table 6.41 (PM peak). The journey times for the '2034 No HIF1' scenario are based on the model run using 100% demand rather than 70% demand (refer to section 5.3.10), as factoring up from the 70% demand model run would not provide reliable results for journey times. The journey times reported for the '2034 No HIF1' scenario therefore reflect the widespread congestion seen on the network in this scenario rather than predicted journey times.

					Journey Time (seconds)				
Route	Direction	From	То	2020 Base	2024 No HIF1	2024 With HIF1	2034 No HIF1	2034 With HIF1	
Yellow	Northbound	Hadden Hill	Golden Balls	1,465	3,471	800	7,319	1,224	
Yellow	Southbound	Golden Balls	Hadden Hill	1,103	1,553	766	4,953	796	
Blue	Northbound	Milton Interchange	A415	1,594	1,287	786	1,648	840	
Blue	Southbound	A415	Milton Interchange	997	1,140	804	2,663	1,039	
Orange	Eastbound	West of Tollgate Rd	Berinsfield	1,213	1,598	632	5,156	824	
Orange	Westbound	Berinsfield	West of Tollgate Rd	666	927	614	2,845	931	
Red	Eastbound	Milton Interchange	Hadden Grove	859	940	905	1,486	932	
Red	Westbound	Hadden Grove	Milton Interchange	1,139	976	922	1,540	1,624	

## Table 6.40: Journey Time Data – AM Peak

## Table 6.41: Journey Time Data – PM Peak

					Journey	/ Time (se	conds)	
Route	Direction	From	То	2020 Base	2024 No HIF1	2024 With HIF1	2034 No HIF1	2034 With HIF1
Yellow	Northbound	Hadden Hill	Golden Balls	2,441	4,657	790	12,174	1,144
Yellow	Southbound	Golden Balls	Hadden Hill	1,159	1,206	790	3,009	882
Blue	Northbound	Milton Interchange	A415	967	940	769	1,444	870
Blue	Southbound	A415	Milton Interchange	1,235	2,255	1,280	2,227	1,282
Orange	Eastbound	West of Tollgate Rd	Berinsfield	892	6,250	593	53,785	608
Orange	Westbound	Berinsfield	West of Tollgate Rd	527	842	609	3,627	668
Red	Eastbound	Milton Interchange	Hadden Grove	1,482	1,083	1,038	2,293	1,316
Red	Westbound	Hadden Grove	Milton Interchange	1,096	1,139	888	2,180	1,425

#### 6.10.3 The results indicate significant journey time reductions as a result of the HIF1 Scheme.

6.10.4 A comparison of the sum of journey times for all routes in Table 6.40 and Table 6.41 is shown below.

## Figure 6.28: Journey Time Routes



6.10.5 The Figure above demonstrates that the total journey time for all routes is significantly reduced with the HIF1 Scheme in both 2024 and 2034. The yellow and blue routes are used by bus services to cross the River Thames, therefore the Scheme enables lower journey times / improved journey time reliability for bus services using these routes. The significant increase in journey times seen in 2034 without HIF is caused by increases across all routes, but predominantly the orange PM eastbound route. This is created by significant delays at the Clifton Hampden staggered signalised junction and Culham Science Centre entrance. Total journey times in 2034 with the HIF1 Scheme are also slightly lower than those in 2020, showing that the HIF1 Scheme helps to enable the planned growth whilst allowing the road network to operate similarly to the base scenario. Speeds across the entire modelled network help to illustrate this further, as presented in the following section.

#### 6.11 **Overall Network Statistics**

6.11.1 The average speeds of vehicles were extracted from the Paramics model to represent the overall performance of the network with and without the HIF1 Scheme. The demand scenarios are explained in Figure 5.2. Results from 2020, 2024 and 2034 scenarios without and with the HIF1 Scheme for AM and PM peaks are presented in Figure 6.29 and Figure 6.30 below.

#### Figure 6.29: AM Average Speed







- 6.11.2 The Figures above show that additional growth in the model area without the HIF1 Scheme results in a slower moving network, which can be considered as a proxy for congestion. For example, four years of growth from 2020 to 2024 results in a 3.7mph reduction in the AM and 4.8mph reduction in the PM. The HIF1 Scheme in 2024 enables the network to operate more efficiently than 2020, as shown by the higher average speeds. The 2034 without HIF scenario shows a significant reduction in average speed across the network, due to the gridlock situation that develops in the model. The HIF1 Scheme enables the 2034 network to operate similarly to 2024 without HIF. It should be noted that the highway elements of the HIF1 Scheme are intended to be one part of a balanced transport strategy. The high-quality walking and cycling infrastructure elements of the Scheme help to offer alternative options for many journey types and routes.
- 6.11.3 The average journey times of vehicles were extracted from the Paramics model to represent the overall performance of the network with and without the HIF1 Scheme. The demand scenarios are explained in Figure 5.2. Results from 2020, 2024 and 2034 scenarios without and with the HIF1 Scheme for AM and PM peaks are presented in Figure 6.31 and Figure 6.32 respectively. For ease of comparison, the change from 2020 Base is also presented in the same figure for each scenario.

#### Figure 6.31: Average Journey Time (AM Peak)



6.11.4 Figure 6.31 shows that in the AM peak, four years of growth from 2020 Base, without the HIF Scheme, is modelled to increase average journey times by over two minutes (139 secs). This is significantly worsened with an additional ten years of growth to 2034, with the average journey time increasing by over 24 minutes (1,460 secs) compared to the 2020 base. In 2024, the HIF1 Scheme reduces average journey times compared to the 2020 base by over one minute (-73 secs). In 2034, the HIF1 Scheme has enabled 14 years of growth with an average journey time increase of just over four minutes (253 secs). The average journey time with the HIF1 Scheme in 2034 is less than half of that without HIF1 (937 to 2,143). The HIF1 Scheme enables the 2034 network to operate similarly to 2024 without HIF1.





6.11.5 Figure 6.32 shows that in the PM peak, four years of growth from the 2020 Base, without the HIF1 Scheme, is modelled to increase average journey times by three and a half minutes (213 secs). This is significantly worsened with an additional ten years of growth to 2034, with the average journey time

increasing by almost twelve and a half minutes (743 secs) compared to the 2020 Base. In 2024, the HIF1 Scheme reduces average journey times compared to the 2020 base by almost one minute (-44 secs). In 2034, the HIF1 Scheme has enabled 14 years of growth with an average journey time increase of just over three minutes (188 secs). The average journey time with the HIF1 Scheme in 2034 is less than two thirds of that without HIF1 (901 to 1,455). The HIF1 Scheme enables the 2034 network to operate similarly to 2024 without HIF.

## 7. Construction

## 7.1 Introduction

- 7.1.1 This section considers the potential impact of the construction of the proposed HIF1 Scheme. GRAHAM has been appointed by OCC to provide Early Contractor Involvement (ECI) on this project. The detailed construction strategy is being prepared at the time of the production of this TA. Therefore, a high level analysis has been undertaken of the potential implications of the construction activity, based on the information available at the time. Throughout the design process, the Scheme has been amended to move junctions offline where possible. This should enable a shorter construction period with less disruption to residents due to road closures / traffic management.
- 7.1.2 As part of a planning permission for the proposed development, it is anticipated that there will be a pre-commencement condition to produce a Construction Environmental Management Plan (CEMP), with Construction Traffic Management Plans (CTMP) produced as relevant ahead of each phase of construction. The CTMP will consider the construction activity for that phase and identify appropriate measures to minimise or mitigate significant impacts. A list of the potential measures which may be included within the CTMP is provided at the end of this section.

## 7.2 Construction Traffic Management Plan

- 7.2.1 As noted above, a CTMP will be required for each phase of the construction. This will identify the strategy for controlling / minimising traffic related impacts of the construction, in particular the effects of highways works on the A4130 and A415 and associated with deliveries to the site. The following key principles will be identified in the CTMP, and the CEMP where relevant.
  - The CTMP will be consulted on with the local highway authority. All proposals for off-site transport management will be required to conform to the CTMP.
  - The contractor will work with OCC to identify appropriate times for vehicles to travel to/from the site and to minimise impact of construction vehicles and deliveries, especially during peak times. This will need to take into account key sensitive receptors and the impacts on local residents and communities of different working times and practices, e.g. minimising the need for night-time working where properties are adjacent. Some activities may need to be completed beyond the normal working day for reasons such as engineering practicality and/or public safety, which will be agreed in advance with the LPA / LHA. Examples of this could include:
    - temporary highway/traffic management works;
    - formwork erection and removal;
    - concrete pours;
    - earthwork movements;
    - completion of crane lifting operations;
    - heavy lifts such as bridge decks;
    - heavy/large components of the Proposed Development; and
    - movement of abnormal loads.
  - The identification of routes for construction vehicles to and from the site. The routes identified will
    primarily be major roads (A roads). Approvals from the local highway authority will be obtained in
    respect of the means and routes by which anything required for construction is to be transported
    by large goods vehicles (as defined in Part IV Road Traffic Act 1988) on a highway to a construction
    or storage site, or to a waste disposal site.
  - An appropriate control system will be implemented for the dispatch of all vehicles containing excavated material or other waste material.
  - All Temporary Traffic Management shall be in accordance with the Traffic Signs Manual: Chapter 8, Safety at Street Works and Road Works: A Code of Practice (2013), Traffic Signs Regulations and General Directions 2016.
  - Approval will be obtained from the relevant highway authorities to the formation, layout or alteration
    of any permanent or temporary means of access to a highway to be used by vehicular traffic.

Procedures for applications for temporary interference to the highway and for any required Traffic Regulation Orders will be discussed with the local highway authority, with inputs from the LPA.

- The works will be carried out in such a way that inconvenience to the public arising from any increases in traffic flows and disruptive effects of construction traffic is limited, as far as reasonably practicable.
- The Contractor shall ensure appropriate pedestrian and cycling routes are maintained while ensuring any temporary closures are supported by appropriate and clearly signed alternative routes.
- The Contractor will ensure that all working areas are sufficiently and adequately fenced off from members of the public and to prevent animals from straying on to the working area. The standard of enclosure and screening at a particular site will be selected in order to maintain effective site security and achieve appropriate noise attenuation and visual effect, and limit dust accumulation. In some areas screening may be painted and may include viewing points and relevant project information.
- All reasonably practicable measures will be put in place to avoid/limit and mitigate the deposition
  of mud and other debris on the highway. These measures will have regard to the nature and the
  use of the Site and will include:
  - hardstanding at the access and egress points which will be cleaned at appropriate intervals;
  - vehicle clean down points to clean vehicle wheels at each exit point on to the highway;
  - the correct loading of vehicles and sheeting of loads where necessary to avoid spillage during their journeys;
  - the use of mechanical road sweepers combined with water sprays for the suppression of dust to clean site hardstanding, roads and footpaths in the vicinity of the Site; and
  - the flushing of gullies in the vicinity of the Site.
- Wherever practicable, concrete wash out facilities will be installed at the point of work. Where this
  is not practicable, concrete deliveries will be directed to the nearest available wash out facility and
  supervised to ensure they wash out before driving onto the live carriageway. All compound areas
  will have a concrete wash out facility.
- Parking for construction staff will be provided within the site compounds. Site access points for site personnel, construction related vehicles and emergency access will be identified and signed for both vehicular traffic and pedestrian/cycle access.
- The Contractor will comply with Construction Logistics and Community Safety (CLOCS) Standard requirements to manage risk associated with vehicle movements. Deliveries and construction activity will be consolidated where feasible.
- Suppliers will be expected to be part of a best practice scheme, e.g. TfL's Freight Operator Recognition Scheme (FORS), which is aligned to CLOCS requirements.

#### 7.3 **Programme**

- 7.3.1 In advance of a detailed construction programme and strategy, estimates have been made of the vehicular activity which would be anticipated to occur during the construction period which is outlined in Table 7.2 and Table 7.3 below.
- 7.3.2 Construction is anticipated to start in March 2023 and continue to 25 months finishing in March 2025.

#### 7.4 Construction Compounds, Site Accesses and Vehicle Movements

7.4.1 A total of 14 site access points has been identified along the Scheme and are outlined in Table 7.1 below. The ECI Contractor (Grahams) has provided an estimate of the monthly vehicle movements at each access point, for both cars/LGVs and HGVs. Car/LGV movements are predominantly related to staff travelling to and from the Site, and it has been assumed that the import and export of materials is by HGV.

Access	Location	Туре
Access A	A4130	HGV
Access B	A4130	HGV
Access C	A4130	HGV
Access D	A4130	HGV & Car/LGV
NW Science Bridge Compound	Milton Road	Car/LGV
Access E	A4130	HGV
Access Between F & E	A4130	Car/LGV
Access F	A4130	HGV & Car/LGV
Access G	A4130	HGV
Access H	B4016	HGV
Access I	B4016	HGV & Car/LGV
Access J	A415	HGV & Car/LGV
Access K	A415	HGV & Car/LGV
Access L	B4015	HGV & Car/LGV

#### Table 7.1: Construction Access Points



#### Figure 7.1: Construction HGV Access



7.4.3 It has been assumed that HGVs will use Milton Interchange and the A4130 for access points A to G. To avoid existing weight restrictions on High Street through Milton, access to access points I and H, located between Sutton Courtenay and Appleford, will be via Marcham Interchange on the A34, then the B4017 to Drayton and Drayton Road/Appleford Road. There is an existing 7.5t weight restriction on Appleford Road to the east of the Hanson site access. In order to access the Site it has been assumed that this weight restriction would be moved temporarily to access point H, and HGVs would not be permitted east of this point, thereby maintaining the restriction through Appleford.

- 7.4.4 HGVs would access Site accesses J and K via Marcham Interchange and the A415 Abingdon Road. Access to Site access L would be via the A4074. There is an existing 7.5t weight restriction on the A4074 to the west of the Notcutts Garden Centre access. It has been assumed that this would temporarily be re-located to Site access L, with HGVs restricted to the west of this point thereby maintaining the restriction through Clifton Hampden.
- 7.4.5 An assessment of the impact of construction traffic has been included in the Environmental Statement (Chapter 16 'Traffic and Transport'). The conclusions to the assessment are summarised below:
  - The assessment indicates that no roads in the local area are expected to experience an increase in daily traffic flows of more than 10% with the traffic associated with the construction of the Scheme, and these increases would be short-term only;
  - Some roads are predicted to have large percentage increases in daily HGV traffic. The greatest
    increase is forecast on the B4016 Appleford Road, to the west of construction Access H and I.
    However, there is an existing 7.5t weight restriction (except for access) on this link to the east of
    the Hanson quarry access, and therefore the baseline HGV traffic on this link is low. The
    construction traffic would not travel east beyond the proposed site access points and through
    Appleford, and therefore the impact would be limited to a short section of the B4016 between the
    Hanson access and the proposed site access;
  - The southbound A34 On-Slip and the northbound A34 Off-Slip at Milton Interchange are forecast to experience an increase of 154 daily HGVs, equating to a 53% and a 40% increase respectively in 2024 with the construction of the Scheme. If the HGVs are spread evenly across the 10-hour working day this equates to approximately 15 HGVs per hour. This level of HGV traffic is forecast to occur on these slip roads for only month 3 of the construction period. The average number of daily construction HGVs forecast to use the southbound A34 On-Slip and the northbound A34 Off-Slip at Milton Interchange during the entire construction period is 37 HGVs, which equates to 13% and 10% increase in daily HGV traffic flows in 2024. The impact at this junction is not considered to be significant.
  - The A415 Abingdon Road is forecast to experience an increase of 154 daily HGVs, equating to a 40% increase. This increase equates to approximately 15 HGVs per hour across a 10-hour working day. However, this level of construction HGVs is only forecast for month 6 of the construction period. The average number of daily construction HGVs forecast to use the A415 Abingdon Road 56 HGVs, which equates to a 14% increase in daily HGV traffic flows. The impact on the A415 is not considered to be significant.
  - During the construction of the Scheme there may be lane closures where works need to be undertaken on or adjacent to existing carriageway. This is most likely to occur at the following locations:
    - On the A4130 between Milton Interchange the proposed Science Bridge as part of the A4130 Widening Scheme;
    - The A4130/ Hawksworth/ Purchas Road roundabout;
    - The A4130 between the A4130/ Hawksworth/ Purchas Road roundabout and the A4130/ Collett roundabout;
    - B4016 Appleford Road at the location of the proposed roundabout; and
    - A415 Abingdon Road between the proposed roundabouts.
  - These closures will be temporary whilst construction works on the existing highway are undertaken. It is not known at this time how long the closures at each location will last, however, these will be managed by the principal contractor and appropriate signage or alternative routes will be provided to reduce delays.
  - HGV movements will be managed through the CTMP to minimise impacts during the highway peak hour. The HGVs will be managed to ensure that they stay on the strategic highway network for as long as possible to reduce the impact on rural roads in the local area.

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## Table 7.2: Forecast Construction Car / LGV Traffic per Access

													Month												
Car / LGV Access Points	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	Mar- 23	Apr- 23	May- 23	Jun- 23	Jul- 23	Aug- 23	Sep- 23	Oct- 23	Nov- 23	Dec- 23	Jan- 24	Feb- 24	Mar- 24	Apr- 24	May- 24	Jun- 24	Jul- 24	Aug- 24	Sep- 24	Oct- 24	Nov- 24	Dec- 24	Jan- 25	Feb- 25	Mar- 25
Access A	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	0	0	0	0	0	0	0
Access D	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
NW Science Bridge Compound	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Access Between F & E	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Access F	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	0	0
Access I	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	0	0	0	0	0
Access J	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	0	0	0	0	0
Access K	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
Access L	20	20	20	20	20	20	20	20	20	20															
Total	1280	1280	1280	1280	1280	1280	1280	1280	1280	1280	1260	1260	1260	1260	1260	1260	1260	1260	1080	1080	820	820	820	580	580

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## Table 7.3: Forecast HGV Traffic per Access

													Month	I											
HGV Access Points	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	Mar- 23	Apr- 23	May- 23	Jun- 23	Jul- 23	Aug- 23	Sep- 23	Oct- 23	Nov- 23	Dec- 23	Jan- 24	Feb- 24	Mar- 24	Apr- 24	May- 24	Jun- 24	Jul- 24	Aug- 24	Sep- 24	Oct- 24	Nov- 24	Dec- 24	Jan- 25	Feb- 25	Mar- 25
Access A	0	0	0	0	0	0	0	19	33	25	41	60	13	3	2	67	13	3	0	0	0	0	0	0	0
Access B	71	188	183	77	53	46	72	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access C	38	82	185	23	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access D	5	2	57	57	57	57	57	57	57	57	57	57	57	57	79	3	3	3	11	5	3	9	8	8	0
Access E	16	14	40	54	5	22	5	7	23	4	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access F	31	32	83	39	27	83	80	81	76	43	23	20	11	59	6	189	68	17	36	100	27	10	11	0	0
Access G	4	10	67	25	19	10	7	8	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access H	71	114	19	4	7	75	163	134	143	70	43	8	9	38	27	35	12	17	108	2	0	0	0	0	0
Access I	10	4	17	2	2	2	61	74	74	74	74	41	4	4	8	7	4	17	13	48	0	0	0	0	0
Access J	31	4	14	4	135	113	98	86	55	57	84	50	5	212	5	5	3	12	8	32	0	0	0	0	0
Access K	42	10	10	46	66	195	195	199	54	52	8	9	131	45	15	21	77	252	218	124	17	0	0	0	0
Access L	7	45	17	23	28	13	14	28	35	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	323	503	691	354	405	614	752	711	552	392	391	245	230	418	141	327	179	321	394	310	47	19	19	8	0

## 8. Summary & Conclusions

## 8.1 Summary

- 8.1.1 This TA has been produced to consider the impacts of the proposed HIF1 Scheme on the transport networks that may be affected by the proposals. Traffic and transport implications are also considered with the separate Environmental Statement that has been produced for the planning application, in line with relevant DMRB guidelines.
- 8.1.2 Planning permission is sought for the following:

Planning application seeking full planning permission for the dualling of the A4130 carriageway (A4130 Widening) from the Milton Gate Junction eastwards, including the construction of three roundabouts; a road bridge over the Great Western Mainline (Didcot Science Bridge); realignment of the A4130 north east of the proposed road bridge including the relocation of a lagoon; construction of a new road between Didcot and Culham (Didcot to Culham River Crossing) including the construction of three roundabouts, a road bridge over the Appleford railway sidings and road bridge over the River Thames; construction of a new road between the B4015 and A415 (Clifton Hampden bypass), including the provision of one roundabout and associated junctions; and controlled crossings, footways and cycleways, landscaping, lighting, noise barriers and sustainable drainage systems.

At Land in the parishes of Milton, Didcot, Harwell, Sutton Courtenay, Appleford-on-Thames, Culham and Clifton Hampden.

- 8.1.3 Railway lines and the River Thames creates severance to effective movement and barriers to connectivity between homes, jobs and amenities. High levels of congestion are evident on the A4130, on the existing river crossings between Didcot and Culham/Clifton Hampden and within Clifton Hampden. This has led to OCC objecting to the applications of single dwellings on grounds of highway safety, convenience and sustainability. These objections have led to Local Planning Authority (LPA) refusals which have been upheld at appeal by the Planning Inspectorate. Additionally, a Vale of White Horse District Council (VoWHDC) Local Plan strategic allocation for 200 new homes has also been refused planning permission on similar grounds. It is evident that the constrained highway network has already adversely affected growth in the area.
- 8.1.4 The Scheme is deemed as essential to deliver future growth as identified within Local Plans for both South Oxfordshire District Council (SODC) and the Vale of White Horse District Council (VoWHDC). The Scheme is also identified in OCC's Local Transport Plan 4.
- 8.1.5 The infrastructure investment will help relieve pressure on local transport networks and will facilitate economic growth across the Science Vale area whilst accommodating the expanding communities in the local area. The provision of walking and cycling facilities offer real mode choice for work and leisure, helping to encourage modal shift. Improving local roads and providing new roads will lead to more reliable journey times, less congestion, more job opportunities, and better community links.
- 8.1.6 The Scheme includes dedicated off-road pedestrian and cycle facilities along its length, that tie-in to existing facilities where possible. In addition, 18 new bus stops are being provided, which will increase the accessibility and catchment of the existing bus services in this area.
- 8.1.7 The Scheme is included in Core Policy 17 and 18 of the Vale of White Horse Local Plan 2031. The Inspector's Report for the Vale of White Horse Local Plan states that the proposed infrastructure and services to support new development in the area, of which the HIF1 Scheme forms a major part, *'would largely mitigate'* the likely transport impacts of the new housing and employment, however some congestion issues would remain. The Inspector's report also notes that *"the 'starting point"* situation for the Vale is as a district which very much suffers from traffic congestion."
- 8.1.8 The Scheme is also identified in Policies TRANS1b and TRANS3 of the South Oxfordshire Local Plan 2035, and the South Oxfordshire Infrastructure Delivery Plan. The Planning Inspectorate report on the Examination of the South Oxfordshire Local Plan 2011-2034 (in 2020) notes that the schemes 'are part of a wider highway strategy to support the delivery of housing growth in the wider Didcot Garden Town area and to mitigate the impact of existing, approved and allocated developments.'
- 8.1.9 The TA includes a review of the existing network conditions, based on modelled traffic flows for 2020. The traffic flows were provided by Systra/OCC, and were obtained from the Didcot Paramics microsimulation model. A high level of congestion is evident on the A4130, and a number of junctions are shown to already be operating at or over capacity in one or both peaks. This is particularly evident at

the staggered signalised junction in Clifton Hampden and the existing river crossing at Culham / Sutton Courtenay.

- 8.1.10 The results confirm that the local highway infrastructure has failed to keep pace with growth in the area, and the railway lines and the River Thames clearly create barriers to connectivity between homes and jobs.
- 8.1.11 Future baseline assessments with the proposed Scheme have been undertaken for the first year of opening in 2024 and for opening plus 10 years (2034). The traffic model data reflects the future year residential and employment completion trajectories as supplied by the relevant Local Planning Authorities (VoWHDC and SODC).
- 8.1.12 Capacity assessments of the junctions along the proposed Scheme and also a number of off-site junctions were undertaken for 'without Scheme' and 'with Scheme' scenario in 2024 and 2034. The results for the Scheme junctions indicated that the majority would operate within capacity in 2034. Junctions shown to be operating at or close to capacity on the side arms include the following:
  - The A4130 / Science Bridge junction is shown to operate over capacity in 2034 on the side arm. However, an alternative route via the industrial estate is available for traffic heading north or east, with capacity to accommodate re-routing traffic. The strategy is to prioritise the mainline flow, to promote the use of Didcot Science Bridge, as explained in paragraph 6.6.15;
  - The New Thames River Crossing / B4016 junction is predicted to operate at close to capacity in 2034 on the side arm. However, the maximum queue length on the B4016 is only seven vehicles. The strategy is prioritise the mainline flow, helping to dissuade through traffic in the village, as explained in paragraph 6.6.22;
  - The Clifton Hampden Bypass junctions with the realigned A415 and B4015 are forecast to operate over capacity in 2034 on the side arms. The strategy is to prioritise the mainline flow, helping to dissuade through traffic in the village, as explained in paragraphs 6.6.31 and 6.6.34.
- 8.1.13 Capacity assessments for the off-site junctions show that the Scheme results in significant improvements at a number of junctions. This includes junctions along the route between Didcot and the A4074 via Long Wittenham and Clifton Hampden and the route from Milton Interchange to Culham via Sutton Courtenay. This also reflected in reduced journey times along these routes.
- 8.1.14 At Milton Interchange, the HIF1 Scheme enables the A4130 eastbound from Milton Interchange to operate more efficiently, allowing vehicles to travel away from the junction. This reduces blocking back through the junction, enabling it to operate more efficiently, which in turn reduces queueing on the A34 slip roads. The effect of this on the A34 is reduced journey times on the A34 and on the A4130.
- 8.1.15 Journey time data for key routes in and around Didcot demonstrate significant reductions as a result of the HIF1 Scheme. Total journey times in 2034 with the HIF1 Scheme are slightly lower than those in 2020, showing that the HIF1 Scheme helps to enable the planned growth whilst allowing the road network to operate similarly to the base scenario. This is also reflected in average speed data. This demonstrates that by 2034, without the HIF1 Scheme there would be significant reductions in average speeds across the network, indicating widespread congestion. The HIF1 Scheme increases average speeds to levels similar to those in 2024, although slightly lower than 2020 base speeds. It should be noted, however, that the highway elements of the HIF1 Scheme are intended to be one part of a balanced transport strategy. The high-quality walking and cycling infrastructure elements of the Scheme help to offer alternative options for many journey types and routes.
- 8.1.16 AECOM has undertaken a WCHAR report for each element of the proposed Scheme. Walking and cycling movements were recorded over a period of one week, and movements were generally low across the network. This reflects the limited opportunities for walking/cycling between residential and employment areas, particularly north/south in the area north of Didcot, and the overall low walk and cycle mode share for the journey to work for Didcot (based on 2011 census data).
- 8.1.17 A Collision Investigation Study has been undertaken to help inform the design of the highway works. The study found identified one cluster site, at the A4130/Milton Road/Basil Hill roundabout, where 12 collisions were reported in the 5 year study period. A developer promoted scheme is currently under S278 review with OCC Road Agreements Team.
- 8.1.18 The potential impact of the construction of the proposed HIF1 Scheme has been considered. GRAHAM has been appointed by OCC to provide Early Contractor Involvement (ECI) on this project. Throughout the design process, the Scheme has been amended to move junctions offline where possible. This should enable a shorter construction period with less disruption to residents due to road closures / traffic management.

8.1.19 As part of a planning permission for the proposed development, it is anticipated that there will be a pre-commencement condition to produce a Construction Environmental Management Plan, with Construction Traffic Management Plans produced as relevant ahead of each phase of construction. These plans will consider the construction activity for that phase and identify appropriate measures to minimise or mitigate significant impacts, and other good practice that the main Contractor will be required to adhere to, such as the Construction Logistics and Community Safety Standard and the Freight Operator Recognition Scheme.

## 8.2 Conclusions

- 8.2.1 The Scheme is deemed as essential to deliver future growth as identified within Local Plans for both South Oxfordshire District Council and the Vale of White Horse District Council. The Scheme is also identified in Oxfordshire County Council's Local Transport Plan 4.
- 8.2.2 The infrastructure investment will help relieve pressure on local transport networks and will facilitate economic growth across the Science Vale area whilst accommodating the expanding communities in the local area. Improving local roads will lead to faster journeys, less congestion, more job opportunities, and better community links whilst also providing key active travel links to provide real mode choice for work and leisure.
- 8.2.3 The Scheme both directly delivers and indirectly enables a significant number of new and/or improved walking and cycling routes in the area. The provision of additional and improved NMU routes and crossing points will help to reduce the existing severance caused by the Great Western Mainline and River Thames. Connections to public rights of way will be provided, and safe access to and from new bus stops. This will help to engender modal shift away from the private motor car, particularly for commuting purposes for employment and education, but also for important access to amenities such as retail and healthcare, and for leisure trips. The potential future NMU schemes that could link to the Scheme may be delivered by OCC, housing or employment developers, or other bodies. There may be other schemes identified through the planning application processes for other developments, or through the Didcot Local Cycling and Walking Infrastructure Plan (LCWIP) which has yet to be undertaken.
- 8.2.4 There are currently poor opportunities for bus routes to offer good journey time reliability north / south in this area due to the severance created by the River Thames and the historic road network. Journey time data demonstrates that the HIF1 Scheme will significantly improve journey times over the existing river crossings at Culham Cut / Sutton Bridge and Clifton Hampden Bridge. Bus routes that use these bridges in the future, currently the 95 and 33 services, would benefit from the improved journey times and reliability.
- 8.2.5 The South Oxfordshire IDP includes requirements for several new bus routes to support planned growth. It is the intention for two of these routes to use the new Didcot to Culham River Crossing road, and as such the future bus network has been planned assuming the new road is in place. Without the new road it is unlikely the new bus routes could be delivered; the routes would take longer and be less reliable, increasing operating costs, while at the same time being less attractive to use, suppressing revenue. It is unlikely the proposed new routes would be viable without the new road, which would cause several strategic new developments to be more car dependent and less acceptable in planning terms.
- 8.2.6 The traffic modelling indicates that without the HIF1 Scheme in place the traffic associated with the Local Plan housing and employment growth would result in congestion throughout the network in and around Didcot by 2034. The Scheme improves overall conditions for existing users of the transport network and helps to accommodate committed local plan growth in a sustainable way as part of an overall balanced transport strategy.
- 8.2.7 In conclusion, the proposed Scheme will significantly improve the accessibility to the walking, cycling and the bus network, as well improve the journey quality, times and reliability for these users along the Scheme extent. The analysis undertaken as part of this TA does not indicate any significant adverse effects on the highway, walking, cycling, horse-riding or public transport networks as a result of the proposed development.
- 8.2.8 The Scheme is part of balanced transport strategy, reducing congestion in some areas, providing highquality walking and cycling routes to engender mode shift away from private motor car, and enables new routes and improved journey times for buses. Therefore, it is considered that the HIF1 Scheme is positive in transport terms, and that the proposed development should be granted planning permission.

## Appendix A – Walking, Cycling and Horse-Riding Assessment Reports



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## Didcot Garden Town HIF 1 -A4130 Widening

## Walking, Cycling and Horse-Riding Assessment Report

**Oxfordshire County Council** 

Project number: 60606782

May 2020

Associate Director

## Quality information

Prepared by **Checked by** Verified by Approved by S. R. BARNES AGACH AGACY Andy Blanchard Andy Blanchard Samuel Barnes Mike Ager

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Revision	Revision	Details	Authorized	Name	Position
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P01	15/05/2020	FINAL – updated & stakeholder feedback added	$\checkmark$	Andy Blanchard	Project Manager

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# **Executive Summary**

This report outlines the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) prepared for Oxfordshire County Council for the proposed A4130 Widening scheme. This scheme is one of four that comprise the HIF1 Didcot Garden Town infrastructure project. Whilst the process set out in the Design Manual for Roads and Bridges (DMRB) GG 142 document has generally been followed in preparing this WCHAR Report, as this scheme is not a trunk road some alterations have been made to reflect this, such as a reduced study area.

The WCHAR process is divided into two phases:

- Assessment (this report): undertaken during the options or concept stage of a highway scheme to capture the existing conditions for pedestrians, cyclists and equestrians, and identify the opportunities for improvement for these modes.
- Review: shall be completed as an ongoing review during the various design stages of the highway scheme and shall record the design decisions relating to the provision of walking, cycling and horse-riding facilities.

The aims of this assessment are to gain an understanding of all relevant existing facilities for pedestrians, cyclists and equestrians (the users) in the local area, to provide background user information that can be referred to throughout the design process and to identify opportunities for improvement for users.

The proposed A4130 Widening scheme will deliver a dual carriageway between Milton Interchange at the A34 and the proposed Science Bridge over the Great Western rail line.

This Assessment Report documents the relevant local and national relevant policies and strategies. Within the study area, there has been only one recorded collision involving a pedestrian, and one involving a cyclist in the last five years. While there are a number of local and regional bus services operating in the area, there are no bus stops within the scheme extents. A train station, Didcot Parkway, is located approximately 2km east of the scheme.

The key trip generators in the area include the Milton Park Science Park, as well as Milton Interchange Service Area, and further afield the industrial areas to the north of the Great Western rail line. Movement within the study area is dominated by the private car, with low numbers of pedestrians and cyclists. This is self-reinforcing since the high level of vehicular traffic makes walking and cycling less attractive.

Few pedestrians and cyclists were observed during the site visit or throughout the surveys conducted in November 2019. The majority of cyclists observed used the southern shared use footway, and generally out number pedestrians in the study area.

A public information event covering the four HIF1 schemes was held throughout April 2020, and relevant WCHAR stakeholders were sent a targeted questionnaire to capture their views on the feasibility designs and needs of the users they represent. Their responses are summarised in this report.

Identified user opportunities as part of the assessment included:

- Integrating the walking and cycling networks along the public highways with those proposed as part of planned developments, with convenient, frequent and direct links.
- Improvement and incorporation of the Public Rights of Way and Science Vale Cycle Network with the existing connections and facilities, so that they can be fully utilised.
- Provision of segregated cycle track and footways, to avoid potential discomfort and conflict between pedestrian and cyclists; greening; and convenient crossing points.

# 1. Background and highways scheme description

## 1.1 Background

The proposed A4130 Widening scheme, to the west of Didcot, is one of four schemes that are included in the Access to Science Vale Options Assessment Report (OAR) to facilitate new developments to be constructed in the Didcot area.

The scheme will have a significant impact on the highways network in the area and therefore OCC have requested that the GG 142 Walking, Cycling & Horse-Riding Assessment and Review (WCHAR) is completed to inform the scheme design. Mike Ager in the role of Design Team Leader, has appointed Andy Blanchard as the Lead Assessor to undertake the WCHAR process in accordance with GG 142.

Although the scale of the scheme would usually qualify as a 'large' scheme in accordance with GG 142, the assessment will be based on the extent for a small scheme by virtue of this not being a trunk road (to which GG 142 applies) as determined by the Lead Assessor. The scheme will therefore be subject to a Walking, Cycling & Horse-Riding Assessment (this document) during the feasibility design stage of the proposed highway scheme. This will then be followed by a Walking, Cycling & Horse-Riding Review during each design stage.

The A4130 Widening scheme is located in the Science Vale area (see **Figure 1**), which comprises the towns of Didcot (including Milton Park and Didcot Power Station) and Wantage (& Grove) together with the established research centres at Culham Science Centre (CSC) and Harwell International Business Centre (IBC) together with the area between these settlements. The extents of the scheme are outlined in green in the figure below.



Figure 1: Science Vale area<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> "Option Assessment report: Access to Science Vale\_OAR\_ PART 1\_FINAL-converted"

The A4130 currently provides the principal connection between Didcot and the A34. The A34 is a major regional transport route, linking to the north and south, and giving access to the wider road network. The scheme objectives include improving conditions for walking, cycling and horse-riding as the current route has limited facilities and connections for these users. This is likely to include segregated facilities alongside the proposed dual carriageway and associated pedestrian and cycling infrastructure such as improve crossings and adjacent routes wherever possible.

## 1.2 Proposed highway scheme

The proposed A4130 Widening scheme will deliver a dual carriageway between Milton Interchange at the A34 and the proposed Science Bridge, which continues north and east to link with the existing A4130 Northern Perimeter Road and the proposed Didcot to Culham River Crossing & the Clifton Hampden Bypass. Dualling of the A4130 will help mitigate the cumulative impact of employment and housing growth in Didcot and the surrounding Science Vale area by providing improved network capacity and resilience.

The proposal (the current design layout is provided in **Appendix A**) includes providing a dual carriageway from a point 320m east of Milton Interchange, eastwards for approximately 1.6km. A four-arm roundabout about 300m to the east of the existing Milton Gate junction is proposed to provide access to a new business park and Local Plan housing allocation to the south of the existing A4130. Approximately 600m east of this roundabout a signalised junction is to be constructed for access to a part of the planned Valley Park housing development. Further east, a new three-arm roundabout will provide a connection to the current A4130 (that is to be retained as single carriageway) and a new dual carriageway link to the proposed Science Bridge roundabout. The Science Bridge roundabout will additionally provide the main access to the planned Valley Park housing development.

Dualling of the existing A4130 will consist of converting the existing single carriageway, and construction of a central reserve and additional two lanes to the south of the existing carriageway. The existing carriageway will form the eastbound carriageway towards Didcot and the newly constructed lanes will form the westbound carriageway to Milton Interchange. The road corridor will also include a two-way segregated 3m cycleway and 2m footway on the southern side of the dual carriageway, as well as a number of formal crossing points.

## 1.3 WCHAR study area

GG 142 establishes that the Lead Assessor shall define a WCHAR study area on a schemeby-scheme basis, that should typically extend 5km surrounding a large highway scheme. This scheme does not form part of the trunk road network, and after careful review of the requirements and proposed works, a reduced local study area extent (approximately 1km radius) has been proposed that is deemed appropriate for this study. **Figure 2** shows the proposed study area extents (green dashed line) and the scheme (blue dashed line).



<sup>2</sup> "Google Map<sup>TM</sup> and Google Streetview<sup>TM</sup> have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."

# 2. WCHAR assessment

# 2.1 Assessment of walking, cycling and horse-riding policies and strategies

The following regional and local policy documents have been reviewed as part of the assessment:

## Oxfordshire County Council's Local Transport Plan 4, 2015 – 2031

LTP4 recognises that new road links and capacity improvements are necessary to accommodate the large scale of employment and residential development in Didcot.

# Connecting Oxfordshire: Volume 4 Local Transport Plan 2015-2031 (Adopted 2016) - Active & Healthy Travel Strategy

The strategy states that the number of people who usually drive short journeys to work in Oxfordshire is increasing and therefore roads are becoming more congested. Oxfordshire County Council have a vision to make cycling a safe, simple and accessible option for people of all ages, and in turn make cycling a major mode of travel and reduce air pollution in Oxfordshire. This will include an increase in multimodal door-to-door trips by integrating the cycling and public transport networks to allow bike-rail and bike-bus journeys.

As part of the Strategy, a Cycle Premium Route between Didcot to Culham Science Centre, via the existing National Cycle Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network as shown in Figure 3. This cycle network has been identified to be a focus for future investment to cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, the proposed Didcot to Culham River Crossing will provide an opportunity for a high quality cycle route as an alternative to the existing.



Figure 3: Proposed Science Vale Cycle Network route map<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> <u>https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science\_vale\_cycle\_network.pdf</u>

## Oxfordshire Rights of Way Management Plan 2015-2025

This document is an extension of the Oxfordshire Local Transport Plan and supports the achievement of the proposed goals. The main relevant objectives are the improvement of public health and wellbeing by increasing levels of walking and cycling, reducing the proportion of journeys made by private car. This is be achieved by making the use of public transport, walking and cycling more attractive, and maximising the use of existing and planned sustainable transport investment, through linking and integrating this with planned development to allow continued and increased use of the right of way network.

## Vale of White Horse District Council - Local Plan 2031 (February 2018)

The main goal is to ensure that employment growth centred on the Enterprise Zone and Science Vale sits alongside strategic housing and infrastructure to support sustainable growth. Didcot has been identified as a location for strategic growth with proposals for improvements to the town centre and railway station.

## Didcot Garden Town Delivery Plan (October 2017)

This plan recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire, so even if the resident's movements around the town remain unchanged, townwide journeys by car will double. This means that infrastructure investment is required, in terms of highways, pedestrian and cycle routes.

The east-west movement corridors like A4130 Widening and the Science Bridge have been identified as one of the key proposals to achieving sustainable movement across the area.

## South Oxfordshire Local Plan 2034 - Infrastructure Delivery Plan (January 2019 update)

In 2015 the Government announced that Didcot would become a Garden Town delivering 15,050 homes and 20,000 high-tech jobs in the greater Didcot area. The Local Plan includes a policy to support the Garden Town, ensuring that proposals for development within the Didcot Garden Town Delivery Plan (October 2017) and its masterplan area will demonstrate a positive contribution to the achievement of the Didcot Garden Town Principles.

The plan has a summary of the infrastructure requirements for sites in Didcot, such as the capacity enhancements to the A4130, the new Science Bridge, the Didcot Station Car Park Expansion, and the Science Vale Cycle Network Improvements, which includes improvements to connectivity between Science Vale and Didcot station by bike.

## **Design Standards**

The following design standards have been reviewed as part of the assessment:

- Oxfordshire Walking Design Standards (A guide for Developers, Planners and Engineers, summer 2017).
- Oxfordshire Cycling Design Standards (A guide for Developers, Planners and Engineers, summer 2017).
- CD 195 Designing for cycle traffic.
- CD 143 Designing for walking, cycling and horse-riding.
- Advice on road crossings for horses (The British Horse Society).

## 2.2 Collision Data

Collision data from Stats 19 has been obtained and analysed to identify collision cluster sites and trends. Analysis of collision data allows the identification of existing problems which may discourage the use of a particular site.

Collision data has been obtained from Oxfordshire County Council for a five-year period between 9<sup>th</sup> June 2014 and 8<sup>th</sup> June 2019. There was a total of 64 collisions recorded within the scheme extents resulting in 82 casualties. The injury severity is summarised by year for collisions in **Table 1** and casualties in **Table 2**. The data does not show any clear evidence of deterioration or improvement in road safety in the study area.

The collision data includes part of the A34 road and the Milton Interchange roundabout. As a consequence, the results show more collision than the immediate scheme area.

Severity/ Year	2014 (part)	2015	2016	2017	2018	2019 (part)	Total
Fatal	0	0	0	0	1	0	1
Serious	2	0	2	2	0	0	6
Slight	7	18	9	12	6	5	57
Total	9	18	11	14	7	5	64

Severity/ Year	2014(part)	2015	2016	2017	2018	2019(part)	Total
Fatal	0	0	0	0	1	0	1
Serious	2	0	2	2	0	0	6
Slight	10	21	14	15	9	6	75
Total	12	21	16	17	10	6	82

 Table 1: Total collisions by severity

## Table 2: Total casualties by severity

Of the total 64 collisions and 82 casualties, one involved a pedestrian and one involved a cyclist. No equestrian casualties were recorded in the scheme extents.

There was one fatal collision which involved a car and a motorcycle rider at the A4130 Milton Interchange Roundabout junction with the A4130. The speed limit of the road was 40 mph.

The collision involving a pedestrian was outside the scheme extents (70m west of junction with Trenchard Avenue, to the west of the Milton Interchange Roundabout). The vehicle failed to stop for the red signal at the pedestrian crossing and hit the pedestrian causing slight injury. The speed limit of the road was 40 mph.

The collision involving a cyclist was on the A4130 approximately 750m west of the junction with Sir Frank Williams Avenue. In a 60mph limit section, an HGV mounted the kerb ("possibly due to glare from oncoming headlights or driver illness") and hit the cyclist travelling on the off-road shared use footway.

All the mentioned collisions occurred in fine and dry weather conditions.

Appendix B contains details and balloon diagrams for all the collisions.

## 2.3 Multi-modal transport services and interchange information

Pedestrians, cyclists and equestrians may combine their modes of travel with public transport as part of a longer trip. As part of this Assessment, public transport services and associated infrastructure such as rail and bus stations (including bus stops) and interchanges have been identified to enable an appropriate assessment of the integration of such modes.

## 2.3.1 Bus Services

There are no existing bus stops within the scheme extents, but there are bus stops located within the study area, as shown in **Figure 4**. The main reason no bus stops are located along the existing A4130 road is that it passes through an undeveloped green field area with no existing demand for them, and the Great Western main rail line forms a barrier to the Milton Park Science Park to the north. With the proposed developments to the south of the A4130, this is likely to require new bus stops, routes and increased frequencies in the future.



Figure 4: Location of bus stops within the study area

Bus route	Frequency (service hours)	Days of service	Bus stop Nos.	Route connections
Milton Park Shuttle	Every 10-20 min (7:00-19:00)	Monday - Friday	1, 2, 9	Milton Park – Didcot Parkway Station – Milton Park
33 Connector	Every 1.5h (6:20 to 17:20) Hourly (10:00 to 14:00)	Monday - Friday	2, 9	Abingdon to Wantage
99 Connector	Every 30min (7:15 to 19:00) Hourly (9:47 to 15:47)	Monday - Friday	2, 3, 4, 5	Great Western Park to Milton Park
X2 Connector	Every 30 min (4:51 to 20:28) Hourly (5:20 to 6:10; 16:18 to 17:08 and 21:28 to 23:25)	Monday - Sunday	2, 9	Oxford - Abingdon - Milton Park - Didcot - Wallingford
X32 Connector	Every 30min-1hour (5:01 to 20:30)	Monday - Sunday	2, 9	Oxford - Milton Park - Didcot - Chilton - Harwell Campus - Wantage
98 Connector	Every 10-30min 6:00 to 23:40	Monday - Sunday	3, 4, 5, 6	Didcot Parkway - Great Western Park - Harwell Campus
93	Hourly (10:00 to 14:00)	Monday - Friday	7	Broadway - Meadow Way - Freeman Way - Broadway (Circular)
91	Hourly (9:15 to 13:15)	Monday - Friday	8	Didcot - Ladygrove (Circular route)

Table 3: Bus routes within the A4130 scheme extents<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> <u>https://bustimes.org/localities/didcot</u>

The above bus services have been split between the services around Didcot (**Figure 5**) and those services with connections outside of the Didcot area (**Figure 6**).



Figure 5: Bus routes around Didcot



Figure 6: Extract of South Oxfordshire Zone network map

## 2.3.2 Train Services

While there are no train stations along the A4130 Widening scheme, there is one train station located within the study area. Didcot Parkway station is located less than 2km east of the scheme along the B4493 – Station Road. Train services at this station are operated by Great Western Rail<sup>5</sup>, running trains into Oxford, London Paddington, Reading, Cardiff Central, Banbury, Weston Super Mare, Cheltenham Spa, Swansea, Taunton, Bristol Temple Meads and Carmarthen. This station has an average of ten services per hour.

The train station has a ticket office and ticket machine. It also has facilities such as toilets, car parks (1,127 spaces), sheltered cycle storage, bus services, taxi rank and a bike hire station. All station areas have step free access suitable for wheelchairs and ramps for train access.



Figure 7: Great Western Railway Network

## 2.4 Key trip generators and local amenities

## 2.4.1 Current trip generators

Didcot has a population of 25,140<sup>6</sup>, as of the 2011 census, has grown by 1,687 residents (7%) since 2001. Didcot is the largest settlement in South Oxfordshire (19%).

Didcot has a higher proportion of flats, terraced housing and semi-detached houses than average for the district and households are less likely to be owner occupied.

Almost half of the journeys to work which end in Didcot also start in the town. There is almost double the number of journeys out of Didcot to work as journeys into the town. Trips to the rest of the Science Vale area make up the largest number (about 20%), and this includes trips to Milton Park, Harwell and Culham Science Parks. The next largest destination is Oxford with other significant destinations being Abingdon, Wallingford and Reading.

<sup>&</sup>lt;sup>5</sup> https://www.gwr.com/

<sup>&</sup>lt;sup>6</sup> http://www.oxford.gov.uk/districtdata/downloads/file/61/south\_oxon\_census\_2011\_summary\_leaflet

The number of vehicle movements into and out of Didcot town increased from 12,544 in 2001 to 13,826 in 2011<sup>7</sup> however cars per household remains below the district average. The overwhelming mode of travel to work in Didcot is as a car driver. Around 80% of journeys to work in Didcot are made by car, either as driver or passenger. There has been an increase in the number of employees driving to work, going by bus and travelling to work on foot.



Figure 8: Modal split of journeys to work in and from Didcot

Bus journeys and cycle trips each account for approximately 5% of all journeys to work in Didcot, while the train is used in only 1% of commuter trips and only 2% by foot. Bus trips to work are only significant for trips to elsewhere in Science Vale (which includes Milton Park).

The key trip generators near the proposed scheme that could attract pedestrian and cyclist trips are the following:

## Local businesses and key places of interest

Milton Park is a major employer of local staff and from a wider area, increasingly so as it has become a centre for more specialised, higher end activities, and also impacts the balance of in- commuters to out-commuters.

A service area near the Milton Interchange, has businesses such as car dealerships, restaurants, a coffee shop, a fuel station, and hotels.

Didcot Power Station, Southmead Industrial Estate, including Tesco Distribution Centre and the Trident Business Park are also local trip generators. While many Didcot residents use the Didcot Parkway train station to reach destinations further afield.

## **Residential areas**

There are no residential areas that are within the immediate scheme extents, however there are many within a short distance from the scheme:

## Didcot

The town offers a broad range of housing and employment opportunities, as well as key services and facilities including retail, health care, leisure and culture. The Great Western Park development, immediately east of the scheme extents has recently delivered many new homes.

<sup>&</sup>lt;sup>7</sup> <u>http://www.oxford.gov.uk/districtdata/downloads/file/68/didcot\_settlement\_profile\_census\_2011</u>
#### Milton

There is a residential area located west of the scheme. However, there are no stores or restaurants, so residents probably go to Milton Gate or Didcot for these services.

There are some villages outside of the scheme extents such as Sutton Courtenay, Steventon, Milton Hill, Harwell, North Moreton, South Moreton or Appleford that are close to Didcot. Residents in these areas probably travel frequently to Didcot due to the facilities available, including shopping, restaurants, hospital, banks and fuel stations.

#### Oxford

The A34 links Didcot with Oxford, which is 14 miles to the north. Oxford has several important functions: a centre of higher education (with two universities), a major shopping centre; a centre for public services and a centre of manufacturing. Oxford is one of the largest employment centres in the South East, in addition to a large student population. Oxford also has a high level of in-commuting for employment, public services, education, health services and over 5 million visitors a year.

#### 2.4.2 Future trip generators

Housing areas are planned for the Valley Park area in south-west Didcot (immediately south of the A4130 Widening scheme), Ladygrove North in north-east Didcot, North-east Wantage, and at other locations including Culham, Berinsfield and Dalton Barracks. Together these will add more than 22,000 houses to the local area.

Major employment development is planned within two Enterprise Zones, Science Vale and Didcot Growth Accelerator, and elsewhere at Milton Park and Didcot Power Station, Grove Airfield, Culham Science Centre and Harwell IBC. If these developments were allowed to progress without any improvements in the capacity of the transport networks, then the result would likely be unacceptable local congestion.

The Oxford Strategic Model (OSM) has been developed to predict traffic growth based on travel conditions in 2013. The model consists of an Highway Assignment Model (HAM) representing vehicle-based movements within and across the Oxfordshire County, the Public Transport Assignment Model (PTAM) representing bus and rail-based movements across the same area and for the same periods and a five-stage multi-modal Demand Model (MMDM) that estimates the choice of frequency, mode, period, destination and sub-mode in response to changes in generalised costs of travel.

These model assignments suggest that in the period 2013-2031 there would be around 25% traffic growth in the Didcot area in the morning and evening peaks, while in the inter-peak periods traffic growth could be 45%. The flow on the A4130 to the A34 is predicted to increase by 30-40% in the peaks and over 50% in the inter-peak periods.

The proposed planning applications that are pertinent to the proposed developments in the study area and extents according to the OCC<sup>8</sup> are the following:

#### South of Great Western Park, Didcot (P17/S3029/SCO)

Scoping opinion for proposed outline application for the development of land to the south of Great Western Park, for approximately 1,023 dwellings.

#### Land to the north east of Didcot (P15/S2902/O)

Proposed new and integrated neighbourhood to the northeast of Didcot of up to 1,880 homes, two new primary schools, a new secondary school and a new leisure/ sports facility and sports pitches, including a pavilion. A new neighbourhood centre, a mixed-use Public

<sup>&</sup>lt;sup>8</sup> <u>https://www.oxfordshire.gov.uk/residents/environment-and-planning/planning/find-planning-application/major-planning-applications/south-oxfordshire</u>

House/restaurant, a hotel, a new community hall, a residential Extra Care Housing facility, new areas of green infrastructure including amenity green space, allotments and children's play areas, a supporting town-wide and site-specific associated infrastructure.

#### Car Park, Station Road, Didcot OX11 7NN (P15/S2159/O)

Planning application for demolition of existing buildings and a mixed-use development comprised of up to 300 residential units, a 70-bed hotel, gym, retail uses, commercial office floorspace, a replacement nursery school and a decked car park of up to three levels and supporting infrastructure. Closure of Lydalls Road to allow for redevelopment and altered pedestrian access.

#### Land at former Didcot A Power Station, Purchas Road, Didcot (P15/S1880/O)

Mixed-use redevelopment comprising up to 400 dwellings, hotel and pub/restaurant, including link road, related open space, landscaping and drainage infrastructure, together with reservation of land for link road and Science Bridge.

#### Orchard Shopping Centre, Didcot OX11 7LL (P15/S0433/FUL)

Demolition of existing buildings and construction of 1 and 2 storey buildings comprising retail units, flexible retail units, restaurants and a gym. Replacement public toilets, new public realm, improvements to existing public realm, new landscaping, realignment of drainage channel and alterations to access comprising amendments to the existing parking layout, additional car, motorcycle and cycle parking, new servicing area, new and amended access from the highway (including relocated bus route and closure of the High Street to allow redevelopment for retail use) and altered/ new pedestrian access.

## 2.5 Site visit

The site visit was undertaken by Andy Blanchard (Project Manager & Lead Assessor), Mike Ager (Design Team Leader), Andrea Blanco (Senior Engineer) and Rebeca Bolado (Graduate Engineer), on 9<sup>th</sup> December 2019 during daylight hours. The site visit took the form of walking along the A4130 within the scheme extents. The weather during the site visit was windy and sunny, with temperatures of 7 degrees Celsius.

The primary findings of the site visit were:

- The shared use footway along the southern side of the A4130 is relatively narrow (2.5 meters), has no physical segregation from the main carriageway and at the time of the site visit was not well used.
- Pedestrians were observed using the new Toucan crossing at Backhill Tunnel to cross the A4130.
- No pedestrians were observed using any of the Public Rights of Way during the site visit. It appears that two them are not used because one access has a closed gate and the other has overgrown vegetation making it impossible to access.
- No cyclists were seen during the site visit.
- No evidence of equestrian use was found.
- Traffic flows along the A4130 were relatively heavy with a large number of heavy goods vehicles.

# 2.6 Existing pedestrian, cyclist and equestrian network facilities

#### 2.6.1 Local facilities

The existing facilities for non-motorised users along the scheme extents include the following:

 Between the Milton Interchange roundabout and the rail underpass at Backhill Tunnel (south of Milton Park), up to 3m wide shared use cycle-pedestrian footways is present on both sides of the A4130 carriageway. There is no northern footway along the A4130 east of the tunnel. The Backhill Tunnel is shown in the Figure 9.



Figure 9: Backhill Tunnel

 Between the Backhill Tunnel and the A4130/B4493 roundabout (east of the scheme extents) a 2.5m wide shared use footway is present along the southern frontage. This footway is shared by cyclists and pedestrians and links to the Public Rights of Way located to the south of the A4130.



Figure 10: Southern footway of A4130

- There is limited street lighting. Part of the route is lit from Milton Interchange to just east of the Toucan crossing. There is lighting at Backhill Tunnel for pedestrians and cyclists, and there is lighting at the Sir Frank Williams Avenue junction at the entrance to Great Western Park, to the east of the scheme extents. However, there is no other lighting along the A4130 between these junctions.



#### The figure below shows the location of the Public Rights of Way (PRoW) within the study area.

Figure 11: Public Rights of Way within the study area<sup>9</sup>

The following pedestrian, cyclist and equestrian facilities within the scheme extents have been identified:

#### Walking network facilities

There are two footpaths within the study area extension:

#### Footpath F-1 (ref 299/10/10):

This footpath is divided by the A4130 into two sections.

- The first section starts close to the Milton Interchange roundabout and stretches for 145 metres up to the northern side of the A4130. Its entrance appears to be shared with cars.
- The second section continues on the southern side of the road but is blocked by a padlocked gate (there is no direct crossings between the two sections over the A4130, but there are controlled crossing facilities at the nearby Milton Gate signals). The footpath beyond the gate stretches for 275m alongside a field and ends at a private lane.
- It would appear that this lane links to the former Backhill Lane (and Backhill tunnel) which may have been a public road prior to the construction of the current A4130.



Figure 12: North entrance to footpath F-1

<sup>&</sup>lt;sup>9</sup> https://publicrightsofway.oxfordshire.gov.uk/Web/standardmap.aspx



Figure 13: South entrance to footpath F-1

#### Footpath F-2 (ref 243/3/10):

- This footpath is severed by the A34.
- The northern section starts on the southern side of the A4130 but there is dense vegetation and it does not have a clear entrance. This footpath appears to be severed at it is southern end by the A34, there is no way to cross the busy dual carriageway at this point. This footpath seems completely abandoned and is inaccessible.
- South of the A34 it divides into two sections, one leads to Harwell and the other runs parallel to the A34 in the south-east direction.



Figure 14: North entrance to footpath F-2 at the A4130

#### Bridleways (ref 243/1/10):

There is one bridleway within the study area. This bridleway (known as Cow Lane) is approximately 1,450 metres in length and goes from the north, connecting with the A4130 south, connecting with Harwell. There is a bridge as seen in **Figure 16** crossing the A34.



Figure 15: Northern and southern entrances to bridleway B-1



Figure 16: Bridleway B-1 crossing the A34

#### Cycling network facilities

There are no cyclist facilities registered in the National Cycling Network within the scheme or study area. However, cycling is permitted along the southern footway for the whole length of the A4130 within the study area, and on the northern footway west of Backhill tunnel. Cycling is also permitted along the Cow Lane bridleway, which has a well compacted natural surface.

#### Horse-riding network facilities

The bridleway mentioned above is an equestrian facility.

#### 2.6.2 Facilities at a strategic level

#### Public Right of Way (PRoW)

Figure 17 below shows the location of the Public Rights of Way (PRoW) at a strategic level.





#### Cycling network facilities

There are two National Cycling Network (NCN)<sup>10</sup> routes across the Didcot area, as shown in **Figure 18**.



Figure 18: National Cycling Network

National Cycle Network Route 5 is a long-distance route connecting Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor.

The National Cycle Network Route 544 connects Didcot and Wantage. It is a 12-mile route on quiet roads, byways and purpose-built paths, offering a tranquil way to explore Southern Oxfordshire.

Some cycle facilities have been completed as part of the planned Science Vale Cycle Network, see **Figure 3**.

#### Horse-riding network facilities

There are no known equestrian facilities that exist beyond the scheme extents.

## 2.7 Walking, cycling & horse-riding survey data

A 7-day, 24-hour survey was conducted in November 2019 to collect data on walking, cycling and horse-riding movements at three locations within the scheme extents. This data was collected in order to provide a quantitative understanding of the existing walking, cycling and horse-riding demand, and understand the use of junctions in the scheme. Additionally, an Automatic Traffic Count (ATC) was conducted on the A4130 to collect data on traffic speeds.

The movement surveys were undertaken between Monday 11th November and Sunday 17th November 2019. The surveys were undertaken using video survey techniques to cover walking, cycling and horse-riding movements through each of the junctions.

The count locations are shown in **Table 4** below. A map of these locations is shown in **Appendix C**.

<sup>&</sup>lt;sup>10</sup> https://osmaps.ordnancesurvey.co.uk/ncn

Survey ID	Location	Survey Type	Grid Reference
WID-01	Backhill Tunnel (NMU only) and A4130 Junction	All NMU movements	E: 448914 N: 191499
WID-02	Sir Frank Williams Avenue (Great Western Park) and A4130 Junction	All NMU movements	E: 450783 N: 191168
WID-03	A4130 (east of Backhill Tunnel)	An ATC speed survey	
WID-04	Cow Lane (bridleway) and A4130 Junction	All NMU movements	E: 450036 N: 191341

#### Table 4: Locations for WCHAR surveys

#### 2.7.1 ATC and speed surveys

The following table provides the total number of vehicles recorded in each direction along A4130 East of Backhill Tunnel during the survey period and their classification.

Survey ID	Location	Direction	Vehicle Classification (%)					
			Cycles (on road)	Motor/ cycle	Car	LGV	HGV	Buses
WID-03	A4130 East of Backbill	Eastbound	0.01	0.35	80.58	10.86	7.76	0.44
	Tunnel	Westbound	0.02	0.42	75.29	14.93	8.74	0.60

#### Table 5: Total traffic flow and vehicle classification

The average weekly total traffic flow was 85,289 vehicles Eastbound and 85,553 Westbound.

The following table shows the average and 85% ile speeds recorded on the A4130. The recorded information shows that vehicles frequently travel above the speed limit on both roads, although it should be noted that the survey location was at the speed limit change from 40 mph to 60 mph.

Survey ID	Location	Direction	Speed Limit (mph)	Average speed (mph)	85%ile speed (mph)
WID-03	A4130 East of Backhill Tunnel	Eastbound	40mph	42.4	50.6
		Westbound	40mph	43.3	49.4

#### Table 6: Surveyed average and 85%ile speeds



Figure 19: A4130 east of Backhill Tunnel

### 2.7.2 NMU surveys

The total pedestrian and cycle movements have been marked on a location plan for each site. The full survey counts are provided in **Appendix D**.

#### WID-01: Backhill Tunnel (NMU only) and A4130 Junction

There is a Toucan crossing at this location and it provides a connection between the northern and southern footways of the A4130 and the Backhill Tunnel which connects to Milton Park for pedestrians and cyclists only. There is a footway on the northern side of the carriageway, but it ends east of the tunnel. This means that pedestrians have to cross to the south carriageway, that has a continuous footway, connecting to Didcot. During the survey the Toucan crossing was not operational, so pedestrians / cyclists using the tunnel who were unable to cross to the southern footway, may have decided to continue on the northern footway.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, no equestrians were counted, but four scooter riders were recorded during the whole week. The number of NMUs recorded at this location averaged 169 pedestrian and 127 cyclist on a weekday, and 44 and 47 respectively during the weekend.



Figure 20: Pedestrian and cycle total weekly movements at Backhill Tunnel



Figure 21: Backhill Tunnel

#### WID-02: Sir Frank Williams Avenue and A4130 Junction

This junction is signalised and provides a link to the Great Western Park residential development. There is a footway on the southern side of the A4130 carriageway and both sides of Sir Frank Williams Avenue.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, no equestrians were counted. Four scooter riders using the footway were recorded during the whole week. The number of NMUs recorded at this location averaged 50 pedestrians and 128 cyclist on a weekday, and 73 and 58 respectively during the weekend.



Figure 22: Pedestrian and cycle total weekly movements at WID-02 (from A, B, C and D)



Figure 23: Sir Frank Williams Avenue and A4130 Junction

#### WID-04: Cow Lane (bridleway) and A4130 Junction

This junction is unsignalised and connects the A4130 with the Cow Lane (bridleway). There is a (shared use) footway on the southern side of the A4130 carriageway at this location.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, no equestrians were counted. Two scooter riders using the footway were recorded during the whole week. The number of NMUs recorded at location averaged 29 pedestrian and 112 cyclist trips on a weekday, and 37 and 42 respectively during a weekend day.



Figure 24: Pedestrian and cycle total weekly movements at WID-04



Figure 25: Cow Lane (bridleway) and A4130 Junction

# 2.8 Liaison with key stakeholders

In order to be able to incorporate, where appropriate, the comments and views of local people on the preferred alignments into the next stage of the scheme design process of the HIF1 package of schemes an online public consultation was undertaken. This commenced on 20<sup>th</sup> March 2020 and finished on 30<sup>th</sup> April 2020. Full details of the consultation are available here: www.oxfordshire.gov.uk/didcotupdate.

As a result of Government restrictions on social distancing in response to the COVID-19 pandemic, it was not possible to hold the five public exhibitions that were scheduled for the last two weeks of March 2020. Due to the very tight timescales imposed by Government with respect to the terms of the funding, it was necessary to continue with an online consultation in order to avoid delay to the project programme.

However, to address this, OCC undertook additional measures to ensure that as many people as possible were aware of the consultation and were able to access the information. This included sending letters to approximately 22,000 residences in the area, using an innovative virtual exhibition room with live chat function, promoting telephone numbers of officers available to answer questions, and sending printed versions of the materials to those without internet access. This was all in addition to the standard means of engagement (newspaper adverts, press releases, electronic mailouts, OCC website etc).

It should be noted that the A4130 Widening scheme was consulted alongside the three other Didcot HIF highways schemes. Later in the year, it is intended that stakeholder workshops will be held to invite further input to the design of the walking, cycling, and horse-riding provision in these schemes.

Overall, 24 questionnaires were sent out to a list of identified key stakeholders and user groups which included representatives from the following:

- OCC Public Health
- OCC Public Rights of Way
- Didcot Garden Town Project Manager
- Harwell Campus Bicycle Users Group (HarBUG)
- Sustrans Thames Valley
- CYCLOX / Cycling UK
- Culham Science Centre Bicycle Users Group (CulBUG)
- Milton Park Bike Users' Group (MilBUG)
- Oxfordshire Cycling Network (OCN)
- Ramblers Association
- Rambers Association Oxon (& Oxford Fieldpaths Society)
- British Horse Society
- Oxfordshire Association for the Blind
- Oxfordshire Unlimited
- Guide Dogs
- Oxfordshire Transport & Access Group (OXTRAG)

In total, seven replies were received. In general, all respondents supported walking and cycling improvements, even if this means less space for other road traffic.

**Table 7** provides a summary of the stakeholder responses relating to the proposed A4130 Widening scheme received during the consultation. A copy of the questionnaire and the full responses received are included in **Appendix E**.

Consultee	Summary of Responses
Oxfordshire County Council Public Health	<ul> <li>Providing high quality pedestrian infrastructure will enable people making short trips to walk, but that new routes should be safe and convenient -i.e. providing short cuts and avoiding long wait times at crossings.</li> <li>Providing high quality cycle infrastructure will improve people's cycling experience, but should be part of a safe network, and be more direct and convenient than driving to encourage more people to cycle, and more often.</li> <li>Strongly support the full segregation and setting back of walking and cycling facilities from the carriageway. However, the plans will create a relatively fast and noisy traffic corridor that if not carefully designed will reduce people's confidence and desire to walk and cycle.</li> <li>Particularly concerned about tangential roundabout design that might result in vehicles entering and leaving the roundabouts at speeds that will be intimidating and unpleasant to NMU's using the Toucan crossings and waiting in the central refuges. Radial roundabout design suggestion instead.</li> <li>Green infrastructure should be implemented to create a more pleasant and less traffic dominated environment, e.g. a boulevard of trees.</li> <li>Concerns about the proposal impacts on carbon reduction priorities due to the risk that it could induce more traffic.</li> </ul>
Public Rights of Way Access Strategy & Develop- ment (OCC PRoW)	<ul> <li>Noted that the improvements for pedestrians are relatively close to traffic and won't encourage new walkers due to the distances involved, but they would enable people who already walk or run on roads in the area to do so more safely.</li> <li>Recommended creating alternative traffic free routes well away from carriageways and within settlements instead.</li> <li>Considered that the segregated proposals will provide safer and more convenient facilities for confident cyclists and encourage less confident cyclists to use their bikes for utility and social journeys, provided there were complementary facilities within the neighbouring developments.</li> <li>Stated preference for having 5m grass verge separation between all motor vehicles and NMUs, i.e. group pod (autonomous vehicle) lane with other motor traffic.</li> <li>OCC PRoW highlighted several potential improvements:         <ul> <li>Speaking to local and national British Horse Society (BHS) to identify the needs of equestrians, because they noted that there is no provision for them.</li> <li>Provide connections for bridleway users.</li> <li>Focus on facilities within settlements - these must have traffic-free or physically separate routes to encourage non-cyclists to get on bicycles.</li> </ul> </li> </ul>
Harwell Campus Bicycle Users Group (HarBUG)	<ul> <li>People will walk along the route for short distances to get to places but not for pleasure alongside a main road, as it is unpleasant and pedestrians will want to get away from the road as soon as possible.</li> <li>Cycle paths and facilities must provide direct and convenient connections to existing and new Didcot housing developments, so that cyclists can easily join and leave the new paths.</li> <li>Cycle paths need to be integrated into the Science Vale Cycling Network.</li> <li>Key general points relating to improve provision for people who wish to walk, cycle or ride a horse outlined below: <ul> <li>Ensure that Valley Park and other developments along the A4130 have cycle path networks that connect to the new A4130 paths and beyond.</li> </ul> </li> </ul>

Consultee	Summary of Responses
HarBUG (cont.)	<ul> <li>Optimise the Toucan crossings at the Backhill Lane Tunnel Roundabout to reduce waiting times when traffic flow is low. Maybe the crossing either side of the roundabout should have different timing priorities.</li> <li>Suggest Toucan crossing at the Valley Park signalised junction to be a raised parallel crossing to provide better continuity for cyclists.</li> <li>Suggested that the POD lane would be better next to the main carriageway so that, in future, carriageway space can be easily be re-allocated to accommodate more autonomous vehicles without changing the cycle lanes.</li> <li>Suggestion of Science Vale Cycle Network route naming is used, as proposed in their <i>Proposal for Network Naming Convention and Routes</i>, April 2019.</li> </ul>
Cyclox	<ul> <li>Cyclox welcome the improvements proposed to encourage people to walk and cycle more often, as they are safer and reduce motorised threat.</li> <li>Compact roundabouts should be proposed instead of "normal" DMRB style roundabouts, to avoid encouraging increased vehicle speeds and risk to those people using the crossings, particularly at flared entry and exits. If volumes are too great, consider grade separation or full signalisation.</li> <li>Provisions are not all in the most obvious locations. Crossings should be as close as possible to all roundabouts and junctions – be direct and convenient.</li> <li>Staggered crossings should be avoided.</li> <li>Re-engineer the Toucan crossing at Great Western Park to be single stage.</li> <li>Provide convenient and frequent access into adjacent developments, Valley and Great Western Parks for pedestrians and cyclists.</li> <li>Make the designs reduce distances for cyclists and increase roadside and road-facing development as much as possible, in line with current guidance (Manuals for Streets 1&amp;2).</li> <li>Concerned that area's current and future residents will travel by car, creating more congestion, pollution and health problems.</li> </ul>
Milton Park Bike Users' Group (MilBUG)	<ul> <li>Improvements would encourage people to walk and cycle more often but only if the new infrastructure has proper connections to destinations within the area, including access points to housing and employment areas.</li> <li>Walking along traffic-busy roads like A4130 is unpleasant and will be affected unless good segregation (e.g. through planting) can be achieved.</li> <li>MilBUG highlighted several improvements for consideration: <ul> <li>Improve segregation of modes with good landscaping and speed reduction schemes.</li> <li>Safe, direct crossing points with sensor-controlled traffic signals to minimise wait times for cyclist.</li> <li>Ensure all crossings are parallel crossings with cyclist priority.</li> <li>Further improve Backhill Tunnel access to make the connection with Valley Park and Great Western Park more direct and prominent (taking into account the future cycle hub facility at the entry to the tunnel).</li> </ul> </li> <li>Use Milton Park Travel Survey data to identify where people travel from and review connections to these places, including provision of signage.</li> </ul>
Oxfordshire Cycling Network (OCN)	<ul> <li>Use Milton Park Travel Survey data to identify where people travel from and review connections to these places, including provision of signage.</li> <li>OCN welcomed the improvements proposed to encourage people to walk and cycle more often, but cautioned that if easy driving still remains that good walking and cycling facilities may not encourage a switch to these modes.</li> <li>Cyclists will be most benefited by the proposals due to the longer distances involved. The routes that can form part of a leisure cycling ride while people would use them for 'function' and not for 'pleasure'.</li> <li>Supported walking and cycling improvements as they are separated from motor vehicles and pedestrians and cyclists are segregated. Crossings are well-designed, particularly the inclusion of parallel crossings.</li> </ul>

Consultee	Summary of Responses		
OCN (cont)	<ul> <li>Suggested further improvements:</li> <li>Ensure several points of connection into Valley Park and GW Park.</li> <li>Improve the crossing at the BP fossil fuel station.</li> <li>Ensure single stage Toucan crossing at Valley Park road entrance.</li> </ul>		
OXTRAG	<ul> <li>OXTRAG welcomes the improvements for encourage people to walk and cycle more often.</li> <li>Agree with the walking and cycling facilities proposed and are pleased that there will be an off-carriageway cycleway.</li> <li>Do not expect anyone to want to ride a horse along the proposed road.</li> </ul>		
	Table 7: Summary of Stakeholder Response to Consultation		

# 3. User Opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

It is noted that opportunities labelled "KS-X" have been identified through key stakeholder consultation carried out in April 2020 and have only been raised following the completion of the feasibility design stage. Additional opportunities identified are to be reviewed by designers at the preliminary design stage and to be included in the next stage WCHAR review.

## 3.1 General

#### Opportunity 1

Ensure future pedestrian and cyclist facilities within the public highway are integrated with proposed facilities within new developments, to provide a joined up optimal walking and cycling networks. Seek funding from developers to deliver the overall networks.

# 3.2 Strategic opportunities

#### **Opportunity 2**

Provision of convenient, frequent and direct links between the A4130, Milton and the future development areas to the south of the proposed widening scheme.

#### Opportunity 3

Provision of a direct link along the A4130 into the centre of Didcot, including to Didcot Parkway station.

#### Opportunity 4

Provision of bus services along the A4130 and bus stops near accesses into the future development areas. The new developments will be predominantly housing, so new transport needs will appear.

#### Opportunity 5

Improvement and incorporation of the Public Rights of Way to the existing connections and facilities, so that can be fully utilised.

#### **Opportunity KS-1**

Group motor vehicle elements together, i.e. move the Pod lane next to carriageway

#### **Opportunity KS-2**

Provide as great as possible separation between motor vehicles and the NMU facilities, use green infrastructure to create a more pleasant and less traffic-dominated environment, to ultimately encourage active travel.

#### **Opportunity KS-3**

Ensure all crossings are convenient, direct, raised where practical, and do not incur unnecessary delay to NMUs.

# 3.3 Pedestrian specific opportunities

#### **Opportunity 6**

Improve and resurface the existing footways to fix potholes and other defects that may cause potentially unsafe conditions and user discomfort. Any new facilities to have high quality surfacing.

#### **Opportunity 7**

Provision of a segregated cycle track and footway on the southern side of the carriageway along the whole scheme, to avoid potential discomfort and conflict between pedestrians and cyclists, as walking and cycling demand increases. People whose mobility is reduced due to a disability, age, pregnancy or travelling with young children in pushchairs, will feel more comfortable if segregated instead of shared facilities being provided. (see also Opportunity #9)

#### **Opportunity 8**

It should be noted that since the NMU survey was undertaken, the Toucan crossing at Backhill Tunnel has been switched on. During the site visit, pedestrians were observed using the crossing. An opportunity exists to continue the provision of a crossing facility in the area to accommodate NMU's using Backhill Tunnel, to enable them to move safely between Milton Park and Didcot.

#### **Opportunity KS-4**

Provision of a convenient and frequent access into adjacent developments, Valley and Great Western Parks for pedestrians and cyclists.

#### 3.4 Cyclist specific opportunities

#### **Opportunity 9**

Convert the shared existing footways to a segregated cycle track throughout the scheme to make off road facilities more attractive and usable, particularly for the less confident cyclists. Provision of a segregated cycle track will minimise the potential for conflict between pedestrians and cyclists, as walking and cycling demand increases.

#### **Opportunity 10**

Provision of a segregated cycle facility throughout the scheme, that connects to the Science Vale Cycle Network and the National Cycle Network Route 5.

## 3.5 Equestrian specific opportunities

No equestrian specific opportunities have been developed for this scheme, as the route along the A4130 has been determined as not being appropriate for these road users.

# 4. Walking, Cycling and Horse-Riding Assessment Team Statement

As Lead Assessor, I confirm that this walking, cycling and horse-riding assessment report has been generally compiled in accordance with DMRB GG 142 (refer to section 1 for exceptions). The walking, cycling and horse-riding assessment was undertaken by the following assessment and review team:

Name	Andy Blanchard
Position	Associate Director - WCHAR Lead Assessor
Organisation	AECOM
Signed	AGDUND
Date	15/05/2020
Name	Rebeca Bolado Fernandez
Position	Graduate Engineer - WCHAR Assessor

Organisation

As the design team leader, I confirm that the assessment has been undertaken at the appropriate stage of the highway scheme development.

AECOM

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

Name	Mike Ager	
Position	Principal Engineer - Design team leader	
Organisation	AECOM	
	1	

Signed

MAS

Date

15/05/2020



Imagine it. Delivered

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# Didcot Garden Town HIF 1 -Science Bridge

# Walking, Cycling and Horse-Riding Assessment Report

**Oxfordshire County Council** 

Project number: 60606782

May 2020

#### Quality information

Prepared by Checked by Verified by Approved by AGACU AGACY S. R. BARNES Andy Blanchard Mike Ager Samuel Barnes Andy Blanchard Associate Director Associate Director Principal Engineer Associate Director

#### **Revision History**

Revision	Revision	Details	Authorized	Name	Position
0	20/12/2019	DRAFT	$\checkmark$	Andy Blanchard	Project Manager
P01	19/05/2020	FINAL – stakeholder feedback added	$\checkmark$	Andy Blanchard	Project Manager

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# **Executive summary**

This report outlines the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) prepared for Oxfordshire County Council for the proposed Science Bridge scheme. This scheme is one of four that comprise the HIF1 Didcot Garden Town infrastructure project. Whilst the process set out in the Design Manual for Roads and Bridges (DMRB) GG 142 document has generally been followed in preparing this WCHAR Report, as this scheme is not a trunk road some alterations have been made to reflect this, such as a reduced study area.

The WCHAR process is divided into two phases:

- Assessment (this report): undertaken during the options or concept stage of a highway scheme to capture the existing conditions for pedestrians, cyclists and equestrians, and identify the opportunities for improvement for these modes.
- Review: shall be completed as an ongoing review during the various design stages of the highway scheme and shall record the design decisions relating to the provision of walking, cycling and horse-riding facilities.

The aims of this assessment are to gain an understanding of all relevant existing facilities for pedestrians, cyclists and equestrians (the users) in the local area, to provide background user information that can be referred to throughout the design process and to identify opportunities for improvement for users.

The proposed Science Bridge scheme will deliver a new link road and bridge over the Great Western rail line, linking the proposed widened A4130 east of the A34 Milton Interchange with the Didcot Northern Perimeter Road.

This Assessment Report documents the relevant local and national policies and strategies. Within the study area, there has been one recorded collision involving a pedestrian and twenty-one involving cyclists in the last five years. Currently this area comprises of the decommissioned Didcot A Power Station and green fields, there are no bus stops on the route for this scheme. Two train stations, Didcot Parkway and Appleford, are located approximately 1.5km east and 3km north respectively from the scheme extents.

The key trip generators in the area include the nearby Milton Park Science Park and light industrial parks adjacent to the Didcot Northern Perimeter Road, as well as the Great Western Park residential development. Movement within the study area is dominated by the private car. This is self-reinforcing since the high level of vehicular traffic makes walking and cycling less attractive.

Few pedestrians and cyclists were observed during the site visit or throughout the surveys conducted in November 2019. Of those cyclists observed, almost all used the footway.

A public information event covering the four HIF1 schemes was held throughout April 2020, and relevant WCHAR stakeholders were sent a targeted questionnaire to capture their views on the feasibility designs and needs of the users they represent. Their responses are summarised in this report.

Identified user opportunities as part of the assessment included:

- Integrating the walking and cycling networks along the public highways with those proposed as part of planned developments, with convenient, frequent and direct links.
- Improvement and incorporation of the Public Rights of Way and Science Vale Cycle Network with the existing connections and facilities, so that can be fully utilised.
- Provision of segregated cycle track and footways, to avoid potential discomfort and conflict between pedestrian and cyclists; greening; and convenient crossing points.

# 1. Background and highways scheme description

# 1.1 Background

The proposed Science Bridge scheme is one of four schemes that are included in the Access to Science Vale Options Assessment Report (OAR) to facilitate new developments to be constructed in the Didcot area.

The scheme will have a significant impact on the highways network in the area and therefore OCC have requested that the GG 142 Walking, Cycling & Horse-Riding Assessment and Review (WCHAR) is completed to inform the scheme design. Mike Ager in the role of Design Team Leader, has appointed Andy Blanchard as the Lead Assessor to undertake the WCHAR process in accordance with GG 142.

Although the scale of the scheme would usually qualify as a 'large' scheme in accordance with GG 142, the assessment will be based on the extent for a small scheme by virtue of this not being a trunk road (to which GG 142 applies) as determined by the Lead Assessor. The scheme will therefore be subject to a Walking, Cycling & Horse-Riding Assessment (this document) during the feasibility design stage of the proposed highway scheme. This will then be followed by a Walking, Cycling & Horse-Riding Review during each design stage.

The Science Bridge is located in the Science Vale area (see **Figure 1**), which comprises the towns of Didcot (including Milton Park and Didcot Power Station) and Wantage (& Grove) together with the established research centres at Culham Science Centre (CSC) and Harwell International Business Centre (IBC) together with the area between these settlements. The extents of the scheme are outlined in green in the figure below.



Figure 1: Science Vale area<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> "Option Assessment report: Access to Science Vale\_OAR\_ PART 1\_FINAL-converted"

There is no Science Bridge or link road through the power station site at the moment, but the proposed scheme is located in what is currently privately owned fields to the south and to the east, and the existing decommissioned Didcot A Power Station, which is earmarked for redevelopment and requires access to enable this development.

The scheme objectives include improving conditions for walking and cycling as the current A4130 alignment has limited facilities and connections for these users. This is likely to include segregated facilities alongside the proposed carriageway and associated pedestrian and cycling infrastructure such as improving crossings and adjacent routes wherever possible.

## 1.2 Proposed highway scheme

The proposed Science Bridge will facilitate the redevelopment of the decommissioned Didcot A Power Station site as a key part of the proposed development to the Science Vale area. The brown field site is intended for redevelopment into mainly B1 (Business) and/or B8 (Storage and Distribution) use. Traffic flow within the area is therefore expected to grow significantly by 2030.

A new road over rail bridge is proposed to provide access to the former power station site and provide part of a strategic link between the Didcot Northern Perimeter Road, the A4130 and the A34 at Milton Interchange. The bridge is also intended to alleviate pressure on existing transport infrastructure in the Didcot area, predominantly the existing A4130 / B4493 roundabout, A4130 / Basil Hill Rd roundabout and A4130 / Hawksworth roundabout.

The proposal (the current design layout is provided in **Appendix A**) includes a single carriageway link road between the proposed widened A4130 west of the Great Western Park development and the Didcot Northern Relief Road, providing access to the Didcot A Power Station site, and supporting employment and housing development within the power station site and the wider Science Vale area. The scheme objectives include improving conditions for walking, cycling and horse-riding.

The proposed Science Bridge link road will not have a consistent cross section along the whole scheme. Although there are three different sections, all of them will have in common a 7.3m wide carriageway (although the design plans show a narrower width):

Section 1: eastern end of A4130 Widening scheme to the northern end of the proposed bridge embankment:

- 1.5m wide unidirectional cycleway (western side)
- 2.0m wide footway (eastern side)
- 3.0m wide bidirectional cycleway (eastern side)

Section 2: northern end of the proposed bridge embankment for approximately 500m:

- 2.0m wide footway (both sides)
- 3.0m wide bidirectional cycleway (both sides)

Section 3: end of section 2 to the eastern end of the scheme:

- 2.0m wide footway (both sides)
- 3.0m wide bidirectional cycleway (northern side)

# 1.3 WCHAR study area

GG 142 establishes that the Lead Assessor shall define a WCHAR study area on a schemeby-scheme basis, that should typically extend 1km surrounding a small highway scheme and 5km surrounding a large highway scheme. This scheme does not form part of the trunk road network, and after careful review of the requirements and proposed works, a reduced local study area extent (approximately 1km radius) has been proposed that is deemed appropriate for this study. **Figure 2** shows the proposed study area, where the blue dashed line shows the scheme and the green one shows the study area extents.



Figure 2: DSB WCHAR study area location plan<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> "Google  $Map^{TM}$  and Google Streetview TM have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."

# 2. WCHAR assessment

# 2.1 Assessment of walking, cycling and horse-riding policies and strategies

The following regional and local policy documents have been reviewed as part of the assessment:

#### Oxfordshire County Council's Local Transport Plan 4, 2015 – 2031

LTP4 recognises that new road links and capacity improvements are necessary to accommodate the large scale of employment and residential development in Didcot.

# Connecting Oxfordshire: Volume 4 Local Transport Plan 2015-2031 (Adopted 2016) - Active & Healthy Travel Strategy

The strategy states that the number of people who usually drive short journeys to work in Oxfordshire is increasing and therefore roads are becoming more congested. Oxfordshire County Council have a vision to make cycling a safe, simple and accessible option for people of all ages, and in turn make cycling a major mode of travel and reduce air pollution in Oxfordshire. This will include an increase in multimodal door-to-door trips by integrating the cycling and public transport networks to allow bike-rail and bike-bus journeys.

As part of the Strategy, a Cycle Premium Route between Didcot to Culham Science Centre, via the existing National Cycle Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network as shown in Figure 3. This cycle network has been identified to be a focus for future investment to cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, the proposed Didcot to Culham River Crossing will provide an opportunity for a high-quality cycle route as an alternative to the existing.



Figure 3: Proposed Science Vale Cycle Network route map<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> <u>https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science\_vale\_cycle\_network.pdf</u>

#### Oxfordshire Rights of Way Management Plan 2015-2025

This document is an extension of the Oxfordshire Local Transport Plan and supports the achievement of the proposed goals. The main relevant objectives are the improvement of public health and wellbeing by increasing levels of walking and cycling, reducing the proportion of journeys made by private car. This is be achieved by making the use of public transport, walking and cycling more attractive, and maximising the use of existing and planned sustainable transport investment, through linking and integrating this with planned development to allow continued and increased use of the right of way network.

#### Vale of White Horse District Council - Local Plan 2031 (February 2018)

The main goal is to ensure that employment growth centred on the Enterprise Zone and Science Vale sits alongside strategic housing and infrastructure to support sustainable growth. Didcot has been identified as a location for strategic growth with proposals for improvements to the town centre and railway station.

#### Didcot Garden Town Delivery Plan (October 2017)

This plan recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire, so even if the resident's movements around the town remain unchanged, townwide journeys by car will double. This means that infrastructure investment is required, in terms of highways, pedestrian and cycle routes.

The east-west movement corridors like A4130 and the Science Bridge have been identified as one of the key proposals to achieving sustainable movement across the area.

# Connecting Oxfordshire: Volume 4 Local Transport Plan 2015-2031 (Adopted 2016) - Active & Healthy Travel Strategy

Due to the increase of people who usually drive short journeys to work, OCC is attempting to make cycling a major mode of travel and reduce air pollution in the County. As part of the strategy, proposed cycle network like the connection between Didcot and Long Wittenham (Route 8), that provides a connection to Clifton Hampden, has been improved and created.

#### South Oxfordshire Local Plan 2034 - Infrastructure Delivery Plan (January 2019 update)

In 2015 the Government announced that Didcot would become a Garden Town delivering 15,050 homes and 20,000 high-tech jobs in the greater Didcot area. The Local Plan includes a policy to support the Garden Town, ensuring that proposals for development within the Didcot Garden Town Delivery Plan (October 2017) and its masterplan area will demonstrate a positive contribution to the achievement of the Didcot Garden Town Principles.

The plan has a summary of the infrastructure requirements for sites in Didcot, such as the capacity enhancements to the A4130, the new Science Bridge, the Didcot Station Car Park Expansion, and the Science Vale Cycle Network Improvements (see **Figure 3**), which includes improvements to connectivity between Science Vale and Didcot station by bike.

#### **Design Standards**

The following design standards have been reviewed as part of the assessment:

- Oxfordshire Walking Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- Oxfordshire Cycling Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- CD 195 Designing for cycle traffic.
- CD 143 Designing for walking, cycling and horse-riding.
- Advice on road crossings for horses (The British Horse Society).

# 2.2 Collision Data

Collision data from Stats 19 has been obtained and analysed to identify collision cluster sites and trends. Analysis of collision data allows the identification of existing problems which may discourage the use of a particular site.

Collision data has been obtained from Oxfordshire County Council for a five-year period between 9<sup>th</sup> June 2014 and 8<sup>th</sup> June 2019. There was a total of 36 collisions recorded within the scheme extents, resulting in 42 casualties. The severity is summarised by year for collisions in **Table 1** and casualties in **Table 2**. The data does not show any clear evidence of deterioration or improvement in road safety in the study area.

To avoid overlapping with the collision data recorded in the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) for the Didcot to Culham River Crossing scheme, only the data to the west of the A4130/Collett junction has been analysed.

Severity/ Year	2014 (part)	2015	2016	2017	2018	2019 (part)	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	2	4	1	0	10
Slight	7	2	5	7	3	2	26
Total	8	4	7	11	4	2	36

#### 2019(part) Severity/ **2014(part)** 2015 2016 2017 2018 **Total** Year Fatal 0 0 0 0 0 0 0 2 Serious 1 2 5 1 0 11 Slight 2 4 2 31 9 6 8 2 Total 10 4 8 13 5 42

#### Table 1: Total collisions by severity

#### Table 2: Total casualties by severity

Of the total 36 collisions and 42 casualties, one involved a pedestrian and 21 involved a cyclist. No collisions involving an equestrian were recorded in the scheme extents. There were no fatal injury severity collisions within the scheme extents.

A summary of the collisions involving pedestrians and cyclists is shown in the table below:

Location	Collision severity	Collision type	Non-motorised users involved?	Contributory factors
A4130 Didcot Northern Perimeter Road junction with Trident house entrance	1 serious	1 shunt	No	External distraction, failure to look, junction restart, poor manoeuvre and distraction outside
		1 failure to give way	Yes (Cyclist)	Failed to look
A4130 at roundabout Mendip heights / B4493	2 serious, 1 slight	1 shunt	No	Distraction in vehicle, following too close, sudden braking, mobile phone used, defective eyesight and failed to look

Location	Collision severity	Collision type	Non-motorised users involved?	Contributory factors
		1 shunt	No	Failed to look/judge speed, swerved
	3 serious, 5 slights	3 failure to give way	Yes (Cyclist)	Failed to look and vehicle blind spot - Failed to look/judge speed, poor manoeuvre, dazzling sun and blind spot
Roundabout A4130 / Basil		3 failure to give way	Yes (Cyclist)	Failed to look, careless - Failed to look, junction restart, wet conditions - Failed to look and careless
Power Station access		1 Unclear circumstance. Cyclist was using cycle crossing point	Yes (Cyclist)	Failed to look/judge speed
		1 failure to give way	No	Vehicle blind spot, failed to look/judge speed
Basil Hill Road approximately 100m northwest of rail bridge	1 slight	1 Cyclist enters the road from footway	Yes (Cyclist)	Cyclist entering road from pavement and failed to look
A4130 at Power Station	1 serious	1 failure to give way	Yes (Cyclist)	Careless
	1 serious, 5 slights	1 failure to see the cyclist	Yes (Cyclist)	Wet conditions, failed to look, distraction outside and careless
		2 failure to give way	No	Wet conditions, failed to look/judge speed - Impaired by alcohol
Roundabout A4130 Didcot Northern Perimeter Road / Hawksworth		1 cyclist was hit while entering a roundabout	Yes (Cyclist)	Failed to look/judge speed
		1 failure to give way	Yes (Cyclist)	Failed to look
		1 shunt	No	Illness. Driver coughs
A4130 approximately	2 serious, 2 slights	1 Hitting a motorcycle while turning in a traffic queue	No	Failed to look, poor manoeuvre and careless
500m west of junction with Sir Frank Williams Way		1 shunt	No	Fatigue, failed to look and poor manoeuvre
Harwell		2 shunts	No	Junction restart, failed to look, travelling too fast and following too close - Distraction in vehicle, loss of control and swerved
The Oval by house number 30	1 slight	4 year old pedestrian ran in front of the vehicle	Yes (Pedestrian)	Dangerous action in carriageway, crossed road masked by stationary or parked vehicle and failed to look
	6 slights	2 cyclists were hit while entering a roundabout	Yes (Cyclist)	Failed to look/judge speed, junction overshoot, exceeding speed limit, disobeyed give way/stop signs and careless
Roundabout B4493 Station Road / Foxhall		2 failure to give way	Yes (Cyclist)	The vehicle disobeyed give way/stop sign markings - Failed to look
KUAO		1 island hit	No	Impaired by alcohol, poor manoeuvre, travelling too fast and exceeding speed limit
		1 shunt	No	Aggressive driving, careless and failed to judge speed

Table 3: Collision register

The collision involving a pedestrian occurred at the Oval by House number 30, which is within the study area, but outside the scheme extents. This involved a 4-year-old child in a group of playing children, who ran across the carriageway and was hit by a car and sustained slight injury.

The conclusions of the collision analysis involving cyclists are as following:

- Of the 21 collisions, 11 (52.4%) happened at/near to the Basil Hill Road/Milton Road roundabout.
- The main contributory factors were "Failed to look properly", "Failed to judge other person's path/speed" and "Careless/Reckless".
- According to the report, 95% of the collisions involving cyclists had contributory factors relating to the fault of the vehicle driver.
- Regarding the use of cycle helmets, 43% of the cyclists involved in the collisions wore one, 14% did not, and the rest were not recorded.

Appendix B contains details and balloon diagrams for all the collisions.

# 2.3 Multi-modal transport services and interchange information

Pedestrians, cyclists and equestrians may combine their modes of travel with public transport as part of a longer trip. As part of this Assessment, public transport services and associated infrastructure such as rail and bus stations (including bus stops) and interchanges have been identified to enable an appropriate assessment of the integration of such modes.

#### 2.3.1 Bus Service

There are no existing bus stops within the scheme extents, or nearby. Bus services do pass through or close to the study area; these have been split between the services around Didcot (**Figure 4**) and those services with connections outside of the Didcot area (**Figure 5**).



Figure 4: Bus routes around Didcot



Figure 5: Extract of South Oxfordshire Zone network map

## 2.3.2 Train Services

While there are no train stations along the Science Bridge scheme, there are two train stations<sup>4</sup> nearby the study area:

**Didcot Parkway station** is located less than 2km east of the scheme along the B4493 – Station Road. Train services at this station are operated by Great Western Rail, running trains into Oxford, London Paddington, Reading, Cardiff Central, Banbury, Weston Super Mare, Cheltenham Spa, Swansea, Taunton, Bristol Temple Meads and Carmarthen. This station has an average of ten services per hour.

The train station has a ticket office and ticket machine. It also has facilities such as toilets, car parks (1,127 spaces), sheltered cycle storage, bus services, taxi rank and a bike hire station. All station areas have step free access suitable for wheelchairs and ramps for train access.

**Appleford railway station** is located north in Appleford village and is less than 3km north of the scheme. Train services at this station are operated by Great Western Rail, running trains into Didcot Parkway, Oxford, London Paddington, Reading, Banbury and Moreton in Marsh.

<sup>4</sup> <u>https://www.gwr.com/</u>

The train station is unattended and does not offer toilets, car park, cycle storage or taxi rank, and all station areas are unsuitable for wheelchair access. This station has an average of one service per hour.



Figure 6: Great Western Railway Network

## 2.4 Key trip generators and local amenities

#### 2.4.1 Current trip generators

Didcot has a population of 25,140<sup>5</sup>, as of the 2011 census, has grown by 1,687 residents (7%) since 2001. Didcot is the largest settlement in South Oxfordshire (19%). Didcot has a higher proportion of flats, terraced housing and semi-detached houses than average for the district and households are less likely to be owner occupied.

Almost half of the journeys to work which end in Didcot also start in the town. There is almost double the number of journeys out of Didcot to work as journeys into the town. Trips to the rest of the Science Vale area make up the largest number (about 20%), and this includes trips to Milton Park, Harwell and Culham Science Parks. The next largest destination is Oxford with other significant destinations being Abingdon, Wallingford and Reading.

The number of vehicle movements into and out of Didcot town increased from 12,544 in 2001 to 13,826 in 2011<sup>6</sup> however cars per household remains below the district average. The overwhelming mode of travel to work in Didcot is as a car driver. Around 80% of journeys to work in Didcot are made by car, either as driver or passenger. There has been an increase in the number of employees driving to work, going by bus and travelling to work on foot.

<sup>5</sup> http://www.oxford.gov.uk/districtdata/downloads/file/61/south\_oxon\_census\_2011\_summary\_leaflet

<sup>&</sup>lt;sup>6</sup> <u>http://www.oxford.gov.uk/districtdata/downloads/file/68/didcot\_settlement\_profile\_census\_2011</u>



Figure 7: Modal split of journeys to work in and from Didcot

Bus journeys and cycle trips each account for approximately 5% of all journeys to work in Didcot, while the train is used in only 1% of commuter trips and only 2% by foot. Bus trips to work are only significant for trips to elsewhere in Science Vale (which includes Milton Park).

The key trip generators near the proposed scheme that could attract pedestrian and cyclist trips are the following:

#### Local businesses and key places of interest

Milton Park is a major employer of local staff and from a wider area, increasingly so as it has become a centre for more specialised, higher end activities, and also impacts the balance of in-commuters to out-commuters.

A service area near the Milton Interchange, has businesses such as car dealerships, restaurants, a coffee shop, a fuel station, and hotels.

Didcot Power Station, Southmead Industrial Estate, including Tesco Distribution Centre and the Trident Business Park are also local trip generators. While many Didcot residents use the Didcot Parkway train station to reach destinations further afield.

#### **Residential areas**

There are no residential areas that are within the immediate scheme extents. However, there are many within a short distance from the scheme:

#### Didcot

The town offers a broad range of housing and employment opportunities, as well as key services and facilities including retail, health care, leisure and culture. The Great Western Park development, immediately east of the scheme extents has recently delivered many new homes.

#### Appleford

This is a small village located north of the scheme. There are no facilities like stores in the village but there is a train station.

There are some other villages outside of the scheme extents such as Sutton Courtenay, Steventon, Milton Hill, Harwell, North Moreton or South Moreton that are close to Didcot. Residents in these areas probably travel frequently to Didcot due to the facilities available, including shopping, restaurants, hospital, banks and fuel stations.

#### Oxford
The A34 links Didcot with Oxford, which is 14 miles to the north. Oxford has several important functions: a centre of higher education (with two universities), a major shopping centre; a centre for public services and a centre of manufacturing. Oxford is one of the largest employment centres in the South East, in addition to a large student population. Oxford also has a high level of in-commuting for employment, public services, education, health services and over 5 million visitors a year.

# 2.4.2 Future trip generators

Housing areas are planned for the Valley Park area in south-west Didcot (immediately south of the A4130 Widening scheme), Ladygrove North in north-east Didcot, North-east Wantage, and at other locations including Culham, Berinsfield and Dalton Barracks. Together these will add more than 22,000 houses to the local area.

Major employment development is planned within two Enterprise Zones, Science Vale and Didcot Growth Accelerator, and elsewhere at Milton Park and Didcot Power Station, Grove Airfield, Culham Science Centre and Harwell IBC. If these developments were allowed to progress without any improvements in the capacity of the transport networks, then the result would likely be unacceptable local congestion.

The Oxford Strategic Model (OSM) has been developed to predict traffic growth based on travel conditions in 2013. The model consists of an Highway Assignment Model (HAM) representing vehicle-based movements within and across the Oxfordshire County, the Public Transport Assignment Model (PTAM) representing bus and rail-based movements across the same area and for the same periods and a five-stage multi-modal Demand Model (MMDM) that estimates the choice of frequency, mode, period, destination and sub-mode in response to changes in generalised costs of travel.

These model assignments suggest that in the period 2013-2031 there would be around 25% traffic growth in the Didcot area in the morning and evening peaks, while in the inter-peak periods traffic growth could be 45%. The flow on the A4130 to the A34 is predicted to increase by 30-40% in the peaks and over 50% in the inter-peak periods.

The proposed planning applications that are pertinent to the proposed developments in the study area and extents according to the OCC<sup>7</sup> are the following:

# South of Great Western Park, Didcot (P17/S3029/SCO)

Scoping opinion for proposed outline application for the development of land to the south of Great Western Park, for approximately 1,023 dwellings.

# Land to the north east of Didcot (P15/S2902/O)

Proposed new and integrated neighbourhood to the northeast of Didcot of up to 1,880 homes, two new primary schools, a new secondary school and a new leisure/ sports facility and sports pitches, including a pavilion. A new neighbourhood centre, a mixed-use Public House/restaurant, a hotel, a new community hall, a residential Extra Care Housing facility, new areas of green infrastructure including amenity green space, allotments and children's play areas, a supporting town-wide and site-specific associated infrastructure.

# Car Park, Station Road, Didcot OX11 7NN (P15/S2159/O)

Planning application for demolition of existing buildings and a mixed-use development comprised of up to 300 residential units, a 70-bed hotel, gym, retail uses, commercial office floorspace, a replacement nursery school and a decked car park of up to three levels and supporting infrastructure. Closure of Lydalls Road to allow for redevelopment and altered pedestrian access.

<sup>&</sup>lt;sup>7</sup> <u>https://www.oxfordshire.gov.uk/residents/environment-and-planning/planning/find-planning-application/major-planning-applications/south-oxfordshire</u>

# Land at former Didcot A Power Station, Purchas Road, Didcot (P15/S1880/O)

Mixed-use redevelopment comprising up to 400 dwellings, hotel and pub/restaurant, including link road, related open space, landscaping and drainage infrastructure, together with reservation of land for link road and Science Bridge.

#### Orchard Shopping Centre, Didcot OX11 7LL (P15/S0433/FUL)

Demolition of existing buildings and construction of 1 and 2 storey buildings comprising retail units, flexible retail units, restaurants and a gym. Replacement public toilets, new public realm, improvements to existing public realm, new landscaping, realignment of drainage channel and alterations to access comprising amendments to the existing parking layout, additional car, motorcycle and cycle parking, new servicing area, new and amended access from the highway (including relocated bus route and closure of the High Street to allow redevelopment for retail use) and altered/ new pedestrian access.

# 2.5 Site visit

The site visit was undertaken by Andy Blanchard (Project Manager & Lead Assessor), Mike Ager (Design Team Leader), Andrea Blanco (Senior Engineer) and Rebeca Bolado (Graduate Engineer), on 9<sup>th</sup> December 2019 during daylight hours. The site visit took the form of walking around the current Didcot A Power Station and the A4130 future links within the scheme extents. The weather during the site visit was windy and sunny, with temperatures of 7 degrees Celsius.

The primary findings of the site visit were:

- The unsignalised crossing point over the northern arm of the A4130 / Hawksworth roundabout (the NCN5 alignment) has poor visibility and the crossing waiting time is very long due to high traffic volumes.
- Both pedestrians and cyclists were observed using the bridleway north of the Hawksworth roundabout. One dog walker was seen during the site visit.
- No equestrians were seen during the site visit.
- The eastern footway of the A4130 Northern Perimeter Road (north of the Hawksworth roundabout) has a steep crossfall that makes it uncomfortable to use as a pedestrian or cyclist. The general condition of this footway is poor, although it appears to have been recently "trimmed and sided".



Figure 8: A4130 Northern Perimeter Road

# 2.6 Existing pedestrian, cyclist and equestrian facilities

#### 2.6.1 Local facilities

The alignment of the proposed scheme mostly traverses land that is currently private and industrial in use. However, the existing facilities for non-motorised users along the adjacent highway corridor include the following:

- The majority of the east-west & north-south A4130 between Great Western Park and Collett roundabout has street lighting and a footway on at least one side of the road (although there is no footway between the Mendip Heights and Basil Hill roundabouts).
- The southern footway along the east-west section of the A4130 (between Great Western Park and Mendip Hill roundabout is shared use, so cyclists are permitted to use it. On the north-south section of the A4130, there are short sections of shared use footway around the Basil Hill and Hawksworth roundabouts only, allowing cyclists to use these localised sections to navigate the junctions.



Figure 9: A4130 Mendip Heights Roundabout



Figure 10: Public Rights of Way within the study area<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> https://publicrightsofway.oxfordshire.gov.uk/Web/standardmap.aspx

The following pedestrian, cyclist and equestrian facilities within the scheme extents have been identified:

# Walking network facilities

Bridleway B-1 (373/24/40):



Figure 11: Bridleway entrance indicators and map



Figure 12: Bridleway

This bridleway is 1,250 metres in length and runs from the Purchas Road, A4130 and Hawksworth roundabout to Sutton Courtenay and Appleford On Thames. From south to north, the bridleway does not appear to be present on the ground between Basil Hill Road and Hawksworth roundabouts, but north of here the route follows the perimeter of the Didcot Power Station through green fields, as shown in **Figure 10**.

The proposed scheme implies that this bridleway will be diverted by the planned road, so this information should be taken into account to ensure proper continuation of the PROW route.

#### Horse-riding network facilities

The bridleway mentioned above is also an equestrian facility.

# Cycling network facilities

The National Cycling Network (NCN) Route 5 follows the Bridleway mentioned above, as shown in the **Figure 13** from the Hanson Way leaflet.



Figure 13: Hanson Way cycle route network within the local area (source: Sustrans)

# 2.6.2 Local facilities at a strategic level

# Public Right of Way (PRoW)

Figure 14 below shows the location of the Public Rights of Way (PRoW) at a strategic level.



Figure 14: Public Rights of Way outside the study area

# Cycling network facilities

There are two National Cycling Network (NCN)<sup>9</sup> routes across the Didcot area, as shown in **Figure 15**.

The local extension of the National Cycle Network Route 5 connects the area with the Didcot Parkway Station. NCN Route 5 is a long-distance route connecting Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor.

National Cycle Network Route 544 connects Didcot and Wantage. It is a 12-mile route on quiet roads, byways and purpose-built paths, offering a tranquil way to explore Southern Oxfordshire.

Some cycle facilities have been completed as part of the planned Science Vale Cycle Network, see **Figure 3**.



Figure 15: National Cycling Network

# Horse-riding network facilities

No equestrian facilities are known, except for the NCN5/bridleway as mentioned above.

<sup>&</sup>lt;sup>9</sup> https://osmaps.ordnancesurvey.co.uk/ncn

# 2.7 Walking, cycling & horse-riding survey data

A 7-day, 24-hour survey was conducted in November 2019 to collect data on walking, cycling and horse-riding movements at three locations within the scheme extents. This data was collected in order to provide a quantitative understanding of the existing walking, cycling and horse-riding demand in the area, primarily on the existing A4130 alignment that the proposed scheme will provide an alternative route to. Additionally, an Automatic Traffic Count (ATC) was conducted at two locations on the A4130 to collect data on traffic speeds.

The movement surveys were undertaken between Monday 11th November and Sunday 17th November 2019. The surveys were undertaken using video survey techniques to cover walking, cycling and horse-riding movements through each of the junctions.

The count locations are shown in **Table 4** below. A map of these locations is shown in **Appendix C**.

Survey ID	Location	Survey Type	Grid Reference
DSB-01	A4130, B4493 and Mendip Heights Roundabout	All NMU movements	E: 451469 N: 190927
DSB-02	Milton Rd, Purchas Rd, A4130 and Basil Hill Rd Roundabout	All NMU movements	E: 451514 N: 191150
DSB-03	A4130, Purchas Rd and Hawksworth Roundabout	All NMU movements	E: 451626 N: 191540
DSB-04	A4130 North of Basil Hill Road Speed Survey	An ATC speed survey	
DSB-05	A4130 (north) Speed Survey	An ATC speed survey	

Table 4: Locations for WCHAR surveys

# 2.7.1 ATC speed surveys

The following table provides the total number of vehicles recorded in each direction along A4130 North of Basil Hill Road Speed Survey and A4130 (north) during the survey period and their classification.

Survey ID			Vehicle Classification (%)					
	Location	Direction (	Cycles (on road)	Motor/ cycle	Car	LGV	HGV	Buses
DSB-04	A4130 North of Basil Hill Road	Northbound	0.13	0.46	78.00	11.10	5.57	0.53
	Speed Survey	Southbound	0.15	0.49	75.40	11.52	6.79	0.79
DSB-05	A4130 (north)	Eastbound	0.12	0.39	82.50	8.77	7.86	0.36
	opeed ourvey	Westbound	0.07	0.28	70.84	15.58	12.44	0.79

#### Table 5: Total traffic flow and vehicle classification

The average weekly total traffic flow was the following:

- 60,806 vehicles Northbound.
- 54,259 vehicles Southbound.
- 42,919 vehicles Eastbound.
- 35,387 vehicles Westbound.

The following table shows the average and 85% ile speeds recorded on the A4130. The recorded information shows that the majority of vehicles travel within the speed limit at both locations.

Survey ID	Location	Direction	Speed Limit (mph)	Average speed (mph)	85%ile speed (mph)
DSB-04	A4130 (south)	Northbound	50mph	40.8	46.4
	Opeed Ourvey	Southbound	50mph	39.6	45.4
DSB-05	A4130 (north) Speed Survey	Eastbound	50mph	41.2	46.8
	Opeed Ourvey	Westbound	50mph	43.8	51.8

Table 6: Surveyed average and 85%ile speeds



Figure 16: East-west section of A4130

# 2.7.2 NMU surveys

The total pedestrian and cycle movements have been marked on a location plan for each surveyed site. The full survey counts are provided in **Appendix D**.

## DSB-01: A4130, B4493 and Mendip Heights Roundabout

This roundabout provides a connection between the over-rail bridge and the southern area. The bridge has no footways but there is clear demand evidenced by worn desire lines through the grass verges. The A4130 west of the roundabout has only a southern footway. Finally, there is a footway on the southern side of the B4493 carriageway. This roundabout has only one uncontrolled crossing on the southern arm.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, one equestrian, eight wheelchairs and twenty-nine non-motorised scooter riders were recorded during the whole week. The total number of NMUs recorded at this location averaged 174 pedestrians and 125 cyclists on a weekday, and 135 and 73 respectively during the weekend.



Figure 17: NMU total weekly movements at A4130/ B4493 Roundabout



Figure 18: A4130/B4493 Roundabout

# DSB-02: Milton Rd, Purchas Rd, A4130 and Basil Hill Rd Roundabout

This roundabout provides a connection between Milton Park to the west, the former Didcot A Power Station site, the Didcot Northern Perimeter Road, access to the centre of Didcot and the southern area via the over-rail bridge. This roundabout has formal uncontrolled crossings on all arms except on the southern arm where there is no crossing. The bridge has no footways but there is clear demand evidenced by worn desire lines through the grass verges. Milton Road has a southern footway, the northern A4130 has footways on both sides of the carriageway and Basil Hill Road has one in the northern side.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, no equestrians were counted. Three non-motorised scooter riders were recorded during the whole week. The number of NMUs recorded at location averaged 181 pedestrians and 164 cyclists on a weekday, and 70 and 100 respectively during the weekend.



Figure 19: NMU total weekly movements at Purchas Rd, A4130 and Basil Hill Rd Roundabout



Figure 20: Purchas Rd, A4130 and Basil Hill Rd Roundabout

# DSB-03: A4130, Purchas Rd and Hawksworth Roundabout

This roundabout provides a connection from the Didcot Northern Perimeter Road to the former Didcot A Power Station site to the west and an industrial area to the east. The southern A4130 arm has footways on both sides of the carriageway but the northern arm has only a footway on the eastern side. There is a direct access to a bridleway (also NCN 5) on the north-western corner of the junction. The eastern arm has footways on both sides of the road. The Purchas Road arm to the power station is privately owned.

The pedestrian and cycle movements recorded during the survey period are shown in the following figure. During the survey period, no equestrians were counted. Two non-motorised scooter riders were recorded during the whole week. The number of NMUs recorded at location averaged 73 pedestrians and 82 cyclists on a weekday, and 66 and 71 respectively during the weekend.



Figure 21: NMU total weekly movements at A4130, Purchas Rd and Hawksworth Roundabout



Figure 22: A4130, Purchas Rd and Hawksworth Roundabout

# 2.8 Liaison with key stakeholders

In order to be able to incorporate, where appropriate, the comments and views of local people on the preferred alignments into the next stage of the scheme design process of the HIF1 package of schemes an online public consultation was undertaken. This commenced on 20<sup>th</sup> March and finished on 30<sup>th</sup> April 2020. Full details of the consultation are available here: <u>www.oxfordshire.gov.uk/didcotupdate</u>.

As a result of Government restrictions on social distancing in response to the COVID-19 pandemic, it was not possible to hold the five public exhibitions that were scheduled for the last two weeks of March 2020. Due to the very tight timescales imposed by Government with respect to the terms of the funding, it was necessary to continue with an online consultation in order to avoid delay to the project programme.

However, to address this OCC undertook additional measures to ensure that as many people as possible were aware of the consultation and were able to access the information. This included sending letters to approximately 22,000 residences in the area, using an innovative virtual exhibition room with live chat function, promoting telephone numbers of officers available to answer questions, and sending printed versions of the materials to those without internet access. This was all in addition to the standard means of engagement (newspaper adverts, press releases, electronic mailouts, OCC website etc).

It should be noted that this scheme was consulted in, alongside the three other Didcot HIF highways schemes. Later in the year, it is intended that stakeholder workshops will be held to invite further input to the design of the walking, cycling, and horse-riding provision in these schemes.

Overall, 24 questionnaires were sent out to a list of identified key stakeholders and user groups and included representatives from the following:

- OCC Public Health
- OCC Public Rights of Way
- Didcot Garden Town Project Manager
- Harwell Campus Bicycle Users Group (HarBUG)
- Sustrans Thames Valley
- CYCLOX / Cycling UK
- Culham Science Centre Bicycle Users Group (CulBUG)
- Milton Park Bike Users' Group (MilBUG)
- Oxfordshire Cycling Network
- Ramblers Association
- Ramblers Association Oxon (& Oxford Fieldpaths Society)
- British Horse Society
- Oxfordshire Association for the Blind
- Oxfordshire Unlimited
- Guide Dogs
- Oxfordshire Transport & Access Group (OXTRAG).

In total, seven replies were received. In general, all respondents supported walking and cycling improvements, even if this means less space for other road traffic.

**Table 7** provides a summary of the stakeholder responses relating to the proposed A4130 Widening received during the consultation. A copy of the questionnaire and the full responses received are included in **Appendix E**.

Consultee	Summary of Responses
Oxfordshire County Council Public Health	<ul> <li>Related to pedestrians improvements OCC Public Health commented that:         <ul> <li>Providing high quality pedestrian infrastructure will enable people making short trips to walk, but that new routes should be safe and convenient -i.e. providing short cuts and avoiding long wait times at crossings.</li> <li>Improve walking and cycling conditions in locations where traffic flows are expected to fall by reducing speed limits and/or narrowing existing carriageways in 'decongested' localities.</li> <li>Reduced traffic congestion could induce demand for more private vehicle journeys and exacerbate the overall long-term trend away from walking.</li> </ul> </li> <li>Related to cyclists improvements OCC Public Health advised the following:         <ul> <li>Providing high quality cycle infrastructure will improve people's cycling experience, but should be part of a safe network, and be more direct and convenient than driving to encourage more people to cycle, more often.</li> <li>Strongly support the full segregation and features such as raised pedestrian and cycle crossings.</li> <li>Concerns about the proposal impacts on carbon reduction priorities due to the risk that it could induce more traffic.</li> </ul> </li> </ul>
Public Rights of Way Access Strategy & Develop- ment (OCC PRoW)	<ul> <li>OCC PRoW noted that the improvements for pedestrians are relatively close to traffic and won't encourage new walkers due to the distances involved, but they would enable people who already walk or run on roads in the area to do so more safely.</li> <li>Recommend creating alternative traffic free routes well away from carriageways and within settlements instead.</li> <li>Considered that the segregated proposals will provide safer and more convenient facilities for confident cyclists and encourage less confident cyclists to use their bikes for utility and social journeys, provided there were complementary facilities within the neighbouring developments.</li> <li>OCC PRoW highlighted several potential improvements:         <ul> <li>Speaking to local and national British Horse Society (BHS) to identify the needs of equestrians, because they noted that there is no provision for them.</li> <li>Provide connections for bridleway users.</li> <li>Just widen the cycle-only path, as facilities will be for bikes.</li> <li>Focus on facilities within settlements - these must have traffic-free or physically separate routes to encourage non-cyclists to get on bicycles.</li> <li>Consult the statutory Oxfordshire Countryside Access Forum.</li> </ul> </li> </ul>
Harwell Campus Bicycle Users Group (HarBUG)	<ul> <li>People will walk along the route for short distances to get to places but not for pleasure alongside a main road, as it is unpleasant, and pedestrians will want to get away from the road as soon as possible.</li> <li>Pleased with proposed connection between West Didcot and Milton Park, Culham Science Centre and the Power Station site.</li> <li>Cycle paths and facilities must provide direct and convenient connections to existing and new Didcot housing developments, so that cyclists can easily join and leave the new paths.</li> <li>Cycle paths need to be integrated into the Science Vale Cycling Network – could form a new route from Culham Science Centre to the Harwell Campus via Valley Park and Harwell Village.</li> <li>Key general points relating to improved provision for people who wish to walk, cycle or ride a horse outlined below: <ul> <li>Cycle and pedestrian access slips from Science Bridge onto Milton Road would provide a considerable time advantage to cycling versus using car.</li> <li>Cycle and pedestrian links to Power Station site to avoid another car dependent development.</li> </ul> </li> </ul>

Consultee	Summary of Responses
	<ul> <li>Concern about the Science Bridge suitability for cyclists regarding the gradients (LTN2/08).</li> <li>Suggestion of Science Vale Cycle Network route naming is used, as proposed in their <i>Proposal for Network Naming Convention and Routes</i>, April 2019.</li> </ul>
Cyclox	<ul> <li>Cyclox welcome the improvements proposed to encourage people to walk and cycle more often, as they are safer and reduce motorised threat.</li> <li>Provisions are not all in the most obvious locations. Crossings should be as close as possible to all junctions – be direct and convenient.</li> <li>Staggered crossings should be avoided for the convenience of people cycling.</li> <li>Provide convenient and frequent access into adjacent developments, for pedestrians and cyclists.</li> <li>Make the designs reduce distances and increase roadside and road-facing development as much as possible, in line with current guidance (Manuals for Streets 1&amp;2).</li> <li>Concerns about the steeper ramps if a connection is made between the bridge and Milton Road – use cycle wheeling ramps?</li> <li>Asymmetric cycling provision over the bridge is not appropriate for a new facility.</li> <li>Raised parallel crossing on the Bridge road is too distant from the junction.</li> <li>More direct crossing points over future development accesses are preferable.</li> <li>Concerned that area's current and future residents will travel by car, creating more congestion, pollution and health problems.</li> </ul>
Milton Park Bike Users' Group (MilBUG)	<ul> <li>Improvements would encourage people to walk and cycle more often but only if the new infrastructure has proper connections to destinations within the area, including access points to housing and employment areas.</li> <li>Walking along traffic-busy roads is unpleasant and will be affected unless good segregation (e.g. through planting) can be achieved.</li> <li>MilBUG highlighted several improvements for consideration: <ul> <li>Safe, direct crossing points with sensor-controlled traffic signals to minimise wait times for cyclists and raised parallel crossings on access roads.</li> <li>Provide direct connections between the bridge and Milton Road to avoid the detour which would otherwise limit the usefulness of the Science Bridge for cyclists accessing Milton Park.</li> <li>Gradient of bridge and any accesses to Milton Road for cyclists should be reviewed. Too steep gradients might deter less fit cyclists from using it.</li> </ul> </li> </ul>
OCN	<ul> <li>OCN welcome the improvements proposed to encourage people to walk and cycle more often but cautioned that if easy driving still remains that good walking and cycling facilities may not encourage a switch to these modes.</li> <li>Cyclists will be most benefited by the proposals due to the longer distances involved. The routes can form part of a leisure cycling ride while people would use them for 'function' and not for 'pleasure'.</li> <li>Supported walking and cycling improvements as they are separated from motor vehicles and pedestrians and cyclists are segregated. Crossings are well-designed crossings, particularly the inclusion of parallel crossings.</li> <li>Suggested further improvements:         <ul> <li>Add walking and cycling access to Milton Road from Science Bridge.</li> <li>Ensure all side road crossings have cycle priority. Parallel crossings suggested to achieve this.</li> <li>Check gradients.</li> </ul> </li> </ul>
OXTRAG	<ul> <li>OXTRAG welcomes the improvements for encourage people to walk and cycle more often.</li> <li>Agree with the walking and cycling facilities proposed and are pleased that there will be an off-carriageway cycleway.</li> <li>Do not expect anyone to want to ride a horse along the proposed road.</li> <li>Table 7: Summary of Stakeholder Response to Consultation</li> </ul>

# 3. User Opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

It is noted that opportunities labelled "KS-X" have been identified through key stakeholder consultation carried out in April 2020 and have only been raised following the completion of the feasibility design stage due to programme constraints. Additional opportunities identified are to be reviewed by designers at the preliminary design stage and to be included in the next stage WCHAR review.

# 3.1 General

#### **Opportunity 1**

Ensure future pedestrian and cyclist facilities within the public highway are integrated with proposed facilities within new developments, to provide a joined up optimal walking and cycling networks. Seek funding from developers to deliver the overall networks.

#### **Opportunity 2**

Improvement and levelling of the existing footway to avoid potholes and other discontinuities that may cause the users to feel unsafe and discomfort.

#### Opportunity 3

Provision of appropriate crossings to enable users to safely cross the new road including consideration for a Pegasus crossing where Bridleway B1 crosses the proposed road link.

#### **Opportunity KS-1**

Provide priority for pedestrians and cyclists across development access roads, to promote active travel.

#### **Opportunity KS-2**

Provision of convenient, frequent and direct links into the future development areas from the proposed link road.

# 3.2 Strategic opportunities

#### **Opportunity 4**

Provision of a segregated cycle track and footway along the new road link, to avoid potential discomfort and conflict between pedestrians and cyclists, as walking and cycling demand increases.

#### Opportunity 5

Minimize the severance caused by the rail line, and between future development areas.

#### **Opportunity 6**

Provision of bus services along the new route.

# **Opportunity 7**

Provide high quality link between the proposed scheme, the existing Public Rights of Way, and integrated with the Science Vale Cycle Network and the National Cycle Network (NCN), so that can be fully utilised. Ensure the bridleway and NCN 5 are upgraded, and any severance resulting from the proposed road is minimised.

# **Opportunity 8**

Provide improved facilities along the whole alignment. The new Science Bridge will remove traffic to the old roundabouts.

# **Opportunity KS-3**

Provide an appropriate gradient for pedestrians and cyclists on the Science Bridge approaches, so these users are not discouraged.

#### **Opportunity KS-4**

Consider provision of direct connections between Milton Road and the Science Bridge to improve access to the eastern end of Milton Park, and make walking and cycling more convenient than by car.

# 3.3 Pedestrian specific opportunities

#### **Opportunity 9**

Conversion of the existing shared-use facilities to segregated facilities throughout the scheme would provide a safety benefit for all users. People whose mobility is reduced due to a disability, because of their age, as a result of pregnancy or with young children in pushchairs, will avoid conflicts with cyclist due to sharing space and will feel more comfortable. (see also Opportunity #10).

# 3.4 Cyclist specific opportunities

# **Opportunity 10**

Convert the shared existing footways to a segregated cycle track throughout the scheme to make off road facilities more attractive and usable, particularly for the less confident cyclists. Provision of a segregated cycle track will minimise the potential for conflict between pedestrians and cyclists, as walking and cycling demand increases. (see also Opportunity #8).

# **Opportunity 11**

A4130/Milton Road/Basil Hill Road – Existing off-carriageway cycle facilities are provided between Milton Road and Basil Hill Road, however this junction has been identified as a cluster site (in the Didcot to Culham River Crossing WCHAR Assessment Report) due to the number of collisions reported over the 5-year study period involving vehicles failing to give way to cyclists negotiating the roundabout. Consideration shall be made to providing improvements at the junction to improve the attractiveness of the off-carriageway facilities to cyclists or improving warning and visibility of cyclists to approaching vehicles.

# 3.5 Equestrian specific opportunities

# **Opportunity 12**

Provision of an equestrian link to the area by using the current bridleway.

# 4. Walking, Cycling and Horse-Riding Assessment Team Statement

As Lead Assessor, I confirm that this walking, cycling and horse-riding assessment report has been generally compiled in accordance with DMRB GG 142 (refer to section 1 for exceptions). The walking, cycling and horse-riding assessment was undertaken by the following assessment and review team:

Name	Andy Blanchard
Position	Associate Director - WCHAR Lead Assessor
Organisation	AECOM
Signed	AGACUN
Date	15/05/2020
Name	Rebeca Bolado Fernandez
Position	Graduate Engineer - WCHAR Assessor

Organisation

As the design team leader, I confirm that the assessment has been undertaken at the appropriate stage of the highway scheme development.

AECOM

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

Name	Mike Ager
Position	Principal Engineer - Design team leader
Organisation	AECOM
Signed	Mass

WIN

Date

15/05/2020

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# Didcot Garden Town HIF1 -Didcot to Culham River Crossing

Walking, Cycling and Horse-Riding Assessment Report

**Oxfordshire County Council** 

Project reference: Didcot Garden Town HIF1 Project number: 60606782

May 2020

# Quality information

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# **Revision History**

Revision	<b>Revision date</b>	Details	Authorized	Name	Position
P01	19/12/2019	DRAFT	Karl chin	Karl Chan	Associate Director
P02	15/05/2020	FINAL	Kal chin	Karl Chan	Associate Director

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# **Executive summary**

This report outlines the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) prepared for Oxfordshire County Council for the proposed Didcot to Culham River Crossing scheme. This scheme is one of four that comprise the HIF1 Didcot Garden Town infrastructure project. Whilst the process set out in the Design Manual for Roads and Bridges (DMRB) GG 142 document has generally been followed in preparing this WCHAR Report, as this scheme is not a trunk road some alterations have been made to reflect this, such as a reduced study area.

The aims of this study are to gain an understanding of all relevant existing facilities for pedestrians, cyclists and equestrians (the users) in the local area, to provide background user information that can be referred to throughout the design process and to identify opportunities for improvement for users.

The WCHAR process is divided into two phases:

- Assessment (this report): undertaken during the options or concept stage of a highway scheme to capture the existing conditions for pedestrians, cyclists and equestrians, and identify the opportunities for improvement for these modes.
- Review: shall be completed as an ongoing review during the various design stages of the highway scheme and shall record the design decisions relating to the provision of walking, cycling and horse-riding facilities.

The proposed Didcot to Culham River Crossing will deliver a new link road connecting the A4130 at Didcot with the A415 Abingdon Road near the Culham Science Centre entrance, including a new full standard river crossing.

This Assessment Report documents the relevant local and national relevant policies and strategies. Within the study area, there has been a total of 36 recorded collision in the five-year study period, of which 8 were serious and 28 were slight in severity. One cluster site was identified at the A4130/Milton Road roundabout. There are a number of local and regional bus services in the area, however none of which serve the route between Didcot and Culham Science Centre.

Movement within the study area is dominated by the private car. The key trip generators in the area include the Culham Science Centre, Southmead Industrial Estate, Hanson, FCC Environment waste transfer site. The numbers of pedestrians and cyclists observed during the site visit and throughout the surveys conducted in November 2019 was generally low, however cycle demand was observed along the main connector roads within the scheme extents including the A415 Abingdon Road, along B4016 Main Road through Appleford and the A4130 at Southmead Industrial Estate.

A public information event covering the four HIF1 schemes was held throughout April 2020, and relevant WCHAR stakeholders were sent a targeted questionnaire to capture their views on the feasibility designs and needs of the local users. Their responses are summarised in this report.

Identified user opportunities as part of the assessment included:

 Provision of dedicated, safe and direct cycle and pedestrian facilities along the proposed new route with good quality links to existing cycle routes, proposed cycle routes as part of the Science Vale Cycle Network, and existing Public Rights of Ways within the scheme extents.

- Improvements to pedestrian and cycle access to Appleford Railway Station, and cycle facilities provided at railways stations.
- Improvements to the connection between Ladygrove Estate and Southmead Industrial Estate
- Improvements to existing cycle facilities along the A415 to cater to cycle demand along the commuter route and encourage cycling off-carriageway.

# 1. Background and highways scheme description

# 1.1 Background

The proposed Didcot to Culham River Crossing scheme is one of the four major road schemes identified in the Access to Science Vale Options Appraisal Report, which were developed by a working group of county and district officers.

The A4130 Widening scheme is located in the Science Vale area, shown in Figure 1, which comprises the towns of Didcot (including Milton Park and Didcot Power Station) and Wantage (& Grove) together with the established research centres at Culham Science Centre (CSC) and Harwell International Business Centre (IBC) together with the area between these settlements.



Figure 1 Science Vale Area

The scheme will have a significant impact on the highways network in the area and therefore OCC have requested that the GG 142 WCHAR is completed to inform the scheme design.

In accordance with GG 142, the scale of the scheme has been assessed (by the Lead Assessor) and is considered to qualify as a 'large' scheme for the purposes of this assessment, by virtue of the nature and extent of the proposed improvements. The scheme will therefore be subject to a Walking, Cycling & Horse-Riding Assessment (this document) during the feasibility design stage of the proposed highway scheme. This will then be followed by Walking, Cycling & Horse-Riding Reviews at preliminary and detailed design stages. However, the assessment will be based on the extent for a small scheme by virtue of this not being a trunk road, to which GG 142 applies.

# 1.2 Proposed highway scheme

The Didcot to Culham River Crossing lies to the west of the Didcot to Oxford rail line and links the A4130 to the south at Didcot and the A415 Abingdon Road to the north at Culham. The route will also provide a connection to B4016 at Appleford.

A site location plan is shown in Figure 2.



# Figure 2: Site Location Plan<sup>1</sup>

The Didcot to Culham River Crossing (the feasibility design is provided in **Appendix A**) is to provide a new link road connecting the A4130 at Didcot with the A415 Abingdon Road to the west of the Culham Science Centre entrance, including a new full standard river crossing. This corridor will link with the proposed Clifton Hampden Bypass to the north east of the corridor at Culham Science Centre, and also the proposed Science Bridge and the A4130 Widening towards Milton Interchange. It shall be noted that this Assessment, with the exception of the stakeholder consultation covered in Section 2.8 of this report, has been carried out based on the feasibility design developed by Atkins in October 2019, and provided by OCC (drawing no. 5189452-ATK-DRG-HW-0004 to 0006).

Currently the River Thames provides a barrier within the Science Vale area, separating Culham Science Centre and the rest of the area to the south of the Thames. There are two bridges which currently provide a link across the river, located at Culham and Clifton Hampden however these are low standard, single track crossings controlled by traffic signals. The main objective of the new corridor is to improve accessibility and provide congestion relief on the existing road network by providing an alternative, direct route between Didcot, Appleford and Culham. The proposed new highway will also provide the required infrastructure to support the proposed employment and housing growth in Didcot and the surrounding Science Vale area and will also open an opportunity to provide a bus service between Didcot and Culham.

The scheme objectives include improving conditions for walking, cycling and horse-riding in the area, as there are currently no direct connections or facilities along the route. This is likely to include segregated facilities for pedestrians and cyclists along the corridor with crossings at any junctions and connection to any adjacent routes wherever possible.

<sup>&</sup>lt;sup>1</sup> "Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."

The proposal includes a single carriageway in the north-south direction between an upgraded roundabout at the A4130/Collett junction and a point to the west of the Appleford Railway Station at the B4016 Main Road. A new roundabout is proposed to the west of Appleford Station. To the north of the Appleford / B4016 roundabout, is a proposed section of single carriageway which will provide a direct connection to the A415 to the west of the Culham Science Centre. This will involve a new bridge across the River Thames and a proposed new 4-arm roundabout on the A415 Abingdon Road. The road corridor will be approximately 3-4km in length and will include a two-way segregated 4m cycleway and 2m footway on the western side of the carriageway.

# 1.3 WCHAR study area

The GG 142 requires a minimum radius of 5km for the study area of a large scheme on the trunk road network. However, this scheme does not form part of the trunk road network, and after careful review of the requirements and proposed works, a reduced local study area extent (1km radius) has been agreed with OCC to be appropriate for this study.

Figure 3 shows the study area.



Figure 3: WCHAR study area location plan<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> "Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."

# 2. WCHAR assessment

# 2.1 Assessment of walking, cycling and horse-riding policies and strategies

The following policy documents have been reviewed as part of the Assessment:

# Connecting Oxfordshire: Volume 4 Local Transport Plan 2013-2031 (Adopted 2016) - Active & Healthy Travel Strategy.

The strategy states that the number of people who usually drive short journeys to work in Oxfordshire is increasing and therefore roads are becoming more congested. Oxfordshire County Council have a vision to make cycling a safe, simple and accessible option for people of all ages, and in turn make cycling a major mode of travel and reduce air pollution in Oxfordshire. This will include an increase in multimodal door-to-door trips by integrating the cycling and public transport networks to allow bike-rail and bike-bus journeys.

As part of the Strategy, a Cycle Premium Route between Didcot to Culham Science Centre, via the existing National Cycle Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network as shown in Figure 4. This cycle network has been identified to be a focus for future investment to cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, the proposed Didcot to Culham river crossing will provide an opportunity for a high quality cycle route as an alternative to the existing.



Figure 4 Proposed Science Vale Cycle Network route map3

<sup>3</sup> Oxfordshire County Council, Science Vale Cycling Network [online] (December 2019)

https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science\_vale\_cycle\_network.pdf

Oxfordshire County Council also have an overall aspiration to enable and encourage walking to be a travel mode of choice for short trips and the most popular and accessible form of recreational activity. The ambition is to make all streets and public spaces to be accessible to all users.

This scheme shall therefore ensure that walking and cycling facilities, suitable for all types of users, are provided along the proposed highways, and provide improvements to the overall walking, cycling and horse-riding network across the area.

## Oxfordshire Rights of Way Management Plan 2015-2025

The Rights of Way Management Plan is a 'daughter' document to the Oxfordshire Local Transport Plan and supports the delivery of the Councils overarching strategic goals. The main strategic objectives which are relevant to the proposals and considered as part of this Assessment include:

- Improve public health and wellbeing by increasing levels of walking and cycling, and enabling inclusive access to jobs, education and services.
- Reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive.
- Maximise the use and value of existing and planned sustainable transport investment, by linking and integrating this with planned development to allow continued and increased use of the right of way network.

# Vale of White Horse District Council – Local Plan 2031 (February 2018)

The focus for the South East Vale area is to "ensure that employment growth centred on the Enterprise Zone and Science Vale sits alongside strategic housing and infrastructure to support sustainable growth".

On the district boundary, located in neighbouring South Oxfordshire, is Didcot which has been identified as a location for strategic growth within the adopted South Oxfordshire Core Strategy, which allocates 6,300 homes within South Oxfordshire at Didcot. The Core Strategy identifies the need for significant regeneration with proposals for improvements to the town centre and railway station. As there is significant change proposed around Didcot, including housing, employment and large infrastructure projects, it is recognised that investments must be made to deliver strategic schemes such as the "Culham Crossing" and the Science Vale strategic cycle network, which includes a direct cycle route between Didcot and Culham (see Figure 5).



Figure **5** Proposed Science Vale strategic cycle network<sup>4</sup>

# South Oxfordshire District Council – Emerging Local Plan 2011-2034 (January 2019)

A new Thames road crossing between Culham and Didcot Garden Town has been identified in the emerging plan as one of the strategic transport schemes in which land should be safeguarded for (Policy TRANS1).

It states that "This crossing has strategic transport benefits and is required to support development proposed in the emerging South Oxfordshire Local Plan, as well as development allocated in the Vale Local Plan Part 1 and development proposed in the emerging Vale Local Plan Part 2. It is also part of a package of transport infrastructure in this area as identified in the Science Vale Area Transport Strategy in the Oxfordshire Local Plan, which includes the Clifton Hampden Bypass and the Didcot Northern Perimeter Road."

# South Oxfordshire District Council – Core Strategy 2027 (adopted December 2012)

The Core Strategy states that large amounts of economic investment and housing are planned in the Science Vale Area, and "improvements are needed to ease access around this area particularly in respect of east-west movements".

One of the key development objectives is the "redevelopment of parts of Culham Science Centre to provide further high value jobs". South Oxfordshire District Council has committed to proactively working with Culham to develop an agreed masterplan that facilitates this growth and considers the wider traffic implications of proposals.

The proposed Didcot to Culham river crossing scheme will support the movement that strengthens links between key places and will provide the necessary infrastructure to support the redevelopment of Culham Science Centre and the proposed increase in jobs; as well as the developments in Didcot.

# South Oxfordshire Infrastructure Delivery Plan (January 2019 update)

As part of the delivery plan, land adjacent to Culham Science Centre has been identified for the delivery of 3500 dwellings. In order to support these proposed developments, key infrastructure requirements for Culham include contributions towards the Culham - Didcot Thames River Crossing, Clifton Hampden bypass and the upgrading of the A4074/B4015 Golden Balls junction; as well as the enhancements to encourage sustainable travel.

<sup>&</sup>lt;sup>4</sup> Vale of White Horse District Council, Vale of White Horse - Local Plan 2031 (adopted December 2016)

# Didcot Garden Town Delivery Plan (October 2017)

The Didcot Garden Town vision recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire and if the means by which residents move around the town remains unchanged, town wide journeys by car will double. This will result in pressure on the existing highways network, and investment is required to provide the necessary infrastructure to enable a modal shift away from private cars towards other modes of transport.

The east-west movement corridors and Science Bridge have been identified as one of the key proposals to achieve sustainable movement across the area. One component of these corridors is the Didcot to Culham River Crossing as reviewed as part of this Assessment.

A new cycle route between Harwell, Didcot and Culham, referred to as the Garden Line, has also been identified in the delivery plan. This is proposed to include upgrading of the route to Culham and a new river crossing to the east of the railway line.

#### Design standards

The following design standards have also been identified and considered during the assessment:

- Oxfordshire Walking Design Standards (A guide for Developers, Planners and engineers, summer 2017)
- Oxfordshire Cycling Design Standards (A guide for Developers, Planners and engineers, summer 2017)
- CD195 Designing for Cycle Traffic
- CD143 Designing for walking, cycling and horse-riding
- Advice on road crossings for horses (The British Horse Society)

# 2.2 Collision data

Collision data has been provided to AECOM by Oxfordshire County Council for a 5-year period between 9<sup>th</sup> June 2014 and 8<sup>th</sup> June 2019. There was a total of 36 collisions recorded within the scheme extents, with 47 casualties, the severity is summarised by year in Table 1 and Table 2. As shown, total yearly collisions do not show any clear evidence of deterioration or improvement in road safety along the local highways.

Severity Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	2	1	2	0	8
Slight	8	4	3	7	4	2	28
Total	9	6	5	8	6	2	36

Table 1: Total collisions by severity

Severity/ Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	2	1	2	0	8
Slight	12	6	5	8	6	2	39
Total	13	8	7	9	8	2	47

#### Table 2: Total casualties by severity

For the purpose of this assessment, a cluster site has been defined as an area with seven or more collisions within a 100m radius over a 5-year study period. A single cluster site was identified in study area at the A4130/Milton Road roundabout. A total of 12 collisions were reported within the study period, of which 5 were serious and 7 were slight in severity. All 5 serious collisions involved vehicles entering the roundabout from the A4130 and failure to give way to cyclists negotiating the roundabout from Milton Road on the west towards Basil Hill Road on the east. 3 of these collisions occurred during the hours of darkness and 2 during daylight hours. 1 incident reported glare from the sun as a possible contributory factor.

Of the 7 slight collisions, 5 collisions involved a vehicle entering the roundabout from the A4130 and failure to give way to cyclists negotiating the roundabout from Milton Road on the west towards Basil Hill Road on the east. All these collisions occurred during daylight hours, 3 of these took place in wet conditions. The 2 remaining slight collisions involved a HGV failing to give way to a motorcyclist during dry, dark conditions, and an incident involving a vehicle colliding with a cyclist travelling on the nearside on the A4130 approach to the Milton Road roundabout.

Table 3 provides a summary of the collisions based on location, severity and type. **Appendix B** contains the full details of the collisions, which are also presented with bubble diagrams on the plot included in drawing CHB-ACM-HGN-SW\_ZZ\_ZZ\_DR-Z-0001.

Location	Collision severity	Collision type	Pedestrians / cyclist / horse- rider involved?	Contributory factors
Culham	-	-		-
A415 Abingdon Road/ Station Road junction	1 slight	1 shunt	No	Failure to look - right turning vehicle
A415 Abingdon Road, west of Culham Science Centre entrance	1 serious, 2 slight	3 shunt	No	Failure to look - overtaking, stationary vehicle. Sudden braking
A415 Abingdon Road, east of Europa School UK	1 slight	1 head-on collision	No	Failure to look – overtaking
Appleford				
B4016, west of Appleford station	1 slight	1 shunt	Yes (Cyclist travelling to school)	Failure to judge speed

Location	Collision severity	Collision type	Pedestrians / cyclist / horse- rider involved?	Contributory factors
B4016, Bridge Farm House access	1 slight	1 shunt	No	Following too close - right-turning vehicle
B4016, Appleford station	1 slight	1 pedestrian collision	Yes (Pedestrian)	Driving too close, no footway at station
B4016 Main	1 slight	1 shunt	No	Following too close - right-turning vehicle
Close & Church	1 serious,	1 stationary vehicle collision	Yes (Cyclist)	Failure to see stationary vehicle
	2 slight	2 loss of control	No	Impaired by alcohol Fatigue/illness
B4016, east of Appleford Level Crossing at NCR5 access	1 slight	1 cyclist collision	Yes (Cyclist)	Failure to look – right turning cyclist
Didcot				
		1 cyclist collision	Yes (Cyclist)	Failure to look/judge speed (hours of darkness)
A4130 / Collett	3 slight	1 failure to give way	No	Failure to look properly/poor manoeuvre
		1 loss of control	No	Illness
A4130 / Avon	2 slight	1 failure to give way	No	Failure to look/obstructed view
Way		1 loss of control	No	Wet conditions, deposits on road
Avon Way / Brunstock Beck	1 slight	1 failure to give way	Yes	Failure to look properly
Basil Hill Road / Thames Water access road	1 sight	1 cyclist collision	Yes (Cyclist)	Failure to look properly, cyclist attempting to turn right
		1 shunt	No	Failure to look properly/judge speed
A1430 / Hawksworth / Purchas Road	3 slight	1 failure to give way	No	Impaired by alcohol
		1 failure to give way	Yes (Cyclist)	Failure to look properly / dark and wet conditions
A4130 / Milton Road (Cluster site)	5 serious, 7 slight	10 cyclist collision	Yes (Cyclist)	Failure to give way to cyclist negotiating roundabout.
		1 cyclist collision	Yes (Cyclist)	A4130 SB approach, cyclist on nearside hit by car

Location	Collision severity	Collision type	Pedestrians / cyclist / horse- rider involved?	Contributory factors
				on approach to junction
		1 motorcyclist collision	No	HGV failure to give way to motorcyclist on roundabout, travelling from Milton Road to Basil Hill Road.

Table 3 Collision summary by location

# 2.3 Multi-modal transport services and interchange information

Pedestrians, cyclists and equestrians may combine their modes of travel with public transport as part of a longer trip. As part of this Assessment, public transport services and associated infrastructure such as rail and bus stations (including bus stops) and interchanges have been identified to enable an appropriate assessment of the integration of such modes.

# 2.3.1 Bus services

As the proposed corridor passes over currently undeveloped agricultural lands, there are no existing bus services which run along this route.

There are no bus routes which currently run between Didcot and Culham Science Centre, and no buses currently serve Appleford. However, there is a single bus (route 45) which runs between Abingdon and Culham Science Centre during weekdays during the AM and PM peak only. Bus services (connector route 33 and X33) are also available between Didcot and Abingdon.

Table 4 outlines the bus routes available, which is also presented within the network map on Figure 6.

Bus route	Operator	Frequency	Days of service	Route connections
X33 / 33 Connector	Thames Travel	Hourly 05:30 to 20:20, Additional peak service 17:00 to 17:30	Monday - Friday	Abingdon to Wantage, via Culham, Sutton Courtenay and Milton
		Hourly 07:45 to 19:35	Saturday	_
		No service	Sunday	
45	Thames Travel	Every 30 mins (07:30 to 08:52 16:20 to 17:45) midday service on Fridays only.	Monday - Friday	Abingdon to Culham Science Centre
		No service	Saturday/Sunday	_

#### Table 4: Bus routes Didcot – Appleford – Culham



Figure 6 Extract of South Oxfordshire Zone network map
## 2.3.2 Train service

The proposed Didcot to Culham River Crossing runs parallel to the Oxford to Didcot Railway line, along part of the route also known as "The Oxford Canal Line".

Train services along this route are operated by Great Western Rail, with services directly into Reading, Didcot Parkway, Oxford and Banbury. With an interchange at either Didcot Parkway or Reading, Great Western Rail train services can also be into London Paddington, Cardiff Central, Weston Super Mare, Cheltenham Spa, Swansea, Taunton, Bristol Temple Meads and Carmarthen as shown in the network map included in Figure 7.



Figure 7: Great Western Railway Network Map

There are two railway stations located within the study extents: Appleford and Culham.

#### **Culham Railway Station**

Culham railway station is located approximately 0.5km to the west of Culham Science Centre and 2.4km to the east of Culham village. The station is unattended with limited facilities. The station car park has 8 spaces. Sheltered cycle parking with 26 storage spaces is also available.

Train services which currently serve Culham are infrequent, and summarised as follows based on GWR published timetables:

- Monday to Friday:
  - 2 early morning, and 1 late morning service
  - Half-hourly services during peak times between 07:30 and 09:00, and between 17:00 and 18:20
  - 1 midday and 1 mid-afternoon services
  - 2 evening services (19:30 21:00).

- Saturday 2-hourly service between 07:30 and 10:00; 13:30 and 16:00; 19:30 22:00, with 2 early morning services.
- Sunday No services.

## Appleford Railway Station

Appleford railway station is located to the west of the Appleford village. The station is unattended with limited facilities, no car park or cycle storage facilities.

Train services which currently serve Appleford are infrequent, and summarised as follows based on GWR published timetables:

- Monday to Friday:
  - 3 early morning services
  - Half-hourly AM peak services between 07:30 and 09:00
  - 1 midday service
  - Half hourly service between 16:00 and 18:00
  - 2 evening services.
- Saturday 2-hourly service between 09:00 and 21:00, with 2 early morning services.
- Sunday No services.

## **Didcot Parkway Railway Station**

Didcot Parkway Railway station is located approximately 1.35km to the south of the proposed new corridor and is a busy railway interchange station, connecting east-west services between London and Wales, with north-south services to Oxford and Banbury.

## 2.4 Key trip generators and local amenities

## 2.4.1 Key trip generators

The key trip generators in the vicinity of the proposed improvements include the following:

#### Local businesses and key places of interest

- Culham Railway Station
- Culham Science Centre
- Appleford Railway Station
- Southmead Industrial Estate, including Tesco Distribution Centre
- Trident Business Park
- RWE Didcot Power Station
- Hanson Ready-mixed Concrete, Sutton Courtenay
- FCC Environment, Sutton Courtenay Waste transfer site
- Milton Park
- Didcot Parkway Railway Station

#### Residential areas within the study area

- Appleford Village
- North of Ladygrove Estate
- Foxhall Manor Park Motor home park

### Residential areas - outside of 1 km of study area

- Sutton Courtenay
- Culham Village

## 2.4.2 Future trip generators

Housing areas are planned for Great Western Park and Valley Park in south-east Didcot, Ladygrove North in north-east Didcot, north-east Wantage, and at other locations including Culham, Berinsfield and Dalton Barracks. This amounts to more than 22,000 houses planned for the local area. Major employment development is planned for within the two Enterprise Zones, Science Vale and Didcot Growth Accelerator, and elsewhere at Milton Park and Didcot Power Station, for Grove Airfield, Culham Science Centre and Harwell IBC. If these developments were allowed to progress without any improvements in the capacity of the transport networks, then the result would be likely to be unacceptable local congestion.

The Oxford Strategic Model (OSM) was developed using 2013 as the base conditions to assess the predicted traffic growth in the area. Model outputs suggest that in 2031, with all the planned housing development, there would be around a 25% traffic growth in the Didcot area in the morning and evening peaks, while in the inter-peak periods traffic growth could be 45%. The flows across the existing river crossing are also predicted to increase on Culham Bridge and Clifton Hampden Bridge by around 30% in the peak periods and around 40% in the inter-peak.

According to the Council planning website there are several proposed developments in the study area. These include the following:

#### • Land to the north east of Didcot (P13/S0750/SCO, P15/S2902/O)

Proposed new and integrated neighbourhood to the northeast of Didcot of up to 1,880 homes, two new primary schools; a new secondary school; a new leisure/sports facility and sports pitches. Neighbourhood centre is also proposed to comprise of retail units, a mixed-use Public House/restaurant; a hotel; a new community hall; a residential Extra Care Housing facility; new areas of green infrastructure including amenity green space, allotments and children's play areas; and a supporting town-wide and site-specific associated infrastructure

#### • Land at Culham Science Village Culham Oxfordshire (P17/S3719/SCO)

Proposed residential led mixed-use development at Culham Science Village.



Figure 8 Oxfordshire County Council Planning Application Interactive Mapping

## 2.5 Site visit

A site visit was undertaken on the 10<sup>th</sup> November 2019, with Hein Pretorius (Highways Design Lead) and Karl Chan (Project Manager) between 09:00 and 15:00 during daylight. The site visit took the form of walking along the available pedestrian facilities along the proposed corridor at Appleford Level Crossing, Appleford Village and outside Culham Science Centre. The weather during the site visit was cold, with light showers.

The primary findings of the site visit were:

- A4130 Ring Road Footways are provided on the south of the A4130 into Southmead Park. 1 pedestrian who appeared to be a worker in the industrial estate was seen walking on the footway, when passing by during the site visit.
- A4130 Ring Road to Appleford Level Crossing/Appleford Sidings Access This route is signed on site as a public path from the A4130. A high volume of HGVs and refuse vehicles were seen along the route, making it appear an undesirable route for pedestrians, cyclist or equestrians.

• **Appleford Level Crossing** – The level crossing is operated by push button. To the east of the level crossing, surfacing is poor, and ponding was visible, as shown in Figure 9. White lining has been provided on approach to the level crossing with vehicle stop lines and pedestrians waiting areas. To the west of the rail line, narrow footways are provided along Main Road towards Appleford Village, as shown in Figure 10. No NMUs were seen at the location during the site visit.





Figure 9 Appleford Level Crossing – west of railway line

Figure 10 Main Road, east of Appleford Level Crossing

• **Appleford Railway Station** – On the B4016, the footway currently terminates to the east of Appleford railway station. There is a pinch-point on approach to the station access, with the fencing protruding out from the access as shown in Figure 11. The access to the platform to the west of the railway line is via the main carriageway, with no dedicated pedestrian facilities. Warning signage and slow markings are provided to warn oncoming vehicles of pedestrians in the road or crossing, as shown in Figure 12.



Figure 11 Appleford Station, eastern access



Figure 12 Main Road, approach to Appleford Station

From the western access to the station platform, visibility is poor to the right with approaching vehicles coming around a bend as shown in Figure 14. There are no footways on either side of this entry along the B4015 as shown in Figure 13.



Figure 13 B4016, east of Appleford Station



Figure 14 Appleford Station, western access – view to east

 Thames Path – At Culham Village, the access to the Thames Path is signed and gated. To the west of Tollgate Road to Culham Lock, the route is surfaced, as shown in Figure 15. The route is well-used, and during the site visit a large group of over 10 people were seen walking the route. To the east towards Appleford and the proposed site of the scheme, the path is formed of a worn track as shown in Figure 16, and is similar throughout its length across the study area.



Figure 15 Thames Path, towards Culham Lock



Figure 16 Thames Path, east of Tollgate Road, Culham

A415 Abingdon Road, Culham – Shared cycle-pedestrian footways are provided on the northern side of the carriageway along the length of Abingdon Road from Culham Village to Culham Science Centre. To the west of the private farm access, there is no physical separation between the footway and the carriageway as shown in Figure 17. White lining is provided along the footway to delineate its edge, however was observed to have worn away.

To the east of the farm access, a grass verge segregation strip is provided between the footway and carriageway as shown in Figure 18 which is more suitable for the high-speed road with operating with a national speed limit. One cyclist was seen using the facilities during the site observations.





Figure 17 A415 Abingdon Road, shared use footways

Figure 18 A415 Abingdon Road, west of farm access

 Culham Railway Station – Pedestrian and cyclist provision on the western approach to Culham railway station are greater than that on the western approach from Culham Village, which is likely to suit demand. On the eastern approach, the cyclists are signed down the local road to the Railway Inn where there is limited cycle parking within the station. All sheltered cycle storage is on the eastern platform side.

From the eastern approach shared cycle-pedestrian footways are provided from Culham Science Centre, along Station Road and terminating at the station entrance as shown in Figure 20.





Figure 19 Cycle parking at Culham Railway Station

Figure 20 Culham Railway Station – eastern approach

An uncontrolled crossing is provided near the station car park entrance on Station Road, as shown in Figure 22. On-street parking was observed adjacent to the crossing shown in Figure 21, limiting visibility of oncoming vehicles, however traffic volumes and speeds are low so is not considered a safety concern. A segregation strip is provided on the footways, delineated by white lining where there is no verge. At the time of the site visit, works were being carried out at the junction of A415 Abingdon Road and Station Road.



Figure 21 Station Road - Shared cyclepedestrian footways



Figure 22 Station Road – Uncontrolled crossing at station car park entrance

## 2.6 Existing walking, cycling & horse-riding network facilities

## 2.6.1 Local facilities

The existing facilities for non-motorised users along the proposed highways corridor include the following:

- A4130 / Collett junction existing narrow footways on the southern side of the carriageway for access into Southmead industrial park.
- A4130 Ring Road, Didcot to Appleford Level Crossing (See B-1 on Figure 23) signed bridleway comprises of a single unmarked road for access to a local farm, Sutton Courtenay Sidings and the site of a waste recycling company. There are no dedicated facilities along this route, however traffic volumes are low. There is no street lighting.
- B4016 Main Road, Appleford footways east of the over-bridge across the railway line at Appleford Station to Appleford village. No pedestrian, cyclist or equestrian facilities are provided across the railway bridge or west of the railway line.
- A415 Abingdon Road shared cycle-pedestrian footways are currently provided on the northern side of the carriageway between Cullham Village and Culham Science Centre, with connection to entry of Culham railway station car park.

## 2.6.2 Local routes and strategic networks

The following pedestrian, cyclist and equestrian routes within the study extents have been identified, which are of relevance to the Assessment and are also shown on Figure 23.

- **B-1**: North-south bridleway between the A4130 Ring Road at Didcot to the Appleford Level Crossing.
- **B-2:** East-west bridleway between Appleford and Long Witthenham. This route is rural and runs predominantly along the border fence lines of fields through the area. The route joins to the surfaced and signed National Cycle Route (NCR) 5 outside of Long Wittenham.
- **RB-1**: East-west restricted byway between Appleford Level Crossing and local farm, for use by NMUs including horse-riders only. This route is surfaced, wide and in a rural location, with low traffic volumes. No street lighting.
- **RB-2**: East-west restricted byway along Thames Lane and promoted as part of the Green Belt Way.
- **FP-1**: North-south cycle-footway between Ladygrove Estate towards Long Wittenham. Surfaced and signed route, with access stairs from the A4130 and level, gated access at the B4016 to the east of Appleford.
- **FP-2**: East-west footpath between Appleford Station and Sutton Courtenay. Facilities provided along this route are unclear, with narrow highways verges and no footways provided on the B4016 to the east of Appleford railway station
- **FP-3**: Thames Path Signed and well-advertised National Trail following the River Thames. At this study location the route comprises of a narrow-worn track running through fields. There are no dedicated facilities or street lighting and will be used for leisure purposes.
- Based on the British Horse Society Equestrian Access Mapping, there are no official rides or trails within the study area.



Figure 23 Extract of OCC Public Right of Way Map

## 2.6.3 National Cycle Route

National Cycle Network (NCN) Route 5 is the closest regional route to the proposed scheme and is a long-distance route which connects Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor. From Didcot, the NCR5 branches in two directions from Cow Lane located to the west of Didcot Railway Station:

- One of the routes heads north-west through Ladygrove Estate and crosses the A4130 just west of the railway line. The route then continues in a north-easterly direction alongside Moor Ditch towards Long Whittenham.
- The other route, heads north-west through Southmead Industrial Estate on road and continues along a segregated track to Sutton, Sutton Courtenay and on to Abingdon.

The NCN 5 also links with NCN 544 on Cow Lane and continues to Wantage.



Figure 24: Extract of Sustrans National Cycle Network Map

## 2.7 Walking, cycling & horse-riding survey data

AECOM commissioned Traffic Data Centre (TDC) to undertake a 7-day, 24-hour video survey in November 2019 to collect data on walking, cycling and horse-riding movements at four locations within the scheme extents. This data was collected in order to provide a quantitative understanding of walking, cycling and horse-riding demand and understand the use of junctions in the scheme.

The surveys were undertaken Monday 11th to Sunday 17th November 2019. The surveys were undertaken using video survey to cover walking, cycling and horse-riding movements through the junctions and surrounding area. The count locations are shown in Table 5 below. A map of these locations is included in **Appendix C**.

Survey ID	Location	Survey Type	Grid Reference
RIV-01	Culham Railway Station Entrance	Classified NMU OD count	E: 452766 N: 195252
RIV-02	Station Road and Abingdon Road Junction	Classified NMU OD count	E: 452685 N: 195206
RIV-03	Abingdon Road, Culham	ATC speed survey	
RIV-04	Thames Path at Tollgate Road, Culham	Classified NMU OD count	E: 450874 N: 194916
RIV-05	B4016 Road, Appleford	ATC speed survey	
RIV-06	Appleford Railway Station	Classified NMU OD count	E: 452528 N: 193726

Survey ID	Location	Survey Type	Grid Refere	ence
RIV-07	Appleford Level Crossing	Classified NMU OD count	E: 452394	N: 191864
RIV-08	A4130 and Collett Road junction	Classified NMU OD count	E:452208	N: 191864
	Toble 5:1	postions for MCHAP surveys		

 Table 5: Locations for WCHAR surveys

## 2.7.1 ATC speed surveys

Table 6 provides a summary of the average and 85% ile speeds recorded on the B4016, Appleford and the A415 Abingdon Road. Surveys suggest that typical vehicles are travelling below the speed limit on both roads, with an average of speed of 48mph on Abingdon Road in Culham and 38mph on the B4016 in Appleford.

Survey ID	Location	Direction	Speed limit (mph)	Average speed (mph)	85%ile speed (mph)
RIV-03	Abingdon Road, Culham	Eastbound	60mph	47.8	54.7
		Westbound	60mph	48.6	55.2
RIV-05	B4016 Road, Appleford	Eastbound	60mph	37.9	43.5
		Westbound	60mph	38.3	43.6

Table 6: Surveyed average and 85% ile speeds

Table 7 provides a summary of the total number of vehicles recorded along Abingdon Road and the B4016 during the survey period, and their classification. Surveys suggests that the majority of vehicles currently using the two roads are private cars, comprising of 82-83% of total traffic recorded.

Survey ID	Location	Total 2-way weekly Cy traffic	Vehicle classification (%)					
			Cycles	Motorcycle	Car	LGV	HGV	Buses
RIV-03	Abingdon Road, Culham	71389	0.11	0.86	82.77	15.29	0.57	0.40
RIV-05	B4016 Road, Appleford	25306	0.73	0.52	81.80	16.54	0.26	0.14

Table 7 Surveyed 2-way traffic flow and vehicle classification

## 2.7.2 NMU surveys

The total pedestrian, cyclist and equestrian movements observed over the survey periods have been marked on a location plan for each site. The full survey counts are provided in **Appendix D**.

No equestrians or wheelchair users were observed at any of the survey locations, over the duration of the survey.

#### RIV-01: Culham Railway Station Entrance

The number of NMUs recorded at location are low, with an average of 41 NMU trips on a weekday and 7 during a weekend day. There is little demand for this route providing access only to the railway station with infrequent services and the local pub.

The total NMU movements observed over the survey period is shown in Figure 24.

#### RIV-02: Station Road and Abingdon Road Junction

The majority of the NMU trips recorded at this location (947 cycle trips) involved cyclists travelling straight along the A415 Abingdon Road, of which 92% were using the existing shared use footways.

The trips are made mainly by commuters, with the daily average trips on the weekend (52 trips) much lower than on a weekday (201 trips). The greatest hourly number of trips record on weekdays between 8 and 9am, and between 4:30 and 5:30pm.

The total NMU movements observed over the survey period is shown in Figure 25.



Figure 25 RIV-01: Culham Railway Station Entrance – Total NMUs observed (7-day survey period)



Figure 26 RIV-02 Station Road and Abingdon Road Junction – Total NMUs observed (7-day survey)

# RIV-04: Thames Path at Tollgate Road, Culham

The number of NMUs recorded at location during the weekend were greater than on weekdays, an average of 152 NMU trips during the weekend davs in comparison to an average of 35 on a weekday showing that this route is used predominately for leisure trips.

The total NMU movements observed over the survey period is shown in Figure 27.

# RIV-06: Appleford Railway Station

56% of all NMU trips observed at this location were by cyclists. Of those trips, 304 involved cyclists travelling straight across the railway bridge along the B4016. Both platforms at Appleford station are used, with pedestrians observed to walk across the railway bridge in the carriageway, as no footways are provided at this location.

On average, a greater number of NMU trips at this location take place during a weekend day with an average of 111 trips compared to an average of 75 on a weekday.

The total NMU movements observed over the survey period is shown in Figure 28.



Figure 27 RIV-04 Thames Path at Tollgate Road – Total NMUs observed (7-day survey period)



Figure 28 RIV-06 Appleford Railway Station – Total NMUs observed (7-day survey period)

### **RIV-07: Appleford Level** Crossing

There is some observed usage of the Appleford Level crossing, although number of trips across this were relatively low.

The majority of the trips at this location were by cyclists travelling along the B4016 Main Road, without passing the level crossing.

On average the total daily NMUs were greater during the weekend with an average of 115 trips in comparison to 41 on the weekdays, suggesting that most of the trips are for leisure.

The total NMU movements observed over the survey period is shown in Figure 28.



Figure 29 RIV-07 Appleford Level Crossing – Total NMUs observed (7-day survey period)

## **RIV-08: A4130 and Collett junction**

Daily totals of NMUs observed at this junction were relatively even across the full survey week, with marginally higher numbers recorded on a weekend day with an average of 92 NMU trips in comparison to 64 on a weekday. On a weekday, hourly NMUs trips peaked at 7-8am suggesting some of these trips may be related to travel to work although are few.

Cyclists travelling straight across the junction along A4130 in both directions were seen travelling along the carriageway, whereas only a few were seen on the footway. On the eastern side of the junction, the footways are well-used by cyclists travelling between Collett and the A4130 (east) towards Ladygrove Estate. The total NMU movements observed over the survey period is shown in Figure 30.



## 2.8 Consultation with key stakeholders and local user groups

In order to be able to incorporate, where appropriate, the comments and views of local people on the preferred alignments into the next stage of the scheme design process of the HIF1 package of schemes an online public consultation was undertaken. This commenced on 20th March and finished on 30th April 2020. Full details of the consultation are available online: www.oxfordshire.gov.uk/didcotupdate. The consultation plans shared for the Didcot to Culham River Crossing scheme are included in Appendix F. It is noted that due to the timing of the consultation and aim to provide stakeholders with the most-up to date designs, this component of the Assessment has been carried out based on updated AECOM feasibility design drawings (rev P01).

As a result of Government restrictions on social distancing in response to the COVID-19 pandemic, it was not possible to hold the five public exhibitions that were scheduled for the last two weeks of March 2020. Due to the very tight timescales imposed by Government with respect to the terms of the funding, it was necessary to continue with an online consultation in order to avoid delay to the project programme.

However, to address this OCC undertook additional measures to ensure that as many people as possible were aware of the consultation and were able to access the information. This included sending letters to approximately 22,000 residences in the area, using an innovative virtual exhibition room with live chat function, promoting telephone numbers of officers available to answer questions, and sending printed versions of the materials to those without

internet access. This was all in addition to the standard means of engagement (newspaper adverts, press releases, electronic mailouts, OCC website etc).

Additionally, targeted questionnaires were sent out to local government departments and representatives of local user groups, seeking views on walking, cycling, and horse-riding elements of the infrastructure proposals. It should be noted that this scheme was consulted alongside the three other Didcot HIF highways schemes. Later in the year, it is intended that stakeholder workshops will be held to invite further input to the design of the walking, cycling, and horse-riding provision in all four proposed schemes.

Overall, 24 questionnaires were sent out to a list of identified key stakeholders and user groups and included representatives from the following:

- OCC Active and Healthy Travel
- OCC Public Rights of Way
- Didcot Garden Town Project Manager
- Harwell Campus Bicycle Users Group (HarBUG)
- Sustrans Thames Valley
- Cyclox / Cycling UK
- Culham Science Centre Bicycle Users Group (CulBUG)
- Milton Park Bike Users' Group (MilBUG)
- Oxfordshire Cycling Network
- Ramblers Association
- Ramblers Association Oxon (& Oxford Fieldpaths Society)
- British Horse Society
- Oxfordshire Association for the Blind
- Oxfordshire Unlimited
- Guide Dogs
- Oxfordshire Transport & Access Group (OXTRAG)

In total, seven replies were received. In general, all respondees supported walking and cycling improvements, even if this means less space for other road traffic.

Table 8 provides a summary of the stakeholder responses relating to the proposed Didcot to Culham River Crossing received during the consultation. A copy of the questionnaire and the full responses received are included in **Appendix E**.

#### Consultee Summary of Response

• OCC Public Health agreed that the proposed scheme would encourage walking and cycling. However, it is suggested that suitable complementary measures to improve pedestrian and cycle conditions are needed in decongested area to ensure that the reduction in congestion by introducing the new highways will not lead to increase in demand for private vehicle use.

 Strong support was expressed for the full segregation and setting back of walking and cycling facilities.

Consultee	Summary of Response
	• Concern was expressed relating to the proposed tangential roundabout design which may result in high vehicle speeds at the roundabout and safety concerns for pedestrians using the uncontrolled crossings on the roundabout.
	• Suggestion was made to consider a radial roundabout layout, and further measures to reduce traffic speeds and improve the pedestrian environment at the roundabouts including the consideration of green infrastructure (planting).
OCC Public Rights of Way	<ul> <li>OCC PRoW were positive about the proposals but noted that the improvements for pedestrians are relatively close to traffic and has not included creation of alternative traffic free routes well away from carriageways and within local settlements.</li> <li>It was also noted that complementary cycle routes within settlements must</li> </ul>
	be provided to equal standard and traffic free where possible to encourage less confident cyclists to use their bikes.
	<ul> <li>OCC PROW made the following suggestions:</li> <li>Provide a cycle-only corridor for cyclists instead of shared use facilities to make the cycle-commuting faster and safe, as pedestrian use is likely to be low given the length of the corridor.</li> </ul>
	<ul> <li>Install a barrier or sign to prevent unlawful cycle access to the River Thames National Trail.</li> </ul>
	<ul> <li>Further consideration for equestrian provision and onwards connections, by discussion with local and national representative of the British Horse Society and better understanding of their needs.</li> <li>Formal consultation to be carried out with the statutory Oxfordshire Countryside Access Forum.</li> </ul>
Harwell Campus Bicycle Users Group (HarBUG)	• HarBUG were positive about the improvements and agreed in part that they would encourage walking and cycling however noted that pedestrian facilities along the route would only be used by people for short distance as a means to get to places but it would generally be an unpleasant environment and unlikely used for leisure.
	• It was noted that cycling will be encouraged by the proposals, only if direct and convenient connections to existing and new Didcot housing developments are provided and that all these routes are integrated into the Science Vale Cycling Network.
	• Concern was raised for how the segregated cycle path along the route will be access from Didcot, Ladygrove and the new Didcot North East development, as there is currently only a pedestrian path from the Northern Perimeter Road and Ladygrove Bridge, and also the cycle ramp on the railway footbridge is unusable due to recent railways works.
	• HarBUG made the following suggestions to improve the provision for walkers, cyclists and equestrians:
	<ul> <li>Install a properly designed Bike Wheeling Ramp on to the railway footbridge between Ladygrove Estate to Southmead Industrial Estate to enable cycle access across the railway and to the new corridor.</li> </ul>
	<ul> <li>Construct a new shared use path from Moor Ditch Path (Sustrans route 5) junction with B4016 to Appleford Level Crossing. From the crossing, provide a ramp up to a new unsignalized crossing on the new carriageway and a ramp down on the other side to maintain the existing right of way.</li> </ul>

	<ul> <li>Reconsideration of the design of the proposed crossings at the roundabouts, including the possibility of introducing raised parallel crossings, to improve safety of pedestrians and cyclists.</li> </ul>
Milton Park Bike Users' Group (MilBUG)	• MilBUG were positive about the proposed walking and cycling improvements, however mentioned that cycle facilities must have good quality, safe and convenient onwards connections to places of local interest.
	<ul> <li>A number of suggestions were also raised:</li> <li>Good segregation between footways and the carriageway to improve walking environment, including consideration for planting/landscaping</li> <li>Raised parallel crossings or signalised crossings with sensor equipment on access roads to provide cycle priority at crossings</li> <li>Improved connection to the northern perimeter road</li> <li>Upgrade of connecting routes including across Ladygrove Bridge, at the Northern Perimeter Road, from the north of Milton Park to the new corridor and also towards Sutton Courtenay across Kelart's Field, and integration of all new routes into the Science Vale Network.</li> </ul>
Cyclox	• In general, Cycling UK were welcoming of the walking and cycling improvements proposed as part of the scheme to encourage and allow people to walk and cycle more often, however they had some concerns on the proposals in general and whether the schemes were promoting private car usage rather than walking and cycling.
	<ul> <li>The following comments/concerns were raised on the proposals:         <ul> <li>For safety and convenience, compact roundabouts as referred to in DMRB CD116 should be provided rather than "normal" style roundabouts.</li> <li>Fully signalised or grade-separated crossing facilities should be provided based on demand and speeds along the new highways.</li> <li>Staggered crossing should be avoided for convenience and conformity in use.</li> </ul> </li> </ul>
	<ul> <li>Pedestrian and cycling provision on the roundabout to the north of Southmead Industrial estate is incomplete, and active travel provision should be considered on all arms.</li> <li>Cycling UK also queried the chosen alignment of the corridor and whether a connectivity study has been carried out to assess the options, as their bone fits to evolve and wolking.</li> </ul>
Oxfordshire Cycling Network (OCN)	<ul> <li>OCN were positive about the improvements and agreed in part that they would encourage walking and cycling however noted that walking will likely be for 'function' rather than pleasure due to the distances involved and that the new highways will also likely increase the attractiveness of driving.</li> <li>OCN supported the proposals and agreed that the specification of the route and crossings was good, however suggested that the following should be considered: <ul> <li>Proposals will increase traffic on the A415 - The existing quality of the A415 cycle path is not great and should be improved as part of the scheme.</li> <li>Connections to Didcot Parkway. Ladvgrove and NE Didcot need to be</li> </ul> </li> </ul>
	clear and good quality

## Consultee Summary of Response

Consultee	Summary of Response
	<ul> <li>Change of unsignalised crossings or Toucan crossings to parallel crossings where safe to do so.</li> <li>Closure of Sutton bridge to motor traffic.</li> </ul>
Oxfordshire Transport & Access Group (OXTRAG)	<ul> <li>OXTRAG welcomes the improvements for encourage people to walk and cycle more often.</li> <li>Agree with the walking and cycling facilities proposed and are pleased that there will be an off-carriageway cycleway, however it was suggested that:         <ul> <li>A cycleway or cycle lanes should also be provided along the A415 between this road and the junction with the proposed Clifton Hampden Bypass.</li> <li>Depending on demand, provide a wider verge or footway and designate it as a bridleway.</li> </ul> </li> </ul>
	Table 8 Summary of stakeholder responses to consultation

# 3. User opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

It shall be noted that opportunities labelled "KS" have been identified through key stakeholder consultation carried out in April 2020 and have only been raised following the completion of the feasibility stage design due to the programme. Additional opportunities identified are to be reviewed by designers at the next stage of the design and to be included in the next stage WCHAR review.

## 3.1 General

## **Opportunity 1:**

Provide an additional link to the proposed Science Vale Cycle Network, offering a more direct alternative to the current proposed route. Consistent style and approach to wayfinding signage proposed across this network shall be provided at connections to the proposed Didcot to Culham River Crossing corridor.

## **Opportunity 2:**

Review Garden Line proposals for a new river crossing for the proposed cycle route and provide this as part of the proposed scheme. Upgrade cycle route from Ladygrove Estate at access to NCN 5 on the A4130, to provide new cycle connection to the new corridor.

#### **Opportunity KS-1:**

Consideration to be given to introduction of raised parallel crossings at junction where safe to do so, to give priority to pedestrians and cyclists.

## 3.2 Strategic opportunities

## **Opportunity 3:**

Provide a missing connection to the facilities along Thames Path, providing a pedestrian/cycle route between Didcot/Culham to the Thames Path.

#### **Opportunity 4:**

Provide infrastructure along the corridor to support the Council's ambition to provide a direct Didcot to Culham Science Centre bus service. Consideration to be given to providing/upgrading bus stop which may be served by a new service route (Appleford /Culham)

#### **Opportunity 5:**

Provide dedicated NMU facilities to the west of Appleford Station towards Sutton Courtenay, providing the missing footway link along a route. This route is currently a signed route along the highways verge but not accessible for all types of users.

## 3.3 Pedestrian specific opportunities

### **Opportunity 6:**

Appleford railway station pedestrian access – Provide an extension of the footways on the B4016 at Appleford railway station across the railway bridge, connecting the existing footway to the east of the bridge and the western platform access to address the current missing footway link. Improvements of visibility of approaching vehicles and traffic calming measures shall also be considered to improve pedestrian accessibility at the location.

#### **Opportunity KS-2:**

Retain the existing public right of way at Appleford Level Crossing to land to the west of new highway, by considering provision of a new shared use path from Moor Ditch Path junction with the B4016 to Appleford Crossing, and access ramps and a new unsignalised crossing on the new carriageway.

#### **Opportunity KS-3:**

A4130 / Collett Roundabout – Introduction of pedestrian (and cyclist) facilities across all arms of the roundabout to improve accessibility and safety of pedestrians at the junction.

## 3.4 Cyclist specific opportunities

#### **Opportunity 8:**

Provision of additional cycle stands at Culham Science Centre and Culham Station, to further encourage cycling as a means to travel to work.

#### **Opportunity 9:**

Improve safety and accessibility to the NCR 5 on the B4016 to the east of Appleford Level Crossing. Consideration to be given to providing cycle crossing facilities and introducing traffic calming measures on approach.

#### **Opportunity 10:**

A4130/Milton Road/Basil Hill Road – Existing off-carriageway cycle facilities are provided between Milton Road and Basil Hill Road, however this junction has been identified as a cluster site due to the number of collisions reported over the 5-year study period involving vehicles failing to give way to cyclists negotiating the roundabout. Consideration shall be made to providing improvements at the junction to improve the attractiveness of the off-carriageway facilities to cyclists or improving warning and visibility of cyclists to approaching vehicles.

#### **Opportunity KS-4:**

Provide an improved and clearer connection from Ladygrove Estate towards Southmead Industrial Estate, including the consideration for installing a properly designed Bike Wheeling Ramp at the railway footbridge to enable cycle access across the railway.

#### **Opportunity KS-5:**

Prevention of unlawful cycle access to the River Thames Path by improved access treatment and signage.

#### **Opportunity KS-6:**

A415 Cycle Path – Improvement of the existing shared use cycle facilities along the A415 to meet demand.

## **Opportunity KS-7:**

Upgrade of connecting routes to /from the new corridor including across Ladygrove Bridge, at the Northern Perimeter Road, from the north of Milton Park to the new corridor and also towards Sutton Cortney. Integration of all new routes into the Science Vale Network, with clear wayfinding signage.

## 3.5 Equestrian specific opportunities

Liaison with key stakeholders and local user groups has not identified any key equestrian desire lines or demand within the scheme study area and therefore no equestrian opportunities have been identified for consideration.

British Horse Society (BHS) have been included as part of the consultation, however, did not respond within the consultation period.

#### **Opportunity KS-8:**

To consult with BHS during the development of the design to ensure that equestrian demand is catered for, and future aspirations for equestrian routes have been considered as part of the design.

# 4. Walking, Cycling and Horse-Riding Assessment Team Statement

As Lead Assessor, I confirm that this Walking, Cycling and Horse-Riding Assessment Report has been compiled in accordance with DMRB GG 142 and thus contains the appropriate information for the wider design team. The Walking, Cycling and Horse-Riding Assessment was undertaken by the following Assessment and Review Team:

## Walking, Cycling and Horse-Riding Lead Assessor

Name: Andy Blanchard

Position: Associate Director

Company: AECOM

## Walking, Cycling and Horse-Riding Assessor

Name: Kin-Yun Lo

Position: Senior Engineer

Company: AECOM

As design team leader I confirm that the assessment has been undertaken at the appropriate stage of scheme development and that the wider design team has been involved in the process.

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

## Design Team Leader

Name: Hein Pretorius

Position: Principal Engineer

Company: AECOM

Signed:

Date: 15/05/2020



Signed: AGNUL -

Date: 15/05/2020

Date: 15/05/2020

Signed:

# **Appendix A – Feasibility design**

(Note: This Assessment reviews the Atkins feasibility design which was the latest design provided at the time of the assessment in December 2019)



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# Didcot Garden Town HIF1 -Clifton Hampden Bypass

# Walking, Cycling and Horse-Riding Assessment Report

Oxfordshire County Council

Project reference: Didcot Garden Town HIF1 Project number: 60606782

May 2020

## Quality information



## **Revision History**

Revision	Revision date	Details	Authorized	Name	Position
P01	18/12/2019	DRAFT	Y	Grant Paxton	Project Manager
P02	26/05/2020	FINAL	Y	Grant Paxton	Project Manager

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# **Executive summary**

This report outlines the Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) prepared for Oxfordshire County Council for the proposed Clifton Hampden scheme. This scheme is one of four that comprise the HIF1 Didcot Garden Town infrastructure project. Whilst the process set out in the Design Manual for Roads and Bridges (DMRB) GG 142 document has generally been followed in preparing this WCHAR Report, as this scheme is not a trunk road some alterations have been made to reflect this, such as a reduced study area.

The aims of this study are to gain an understanding of all relevant existing facilities for pedestrians, cyclists and equestrians (the users) in the local area, to provide background user information that can be referred to throughout the design process and to identify opportunities for improvement for users.

The WCHAR process is divided into two phases:

- Assessment (this report): undertaken during the options or concept stage of a highway scheme to capture the existing conditions for pedestrians, cyclists and equestrians, and identify the opportunities for improvement for these modes.
- Review: shall be completed as an ongoing review during the various design stages of the highway scheme and shall record the design decisions relating to the provision of walking, cycling and horse-riding facilities.

The proposed Clifton Hampden Bypass will deliver a new link road connecting the A415 Abingdon Road at Culham Science Centre with the B4015 Oxford Road to the north of Clifton Hampden, with a short section of online upgrading on the northern section of the link towards the junction with the A4074 at the Golden Balls Roundabout.

This Assessment Report documents the relevant local and national relevant policies and strategies. Within the study area, there has been a total of 14 recorded collision in the five-year study period, of which 3 were serious and 11 were slight in severity. There are a number of local and regional bus services in the area, with bus stops located at the Culham Science Centre and the Golden Balls Roundabout. Culham Railway Station is just west of the scheme.

The key trip generators in the area include the Culham Science Centre, Europa School and the businesses within the Culham No.1 Site. Movement within the study area is dominated by the private car. This is self-reinforcing since the high level of vehicular traffic makes walking and cycling less attractive. Few pedestrians and cyclists were observed during the site visit and throughout the surveys conducted in November 2019, with the majority observed travelling between the Culham Science Centre entrance, the railway station and the areas to the north of the Science Centre.

A public information event covering the four HIF1 schemes was held throughout April 2020, and relevant WCHAR stakeholders were sent a targeted questionnaire to capture their views on the feasibility designs and needs of the local users. Their responses are summarised in this report.

Identified user opportunities as part of the assessment included:

- Provision of dedicated, safe and direct cycle and pedestrian facilities along the proposed new bypass with links to existing cycle routes, Public Rights of Way within the scheme extents.
- Improvements to access and wayfinding signage to the Oxford Greenbelt Way and key routes/areas of interest.
- Improvements and upgrade of existing cycle facilities along the A415.

# 1. Background and highways scheme description

## 1.1 Background

The proposed Clifton Hampden Bypass scheme is one of the four major road schemes identified in the Access to Science Vale option assessment report (OAR), which were developed by a working group of Council and district officers.

The scheme will have a significant impact on the highways network in the area and therefore Oxfordshire County Council (OCC) have requested that the GG 142 Walking, Cycling & Horse-Riding Assessment and Review is completed to inform the scheme design.

In accordance with GG 142, the scale of the scheme has been assessed (by the Lead Assessor) and is considered to qualify as a 'large' scheme for the purposes of this assessment, by virtue of the extent of the proposed improvements. The scheme will therefore be subject to a Walking, Cycling & Horse-Riding Assessment (this document) during the preliminary design stage of the proposed highway scheme. This will then be followed by Walking, Cycling & Horse-Riding Reviews at the detailed design stage.

## 1.2 Proposed highway scheme

The Clifton Hampden Bypass will lie in the southwest-northeast direction, linking the A415 Abingdon Road, at Culham Science Centre with the B4015 Oxford Road, just north of Clifton Hampden. The site location plan is shown in Figure 1.



## Figure 1: Site Location Plan<sup>1</sup>

The Clifton Hampden Bypass (the feasibility design is provided in Appendix A) is to provide a new link road connecting the A415 Abingdon Road at Culham Science Centre with the current B4015 Oxford Road to the north of Clifton Hampden, with online upgrading of the northern section of the link towards the junction with the A4074 at the Golden Balls Roundabout. At the southern end of the bypass, this corridor will link with the proposed Didcot to Culham River

<sup>&</sup>lt;sup>1</sup> "Google Map™ and Google Streetview™ have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."

Crossing via a new junction on the A415 to the west of Culham Railway Station. This will also link to the proposed Science Bridge and the A4130 Widening towards Milton Interchange. It shall be noted that this Assessment, with the exception of the stakeholder consultation covered in section 2.8, has been carried out based on the feasibility design (drawing no. 5189452-ATK-DRG-HW-0006 to 0008 included in Appendix A) developed by Atkins in October 2019, and provided by OCC.

The main objective of the new corridor is to improve accessibility and provide congestion relief on the existing road network by providing an upgraded and more direct route between Culham to Oxford, via the A4074, and bypassing Clifton Hampden. The proposed new highways will also provide the required highways infrastructure to support the proposed employment and housing growth in Culham and the surrounding Science Vale area.

The scheme objectives include improving conditions for walking, cycling and horse-riding, as there are limited facilities in the area. This is likely to include improved facilities between Culham railway station and Culham Science Centre with new footways and crossings at the junction; a shared cycle-pedestrian footway along the new bypass link; and new footway along Oxford Road. The existing footpath connecting Clifton Hampden with Thame Lane and the farmland to the north of Culham Science Centre will be modified but retained.

The proposal includes the introduction of a new dumbbell roundabout junction on the A415 Abingdon Road, to the west of the existing entrance of Culham Science Centre. This new junction will provide an upgraded connection between the A415, Station Road to Culham railway station, Culham Site No. 1, Culham Science Centre and the new proposed bypass. The new bypass link is proposed to be approximately 1.75km in length, and will follow the existing alignment of Thame Lane, with a new connection to the B4015 Oxford Road at the northern end. A new 3-arm roundabout is also proposed on the B4015 Oxford Road to the north of Clifton Hampden, providing a new junction connecting the new bypass link to Culham Science Centre, Oxford Road towards the A4074, and Oxford Road towards Clifton Hampden. Upgrades will also be carried out along Oxford Road on the approach to the new roundabout.

## 1.3 WCHAR study area

The GG 142 requires a minimum radius of 5km for the study area of a large scheme on the trunk road network. However, this scheme does not form part of the trunk road network, and after careful review of the proposed works, a reduced local study area extent (1km radius) has been agreed with OCC to be appropriate for this study. Figure 2 shows the study area.



Figure 2<sup>2</sup>: Study area location plan for the WCHAR

<sup>&</sup>lt;sup>2</sup> "Google Map<sup>m</sup> and Google Streetview<sup>m</sup> have been used, unmodified, within this document. This imagery has been used within the extents of the AECOM license agreement with Google Inc."
## 2. WCHAR assessment

# 2.1 Assessment of walking, cycling and horse-riding policies and strategies

The following regional and local planning policy documents have been reviewed as part of the Assessment.

# Connecting Oxfordshire: Volume 4 Local Transport Plan 2013-2031 (Adopted 2016) - Active & Healthy Travel Strategy

The strategy states that the number of people who usually drive short journeys to work in Oxfordshire is increasing and therefore roads are becoming more congested. Oxfordshire County Council have a vision to make cycling a safe, simple and accessible option for people of all ages, and in turn make cycling a major mode of travel and reduce air pollution in Oxfordshire. This will include an increase in multimodal door-to-door trips by integrating the cycling and public transport networks to allow bike-rail and bike-bus journeys.

As part of the Strategy, a Cycle Premium Route between Didcot to Culham Science Centre, via the existing National Cycle Route 5 between Didcot and Long Wittenham and then on-road towards Culham Science Centre via Clifton Hampden Bridge, has been identified as part of the proposed Science Vale Cycle Network as shown in Figure 3. This cycle network has been identified to be a focus for future investment to cycling in the area. Given the importance of the route between the two key attractors in the region, and the existing site constraints at the Clifton Hampden Bridge, measures to reduce traffic through Clifton Hampden Bypass will provide a new route from the B4015 Oxford Road to Culham Science Centre, which will unlock the opportunity to provide a high-quality cycle route through Clifton Hampden.



Figure 3 Proposed Science Vale Cycle Network route map<sup>3</sup>

<sup>3</sup> Oxfordshire County Council, Science Vale Cycling Network [online] (December 2019)

https://www.oxfordshire.gov.uk/sites/default/files/file/roads-and-transport-major-projects/science\_vale\_cycle\_network.pdf

Oxfordshire County Council also have an overall aspiration to enable and encourage walking to be a travel mode of choice for short trips and the most popular and accessible form of recreational activity. The ambition is to make all streets and public spaces to be accessible to all users.

This scheme shall therefore ensure that walking and cycling facilities, suitable for all types of users, are provided along the proposed highways, and provide improvements to the overall walking, cycling and horse-riding network across the area.

### Oxfordshire Rights of Way Management Plan 2015-2025 (November 2014)

The Rights of Way Management Plan is a 'daughter' document to the Oxfordshire Local Transport Plan and supports the delivery of the Councils overarching strategic goals. The main strategic objectives which are relevant to the proposals and considered as part of this Assessment include:

- Improve public health and wellbeing by increasing levels of walking and cycling, and enabling inclusive access to jobs, education and services.
- Reduce the proportion of journeys made by private car by making the use of public transport, walking and cycling more attractive.
- Maximise the use and value of existing and planned sustainable transport investment, by linking and integrating this with planned development to allow continued and increased use of the right of way network.

### South Oxfordshire District Council – Emerging Local Plan 2011-2034 (January 2019)

The Clifton Hampden bypass has been identified in the emerging plan as one of the strategic transport schemes in which land should be safeguarded to support this (Policy TRANS1),

It states that this scheme, along with the proposed Didcot to Culham river crossing scheme will have "strategic transport benefits and is required to support development proposed in the emerging South Oxfordshire Local Plan, as well as development allocated in the Vale Local Plan Part 1 and development proposed in the emerging Vale Local Plan Part 2. It is also part of a package of transport infrastructure in this area as identified in the Science Vale Area Transport Strategy in the Oxfordshire Local Plan, which includes the Clifton Hampden Bypass and the Didcot Northern Perimeter Road."

### South Oxfordshire District Council – Core Strategy 2027 (adopted December 2012)

The Core Strategy states that large amounts of economic investment and housing are planned in the Science Vale Area, and "improvements are needed to ease access around this area particularly in respect of east-west movements".

One of the key development objectives is the "redevelopment of parts of Culham Science Centre to provide further high value jobs". South Oxfordshire District Council has committed to proactively working with Culham to develop an agreed masterplan that facilitates this growth and considers the wider traffic implications of proposals.

The proposed Clifton Hampden Bypass will support the movement that strengthens links between key places and will provide the necessary infrastructure to support the redevelopment of Culham Science Centre and the proposed increase in jobs.

### South Oxfordshire Infrastructure Delivery Plan (January 2019 update)

As part of the delivery plan, land adjacent to Culham Science Centre has been identified for the delivery of 3500 dwellings. In order to support these proposed developments, key infrastructure requirements for Culham include contributions towards the Didcot to Culham Thames River Crossing, Clifton Hampden bypass and the upgrading of the A4074/B4015 Golden Balls junction; as well as the enhancements to encourage sustainable travel.

### Didcot Garden Town Delivery Plan (October 2017)

The Didcot Garden Town vision recognises that Didcot will grow from approximately 26,000 people to over 60,000 by 2031. With this growth, Didcot is expected to become the largest town in Southern Oxfordshire and if the means by which residents move around the town remains unchanged, town wide journeys by car will double. This will result in pressure on the existing highways network, and investment is required to provide the necessary infrastructure to enable a modal shift away from private cars towards other modes of transport.

The east-west movement corridors and Science Bridge have been identified as one of the key proposals to achieve sustainable movement across the area. One component of these corridors is the Didcot to Culham River Crossing as reviewed as part of this Assessment.

A new cycle route between Harwell, Didcot and Culham, referred to as the Garden Line, has also been identified in the delivery plan. This is proposed to include upgrading of the route to Culham and a new river crossing to the east of the railway line.

### **Design Standards**

The following design standards have also been identified and considered during the assessment:

- Oxfordshire Walking Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- Oxfordshire Cycling Design Standards (A guide for Developers, Planners and engineers, summer 2017).
- CD195 Designing for Cycle Traffic
- CD143 Designing for walking, cycling and horse-riding
- Advice on Road crossings for horses (The British Horse Society).

### 2.2 Collision data

Collision data has been provided to AECOM by Oxfordshire County Council for a 5-year period between 9<sup>th</sup> June 2014 and 8<sup>th</sup> June 2019. There was a total of 14 collisions recorded within the scheme extents, with 18 casualties, the severity is summarised by year in Table 1 and Table 2. As shown total yearly collisions do not show any evidence of deterioration or improvement in road safety along the local highways.

Severity / Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	0	2	1	0	0	0	3
Slight	2	2	2	2	2	1	11
Total	2	4	3	2	2	1	14

Table 1: Total collisions by severity

Severity / Year	2014	2015	2016	2017	2018	2019	Total
Fatal	0	0	0	0	0	0	0
Serious	0	2	1	0	0	0	3
Slight	2	2	4	3	3	1	11
Total	2	4	5	3	3	1	18

### Table 2: Total casualties by severity

For the purpose of this Assessment, a cluster site has been defined as an area with seven or more collisions within a 100m radius over a 5-year study period. No cluster sites have been identified within the study area.

Table 3 provides a summary of the collisions based on location, severity and type. **Appendix B** contains the full details of the collisions, which are also presented with balloon diagrams on the plot included in drawing CHB-ACM-HGN-SW\_ZZ\_ZZ\_DR-Z-0001.

Location	Collision Severity	Collision Type	Pedestrians/Cyclist involved?	Contributory Factors
A415 Abingdon Road/ Station Road junction	1 slight	1 shunt	No	Failure to look - right turning vehicle
A415 Abingdon Road, west of Culham Science Centre entrance	1 serious, 2 slight	3 shunts	No	Failure to look - overtaking, stationary vehicle. Sudden braking
A415 Abingdon Road,	1 serious	1 right turn collision	No	Failure to look - right turning vehicle
Turnpike Petrol	2 slight	1 shunt	No	Failure to look - right turning
Station/High Street		1 right turn collisions	No	vehicle Stationary vehicle waiting to turn right
	1 slight	1 shunt	No	Sudden braking
A415 Abingdon	2 slight	1 shunt	No	Failure to look – traffic signals
Road, Clifton Hampden		1 cycle/pedestrian collision	Yes	
High Street, Clifton Hampden	1 slight	1 stationary vehicle/passenger collision (slight)	Yes	Failure to look

1 serious, 1 slight	1 loss of control – No M/C 1 loss of control - LGV	Slippery road, and road layout

### Table 3 Collision summary by location

### 2.3 Public transport services and interchange information

Pedestrians, cyclists and equestrians may combine their modes of travel with public transport as part of a longer trip. As part of this Assessment, public transport services and associated infrastructure such as rail and bus stations (including bus stops) and interchanges have been identified to enable an appropriate assessment of the integration of such modes.

### 2.3.1 Bus Service

Bus stops are located within the study extents at the following locations:

- Culham Science Centre entrance
- Village Hall, A415 Abingdon Road at Clifton Hampden
- Post Office, High Street, Clifton Hampden
- A4074, Golden Balls Roundabout

Table 4 summarises the bus services currently operating within the study extents, their frequency and routing. The main routes are also shown in the South Oxfordshire Zone network map shown in Figure 4.

Bus stop	Bus Route	Operator	Frequency	Days of service	Route connections
	45	Thames Travel	Hourly 05:30 to 20:20, Additional peak service between 17:00 and 17:30	Monday - Friday	Abingdon to Wantage, via Culham, Sutton Courtney and Milton
Culham Science Centre			Hourly 07:45 to 19:35	Saturday	
			No service	Sunday	_
	BB1B	Thames Travel	1 AM and 1 PM service	School days only	Berinsfield to Didcot Schools via Burcot, Clifton Hampden, Drayton, Steventon and Milton Heights
Village Hall, A415 Abingdon Road, Clifton Hampden	BB1B	Thames Travel	1 AM and 1 PM service	School days only	Berinsfield to Didcot Schools via Burcot, Clifton Hampden, Drayton, Steventon and Milton Heights
Post Office,		Goina	1AM service	Monday	Berinsfield to Didcot, via
High Street, Clifton Hampden	D1	Forward Buses	1AM and 2 PM	Wednesday	Long Wittenham and Clifton Hampden
A4074, Golden Balls	NX40 River Rapids	Thames Travel	Every 20mins	Monday - Friday	

Roundabout (request stop)	X38 River Rapids	Every 20mins	Saturday	
	X39 River Rapids	Hourby	Quadau	Oxford – Wallingford - Reading/Henley
	X40 River Rapids	Houliy	Sunday	

### Table 4: Bus stops and bus route - Culham and Clifton Hampden



Figure 4 Extract of South Oxfordshire Zone network map

### 2.3.2 Train service

The proposed Clifton Hampden Bypass runs towards the west of the Oxford to Didcot railway line. There is a single train station location with the study extents at Culham. Train services along this route are operated by Great Western Rail, with services directly into Reading, Didcot Parkway, Oxford and Banbury. With an interchange at either Didcot Parkway or Reading, Great Western Rail train services can also be used to reach London Paddington, Cardiff Central, Weston Super Mare, Cheltenham Spa, Swansea, Taunton, Bristol Temple Meads and Carmarthen as shown in the network map included in Figure 5.

Culham railway station is located approximately 0.5km to the west of Culham Science Centre and 2.4km to the east of Culham village. The station is unattended with limited facilities. The station car park has 8 spaces. Sheltered cycle parking with 26 storage spaces is also available. Train services which currently serve Culham are infrequent, and summarised as follows based on GWR published timetables:

- Monday to Friday:
  - 2 early morning, and 1 late morning service
  - Half-hourly services during peak times between 07:30 and 09:00, and between 17:00 and 18:20
  - 1 midday and 1 mid-afternoon services
  - 2 evening services (19:30 21:00).
- Saturday 2-hourly service between 07:30 and 10:00; 13:30 and 16:00; 19:30 22:00, with 2 early morning services.
- Sunday No services.



Figure 5: Great Western Railway network map

### 2.4 Key trip generators and local amenities

### 2.4.1 Key trip generators

The key trip generators in the vicinity of the proposed improvements include the following:

### Local businesses and key places of interest

- Culham Railway Station
- Culham Science Centre
- Culham No.1 Site including High Ropes Oxford, Oxford Adventure Park
- Europa School UK, Culham

### Residential areas within the study area

- Clifton Hampden
- Burcot

### Residential areas - outside of 1 km of study area

- Culham Village
- Berinsfield
- Long Wittenham

### 2.4.2 Committed developments

Housing areas are planned for Great Western Park and Valley Park in south-east Didcot, Ladygrove North in north-east Didcot, North-east Wantage, and at other locations including Culham, Berinsfield and Dalton Barracks<sup>4</sup>. This amounts to more than 22,000 houses planned for the local area. Major employment development is planned for within the two Enterprise Zones, Science Vale and Didcot Growth Accelerator, and elsewhere at Milton Park and Didcot Power Station, for Grove Airfield, Culham Science Centre and Harwell IBC. If these developments were allowed to progress without any improvements in the capacity of the transport networks, then the result would be likely to be unacceptable local congestion.

The Oxford Strategic Model (OSM) was developed using 2013 as the base conditions to assess the predicted traffic growth in the area. Model outputs suggest that in 2031, with all the planned developments, there would be around a 30% traffic growth in flows across Culham Bridge; and Clifton Hampden Bridge by around 30% in the peak periods and around 40% in the inter-peak.

According to the South Oxfordshire District Council planning website there is a large proposed development located at the land at Culham Science Village, Culham Oxfordshire (P17/S3719/SCO), as outlined in Figure 6. The proposed development is a residential led mixed-use development and is at the scoping stage.



Figure 6 Oxfordshire County Council Planning application interactive mapping

<sup>&</sup>lt;sup>4</sup> Access to Science Vale – Option Assessment Report (OAR)

### 2.5 Site visit

A site visit was undertaken on the 10<sup>th</sup> November 2019, between 10:00 and 12:00. The site visit took the form of walking along the available public pedestrian and cyclist facilities within the proposed corridor. The weather during the site visit was cold, with light showers.

The primary findings of the site visit were:

 A415 Abingdon Road, Culham – Shared cycle-pedestrian footways are provided on the northern side of the carriageway along the length of Abingdon Road from Culham Village to Culham Science Centre. To the west of the private farm access, there is no physical separation between the footway and the carriageway as shown in Figure 7. White lining is provided along the footway to delineate its edge; however, this was observed to have worn away.

To the east of the farm access, a grass verge segregation strip is provided between the footway and carriageway as shown in Figure 8 which is considered more suitable for the high-speed road with a national speed limit. One cyclist was seen using the facilities during the site observations.





Figure 7 A415 Abingdon Road, shared use footways

Figure 8 A415 Abingdon Road, west of farm access

 Culham Railway Station – On the approach to the station from the west, the cyclists are signed down the local road to the Railway Inn where there is limited cycle parking within the station. All sheltered cycle storage is on the eastern platform side, which appears to match the demand.

From the eastern approach shared cycle-pedestrian footways are provided from Culham Science Centre, along Station Road and terminating at the station entrance as shown in Figure 10.



Figure 9 Cycle parking at Culham Railway Station



Figure 10 Culham Railway Station – eastern approach

An uncontrolled crossing is provided near the station car park entrance on Station Road, as shown in Figure 12. On-street parking was observed adjacent to the crossing shown in Figure 11, limiting visibility of oncoming vehicles, however traffic volumes and speeds are low so this was not considered a critical safety concern. A segregation strip is provided on the footways, delineated by white lining where there is no verge. At the time of the site visit, works were being carried out at the junction of A415 Abingdon Road and Station Road.





Figure 11 Station Road - Shared cyclepedestrian footways

Figure 12 Station Road – uncontrolled crossing

**Culham Science Centre Access** – Shared cycle-pedestrian facilities between the Station Road and the entrance of the Science Centre appeared to be well-maintained and well-signed, and away from the main vehicular entrance. Bus stops provided outside the Science Centre have shelters and bus cage markings, no passengers or buses were observed at the time of the site visit. An uncontrolled crossing point was noted on the A415, near the eastbound bus stop, providing access to the shared footways on the southern side of Abingdon Road. This footway continues east at the crossing towards the bus stop but terminates to the west of the stop.

### 2.6 Existing walking, cycling & horse-riding network facilities

### 2.6.1 Local facilities

The existing facilities for non-motorised users along the proposed highway corridor include the following:

- A415 Abingdon Road shared use footways from Culham village to the entrance of Culham Science Centre
- Station Road shared use footways from A415 Abingdon Road to the entrance of the Culham railway station car park
- B4015 Oxford Road There are no footways or dedicated NMU facilities to the north of Clifton Hampden. Footways are currently provided through the village but terminate at the access with Orchard Barn located just north of the junction with Courtiers Green.

### 2.6.2 Local routes and strategic networks

The following pedestrian, cyclist and equestrian routes within the study extents have been identified, which are of relevance to the Assessment and are also shown on Figure 13.

- **RB-1**: East-west restricted byway to the north of Culham Science Centre along Thame Lane and Thame Lane (path). This byway is part of the Green Belt Way which forms a 50mile circular walking route around Oxford. To the west of the railway, the Green Belt Way route continues alongside the River Isis.
- FP-1: North-south footpath between Clifton Hampden and the Green Belt Way, to the east
  of Culham Science Centre. The route is formed of an unsurfaced, worn path along the
  boundary of fields. At Abingdon Road the access to the path is gated and located just
  within the 30mph speed limit. No crossing facilities are currently provided for connectivity
  to the existing footway on Abingdon Road or the onward footpath to Clifton Hampden
  village. Visibility at the access appears to be poor.
- **FP-2:** North-south public footpath between Clifton Hampden and Thame Lane (path), where the route continues through Nuneham Courtney along the Oxford Greenbelt Way.
- **FP-3:** Signed east-west public footpath between Oxford Road, and the restricted byway along Thame Lane and the Green Belt Way.
- **FP-4**: Signed east-west public footpath through a farmer's field, connecting Croft Cottages, located on Abingdon Road in Burcot, with Oxford Road to the north of Clifton Hampden. The route appears to have low usage, and the exact location of the access to the path on Oxford Road is unclear. Based on mapping, this route connects to FP-3 on the western side of Oxford Road.
- Based on the British Horse Society Equestrian Access Mapping, there are no official rides or trails within the study area.



Figure 13 Extract of OCC Public Right of Way Map

### 2.6.3 National Cycle Route

National Cycle Route (NCR) 5 is the closest regional route to the proposed scheme and is a long-distance route which connects Reading and Holyhead via Oxford, Stratford-upon-Avon, Bromsgrove, Birmingham, Stoke-on-Trent, Chester, Colwyn Bay and Bangor.

The closest point on the NCR5 to the proposed scheme is the on-road route at Long Wittenham. To the east of Long Wittenham, the route continues in a south-easterly direction towards Wallingford, and to the west, the route continues in a south-westerly direction towards Didcot.



Figure 14: Extract of Sustrans National Cycle Network Map

### 2.7 Walking, cycling & horse-riding survey data

AECOM commissioned Traffic Data Centre (TDC) to undertake a survey in November 2019 to collect data on walking, cycling and horse-riding movements at four locations within the scheme extents. Where located on the public highway these surveys were conducted over a 7-day, 24-hour period using video cameras. Where located on public footpaths, these surveys were undertaken manually on one weekday, Saturday and Sunday during daylight hours only. The data was collected in order to provide a quantitative understanding of walking, cycling and horse-riding demand and understand the use of junctions in the scheme.

The surveys were undertaken between Monday 11th November to Sunday 17th November 2019. The surveys were undertaken to capture walking, cycling and horse-riding movements through the junctions and surrounding area. Weather throughout the survey period was predominantly cloudy, with sun only on the Monday 11<sup>th</sup> November. There were also showers from Thursday to Sunday.

The count locations are shown in Table 5. Two ATC counts were also completed to identify traffic speeds and volumes in the area. A map of these locations is shown on drawing 60606782\_NMUSURVEY\_002 Revision A, included in Appendix C.

Survey ID	Location	Survey type	Grid reference
CHB-01	B4015 Oxford Road	ATC speed survey	
CHB-02	Junction on B4015	Classified NMU OD count	E: 454813 N: 196306
CHB-03	Footpath North of Clifton Hampden	Manual Classified NMU OD count (Friday and weekend survey only)	E: 454717 N: 196138
CHB-04	A415 Abingdon Road to west of High Street, Clifton Hamden	ATC speed survey	
CHB-05	Footpath, junction on A415 Abingdon Road	Manual Classified NMU OD count (Friday and weekend survey only)	E: 454511 N: 195566
CHB-06	Culham Science Centre (Main Avenue) Junction on A415 Abingdon Road	Classified NMU OD count	E: 453486 N: 195200
CHB-07	Station Road (east) junction on A415 Abingdon Road	Classified NMU OD count	E: 453196 N: 195184

### Table 5: Locations for WCHAR surveys

### 2.7.1 ATC speed surveys

Table 6 provides a summary of the average and 85%ile speeds recorded on the B4015 Oxford Road and the A415 Abingdon Road, Culham. Surveys suggest that typical vehicles are travelling below the speed limit on both roads, with an average of speed of 41mph on Oxford Road to the north of Clifton Hampden and 32mph on the A415 Abingdon Road, Clifton Hampden to the west of High Street and the existing speed limit change signs.

Survey ID	Location	Direction	Speed limit (mph)	Average speed (mph)	85%ile speed (mph)
CHB-01	B4015 Oxford Road	Northbound	50mph	41.0	45.9
		Southbound	50mph	41.7	49.0
CHB-04 A415 Abingdon Road to		Eastbound	50mph	28.3	39.5
	west of High Street, Clifton Hamden	Westbound	50mph	35.0	40.2

### Table 6: Surveyed average and 85%ile speeds

Table 7 provides a summary of the total number of vehicles recorded along B4015 Oxford Road and the B4016 during the survey period, and their classification. Surveys suggests that most vehicles currently using the two roads are private cars, comprising of 84-86% of total traffic recorded.

Survey	Location	Total 2- way weekly traffic	Vehicle classification (%)					
ID			Cycles	Motorcycle	Car	LGV	HGV	Buses
CHB- 01	B4015 Oxford Rd	55,593	0.17	0.80	85.60	13.10	0.25	0.08
CHB- 04	A415 Abingdon Rd to west of High St	66,425	0.18	0.83	84.28	13.73	0.60	0.38

### Table 7 Surveyed 2-way traffic flow and vehicle classification

### 2.7.2 NMU surveys

The total pedestrian, cyclist and equestrian movements observed over the survey periods have been marked on a location plan for each site. The full survey counts are provided in **Appendix D**.

No equestrians or wheelchair users were observed at any of the survey locations, over the survey period.

# CHB-02: Junction on B4015

The number of NMUs recorded at this location during the weekend is greater than on weekdays, an average of 30 NMUs during the weekend in comparison to an average of 14 on a weekday suggesting this route is used predominately for leisure trips. There is а reasonably high number cyclists of travelling along the B4015 Oxford Road, although there are no dedicated facilities.

The total NMUs observed over the survey period is shown in Figure 15.

### CHB-03: Footpath to north of Clifton Hampden

The number of NMUs recorded at this location across the 3 survey days was relatively even, with the greatest number recorded on the Saturday (total of 20 users). Most users were seen after 10am.

The total NMUs observed over the 3-day survey period is shown in Figure 16.



Figure 15 CHB-02 B4015 Oxford Road/The Coppice House – Total NMUs observed (7-day survey period)



Figure 16 CHB-03 Footpath north of Clifton Hampden – Total NMUs observed (3-day survey period)

### CHB-05: Footpath, junction on A415 Abingdon Road

The number of NMUs at this location recorded during the survey period on the Sunday (95 users) and Saturday (81 users), is much greater than the number observed on the Friday (21 users), suggesting this is a wellused and important local leisure route.

The total NMUs observed over the survey period is shown in Figure 17.



Figure 17 CHB-05 Footpath at A415 Abingdon Road – Total NMUs observed (3-day survey period)

### CHB-06: Culham Science Centre (Main Avenue) Junction on A415 Abingdon Road

NMUs observed at this location were greater during the weekdays with an average of 86 each day, in comparison to 39 on a weekend day. The highest hourly numbers of NMUs were recorded between 8 to 9am, and 4 to 6pm suggesting that these are work related trips.

The existing shared use footways are well used by cyclists and although there are no formal facilities to cross between the shared use on the southern side of Abingdon Road to Culham Science Centre, this is done by almost half the cyclists.

The total NMUs observed over the survey period is shown in

Figure 18.

### CHB-07: Station Road (east) junction on A415 Abingdon Road

NMUs observed at this location were greater during the weekdays with an average of 666 each day, in comparison to 55 on a weekend day. On the weekdays, the highest hourly numbers of NMUs were recorded between 8 to 9am, and 5 to 6pm on suggesting that these are work related trips.

The existing shared use footways are well used by both pedestrians and cyclists. Given that the numbers at this location are significantly higher than that recorded at the Culham Science Centre Main Avenue/A415 Abingdon Road junction, the majority of pedestrian and cyclists are assumed to be travelling to and from the Science Centre but are using the existing shared use route which cuts through the landscaped area to the west of the main vehicular access rather than the main road where there are no facilities.

The total NMUs observed over the survey period is shown in Figure 19.



Figure 18 CHB-06 Culham Science Centre, Main Avenue – Total NMUs observed (7-day survey period)

Project reference: Didcot Garden Town HIF1 Project number: 60606782



# Figure 19 CHB-07 Station Road (east) junction on A415 Abingdon Road– Total NMUs observed (7-day survey period)

### 2.8 Consultation with key stakeholders and local user groups

In order to be able to incorporate, where appropriate, the comments and views of local people on the preferred alignments into the next stage of the scheme design process of the HIF1 package of schemes an online public consultation was undertaken. This commenced on 20<sup>th</sup> March and finished on 30<sup>th</sup> April 2020. Full details of the consultation are available online: www.oxfordshire.gov.uk/didcotupdate. The consultation plans shared for the Clifton Hampden Bypass scheme are included in Appendix F. It is noted that due to the timing of the consultation and aim to provide stakeholders with the most-up to date designs, this component of the Assessment has been carried out based on updated AECOM feasibility design drawings (rev P01).

As a result of Government restrictions on social distancing in response to the COVID-19 pandemic, it was not possible to hold the five public exhibitions that were scheduled for the last two weeks of March 2020. Due to the very tight timescales imposed by Government with respect to the terms of the funding, it was necessary to continue with an online consultation in order to avoid delay to the project programme.

However, to address this, OCC undertook additional measures to ensure that as many people as possible were aware of the consultation and were able to access the information. This included sending letters to approximately 22,000 residences in the area, using an innovative virtual exhibition room with live chat function, promoting telephone numbers of officers available to answer questions, and sending printed versions of the materials to those without internet access. This was all in addition to the standard means of engagement (newspaper adverts, press releases, electronic mailouts, OCC website etc).

Additionally, targeted questionnaires were sent out to local government departments and representatives of local user groups, seeking views on walking, cycling, and horse-riding elements of the infrastructure proposals. It should be noted that this scheme was consulted alongside the three other Didcot HIF highways schemes. Later in the year, it is intended that stakeholder workshops will be held to invite further input to the design of the walking, cycling,

and horse-riding provision in all four proposed schemes. Overall, 24 questionnaires were sent out to a list of identified key stakeholders and user groups and included representatives from the following:

- OCC Active and Healthy Travel
- OCC Public Rights of Way
- Didcot Garden Town Project Manager
- Harwell Campus Bicycle Users Group (HarBUG)
- Sustrans Thames Valley
- Cyclox (Cycling UK local)
- Culham Science Centre Bicycle Users Group (CulBUG)
- Milton Park Bike Users' Group (MilBUG)
- Oxfordshire Cycling Network
- Ramblers Association
- Ramblers Association Oxon (& Oxford Fieldpaths Society)
- British Horse Society
- Oxfordshire Association for the Blind
- Oxfordshire Unlimited
- Guide Dogs
- Oxfordshire Transport & Access Group (OXTRAG)

In total, seven replies were received. In general, all respondees supported walking and cycling improvements, even if this means less space for other road traffic.

Table 8 provides a summary of the stakeholder responses relating to the proposed Clifton Hampden Bypass received during the consultation. A copy of the questionnaire and the full responses received are included in **Appendix E.** 

### Table 8 Summary of stakeholder responses to consultation

Consultee	Summary of Response
OCC Public Health	<ul> <li>OCC Public Health agreed that the proposed scheme would encourage walking and cycling. However, it is suggested that suitable complementary measures to improve pedestrian and cycle conditions are needed in decongested area to ensure that the reduction in congestion by introducing the new highways will not lead to increase in demand for private vehicle use. 'Whole place' improvements and reducing speed limits were suggested for these areas.</li> </ul>
	<ul> <li>Strong support was expressed for the full segregation and setting back of walking and cycling facilities, and the shared use "short cuts" that will enable people to avoid busy junctions and roundabouts.</li> </ul>
	<ul> <li>Concern was expressed relating to the proposed tangential roundabout design which may result in high vehicle speeds at the roundabout and safety concerns for pedestrians using the uncontrolled crossings on the roundabout.</li> </ul>

• Suggestion was made to consider a radial roundabout layout, and further measures to reduce traffic speeds and improve the pedestrian

### Consultee Summary of Response

	environment at the roundabouts including the consideration of green infrastructure. Measures to mitigate noise impacts was also mentioned.
OCC Public Rights of Way – Access Strategy & Development	<ul> <li>OCC PRoW were positive about the proposals but noted that the improvements for pedestrians are relatively close to traffic and has not included creation of alternative traffic free routes well away from carriageways and within local settlements.</li> <li>It was also noted that complementary cycle routes within settlements must be provided to equal standard and traffic free where possible to encourage less confident cyclists to use their bikes.</li> <li>OCC PRoW made the following suggestions: <ul> <li>Provide a wider cycle path to make the cycle-commuting faster and safe, as pedestrian use is likely to be low given the length of the corridor.</li> <li>Further consideration for equestrian provision and onwards connections, by discussion with local and national representative of the privide blace.</li> </ul> </li> </ul>
	<ul> <li>Formal consultation to be carried out with the statutory Oxfordshire Countryside Access Forum.</li> </ul>
Harwell Campus Bicycle Users Group (HarBUG)	<ul> <li>HarBUG supported the proposed improvements along the Clifton Hampden Bypass and agreed that they will make cycling to Culham Science Centre easier from Didcot and, in parts, from Abingdon.</li> <li>In general, they agreed that proposals would encourage walking and cycling however noted that pedestrian facilities along the route would only be used by people for short distance as a means to get places, but it would generally be an unpleasant environment and unlikely used for leisure.</li> <li>It was noted that cycling will be encouraged by the proposals, only if direct and convenient connections to existing and new housing developments are provided and that all these routes are integrated into the Science Vale Cycling Network.</li> <li>HarBUG raised concerns about the proposed unsignalised pedestrian and cycle crossings on the roundabout and that this should be reconsidered. It was also suggested that the cycle route from Abingdon to Culham Science Centre should be upgraded and improved so cycle commuters have a good alternative to using the main carriageway.</li> </ul>
Milton Park Bike Users' Group (MilBUG)	<ul> <li>MilBUG were positive about the proposed walking and cycling improvements, however mentioned that cycle facilities must have good quality, safe and convenient onwards connections to places of local interest.</li> <li>A number of suggestions were also raised: <ul> <li>Good segregation between footways and the carriageway to improve walking environment, including consideration for planting/landscaping</li> <li>Signalised crossings or raised parallel crossings at junction to provide cycle priority at crossings.</li> <li>New facilities and cycle route should encourage more people to cycle between Culham, Milton Park and other areas of Didcot.</li> </ul> </li> </ul>
Cyclox	<ul> <li>In general, Cycling UK were welcoming of the walking and cycling improvements proposed as part of the scheme to encourage and allow people to walk and cycle more often, however they had some significant concerns on the proposals in general and whether the schemes were promoting private car usage rather than walking and cycling.</li> </ul>

	<ul> <li>Cycling UK, did not support the walking and cycling proposals as part of the Clifton Hampden Bypass, suggesting that:         <ul> <li>Cycling will be diminished and made unattractive by the proposed new roads and lack of priority crossings.</li> <li>Design of the roundabouts with unsignalised crossings or Toucan crossings is not attractive or safe to cyclists.</li> <li>The location of the pedestrian crossing on the bypass at Culham Science Centre appears to be away from the main access gate and may not meet desire lines.</li> </ul> </li> </ul>
Oxfordshire Cycling Network (OCN)	• OCN were positive about the improvements and agreed in part that they would encourage walking and cycling however noted that walking will likely be for 'function' rather than pleasure due to the distances involved and that the new highways will also likely increase the attractiveness of driving.
	• OCN supported the proposals and agreed that the specification of the bypass itself was good for cycling and offers benefit for future connectivity, however the following should be considered:
	<ul> <li>Creation of a quiet lane along the A415 to Berensfield by reallocating road space and reduction of speeds, to enable the extension of the cycle route from Culham Science Centre / Clifton Hampden to Berensfield / Dorchester.</li> </ul>
	<ul> <li>Provision of a parallel crossing rather than an unsignalised crossing at the Culham Science Centre roundabout.</li> </ul>
Oxfordshire Transport & Access Group (OXTRAG)	<ul> <li>OXTRAG welcomes the improvements for encourage people to walk and cycle more often.</li> <li>Agree with the walking and cycling facilities proposed and are pleased that there will be an off-carriageway cycleway/footway, however suggested that:         <ul> <li>A link to the highways through an underpass should be provided.</li> <li>The cycleway/footway should be extended north-westwards as far as the Golden Balls Roundabout.</li> </ul> </li> </ul>
	Linke are provided to the pearby bridleway to the parth

#### Summary of Response Consultee

– Links are provided to the nearby bridleway to the north.

## 3. User opportunities

The opportunities highlighted below are deemed to be relevant to the highway scheme and should be considered by the design team leader throughout the progression of the highway scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

It shall be noted that opportunities labelled "KS" have been identified through key stakeholder consultation carried out in April 2020 and have only been raised following the completion of the feasibility stage design due to the programme. Additional opportunities identified are to be reviewed by designers at the next stage of the design and to be included in the next stage WCHAR review.

### 3.1 General

### Opportunity 1

Inclusion of dedicated pedestrian and cycle facilities along the proposed new highways corridor and up to the Golden Balls Roundabout to improve the accessibility for NMUs between Culham Railway Station, Culham Science Centre and areas to the north-east of Clifton Hampden.

### **Opportunity KS-1**

Provision of well-designed junctions with safe and direct crossings, to provide a route which caters to all user. Consideration to be given to introduction of parallel crossings where safe to do so, to give priority to pedestrians and cyclists; or signalised crossings.

### Opportunity KS-2

Inclusion of green infrastructure and landscaping, and maximise segregation distance between motor vehicles and NMUs, in order to provide a high-quality pedestrian and cycling environment and mitigate noise impacts.

### **Opportunity KS-3**

Provision of complementary cycle routes and improvements to existing cycle infrastructure, and traffic calming measures within Clifton Hampden Village to encourage an uptake in cycling in areas where vehicle traffic may reduce due to the proposed new bypass.

### **Opportunity KS-4**

Inclusion of the new cycle route along the Clifton Hampden Bypass into the proposed Science Vale Cycle Network, providing a consistent style and approach to wayfinding signage as proposed for the network.

### 3.2 Strategic opportunities

### Opportunity 2

Provide a new signed link from Culham Railway Station to the Green Belt Way, via the new bypass. This will enable any leisure users to easily access the circular route who are using the train services.

### Opportunity 3

Provide a new link between the two branches of the NCR 5, to provide a more direct route between Abingdon, Long Wittenham and Wallingford, without passing through Didcot.

### Opportunity 4

Provide a connection between the promoted and well-used Thames Path at Clifton Hampden and the Oxford Green Belt Way to the north east of Culham Science Centre. This shall include consideration for an upgraded crossing on the A415 Abingdon Road and a crossing of the proposed bypass.

### 3.3 Pedestrian specific opportunities

### Opportunity 5

Provide missing footway links between the Clifton Hampden Village and existing public footpaths accessed along Oxford Road. Simplification of the routes in the area shall also be considered to enable easier maintenance and allow for a high quality, maintained route to be provided from Oxford Road towards the Green Belt Way.

### Opportunity 6

Upgrade access and wayfinding signage for the existing footpath between Clifton Hampden and Oxford Green Belt Way. Options to be considered shall include improved signage from the village, improved access treatment and visibility on Abingdon Road.

### Opportunity 7

Renew the white lining on the existing shared cycle-pedestrian footways along A415 Abingdon Road.

### **Opportunity 8**

As many of the routes are rural, provision of street lighting along key NMUs routes should be considered to encourage use throughout the year in all season, and weather conditions.

### 3.4 Cyclist specific opportunities

### Opportunity 9

Provision of additional cycle stands at Culham Science Centre and Culham Station, to further encourage cycling as a means to travel to work.

### **Opportunity 10**

Improve access to the existing shared footways on the southern side of Abingdon Road from Culham Science Centre. This shall include the consideration for providing crossing facilities near Culham Science Centre, to assist pedestrians and cyclists to access the off-carriageway facilities to travel towards Clifton Hampden.

### **Opportunity KS-5**

Upgrade and improve the existing cycle facilities along the A415 from Abingdon to Culham Science Centre to cater for commuter demand and further encourage use of off-carriageway facilities. Installation of additional wayfinding signage and incorporation of improvements proposed along this route as part of the Science Vale Cycle Network.

### **Opportunity KS-6**

Consider the possibility of extending the cycle route from Culham Science Centre / Clifton Hampden to Berensfield / Dorchester by improving the pedestrian and cyclist environment along the A415 to Berensfield. Measures to be considered shall include wayfinding signage, reallocating road space and reduction of speeds.

### 3.5 Equestrian specific opportunities

Liaison with key stakeholders and local user groups has not identified any key equestrian desire lines or demand within the scheme study area. British Horse Society have been included as part of the consultation, however, did not respond within the consultation period.

It has however been suggested during public consultation that further consideration should be given to equestrian provision and onwards connection to the nearby bridleways to the north of the proposed bypass.

### **Opportunity KS-7**

To consult with BHS during the development of the design to ensure that equestrian demand is catered for, and future aspirations for equestrian routes have been considered as part of the design.

# 4. Walking, Cycling and Horse-Riding Assessment Team Statement

As Lead Assessor, I confirm that this Walking, Cycling and Horse-Riding Assessment Report has been compiled in accordance with DMRB GG 142 and thus contains the appropriate information for the wider design team. The Walking, Cycling and Horse-Riding Assessment was undertaken by the following Assessment and Review Team:

Walking, Cycling and Horse-Riding Lead Assessor

Name: Andy Blanchard

Position: Associate Director

AECOM Company:

### Walking, Cycling and Horse-Riding Assessor

Name: Kin-Yun Lo

Position: Senior Engineer

AECOM Company:

As design team leader I confirm that the assessment has been undertaken at the appropriate stage of scheme development and that the wider design team has been involved in the process.

I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in GG 142.

### **Design Team Leader**

Name: Shaun Wilkinson

Position: **Technical Direction** 

Company: AECOM

Signed: AGSCUL Date: 19/05/2020

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Date: 15/05/2020

Sianed:

Signed:

Date: 21/05/2020

## Appendix B – Off-Site Junction Capacity Assessment Outputs



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

### **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		1.76	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

### **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm Use O-D data		Av. Demand (Veh/hr)	Scaling Factor (%)	
Α		✓	1510	100.000	
в		✓	182	100.000	
С		✓	1158	100.000	

### **Origin-Destination Data**

#### Demand (Veh/hr)

		Т	о	
		Α	в	С
From	Α	0	66	1444
	в	0	0	182
	С	1030	128	0

### Vehicle Mix

#### HV %s

	То					
From		Α	в	С		
	Α	0	18	6		
	в	0	0	13		
	С	10	10	0		



### Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.49	17.49	1.0	С
C-AB	0.34	13.06	0.5	В
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	137	497	0.276	136	0.4	9.922	А
C-AB	96	515	0.187	95	0.2	8.569	А
C-A	775			775			
A-B	50			50			
A-C	1087			1087			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	164	459	0.357	163	0.5	12.142	В
C-AB	115	474	0.243	115	0.3	10.021	В
C-A	926			926			
A-B	59			59			
A-C	1298			1298			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	200	406	0.494	199	0.9	17.240	С
C-AB	141	417	0.338	140	0.5	12.990	В
C-A	1134			1134			
A-B	73			73			
A-C	1590			1590			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	200	406	0.494	200	1.0	17.488	С
C-AB	141	417	0.338	141	0.5	13.056	В
C-A	1134			1134			
A-B	73			73			
A-C	1590			1590			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	164	459	0.357	165	0.6	12.328	В
C-AB	115	474	0.243	116	0.3	10.083	В
C-A	926			926			
ΑB	59			59			
A-C	1298			1298			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	137	497	0.276	138	0.4	10.044	В
C-AB	96	515	0.187	97	0.2	8.618	А
C-A	775			775			
A-B	50			50			
A-C	1087			1087			



# 2024 with, PM

#### **Data Errors and Warnings**

No errors or warnings

### **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.83	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

### **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	1589	100.000
в		✓	234	100.000
С		✓	1381	100.000

### **Origin-Destination Data**

#### Demand (Veh/hr)

	То						
		Α	в	С			
From	Α	0	78	1511			
	в	0	0	234			
	С	1226	155	0			

### Vehicle Mix

#### HV %s

	То				
		Α	в	С	
_	Α	0	17	7	
From	в	0	0	13	
	С	10	10	0	



### Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.66	27.17	1.9	D
C-AB	0.43	15.87	0.7	С
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	485	0.363	174	0.6	11.480	В
C-AB	117	502	0.233	115	0.3	9.294	A
C-A	923			923			
A-B	59			59			
A-C	1138			1138			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	210	445	0.473	209	0.9	15.180	С
C-AB	139	458	0.304	139	0.4	11.263	В
C-A	1102			1102			
A-B	70			70			
A-C	1358			1358			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	389	0.662	254	1.8	25.907	D
C-AB	171	397	0.429	169	0.7	15.710	С
C-A	1350			1350			
A-B	86			86			
A-C	1664			1664			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	389	0.662	257	1.9	27.166	D
C-AB	171	397	0.429	171	0.7	15.867	С
C-A	1350			1350			
A-B	86			86			
A-C	1664			1664			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	210	445	0.473	214	0.9	15.841	С
C-AB	139	458	0.304	141	0.4	11.387	В
C-A	1102			1102			
ΑB	70			70			
A-C	1358			1358			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	485	0.363	178	0.6	11.745	В
C-AB	117	502	0.233	117	0.3	9.378	А
C-A	923			923			
A-B	59			59			
A-C	1138			1138			



# 2024 without, AM

#### **Data Errors and Warnings**

No errors or warnings

### **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.49	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

### **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	1410	100.000
в		✓	240	100.000
С		✓	1054	100.000

### **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	93	1317	
	в	0	0	240	
	С	923	131	0	

### Vehicle Mix

#### HV %s

	То			
		Α	в	С
_	Α	0	12	6
From	в	0	0	11
	С	11	10	0



### Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.61	20.82	1.5	С
C-AB	0.33	12.27	0.5	В
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	522	0.346	179	0.5	10.430	В
C-AB	99	529	0.186	98	0.2	8.328	A
C-A	695			695			
A-B	70			70			
A-C	992			992			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	486	0.444	215	0.8	13.218	В
C-AB	118	491	0.240	117	0.3	9.637	А
C-A	830			830			
A-B	84			84			
A-C	1184			1184			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	437	0.605	262	1.5	20.251	С
C-AB	144	438	0.330	144	0.5	12.217	В
C-A	1016			1016			
A-B	102			102			
A-C	1450			1450			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	264	437	0.605	264	1.5	20.821	С
C-AB	144	438	0.330	144	0.5	12.272	В
C-A	1016			1016			
A-B	102			102			
A-C	1450			1450			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	216	486	0.444	218	0.8	13.586	В
C-AB	118	491	0.240	118	0.3	9.690	А
C-A	830			830			
ΑB	84			84			
A-C	1184			1184			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	522	0.346	182	0.5	10.623	В
C-AB	99	529	0.186	99	0.2	8.376	А
C-A	695			695			
A-B	70			70			
A-C	992			992			


# 2024 without, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		2.60	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm Use O-D data		Av. Demand (Veh/hr)	Scaling Factor (%)	
Α		~	1198	100.000	
в		✓	273	100.000	
С		✓	1272	100.000	

## **Origin-Destination Data**

#### Demand (Veh/hr)

		Т	о	
		Α	в	С
From	Α	0	120	1078
	в	0	0	273
	С	1098	174	0

# Vehicle Mix

#### HV %s

		T	ō	
From		Α	в	С
	Α	0	3	3
	в	0	0	7
	С	5	11	0



# Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.59	17.41	1.4	С
C-AB	0.40	12.29	0.6	В
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	578	0.355	203	0.5	9.548	А
C-AB	131	559	0.234	130	0.3	8.362	A
C-A	827			827			
A-B	90			90			
A-C	812			812			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	245	548	0.448	244	0.8	11.805	В
C-AB	156	528	0.296	156	0.4	9.670	А
C-A	987			987			
ΑB	108			108			
A-C	969			969			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	301	507	0.593	298	1.4	17.042	С
C-AB	192	484	0.395	191	0.6	12.214	В
C-A	1209			1209			
A-B	132			132			
A-C	1187			1187			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	301	507	0.593	300	1.4	17.405	С
C-AB	192	484	0.395	192	0.6	12.286	В
C-A	1209			1209			
A-B	132			132			
A-C	1187			1187			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	245	548	0.448	248	0.8	12.073	В
C-AB	156	528	0.296	157	0.4	9.740	A
C-A	987			987			
ΑB	108			108			
A-C	969			969			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	206	578	0.355	207	0.6	9.716	A
C-AB	131	559	0.234	131	0.3	8.426	А
C-A	827			827			
A-B	90			90			
A-C	812			812			



# 2034 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		3.04	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	1387	100.000
в		✓	277	100.000
С		✓	1552	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То						
		Α	в	С			
From	Α	0	53	1334			
	в	0	0	277			
	С	1409	143	0			

# Vehicle Mix

#### HV %s

	То					
		Α	в	С		
_	Α	0	23	8		
From	в	0	0	11		
	С	8	8	0		



# Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.71	28.23	2.3	D
C-AB	0.35	12.54	0.5	В
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	518	0.403	206	0.7	11.441	В
C-AB	108	538	0.200	107	0.2	8.325	A
C-A	1061			1061			
A-B	40			40			
A-C	1004			1004			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	249	482	0.517	248	1.0	15.281	С
C-AB	129	499	0.258	128	0.3	9.703	А
C-A	1267			1267			
A-B	48			48			
A-C	1199			1199			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	431	0.707	300	2.2	26.604	D
C-AB	157	444	0.354	157	0.5	12.469	В
C-A	1551			1551			
A-B	58			58			
A-C	1469			1469			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	431	0.707	305	2.3	28.229	D
C-AB	157	444	0.354	157	0.5	12.539	В
C-A	1551			1551			
A-B	58			58			
A-C	1469			1469			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	249	482	0.517	254	1.1	16.118	С
C-AB	129	499	0.258	129	0.4	9.762	A
C-A	1267			1267			
ΑB	48			48			
A-C	1199			1199			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	518	0.403	210	0.7	11.758	В
C-AB	108	538	0.200	108	0.3	8.380	А
C-A	1061			1061			
A-B	40			40			
A-C	1004			1004			



# 2034 with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		1.25	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	1378	100.000
в		✓	172	100.000
С		✓	2016	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	121	1257	
	в	0	0	172	
	С	1858	158	0	

# Vehicle Mix

#### HV %s

	То				
		Α	в	С	
_	Α	0	3	3	
From	в	0	0	7	
	С	2	10	0	



# Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.40	12.78	0.7	В
C-AB	0.38	12.89	0.6	В
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	554	0.234	128	0.3	8.440	А
C-AB	119	540	0.220	118	0.3	8.511	A
C-A	1399			1399			
A-B	91			91			
A-C	946			946			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	519	0.298	154	0.4	9.854	А
C-AB	142	503	0.282	142	0.4	9.938	А
C-A	1670			1670			
ΑB	109			109			
A-C	1130			1130			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	471	0.402	188	0.7	12.693	В
C-AB	174	453	0.384	173	0.6	12.814	В
C-A	2046			2046			
A-B	133			133			
A-C	1384			1384			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	471	0.402	189	0.7	12.775	В
C-AB	174	453	0.384	174	0.6	12.893	В
C-A	2046			2046			
A-B	133			133			
A-C	1384			1384			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	519	0.298	156	0.4	9.932	А
C-AB	142	503	0.282	143	0.4	10.012	В
C-A	1670			1670			
ΑB	109			109			
A-C	1130			1130			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	554	0.234	130	0.3	8.507	A
C-AB	119	540	0.220	119	0.3	8.574	А
C-A	1399			1399			
A-B	91			91			
A-C	946			946			



# 2034 without, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		16.26	С

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	2182	100.000
в		✓	282	100.000
С		✓	1544	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		Α	в	С	
From	Α	0	119	2063	
	в	0	0	282	
	С	1388	156	0	

# Vehicle Mix

#### HV %s

	То			
		Α	в	С
_	Α	0	10	5
From	в	0	0	11
	С	10	9	0



# Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.07	206.83	18.3	F
C-AB	0.60	31.09	1.4	D
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	422	0.503	208	1.0	16.593	С
C-AB	117	428	0.275	116	0.4	11.493	В
C-A	1045			1045			
A-B	90			90			
A-C	1553			1553			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	367	0.692	249	2.0	29.562	D
C-AB	140	368	0.381	139	0.6	15.654	С
C-A	1248			1248			
A-B	107			107			
A-C	1855			1855			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	310	290	1.070	272	11.6	116.805	F
C-AB	173	288	0.600	169	1.4	29.692	D
C-A	1527			1527			
A-B	131			131			
A-C	2271			2271			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	310	290	1.070	284	18.3	206.832	F
C-AB	173	288	0.600	172	1.4	31.090	D
C-A	1527			1527			
A-B	131			131			
A-C	2271			2271			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	254	367	0.692	316	2.7	96.357	F
C-AB	140	368	0.381	143	0.6	16.226	С
C-A	1248			1248			
ΑB	107			107			
A-C	1855			1855			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	212	422	0.503	219	1.1	18.265	С
C-AB	117	428	0.275	118	0.4	11.675	В
C-A	1045			1045			
A-B	90			90			
A-C	1553			1553			



# 2034 without, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF2	A4130/Service Area	T-Junction	Two-way		3.44	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	1541	100.000
в		✓	309	100.000
С		✓	2209	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		Т	о	
		Α	в	С
From	Α	0	121	1420
	в	0	0	309
	С	2031	178	0

# Vehicle Mix

#### HV %s

		T	ō		
		Α	в	С	
-	Α	0	5	3	
From	в	0	0	6	
	С	3	11	0	



# Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.77	34.40	3.1	D
C-AB	0.47	16.31	0.9	С
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service	
B-AC	233	536	0.434	230	0.7	11.634	В	
C-AB	134	513	0.261	133	0.3	9.441	A	
C-A	1529			1529				
A-B	91			91				
A-C	1069			1069				

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service	
B-AC	278	497	0.559	276	1.2	16.152	С	
C-AB	160	472	0.339	159	0.5	11.484	В	
C-A	1826			1826				
ΑB	109			109				
A-C	1277			1277				

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr) RFC		Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service	
B-AC	340	442	0.769	333	2.9	31.278	D	
C-AB	196	417	0.471	195	0.9	16.115	С	
C-A	2236			2236				
A-B	133			133				
A-C	1563			1563				

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr) RFC		Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	340	442	0.769	339	3.1	34.395	D
C-AB	196	417	0.471	196	0.9	16.311	С
C-A	2236			2236			
A-B	133			133			
A-C	1563			1563			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	278	497	0.559	285	1.3	17.507	С
C-AB	160	472	0.339	161	0.5	11.633	В
C-A	1826			1826			
ΑB	109			109			
A-C	1277			1277			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	233	536	0.434	235	0.8	12.024	В
C-AB	134	513	0.261	135	0.4	9.541	А
C-A	1529			1529			
A-B	91			91			
A-C	1069			1069			

#### Basic Results Summary Basic Results Summary

#### **User and Project Details**

Project:	
Title:	
Location:	
Additional detail:	
File name:	OFF 3 Milton Gate Signals_for reporting.lsg3x
Author:	
Company:	
Address:	

# Scenario 5: '2024 With AM' (FG5: '2024 With AM', Plan 1: 'Network Control Plan 1')

## Network Layout Diagram



# Basic Results Summary **Network Results**

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	95.0%	0	0	0	22.2	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	95.0%	0	0	0	22.2	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	531	1932	937	56.7%	-	-	-	2.4	16.5	7.4
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	603	2117	1026	58.7%	-	-	-	2.8	16.5	8.6
4/1+4/2	Milton Gate (Exit) Right Left	U	ED		1	19:9	-	112	1746:1942	168+270	25.5 : 25.5%	-	-	-	0.8	27.0	1.3
6/1	A4130 East (Entry) Ahead	U	В		1	29	-	660	1980	900	73.3%	-	-	-	4.1	22.1	11.3
6/2+6/3	A4130 East (Entry) Ahead Right	U	ВC		1	29:7	-	954	2120:1957	940+64	95.0 : 95.0%	-	-	-	12.1	45.6	23.5
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	н		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
	C1 PRC for Signalled Lanes (%): -5.6 Total Delay for Signalled Lanes (pcuHr), PRC Over All Lanes (%): -5.6 Total Delay Over All Lanes(pcuHr)									(pcuHr): s(pcuHr):	22.17 22.17	Cycle Time (s):	66	·			

#### Basic Results Summary Scenario 6: '2024 With PM' (FG6: '2024 With PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



# Basic Results Summary **Network Results**

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	93.1%	0	0	0	19.1	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	93.1%	0	0	0	19.1	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	592	1961	951	62.3%	-	-	-	2.9	17.5	8.7
2/2	A4130 West (Entry) Ahead	U	А		1	31	-	656	2117	1026	63.9%	-	-	-	3.2	17.5	9.8
4/1+4/2	Milton Gate (Exit) Right Left	U	ED		1	19:9	-	123	1746:1942	195+267	26.6 : 26.6%	-	-	-	0.9	26.6	1.3
6/1	A4130 East (Entry) Ahead	U	В		1	29	-	429	1980	900	47.7%	-	-	-	1.9	16.3	5.8
6/2+6/3	A4130 East (Entry) Ahead Right	U	ВC		1	29:7	-	922	2120:1957	953+38	93.1 : 93.1%	-	-	-	10.2	39.7	21.3
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	н		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PR	C for Signall PRC Over A	ed Lanes (% Il Lanes (%)	%): -3. ): -3.	4 T 4	otal Delay for S Total Delay	ignalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	19.11 19.11	Cycle Time (s):	66			

#### Basic Results Summary Scenario 7: '2034 Without AM' (FG7: '2034 Without AM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	136.5%	0	0	0	393.0	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	136.5%	0	0	0	393.0	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	849	1939	940	90.3%	-	-	-	7.9	33.6	18.4
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	936	2117	1026	91.2%	-	-	-	8.8	33.7	20.3
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	145	1746:1942	175+269	32.7 : 32.7%	-	-	-	1.1	27.7	1.7
6/1	A4130 East (Entry) Ahead	U	В		1	29	-	1208	1980	900	134.2%	-	-	-	171.2	510.1	183.7
6/2+6/3	A4130 East (Entry) Ahead Right	U	ВC		1	29:7	-	1377	2120:1957	935+74	136.5 : 136.5%	-	-	-	204.0	533.4	219.6
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	н		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
		·	C1	PR	C for Signall PRC Over A	ed Lanes (9 Il Lanes (%	%): -51 ): -51	.7	Fotal Delay for S Total Delay	ignalled Lane Over All Lane	s (pcuHr): es(pcuHr):	393.03 393.03	Cycle Time (s):	66	·		·

#### Basic Results Summary Scenario 8: '2034 Without PM' (FG8: '2034 Without PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	112.7%	0	0	0	173.9	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	112.7%	0	0	0	173.9	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	1073	1964	952	112.7%	-	-	-	73.7	247.2	86.4
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	1157	2117	1026	112.7%	-	-	-	79.3	246.8	93.1
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	142	1746:1942	304+256	25.4 : 25.4%	-	-	-	1.0	24.7	1.2
6/1	A4130 East (Entry) Ahead	U	В		1	29	-	761	1980	900	84.6%	-	-	-	6.0	28.4	14.9
6/2+6/3	A4130 East (Entry) Ahead Right	U	ВC		1	29:7	-	962	2120:1957	947+50	96.5 : 96.5%	-	-	-	13.9	51.9	25.7
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	н		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PR	C for Signall PRC Over A	ed Lanes (% Il Lanes (%	%): -25. ): -25.	2 T 2	Total Delay for S Total Delay	ignalled Lanes Over All Lane	s (pcuHr): s(pcuHr):	173.85 173.85	Cycle Time (s):	66			

#### Basic Results Summary Scenario 9: '2034 With AM' (FG9: '2034 With AM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



# Basic Results Summary **Network Results**

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	94.1%	0	0	0	24.1	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	94.1%	0	0	0	24.1	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	716	1937	939	76.2%	-	-	-	4.3	21.8	12.1
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	799	2117	1026	77.8%	-	-	-	4.9	21.9	13.7
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	128	1746:1942	246+261	25.3 : 25.3%	-	-	-	0.9	25.5	1.2
6/1	A4130 East (Entry) Ahead	U	В		1	29	-	551	1980	900	61.2%	-	-	-	2.9	18.7	8.3
6/2+6/3	A4130 East (Entry) Ahead Right	U	ВC		1	29:7	-	945	2120:1957	939+65	94.1 : 94.1%	-	-	-	11.2	42.5	22.2
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	н		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
	·	·	C1	PRO	C for Signall PRC Over A	ed Lanes (% Il Lanes (%)	%): -4. ): -4.	.6 T .6	otal Delay for S Total Delay	ignalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	24.13 24.13	Cycle Time (s):	66	·		

#### Basic Results Summary Scenario 10: '2034 With PM' (FG10: '2034 With PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



# Basic Results Summary **Network Results**

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	95.8%	0	0	0	37.9	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	95.8%	0	0	0	37.9	-	-
2/1	A4130 West (Entry) Left Ahead	U	A		1	31	-	909	1966	953	95.4%	-	-	-	11.8	46.5	23.5
2/2	A4130 West (Entry) Ahead	U	A		1	31	-	983	2117	1026	95.8%	-	-	-	12.7	46.4	25.4
4/1+4/2	Milton Gate (Exit) Right Left	U	E D		1	19:9	-	147	1746:1942	306+256	26.2 : 26.2%	-	-	-	1.0	24.7	1.3
6/1	A4130 East (Entry) Ahead	U	В		1	29	-	457	1980	900	50.8%	-	-	-	2.1	16.8	6.4
6/2+6/3	A4130 East (Entry) Ahead Right	U	ВC		1	29:7	-	928	2120:1957	949+46	93.3 : 93.3%	-	-	-	10.4	40.2	21.5
Ped Link: P1	Unnamed Ped Link	-	F		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	G		1	22	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	I		1	24	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	н		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PR	C for Signalle PRC Over A	ed Lanes (% Il Lanes (%)	%): -6. ): -6.	4 T 4	otal Delay for S Total Delay	ignalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	37.95 37.95	Cycle Time (s):	66			



Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: OFF 4 Junction -A4130\_Mendip Heights\_A415\_2020.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF4 - Junction 19-A4130\_Mendip Heights\_A415 Report generation date: 09/09/2021 13:49:00

# »2020, AM

»2020, PM

#### Summary of junction performance

			AM			РМ						
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS		
					20	20						
Arm 1		1.0	8.22	0.49	A		1.9	10.28	0.66	В		
Arm 2	D1	1.2	5.91	0.54	Α	Do	2.6	10.56	0.73	В		
Arm 3		0.1	5.27	0.08	А	DZ	0.1	7.00	0.10	А		
Arm 4		1.6	4.93	0.62	Α		0.8	3.02	0.43	А		

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 Av. delay per arriving vehicle.

#### File summary

#### **File Description**

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

#### Units

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

#### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00



## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15

#### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# Junction Network

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	5.85	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

#### Arms

#### Arms

Arm	Name	Description
1	A4130 (N)	
2	B4493	
3	Mendip Heights	
4	A4130 (W)	

#### **Roundabout Geometry**

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.65	6.00	6.5	20.0	35.0	18.0	
2	3.56	6.50	11.2	40.0	35.0	23.0	
3	3.44	6.50	5.3	30.0	35.0	19.0	
4	3.85	9.46	44.3	16.0	35.0	28.0	

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.623	1497
2	0.654	1640
3	0.616	1442
4	0.784	2364

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)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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



#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	383	100.000
2		✓	660	100.000
3		✓	56	100.000
4		✓	1091	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То				
		1	2	3	4	
	1	3	116	5	259	
From	2	261	0	9	390	
	3	12	22	0	22	
	4	445	631	15	0	

# **Vehicle Mix**

#### HV %s

	То				
		1	2	3	4
	1	21	1	6	27
From	2	5	0	0	3
	3	7	0	0	1
	4	15	4	2	0

# Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.49	8.22	1.0	A
2	0.54	5.91	1.2	A
3	0.08	5.27	0.1	A
4	0.62	4.93	1.6	A

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	501	987	0.292	287	0.4	5.130	А
2	497	211	1414	0.351	495	0.5	3.909	A
3	42	684	959	0.044	42	0.0	3.925	А
4	821	223	2010	0.409	819	0.7	3.016	A



#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	600	933	0.369	344	0.6	6.100	А
2	593	253	1381	0.430	592	0.7	4.562	А
3	50	819	868	0.058	50	0.1	4.400	А
4	981	268	1977	0.496	980	1.0	3.606	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	734	860	0.490	420	0.9	8.155	А
2	727	309	1336	0.544	725	1.2	5.873	А
3	62	1003	746	0.083	62	0.1	5.258	А
4	1201	327	1931	0.622	1199	1.6	4.896	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	735	859	0.491	422	1.0	8.224	А
2	727	310	1335	0.544	727	1.2	5.913	A
3	62	1005	744	0.083	62	0.1	5.272	A
4	1201	328	1931	0.622	1201	1.6	4.935	A

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	602	932	0.369	346	0.6	6.158	A
2	593	255	1379	0.430	595	0.8	4.600	А
3	50	823	866	0.058	50	0.1	4.417	A
4	981	269	1976	0.496	983	1.0	3.636	А

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	504	986	0.293	289	0.4	5.173	A
2	497	213	1412	0.352	498	0.5	3.939	А
3	42	689	956	0.044	42	0.0	3.940	A
4	821	225	2009	0.409	823	0.7	3.039	A



# 2020, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	7.70	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	629	100.000
2		✓	817	100.000
3		✓	50	100.000
4		~	816	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То							
		1	2	3	4				
	1	12	158	28	431				
From	2	116	0	22	679				
	3	13	21	0	16				
	4	294	498	24	0				

# Vehicle Mix



#### HV %s

		То						
From		1	2	3	4			
	1	1	4	0	9			
	2	3	0	0	1			
	3	0	0	0	0			
	4	14	2	0	0			

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.66	10.28	1.9	В
2	0.73	10.56	2.6	В
3	0.10	7.00	0.1	A
4	0.43	3.02	0.8	A

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	474	408	1155	0.410	471	0.7	5.241	А
2	615	371	1361	0.452	612	0.8	4.782	А
3	38	927	849	0.044	37	0.0	4.436	A
4	614	121	2133	0.288	613	0.4	2.366	А

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	488	1108	0.511	564	1.0	6.609	А
2	734	444	1310	0.561	733	1.3	6.217	A
3	45	1110	731	0.061	45	0.1	5.245	А
4	734	145	2115	0.347	733	0.5	2.605	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	693	597	1043	0.664	689	1.9	10.073	В
2	900	542	1241	0.725	894	2.5	10.225	В
3	55	1356	574	0.096	55	0.1	6.932	А
4	898	177	2091	0.430	898	0.7	3.016	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	693	598	1042	0.664	692	1.9	10.275	В
2	900	545	1240	0.726	899	2.6	10.559	В
3	55	1363	570	0.097	55	0.1	6.996	А
4	898	178	2090	0.430	898	0.8	3.020	А



#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	565	489	1107	0.511	569	1.1	6.737	А
2	734	448	1307	0.562	740	1.3	6.397	А
3	45	1120	725	0.062	45	0.1	5.297	А
4	734	147	2114	0.347	734	0.5	2.612	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	474	409	1154	0.410	475	0.7	5.311	А
2	615	374	1359	0.453	617	0.8	4.865	А
3	38	935	844	0.045	38	0.0	4.467	А
4	614	122	2132	0.288	615	0.4	2.374	A



# Junctions 9 ARCADY 9 - Roundabout Module Version: 9.5.1.7462 © Copyright TRL Limited, 2019 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 37977 Software@trl.co.uk Wwww.trlsoftware.co.uk 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: OFF 4 JunRedesigned\_V1.j9

Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF4 - Junction 19-A4130\_Mendip Heights\_A415 \Redesign

Report generation date: 28/07/2021 11:18:28

»2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

#### Summary of junction performance

			AM			РМ				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
		-			2024	with				
Arm 1		0.3	4.34	0.24	A		1.1	6.11	0.52	A
Arm 2	D2	2.7	8.04	0.74	A	D4	2.8	8.89	0.74	Α
Arm 3	03	0.2	6.14	0.14	A	04	0.1	5.00	0.07	Α
Arm 4		0.7	3.18	0.41	A		0.4	2.23	0.29	Α
		2024 without								
Arm 1		3.4	14.11	0.78	В		6.2	23.00	0.87	С
Arm 2	D5	31.0	80.86	1.02	F	D6	33.1	84.08	1.02	F
Arm 3		0.2	6.70	0.14	A		0.1	5.97	0.09	Α
Arm 4		1.3	4.53	0.56	A		1.1	3.61	0.52	Α
		-			2034	with				
Arm 1		0.5	5.22	0.32	A		1.1	6.57	0.53	A
Arm 2	D7	2.6	7.96	0.73	A	<b>D</b> 0	1.2	4.89	0.54	Α
Arm 3		0.2	6.43	0.20	A	00	0.1	4.17	0.08	Α
Arm 4		1.4	4.82	0.58	А		0.5	2.41	0.34	Α
		-		2	034 v	vithout				
Arm 1		144.0	464.89	1.27	F		228.5	746.89	1.42	F
Arm 2	<b>D0</b>	458.5	1359.44	1.47	F	D10	260.7	705.62	1.29	F
Arm 3	Da	0.3	7.22	0.22	A	010	0.2	6.74	0.14	А
Arm 4		11.5	27.46	0.93	D		7.9	15.81	0.90	С

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 Av. delay per arriving vehicle.


## File summary

File Description

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

### Units

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

### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

## **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

## **Analysis Set Details**

ID	Network flow scaling factor (%)
	100.000

A1 100.000



# 2024 with, AM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	5.89	А

#### **Junction Network Options**

Driving side	Lighting			
Left	Normal/unknown			

## Arms

#### Arms

Arm	Name	Description
1	A4130 (N)	
2	B4493	
3	Mendip Heights	
4	A4130 (W)	

#### **Roundabout Geometry**

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.58	6.59	9.0	65.6	39.0	16.0	
2	3.73	7.16	12.7	99.0	39.0	19.0	
3	3.21	6.56	7.9	30.6	39.0	17.0	
4	2.66	10.12	82.3	31.5	39.0	26.0	

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.660	1652
2	0.691	1818
3	0.621	1489
4	0.842	2639

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)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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



### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	239	100.000
2		✓	1127	100.000
3		✓	84	100.000
4		✓	723	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

		То					
		1	2	3	4		
From	1	2	151	79	7		
	2	575	0	15	537		
	3	22	27	0	35		
	4	204	505	14	0		

# **Vehicle Mix**

#### HV %s

		То				
		1	2	3	4	
From	1	1	5	30	14	
	2	2	0	0	2	
	3	5	5	0	3	
	4	12	4	2	0	

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.24	4.34	0.3	A
2	0.74	8.04	2.7	A
3	0.14	6.14	0.2	A
4	0.41	3.18	0.7	A

### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	180	410	1208	0.149	179	0.2	3.499	А
2	848	77	1718	0.494	844	1.0	4.102	A
3	63	840	918	0.069	63	0.1	4.207	А
4	544	469	2105	0.259	543	0.3	2.303	A



### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	490	1159	0.185	215	0.2	3.812	А
2	1013	92	1705	0.594	1011	1.4	5.170	А
3	76	1006	818	0.092	75	0.1	4.850	А
4	650	562	2030	0.320	649	0.5	2.608	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	600	1092	0.241	263	0.3	4.336	А
2	1241	112	1688	0.735	1236	2.7	7.871	А
3	92	1229	682	0.136	92	0.2	6.106	А
4	796	687	1928	0.413	795	0.7	3.173	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	601	1092	0.241	263	0.3	4.342	А
2	1241	112	1688	0.735	1241	2.7	8.036	A
3	92	1234	679	0.136	92	0.2	6.138	А
4	796	689	1926	0.413	796	0.7	3.184	A

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	492	1158	0.185	215	0.2	3.817	A
2	1013	92	1705	0.594	1018	1.5	5.274	А
3	76	1013	814	0.093	76	0.1	4.880	А
4	650	565	2027	0.321	651	0.5	2.618	А

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	180	411	1207	0.149	180	0.2	3.506	A
2	848	77	1718	0.494	850	1.0	4.160	А
3	63	846	915	0.069	63	0.1	4.229	A
4	544	472	2102	0.259	545	0.4	2.314	А



# 2024 with, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name Junction type		Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	6.29	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	e Time Period name Traffic profile type		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	
D4	2024 with	PM	ONE HOUR	16:45	18:15	15	

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	568	100.000
2		✓	1043	100.000
3		✓	53	100.000
4		~	612	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То							
		1	2	3	4				
	1	1	264	283	20				
From	2	267	0	35	741				
	3	17	16	0	20				
	4	61	532	19	0				



		То						
		1	2	3	4			
	1	0	1	2	1			
From	2	1	0	0	1			
	3	0	0	0	0			
	4	13	2	0	0			

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC Max Delay (s)		Max Q (Veh)	Max LOS
1	0.52	6.11	1.1	А
2	0.74	8.89	2.8	A
3	0.07	5.00	0.1	A
4	0.29	2.23	0.4	A

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	428	426	1345	0.318	426	0.5	3.906	А
2	785	242	1632	0.481	782	0.9	4.217	А
3	40	771	1006	0.040	40	0.0	3.726	А
4	461	226	2376	0.194	460	0.2	1.879	А

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	511	509	1290	0.396	510	0.6	4.610	А
2	938	290	1598	0.587	936	1.4	5.417	А
3	48	923	910	0.052	48	0.1	4.172	А
4	550	270	2339	0.235	550	0.3	2.012	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	625	624	1214	0.515	624	1.0	6.080	А
2	1148	355	1553	0.739	1143	2.7	8.663	А
3	58	1128	782	0.075	58	0.1	4.973	А
4	674	330	2289	0.294	673	0.4	2.227	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	625	624	1214	0.515	625	1.1	6.113	А
2	1148	356	1553	0.740	1148	2.8	8.888	А
3	58	1133	779	0.075	58	0.1	4.995	А
4	674	331	2288	0.294	674	0.4	2.229	А



#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	511	510	1290	0.396	512	0.7	4.639	А
2	938	291	1598	0.587	943	1.4	5.546	А
3	48	930	906	0.053	48	0.1	4.197	А
4	550	272	2337	0.235	551	0.3	2.015	А

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	428	427	1345	0.318	428	0.5	3.932	А
2	785	244	1631	0.482	787	0.9	4.279	А
3	40	777	1002	0.040	40	0.0	3.740	А
4	461	227	2374	0.194	461	0.2	1.883	A



# 2024 without, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	36.57	E

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	809	100.000
2		✓	1215	100.000
3		✓	82	100.000
4		~	920	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То							
		1	2	3	4				
	1	38	296	466	9				
From	2	633	3	13	566				
	3	26	22	0	34				
	4	467	440	13	0				



		То					
		1	2	3	4		
	1	2	5	19	1		
From	2	3	0	0	2		
	3	2	1	0	3		
	4	14	4	1	0		

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.78	14.11	3.4	В
2	1.02	80.86	31.0	F
3	0.14	6.70	0.2	A
4	0.56	4.53	1.3	A

### Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	609	359	1246	0.489	605	0.9	5.588	А
2	915	394	1463	0.625	908	1.6	6.415	А
3	62	934	876	0.070	61	0.1	4.417	A
4	693	540	1992	0.348	691	0.5	2.761	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	727	429	1203	0.605	725	1.5	7.496	А
2	1092	471	1402	0.779	1085	3.3	11.146	В
3	74	1116	763	0.097	74	0.1	5.224	А
4	827	645	1908	0.433	826	0.8	3.324	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	891	525	1145	0.778	884	3.3	13.415	В
2	1338	575	1320	1.013	1269	20.5	45.052	E
3	90	1307	644	0.140	90	0.2	6.497	А
4	1013	759	1818	0.557	1011	1.2	4.448	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	891	526	1144	0.778	890	3.4	14.107	В
2	1338	579	1317	1.016	1296	31.0	80.857	F
3	90	1334	627	0.144	90	0.2	6.705	А
4	1013	773	1807	0.561	1013	1.3	4.534	А



#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	727	431	1202	0.605	735	1.6	7.818	А
2	1092	478	1397	0.782	1201	3.9	27.130	D
3	74	1231	691	0.107	74	0.1	5.832	А
4	827	706	1860	0.445	829	0.8	3.498	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	609	360	1245	0.489	611	1.0	5.706	А
2	915	398	1460	0.627	923	1.7	6.812	А
3	62	949	867	0.071	62	0.1	4.473	А
4	693	548	1985	0.349	694	0.5	2.791	А



# 2024 without, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	39.54	E

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	928	100.000
2		✓	1232	100.000
3		✓	51	100.000
4		~	993	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

			То		
		1	2	3	4
	1	19	354	533	22
From	2	426	3	29	774
	3	18	14	0	19
	4	435	537	21	0



		То				
		1	2	3	4	
	1	0	3	6	1	
From	2	1	0	0	1	
	3	0	0	0	0	
	4	10	2	0	0	

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.87	23.00	6.2	С
2	1.02	84.08	33.1	F
3	0.09	5.97	0.1	A
4	0.52	3.61	1.1	A

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	699	432	1302	0.537	694	1.1	5.882	А
2	928	445	1479	0.627	921	1.6	6.376	А
3	38	930	906	0.042	38	0.0	4.146	A
4	748	359	2214	0.338	746	0.5	2.449	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	834	516	1247	0.669	831	2.0	8.578	А
2	1108	533	1416	0.782	1101	3.4	11.169	В
3	46	1111	792	0.058	46	0.1	4.821	А
4	893	429	2157	0.414	892	0.7	2.844	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1022	632	1173	0.871	1007	5.8	20.028	С
2	1356	646	1334	1.016	1285	21.3	45.803	E
3	56	1299	675	0.083	56	0.1	5.818	А
4	1093	503	2097	0.521	1092	1.1	3.576	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1022	633	1172	0.871	1020	6.2	22.999	С
2	1356	654	1328	1.021	1309	33.1	84.082	F
3	56	1324	659	0.085	56	0.1	5.967	А
4	1093	512	2090	0.523	1093	1.1	3.610	А



#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	834	518	1246	0.669	851	2.1	9.458	А
2	1108	545	1407	0.787	1224	4.0	29.878	D
3	46	1232	717	0.064	46	0.1	5.370	А
4	893	472	2122	0.421	894	0.7	2.934	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	699	433	1301	0.537	702	1.2	6.054	А
2	928	450	1476	0.629	937	1.7	6.790	А
3	38	946	896	0.043	38	0.0	4.197	А
4	748	365	2209	0.338	748	0.5	2.466	А



# 2034 with, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

I	Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
I	OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	6.33	А

#### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)	
1		~	292	100.000	
2		✓	1104	100.000	
3		✓	126	100.000	
4		✓	929	100.000	

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То						
		1	2	3	4			
	1	11	186	83	12			
From	2	728	1	12	363			
	3	66	31	0	29			
	4	287	619	23	0			



		То				
		1	2	3	4	
From	1	1	4	37	11	
	2	1	0	1	3	
	3	2	0	0	5	
	4	9	3	2	0	

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.32	5.22	0.5	A
2	0.73	7.96	2.6	A
3	0.20	6.43	0.2	A
4	0.58	4.82	1.4	A

### Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	506	1152	0.191	219	0.2	3.852	А
2	831	97	1706	0.487	827	0.9	4.081	А
3	95	836	941	0.101	94	0.1	4.253	A
4	699	627	2009	0.348	697	0.5	2.740	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	605	1093	0.240	262	0.3	4.332	А
2	992	116	1690	0.587	991	1.4	5.136	A
3	113	1001	839	0.135	113	0.2	4.960	А
4	835	751	1908	0.438	834	0.8	3.349	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	740	1012	0.318	321	0.5	5.201	А
2	1216	142	1668	0.729	1211	2.6	7.797	А
3	139	1223	701	0.198	138	0.2	6.391	А
4	1023	918	1773	0.577	1021	1.3	4.772	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	742	1011	0.318	321	0.5	5.217	А
2	1216	142	1667	0.729	1215	2.6	7.956	А
3	139	1227	698	0.199	139	0.2	6.431	A
4	1023	921	1770	0.578	1023	1.4	4.818	A



#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	263	608	1092	0.240	263	0.3	4.348	А
2	992	116	1689	0.588	997	1.4	5.239	А
3	113	1007	835	0.136	114	0.2	4.997	А
4	835	756	1904	0.439	837	0.8	3.381	А

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	508	1151	0.191	220	0.2	3.868	А
2	831	97	1705	0.487	833	1.0	4.137	А
3	95	841	937	0.101	95	0.1	4.276	А
4	699	632	2005	0.349	700	0.5	2.762	А



# 2034 with, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name Junction type		Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	4.46	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	e Time Period name Traffic profile		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	
D8	2034 with	PM	ONE HOUR	16:45	18:15	15	

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	551	100.000
2		✓	789	100.000
3		✓	69	100.000
4		~	710	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То								
		1	2	3	4					
	1	4	338	180	29					
From	2	265	1	31	492					
	3	25	25	0	19					
	4	88	594	28	0					



		То						
		1	2	3	4			
	1	0	1	3	0			
From	2	1	0	0	2			
	3	0	0	0	0			
	4	10	2	0	0			

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.53	6.57	1.1	A
2	0.54	4.89	1.2	A
3	0.08	4.17	0.1	A
4	0.34	2.41	0.5	A

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	487	1304	0.318	413	0.5	4.032	А
2	594	181	1664	0.357	592	0.6	3.350	А
3	52	593	1115	0.047	52	0.0	3.385	A
4	535	240	2367	0.226	533	0.3	1.963	А

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	495	582	1241	0.399	495	0.7	4.818	А
2	709	216	1639	0.433	708	0.8	3.865	A
3	62	710	1041	0.060	62	0.1	3.675	А
4	638	287	2328	0.274	638	0.4	2.130	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	607	713	1155	0.525	605	1.1	6.528	А
2	869	265	1605	0.541	867	1.2	4.864	А
3	76	869	941	0.081	76	0.1	4.161	А
4	782	352	2274	0.344	781	0.5	2.411	A

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	607	713	1154	0.526	607	1.1	6.574	А
2	869	265	1605	0.541	869	1.2	4.888	А
3	76	871	940	0.081	76	0.1	4.166	А
4	782	352	2274	0.344	782	0.5	2.412	А



#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	495	583	1240	0.399	497	0.7	4.853	А
2	709	217	1638	0.433	711	0.8	3.887	А
3	62	713	1040	0.060	62	0.1	3.685	А
4	638	288	2327	0.274	639	0.4	2.134	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	488	1303	0.318	416	0.5	4.059	А
2	594	182	1663	0.357	595	0.6	3.374	А
3	52	596	1113	0.047	52	0.0	3.394	А
4	535	241	2366	0.226	535	0.3	1.966	А



# 2034 without, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	628.84	F

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	1149	100.000
2		✓	1680	100.000
3		✓	126	100.000
4		~	1454	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То							
		1	2	3	4				
	1	70	410	656	13				
From	2	973	9	21	677				
	3	52	23	0	51				
	4	771	660	23	0				



		То					
		1	2	3	4		
	1	2	4	18	15		
From	2	2	0	0	2		
	3	3	0	0	4		
	4	15	4	1	0		

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	1.27	464.89	144.0	F
2	1.47	1359.44	458.5	F
3	0.22	7.22	0.3	A
4	0.93 27.46		11.5	D

### Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	865	535	1148	0.753	853	2.9	11.797	В
2	1265	566	1338	0.945	1222	10.6	25.532	D
3	95	1269	666	0.142	94	0.2	6.290	A
4	1095	823	1761	0.622	1088	1.6	5.304	А

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1033	639	1085	0.952	1002	10.7	34.625	D
2	1510	665	1260	1.198	1255	74.5	132.105	F
3	113	1311	640	0.177	113	0.2	6.834	А
4	1307	862	1730	0.756	1302	3.0	8.297	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1265	771	1004	1.260	1000	77.0	168.837	F
2	1850	668	1258	1.470	1258	222.5	430.499	F
3	139	1314	638	0.218	138	0.3	7.207	А
4	1601	879	1717	0.933	1572	10.1	21.624	С

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1265	782	997	1.268	997	144.0	397.514	F
2	1850	666	1260	1.469	1259	370.0	862.699	F
3	139	1316	637	0.218	139	0.3	7.224	А
4	1601	880	1716	0.933	1595	11.5	27.456	D



#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1033	657	1074	0.962	1066	135.7	464.887	F
2	1510	707	1227	1.231	1227	440.8	1201.430	F
3	113	1289	653	0.173	114	0.2	6.672	А
4	1307	850	1739	0.752	1340	3.1	9.727	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	865	541	1145	0.756	1136	67.9	324.330	F
2	1265	748	1194	1.059	1194	458.5	1359.439	F
3	95	1261	670	0.142	95	0.2	6.258	А
4	1095	824	1760	0.622	1101	1.7	5.510	A



# 2034 without, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 4	A4130/Mendip Heights/A415	Standard Roundabout		1, 2, 3, 4	445.42	F

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	1209	100.000
2		✓	1593	100.000
3		✓	82	100.000
4		~	1716	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То						
		1	2	3	4			
	1	30	467	687	25			
From	2	533	6	32	1022			
	3	32	18	0	32			
	4	811	871	34	0			



	То						
		1	2	3	4		
	1	1	3	5	2		
From	2	1	0	0	1		
	3	0	0	0	0		
	4	6	1	0	0		

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	1.42	746.89	228.5	F
2	1.29	705.62	260.7	F
3	0.14	6.74	0.2	A
4	0.90	15.81	7.9	С

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	910	696	1142	0.797	896	3.6	13.903	В
2	1199	575	1389	0.864	1177	5.6	15.662	С
3	62	1194	740	0.083	61	0.1	5.300	A
4	1292	458	2177	0.593	1286	1.4	4.014	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1087	832	1055	1.030	1017	21.1	57.034	F
2	1432	655	1332	1.075	1309	36.4	69.012	F
3	74	1329	656	0.112	74	0.1	6.179	А
4	1543	513	2132	0.723	1538	2.6	6.014	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1331	1011	940	1.415	939	119.0	278.237	F
2	1754	614	1362	1.288	1361	134.7	233.555	F
3	90	1376	626	0.144	90	0.2	6.712	А
4	1889	539	2111	0.895	1870	7.4	13.919	В

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1331	1020	934	1.424	934	218.2	626.234	F
2	1754	611	1364	1.286	1363	232.4	495.168	F
3	90	1379	625	0.145	90	0.2	6.735	А
4	1889	540	2110	0.895	1887	7.9	15.806	С



#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1087	846	1046	1.039	1046	228.5	746.892	F
2	1432	673	1319	1.086	1319	260.7	684.399	F
3	74	1340	649	0.114	74	0.1	6.261	А
4	1543	517	2129	0.725	1564	2.7	6.596	А

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	910	702	1138	0.800	1133	172.8	638.165	F
2	1199	721	1284	0.934	1279	240.7	705.620	F
3	62	1305	671	0.092	62	0.1	5.915	А
4	1292	499	2144	0.603	1297	1.5	4.273	А





**Filename:** OFF 5-A4130\_Milton Road\_Power Station Roundabout\_2020.j9 **Path:** H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF5 - Junction 20-A4130\_Milton Road\_Power Station Roundabout

Report generation date: 09/09/2021 13:51:04

»2020, AM »2020, PM

#### Summary of junction performance

		АМ				РМ				
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
		2020								
Arm 1	D1	3.6	15.26	0.79	С		1.5	9.13	0.61	Α
Arm 2		2.5	24.45	0.72	С		1.2	12.08	0.54	В
Arm 3		1.4	6.52	0.59	А	D2	0.4	3.06	0.29	А
Arm 4		1.2	11.58	0.56	В	3	76.9	278.37	1.16	F
Arm 5		0.1	7.30	0.08	А		0.1	8.93	0.12	А

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

#### **File summary**

#### **File Description**

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

#### Units

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

#### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	<b>RFC</b> Threshold	Av. Delay threshold (s)	Q threshold (PCU)	
		0.85	36.00	20.00	



## **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15

## **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	13.07	В

#### **Junction Network Options**

Driving side	Lighting	
Left	Normal/unknown	

## Arms

#### Arms

Arm	Name	Description
1	A4130 (N)	
2	Basil Hill Road	
3	A4130 (S)	
4	Milton Road	
5	Access Road	

#### **Roundabout Geometry**

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.65	6.23	4.7	14.0	39.0	23.0	
2	3.05	4.20	3.3	16.0	39.0	24.0	
3	3.65	12.00	23.4	12.0	39.0	38.0	
4	3.50	3.50	0.0	17.0	39.0	21.0	
5	2.97	5.65	4.4	10.0	39.0	26.0	

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.584	1393
2	0.526	1098
3	0.716	2149
4	0.528	1084
5	0.520	1135

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)
D1	2020	AM	ONE HOUR	07:45	09:15	15



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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	804	100.000
2		✓	344	100.000
3		✓	715	100.000
4		√	352	100.000
5		✓	39	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То							
		1	2	3	4	5		
	1	0	55	258	481	10		
_	2	80	0	19	238	7		
From	3	368	22	0	309	16		
	4	134	105	98	0	15		
	5	8	5	11	15	0		

# Vehicle Mix

### HV %s

		То						
		1	2	3	4	5		
	1	0	7	21	1	5		
_	2	4	0	39	3	0		
From	3	13	55	0	4	23		
	4	8	9	7	0	5		
	5	14	3	38	5	0		

# Results

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.79	15.26	3.6	С
2	0.72	24.45	2.5	С
3	0.59	6.52	1.4	A
4	0.56	11.58	1.2	В
5	0.08	7.30	0.1	А

## Results Summary for whole modelled period



## Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	605	191	1175	0.515	601	1.0	6.234	А
2	259	653	691	0.375	257	0.6	8.246	А
3	538	621	1533	0.351	536	0.5	3.605	А
4	265	377	796	0.333	263	0.5	6.729	A
5	29	604	678	0.043	29	0.0	5.548	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	723	229	1151	0.628	720	1.6	8.308	А
2	309	782	621	0.498	308	1.0	11.446	В
3	643	744	1451	0.443	642	0.8	4.441	A
4	316	451	755	0.419	316	0.7	8.177	A
5	35	724	618	0.057	35	0.1	6.173	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	885	280	1120	0.790	878	3.5	14.425	В
2	379	954	528	0.717	373	2.3	22.511	С
3	787	905	1345	0.585	785	1.4	6.400	A
4	388	551	700	0.554	386	1.2	11.391	В
5	43	884	538	0.080	43	0.1	7.265	A

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	885	282	1119	0.791	885	3.6	15.258	С
2	379	961	524	0.723	378	2.5	24.448	С
3	787	914	1339	0.588	787	1.4	6.519	А
4	388	554	698	0.555	387	1.2	11.581	В
5	43	888	536	0.080	43	0.1	7.298	А

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	723	231	1150	0.628	730	1.7	8.726	A
2	309	793	615	0.503	315	1.0	12.207	В
3	643	757	1443	0.446	645	0.8	4.528	A
4	316	455	753	0.420	318	0.7	8.323	A
5	35	730	615	0.057	35	0.1	6.210	А

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	605	193	1173	0.516	608	1.1	6.394	А
2	259	660	687	0.377	261	0.6	8.477	А
3	538	629	1527	0.352	539	0.5	3.646	A
4	265	380	795	0.334	266	0.5	6.823	A
5	29	609	675	0.043	29	0.0	5.574	A



# 2020, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	112.23	F

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	549	100.000
2		✓	318	100.000
3		✓	433	100.000
4		✓	892	100.000
5		✓	48	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То								
		1	2	3	4	5				
From	1	0	70	340	134	5				
	2	59	0	57	197	5				
	3	260	8	0	155	10				
	4	367	299	217	0	9				
	5	6	12	15	15	0				



		То								
		1	2	3	4	5				
From	1	0	1	10	1	26				
	2	0	0	6	4	0				
	3	12	54	0	4	9				
	4	1	2	2	0	5				
	5	22	2	9	1	0				

# Results

## **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.61	9.13	1.5	А
2	0.54	12.08	1.2	В
3	0.29	3.06	3.06 0.4	
4	1.16	278.37	76.9	F
5	0.12	8.93	0.1	A

## Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	413	420	1069	0.387	411	0.6	5.452	А
2	239	542	769	0.311	238	0.4	6.754	А
3	326	310	1749	0.186	325	0.2	2.527	А
4	672	260	917	0.732	661	2.6	13.563	В
5	36	900	609	0.059	36	0.1	6.278	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	494	499	1024	0.482	492	0.9	6.753	А
2	286	647	712	0.401	285	0.7	8.411	A
3	389	372	1708	0.228	389	0.3	2.730	А
4	802	312	888	0.903	785	6.9	30.600	D
5	43	1070	522	0.082	43	0.1	7.512	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	604	540	1001	0.604	602	1.5	8.979	А
2	350	762	650	0.539	348	1.1	11.862	В
3	477	455	1652	0.289	476	0.4	3.061	А
4	982	381	848	1.159	838	42.9	120.882	F
5	53	1189	460	0.115	53	0.1	8.839	А



#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	604	544	998	0.606	604	1.5	9.134	А
2	350	766	648	0.540	350	1.2	12.082	В
3	477	457	1651	0.289	477	0.4	3.065	А
4	982	382	847	1.159	846	76.9	262.744	F
5	53	1197	456	0.116	53	0.1	8.928	A

### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	494	552	995	0.496	496	1.0	7.242	А
2	286	672	699	0.409	288	0.7	8.789	А
3	389	375	1705	0.228	390	0.3	2.736	А
4	802	313	887	0.904	876	58.4	278.374	F
5	43	1162	477	0.090	43	0.1	8.309	А

### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	413	553	994	0.416	414	0.7	6.218	А
2	239	601	738	0.324	240	0.5	7.243	А
3	326	313	1747	0.187	326	0.2	2.536	A
4	672	262	917	0.733	890	3.7	127.078	F
5	36	1128	496	0.073	36	0.1	7.839	A





solution

Filename: OFF 5 JunRedesigned\_V1.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF5 - Junction 20-A4130\_Milton Road\_Power Station Roundabout\Redesign Report generation date: 28/07/2021 11:29:58

»2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM



## Summary of junction performance

			AM					PM		
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
					2024	with				
Arm 1		0.3	2.50	0.22	A		0.3	2.77	0.23	Α
Arm 2		0.7	7.86	0.42	А		0.3	6.55	0.26	Α
Arm 3	D3	0.5	5.99	0.33	Α	D4	0.2	3.79	0.18	Α
Arm 4		0.3	3.55	0.25	Α		1.4	5.83	0.59	Α
Arm 5		0.1	2.84	0.10	Α		0.1	3.39	0.08	А
Arm 1		2.0	5.96	0.67	A		0.9	4.14	0.46	Α
Arm 2		2.4	45.16	0.73	E	D6	0.3	10.88	0.25	В
Arm 3	D5	2.5	16.30	0.72	С		1.1	6.91	0.53	Α
Arm 4		0.9	6.24	0.49	Α		4.7	16.74	0.83	С
Arm 5		0.1	4.57	0.05	Α		0.1	5.37	0.08	Α
					2034	with				
Arm 1		0.3	2.77	0.26	A		0.2	2.72	0.15	Α
Arm 2		1.2	10.98	0.54	В		0.6	7.88	0.37	Α
Arm 3	D7	0.6	6.89	0.37	Α	D8	0.2	3.95	0.15	Α
Arm 4		0.5	4.21	0.34	Α		1.8	6.76	0.65	А
Arm 5		0.2	3.32	0.19	А		0.2	3.80	0.18	А
				2	034 w	ithout				
Arm 1		12.4	31.30	0.94	D		2.3	7.49	0.70	Α
Arm 2	ľ	121.7	6101.93	38.01	F		1.3	34.70	0.58	D
Arm 3	D9	54.0	214.29	1.10	F	D10	17.6	71.05	0.98	F
Arm 4		2.0	11.24	0.67	В		56.6	172.43	1.11	F
Arm 5		0.3	6.28	0.25	А		0.4	7.87	0.31	А

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 Av. delay per arriving vehicle.

### **File summary**

#### **File Description**

Title	
Location	
Site number	
Date	19/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

### Units

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

### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00



## **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

## **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000


# 2024 with, AM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	5.02	А

### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

# Arms

### Arms

Arm	Name	Description
1	A4130 (N)	
2	Basil Hill Road	
3	A4130 (S)	
4	Milton Road	
5	Access Road	

### **Roundabout Geometry**

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	3.65	10.06	87.8	5.3	37.0	42.5	
2	2.91	4.69	4.6	19.3	37.0	16.0	
3	4.08	4.55	11.2	26.8	37.0	36.5	
4	3.23	5.83	97.4	20.8	37.0	26.0	
5	3.65	14.40	13.0	12.0	37.0	27.0	

### **Bypass**

Arm	Arm has bypass	Bypass Util (%)
1		
2		
3	~	100
4		
5		



### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.694	2199
2	0.556	1174
3	0.574	1348
4	0.659	1731
5	0.693	1954

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)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	365	100.000
2		~	301	100.000
3		✓	802	100.000
4		✓	306	100.000
5		√	134	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

	То					
		1	2	3	4	5
From	1	0	67	73	224	1
	2	58	0	18	165	60
	3	220	19	0	531	32
	4	78	103	107	0	18
	5	1	20	40	73	0

## Vehicle Mix

### HV %s

	То					
From		1	2	3	4	5
	1	0	6	6	1	38
	2	2	0	49	5	6
	3	2	62	0	3	16
	4	4	9	3	0	12
	5	0	2	12	2	0



# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.22	2.50	0.3	A
2	0.42	7.86	0.7	A
3	0.33	5.99	0.5	A
4	0.25	3.55	0.3	A
5	0.10	2.84	0.1	A

### Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	275	0	272	1936	0.142	274	0.2	2.165	A
2	227	0	389	886	0.256	225	0.3	5.434	A
3	586	400	436	1011	0.202	203	0.3	4.449	A
4	230	0	292	1442	0.160	230	0.2	2.968	A
5	101	0	439	1556	0.065	101	0.1	2.473	A

### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	328	0	325	1897	0.173	328	0.2	2.294	А
2	271	0	465	846	0.320	270	0.5	6.251	A
3	699	477	522	964	0.253	243	0.3	4.993	A
4	275	0	350	1403	0.196	275	0.2	3.189	A
5	120	0	525	1496	0.081	120	0.1	2.617	A

### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	402	0	398	1843	0.218	402	0.3	2.497	A
2	331	0	570	790	0.420	330	0.7	7.823	A
3	857	585	639	900	0.332	298	0.5	5.971	A
4	337	0	428	1351	0.249	337	0.3	3.547	A
5	148	0	643	1414	0.104	147	0.1	2.842	A

### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	402	0	399	1843	0.218	402	0.3	2.497	A
2	331	0	570	789	0.420	331	0.7	7.861	A
3	857	585	640	899	0.332	298	0.5	5.989	A
4	337	0	429	1351	0.249	337	0.3	3.550	A
5	148	0	644	1413	0.104	148	0.1	2.844	A



### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	328	0	326	1896	0.173	328	0.2	2.298	А
2	271	0	466	845	0.320	272	0.5	6.289	A
3	699	477	523	963	0.253	244	0.3	5.014	А
4	275	0	352	1402	0.196	275	0.2	3.194	A
5	120	0	527	1495	0.081	121	0.1	2.621	A

### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	275	0	273	1935	0.142	275	0.2	2.168	A
2	227	0	390	886	0.256	227	0.3	5.472	А
3	586	400	438	1010	0.202	204	0.3	4.471	A
4	230	0	294	1441	0.160	231	0.2	2.974	A
5	101	0	441	1554	0.065	101	0.1	2.478	A



# 2024 with, PM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	4.77	А

### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

 Vehicle mix source
 PCU Factor for a HV (PCU)

 HV Percentages
 2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	359	100.000
2		✓	171	100.000
3		~	345	100.000
4		~	813	100.000
5		~	89	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

		То						
	1 2 3					5		
	1	0	111	195	53	0		
<b>F</b>	2	35	0	27	62	47		
From	3	164	8	0	159	14		
	4	263	219	306	0	25		
	5	1	18	44	26	0		

# Vehicle Mix



### HV %s

		То					
		1	2	3	4	5	
	1	0	1	1	2	0	
	2	1	0	11	13	0	
From	3	1	59	0	3	9	
	4	0	3	1	0	2	
	5	17	1	2	2	0	

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.23	2.77	0.3	А
2	0.26	6.55	0.3	A
3	0.18	3.79	0.2	A
4	0.59	5.83	1.4	A
5	0.08	3.39	0.1	А

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	270	0	466	1846	0.146	270	0.2	2.282	А
2	129	0	468	854	0.151	128	0.2	4.958	A
3	258	120	167	1199	0.117	140	0.1	3.397	А
4	612	0	201	1575	0.389	610	0.6	3.718	А
5	67	0	746	1402	0.048	67	0.1	2.696	A

### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	0	558	1782	0.181	323	0.2	2.467	A
2	154	0	560	805	0.191	153	0.2	5.525	A
3	309	143	200	1180	0.142	167	0.2	3.554	A
4	731	0	241	1549	0.472	730	0.9	4.391	A
5	80	0	893	1300	0.062	80	0.1	2.950	A

### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	395	0	682	1694	0.233	395	0.3	2.771	А
2	188	0	686	739	0.255	188	0.3	6.532	A
3	378	175	245	1154	0.178	205	0.2	3.792	A
4	895	0	295	1512	0.592	893	1.4	5.788	A
5	98	0	1093	1162	0.084	98	0.1	3.382	A



### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	395	0	684	1693	0.234	395	0.3	2.773	А
2	188	0	687	738	0.255	188	0.3	6.547	А
3	378	175	246	1154	0.178	205	0.2	3.793	А
4	895	0	295	1512	0.592	895	1.4	5.833	А
5	98	0	1095	1160	0.084	98	0.1	3.387	А

### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	0	560	1780	0.181	323	0.2	2.471	A
2	154	0	562	804	0.191	154	0.2	5.542	A
3	309	143	201	1179	0.142	167	0.2	3.557	A
4	731	0	241	1548	0.472	733	0.9	4.427	A
5	80	0	897	1298	0.062	80	0.1	2.956	A

### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	270	0	468	1844	0.147	270	0.2	2.287	A
2	129	0	470	852	0.151	129	0.2	4.979	A
3	258	120	168	1198	0.117	140	0.1	3.402	A
4	612	0	202	1575	0.389	613	0.6	3.750	A
5	67	0	750	1399	0.048	67	0.1	2.703	А



# 2024 without, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	12.47	В

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

 Vehicle mix source
 PCU Factor for a HV (PCU)

 HV Percentages
 2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	1132	100.000
2		✓	188	100.000
3		~	1143	100.000
4		~	501	100.000
5		~	40	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

		То									
		1	2	3	4	5					
	1	1	49	527	541	14					
From	2	64	0	29	90	5					
	3	473	16	0	632	22					
	4	201	56	232	0	12					
	5	9	2	22	7	0					

# Vehicle Mix



### HV %s

		То							
		1	2	3	4	5			
	1	0	11	2	2	20			
-	2	5	0	24	8	17			
From	3	10	60	0	3	19			
	4	7	16	13	0	8			
	5	20	23	38	14	0			

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.67	5.96	2.0	А
2	0.73	45.16	2.4	E
3	0.72	16.30	2.5	С
4	0.49	6.24	0.9	A
5	0.05	4.57	0.1	А

### Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	852	0	251	1944	0.438	849	0.8	3.279	А
2	142	0	1008	535	0.265	140	0.4	9.089	A
3	822	476	541	917	0.420	382	0.7	6.695	А
4	377	0	445	1268	0.298	375	0.4	4.027	А
5	30	0	780	1050	0.028	30	0.0	3.527	A

### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1018	0	300	1904	0.534	1016	1.1	4.047	A
2	169	0	1207	429	0.394	168	0.6	13.712	В
3	982	568	647	860	0.534	458	1.1	8.905	A
4	450	0	533	1209	0.372	450	0.6	4.736	A
5	36	0	935	958	0.037	36	0.0	3.902	A

### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1246	0	368	1851	0.673	1243	2.0	5.886	A
2	207	0	1476	286	0.723	201	2.3	39.427	E
3	1203	696	788	786	0.716	558	2.4	15.441	С
4	552	0	648	1133	0.487	550	0.9	6.161	A
5	44	0	1140	836	0.052	44	0.1	4.542	A



### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1246	0	368	1850	0.674	1246	2.0	5.959	А
2	207	0	1480	284	0.728	206	2.4	45.163	E
3	1203	696	794	782	0.719	562	2.5	16.296	С
4	552	0	654	1129	0.489	552	0.9	6.238	A
5	44	0	1148	832	0.053	44	0.1	4.568	A

### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1018	0	302	1903	0.535	1021	1.2	4.098	A
2	169	0	1212	426	0.397	176	0.7	14.774	В
3	982	568	657	855	0.537	465	1.2	9.335	A
4	450	0	543	1203	0.374	452	0.6	4.801	A
5	36	0	946	951	0.038	36	0.0	3.931	A

### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	852	0	252	1942	0.439	854	0.8	3.313	A
2	142	0	1014	532	0.266	143	0.4	9.283	A
3	822	476	545	914	0.421	387	0.7	6.844	A
4	377	0	450	1264	0.298	378	0.4	4.067	A
5	30	0	788	1046	0.029	30	0.0	3.543	А



# 2024 without, PM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	9.75	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

 Vehicle mix source
 PCU Factor for a HV (PCU)

 HV Percentages
 2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	680	100.000
2		✓	102	100.000
3		~	894	100.000
4		~	954	100.000
5		~	50	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

			т	o		
		1	2	3	4	5
	1	0	43	472	158	7
<b>F</b>	2	28	0	27	47	0
From	3	497	10	0	370	17
	4	384	167	399	0	4
	5	10	6	28	7	0

# Vehicle Mix



### HV %s

		То								
		1	2	3	4	5				
	1	0	2	7	2	24				
_	2	0	0	13	15	0				
From	3	7	45	0	3	11				
	4	2	5	2	0	7				
	5	13	2	5	8	0				

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.46	4.14	0.9	А
2	0.25	10.88	0.3	В
3	0.53	6.91	1.1	A
4	0.83	16.74	4.7	С
5	0.08	5.37	0.1	А

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	512	0	461	1766	0.290	510	0.4	2.863	А
2	77	0	803	641	0.120	76	0.1	6.369	A
3	661	279	185	1147	0.344	392	0.5	4.763	А
4	718	0	419	1399	0.514	714	1.0	5.228	А
5	38	0	1112	1080	0.035	38	0.0	3.454	A

### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	611	0	553	1704	0.359	611	0.6	3.290	A
2	92	0	961	558	0.164	91	0.2	7.715	A
3	789	333	221	1126	0.418	470	0.7	5.482	A
4	858	0	502	1341	0.640	855	1.7	7.361	A
5	45	0	1331	931	0.049	45	0.1	4.064	A

### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	749	0	672	1623	0.461	748	0.8	4.109	A
2	112	0	1173	446	0.252	112	0.3	10.755	В
3	966	407	271	1098	0.525	575	1.1	6.864	A
4	1050	0	614	1263	0.831	1039	4.5	15.361	С
5	56	0	1622	734	0.076	55	0.1	5.306	A



### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	749	0	678	1618	0.463	749	0.9	4.138	А
2	112	0	1178	443	0.253	112	0.3	10.880	В
3	966	407	272	1098	0.525	577	1.1	6.907	А
4	1050	0	615	1262	0.832	1049	4.7	16.738	С
5	56	0	1634	726	0.077	56	0.1	5.368	А

### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	611	0	561	1698	0.360	612	0.6	3.318	A
2	92	0	968	554	0.166	92	0.2	7.810	A
3	789	333	222	1125	0.419	473	0.7	5.527	A
4	858	0	504	1339	0.640	869	1.8	7.836	A
5	45	0	1348	920	0.049	46	0.1	4.117	A

### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	512	0	466	1763	0.290	513	0.4	2.882	A
2	77	0	808	638	0.120	77	0.1	6.418	A
3	661	279	186	1146	0.344	395	0.5	4.802	A
4	718	0	422	1396	0.514	721	1.1	5.354	A
5	38	0	1122	1073	0.035	38	0.0	3.477	А



# 2034 with, AM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	6.02	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

 Vehicle mix source
 PCU Factor for a HV (PCU)

 HV Percentages
 2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	407	100.000
2		✓	350	100.000
3		~	1081	100.000
4		~	398	100.000
5		~	236	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

			т	o			
		1	2	3	4	5	
	1	0	72	103	228	B 4 7 61	
<b>F</b>	2	62	0	20	207	61	
From	3	214	21	0	798	48	
	4	112	107	125	0	54	
	5	21	32	43	140	0	

# Vehicle Mix



### HV %s

	То							
		1	2	3	4	5		
	1	0	6	5	1	11		
_	2	2	0	39	4	6		
From	3	1	54	0	2	13		
	4	3	10	16	0	7		
	5	0	7	19	3	0		

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	
1	0.26	2.77	0.3	А	
2	2 0.54 10.98		1.2	В	
3	0.37	6.89	0.6	A	
4	4 0.34 4.21		0.5	A	
5	5 0.19 3.32		0.2	А	

### Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	306	0	351	1870	0.164	305	0.2	2.300	А
2	263	0	482	839	0.314	262	0.5	6.222	A
3	786	601	526	970	0.220	212	0.3	4.742	А
4	300	0	307	1385	0.216	299	0.3	3.310	А
5	178	0	480	1503	0.118	177	0.1	2.713	A

### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	366	0	420	1818	0.201	365	0.3	2.478	A
2	315	0	577	786	0.401	314	0.7	7.615	А
3	938	717	630	913	0.279	254	0.4	5.462	A
4	358	0	368	1346	0.266	357	0.4	3.641	A
5	212	0	575	1437	0.148	212	0.2	2.939	A

### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	448	0	515	1746	0.256	447	0.3	2.771	A
2	385	0	707	713	0.540	383	1.1	10.846	В
3	1149	879	770	835	0.373	311	0.6	6.855	A
4	438	0	449	1294	0.339	438	0.5	4.201	A
5	260	0	704	1346	0.193	260	0.2	3.313	A



### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	448	0	515	1746	0.256	448	0.3	2.772	А
2	385	0	708	713	0.540	385	1.2	10.981	В
3	1149	879	772	834	0.374	312	0.6	6.892	А
4	438	0	451	1293	0.339	438	0.5	4.211	A
5	260	0	706	1345	0.193	260	0.2	3.316	A

### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	366	0	421	1817	0.201	366	0.3	2.483	A
2	315	0	578	785	0.401	317	0.7	7.717	A
3	938	717	633	911	0.279	255	0.4	5.497	A
4	358	0	370	1345	0.266	358	0.4	3.650	A
5	212	0	578	1435	0.148	212	0.2	2.944	A

### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	306	0	353	1869	0.164	306	0.2	2.304	A
2	263	0	484	838	0.315	264	0.5	6.292	A
3	786	601	529	968	0.220	213	0.3	4.775	A
4	300	0	309	1384	0.217	300	0.3	3.322	A
5	178	0	483	1501	0.118	178	0.1	2.722	А



# 2034 with, PM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	5.62	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

 Vehicle mix source
 PCU Factor for a HV (PCU)

 HV Percentages
 2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	214	100.000
2		✓	249	100.000
3		~	382	100.000
4		~	890	100.000
5		✓	185	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

		То								
		1	2	3	4	5				
	1	0	85	82	45	2				
<b>F</b>	2	65	0	28	110	46				
From	3	105	9	0	232	36				
	4	229	227	390	0	44				
	5	17	31	58	79	0				

# Vehicle Mix



### HV %s

	То							
		1	2	3	4	5		
	1	0	1	1	2	7		
-	2	1	0	13	7	1		
From	3	1	47	0	2	3		
	4	1	3	1	0	1		
	5	0	0	1	1	0		

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.15	2.72	0.2	А
2	0.37	7.88	0.6	А
3	0.15	3.95	0.2	A
4	0.65	6.76	1.8	A
5	0.18	3.80	0.2	А

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	161	0	595	1755	0.092	161	0.1	2.258	А
2	187	0	492	855	0.219	186	0.3	5.379	A
3	284	175	260	1146	0.099	112	0.1	3.482	А
4	670	0	197	1574	0.426	667	0.7	3.957	А
5	139	0	768	1402	0.099	139	0.1	2.850	A

### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	192	0	713	1673	0.115	192	0.1	2.431	A
2	224	0	589	803	0.279	223	0.4	6.212	A
3	339	209	311	1116	0.121	135	0.1	3.666	A
4	800	0	236	1548	0.517	799	1.1	4.799	A
5	166	0	920	1296	0.128	166	0.1	3.186	A

### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	236	0	872	1562	0.151	235	0.2	2.714	A
2	274	0	721	732	0.375	273	0.6	7.833	A
3	415	255	381	1077	0.153	165	0.2	3.948	A
4	980	0	289	1512	0.648	977	1.8	6.685	A
5	204	0	1125	1152	0.177	203	0.2	3.795	A



### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	236	0	874	1560	0.151	236	0.2	2.717	А
2	274	0	722	731	0.375	274	0.6	7.876	A
3	415	255	382	1076	0.153	165	0.2	3.950	А
4	980	0	290	1512	0.648	980	1.8	6.761	A
5	204	0	1128	1150	0.177	204	0.2	3.803	A

### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	192	0	716	1671	0.115	193	0.1	2.437	A
2	224	0	591	801	0.279	225	0.4	6.253	A
3	339	209	313	1116	0.121	135	0.1	3.673	A
4	800	0	237	1547	0.517	803	1.1	4.858	A
5	166	0	925	1293	0.129	167	0.1	3.199	A

### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	161	0	599	1753	0.092	161	0.1	2.263	A
2	187	0	495	853	0.220	188	0.3	5.416	A
3	284	175	262	1145	0.099	113	0.1	3.491	A
4	670	0	198	1573	0.426	671	0.7	3.998	A
5	139	0	773	1399	0.100	139	0.1	2.858	А



# 2034 without, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	424.30	F

### **Junction Network Options**

Driving side	Lighting			
Left	Normal/unknown			

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

 Vehicle mix source
 PCU Factor for a HV (PCU)

 HV Percentages
 2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	1380	100.000
2		✓	214	100.000
3		~	1866	100.000
4		✓	592	100.000
5		~	170	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

		То								
		1	2	3	4	5				
	1	0	57	681	599	43				
<b>F</b>	2	42	1	47	118	6				
From	3	716	21	1	1030	98				
	4	207	63	308	1	13				
	5	27	16	116	11	0				

## Vehicle Mix



### HV %s

	То						
		1	2	3	4	5	
	1	0	8	10	2	13	
_	2	10	0	17	10	17	
From	3	9	52	0	5	12	
	4	7	22	14	0	5	
	5	24	7	19	9	0	

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.94	31.30	12.4	D
2	38.01	6101.93	121.7	F
3	1.10	214.29	54.0	F
4	0.67	11.24	2.0	В
5	0.25	6.28	0.3	А

### Main Results for each time segment

### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1039	0	403	1757	0.591	1033	1.4	4.937	А
2	161	0	1318	338	0.477	158	0.9	19.598	С
3	1367	775	613	889	0.708	620	2.3	13.006	В
4	446	0	688	1096	0.407	443	0.7	5.491	A
5	128	0	1012	996	0.129	127	0.1	4.142	A

### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1241	0	482	1696	0.731	1236	2.6	7.734	А
2	192	0	1576	198	0.972	172	5.9	144.537	F
3	1632	926	720	831	0.905	733	6.9	32.138	D
4	532	0	811	1016	0.524	531	1.1	7.386	A
5	153	0	1201	873	0.175	153	0.2	4.997	A

### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1519	0	586	1617	0.940	1487	10.6	23.511	С
2	236	0	1905	20	11.761	20	59.8	6101.927	F
3	1999	1134	721	835	1.103	821	31.8	99.636	F
4	652	0	872	977	0.667	648	1.9	10.846	В
5	187	0	1363	767	0.244	187	0.3	6.205	A



### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1519	0	589	1615	0.941	1512	12.4	31.300	D
2	236	0	1931	6	38.013	6	117.2	2285.072	F
3	1999	1134	722	835	1.103	831	54.0	197.909	F
4	652	0	880	972	0.671	652	2.0	11.236	В
5	187	0	1372	760	0.246	187	0.3	6.280	A

### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1241	0	487	1692	0.733	1279	2.8	9.476	A
2	192	0	1621	174	1.103	174	121.7	1739.220	F
3	1632	926	742	819	0.918	804	40.9	214.286	F
4	532	0	884	969	0.549	535	1.2	8.354	A
5	153	0	1268	829	0.184	153	0.2	5.330	A

### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1039	0	411	1750	0.594	1044	1.5	5.143	A
2	161	0	1331	331	0.487	328	80.0	1109.483	F
3	1367	775	751	810	0.777	774	4.6	105.138	F
4	446	0	882	970	0.459	447	0.9	6.901	A
5	128	0	1187	883	0.145	128	0.2	4.772	А



# 2034 without, PM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 4 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF5	A4130/Milton Road (Power Station Roundabout)	Standard Roundabout		1, 2, 3, 4, 5	75.23	F

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

 Vehicle mix source
 PCU Factor for a HV (PCU)

 HV Percentages
 2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	996	100.000
2		✓	129	100.000
3		~	1399	100.000
4		✓	966	100.000
5		~	186	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

				Го		
		1	2	3	4	5
From	1	1	61	61 663		36
	2	28	1	31	68	1
	3	715	12	0	567	105
	4	379	190	392	1	4
	5	36	27	114	9	0

# Vehicle Mix



### HV %s

			٦	Го		
		1	2	3	4	5
From	1	0	1	6	2	10
	2	1	1	12	16	0
	3	5	48	0	2	100
	4	1	5	2	25	4
	5	5	1	3	0	0

# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.70	7.49	2.3	А
2	0.58	34.70	1.3	D
3	0.98	71.05	17.6	F
4	1.11	172.43	56.6	F
5	0.31	7.87	0.4	A

### Main Results for each time segment

### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	750	0	557	1714	1714 0.437		747 0.8		А
2	97	0	1087	488	0.199	96	0.2	9.157	A
3	997	427	284	1000	0.626	620	1.6	9.314	А
4	727	0	670	1189	0.612	721	1.5	7.594	А
5	140	0	1282	1004	0.139	139	0.2	4.160	A

### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	895	0	665	1640	0.546	894	894 1.2		A
2	116	0	1299	378	0.307	115	0.4	13.667	В
3	1190	510	341	971	0.770	742	3.1	15.295	С
4	868	0	802	1090	0.797	860	3.6	15.139	С
5	167	0	1532	830	0.201	167	0.2	5.424	A

### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1097	0	755	1578	0.695	1092	2.2	7.346	A
2	142	0	1550	247	0.574	139	1.2	32.256	D
3	1457	624	415	933	0.981	876	13.0	45.617	E
4	1064	0	949	979	1.086	957	30.3	77.388	F
5	204	0	1751	677	0.302	204	0.4	7.605	A



### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1097	0	757	1577	0.695	1096	2.3	7.487	A
2	142	0	1555	245	0.580	142	1.3	34.703	D
3	1457	624	418	932	0.983	898	17.6	71.049	F
4	1064	0	972	962	1.105	958	56.6	172.427	F
5	204	0	1772	662	0.309	204	0.4	7.875	A

### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	895	0	766	1571	0.570	899	1.3	5.383	A
2	116	0	1372	341	0.340	119	0.5	16.445	С
3	1190	510	345	969	0.772	803	3.7	27.387	D
4	868	0	865	1043	0.833	1024	1024 17.6		F
5	167	0	1750	679	0.246	167	0.3	7.050	A

### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Bypass demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr) RFC		Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	750	0	601	1685	0.445	752	0.8	3.868	А
2	97	0	1121	471	0.206	98	0.3	9.689	A
3	997	427	288	999	0.627	634	1.7	10.083	В
4	727	0	685	1178	0.617	791	1.7	10.905	В
5	140	0	1365	947	0.148	140	0.2	4.467	A

### Basic Results Summary Basic Results Summary

### User and Project Details

Project:	Didcot Garden Town – HIF1
Title:	Clifton Hampden Signals
Location:	
Additional detail:	
File name:	OFF 6 OFF 7_Clifton Hampden Signals_v2.lsg3x
Author:	
Company:	AECOM
Address:	

# Scenario 1: '2020 AM' (FG1: '2020 AM', Plan 1: 'Network Control Plan 1')

# Network Layout Diagram



### Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	307.1%	15	0	0	431.9	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	307.1%	15	0	0	431.9	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	518	1825:1775	252+15	194.0 : 194.0%	15	0	0	143.7	998.9	149.1
2/1	Eastbound East Ahead Left	U	F		1	43	-	937	1791	876	62.6%	-	-	-	1.5	10.1	2.3
4/1	A415 Dorchester (Entry) Ahead Right	ο	В		1	9	-	442	1965	144	307.1%	0	0	0	168.4	1371.5	173.3
5/1	Westbound West Ahead Left Right	ο	G		2	28	-	666	1854	618	57.1%	0	0	0	1.7	17.1	6.4
7/1	Right Left Ahead	U	D		1	15	-	515	1913	340	151.4%	-	-	-	101.0	705.8	106.2
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	9	-	227	1898	211	107.6%	-	-	-	15.6	247.2	18.6
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	Ι		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PRC	for Signalle RC Over All	d Lanes (% Lanes (%)	5): -241.2 : -241.2	2 T	otal Delay for Si Total Delay	gnalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	431.90 431.90	Cycle Time (s):	90			

### Basic Results Summary Scenario 2: '2020 PM' (FG2: '2020 PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



### Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	335.8%	111	0	0	487.0	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	335.8%	111	0	0	487.0	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	18	-	723	1825:1775	300+111	175.7 : 175.7%	111	0	0	178.2	887.4	184.6
2/1	Eastbound East Ahead Left	U	F		1	41	-	768	1780	831	54.3%	-	-	-	1.3	10.5	2.0
4/1	A415 Dorchester (Entry) Ahead Right	ο	В		1	15	-	479	1964	143	335.8%	0	0	0	188.9	1419.4	194.2
5/1	Westbound West Ahead Left Right	ο	G		2	36	-	825	1802	761	51.8%	0	0	0	1.6	14.3	7.2
7/1	Right Left Ahead	U	D		1	7	-	272	1916	170	159.7%	-	-	-	59.1	782.6	61.5
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	11	-	350	1899	253	138.2%	-	-	-	57.9	595.5	62.3
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	Ι		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PRC	for Signalle RC Over All	d Lanes (% Lanes (%)	6): -273.1 : -273.1	і Т. І	otal Delay for Si Total Delay	gnalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	486.99 486.99	Cycle Time (s):	90			

Basic Results Summary Scenario 3: '2024 Without AM' (FG3: '2024 Without AM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



### Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	333.0%	30	0	0	436.6	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	333.0%	30	0	0	436.6	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	453	1825:1775	242+29	166.8 : 166.8%	29	0	0	105.2	835.7	109.5
2/1	Eastbound East Ahead Left	U	F		1	43	-	885	1760	860	61.9%	-	-	-	1.5	10.2	2.2
4/1	A415 Dorchester (Entry) Ahead Right	ο	В		1	9	-	475	1964	143	333.0%	0	0	0	187.4	1420.6	192.7
5/1	Westbound West Ahead Left Right	ο	G		2	28	-	693	1839	613	57.1%	0	0	0	1.7	17.2	6.4
7/1	Right Left Ahead	U	D		1	15	-	562	1910	340	165.5%	-	-	-	126.9	812.7	132.1
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	9	-	223	1897	211	105.8%	-	-	-	14.0	225.6	17.0
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	Ι		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PRC	for Signalle RC Over All	d Lanes (% Lanes (%)	6): -270.0 : -270.0	) T	otal Delay for Si Total Delay	gnalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	436.63 436.63	Cycle Time (s):	90			

Basic Results Summary Scenario 4: '2024 Without PM' (FG4: '2024 Without PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



### Basic Results Summary Network Results

ltem	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	199.3%	157	0	0	356.4	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	199.3%	157	0	0	356.4	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	19	-	406	1825:1775	278+173	90.0 : 90.0%	156	0	0	7.7	68.0	12.4
2/1	Eastbound East Ahead Left	U	F		1	43	-	567	1773	867	48.0%	-	-	-	1.2	10.0	1.8
4/1	A415 Dorchester (Entry) Ahead Right	0	В		1	16	-	546	1964	274	199.3%	1	0	0	154.8	1020.9	160.2
5/1	Westbound West Ahead Left Right	О	G		2	35	-	912	1776	730	66.3%	0	0	0	1.9	14.5	6.3
7/1	Right Left Ahead	U	D		1	8	-	365	1913	191	190.8%	-	-	-	98.7	973.9	101.5
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	9	-	370	1899	211	175.4%	-	-	-	92.1	895.8	96.3
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
		(	C1	PRC P	for Signalle RC Over All	d Lanes (% Lanes (%):	b): -121.5 : -121.5	i To	otal Delay for Si Total Delay	gnalled Lanes Over All Lanes	(pcuHr): a(pcuHr):	356.41 356.41	Cycle Time (s):	90			

### Basic Results Summary Scenario 5: '2024 With AM' (FG5: '2024 With AM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



### Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	67.4%	59	0	1	8.8	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	67.4%	59	0	1	8.8	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	11	-	122	1825:1775	177+115	41.7 : 41.7%	48	0	0	1.5	45.7	2.0
2/1	Eastbound East Ahead Left	U	F		1	43	-	289	1808	884	32.7%	-	-	-	0.4	4.8	0.5
4/1	A415 Dorchester (Entry) Ahead Right	0	В		1	8	-	126	1948	190	66.2%	11	0	1	2.3	66.6	4.0
5/1	Westbound West Ahead Left Right	0	G		2	27	-	158	1800	580	27.2%	0	0	0	0.3	7.4	1.3
7/1	Right Left Ahead	U	D		1	16	-	244	1916	362	67.4%	-	-	-	3.3	48.9	6.6
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	9	-	62	1833	204	30.4%	-	-	-	0.9	49.5	1.6
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
		(	C1	PRC P	for Signalleo RC Over All	d Lanes (% Lanes (%):	): 33.5 33.5	То	otal Delay for Sig Total Delay C	nalled Lanes Over All Lanes	(pcuHr): (pcuHr):	8.76 8.76	Cycle Time (s):	90			

### Basic Results Summary Scenario 6: '2024 With PM' (FG6: '2024 With PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram


## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	75.5%	103	0	3	11.4	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	75.5%	103	0	3	11.4	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	17	-	189	1825:1775	243+175	45.2 : 45.2%	79	0	0	2.0	38.6	3.0
2/1	Eastbound East Ahead Left	U	F		1	40	-	204	1845	840	24.3%	-	-	-	0.4	6.5	0.6
4/1	A415 Dorchester (Entry) Ahead Right	0	В		1	14	-	183	1938	242	75.5%	24	0	3	3.3	64.6	5.8
5/1	Westbound West Ahead Left Right	0	G		2	36	-	340	1759	743	45.8%	0	0	0	0.6	6.7	4.4
7/1	Right Left Ahead	U	D		1	7	-	102	1924	171	59.6%	-	-	-	1.8	65.0	3.2
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	12	-	196	1886	272	71.9%	-	-	-	3.2	59.6	5.9
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
		(	C1	PRC P	for Signalleo RC Over All	d Lanes (% Lanes (%):	): 19.1 19.1	Тс	otal Delay for Sig Total Delay C	nalled Lanes Over All Lanes	(pcuHr): (pcuHr):	11.40 11.40	Cycle Time (s):	90			

#### Basic Results Summary Scenario 9: '2034 With AM' (FG9: '2034 With AM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	80.6%	60	0	0	8.4	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	80.6%	60	0	0	8.4	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	10	-	80	1825:1775	114+162	29.0 : 29.0%	47	0	0	1.0	44.8	1.3
2/1	Eastbound East Ahead Left	U	F		1	43	-	278	1833	896	31.0%	-	-	-	0.4	5.6	0.7
4/1	A415 Dorchester (Entry) Ahead Right	0	В		1	7	-	68	1930	171	39.8%	13	0	0	1.1	56.5	1.9
5/1	Westbound West Ahead Left Right	о	G		2	26	-	100	1741	542	18.5%	0	0	0	0.2	6.5	0.4
7/1	Right Left Ahead	U	D		1	17	-	306	1899	380	80.6%	-	-	-	4.9	57.5	9.2
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	9	-	63	1834	204	30.9%	-	-	-	0.9	49.6	1.7
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
		C	21	PRC Pl	for Signalleo RC Over All	d Lanes (%) Lanes (%):	): 11.7 11.7	To	otal Delay for Sig Total Delay C	nalled Lanes Over All Lanes	(pcuHr): (pcuHr):	8.43 8.43	Cycle Time (s):	90			

Basic Results Summary Scenario 10: '2034 With PM' (FG10: '2034 With PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	87.6%	78	0	8	16.9	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	87.6%	78	0	8	16.9	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	114	1825:1775	157+175	34.4 : 34.4%	60	0	0	1.4	43.1	1.6
2/1	Eastbound East Ahead Left	U	F		1	35	-	132	1833	733	18.0%	-	-	-	0.4	9.9	0.6
4/1	A415 Dorchester (Entry) Ahead Right	0	В		1	9	-	178	1938	203	87.6%	18	0	8	4.9	98.9	7.2
5/1	Westbound West Ahead Left Right	0	G		2	36	-	464	1733	732	63.4%	0	0	0	1.5	11.8	9.4
7/1	Right Left Ahead	U	D		1	7	-	126	1864	166	76.0%	-	-	-	2.9	82.3	4.5
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	17	-	324	1891	378	85.7%	-	-	-	5.8	64.9	10.5
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
		(	21	PRC P	for Signalle RC Over All	d Lanes (% Lanes (%):	): 2.7 2.7	To	otal Delay for Sig Total Delay C	nalled Lanes Over All Lanes	(pcuHr): (pcuHr):	16.86 16.86	Cycle Time (s):	90			

Basic Results Summary Scenario 17: '2034 Without AM' (FG17: '2034 Without AM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	635.7%	68	0	0	1553.4	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	635.7%	68	0	0	1553.4	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	12	-	988	1825:1775	219+67	345.5 : 345.5%	67	0	0	394.8	1438.6	405.4
2/1	Eastbound East Ahead Left	U	F		1	43	-	1829	1757	859	58.7%	-	-	-	1.4	10.0	2.1
4/1	A415 Dorchester (Entry) Ahead Right	ο	В		1	9	-	920	1965	145	635.7%	0	0	0	435.6	1704.5	446.4
5/1	Westbound West Ahead Left Right	ο	G		2	28	-	1465	1822	607	58.4%	0	0	0	1.7	17.7	6.5
7/1	Right Left Ahead	U	D		1	15	-	1276	1908	339	376.2%	-	-	-	527.4	1487.9	539.3
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	9	-	549	1899	211	260.2%	-	-	-	192.4	1261.9	198.1
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	I		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PRC	for Signalle RC Over All	d Lanes (% Lanes (%)	b): -606.4 : -606.4	L T	otal Delay for Si Total Delay	gnalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	1553.38 1553.38	Cycle Time (s):	90			

Basic Results Summary Scenario 18: '2034 Without PM' (FG18: '2034 Without PM', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	403.3%	147	0	8	1461.4	-	-
Unnamed Junction	-	-	-		-	-	-	-	-	-	403.3%	147	0	8	1461.4	-	-
1/1+1/2	A415 Abingdon (Entry) Ahead Right Left	U+O	A		1	17	-	1119	1825:1775	255+154	273.4 : 273.4%	147	0	7	399.3	1284.6	410.1
2/1	Eastbound East Ahead Left	U	F		1	43	-	1465	1768	864	51.5%	-	-	-	1.2	9.6	1.9
4/1	A415 Dorchester (Entry) Ahead Right	ο	В		1	14	-	1067	1965	277	385.9%	0	0	0	443.4	1495.9	455.2
5/1	Westbound West Ahead Left Right	ο	G		2	33	-	1657	1789	696	69.9%	0	0	0	2.4	17.6	7.1
7/1	Right Left Ahead	U	D		1	10	-	938	1903	233	403.3%	-	-	-	397.5	1525.4	406.3
10/1	Watery Lane Plough Inn Left Right Ahead	U	E		1	7	-	0	1949	173	0.0%	-	-	-	0.0	0.0	0.0
12/1	B4015 (Entry) Left Right	U	С		1	9	-	594	1899	211	281.5%	-	-	-	217.7	1319.6	223.8
Ped Link: P1	Unnamed Ped Link	-	н		1	7	-	0	-	5600	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	B4015	-	Ι		1	11	-	0	-	0	0.0%	-	-	-	-	-	-
			C1	PRC	for Signalle RC Over All	d Lanes (% Lanes (%)	5): -348.1 : -348.1	T	otal Delay for Si Total Delay	gnalled Lanes Over All Lanes	(pcuHr): s(pcuHr):	1461.40 1461.40	Cycle Time (s):	90			



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Filename: OFF 8 Junction-Harwell Road\_Milton Road\_High Street.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF8 - Junction 25-Harwell Road\_Milton Road\_High Street

Report generation date: 02/07/2021 08:59:25

»2020, AM »2020, PM »2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

#### Summary of junction performance

			AM					РМ		
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
					20	20				
Arm 1		0.6	6.45	0.39	Α		0.3	4.68	0.26	A
Arm 2	D1	0.3	4.30	0.21	Α	D2	1.2	7.15	0.54	Α
Arm 3		0.4	6.04	0.27	А		0.2	6.80	0.17	Α
					2024	with				
Arm 1		0.6	5.88	0.37	Α		0.3	4.49	0.22	A
Arm 2	D3	0.2	4.00	0.17	А	D4	0.4	4.68	0.29	А
Arm 3		0.4	5.86	0.27	А		0.2	5.35	0.15	Α
				2	024 w	vithout				
Arm 1		0.8	7.10	0.44	Α		0.4	4.93	0.29	A
Arm 2	D5	0.9	6.28	0.47	Α	D6	1.7	8.77	0.63	Α
Arm 3		0.6	8.71	0.36	А		0.3	7.92	0.21	Α
					2034	with				
Arm 1		1.0	7.37	0.49	Α		0.7	6.02	0.43	A
Arm 2	D7	0.3	4.33	0.24	А	D8	0.8	5.92	0.44	Α
Arm 3		0.4	6.33	0.29	А		0.3	6.50	0.22	Α
				2	034 w	vithout				
Arm 1		1.2	8.54	0.54	A		0.5	5.27	0.33	A
Arm 2	D9	15.1	54.76	0.97	F	D10	25.0	80.44	1.00	F
Arm 3		2.5	40.96	0.74	Е		0.8	18.75	0.44	С

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 Av. delay per arriving vehicle.



#### File summary

#### **File Description**

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

#### Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	S	-Min	perMin



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.



#### **Analysis Options**

Mini-roundabout model	Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	5.74	А

#### **Junction Network Options**

Driving side Lighting		Road surface	In London	
Left	Normal/unknown	Normal/unknown		

#### Arms

#### Arms

Arm	Name	Description
1	High Street	
2	Harwell Road	
3	Milton Road	

#### **Mini Roundabout Geometry**

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.06	3.06	4.72	3.0	8.00	6.00	0.0	
2	2.57	2.57	9.65	8.0	7.00	8.00	0.0	
3	3.20	3.20	3.20	0.0	11.00	10.00	0.0	

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.615	1063
2	0.645	1148
3	0.600	946

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)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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



#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	326	100.000
2		~	203	100.000
3		✓	203	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
		1		3		
_	1	0	281	45		
From	2	177	0	26		
	3	81	122	0		

# Vehicle Mix

	То				
		1	2	3	
_	1	0	8	0	
From	2	6	0	0	
	3	1	0	0	

# Results

#### Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.39	6.45	0.6	А
2	0.21	4.30	0.3	А
3	0.27	6.04	0.4	A

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	245	91	942	0.261	244	0.3	5.150	А
2	153	34	1071	0.143	152	0.2	3.917	А
3	153	133	859	0.178	152	0.2	5.087	А

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	293	110	931	0.315	293	0.5	5.634	А
2	182	40	1066	0.171	182	0.2	4.072	A
3	182	159	842	0.217	182	0.3	5.455	А



#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	359	134	917	0.391	358	0.6	6.434	А
2	224	49	1061	0.211	223	0.3	4.297	А
3	224	195	819	0.273	223	0.4	6.033	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	359	134	917	0.391	359	0.6	6.451	А
2	224	50	1061	0.211	224	0.3	4.299	A
3	224	195	819	0.273	224	0.4	6.041	А

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	293	110	931	0.315	294	0.5	5.657	A
2	182	41	1066	0.171	183	0.2	4.076	А
3	182	159	842	0.217	183	0.3	5.468	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	245	92	941	0.261	246	0.4	5.181	А
2	153	34	1070	0.143	153	0.2	3.924	А
3	153	133	858	0.178	153	0.2	5.108	A



# 2020, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 88% of the total flow for the roundabout for one or more time segments]

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	6.42	A

#### **Junction Network Options**

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	240	100.000
2		✓	535	100.000
3		✓	97	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То				
		1	2	3		
_	1	0	175	65		
From	2	451	0	84		
	3	91	6	0		

# **Vehicle Mix**

	То				
		1	2	3	
<b>F</b>	1	0	3	1	
From	2	1	0	0	
	3	1	11	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.26	4.68	0.3	А
2	0.54	7.15	1.2	A
3	0.17	6.80	0.2	A

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	181	4	1035	0.175	180	0.2	4.207	А
2	403	49	1107	0.364	401	0.6	5.078	A
3	73	338	730	0.099	72	0.1	5.465	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	5	1034	0.209	216	0.3	4.397	А
2	481	58	1101	0.437	480	0.8	5.792	А
3	87	405	690	0.126	87	0.1	5.960	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	264	6	1033	0.256	264	0.3	4.677	А
2	589	71	1093	0.539	588	1.2	7.107	А
3	106	495	636	0.167	106	0.2	6.783	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	264	6	1033	0.256	264	0.3	4.681	A
2	589	72	1092	0.539	589	1.2	7.150	А
3	106	497	636	0.167	106	0.2	6.798	A

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	5	1034	0.209	216	0.3	4.402	А
2	481	59	1101	0.437	482	0.8	5.837	А
3	87	407	689	0.126	87	0.1	5.978	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	181	4	1035	0.175	181	0.2	4.218	А
2	403	49	1107	0.364	404	0.6	5.125	А
3	73	340	729	0.100	73	0.1	5.487	А



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	5.42	А

#### **Junction Network Options**

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	321	100.000
2		✓	168	100.000
3		✓	210	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То						
From		1		3			
	1	0	272	49			
	2	143	0	25			
	3	102	108	0			

# Vehicle Mix

	То				
From		1	2	3	
	1	0	3	0	
	2	3	0	0	
	3	1	0	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.37	5.88	0.6	A
2	0.17	4.00	0.2	A
3	0.27	5.86	0.4	A

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	81	988	0.245	240	0.3	4.808	А
2	126	37	1097	0.115	126	0.1	3.707	А
3	158	107	876	0.180	157	0.2	5.002	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	289	97	978	0.295	288	0.4	5.215	А
2	151	44	1092	0.138	151	0.2	3.824	А
3	189	128	863	0.219	189	0.3	5.337	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	353	119	965	0.366	353	0.6	5.872	А
2	185	54	1086	0.170	185	0.2	3.994	А
3	231	157	845	0.274	231	0.4	5.856	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	353	119	965	0.366	353	0.6	5.885	А
2	185	54	1086	0.170	185	0.2	3.996	А
3	231	157	845	0.274	231	0.4	5.863	А

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	289	97	978	0.295	289	0.4	5.230	А
2	151	44	1092	0.138	151	0.2	3.829	А
3	189	129	863	0.219	189	0.3	5.349	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	81	988	0.245	242	0.3	4.830	А
2	126	37	1096	0.115	127	0.1	3.714	А
3	158	108	876	0.181	158	0.2	5.022	A



# 2024 with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	4.73	А

#### **Junction Network Options**

Driving side Lighting		Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	raffic profile type Start time (HH:mm)		Time segment length (min)	
D4	2024 with	PM	ONE HOUR	16:45	18:15	15	

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	209	100.000
2		✓	290	100.000
3		✓	107	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То						
		1	2	3			
-	1	0	138	71			
From	2	211	0	79			
	3	101	6	0			

# Vehicle Mix

	То				
		1	2	3	
-	1	0	3	2	
From	2	1	0	0	
	3	2	0	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS	
1	0.22	4.49	0.3	A	
2	0.29	4.68	0.4	A	
3	0.15	5.35	0.2	A	

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157	4	1033	0.152	157	0.2	4.106	А
2	218	53	1105	0.198	217	0.2	4.050	А
3	81	158	835	0.096	80	0.1	4.768	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188	5	1032	0.182	188	0.2	4.262	А
2	261	64	1098	0.237	260	0.3	4.295	А
3	96	189	816	0.118	96	0.1	4.998	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	230	7	1031	0.223	230	0.3	4.491	А
2	319	78	1089	0.293	319	0.4	4.673	А
3	118	232	791	0.149	118	0.2	5.344	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	230	7	1031	0.223	230	0.3	4.492	А
2	319	78	1089	0.293	319	0.4	4.677	А
3	118	232	791	0.149	118	0.2	5.348	А

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188	5	1032	0.182	188	0.2	4.266	А
2	261	64	1098	0.237	261	0.3	4.302	А
3	96	190	816	0.118	96	0.1	5.005	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157	4	1033	0.152	158	0.2	4.114	A
2	218	54	1105	0.198	219	0.2	4.063	А
3	81	159	834	0.097	81	0.1	4.776	A



# 2024 without, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	7.05	А

#### **Junction Network Options**

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name Traffic profile type		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	
D5	2024 without	AM	ONE HOUR	07:45	09:15	15	

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	369	100.000
2		✓	465	100.000
3		✓	210	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

		То						
		1	2	3				
_	1	0	324	45				
From	2	440	0	25				
	3	96	114	0				

# Vehicle Mix

	То				
		1	2	3	
_	1	0	9	0	
From	2	3	0	0	
	3	1	0	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.44	7.10	0.8	A
2	0.47	6.28	0.9	A
3	0.36	8.71	0.6	A

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	278	85	936	0.297	276	0.4	5.440	А
2	350	34	1095	0.320	348	0.5	4.806	А
3	158	329	740	0.214	157	0.3	6.169	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	332	102	927	0.358	331	0.6	6.041	А
2	418	40	1091	0.383	417	0.6	5.338	А
3	189	395	699	0.270	188	0.4	7.043	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	406	125	914	0.445	405	0.8	7.070	А
2	512	49	1086	0.472	511	0.9	6.253	А
3	231	483	645	0.359	230	0.6	8.671	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	406	126	913	0.445	406	0.8	7.098	А
2	512	50	1086	0.472	512	0.9	6.276	А
3	231	484	644	0.359	231	0.6	8.715	A

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	332	103	926	0.358	333	0.6	6.073	А
2	418	41	1091	0.383	419	0.6	5.364	А
3	189	397	698	0.270	190	0.4	7.084	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	278	86	936	0.297	278	0.4	5.481	А
2	350	34	1095	0.320	351	0.5	4.838	А
3	158	332	738	0.214	158	0.3	6.217	A



# 2024 without, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 89% of the total flow for the roundabout for one or more time segments]

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	7.62	А

#### **Junction Network Options**

Driving side Lighting		Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	274	100.000
2		✓	627	100.000
3		✓	107	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
		1	2	3		
_	1	0	223	51		
From	2	549	0	78		
	3	101	6	0		

# Vehicle Mix

	То				
		1	2	3	
<b>F</b>	1	0	3	1	
From	2	1	0	1	
	3	1	9	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.29	4.93	0.4	А
2	0.63	8.77	1.7	A
3	0.21	7.92	0.3	A

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	4	1033	0.200	205	0.2	4.345	А
2	472	38	1112	0.424	469	0.7	5.574	А
3	81	411	688	0.117	80	0.1	5.919	А

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	5	1032	0.239	246	0.3	4.579	А
2	564	46	1107	0.509	562	1.0	6.592	A
3	96	493	639	0.151	96	0.2	6.630	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	302	7	1031	0.293	301	0.4	4.930	А
2	690	56	1101	0.627	688	1.6	8.667	А
3	118	602	573	0.205	117	0.3	7.891	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	302	7	1031	0.293	302	0.4	4.933	A
2	690	56	1101	0.627	690	1.7	8.767	А
3	118	604	572	0.206	118	0.3	7.924	A

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	5	1032	0.239	247	0.3	4.586	А
2	564	46	1107	0.509	566	1.1	6.680	А
3	96	496	637	0.151	97	0.2	6.666	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	5	1033	0.200	207	0.3	4.359	А
2	472	38	1112	0.424	473	0.7	5.647	А
3	81	414	686	0.118	81	0.1	5.956	A



# 2034 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	6.31	A

#### **Junction Network Options**

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	426	100.000
2		✓	232	100.000
3		✓	212	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		1	2	3	
	1	0	379	47	
	2	206	0	26	
	3	107	105	0	

# **Vehicle Mix**

	То			
		1	2	3
-	1	0	4	0
From	2	3	0	0
	3	1	0	0



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.49	7.37	1.0	А
2	0.24	4.33	0.3	A
3	0.29	6.33	0.4	A

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	79	980	0.327	319	0.5	5.433	А
2	175	35	1096	0.159	174	0.2	3.899	А
3	160	154	847	0.188	159	0.2	5.226	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	383	94	970	0.395	382	0.6	6.117	А
2	209	42	1092	0.191	208	0.2	4.073	А
3	191	185	828	0.230	190	0.3	5.643	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	115	958	0.490	468	0.9	7.331	А
2	255	52	1086	0.235	255	0.3	4.332	А
3	233	227	802	0.291	233	0.4	6.312	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	469	116	958	0.490	469	1.0	7.368	А
2	255	52	1086	0.235	255	0.3	4.334	A
3	233	227	802	0.291	233	0.4	6.327	А

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	383	95	970	0.395	384	0.7	6.158	А
2	209	42	1092	0.191	209	0.2	4.077	А
3	191	185	828	0.230	191	0.3	5.659	А

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	79	979	0.328	321	0.5	5.479	А
2	175	35	1096	0.159	175	0.2	3.907	А
3	160	155	846	0.189	160	0.2	5.246	A



# 2034 with, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 85% of the total flow for the roundabout for one or more time segments]

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	6.05	А

#### **Junction Network Options**

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	404	100.000
2		✓	428	100.000
3		✓	138	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То						
From		1	2	3			
	1	0	322	82			
	2	351	0	77			
	3	133	5	0			

# Vehicle Mix

	То					
_		1	2	3		
	1	0	1	4		
From	2	1	0	0		
	3	1	1	0		



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.43	6.02	0.7	А
2	0.44	5.92	0.8	A
3	0.22	6.50	0.3	A

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	304	4	1044	0.291	303	0.4	4.846	А
2	322	61	1098	0.293	321	0.4	4.621	А
3	104	263	779	0.133	103	0.2	5.320	А

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	363	4	1043	0.348	363	0.5	5.287	A
2	385	74	1090	0.353	384	0.5	5.098	А
3	124	315	748	0.166	124	0.2	5.766	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	445	5	1043	0.427	444	0.7	6.005	А
2	471	90	1079	0.437	470	0.8	5.906	А
3	152	386	706	0.215	152	0.3	6.494	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	445	6	1043	0.427	445	0.7	6.021	A
2	471	90	1079	0.437	471	0.8	5.923	А
3	152	386	705	0.215	152	0.3	6.504	A

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	363	5	1043	0.348	364	0.5	5.306	А
2	385	74	1090	0.353	386	0.6	5.120	А
3	124	316	747	0.166	124	0.2	5.780	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	304	4	1044	0.291	305	0.4	4.876	A
2	322	62	1098	0.294	323	0.4	4.647	А
3	104	265	778	0.133	104	0.2	5.340	А



# 2034 without, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 87% of the total flow for the roundabout for one or more time segments]

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	39.70	E

#### **Junction Network Options**

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	446	100.000
2		✓	952	100.000
3		✓	216	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

		То					
		1	2	3			
_	1	0	403	43			
From	2	925	0	27			
	3	103	113	0			

## **Vehicle Mix**

		То			
From		1	2	3	
	1	0	9	0	
	2	3	0	0	
	3	2	0	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.54	8.54	1.2	А
2	0.97	54.76	15.1	F
3	0.74	40.96	2.5	E

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	84	935	0.359	334	0.6	5.965	А
2	717	32	1096	0.654	709	1.8	9.156	А
3	163	689	516	0.315	161	0.5	10.091	В

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	401	101	925	0.433	400	0.8	6.844	А
2	856	39	1092	0.784	850	3.4	14.503	В
3	194	826	432	0.449	193	0.8	14.936	В

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	122	914	0.537	490	1.1	8.456	А
2	1048	47	1086	0.965	1014	12.0	38.028	Е
3	238	985	335	0.710	232	2.2	33.425	D

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	491	124	912	0.538	491	1.2	8.538	А
2	1048	47	1086	0.965	1036	15.1	54.763	F
3	238	1006	322	0.739	236	2.5	40.962	E

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	401	105	923	0.434	402	0.8	6.935	А
2	856	39	1091	0.784	901	3.9	22.394	С
3	194	875	402	0.483	200	1.0	18.373	С

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	86	934	0.360	337	0.6	6.035	A
2	717	32	1095	0.654	725	1.9	9.907	A
3	163	704	507	0.321	165	0.5	10.581	В



# 2034 without, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 90% of the total flow for the roundabout for one or more time segments]

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF 8	Harwell Road/Milton Road/High Street	Mini-roundabout		1, 2, 3	58.37	F

#### **Junction Network Options**

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	312	100.000
2		~	1013	100.000
3		✓	137	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
		1	2	3		
_	1	0	275	37		
From	2	924	0	89		
	3	131	6	0		

# Vehicle Mix

	То				
		1	2	3	
<b>F</b>	1	0	3	4	
From	2	1	0	1	
	3	1	8	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.33	5.27	0.5	А
2	1.00	80.44	25.0	F
3	0.44	18.75	0.8	С

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	4	1028	0.229	234	0.3	4.527	А
2	763	28	1118	0.682	754	2.1	9.679	A
3	103	688	523	0.197	102	0.2	8.538	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	5	1027	0.273	280	0.4	4.817	А
2	911	33	1115	0.817	903	4.1	16.356	С
3	123	823	442	0.279	123	0.4	11.253	В

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	7	1026	0.335	343	0.5	5.264	А
2	1115	41	1110	1.005	1062	17.5	48.666	E
3	151	968	355	0.424	150	0.7	17.375	С

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	7	1026	0.335	344	0.5	5.271	А
2	1115	41	1110	1.005	1086	25.0	80.443	F
3	151	990	342	0.441	151	0.8	18.752	С

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	5	1027	0.273	281	0.4	4.829	A
2	911	33	1115	0.817	990	5.1	38.876	E
3	123	903	394	0.312	124	0.5	13.399	В

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	5	1028	0.229	235	0.3	4.545	А
2	763	28	1118	0.682	774	2.2	10.781	В
3	103	706	512	0.201	104	0.3	8.839	A





# Junctions 9 PICADY 9 - Priority Intersection Module Version: 9.5.1.7462 © Copyright TRL Limited, 2019 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 37977 Software@trl.co.uk Www.trlsoftware.co.uk 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: OFF 9 A Junction-High Street\_High Street North.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF9 - Junction 26-High Street\_Church Street\_Brook Street

Report generation date: 02/07/2021 09:01:30

»2020, AM »2020, PM »2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

#### Summary of junction performance

			AM					PM		
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
		2020								
Stream B-AC	D1	0.7	10.89	0.41	В	<b>D</b> 2	0.6	9.34	0.36	A
Stream C-AB		0.8	10.90	0.44	В	DZ	7.2	45.92	0.89	Е
		2024 with								
Stream B-AC	<b>D</b> 2	0.8	10.54	0.43	В	D4	0.4	8.52	0.30	A
Stream C-AB	03	0.8	10.60	0.43	В	D4	0.9	10.16	0.45	В
		2024 without								
Stream B-AC	Dr	0.9	12.64	0.49	В	DC	0.6	9.76	0.39	A
Stream C-AB	05	17.7	106.92	1.00	F	06	43.7	213.76	1.10	F
					2034	with				
Stream B-AC	DZ	1.1	12.74	0.53	В	Do	1.6	15.46	0.62	С
Stream C-AB		1.3	13.20	0.55	В	00	2.4	17.65	0.69	С
				2	034 v	vithout				
Stream B-AC	DO	1.2	14.28	0.54	В	D10	0.7	10.04	0.40	В
Stream C-AB	09	493.5	2880.23	1.88	F	010	447.0	2448.09	1.76	F

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



#### File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

#### Units

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

#### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

## Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		8.34	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description	Arm type
Α	High Street		Major
в	High Street North		Minor
С	High Street (S)		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
С	6.82			30.0	~	0.00

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

#### **Minor Arm Geometry**

ŀ	Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
	в	One lane	2.94	57	22

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	504	0.088	0.224	0.141	0.319
B-C	634	0.094	0.237	-	-
C-B	591	0.221	0.221	-	-

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

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

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

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15


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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	99	100.000
в		✓	206	100.000
С		✓	270	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То					
		Α	в	С		
From	Α	0	0	99		
	в	0	0	206		
	С	64	206	0		

## **Vehicle Mix**

HV %s				
		T	ō	
		Α	в	С
-	Α	0	0	2
From	в	0	0	9

**C** 3 5

0

# Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.41	10.89	0.7	В
C-AB	0.44	10.90	0.8	В
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	565	0.275	154	0.4	8.724	А
C-AB	169	580	0.291	167	0.4	8.688	А
C-A	34			34			
ΑB	0			0			
A-C	75			75			



### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	562	0.330	185	0.5	9.540	А
C-AB	206	584	0.352	205	0.6	9.500	А
C-A	37			37			
A-B	0			0			
A-C	89			89			

### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	557	0.407	226	0.7	10.854	В
C-AB	258	589	0.438	257	0.8	10.837	В
C-A	39			39			
A-B	0			0			
A-C	109			109			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	557	0.407	227	0.7	10.894	В
C-AB	258	589	0.438	258	0.8	10.897	В
C-A	39			39			
A-B	0			0			
A-C	109			109			

### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	562	0.330	186	0.5	9.602	А
C-AB	206	584	0.352	207	0.6	9.573	А
C-A	37			37			
A-B	0			0			
A-C	89			89			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	565	0.275	156	0.4	8.806	А
C-AB	169	580	0.292	170	0.4	8.784	A
C-A	34			34			
A-B	0			0			
A-C	75			75			



# 2020, PM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		32.93	D

### **Junction Network Options**

Driving side	Lighting	
Left	Normal/unknown	

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	33	100.000
в		✓	201	100.000
С		✓	532	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

		То				
		Α	в	С		
	Α	0	0	33		
From	в	0	0	201		
	С	93	439	0		

# **Vehicle Mix**

	То				
		Α	в	С	
<b>F</b>	Α	0	0	3	
From	в	0	0	3	
	С	1	1	0	



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.36	9.34	0.6	А
C-AB	0.89	45.92	7.2	E
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	151	609	0.248	150	0.3	7.817	А
C-AB	372	627	0.593	366	1.5	13.536	В
C-A	28			28			
A-B	0			0			
A-C	25			25			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	608	0.297	180	0.4	8.407	A
C-AB	455	636	0.716	451	2.5	19.196	С
C-A	23			23			
A-B	0			0			
A-C	30			30			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	607	0.365	221	0.6	9.313	А
C-AB	576	647	0.890	561	6.3	37.214	E
C-A	10			10			
A-B	0			0			
A-C	36			36			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	607	0.365	221	0.6	9.343	А
C-AB	579	649	0.891	575	7.2	45.918	E
C-A	7			7			
A-B	0			0			
A-C	36			36			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	181	608	0.297	181	0.4	8.445	А
C-AB	458	638	0.718	475	3.0	24.200	С
C-A	20			20			
ΑB	0			0			
A-C	30			30			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	151	609	0.248	152	0.3	7.874	А
C-AB	373	628	0.594	379	1.6	14.767	В
C-A	27			27			
A-B	0			0			
A-C	25			25			



# 2024 with, AM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		8.49	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	80	100.000
в		✓	235	100.000
С		✓	266	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

		То				
From		Α	в	С		
	Α	0	0	80		
	в	0	0	235		
	С	53	213	0		

# **Vehicle Mix**

	То					
		Α	в	С		
<b>F</b>	Α	0	0	3		
From	в	0	0	2		
	С	2	2	0		



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.43	10.54	0.8	В
C-AB	0.43	10.60	0.8	В
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	177	607	0.292	175	0.4	8.313	А
C-AB	172	593	0.290	170	0.4	8.477	А
C-A	28			28			
A-B	0			0			
A-C	60			60			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	604	0.350	211	0.5	9.141	А
C-AB	208	596	0.349	208	0.6	9.259	А
C-A	31			31			
A-B	0			0			
A-C	72			72			

### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	600	0.431	258	0.7	10.489	В
C-AB	260	600	0.433	259	0.8	10.539	В
C-A	33			33			
A-B	0			0			
A-C	88			88			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	259	600	0.431	259	0.8	10.541	В
C-AB	260	600	0.433	260	0.8	10.596	В
C-A	33			33			
A-B	0			0			
A-C	88			88			



### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	211	604	0.350	212	0.5	9.203	А
C-AB	208	596	0.349	209	0.6	9.330	A
C-A	31			31			
ΑB	0			0			
A-C	72			72			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	177	607	0.292	177	0.4	8.395	A
C-AB	172	594	0.290	173	0.4	8.570	А
C-A	28			28			
A-B	0			0			
A-C	60			60			



# 2024 with, PM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		7.86	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	34	100.000
в		✓	167	100.000
С		✓	311	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	0	34	
	в	0	0	167	
	С	89	222	0	

# **Vehicle Mix**

	То					
		Α	в	С		
-	Α	0	0	2		
From	в	0	0	3		
	С	1	1	0		



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.30	8.52	0.4	A
C-AB	0.45	10.16	0.9	В
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	609	0.206	125	0.3	7.416	А
C-AB	187	625	0.300	185	0.5	8.162	A
C-A	47			47			
A-B	0			0			
A-C	26			26			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	150	608	0.247	150	0.3	7.852	А
C-AB	229	633	0.361	228	0.6	8.890	А
C-A	51			51			
A-B	0			0			
A-C	31			31			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	606	0.303	183	0.4	8.502	А
C-AB	289	644	0.449	288	0.9	10.100	В
C-A	54			54			
A-B	0			0			
A-C	37			37			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	184	606	0.303	184	0.4	8.519	А
C-AB	289	644	0.449	289	0.9	10.159	В
C-A	54			54			
A-B	0			0			
A-C	37			37			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	150	608	0.247	151	0.3	7.877	А
C-AB	229	633	0.362	230	0.6	8.965	A
C-A	51			51			
ΑB	0			0			
A-C	31			31			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	609	0.206	126	0.3	7.456	A
C-AB	187	625	0.300	188	0.5	8.255	А
C-A	47			47			
A-B	0			0			
A-C	26			26			



# 2024 without, AM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		66.57	F

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	104	100.000
в		✓	246	100.000
С		✓	545	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

	То				
		Α	в	С	
	Α	0	0	104	
From	в	0	0	246	
	С	69	476	0	

# **Vehicle Mix**

	То				
		Α	в	С	
_	Α	0	0	4	
From	в	0	0	9	
	С	3	3	0	



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.49	12.64	0.9	В
C-AB	1.00	106.92	17.7	F
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	564	0.329	183	0.5	9.419	А
C-AB	393	592	0.664	385	2.0	16.868	С
C-A	17			17			
A-B	0			0			
A-C	78			78			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	560	0.395	221	0.6	10.577	В
C-AB	479	596	0.803	471	3.7	27.580	D
C-A	11			11			
A-B	0			0			
A-C	93			93			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	271	555	0.488	270	0.9	12.544	В
C-AB	600	601	0.999	564	12.7	67.802	F
C-A	0			0			
A-B	0			0			
A-C	115			115			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	271	555	0.488	271	0.9	12.640	В
C-AB	600	601	0.999	580	17.7	106.919	F
C-A	0			0			
A-B	0			0			
A-C	115			115			



### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	221	560	0.395	222	0.7	10.686	В
C-AB	485	602	0.806	534	5.3	65.505	F
C-A	5			5			
A-B	0			0			
A-C	93			93			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	564	0.329	186	0.5	9.546	А
C-AB	395	594	0.665	407	2.2	20.513	С
C-A	16			16			
A-B	0			0			
A-C	78			78			



# 2024 without, PM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		152.56	F

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	46	100.000
в		✓	213	100.000
С		✓	645	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

	То				
		Α	в	С	
	Α	0	0	46	
From	в	0	0	213	
	С	105	540	0	

# **Vehicle Mix**

	То				
		Α	в	С	
-	Α	0	0	3	
From	в	0	0	3	
	С	2	1	0	



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.39	9.76	0.6	A
C-AB	1.10	213.76	43.7	F
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	607	0.264	159	0.4	8.035	А
C-AB	465	631	0.737	454	2.7	19.428	С
C-A	21			21			
A-B	0			0			
A-C	35			35			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	605	0.316	191	0.5	8.679	А
C-AB	571	641	0.892	557	6.4	38.278	E
C-A	9			9			
ΑB	0			0			
A-C	41			41			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	603	0.389	234	0.6	9.727	А
C-AB	710	645	1.102	630	26.4	109.741	F
C-A	0			0			
A-B	0			0			
A-C	51			51			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	603	0.389	234	0.6	9.761	А
C-AB	710	645	1.101	641	43.7	210.124	F
C-A	0			0			
A-B	0			0			
A-C	51			51			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	605	0.316	192	0.5	8.726	А
C-AB	580	647	0.896	631	30.8	213.758	F
C-A	0			0			
ΑB	0			0			
A-C	41			41			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	607	0.264	161	0.4	8.076	A
C-AB	480	644	0.746	588	3.8	90.891	F
C-A	5			5			
A-B	0			0			
A-C	35			35			



# 2034 with, AM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		10.62	В

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	95	100.000
в		✓	285	100.000
С		✓	332	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

		То					
		Α	в	С			
From	Α	0	0	95			
	в	0	0	285			
	С	62	270	0			

# **Vehicle Mix**

	То					
		Α	в	С		
From	Α	0	0	3		
	в	0	0	2		
	С	3	1	0		



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.53	12.74	1.1	В
C-AB	0.55	13.20	1.3	В
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	604	0.355	212	0.5	9.141	А
C-AB	220	601	0.367	218	0.6	9.353	А
C-A	30			30			
A-B	0			0			
A-C	72			72			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	256	601	0.426	255	0.7	10.401	В
C-AB	268	604	0.443	267	0.8	10.652	В
C-A	31			31			
A-B	0			0			
A-C	85			85			

### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	596	0.526	312	1.1	12.618	В
C-AB	335	608	0.551	333	1.3	13.030	В
C-A	30			30			
A-B	0			0			
A-C	105			105			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	596	0.526	314	1.1	12.735	В
C-AB	335	609	0.551	335	1.3	13.196	В
C-A	30			30			
A-B	0			0			
A-C	105			105			



### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	256	601	0.426	258	0.8	10.528	В
C-AB	268	604	0.443	270	0.9	10.829	В
C-A	31			31			
ΑB	0			0			
A-C	85			85			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	604	0.355	215	0.6	9.278	A
C-AB	221	601	0.367	222	0.6	9.521	А
C-A	29			29			
A-B	0			0			
A-C	72			72			



# 2034 with, PM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		14.89	В

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	ked arm Use O-D data Av. Demand (Veh/hr)		Scaling Factor (%)
Α		✓	41	100.000
в		✓	349	100.000
С		✓	452	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

	То				
		Α	в	С	
	Α	0	0	41	
From	в	0	0	349	
	С	113	339	0	

# **Vehicle Mix**

	То				
		Α	в	С	
-	Α	0	0	2	
From	в	0	0	1	
	С	2	0	0	



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.62	15.46	1.6	С
C-AB	0.69	17.65	2.4	С
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	263	620	0.424	260	0.7	9.935	А
C-AB	294	641	0.459	291	0.9	10.182	В
C-A	46			46			
A-B	0			0			
A-C	31			31			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	619	0.507	313	1.0	11.721	В
C-AB	362	651	0.555	360	1.3	12.314	В
C-A	45			45			
A-B	0			0			
A-C	37			37			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	384	617	0.623	382	1.6	15.182	С
C-AB	460	665	0.692	456	2.4	17.019	С
C-A	37			37			
A-B	0			0			
A-C	45			45			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	384	617	0.623	384	1.6	15.463	С
C-AB	461	666	0.693	461	2.4	17.651	С
C-A	37			37			
A-B	0			0			
A-C	45			45			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	314	619	0.507	316	1.1	11.985	В
C-AB	363	652	0.556	367	1.4	12.832	В
C-A	44			44			
ΑB	0			0			
A-C	37			37			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	263	620	0.424	264	0.7	10.146	В
C-AB	295	642	0.460	297	1.0	10.518	В
C-A	45			45			
A-B	0			0			
A-C	31			31			



# 2034 without, AM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		2051.01	F

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	117	100.000
в		✓	268	100.000
С		✓	998	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

		То				
From		Α	в	С		
	A	0	0	117		
	в	0	0	268		
	С	97	901	0		

# **Vehicle Mix**

	То				
From		Α	в	С	
	Α	0	0	5	
	в	0	0	10	
	С	3	3	0	



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.54	14.28	1.2	В
C-AB	1.88	2880.23	493.5	F
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	556	0.363	200	0.6	10.035	В
C-AB	751	594	1.266	580	42.9	144.670	F
C-A	0			0			
A-B	0			0			
A-C	88			88			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	241	552	0.436	240	0.8	11.503	В
C-AB	897	590	1.521	589	119.9	510.200	F
C-A	0			0			
A-B	0			0			
A-C	105			105			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	295	547	0.540	294	1.1	14.119	В
C-AB	1099	584	1.881	584	248.6	1142.773	F
C-A	0			0			
A-B	0			0			
A-C	129			129			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	295	547	0.540	295	1.2	14.278	В
C-AB	1099	584	1.881	584	377.2	1935.889	F
C-A	0			0			
A-B	0			0			
A-C	129			129			



### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	241	552	0.436	242	0.8	11.672	В
C-AB	897	590	1.521	590	454.1	2533.800	F
C-A	0			0			
ΑB	0			0			
A-C	105			105			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	202	556	0.363	203	0.6	10.209	В
C-AB	751	594	1.266	594	493.5	2880.231	F
C-A	0			0			
A-B	0			0			
A-C	88			88			



# 2034 without, PM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9A	High Street/Church Street/Brook Street High Street/Church Street/Brook Street High Street/Church Street/Brook High Street/Church Street/Brook Street	T-Junction	Two-way		1917.11	F

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	56	100.000
в		✓	220	100.000
С		✓	1012	100.000

## **Origin-Destination Data**

### Demand (Veh/hr)

	То				
From		Α	в	c	
	Α	0	0	56	
	в	0	0	220	
	С	141	871	0	

# **Vehicle Mix**

	То				
From		Α	в	С	
	Α	0	0	3	
	в	0	0	3	
	С	1	1	0	



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.40	10.04	0.7	В
C-AB	1.76	2448.09	447.0	F
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	605	0.274	164	0.4	8.133	А
C-AB	762	636	1.198	618	36.1	116.675	F
C-A	0			0			
A-B	0			0			
A-C	42			42			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	198	603	0.328	197	0.5	8.858	А
C-AB	910	634	1.435	633	105.1	412.898	F
C-A	0			0			
A-B	0			0			
A-C	50			50			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	242	601	0.403	241	0.7	10.003	В
C-AB	1114	631	1.765	631	225.9	951.832	F
C-A	0			0			
A-B	0			0			
A-C	62			62			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	242	601	0.403	242	0.7	10.042	В
C-AB	1114	631	1.765	631	346.6	1639.388	F
C-A	0			0			
A-B	0			0			
A-C	62			62			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	End queue (Veh) Delay (s)	
B-AC	198	603	0.328	198	0.5	8.910	А
C-AB	910	634	1.435	634	415.5	2166.706	F
C-A	0			0			
ΑB	0			0			
A-C	50			50			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	605	0.274	166	0.4	8.206	А
C-AB	762	636	1.198	636	447.0	2448.089	F
C-A	0			0			
A-B	0			0			
A-C	42			42			



# Junctions 9 PICADY 9 - Priority Intersection Module Version: 9.5.1.7462 © Copyright TRL Limited, 2019 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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: OFF 9 B Junction-Brooks Street\_High Street.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF9 - Junction 26-High Street\_Church Street\_Brook Street Beneration data: 02/07/2021 00:02:20

Report generation date: 02/07/2021 09:02:29

»2020, AM »2020, PM »2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

### Summary of junction performance

			AM					РМ		
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
					20	20				
Stream B-AC	D1	1.3	21.63	0.58	С	<b>D</b> 2	46.8	376.39	1.19	F
Stream C-AB		0.0	0.00	0.00	Α	D2	0.0	0.00	0.00	А
		-			2024	with	-		-	
Stream B-AC	<b>D</b> 2	1.6	24.55	0.62	С	D4	1.4	21.73	0.58	С
Stream C-AB	03	0.0	0.00	0.00	Α	04	0.0	0.00	0.00	А
		2024 without								
Stream B-AC	DE	87.4	748.34	1.35	F	De	134.9	1084.24	1.47	F
Stream C-AB	05	0.0	0.00	0.00	Α	06	0.0	0.00	0.00	А
					2034	with				
Stream B-AC	DZ	4.4	57.26	0.84	F	D0	20.4	194.32	1.06	F
Stream C-AB	DI	0.0	0.00	0.00	А	00	0.0	0.00	0.00	А
				2	034 v	vithout				
Stream B-AC	ПО	654.4	5432.31	2.69	F	D10	577.1	4565.14	2.43	F
Stream C-AB	09	0.0	0.00	0.00	A	510	0.0	0.00	0.00	A

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



### File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

### Units

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

### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		5.30	A

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

### Arms

### Arms

Arm	Name	Description	Arm type
Α	Church Street		Major
в	High Street		Minor
С	Brooks Street		Major

### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
С	6.03			33.0	~	0.00

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

### **Minor Arm Geometry**

Arn	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
в	One lane	3.20	83	17

### Slope / Intercept / Capacity

### **Priority Intersection Slopes and Intercepts**

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	523	0.095	0.240	0.151	0.343
B-C	647	0.099	0.250	-	-
C-B	593	0.229	0.229	-	-

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

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

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

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15



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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	339	100.000
в		✓	206	100.000
С		✓	299	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

. ,					
	То				
From		A	в	С	
	Α	0	206	133	
	в	206	0	0	
	С	299	0	0	

# Vehicle Mix

### HV %s

		То				
From		Α	в	С		
	Α	0	9	3		
	в	5	0	0		
	С	2	0	0		

# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.58	21.63	1.3	С
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	426	0.364	153	0.6	13.076	В
C-AB	0	525	0.000	0	0.0	0.000	A
C-A	225			225			
A-B	155			155			
A-C	100			100			



### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	412	0.449	184	0.8	15.736	С
C-AB	0	513	0.000	0	0.0	0.000	А
C-A	269			269			
A-B	185			185			
A-C	120			120			

### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	393	0.578	225	1.3	21.171	С
C-AB	0	497	0.000	0	0.0	0.000	A
C-A	329			329			
A-B	227			227			
A-C	146			146			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	227	393	0.578	227	1.3	21.634	С
C-AB	0	497	0.000	0	0.0	0.000	A
C-A	329			329			
A-B	227			227			
A-C	146			146			

### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	185	412	0.449	187	0.8	16.146	С
C-AB	0	513	0.000	0	0.0	0.000	А
C-A	269			269			
A-B	185			185			
A-C	120			120			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	426	0.364	156	0.6	13.388	В
C-AB	0	525	0.000	0	0.0	0.000	А
C-A	225			225			
A-B	155			155			
A-C	100			100			



# 2020, PM

### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		158.87	F

### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	440	100.000
в		~	439	100.000
С		✓	154	100.000

### **Origin-Destination Data**

### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	201	239	
	в	439	0	0	
	С	154	0	0	

# **Vehicle Mix**

	То			
		Α	в	С
_	Α	0	3	1
From	в	1	0	0
	С	3	0	0



### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.19	376.39	46.8	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	442	0.748	320	2.6	27.586	D
C-AB	0	508	0.000	0	0.0	0.000	A
C-A	116			116			
A-B	151			151			
A-C	180			180			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	395	427	0.924	379	6.6	59.741	F
C-AB	0	493	0.000	0	0.0	0.000	А
C-A	138			138			
A-B	181			181			
A-C	215			215			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	483	407	1.188	400	27.3	174.767	F
C-AB	0	473	0.000	0	0.0	0.000	А
C-A	170			170			
A-B	221			221			
A-C	263			263			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	483	407	1.188	405	46.8	342.698	F
C-AB	0	473	0.000	0	0.0	0.000	А
C-A	170			170			
A-B	221			221			
A-C	263			263			


#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	395	427	0.924	418	40.9	376.387	F
C-AB	0	493	0.000	0	0.0	0.000	A
C-A	138			138			
ΑB	181			181			
A-C	215			215			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	331	442	0.748	431	15.7	243.162	F
C-AB	0	508	0.000	0	0.0	0.000	А
C-A	116			116			
A-B	151			151			
A-C	180			180			



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		5.32	А

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

### **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	423	100.000
в		✓	213	100.000
С		✓	345	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

		То					
From		Α	в	С			
	Α	0	235	188			
	в	213	0	0			
	С	345	0	0			

## **Vehicle Mix**

		То				
		Α	в	С		
-	Α	0	2	3		
From	в	2	0	0		
	С	2	0	0		



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.62	24.55	1.6	С
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	422	0.380	158	0.6	13.509	В
C-AB	0	513	0.000	0	0.0	0.000	А
C-A	260			260			
A-B	177			177			
A-C	142			142			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	405	0.473	190	0.9	16.715	С
C-AB	0	499	0.000	0	0.0	0.000	А
C-A	310			310			
A-B	211			211			
A-C	169			169			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	380	0.617	232	1.5	23.800	С
C-AB	0	479	0.000	0	0.0	0.000	A
C-A	380			380			
A-B	259			259			
A-C	207			207			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	235	380	0.617	234	1.6	24.552	С
C-AB	0	479	0.000	0	0.0	0.000	А
C-A	380			380			
A-B	259			259			
A-C	207			207			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	191	405	0.473	194	0.9	17.287	С
C-AB	0	499	0.000	0	0.0	0.000	A
C-A	310			310			
ΑB	211			211			
A-C	169			169			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	160	422	0.380	162	0.6	13.876	В
C-AB	0	513	0.000	0	0.0	0.000	А
C-A	260			260			
A-B	177			177			
A-C	142			142			



# 2024 with, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		5.48	A

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	431	100.000
в		✓	210	100.000
С		✓	189	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		Α	в	С	
-	Α	0	154	277	
From	в	210	0	0	
	С	189	0	0	

## **Vehicle Mix**

	То			
		Α	в	С
-	Α	0	2	1
From	в	1	0	0
	С	2	0	0



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.58	21.73	1.4	С
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	158	435	0.364	156	0.6	12.812	В
C-AB	0	512	0.000	0	0.0	0.000	A
C-A	142			142			
A-B	116			116			
A-C	209			209			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	419	0.451	188	0.8	15.530	С
C-AB	0	498	0.000	0	0.0	0.000	А
C-A	170			170			
A-B	138			138			
A-C	249			249			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	396	0.583	229	1.3	21.245	С
C-AB	0	478	0.000	0	0.0	0.000	А
C-A	208			208			
A-B	170			170			
A-C	305			305			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	231	396	0.583	231	1.4	21.735	С
C-AB	0	478	0.000	0	0.0	0.000	А
C-A	208			208			
A-B	170			170			
A-C	305			305			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	189	419	0.451	191	0.8	15.947	С
C-AB	0	498	0.000	0	0.0	0.000	A
C-A	170			170			
A-B	138			138			
A-C	249			249			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	158	435	0.364	159	0.6	13.115	В
C-AB	0	512	0.000	0	0.0	0.000	А
C-A	142			142			
A-B	116			116			
A-C	209			209			



# 2024 without, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		294.80	F

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	395	100.000
в		✓	476	100.000
С		✓	323	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		Α	в	С	
From	Α	0	246	149	
	в	476	0	0	
	С	323	0	0	

## **Vehicle Mix**

	То				
		Α	в	С	
-	Α	0	9	3	
From	в	3	0	0	
	С	3	0	0	



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.35	748.34	87.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	358	425	0.843	342	4.1	37.968	E
C-AB	0	513	0.000	0	0.0	0.000	A
C-A	243			243			
A-B	185			185			
A-C	112			112			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	428	409	1.045	390	13.6	104.101	F
C-AB	0	499	0.000	0	0.0	0.000	А
C-A	290			290			
A-B	221			221			
A-C	134			134			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	524	387	1.354	386	48.2	308.411	F
C-AB	0	479	0.000	0	0.0	0.000	А
C-A	356			356			
A-B	271			271			
A-C	164			164			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	524	387	1.354	387	82.5	610.081	F
C-AB	0	479	0.000	0	0.0	0.000	А
C-A	356			356			
A-B	271			271			
A-C	164			164			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	428	409	1.045	408	87.4	748.344	F
C-AB	0	499	0.000	0	0.0	0.000	A
C-A	290			290			
ΑB	221			221			
A-C	134			134			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	358	425	0.843	420	71.9	683.106	F
C-AB	0	513	0.000	0	0.0	0.000	А
C-A	243			243			
A-B	185			185			
A-C	112			112			



# 2024 without, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		500.87	F

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	447	100.000
в		✓	540	100.000
С		✓	176	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
From		Α	в	С
	Α	0	213	234
	в	540	0	0
	С	176	0	0

## **Vehicle Mix**

	То			
		Α	в	С
-	Α	0	3	1
From	в	1	0	0
	С	2	0	0



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.47	1084.24	134.9	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	407	440	0.925	381	6.5	49.225	E
C-AB	0	509	0.000	0	0.0	0.000	A
C-A	133			133			
A-B	160			160			
A-C	176			176			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	485	424	1.144	416	23.8	154.182	F
C-AB	0	494	0.000	0	0.0	0.000	А
C-A	158			158			
A-B	191			191			
A-C	210			210			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	595	403	1.474	403	71.7	443.643	F
C-AB	0	473	0.000	0	0.0	0.000	А
C-A	194			194			
A-B	235			235			
A-C	258			258			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	595	403	1.474	403	119.6	845.043	F
C-AB	0	473	0.000	0	0.0	0.000	А
C-A	194			194			
A-B	235			235			
A-C	258			258			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	485	424	1.144	424	134.9	1084.244	F
C-AB	0	494	0.000	0	0.0	0.000	A
C-A	158			158			
A-B	191			191			
A-C	210			210			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	407	440	0.925	436	127.4	1082.222	F
C-AB	0	509	0.000	0	0.0	0.000	А
C-A	133			133			
A-B	160			160			
A-C	176			176			



# 2034 with, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		12.83	В

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)	
Α		~	537	100.000	
в		✓	270	100.000	
С		✓	383	100.000	

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	285	252	
	в	270	0	0	
	С	383	0	0	

## **Vehicle Mix**

		То			
		Α	в	С	
-	Α	0	2	3	
From	в	1	0	0	
	С	3	0	0	



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.84	57.26	4.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	203	406	0.501	199	1.0	17.118	С
C-AB	0	491	0.000	0	0.0	0.000	A
C-A	288			288			
A-B	215			215			
A-C	190			190			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	243	384	0.631	240	1.6	24.496	С
C-AB	0	472	0.000	0	0.0	0.000	А
C-A	344			344			
A-B	256			256			
A-C	227			227			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	297	355	0.839	288	3.9	48.324	E
C-AB	0	447	0.000	0	0.0	0.000	А
C-A	422			422			
A-B	314			314			
A-C	277			277			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	297	355	0.839	295	4.4	57.264	F
C-AB	0	447	0.000	0	0.0	0.000	А
C-A	422			422			
A-B	314			314			
A-C	277			277			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	243	384	0.631	253	1.8	29.152	D
C-AB	0	472	0.000	0	0.0	0.000	А
C-A	344			344			
ΑB	256			256			
A-C	227			227			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	203	406	0.501	206	1.0	18.301	С
C-AB	0	491	0.000	0	0.0	0.000	А
C-A	288			288			
A-B	215			215			
A-C	190			190			



# 2034 with, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		50.87	F

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	694	100.000
в		✓	339	100.000
С		✓	250	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
From		Α	в	С
	Α	0	349	345
	в	339	0	0
	С	250	0	0

## **Vehicle Mix**

	То			
		Α	в	С
-	Α	0	1	1
From	в	0	0	0
	С	2	0	0



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	1.06	194.32	20.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	406	0.629	249	1.6	22.175	С
C-AB	0	467	0.000	0	0.0	0.000	A
C-A	188			188			
A-B	263			263			
A-C	260			260			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	383	0.796	298	3.3	39.566	E
C-AB	0	444	0.000	0	0.0	0.000	А
C-A	225			225			
A-B	314			314			
A-C	310			310			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	373	351	1.062	334	13.2	112.651	F
C-AB	0	412	0.000	0	0.0	0.000	А
C-A	275			275			
A-B	384			384			
A-C	380			380			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	373	351	1.062	344	20.4	194.321	F
C-AB	0	412	0.000	0	0.0	0.000	А
C-A	275			275			
A-B	384			384			
A-C	380			380			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	305	383	0.796	363	5.8	139.487	F
C-AB	0	444	0.000	0	0.0	0.000	A
C-A	225			225			
A-B	314			314			
A-C	310			310			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	255	406	0.629	271	1.8	29.403	D
C-AB	0	467	0.000	0	0.0	0.000	А
C-A	188			188			
A-B	263			263			
A-C	260			260			



# 2034 without, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		2820.69	F

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	453	100.000
в		✓	901	100.000
С		✓	363	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
		Α	в	С
-	Α	0	268	185
From	в	901	0	0
	С	363	0	0

## **Vehicle Mix**

	То				
		Α	в	С	
-	Α	0	10	3	
From	в	3	0	0	
	С	3	0	0	



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	2.69	5432.31	654.4	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	678	412	1.645	406	68.0	317.219	F
C-AB	0	502	0.000	0	0.0	0.000	A
C-A	273			273			
A-B	202			202			
A-C	139			139			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	810	394	2.056	394	172.0	1156.644	F
C-AB	0	486	0.000	0	0.0	0.000	А
C-A	326			326			
A-B	241			241			
A-C	166			166			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	992	368	2.694	368	328.0	2439.349	F
C-AB	0	463	0.000	0	0.0	0.000	А
C-A	400			400			
A-B	295			295			
A-C	204			204			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	992	368	2.694	368	483.9	3690.163	F
C-AB	0	463	0.000	0	0.0	0.000	А
C-A	400			400			
A-B	295			295			
A-C	204			204			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	810	394	2.056	394	587.9	4728.473	F
C-AB	0	486	0.000	0	0.0	0.000	A
C-A	326			326			
ΑB	241			241			
A-C	166			166			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	678	412	1.645	412	654.4	5432.307	F
C-AB	0	502	0.000	0	0.0	0.000	А
C-A	273			273			
A-B	202			202			
A-C	139			139			



# 2034 without, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9B	High Street/Church Street/Brook Street	T-Junction	Two-way		2553.00	F

#### **Junction Network Options**

 Driving side
 Lighting

 Left
 Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	445	100.000
в		✓	871	100.000
С		✓	237	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То						
		Α	в	С			
_	Α	0	220	225			
From	в	871	0	0			
	С	237	0	0			

## **Vehicle Mix**

	То					
		Α	в	С		
-	Α	0	3	0		
From	в	1	0	0		
	С	2	0	0		



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	2.43	4565.14	577.1	F
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	656	434	1.511	427	57.3	256.083	F
C-AB	0	510	0.000	0	0.0	0.000	A
C-A	178			178			
A-B	166			166			
A-C	169			169			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	783	418	1.874	418	148.6	927.622	F
C-AB	0	495	0.000	0	0.0	0.000	А
C-A	213			213			
A-B	198			198			
A-C	202			202			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	959	395	2.425	395	289.5	2000.170	F
C-AB	0	474	0.000	0	0.0	0.000	А
C-A	261			261			
A-B	242			242			
A-C	248			248			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	959	395	2.425	395	430.4	3108.306	F
C-AB	0	474	0.000	0	0.0	0.000	А
C-A	261			261			
A-B	242			242			
A-C	248			248			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	783	418	1.874	418	521.7	3990.614	F
C-AB	0	495	0.000	0	0.0	0.000	A
C-A	213			213			
ΑB	198			198			
A-C	202			202			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	656	434	1.511	434	577.1	4565.139	F
C-AB	0	510	0.000	0	0.0	0.000	А
C-A	178			178			
A-B	166			166			
A-C	169			169			



# Junctions 9 PICADY 9 - Priority Intersection Module Version: 9.5.1.7462 © Copyright TRL Limited, 2019 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk 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: OFF 9 C Junction-Church Street\_High Street.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF9 - Junction 26-High Street\_Church Street\_Brook Street Penerstion date: 02/07/2021 00:03:22

Report generation date: 02/07/2021 09:03:22

»2020, AM »2020, PM »2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

#### Summary of junction performance

			AM					РМ		
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
					20	20				
Stream B-AC	D1	0.1	6.02	0.11	A	<b>D</b> 2	0.2	6.59	0.16	A
Stream C-AB		0.5	5.93	0.23	Α	DZ	0.1	5.92	0.07	А
		-			2024	with	-		-	
Stream B-AC	D2	0.1	6.01	0.09	A	D4	0.2	6.72	0.15	A
Stream C-AB	03	0.4	5.57	0.20	Α	D4	0.1	5.81	0.08	А
		-		2	024 v	vithout				
Stream B-AC	Dr	0.1	6.13	0.11	Α	DC	0.2	6.82	0.18	A
Stream C-AB	05	0.5	6.09	0.26	А	06	0.2	5.96	0.11	А
					2034	with				
Stream B-AC	DZ	0.1	6.40	0.11	A	Do	0.9	27.27	0.49	D
Stream C-AB		0.6	5.88	0.26	Α	00	0.6	9.42	0.21	А
	2034 without									
Stream B-AC	DO	0.2	6.61	0.16	A	D10	0.3	7.22	0.24	A
Stream C-AB	09	0.7	6.39	0.31	Α	010	0.2	5.75	0.13	А

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 Av. delay per arriving vehicle.



#### File summary

**File Description** 

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

#### Units

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



Flows show original traffic demand (Veh/hr). Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.



#### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	<b>RFC</b> Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.21	А

#### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

#### Arms

#### Arms

Arm Name		Description	Arm type
Α	Church Street		Major
в	High Street		Minor
С	Brook Street		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
С	5.55			81.0	~	0.00

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

#### **Minor Arm Geometry**

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
в	One lane	4.11	14	55

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	566	0.105	0.265	0.167	0.379
B-C	732	0.114	0.289	-	-
C-B	621	0.245	0.245	-	

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

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

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



## **Traffic Demand**

#### **Demand Set Details**

П	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D	2020	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	133	100.000
в		✓	64	100.000
С		✓	398	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		Α	в	c	
_	Α	0	0	133	
From	в	0	0	64	
	С	299	99	0	

## **Vehicle Mix**

HV %s

	То				
		Α	в	С	
-	Α	0	0	3	
From	в	0	0	3	
	С	2	2	0	

## Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.11	6.02	0.1	A
C-AB	0.23	5.93	0.5	A
C-A				
A-B				
A-C				



#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	681	0.071	48	0.1	5.679	А
C-AB	107	735	0.146	107	0.2	5.729	А
C-A	192			192			
A-B	0			0			
A-C	100			100			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	676	0.085	57	0.1	5.821	А
C-AB	138	760	0.182	138	0.3	5.792	А
C-A	220			220			
A-B	0			0			
A-C	120			120			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	668	0.105	70	0.1	6.023	А
C-AB	187	795	0.235	186	0.5	5.916	A
C-A	252			252			
A-B	0			0			
A-C	146			146			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	668	0.105	70	0.1	6.023	A
C-AB	187	795	0.235	187	0.5	5.927	A
C-A	251			251			
A-B	0			0			
A-C	146			146			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	676	0.085	58	0.1	5.823	А
C-AB	138	760	0.182	139	0.3	5.806	A
C-A	219			219			
ΑB	0			0			
A-C	120			120			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	681	0.071	48	0.1	5.687	A
C-AB	108	735	0.147	108	0.2	5.754	A
C-A	192			192			
ΑB	0			0			
A-C	100			100			



# 2020, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.66	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Arm Linked arm Use O-D		Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	239	100.000
в		✓	93	100.000
С		~	187	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

		т	o	
		Α	в	С
<b>F</b>	Α	0	0	239
From	в	0	0	93
	С	154	33	0

## Vehicle Mix

		T	То				
		Α	в	С			
Farm	Α	0	0	1			
From	в	0	0	1			
	С	3	3	0			



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.16	6.59	0.2	A
C-AB	0.07	5.92	0.1	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	672	0.104	70	0.1	5.967	А
C-AB	30	638	0.047	30	0.1	5.915	А
C-A	110			110			
A-B	0			0			
A-C	180			180			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	84	662	0.126	83	0.1	6.216	А
C-AB	37	646	0.058	37	0.1	5.918	А
C-A	130			130			
A-B	0			0			
A-C	215			215			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	648	0.158	102	0.2	6.589	А
C-AB	49	657	0.074	48	0.1	5.919	А
C-A	157			157			
A-B	0			0			
A-C	263			263			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	648	0.158	102	0.2	6.592	А
C-AB	49	657	0.074	49	0.1	5.924	А
C-A	157			157			
A-B	0			0			
A-C	263			263			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	84	662	0.126	84	0.1	6.222	А
C-AB	37	646	0.058	38	0.1	5.922	A
C-A	130			130			
ΑB	0			0			
A-C	215			215			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	70	672	0.104	70	0.1	5.979	A
C-AB	30	638	0.047	30	0.1	5.923	А
C-A	110			110			
A-B	0			0			
A-C	180			180			



# 2024 with, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.63	A

#### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	188	100.000
в		✓	53	100.000
С		~	425	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		Α	в	С	
<b>F</b>	Α	0	0	188	
From	в	0	0	53	
	С	345	80	0	

## Vehicle Mix

	То			
		Α	в	С
Farm	Α	0	0	3
From	в	0	0	2
	С	2	3	0



#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.09	6.01	0.1	A
C-AB	0.20	5.57	0.4	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	40	676	0.059	40	0.1	5.657	А
C-AB	93	744	0.124	92	0.2	5.514	А
C-A	227			227			
A-B	0			0			
A-C	142			142			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	668	0.071	48	0.1	5.801	А
C-AB	121	773	0.156	120	0.3	5.522	А
C-A	262			262			
A-B	0			0			
A-C	169			169			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	657	0.089	58	0.1	6.013	А
C-AB	166	813	0.204	165	0.4	5.564	А
C-A	302			302			
A-B	0			0			
A-C	207			207			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	58	657	0.089	58	0.1	6.013	А
C-AB	166	814	0.204	166	0.4	5.573	А
C-A	302			302			
A-B	0			0			
A-C	207			207			


### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	48	668	0.071	48	0.1	5.803	А
C-AB	121	773	0.156	121	0.3	5.531	А
C-A	261			261			
ΑB	0			0			
A-C	169			169			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	40	676	0.059	40	0.1	5.661	А
C-AB	93	745	0.125	93	0.2	5.534	А
C-A	227			227			
A-B	0			0			
A-C	142			142			



# 2024 with, PM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.45	А

### **Junction Network Options**

Driving side	Lighting	
Left	Normal/unknown	

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	286	100.000
в		✓	89	100.000
С		~	222	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То				
		Α	в	С	
<b>F</b>	Α	0	0	286	
From	в	0	0	89	
	С	188	34	0	

# Vehicle Mix

## HV %s

	То				
		Α	в	С	
-	Α	0	0	1	
From	в	0	0	1	
	С	2	2	0	



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.15	6.72	0.2	A
C-AB	0.08	5.81	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	662	0.101	67	0.1	6.040	А
C-AB	33	653	0.050	32	0.1	5.797	А
C-A	134			134			
A-B	0			0			
A-C	215			215			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	650	0.123	80	0.1	6.310	А
C-AB	41	663	0.062	41	0.1	5.788	А
C-A	158			158			
A-B	0			0			
A-C	257			257			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	633	0.155	98	0.2	6.719	А
C-AB	54	677	0.080	54	0.1	5.780	А
C-A	190			190			
A-B	0			0			
A-C	315			315			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	633	0.155	98	0.2	6.722	А
C-AB	54	677	0.080	54	0.1	5.785	А
C-A	190			190			
A-B	0			0			
A-C	315			315			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	80	650	0.123	80	0.1	6.319	А
C-AB	41	663	0.062	41	0.1	5.795	A
C-A	158			158			
ΑB	0			0			
A-C	257			257			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	67	662	0.101	67	0.1	6.049	А
C-AB	33	653	0.050	33	0.1	5.805	А
C-A	134			134			
A-B	0			0			
A-C	215			215			



# 2024 without, AM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.30	A

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	n Linked arm Use O-D data		Av. Demand (Veh/hr)	Scaling Factor (%)	
Α	A ✓		149	100.000	
в		✓	69	100.000	
С		✓	427	100.000	

# **Origin-Destination Data**

### Demand (Veh/hr)

	То			
		Α	в	С
<b>F</b>	Α	0	0	149
From	в	0	0	69
	С	323	104	0

# Vehicle Mix

## HV %s

	То			
		Α	в	С
Farm	Α	0	0	3
From	в	0	0	3
	С	3	4	0



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.11	6.13	0.1	A
C-AB	0.26	6.09	0.5	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	678	0.077	52	0.1	5.745	А
C-AB	117	734	0.160	116	0.3	5.824	А
C-A	204			204			
A-B	0			0			
A-C	112			112			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	62	672	0.092	62	0.1	5.904	А
C-AB	152	761	0.199	151	0.4	5.907	А
C-A	232			232			
A-B	0			0			
A-C	134			134			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	76	663	0.115	76	0.1	6.131	А
C-AB	207	800	0.259	206	0.5	6.078	А
C-A	263			263			
A-B	0			0			
A-C	164			164			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	76	663	0.115	76	0.1	6.131	A
C-AB	207	800	0.259	207	0.5	6.089	А
C-A	263			263			
A-B	0			0			
A-C	164			164			



### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	62	672	0.092	62	0.1	5.908	А
C-AB	152	762	0.199	153	0.4	5.923	А
C-A	232			232			
ΑB	0			0			
A-C	134			134			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	52	678	0.077	52	0.1	5.753	A
C-AB	118	734	0.160	118	0.3	5.851	А
C-A	204			204			
A-B	0			0			
A-C	112			112			



# 2024 without, PM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.94	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	234	100.000
в		✓	105	100.000
С		✓	222	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То				
		A	в	С	
<b>F</b>	Α	0	0	234	
From	в	0	0	105	
	С	176	46	0	

# **Vehicle Mix**

## HV %s

	То				
		Α	в	С	
Farm	Α	0	0	1	
From	в	0	0	2	
	С	2	3	0	



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.18	6.82	0.2	A
C-AB	0.11	5.96	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	667	0.119	79	0.1	6.112	А
C-AB	43	651	0.067	43	0.1	5.922	А
C-A	124			124			
A-B	0			0			
A-C	176			176			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	94	657	0.144	94	0.2	6.393	А
C-AB	54	661	0.082	54	0.1	5.936	А
C-A	145			145			
A-B	0			0			
A-C	210			210			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	116	644	0.180	115	0.2	6.810	А
C-AB	71	675	0.105	71	0.2	5.962	А
C-A	173			173			
A-B	0			0			
A-C	258			258			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	116	644	0.180	116	0.2	6.816	А
C-AB	71	675	0.105	71	0.2	5.962	А
C-A	173			173			
A-B	0			0			
A-C	258			258			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	94	657	0.144	95	0.2	6.400	А
C-AB	55	661	0.082	55	0.1	5.939	A
C-A	145			145			
ΑB	0			0			
A-C	210			210			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	667	0.119	79	0.1	6.127	А
C-AB	44	651	0.067	44	0.1	5.929	А
C-A	124			124			
A-B	0			0			
A-C	176			176			



# 2034 with, AM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		1.81	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Arm Linked arm Use O-D data		Av. Demand (Veh/hr)	Scaling Factor (%)	
Α		~	252	100.000	
в		✓	62	100.000	
С		~	478	100.000	

# **Origin-Destination Data**

### Demand (Veh/hr)

		То				
		Α	в	С		
<b>F</b>	Α	0	0	252		
From	в	0	0	62		
	С	383	95	0		

# Vehicle Mix

## HV %s

		То				
		Α	в	С		
Farm	Α	0	0	3		
From	в	0	0	3		
	С	3	3	0		



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.11	6.40	0.1	A
C-AB	0.26	5.88	0.6	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	656	0.071	46	0.1	5.906	А
C-AB	116	753	0.154	115	0.3	5.640	А
C-A	244			244			
A-B	0			0			
A-C	190			190			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	56	645	0.086	56	0.1	6.109	А
C-AB	153	784	0.195	152	0.4	5.708	А
C-A	277			277			
A-B	0			0			
A-C	227			227			

### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	630	0.108	68	0.1	6.405	А
C-AB	214	828	0.259	213	0.6	5.869	А
C-A	312			312			
A-B	0			0			
A-C	277			277			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	630	0.108	68	0.1	6.405	А
C-AB	215	828	0.259	215	0.6	5.884	А
C-A	312			312			
A-B	0			0			
A-C	277			277			



### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	56	645	0.086	56	0.1	6.111	А
C-AB	153	785	0.195	154	0.4	5.729	A
C-A	276			276			
ΑB	0			0			
A-C	227			227			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	47	656	0.071	47	0.1	5.912	A
C-AB	116	753	0.155	117	0.3	5.667	А
C-A	243			243			
A-B	0			0			
A-C	190			190			



# 2034 with, PM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		5.08	А

### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	345	100.000
в		✓	113	100.000
С		✓	291	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То				
		A	в	С	
<b>F</b>	Α	0	0	345	
From	в	0	0	113	
	С	250	41	0	

# Vehicle Mix

## HV %s

	То				
		A	в	С	
<b>F</b>	Α	0	0	100	
From	в	0	0	100	
	С	100	41	0	



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.49	27.27	0.9	D
C-AB	0.21	9.42	0.6	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	291	0.293	83	0.4	17.238	С
C-AB	52	465	0.112	51	0.2	8.692	A
C-A	167			167			
A-B	0			0			
A-C	260			260			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	276	0.368	101	0.6	20.458	С
C-AB	71	474	0.149	70	0.4	8.827	А
C-A	191			191			
A-B	0			0			
A-C	310			310			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	124	256	0.486	123	0.9	26.787	D
C-AB	104	489	0.213	103	0.6	9.227	А
C-A	216			216			
A-B	0			0			
A-C	380			380			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	124	256	0.486	124	0.9	27.273	D
C-AB	105	489	0.214	105	0.6	9.416	А
C-A	216			216			
A-B	0			0			
A-C	380			380			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	276	0.368	103	0.6	20.917	С
C-AB	71	474	0.150	72	0.4	9.200	A
C-A	191			191			
ΑB	0			0			
A-C	310			310			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	85	291	0.293	86	0.4	17.622	С
C-AB	52	464	0.113	53	0.3	8.922	А
C-A	167			167			
A-B	0			0			
A-C	260			260			



# 2034 without, AM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.60	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)	
Α		~	185	100.000	
в	B √		97	100.000	
С		✓	480	100.000	

# **Origin-Destination Data**

### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	0	185	
	в	0	0	97	
	С	363	117	0	

# Vehicle Mix

## HV %s

	То				
From		Α	в	С	
	Α	0	0	3	
	в	0	0	3	
	С	3	5	0	



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.16	6.61	0.2	A
C-AB	0.31	6.39	0.7	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	670	0.109	73	0.1	6.018	А
C-AB	139	744	0.187	138	0.3	5.937	А
C-A	222			222			
A-B	0			0			
A-C	139			139			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	87	662	0.132	87	0.2	6.255	А
C-AB	182	775	0.235	182	0.5	6.082	А
C-A	249			249			
A-B	0			0			
A-C	166			166			

### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	107	652	0.164	107	0.2	6.605	А
C-AB	253	819	0.309	252	0.7	6.371	А
C-A	275			275			
A-B	0			0			
A-C	204			204			

### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	107	652	0.164	107	0.2	6.607	А
C-AB	253	819	0.309	253	0.7	6.387	А
C-A	275			275			
A-B	0			0			
A-C	204			204			



### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	87	662	0.132	87	0.2	6.262	А
C-AB	183	776	0.236	184	0.5	6.101	A
C-A	249			249			
ΑB	0			0			
A-C	166			166			

### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	670	0.109	73	0.1	6.032	A
C-AB	140	744	0.188	140	0.3	5.969	А
C-A	221			221			
A-B	0			0			
A-C	139			139			



# 2034 without, PM

### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF9C	untitled	T-Junction	Two-way		2.27	А

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Use O-D data Av. Demand (Veh/hr)	
Α		~	225	100.000
в		✓	141	100.000
С		✓	293	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То			
		Α	в	С
From	Α	0	0	225
	в	0	0	141
	С	237	56	0

# **Vehicle Mix**

## HV %s

	То			
From		Α	в	С
	Α	0	0	0
	в	0	0	1
	С	2	3	0



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-AC	0.24	7.22	0.3	A
C-AB	0.13	5.75	0.2	A
C-A				
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	106	676	0.157	105	0.2	6.301	А
C-AB	57	684	0.083	57	0.1	5.736	A
C-A	164			164			
A-B	0			0			
A-C	169			169			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	127	667	0.190	127	0.2	6.665	А
C-AB	73	701	0.103	72	0.2	5.733	А
C-A	191			191			
A-B	0			0			
A-C	202			202			

### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	654	0.238	155	0.3	7.214	А
C-AB	97	724	0.133	96	0.2	5.738	А
C-A	226			226			
A-B	0			0			
A-C	248			248			

### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	155	654	0.238	155	0.3	7.222	А
C-AB	97	725	0.133	97	0.2	5.739	А
C-A	226			226			
A-B	0			0			
A-C	248			248			



### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	127	667	0.190	127	0.2	6.674	А
C-AB	73	701	0.104	73	0.2	5.735	А
C-A	191			191			
ΑB	0			0			
A-C	202			202			

### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	106	676	0.157	106	0.2	6.323	А
C-AB	57	684	0.084	57	0.1	5.748	А
C-A	163			163			
A-B	0			0			
A-C	169			169			

## Basic Results Summary Basic Results Summary

## User and Project Details

Project:	Didcot Garden Town – HIF1
Title:	Culham River Crossing (OFF 10 & OFF 11)
Location:	
Additional detail:	
File name:	NetworkPrioritySptContValidation_aecom2.lsg3x
Author:	SOC
Company:	AECOM
Address:	

Scenario 1: '2020 AM peak' (FG1: '2020 AM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	110.1%	431	0	0	99.5	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	109.6%	0	0	0	55.5	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	53	-	508	1250:1500	490+269	67.0 : 67.0%	-	-	-	3.6	25.8	8.1
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	30	-	506	1400:1250	287+133	109.6 : 109.6%	-	-	-	31.8	249.0	38.1
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	67:8	-	642	1899:1886	496+147	99.8 : 99.8%	-	-	-	20.1	112.4	27.5
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	110.1%	0	0	0	43.5	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	506	1815	460	110.1%	-	-	-	39.6	281.9	51.4
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	327	1815	672	48.7%	-	-	-	3.9	42.5	11.2
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	29.9%	431	0	0	0.5	-	-
1/1	Appleford Rd East Right Ahead	ο	-		-	-	-	202	1800	1496	13.5%	104	0	0	0.1	1.4	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	538	1800	1800	29.9%	-	-	-	0.2	1.4	0.2
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	327	1747	1138	28.7%	327	0	0	0.2	2.7	6.9
		C1 PRC for Signalled Lanes (%): C2 PRC for Signalled Lanes (%): PRC Over All Lanes (%):						.8Total Delay for Signalled Lanes (pcuHr):55.49Cycle Time (s):1112.3Total Delay for Signalled Lanes (pcuHr):43.48Cycle Time (s):1542.3Total Delay Over All Lanes(pcuHr):99.50									

Basic Results Summary Scenario 2: '2020 PM peak' (FG2: '2020 PM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	102.7%	505	0	0	70.3	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	102.7%	0	0	0	45.4	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	44	-	704	1250:1500	406+279	102.7 : 102.7%	-	-	-	25.6	131.1	37.4
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	26	-	353	1400:1250	222+134	99.0 : 99.0%	-	-	-	12.6	128.7	16.3
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	71:21	-	390	1899:1886	239+187	91.5 : 91.5%	-	-	-	7.2	66.1	9.5
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	93.6%	0	0	0	23.1	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	31	-	353	1815	377	93.6%	-	-	-	11.0	112.3	19.9
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	63	-	458	1815	483	93.2%	-	-	-	12.1	96.8	24.0
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	46.1%	505	0	0	1.7	-	-
1/1	Appleford Rd East Right Ahead	ο	-		-	-	-	198	1800	1542	12.8%	55	0	0	0.1	1.3	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	587	1800	1800	32.6%	-	-	-	0.2	1.5	0.2
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	458	1747	976	46.1%	450	0	0	1.4	11.1	17.6
		C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):					.1 Total Delay for Signalled Lanes (pcuHr): 45.43 Cycle Time (s): 111   .0 Total Delay for Signalled Lanes (pcuHr): 23.12 Cycle Time (s): 154   .1 Total Delay Over All Lanes(pcuHr): 70.26						1 4			

Basic Results Summary Scenario 3: '2024 No HIF AM peak' (FG3: '2024 No HIF AM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	113.4%	399	0	0	111.0	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	112.0%	0	0	0	58.8	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	53	-	483	1250:1500	490+268	63.7 : 63.7%	-	-	-	3.3	24.9	7.4
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	29	-	508	1400:1250	283+117	112.0 : 112.0%	-	-	-	35.4	284.7	41.6
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	68:9	-	676	1899:1886	512+168	99.4 : 99.4%	-	-	-	20.1	106.9	27.9
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	113.4%	0	0	0	50.9	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	37	-	508	1815	448	113.4%	-	-	-	47.0	332.8	58.1
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	57	-	338	1815	684	49.4%	-	-	-	3.9	42.0	11.5
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	46.5%	399	0	0	1.3	-	-
1/1	Appleford Rd East Right Ahead	ο	-		-	-	-	221	1800	1483	14.9%	61	0	0	0.1	1.4	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	837	1800	1800	46.5%	-	-	-	0.4	1.9	0.4
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	338	1747	843	40.1%	338	0	0	0.7	7.9	12.3
		C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):					I.4Total Delay for Signalled Lanes (pcuHr):58.84Cycle Time (s):1115.0Total Delay for Signalled Lanes (pcuHr):50.90Cycle Time (s):1545.0Total Delay Over All Lanes (pcuHr):111.01									

Basic Results Summary Scenario 4: '2024 No HIF PM peak' (FG4: '2024 No HIF PM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

ltem	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	75.1%	408	0	0	27.4	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	74.0%	0	0	O	12.7	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	44	-	501	1250:1500	409+267	74.0 : 74.0%	-	-	-	5.1	37.0	9.0
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	23	-	294	1400:1250	174+229	72.9 : 72.9%	-	-	-	4.6	56.9	5.9
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	74:24	-	303	1899:1886	252+238	61.8 : 61.8%	-	-	-	3.0	35.1	5.1
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	75.1%	0	0	0	12.4	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	33	-	294	1815	401	73.4%	-	-	-	5.9	72.2	13.0
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	61	-	345	1815	460	75.1%	-	-	-	6.5	68.3	15.0
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	49.6%	408	0	O	2.2	-	-
1/1	Appleford Rd East Right Ahead	0	-		-	-	-	294	1800	1492	19.7%	63	0	о	0.1	1.5	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	710	1800	1800	39.4%	-	-	-	0.3	1.7	0.3
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	345	1747	696	49.6%	345	0	0	1.7	18.0	14.4
C1 PRC for Signalled Lanes (%): 21.6 Total Delay for Signalled Lanes (pcuHr): 12.75 Cycle Time (s): 111   C2 PRC for Signalled Lanes (%): 19.9 Total Delay for Signalled Lanes (pcuHr): 12.45 Cycle Time (s): 111   PRC Over All Lanes (%): 19.9 Total Delay for Signalled Lanes (pcuHr): 27.37 Cycle Time (s): 154																	

Basic Results Summary Scenario 5: '2024 With HIF AM peak' (FG5: '2024 With HIF AM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

ltem	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	72.2%	104	0	0	8.2	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	72.2%	0	0	0	5.3	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	77	-	476	1250:1500	816+107	51.6 : 51.6%	-	-	-	1.5	11.2	6.3
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	7	-	112	1400:1250	81+90	57.7 : 72.2%	-	-	-	2.5	79.3	2.9
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	90:7	-	702	1899:1886	1515+72	44.2 : 44.2%	-	-	-	1.3	6.9	6.0
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	24.4%	0	0	0	2.4	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	112	1815	460	24.4%	-	-	-	1.6	50.9	4.0
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	87	1815	672	13.0%	-	-	-	0.8	35.2	2.5
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	32.5%	104	0	O	0.5	-	-
1/1	Appleford Rd East Right Ahead	0	-		-	-	-	355	1800	1719	20.7%	17	0	о	0.1	1.3	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	585	1800	1800	32.5%	-	-	-	0.2	1.5	0.2
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	87	1747	547	15.9%	87	0	0	0.1	3.9	0.2
C1 PRC for Signalled Lanes (%): 24.7 Total Delay for Signalled Lanes (pcuHr): 5.29 Cycle Time (s): 111 C2 PRC for Signalled Lanes (%): 269.4 Total Delay for Signalled Lanes (pcuHr): 2.43 Cycle Time (s): 154 PRC Over All Lanes (%): 24.7 Total Delay Over All Lanes(pcuHr): 8.19																	

Basic Results Summary Scenario 6: '2024 With HIF PM peak' (FG6: '2024 With HIF PM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



## Basic Results Summary Network Results

ltem	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	61.4%	100	0	0	7.7	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	61.4%	0	0	0	5.1	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	76	-	552	1250:1500	824+75	61.4 : 61.4%	-	-	-	2.1	13.7	9.0
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	8	-	91	1400:1250	66+101	54.3 : 54.3%	-	-	-	1.8	71.8	2.2
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	89:7	-	435	1899:1886	1422+136	27.0 : 37.5%	-	-	-	1.2	9.6	3.0
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	19.8%	0	0	0	2.2	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	91	1815	460	19.8%	-	-	-	1.3	50.1	3.2
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	97	1815	672	14.4%	-	-	-	1.0	35.4	2.8
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	23.8%	100	0	0	0.4	-	-
1/1	Appleford Rd East Right Ahead	0	-		-	-	-	381	1800	1790	21.3%	3	0	0	0.1	1.3	0.1
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	428	1800	1800	23.8%	-	-	-	0.2	1.3	0.2
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	97	1747	707	13.7%	97	0	0	0.1	3.0	0.1
		C1 C2		PRC for Sig PRC for Sig PRC Ov	gnalled Lane gnalled Lane rer All Lanes	es (%): es (%): (%):	46.5 354.6 46.5	Total D Total D Total D	elay for Signalle elay for Signalle otal Delay Over	ed Lanes (pcul ed Lanes (pcul All Lanes(pcul	Hr): Hr): Hr):	5.06 ( 2.22 ( 7.66	Cycle Time (s): 11 Cycle Time (s): 15	1 4			

Basic Results Summary Scenario 7: '2034 No HIF AM peak' (FG7: '2034 No HIF AM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram


### Basic Results Summary Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	132.5%	438	0	0	180.9	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	93.1%	0	0	o	24.8	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	44	-	605	1250:1500	386+358	81.4 : 81.4%	-	-	-	6.4	38.0	10.8
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	36	-	609	1400:1250	336+158	93.1 : 93.1%	-	-	-	9.6	75.2	16.4
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	61:11	-	501	1899:1886	393+199	90.7 : 72.4%	-	-	-	8.8	63.0	13.3
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	132.5%	0	0	0	103.4	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	609	1815	460	132.5%	-	-	-	97.6	576.9	109.1
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	435	1815	672	64.8%	-	-	-	5.8	47.7	16.3
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	121.0%	438	0	0	52.8	-	-
1/1	Appleford Rd East Right Ahead	ο	-		-	-	-	306	1800	1182	25.9%	78	0	о	0.2	2.1	0.2
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	1310	1800	1800	72.8%	-	-	-	1.3	3.7	1.3
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	435	1747	360	121.0%	360	0	0	51.3	424.4	86.8
C1 PRC for Signalled Lanes (%): -3.5 Total Delay for Signalled Lanes (pcuHr): 24.76 Cycle Time (s): 111   C2 PRC for Signalled Lanes (%): -47.2 Total Delay for Signalled Lanes (pcuHr): 103.36 Cycle Time (s): 154   PRC Over All Lanes (%): -47.2 Total Delay Over All Lanes(pcuHr): 180.90																	

Basic Results Summary Scenario 8: '2034 No HIF PM peak' (FG8: '2034 No HIF PM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



### Basic Results Summary Network Results

ltem	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	99.6%	461	0	0	46.5	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	78.0%	0	O	O	13.8	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	31	-	376	1250:1500	227+275	75.0 : 75.0%	-	-	-	5.3	50.4	7.2
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	38	-	458	1400:1250	260+327	78.0 : 78.0%	-	-	-	5.6	44.3	9.7
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	59:22	-	225	1899:1886	146+204	64.2 : 64.2%	-	-	-	2.9	47.0	4.7
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	99.6%	0	0	0	25.4	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	458	1815	460	99.6%	-	-	-	17.6	138.4	29.8
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	337	1815	401	84.1%	-	-	-	7.8	83.6	16.2
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	85.1%	461	0	O	7.2	-	-
1/1	Appleford Rd East Right Ahead	0	-		-	-	-	353	1800	1136	31.1%	124	0	о	0.2	2.3	0.2
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	1034	1800	1800	57.4%	-	-	-	0.7	2.3	0.7
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	337	1747	396	85.1%	337	0	0	6.3	67.2	16.8
C1 PRC for Signalled Lanes (%): 15.3 Total Delay for Signalled Lanes (pcuHr): 13.84 Cycle Time (s): 111   C2 PRC for Signalled Lanes (%): -10.7 Total Delay for Signalled Lanes (pcuHr): 25.43 Cycle Time (s): 154   PRC Over All Lanes (%): -10.7 Total Delay Over All Lanes(pcuHr): 46.46																	

Basic Results Summary Scenario 9: '2034 With HIF AM peak' (FG9: '2034 With HIF AM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



### Basic Results Summary Network Results

ltem	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	84.2%	199	0	0	25.6	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	84.2%	0	0	O	16.0	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	55	-	526	1250:1500	588+86	78.0 : 78.0%	-	-	-	4.8	33.0	13.7
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	29	-	376	1400:1250	302+145	84.2 : 84.2%	-	-	-	6.3	59.8	10.7
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	68:7	-	854	1899:1886	1153+60	70.4 : 70.4%	-	-	-	4.9	20.6	17.6
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	81.8%	0	0	0	8.9	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	376	1815	460	81.8%	-	-	-	7.8	74.6	17.3
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	109	1815	672	16.2%	-	-	-	1.1	35.7	3.2
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	39.1%	199	0	O	0.8	-	-
1/1	Appleford Rd East Right Ahead	0	-		-	-	-	538	1800	1580	34.0%	90	0	о	0.3	1.7	0.3
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	704	1800	1800	39.1%	-	-	-	0.3	1.6	0.3
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	109	1747	448	24.3%	109	0	0	0.2	6.0	2.5
C1 PRC for Signalled Lanes (%): 6.9 Total Delay for Signalled Lanes (pcuHr): 15.96 Cycle Time (s): 111   C2 PRC for Signalled Lanes (%): 10.0 Total Delay for Signalled Lanes (pcuHr): 8.88 Cycle Time (s): 154   PRC Over All Lanes (%): 6.9 Total Delay Over All Lanes (pcuHr): 25.59 25.59																	

Basic Results Summary Scenario 10: '2034 With HIF PM peak' (FG10: '2034 With HIF PM peak', Plan 1: 'Network Control Plan 1') Network Layout Diagram



### Basic Results Summary Network Results

ltem	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	79.7%	165	0	0	16.4	-	-
J1: Sutton Courtenay Network	-	-	-		-	-	-	-	-	-	79.7%	0	0	0	10.5	-	-
1/2+1/1	Abingdon Road East Ahead Left	U	C1:B		1	71	-	674	1250:1500	766+79	79.7 : 79.7%	-	-	-	4.4	23.6	16.0
2/2+2/1	Tollgate Road Right Left	U	C1:C		1	13	-	208	1400:1250	127+158	72.9 : 72.9%	-	-	-	4.0	68.7	4.7
3/1+3/2	Abingdon Road West Ahead Right	U	C1:A C1:D		1	84:7	-	673	1899:1886	1355+136	44.3 : 53.7%	-	-	-	2.2	11.6	6.7
J2: Culham Bridges	-	-	-		-	-	-	-	-	-	45.3%	0	0	0	4.6	-	-
1/1	Culham Bridges Northbound Ahead	U	C2:A		1	38	-	208	1815	460	45.3%	-	-	-	3.2	55.6	7.9
2/1	Culham Science Bridge Southbound Ahead	U	C2:B		1	56	-	136	1815	672	20.2%	-	-	-	1.4	36.4	4.1
J3: Appleford Road/Abingdon Road	-	-	-		-	-	-	-	-	-	43.6%	165	0	0	1.3	-	-
1/1	Appleford Rd East Right Ahead	о	-		-	-	-	626	1800	1731	36.2%	29	0	0	0.3	1.6	0.3
4/1	Appleford Rd West Left Ahead	U	-		-	-	-	612	1800	1800	34.0%	-	-	-	0.3	1.5	0.3
5/1	Bridge S/B Exit Left Right	0	-		-	-	-	136	1747	312	43.6%	136	0	0	0.7	19.2	5.8
C1 PRC for Signalled Lanes (%): 12.9 Total Delay for Signalled Lanes (pcuHr): 10.54 Cycle Time (s): 111   C2 PRC for Signalled Lanes (%): 98.9 Total Delay for Signalled Lanes (pcuHr): 4.59 Cycle Time (s): 154   PRC Over All Lanes (%): 12.9 Total Delay Over All Lanes(pcuHr): 16.39 1639																	



Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
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: OFF 12 Junction-A4130\_Lady Grove\_Roundabout.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF12 - Junction 32-A4130\_Lady Grove Report generation date: 02/07/2021 09:06:04

»2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

#### Summary of junction performance

			AM			РМ						
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS		
					2024	with			-	-		
Arm 1		0.1	2.86	0.12	A		0.3	3.28	0.25	A		
Arm 2	D3	1.1	4.96	0.53	A	D4	0.8	4.29	0.43	А		
Arm 3		1.0	6.08	0.50	A		0.8	5.04	0.45	А		
				2	024 v	vithout						
Arm 1		0.4	3.11	0.27	Α		1.0	4.52	0.50	A		
Arm 2	D5	1.1	5.24	0.53	A	D6	0.7	4.60	0.41	А		
Arm 3		0.5	4.54	0.34	A		0.5	3.92	0.32	А		
					2034	with	-					
Arm 1		0.2	3.13	0.17	A		0.8	4.82	0.46	A		
Arm 2	D7	2.5	8.34	0.72	A	D8	1.5	6.25	0.60	А		
Arm 3		1.9	9.89	0.66	A		1.5	7.64	0.61	А		
				2	034 v	vithout						
Arm 1		0.9	4.01	0.46	A		1.6	5.51	0.62	A		
Arm 2	D9	1.4	6.28	0.58	A	D10	0.7	4.83	0.41	A		
Arm 3		0.2	3.61	0.19	A		0.2	3.12	0.17	А		

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

1



#### File summary

File Description

Title	
Location	
Site number	
Date	19/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

#### Units

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

#### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Network flow scaling factor (%)
	100.000

A1 100.000



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	5.15	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

#### Arms

#### Arms

Arm	Name	Description
1	Lady Grove	
2	Abington Road	
3	A4130	

#### **Roundabout Geometry**

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1	4.41	7.30	18.5	20.0	50.0	46.0	
2	3.50	7.30	17.8	20.0	50.0	46.0	
3	3.50	7.30	20.6	20.0	50.0	52.0	

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.614	1813
2	0.583	1648
3	0.577	1648

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

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	e Time Period name Traffic profile type		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min	
D3	2024 with	AM	ONE HOUR	07:45	09:15	15	

#### Vehicle mix source PCU Factor for a HV (PCU)

HV Percentages 2.00



#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	163	100.000
2		√	731	100.000
3		✓	536	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
From		1	2	3		
	1	0	60	103		
	2	566	45	120		
	3	92	444	0		

# Vehicle Mix

	То					
From		1	2	3		
	1	0	0	3		
	2	4	1	0		
	3	2	6	0		

## Results

#### Results Summary for whole modelled period

Arm	Max RFC Max Delay (s)		Max Q (Veh)	Max LOS
1	0.12	2.86	0.1	А
2	0.53	4.96	1.1	А
3	0.50	6.08	1.0	А

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	367	1547	0.079	122	0.1	2.527	А
2	550	77	1552	0.355	548	0.5	3.578	А
3	404	458	1305	0.309	402	0.4	3.978	А

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	147	439	1500	0.098	146	0.1	2.658	А
2	657	93	1543	0.426	656	0.7	4.055	А
3	482	549	1253	0.385	481	0.6	4.659	А



#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	179	537	1438	0.125	179	0.1	2.859	А
2	805	113	1531	0.526	803	1.1	4.936	А
3	590	672	1183	0.499	589	1.0	6.040	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	179	538	1437	0.125	179	0.1	2.861	А
2	805	113	1531	0.526	805	1.1	4.956	А
3	590	673	1183	0.499	590	1.0	6.075	А

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	147	441	1499	0.098	147	0.1	2.663	А
2	657	93	1543	0.426	659	0.7	4.077	А
3	482	550	1252	0.385	483	0.6	4.690	А

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	369	1545	0.079	123	0.1	2.530	А
2	550	78	1552	0.355	551	0.6	3.601	А
3	404	461	1303	0.310	404	0.5	4.009	A



# 2024 with, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.34	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	334	100.000
2		✓	575	100.000
3		✓	539	100.000

### **Origin-Destination Data**

#### Demand (Veh/hr)

		То						
		1	2	3				
<b>F</b>	1	0	141	193				
From	2	440	39	96				
	3	86	453	0				

## **Vehicle Mix**

		То					
		1	2	3			
-	1	0	0	1			
From	2	4	5	0			
	3	1	2	0			



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.25	3.28	0.3	А
2	0.43	4.29	0.8	А
3	0.45	5.04	0.8	A

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	251	369	1573	0.160	251	0.2	2.721	А
2	433	145	1511	0.287	431	0.4	3.330	А
3	406	359	1407	0.288	404	0.4	3.585	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	300	442	1527	0.197	300	0.2	2.933	А
2	517	173	1495	0.346	516	0.5	3.677	А
3	485	430	1365	0.355	484	0.5	4.084	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	368	541	1466	0.251	367	0.3	3.278	А
2	633	212	1473	0.430	632	0.7	4.279	А
3	593	527	1308	0.454	592	0.8	5.024	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	368	542	1465	0.251	368	0.3	3.280	А
2	633	212	1472	0.430	633	0.8	4.288	А
3	593	527	1307	0.454	593	0.8	5.041	А

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	300	443	1526	0.197	301	0.2	2.939	А
2	517	174	1495	0.346	518	0.5	3.688	А
3	485	431	1364	0.355	486	0.6	4.102	A

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	251	371	1571	0.160	252	0.2	2.729	А
2	433	145	1511	0.287	433	0.4	3.342	А
3	406	361	1406	0.289	406	0.4	3.607	A



# 2024 without, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.50	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	383	100.000
2		✓	709	100.000
3		✓	370	100.000

### **Origin-Destination Data**

#### Demand (Veh/hr)

		То					
		1	2	3			
-	1	0	151	232			
From	2	568	37	104			
	3	119	251	0			

## Vehicle Mix

		То				
		1	2	3		
-	1	0	2	2		
From	2	2	0	2		
	3	2	6	0		



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max RFC Max Delay (s) Max Q (		Max LOS
1	0.27	3.11	0.4	А
2	0.53	5.24	1.1	А
3	0.34	4.54	0.5	A

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	216	1641	0.176	287	0.2	2.658	A
2	534	174	1515	0.352	532	0.5	3.652	А
3	279	454	1319	0.211	277	0.3	3.452	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	259	1614	0.213	344	0.3	2.834	А
2	637	208	1495	0.426	637	0.7	4.189	А
3	333	543	1269	0.262	332	0.4	3.842	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	317	1577	0.267	421	0.4	3.114	А
2	781	255	1468	0.532	779	1.1	5.213	А
3	407	665	1201	0.339	407	0.5	4.529	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	422	317	1577	0.267	422	0.4	3.115	А
2	781	255	1468	0.532	781	1.1	5.237	А
3	407	666	1200	0.339	407	0.5	4.540	A

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	344	259	1614	0.213	345	0.3	2.839	А
2	637	209	1495	0.426	639	0.7	4.211	А
3	333	545	1268	0.262	333	0.4	3.853	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	288	217	1640	0.176	289	0.2	2.663	A
2	534	175	1515	0.352	535	0.5	3.677	А
3	279	456	1318	0.211	279	0.3	3.467	A



# 2024 without, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.39	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	711	100.000
2		✓	491	100.000
3		✓	395	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
		1	2	3		
From	1	0	292	419		
	2	366	39	86		
	3	110	284	1		

## **Vehicle Mix**

	То				
		1	2	3	
From	1	0	0	1	
	2	4	5	3	
	3	2	2	0	



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max RFC Max Delay (s) Max Q (Ve		Max LOS	
1	0.50	4.52	1.0	A	
2	0.41	4.60	0.7	A	
3	0.32	3.92	0.5	А	

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	535	243	1651	0.324	533	0.5	3.215	А
2	370	315	1407	0.263	368	0.4	3.460	A
3	297	304	1437	0.207	296	0.3	3.152	А

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	639	291	1621	0.394	638	0.6	3.662	А
2	441	377	1372	0.322	441	0.5	3.865	А
3	355	364	1402	0.253	355	0.3	3.438	A

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	783	356	1580	0.495	782	1.0	4.500	А
2	541	462	1324	0.408	540	0.7	4.584	А
3	435	445	1354	0.321	434	0.5	3.914	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	783	357	1580	0.495	783	1.0	4.516	А
2	541	462	1324	0.408	541	0.7	4.596	A
3	435	446	1353	0.321	435	0.5	3.919	A

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	639	292	1621	0.394	640	0.7	3.677	А
2	441	378	1371	0.322	442	0.5	3.879	А
3	355	365	1401	0.253	356	0.3	3.444	А

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	535	244	1650	0.324	536	0.5	3.234	А
2	370	317	1406	0.263	370	0.4	3.477	А
3	297	305	1436	0.207	298	0.3	3.164	A



# 2034 with, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	8.30	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)		
1		~	212	100.000		
2		✓	1012	100.000		
3		✓	645	100.000		

### **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
		1	2	3		
-	1	0	104	108		
From	2	704	107	201		
	3	152	493	0		

## Vehicle Mix

		Т	o	
		1	2	3
-	1	0	0	1
From	2	3	0	0
	3	2	5	0



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max RFC Max Delay (s)		Max LOS	
1	0.17 3.13		0.2	A	
2	0.72	8.34	2.5	A	
3	0.66	9.89	1.9	A	

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	160	449	1518	0.105	159	0.1	2.648	А
2	762	81	1567	0.486	758	0.9	4.430	А
3	486	608	1236	0.393	483	0.6	4.768	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	538	1462	0.130	190	0.1	2.831	А
2	910	97	1558	0.584	908	1.4	5.522	А
3	580	728	1167	0.497	579	1.0	6.100	А

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	657	1386	0.168	233	0.2	3.122	А
2	1114	119	1545	0.721	1110	2.5	8.179	А
3	710	889	1076	0.660	707	1.9	9.657	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	End queue (Veh) Delay (s)	
1	233	660	1384	0.169	233	0.2	3.127	А
2	1114	119	1545	0.721	1114	2.5	8.338	A
3	710	893	1074	0.661	710	1.9	9.889	А

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	543	1459	0.131	191	0.2	2.838	А
2	910	97	1558	0.584	914	1.4	5.633	А
3	580	733	1165	0.498	584	1.0	6.235	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	160	453	1516	0.105	160	0.1	2.653	А
2	762	81	1567	0.486	764	1.0	4.493	А
3	486	612	1233	0.394	487	0.7	4.836	A



# 2034 with, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	6.30	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	578	100.000
2		✓	783	100.000
3		✓	662	100.000

### **Origin-Destination Data**

#### Demand (Veh/hr)

		٦	Го		
		1	2	3	
-	1	1 0 307 2			
From	2	555	99	129	
	3	147	515	0	

## Vehicle Mix

		Т	o	
		1	2	3
-	1	0	0	1
From	2	3	2	0
	3	1	2	0



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.46	4.82	0.8	A
2	0.60	6.25	1.5	A
3	0.61	7.64	1.5	A

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	435	460	1518	0.287	434	0.4	3.315	А
2	589	203	1492	0.395	587	0.6	3.964	А
3	498	490	1334	0.374	496	0.6	4.286	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	520	551	1461	0.356	519	0.5	3.818	А
2	704	243	1469	0.479	703	0.9	4.689	А
3	595	587	1277	0.466	594	0.9	5.261	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	636	674	1385	0.460	635	0.8	4.793	А
2	862	298	1438	0.599	860	1.5	6.206	А
3	729	718	1201	0.607	726	1.5	7.544	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	636	676	1384	0.460	636	0.8	4.817	А
2	862	298	1438	0.600	862	1.5	6.252	А
3	729	720	1200	0.608	729	1.5	7.642	А

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	520	554	1459	0.356	521	0.6	3.841	А
2	704	244	1469	0.479	706	0.9	4.734	А
3	595	590	1276	0.467	598	0.9	5.330	А

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	435	463	1516	0.287	436	0.4	3.335	A
2	589	204	1492	0.395	591	0.7	3.998	А
3	498	493	1332	0.374	500	0.6	4.330	A



# 2034 without, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.95	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		✓	698	100.000
2		✓	713	100.000
3		✓	216	100.000

### **Origin-Destination Data**

#### Demand (Veh/hr)

	То							
		1	2	3				
-	1	0	304	394				
From	2	492	38	183				
	3	83	133	0				

## **Vehicle Mix**

	То					
		1	2	3		
-	1	0	1	2		
From	2	3	0	1		
	3	3	7	0		



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.46	4.01	0.9	A
2	0.58	6.28	1.4	A
3	0.19	3.61	0.2	A

#### Main Results for each time segment

#### 07:45 - 08:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	525	128	1704	0.308	524	0.4	3.047	А
2	537	296	1438	0.373	534	0.6	3.972	А
3	163	397	1339	0.121	162	0.1	3.055	A

#### 08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	627	154	1688	0.372	627	0.6	3.392	А
2	641	354	1405	0.456	640	0.8	4.703	А
3	194	476	1295	0.150	194	0.2	3.268	A

#### 08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	769	188	1666	0.461	767	0.8	4.002	А
2	785	433	1358	0.578	783	1.3	6.232	А
3	238	582	1236	0.192	238	0.2	3.607	А

#### 08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	769	188	1665	0.461	769	0.9	4.013	А
2	785	434	1358	0.578	785	1.4	6.280	А
3	238	584	1235	0.193	238	0.2	3.610	А

#### 08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	627	154	1687	0.372	629	0.6	3.402	А
2	641	355	1404	0.457	643	0.8	4.744	А
3	194	478	1294	0.150	194	0.2	3.273	A

#### 09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	525	129	1703	0.309	526	0.4	3.058	A
2	537	297	1438	0.373	538	0.6	4.004	А
3	163	400	1338	0.122	163	0.1	3.065	A



# 2034 without, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
OFF12	untitled	Standard Roundabout		1, 2, 3	4.99	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
1		~	953	100.000
2		✓	479	100.000
3		✓	218	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

		То						
		1	2	3				
-	1	0	431	522				
From	2	325	21	133				
	3	92	126	0				

## Vehicle Mix

		То					
		1	2	3			
_	1	0	0	1			
From	2	3	7	2			
	3	2	2	0			



#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
1	0.62	5.51	1.6	А
2	0.41	4.83	0.7	A
3	0.17	3.12	0.2	A

#### Main Results for each time segment

#### 16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	717	110	1734	0.414	715	0.7	3.522	А
2	361	391	1377	0.262	359	0.4	3.531	А
3	164	259	1464	0.112	164	0.1	2.768	A

#### 17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	857	132	1721	0.498	856	1.0	4.156	А
2	431	469	1333	0.323	430	0.5	3.985	А
3	196	311	1434	0.137	196	0.2	2.906	А

#### 17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1049	162	1702	0.616	1047	1.6	5.474	А
2	527	573	1273	0.414	526	0.7	4.815	А
3	240	380	1394	0.172	240	0.2	3.119	А

#### 17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	1049	162	1702	0.616	1049	1.6	5.514	А
2	527	575	1272	0.414	527	0.7	4.831	А
3	240	381	1393	0.172	240	0.2	3.120	А

#### 17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	857	132	1721	0.498	859	1.0	4.191	А
2	431	471	1332	0.323	432	0.5	4.002	А
3	196	312	1434	0.137	196	0.2	2.908	А

#### 18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	717	111	1734	0.414	719	0.7	3.551	A
2	361	394	1376	0.262	361	0.4	3.547	А
3	164	261	1464	0.112	164	0.1	2.770	A



Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: OFF 13 Junction-Lady Grove\_Sires Hill.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF13 - Junction 33-Lady Grove\_Sires Hill Report generation date: 02/07/2021 09:06:47

»2020, AM »2020, PM »2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

#### Summary of junction performance

			AM					PM		
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
					20	20				
Stream B-C		4.3	164.20	0.94	F		0.1	10.05	0.10	В
Stream B-A	D1	9.6	92.50	0.95	F	D2	0.9	20.13	0.47	С
Stream C-AB		0.3	6.09	0.17	А	1	1.2	10.24	0.48	В
		-			2024	with				
Stream B-C		0.0	7.87	0.00	A		0.0	7.45	0.00	A
Stream B-A	D3	1.0	14.27	0.50	В	D4	0.6	13.02	0.39	В
Stream C-AB		0.0	5.03	0.00	А		0.1	6.19	0.10	А
				2	024 v	vithout				
Stream B-C		0.2	20.48	0.16	С		0.1	9.99	0.05	A
Stream B-A	D5	3.3	41.49	0.79	Е	D6	0.7	21.08	0.43	С
Stream C-AB		0.5	5.41	0.23	А		1.2	7.53	0.40	А
		-			2034	with				
Stream B-C		0.1	18.11	0.11	С		0.0	10.34	0.01	В
Stream B-A	D7	3.6	35.74	0.80	E	D8	1.5	27.16	0.61	D
Stream C-AB		0.0	4.87	0.01	А		1.6	13.00	0.58	В
		-		2	034 v	vithout	-			
Stream B-C		6.2	732.70	1.37	F		2.6	402.73	1.06	F
Stream B-A	D9	49.1	545.05	1.35	F	D10	12.5	230.98	1.07	F
Stream C-AB		3.7	8.92	0.64	А		12.5	35.52	0.88	Е

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



#### File summary

File Description

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

#### Units

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

#### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		48.04	E

#### **Junction Network Options**

Driving side	Lighting	
Left	Normal/unknown	

#### Arms

#### Arms

Arm	Name	Description	Arm type
Α	Sires Hill (W)		Major
в	Lady Grove		Minor
С	Sires Hill (E)		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
С	6.98			247.0	~	0.00

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

#### **Minor Arm Geometry**

Arm	Minor arm	Width at give-	Width at	Width at	Width at	Width at	Estimate flare	Flare length	Visibility to	Visibility to
	type	way (m)	5m (m)	10m (m)	15m (m)	20m (m)	length	(PCU)	left (m)	right (m)
в	One lane plus flare	10.00	5.98	4.16	3.39	3.27	~	1.00	28	15

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	549	0.096	0.242	0.152	0.346
B-C	640	0.094	0.237	-	-
C-B	717	0.266	0.266	-	-

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

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

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

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15



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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	312	100.000
в		✓	447	100.000
С		✓	249	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
		Α	в	С
<b>F</b>	Α	0	231	81
From	в	361	0	86
	С	165	84	0

## **Vehicle Mix**

ļ	HV %s					
		То				
			Α	в	С	
	_	Α	0	1	2	
	From	в	0	0	7	
		С	1	5	0	

## Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.94	164.20	4.3	F
B-A	0.95	92.50	9.6	F
C-AB	0.17	6.09	0.3	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	403	0.161	64	0.2	10.591	В
B-A	272	470	0.578	267	1.3	17.249	С
C-AB	77	703	0.109	76	0.1	5.737	A
C-A	111			111			
A-B	174			174			
A-C	61			61			



#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	77	308	0.251	77	0.3	15.556	С
B-A	325	451	0.719	320	2.3	26.640	D
C-AB	96	708	0.135	95	0.2	5.877	А
C-A	128			128			
A-B	208			208			
A-C	73			73			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	126	0.752	87	2.2	82.378	F
B-A	397	421	0.945	377	7.4	63.890	F
C-AB	124	716	0.173	124	0.3	6.088	А
C-A	150			150			
ΑB	254			254			
A-C	89			89			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	95	101	0.938	86	4.3	164.198	F
B-A	397	417	0.953	388	9.6	92.504	F
C-AB	124	716	0.173	124	0.3	6.089	A
C-A	150			150			
A-B	254			254			
A-C	89			89			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	77	252	0.307	93	0.5	24.691	С
B-A	325	444	0.730	351	3.0	45.300	E
C-AB	96	709	0.135	96	0.2	5.877	А
C-A	128			128			
ΑB	208			208			
A-C	73			73			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	65	388	0.167	66	0.2	11.200	В
B-A	272	470	0.579	278	1.4	19.376	С
C-AB	77	704	0.109	77	0.2	5.747	A
C-A	111			111			
A-B	174			174			
A-C	61			61			



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#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		4.70	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	704	100.000
в		✓	180	100.000
С		✓	415	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
		Α	в	c
From	Α	0	558	146
	в	144	0	36
	С	225	190	0

## **Vehicle Mix**

	То			
		Α	в	С
-	Α	0	1	0
From	в	0	0	8
	С	0	1	0

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.10	10.05	0.1	В
B-A	0.47	20.13	0.9	С
C-AB	0.48	10.24	1.2	В
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	488	0.056	27	0.1	7.799	А
B-A	108	406	0.267	107	0.4	12.003	В
C-AB	190	685	0.277	188	0.5	7.228	А
C-A	122			122			
A-B	420			420			
A-C	110			110			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	32	457	0.071	32	0.1	8.481	А
B-A	129	377	0.343	129	0.5	14.475	В
C-AB	243	684	0.356	242	0.7	8.165	А
C-A	130			130			
ΑB	502			502			
A-C	131			131			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	400	0.099	40	0.1	9.986	А
B-A	159	338	0.470	157	0.9	19.798	С
C-AB	330	683	0.482	328	1.2	10.135	В
C-A	127			127			
A-B	614			614			
A-C	161			161			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	40	398	0.100	40	0.1	10.047	В
B-A	159	337	0.470	158	0.9	20.132	С
C-AB	330	684	0.483	330	1.2	10.243	В
C-A	127			127			
A-B	614			614			
A-C	161			161			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	32	455	0.071	32	0.1	8.529	А
B-A	129	376	0.344	131	0.5	14.750	В
C-AB	244	685	0.356	246	0.7	8.264	А
C-A	129			129			
ΑB	502			502			
A-C	131			131			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	27	487	0.056	27	0.1	7.838	А
B-A	108	405	0.268	109	0.4	12.205	В
C-AB	191	686	0.278	192	0.5	7.308	А
C-A	122			122			
ΑB	420			420			
A-C	110			110			



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#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		6.35	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	198	100.000
в		✓	228	100.000
С		✓	85	100.000

### **Origin-Destination Data**

#### Demand (Veh/hr)

	То						
		Α	в	С			
_	Α	<b>A</b> 0 137		61			
From	в	226	0	2			
	С	84	1	0			

## Vehicle Mix

	То						
		Α	в	С			
_	Α	0	2	0			
From	в	1	0	0			
	С	0	0	0			

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.00	7.87	0.0	A
B-A	0.50	14.27	1.0	В
C-AB	0.00	5.03	0.0	A
C-A				
ΑB				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	542	0.003	1	0.0	6.664	А
B-A	170	515	0.330	168	0.5	10.326	В
C-AB	0.83	716	0.001	0.82	0.0	5.031	А
C-A	63			63			
A-B	103			103			
A-C	46			46			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	512	0.004	2	0.0	7.061	А
B-A	203	509	0.399	203	0.7	11.710	В
C-AB	1	716	0.001	1	0.0	5.031	А
C-A	75			75			
ΑB	123			123			
A-C	55			55			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	461	0.005	2	0.0	7.846	А
B-A	249	501	0.497	248	1.0	14.139	В
C-AB	1	717	0.002	1	0.0	5.030	А
C-A	92			92			
A-B	151			151			
A-C	67			67			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	460	0.005	2	0.0	7.869	A
B-A	249	501	0.497	249	1.0	14.267	В
C-AB	1	717	0.002	1	0.0	5.030	A
C-A	92			92			
A-B	151			151			
A-C	67			67			


#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	510	0.004	2	0.0	7.083	А
B-A	203	509	0.399	204	0.7	11.855	В
C-AB	1	716	0.001	1	0.0	5.033	А
C-A	75			75			
A-B	123			123			
A-C	55			55			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	540	0.003	2	0.0	6.689	А
B-A	170	515	0.330	171	0.5	10.474	В
C-AB	0.83	716	0.001	0.83	0.0	5.031	А
C-A	63			63			
ΑB	103			103			
A-C	46			46			



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#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		3.52	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	412	100.000
в		✓	161	100.000
С		✓	127	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		A	в	С	
	Α	0	297	115	
	в	159	0	2	
	С	73	54	0	

## Vehicle Mix

#### HV %s

	То				
		Α	в	С	
-	Α	0	1	0	
From	в	1	0	0	
	С	0	0	0	

## Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.00	7.45	0.0	A
B-A	0.39	13.02	0.6	В
C-AB	0.10	6.19	0.1	A
C-A				
ΑB				
A-C				

## Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	546	0.003	1	0.0	6.607	A
B-A	120	482	0.249	118	0.3	9.879	А
C-AB	44	670	0.066	44	0.1	5.752	A
C-A	51			51			
A-B	224			224			
A-C	87			87			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	523	0.003	2	0.0	6.905	А
B-A	143	469	0.305	143	0.4	11.017	В
C-AB	54	661	0.082	54	0.1	5.930	А
C-A	60			60			
ΑB	267			267			
A-C	103			103			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	486	0.005	2	0.0	7.445	А
B-A	175	451	0.388	174	0.6	12.952	В
C-AB	68	649	0.105	68	0.1	6.191	А
C-A	72			72			
A-B	327			327			
A-C	127			127			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	485	0.005	2	0.0	7.455	A
B-A	175	451	0.388	175	0.6	13.024	В
C-AB	68	649	0.105	68	0.1	6.192	A
C-A	72			72			
A-B	327			327			
A-C	127			127			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	522	0.003	2	0.0	6.918	А
B-A	143	469	0.305	144	0.4	11.099	В
C-AB	54	661	0.082	54	0.1	5.936	А
C-A	60			60			
ΑB	267			267			
A-C	103			103			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	545	0.003	2	0.0	6.621	А
B-A	120	481	0.249	120	0.3	9.980	А
C-AB	44	670	0.066	44	0.1	5.761	A
C-A	51			51			
ΑB	224			224			
A-C	87			87			



## 2024 without, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		11.21	В

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	382	100.000
в		✓	310	100.000
С		✓	467	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
From		Α	в	С
	Α	0	278	104
	в	279	0	31
	С	376	91	0

## Vehicle Mix

#### HV %s

	То			
From		Α	в	С
	Α	0	1	1
	в	0	0	8
	С	1	4	0

## Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.16	20.48	0.2	С
B-A	0.79	41.49	3.3	E
C-AB	0.23	5.41	0.5	A
C-A				
ΑB				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	23	435	0.054	23	0.1	8.741	A
B-A	210	443	0.474	207	0.9	15.016	С
C-AB	106	801	0.132	105	0.2	5.174	A
C-A	246			246			
A-B	209			209			
A-C	78			78			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	28	365	0.076	28	0.1	10.686	В
B-A	251	421	0.595	249	1.4	20.601	С
C-AB	139	825	0.169	139	0.3	5.255	А
C-A	281			281			
ΑB	250			250			
A-C	93			93			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	34	224	0.152	34	0.2	18.847	С
B-A	307	391	0.786	300	3.1	37.147	E
C-AB	194	860	0.225	193	0.5	5.409	А
C-A	320			320			
A-B	306			306			
A-C	115			115			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	34	210	0.163	34	0.2	20.477	С
B-A	307	391	0.786	306	3.3	41.487	E
C-AB	194	861	0.226	194	0.5	5.413	A
C-A	320			320			
A-B	306			306			
A-C	115			115			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	28	350	0.080	28	0.1	11.192	В
B-A	251	421	0.596	258	1.6	22.947	С
C-AB	139	826	0.169	140	0.3	5.255	А
C-A	280			280			
ΑB	250			250			
A-C	93			93			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	23	428	0.054	23	0.1	8.895	А
B-A	210	443	0.475	213	0.9	15.810	С
C-AB	106	801	0.133	107	0.2	5.189	А
C-A	245			245			
ΑB	209			209			
A-C	78			78			



## 2024 without, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		3.03	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	853	100.000
в		✓	136	100.000
С		✓	544	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
		Α	в	С
-	Α	0	621	232
From	в	118	0	18
	С	417	127	0

## Vehicle Mix

HV %s

	То			
		Α	в	С
-	Α	0	0	0
From	в	1	0	9
	С	0	0	0

## Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.05	9.99	0.1	А
B-A	0.43	21.08	0.7	С
C-AB	0.40	7.53	1.2	A
C-A				
ΑB				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	467	0.029	13	0.0	7.930	А
B-A	89	379	0.234	88	0.3	12.303	В
C-AB	162	765	0.212	161	0.4	5.953	А
C-A	247			247			
A-B	468			468			
A-C	175			175			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	16	437	0.037	16	0.0	8.561	А
B-A	106	346	0.306	106	0.4	14.930	В
C-AB	220	782	0.282	220	0.6	6.417	А
C-A	269			269			
ΑB	558			558			
A-C	209			209			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	382	0.052	20	0.1	9.943	А
B-A	130	301	0.432	129	0.7	20.754	С
C-AB	326	808	0.404	324	1.2	7.466	А
C-A	273			273			
A-B	684			684			
A-C	255			255			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	20	380	0.052	20	0.1	9.988	A
B-A	130	300	0.432	130	0.7	21.078	С
C-AB	327	809	0.404	327	1.2	7.528	A
C-A	272			272			
A-B	684			684			
A-C	255			255			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	16	435	0.037	16	0.0	8.595	А
B-A	106	345	0.307	107	0.5	15.186	С
C-AB	222	783	0.283	224	0.7	6.482	А
C-A	267			267			
ΑB	558			558			
A-C	209			209			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	466	0.029	14	0.0	7.955	А
B-A	89	378	0.235	89	0.3	12.482	В
C-AB	163	766	0.213	164	0.4	6.003	A
C-A	246			246			
ΑB	468			468			
A-C	175			175			



## 2034 with, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		16.98	С

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	230	100.000
в		✓	370	100.000
С		✓	159	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

		То				
		Α	в	С		
-	Α	0	145	85		
From	в	347	0	23		
	С	154	5	0		

## Vehicle Mix

HV %s

		То			
		Α	в	С	
-	Α	0	1	0	
From	в	1	0	0	
	С	0	0	0	

## Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.11	18.11	0.1	С
B-A	0.80	35.74	3.6	E
C-AB	0.01	4.87	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	458	0.038	17	0.0	8.172	А
B-A	261	501	0.521	257	1.1	14.513	В
C-AB	4	743	0.006	4	0.0	4.871	А
C-A	115			115			
A-B	109			109			
A-C	64			64			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	379	0.055	21	0.1	10.032	В
B-A	312	492	0.634	310	1.6	19.449	С
C-AB	6	749	0.007	6	0.0	4.840	А
C-A	137			137			
A-B	130			130			
A-C	76			76			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	238	0.106	25	0.1	16.899	С
B-A	382	480	0.797	375	3.4	32.428	D
C-AB	7	758	0.009	7	0.0	4.796	А
C-A	168			168			
A-B	160			160			
A-C	94			94			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	224	0.113	25	0.1	18.111	С
B-A	382	480	0.797	381	3.6	35.737	E
C-AB	7	758	0.009	7	0.0	4.796	A
C-A	168			168			
ΑB	160			160			
A-C	94			94			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	364	0.057	21	0.1	10.487	В
B-A	312	492	0.634	319	1.8	21.551	С
C-AB	6	749	0.007	6	0.0	4.840	A
C-A	137			137			
ΑB	130			130			
A-C	76			76			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	449	0.039	17	0.0	8.332	А
B-A	261	501	0.521	264	1.1	15.362	С
C-AB	4	743	0.006	4	0.0	4.871	А
C-A	115			115			
ΑB	109			109			
A-C	64			64			



# 2034 with, PM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		7.82	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	610	100.000
в		✓	192	100.000
С		✓	412	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

		То					
From		Α	в	С			
	Α	0	506	104			
	в	190	0	2			
	С	157	255	0			

## Vehicle Mix

#### HV %s

		То					
		Α	в	С			
_	Α	0	0	0			
From	в	1	0	0			
	С	0	0	0			

## Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.01	10.34	0.0	В
B-A	0.61	27.16	1.5	D
C-AB	0.58	13.00	1.6	В
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	505	0.003	1	0.0	7.143	А
B-A	143	407	0.351	141	0.5	13.421	В
C-AB	233	674	0.345	230	0.6	8.084	А
C-A	77			77			
A-B	381			381			
A-C	78			78			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	456	0.004	2	0.0	7.918	А
B-A	171	379	0.450	170	0.8	17.082	С
C-AB	291	668	0.436	290	0.9	9.526	А
C-A	79			79			
ΑB	455			455			
A-C	93			93			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	357	0.006	2	0.0	10.158	В
B-A	209	342	0.612	206	1.5	26.085	D
C-AB	382	660	0.578	379	1.6	12.756	В
C-A	72			72			
A-B	557			557			
A-C	115			115			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	350	0.006	2	0.0	10.337	В
B-A	209	341	0.614	209	1.5	27.160	D
C-AB	382	661	0.579	382	1.6	13.001	В
C-A	71			71			
A-B	557			557			
A-C	115			115			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	451	0.004	2	0.0	8.012	А
B-A	171	378	0.452	174	0.9	17.806	С
C-AB	292	669	0.437	295	0.9	9.725	А
C-A	78			78			
ΑB	455			455			
A-C	93			93			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	502	0.003	2	0.0	7.191	А
B-A	143	406	0.352	144	0.6	13.815	В
C-AB	233	675	0.346	235	0.6	8.218	А
C-A	77			77			
ΑB	381			381			
A-C	78			78			



## 2034 without, AM

#### **Data Errors and Warnings**

No errors or warnings

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		99.09	F

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	690	100.000
в		✓	339	100.000
С		✓	961	100.000

## **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		A	в	С	
-	Α	0	523	167	
From	в	306	0	33	
	С	819	142	0	

## Vehicle Mix

HV %s

	То				
		Α	в	С	
-	Α	0	1	0	
From	в	1	0	5	
	С	0	3	0	

## Appendix E – Didcot Microsimulation Base Model Development Report (September 2018)

Didcot Microsimulation Model Reference number GB01T17C68

DIDCOT MICROSIMULATION BASE MODEL DEVELOPMENT REPORT





## **DIDCOT MICROSMULATION MODEL**

## BASE MODEL SPECIFICATION REPORT

IDENTIFICATION TABLE					
Client/Project owner	South Oxfordshire District Council/Vale of White Horse District Council				
Project	Didcot Microsimulation Model				
Type of document	Base Model Development Report				
Date	26/9/2018				
File name	Didcot_Model_Development_Report.docx				
Reference number	GB01T17C68				
Number of pages	45				

## APPROVAL

Versio n	Name		Position	Date	Modifications
	Author	Daniel Ruscoe	Senior Transportati on Engineer	12/3/2018	
1	Checked by	Chris Shaw	Associate	14/3/2018	
	Approve d by	Chris Shaw	Associate	14/3/2018	
	Author	Daniel Ruscoe	Senior Transportati on Engineer	22/3/2018	
2	Edits by	Chris Shaw	Associate	26/9/2018	New Statistics, updates to calibration/validati on, updates for client comments
	Approve d by	Chris Shaw	Associate	26/9/2018	



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## A. EXECUTIVE SUMMARY

SYSTRA have developed a Traffic Microsimulation model of the Didcot area on behalf of Oxfordshire County Council, South Oxfordshire District Council and Vale of White Horse District Council, to assist in examining planning and infrastructure proposals for the area. The model reflects the state of the road network, and traffic flows/conditions, in 2017.

The geographical coverage of the model is shown in Figure A.1.



Figure A.1 : Study Area

The model has been developed in the Paramics Discovery Software. Paramics Discovery is an industry standard traffic microsimulation product. Microsimulation reflects individual vehicles, and their interactions with each other and the road network, and thus provides an increased level of detail when compared to traditional assignment modelling packages such as SATURN, which is used for the Oxfordshire Strategic Model (OSM). In Paramics Discovery, individual vehicles choose routes from their origin to destination based on their perception of the best route available, and considering traffic congestion within the study area as they would in reality.

The model has been coded using Ordnance Survey mapping to ensure that the road layout is as accurate as possible. Lane markings at junctions have been coded to reflect those on street, and where traffic signals are present these have been coded to reflect the realworld signal timings. Bus services within the study area have been included with stopping patterns and timetables as current in 2017.





As an example of the network coding, Figure A.2 below shows the Milton Interchange, as coded in the model.

Figure A.2 : Milton Interchange, as coded

The model reflects the following time periods, for a normal, neutral month:

- AM 07:00-10:00
- O Inter Peak 10:00-16:00
- O PM 16:00 19:00
- Saturday 10:00-14:00

Traffic demands for each period of the model have been developed using an extensive set of traffic count data collected late in 2016 and in 2017. This included detailed turning count surveys at the significant junctions within the study area. The traffic demands were informed by data from OSM to ensure that the traffic patterns within the study area were as consistent as possible with those in the strategic model. The build-up and dissipation of traffic within each time period has been reflected through the inclusion of a series of demand release profiles for the key movements into, within, and out of the study area.



The model provides a fixed trip matrix assessment - the input demand matrix, in this case for the base model, does not change in response to network conditions. Whilst the model reflects bus services, no public transport demand, or changes in this in response to network changes, increased demand etc., are considered. In future year scenarios, should the network become congested, all of the assigned demand will attempt to travel; no reduction in demand in response to congestion occurs.

The model has been calibrated to ensure that the traffic behaviour, and thus conditions, across the model reflect those observed in reality as closely as possible. Particular areas/issues which were focussed upon in detail were:

- Milton Park/Milton Interchange congestion
- Culham Crossing congestion
- Clifton Hampden Signals congestion
- A4130/Frank Williams Drive area congestion

The client project team have reviewed the network conditions in detail and are satisfied that the model reflects the general traffic conditions in the area well. It should be noted that the model aims to reflect general traffic conditions, and thus does not reflect very localised/random impacts on traffic conditions caused by issues such as delivery vehicles blocking lanes or accidents.

Comparisons of the modelled and observed turning counts have been undertaken in line with published guidance for model development. DfT's WebTAG guidance provides acceptable thresholds for the comparison of modelled and observed turning movements in the context of calibrating and validating traffic flows within a model. The guidance uses the GEH statistic, which provides a measure to identify satisfactory comparisons, accounting for the fact that large percentage differences can be tolerated on low flows.

The WebTAG guidance states that to ensure the modelled flows match those observed satisfactorily, in excess of 85% of the comparisons made at an hourly level should have a GEH value of less than 5. The model easily achieves this threshold for all modelled hours.

Observed journey time data was also made available for the purposes of model validation. A series of journey time surveys were carried out alongside the turn count surveys. Additionally, GPS journey time data from DfTs Trafficmaster dataset was also made available for the study area. WebTAG guidance suggest that modelled journey times should be within the greater of 60 seconds or 15% of the observed for more than 85% of comparisons made. The model achieves this threshold for each modelled hour, for comparisons made over both directions for 9 keys routes through the study area, and so provides a robust reflection of observed journey times.

Based on the results of the turn count and journey time comparisons, and the sign off of the modelled traffic conditions by the client team, the model can be considered as a robust platform for future work streams examining various development and infrastructure scenarios as part of the client team's planning programme.



## **INTRODUCTION**

#### 1.1 Overview

South Oxfordshire District Council (SODC) and Vale of White Horse District Council (VoWHDC), through the Five Councils Partnership, issued a Study Brief in February 2017 with the following key requirement:

 Development of a Paramics Discovery Microsimulation base model of the Didcot area, and future year scenario models reflecting the Council's future land allocations

This is split into two distinct phases:

- Phase 1: Base Year Model Development
- Phase 2: Future Year Model development and scenario testing

The study is jointly funded and managed by Oxfordshire County Council (OCC) as local highway authority, and SODC and VoWHDC as local planning authorities.

#### 1.2 Methodology

The Didcot Microsimulation model was developed to include both the strategic routes through the town and the main conurbations within the Didcot area.

The inception period in agreement with OCC, SODC and VoWHDC, set the scene for the project and led into the data collation and checking tasks. These tasks were key to developing a robust simulation of the study area network.

Following receipt of the traffic data from OCC, the data collation period was finalised and the network development tasks undertaken using relevant digital overlay information supplied by SODC & VoWHDC. The demand trip matrices were then developed using OSM (Oxfordshire Strategic Model) trip patterns.

The key tasks involved in the development of the base model are detailed within this local model development report.

#### **1.3** Purpose of Report

SYSTRA LTD (SYSTRA) was commissioned by SODC & VoWHDC in April 2017 to undertake the model development and testing. Confirmation of the extended model scope was received in June 2017.

Phase 1 of the study involves the development, calibration and validation of a Paramics Discovery 2016 Base Microsimulation model covering Didcot Town Centre and surrounding areas. Phase 2 of the study involves the future year development and application of the base model to test policy and infrastructure throughout Didcot and the surrounding areas.

This Report details Phase 1 of the study.

Didcot Microsimulation Model



## 2. DATA

### 2.1 Study Area

Originally, the brief detailed the coverage of the model to be Didcot town centre, but during the inception period it was agreed that the area be expanded to better future proof the model and ensure that the model can be used to support future applications.

The study area is shown in Figure 2.1 below.



Figure 2.1 : Study Area

The model area extends from the A417 East of East Hendred in the west, through to A4130 Hadden Hill in the East. The network includes the A34 (Chilton Through to Milton Interchange), and up to A4074 Golden Balls Roundabout in the North.

### 2.2 Traffic Surveys

A series of traffic surveys were undertaken in November/December 2016, covering the original model area. These included:

- 44 MCC Junction Turn Count
- 12 Queue Length
- 4 Journey Time Routes
- Oxfordshire County Council (OCC) ATC sites



#### • 30 'Local' ATC sites

A further series of surveys were undertaken in July 2017 to provide data for the extended study area. These include:

- 22 MCC Junction Turn Count (10 Weekday only)
- 4 Queue Length (Weekday Only)
- 5 ATC sites
- 5 journey time routes

In addition, data was provided for the Highways England ATC counters along the A34 mainline within the study area.

During the July 2017 Surveys an incident occurred in the PM peak near Clifton Hampden which caused the A415 Abingdon Road to be closed for a short period of time. After analysing the survey video and consultation with the client group, supplementary information was supplied for 9 junctions north of Didcot.

In addition to these survey locations, a further 3 MCC Junction Turn Count (Weekday Only) surveys were supplied at Sutton Courtney/Culham.

All surveys have been undertaken by video – and SYSTRA received the majority for analysis. In-car Journey time video footage was not available, apart from the re-surveys.

All survey data was collated and checked in advance of use in the development of the model.

#### 2.3 Signalised Junctions

Timing information has been provided by OCC for most signalised locations. The supplied signal timing information was coded into the model by using the above timing information where possible, and the survey videos were used to infill any missing information.

Subsequently OCC provided a LINSIG model of the Culham Bridge area. Timings were extracted from this LINSIG model and used as a starting point in the Didcot Microsimulation Model.

#### 2.4 OSM Strategic Model Information

The development of the Paramics base and future year demand matrices relies heavily on output for the study area from the wide area OSM (Oxfordshire Strategic Model). This determined the 'core' trip patterns and create a 'prior matrix' to be used as a starting point for the Paramics model.

#### 2.5 Car Parks

Car Park usage information and has been supplied by SODC and VoWHDC and was used in the following locations:



- Edinburgh Drive
- High street (former industrial site)
- Broadway East
- Broadway West

This data was from 2014 and was the most up to date information available at time of model development.



## **3. NETWORK DEVELOPMENT**

The Didcot Microsimulation model has been developed in Paramics Discovery V19.

Digitised OS mapping information detailing the road network layout was supplied by SODC and VoWHDC for use in the study. The base network configuration was defined using this information, supported by a site visit undertaken by SYSTRA during Autumn 2017 and images from Google Street View etc.

### 3.1 Modelled Periods

The Base model was developed to represent average or "typical" weekday and Saturday traffic conditions. Distinct time periods were coded within the model to ensure that the key travel patterns and network features (signal timings, bus dwell times, etc.) are robustly reflected in the model. The modelled time periods are as follows:

Weekday:

- AM Peak 0700-1000
- Inter Peak 1000-1600
- PM Peak 1600-1900

Saturday:

• Peak – 1000-1400

#### **3.2** Model Parameters

The network coding and adoption of various model parameters follows best practice in line with SYSTRA's *Microsimulation Consultancy Good Practice Guide*. This includes adopting standard coding practices in terms of visibility and gap acceptance.

#### 3.2.1 Visibility

A review of all junction approach visibilities was undertaken using Google Street view in the first instance. Where visibility was deemed to be "good", a 30m visibility length was set for the approach link (or the approach link length used, if this is shorter). If review of the junction shows poor visibility (such as many minor residential arms where, for example, parking occurs on either side of the junction on the mainline), the default visibility of 0m was coded.

#### 3.2.2 Gap Acceptance

At each junction and roundabout in the model, gap acceptance was assessed for links which vehicles must 'look through' to the next link to judge suitable gaps in opposing traffic. Common locations for this requirement are on roundabouts which have short splitter islands or junctions with a short right turn lane flare (vehicles in the side arm would benefit from "looking through" the short flare link). Default 'look through' settings will remain at all other junctions.



Gap acceptance can also be adjusted by changing the default 'gap acceptance modifiers' which set the 'size' of a buffer zone vehicles must allow for when giving way to opposing traffic. The unit for this parameter is seconds and the default settings by movement type are:

- Lane Merge = 4s (e.g. left turn into the same lane as oncoming traffic in the same direction as turning to)
- Lane Cross = 4s (e.g. left turn into different lane from oncoming traffic in the same direction as turning to)
- Path Cross = 3s (e.g. right turn across opposing traffic in the opposite direction as turning to)

Some turning movements will involve multiple movement types. For example a right turn from a side arm at a one lane T-junction involves a path cross and a lane merge.

Locations in which these parameters have been changed to reflect localised behaviour are shown in Table 3.1 below

Location	Road Name	Direction	Link	Lane Merge	Lane Cross	Path Cross
Mendip Heights Roundabout - B4493	B4493	W/B	517:523	0	0	3
Abingdon Road/Hadden Hill Roundabout	Abingdon Road	S/B	397:400	0	0	3
Abingdon Road/Hadden Hill Roundabout	Abingdon Road	E/B	395:399	0	0	3
Park Drive/Milton Park Innovation Centre Roundabout	Innovation Centre	N/B	891:893	0	0	3
Park Drive/Western Avenue Roundabout	Milton Park	N/B	900:903	0	0	3
Park Drive/High Street Junction	High Street	S/B	909:874	0	0	0
Park Drive/Western Avenue Roundabout	Park Drive	W/B	872:902	0	0	3
Park Drive/Jubilee Avenue	Jubilee Avenue	N/B	2396:871	0	0	3
Milton Road/A4130/Basil Hill Road Roundabout	A4130	N/B	528:534	0	0	3
A4074/Oxford Road/A415 Roundabout	A415	E/B	1937:1968	1	1	3
A4074/Oxford Road/A415 Roundabout	Oxford Road	N/B	1941:1967	1	1	3
A4074/B4015/Oxford Road Rondabout	A4074	N/B	2263:2279	1	1	3
A4074/B4015/Oxford Road Rondabout	Oxford Road	E/B	2277:2280	0	0	3
Broadway/Hitchcock Way Roundabout	Broadway	E/B	147:391	1	1	3
B4016/Sires Hill/Lady Grove Junction	B4016	E/B	1777:515	2	2	3
Sires Hill Junction	Sires Hill (S)	N/B	1791:1790	2	2	1
Broadway/Hitchcock Way Roundabout	Hichtcock Way	S/B	141:392	3	3	3
Abingdon Road/Newbury Road Roundabout	Newbury Road	N/B	1605:1613	3	3	3
Park Drive/High Street Junction	Park Drive	W/B	906:874	3.5	3.5	2.5
Mendip Heights Roundabout - B4493	A4130	E/B	521:525	1	1	3
Milton Road/A4130/Basil Hill Road Roundabout	Milton Road	E/B	530:535	1	1	3
Culham Science Centre	Exit	S/B	2079:2009	2	2	1
Broadway/Hitchcock Way Roundabout	Broadway	W/B	218:254	2	2	3
B4016/Sires Hill/Lady Grove Junction	Lady Grove	N/B	514:515	5	5	4

#### Table 3.1 : Gap Acceptance Modifiers



#### 3.2.3 Link Characteristics

Links in Paramics Discovery are coded as either Highway or Urban. Highway links have been adopted on the A34 to enable mainline sections to achieve correct lane usage and an appropriate distribution of speeds. In addition to the A34, some rural single track roads were coded as highway to better reflect the distribution of speeds. All other links in the model are coded as Urban.

Major and Minor links are used in Paramics to influence vehicle route choice. All strategic links in the study area (A and B roads and main thoroughfares) were coded as Major links. All other roads (such as side roads or residential roads within towns) have been coded as Minor. The Major and Minor links are shown in Figure 3.1 below.



Figure 3.1 : Major/Minor Hierarchy

The signposted speed limits were used in all areas of the model and obtained by reviewing the journey time route video footage (if available) and Google Streetview. Exceptions are as follows, based on observations of driver behaviour:

- Culham crossing was reduced to 20mph over bridge and 15mph at narrow sections.
- B4016 Church Street corner (number 26) was reduced to 5mph due to the sharp narrow corner

Initial journey time calibration results showed that, in general, the modelled journey times were faster than those observed, even on sections of the network with relatively few "obstructions" (parked vehicles, cyclists etc.) which are not reflected in the model directly. To account for this, all category link speeds in the model were reduced by 15% from the



signed limit, to result in a better match between the modelled and observed journey times. Speed distributions in Paramics discovery allow traffic to travel in excess of the speed limit; this reduction simply moves the spread of desired speeds in the model to a mid point closer to the speed limit, based on the initial comparisons of journey times from the model with those observed.

#### 3.2.4 Headway Factors

Headway factors affect the travelling headway of vehicles on a link and by default is set to 1.

The headway factor in the following locations in the Didcot model has been reduced to 0.6 to reflect locations where vehicles merge and diverge, in line with best practice:

- A34 Links 1358:1359, 1445:1446, 1446:1447, 1447:1456, 1466:1467, 1479:1480, 1488:1489 (hazard signposts start)
- A4130/Milton Gate Junction Link 940:947
- Hadden Hill/Abingdon Road Roundabout Links 395:399, 399:400
- Park Drive/Milton Park Innovation Centre Roundabout Links 891:893, 893:894
- Park Drive/Western Avenue Roundabout Links 900:903, 903:904
- Park Drive/High Street Junction Links 906:874, 874:906, 874:915, 874:909, 909:874

Further to the above merging locations, a headway factor of 0.4 was applied to links 876:928 and 928:927, to reflect throughput at the narrow on Park Drive nort of Milton Interchange.

The following location has been reduced to 0.0s to reflect observed throughput:

• Hadden Hill/Abingdon Road Roundabout – Links 397:400, 400:396

The following location has been reduced to 0.2s to reflect observed throughput:

• Mendip Heights Roundabout – Links 517:523, 523:524

The following location has been increased to 1.2s to reflect observed throughput:

• A4130 W/B between Mendip Heights Roundabout and Sir Frank Williams Avenue – Links 525:521, 847:836, 836:837, 2382:800, 521:847, 837:2382

The following locations have been increased to 1.5s:

- Tollgate Road S/B approaching narrow bridge Links 2042:2041, 2040:2042, 2086:2085, 2085:2082, 2041:2086
- Tollgate Road N/B approaching narrow bridge Links 2088:2096, 2096:2097, 2098:2088, 2099:2098, 2100:2099, 2101:2100

The reason that the default headway factor of 1 was increased to 1.5 for these locations was that after viewing video footage driver behaviour was less aggressive and the gap between vehicles on average was observed to be higher than usual.

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The following locations have been increased to 2s:

• A34 – Links 1463:1464, 1464:1465, 1465:1466

The A34 links mentioned above immediately precede a merge link. The headway factor was increased to improve vehicle behaviour at the merge.

The eastbound links between nodes 2018 and 2000 on Abingdon Road approaching the Clifton Hampden signals have been coded with a headway factor of 3 to reflect the slow moving queues occurring at this location in the PM period.

#### 3.2.5 Hazard Signpost distance

All hazard signpost distances have been left as default (750m on highway links, 250m on urban links), except at the following locations. Adjustments have been made at these locations to ensure that traffic begins to get into lane for upcoming network features at an appropriate distance away:

- A34 Carriageway at Milton Interchange
  - Node 2359: 95m
  - Node 2367: 500m
  - Node 1467: 140m
  - Node 928: 160m
  - Node 1466: 400m
  - Node 1479: 400m
  - Node 1474: 1600m
  - Node 3149: 1600m
- A34 Carriageway at Chilton Interchange
  - Node 1736: 400m
  - Node 1742: 420m
  - Node 1360: 1000m
  - Node 1340: 1000m

#### 3.3 Vehicle Types

The following vehicle types are reflected in the model:

- O Car
- Light Goods (LGV)
- Rigid Heavy Goods (OGV1)
- Articulated Heavy Goods (OGV2)
- O Coach


# • Service Buses (fixed route)

Top speed varies by vehicle type and has been altered from defaults specifically for OGV and OGV2 only. The top speeds applied to all vehicle types in the model are as follows:

0	Car	100mph
0	LGV	80mph
0	OGV1	65mph
0	OGV2	65mph
0	Coach	80mph
0	Double deck bus	40mph
0	Sprinter bus	40mph

In addition, appropriate speed limits by vehicle type have been set for categories that have a speed limit over 40mph as follows:

- Urban 50 mph, OGV1 and Above 40mph
- Urban 60 mph, OGV1 and Above 50mph
- A34 Highway LGV, Coach & Bus 60mph, OGV 56mph

# 3.4 Public Transport Coding

Buses in Paramics Discovery are coded as a 'fixed route vehicle type' and are not included in the vehicle demand matrix.

Bus stop locations were defined using the online NAPTAN dataset and imported directly to the model.

SYSTRA utilised a tool to convert the Traveline routes and timetables dataset from Transxchange format into a format suitable for direct import into Paramics Discovery. These were then checked against online timetables for consistency.

A total of 19 Weekday services are included in the model:

- O Thames Travel 114, 32A, 94/94A, 96, 98, X2, X32, X34, X39 & X40
- Whites Coaches 91, 92 & 93
- O Blue Bus BB1/BB1A, BB2 and BB4
- Courtney Buses M10

6 Saturday services are included in the model:

O Thames Travel 32A, 98, X2, X32, X39 & X40

SYSTRA utilised bus dwell information supplied by OCC obtained from Real Time Information. Dwell times were supplied for 9 routes, this data was applied to all services



at each stop for both weekday and for Saturday where information was available. Where this was not the case, a default dwell time of 10s was applied.

# 3.5 Signalised Junctions and Pedestrian Crossings

If the signal timing information outlined in Section 2.3 was found not to be fit for purpose, survey videos provided were used to observe a sample of the stage and phase timings at each junction over the course of the day, and average timings derived separately for all peaks based on these observations. Phase intergreens were taken from the signal data provided or from observations of the video footage.

Where pedestrian activity was known to be high, and survey videos available, then the videos were used to derive pedestrian crossing call frequency.

For town centre pedestrian crossings, the pedestrian phase has been coded to be called every 30s, except on Broadway, where the pedestrian phases have been called every 3 minutes, and Foxhall Road (North of Manor Crescent), Hitchcock Way, Broadway (W) and Jubilee Way Roundabout approaches which have been called every 5 minutes.

In rural areas, the pedestrian phase has been coded to be called every 5 minutes on Newbury Road and on the A4130 by Trenchard Avenue, every 3 minutes in East Hagbourne between 0800-0915 and 1500-1600, every 2 minutes in Harwell and every 1 minute 40s in Milton Park.

Where possible, if signalised pedestrian crossings were in range of the survey videos, the number of calls per hour was recorded and used in the model. Where this was not possible, sensible assumptions were made based on location, such as one pedestrian call every five minutes.

# **3.6** Route Choice Parameters

# 3.6.1 Generalised Cost Equation

Paramics Discovery uses a generalised cost equation (GCE) to determine the perceived cost of a route between each origin and destination pair.

For this study, the GCE parameters were taken from the OSM SATURN Model. Time and distance factors were obtained from *Table 4-8, Oxfordshire Strategic Model Highway Assignment Report, Oxfordshire County Council, ATKINS, September 2015* and used to derive the time and distance factors below for use in the model:

0	Car	Time=1	Distance = 0.65
0	LGV	Time=1	Distance = 1.3
0	HGV	Time=1	Distance = 3.14



# 3.6.2 Perturbation

Perturbation varies a vehicle's perception of the lowest cost route through the network. A perturbation value of 5%, in line with good practice, has been applied to all vehicle types.

# 3.6.3 Dynamic Feedback

Dynamic feedback has been enabled in the model, which allows familiar drivers to account for delays in their routeing considerations. A feedback interval of 2 minutes and feedback factor of 0.5 have been adopted in line with best practice.

### 3.6.4 Familiarity

Familiarity affects vehicle route choice decisions. Familiar vehicles do not perceive a difference in cost between major and minor routes, while unfamiliar vehicles perceive minor routes to be twice as expensive as major routes. Familiar vehicles are also able to take account of delays in the model when considering which route to take, through the dynamic feedback feature. The following levels of familiarity were used for the Base model based on typical values used in other model developments of this nature:

- O Car 60% Familiarity
- LGV 60% Familiarity
- OGV1 5% Familiarity
- OGV2 5% Familiarity
- Coach 5% Familiarity

# 3.6.5 Cost Factors

During model calibration, some sections of the model have had cost factors applied to make a route more or less expensive to better reflect local routeing patterns. Where the default of 1 has not been used, the following cost factors have been applied by use of a suitable link category cost factor. These link types/routes are as below:

- Urban 30mph Minor 1.5
- Urban 20mph Minor 1.5
- Featherbed Lane 1.5
- Chilton Road 1.5
- A34 0.9

# 3.6.6 Defined Routes

Defined routes are used in Paramics to remove the impact of perturbation, where alternate routes are available but not observed to be used. A common example of this is at motorway slip roads to stop vehicles leaving the mainline and joining again through interchanges. A significant number of defined routes were coded across the model as required (and visible within the model), for example:



- B4016 Brook St to A415 Abingdon Road north of Culham Bridges to prevent rerouting via Appleford
- A4074 Oxford Rd to Clifton Hampden Staggered Crossroads to prevent rerouting via Golden Balls roundabout.

# 3.7 Miscellaneous

# 3.7.1 Milton Park Congestion

Significant congestion is observed to propagate back from Milton Park onto the Milton Interchange roundabout, resulting on queues on all approaches. This congestion is not generated by the "narrow" from two lanes to one on Park Drive to the North of the roundabout, as may be expected, but rather by vehicle behaviour at the High Street/Park Drive junction. The surveys show significant "let out" behaviour at this location, where main line traffic slows down and lets High Street traffic enter and exit. This behaviour has been confirmed by OCC highway officer site observations.

This behaviour has been reflected in the model using a set of traffic signals which operate during the AM peak only, as a proxy for this behaviour. The signal timings were calibrated to ensure that the levels of queuing observed on the A34 slips and A4130 were as consistent as possible with those observed, in both length and duration.

### 3.7.2 Culham Science Centre Egress

Significant queuing occurs on the A415 eastbound across the Culham Science Centre junction in the PM. To prevent significant queueing back into the site, a set of traffic signals have been added at node 2009 as a proxy for "let out" behaviour at this location. These signals operate between 16:30 and 17:45. This behaviour has been confirmed by OCC highway officer site observations.

# 3.7.3 Clifton Hampden Signals Right Turn Blocking

Significant congestion is observed in the PM on the eastbound approach to the signals at Clifton Hampden. In part, this is understood to be due to the narrow lanes at the signals, which can result in right turners in lane 2 blocking ahead traffic in lane 1. To reflect this, 5% of cars were set to use lane 1 to turn right. This behaviour has been confirmed by OCC highway officer site observations.



# 4. TRIP MATRIX DEVELOPMENT

# 4.1 Background

This section outlines the data sources and methodology employed in the development of the traffic demand matrices for the Didcot Base model.

The trip matrix for all zone to zone movements was developed using a Matrix Estimation (ME) process. This involves developing a prior (starter) matrix, a routeing file and a survey file for each modelled period for use in the Paramics Discovery ME module.

# 4.2 Data Sources

The ME process relied on the following data sources, each of which is discussed in more detail, as follows:

- Turn count and link flow dataset for the study area
- Prior matrices
- Network Routeing Information

# 4.3 Interface with OSM model

Consistency between OSM and the Didcot Paramics model was maintained throughout the Paramics model development process in the following ways:

- Zoning System (the Paramics zoning system was based on a disaggregation of the OSM zoning system, discussed below
- Routeing parameters
- Matrix levels (subject to review of OSM when received)

# 4.4 Zoning System

Zones are used to control the release and destination of vehicles in the network. The network trip matrix is composed of the volume of vehicles travelling from zone to zone.

Zone portals provide additional control over the release and destination of vehicles from zones across multiple access points, effectively producing a sub-zoning system. These have been utilised where relevant to "split" the traffic associated with zones between multiple locations.

The OSM sub area zoning system for the study area was reviewed and cross referenced with 2011 Census Output Areas. A Paramics zoning system was developed by grouping relevant Output Areas within each OSM zone, based on land use, proximity to links for loading onto the network or if an Output Area directly spans a surveyed junction.



"External" zones identified at the cordon points around the study area have been constructed to enable movements to and from areas out with the model to access/egress the network.

OSM zones were split where necessary for example when network 'stubs' that load directly to a surveyed junction are present, or large trip generators that do not have their own zone. This disaggregation of the OSM zones resulted in 124 Paramics Zones in the model, 99 'internal' and 25 'external'.

When it was necessary to have more than one loading point per zone, a total of 225 zone portals were applied to reflect the vehicle loading points onto the network. An example of a location where zone portals were applied is at Milton Park, where 14 access/egress points are adopted to split the Milton Park traffic between the relevant loading points.

# 4.5 Vehicle Type Matrix Levels

Traffic demand is released by vehicle type by assigning demand to different matrix levels. More than one vehicle type can be assigned to a matrix level, with the proportion of the demand for each vehicle type within the matrix then being defined.

Upon review of the OSM and traffic survey data, three matrix levels were defined as follows:

- Car
- O LGV
- OGV1, OGV2 and Coach (referred to from here as HGV)

The vehicle type proportions used in the model were derived from the collated traffic count information:

### **AM Period**

- Matrix Level 1 (100% Car)
- Matrix Level 2 (100% LGV)
- O Matrix Level 3 (OGV1 41.7%, OGV2 46.9%, Coach 11.4%)

# **IP Period**

- Matrix Level 1 (100% Car)
- Matrix Level 2 (100% LGV)
- O Matrix Level 3 (OGV1 47.56%, OGV2 46.96%, Coach 5.48%)

### **PM Period**

- Matrix Level 1 (100% Car)
- Matrix Level 2 (100% LGV)
- O Matrix Level 3 (OGV1 37.4%, OGV2 47.2%, Coach 15.4%)



# **Saturday Period**

- Matrix Level 1 (100% Car)
- Matrix Level 2 (100% LGV)
- O Matrix Level 3 (OGV1 34.7%, OGV2 55.95%, Coach 9.35%)

# 4.6 Prior Matrix Development

# 4.6.1 OSM to Paramics

A peak hour cordon matrix from OSM was extracted for the study area by vehicle matrix level and time period. The OSM Matrices were disaggregated to the local Paramics zone system by use of appropriate proportions supported by mapping and census (car ownership) data.

The matrices were expanded from peak hour to weekday AM (3hr), IP (6hr) PM (3hr) volumes by adopting expansion factors for each peak hour segment as set out in the OSM model development. The peak hour to peak period expansion factors were as follows:

- AM 2.5
- O IP − 6
- PM 2.63

Where surveyed junction turn counts define a zone to zone movement, these were inserted directly into the matrix by vehicle matrix and time period.

There is no Saturday OSM model information available, so the estimated weekday IP matrix was used as a starting point for Matrix Estimation (ME).

# 4.6.2 Refining the Prior Matrix

The link and turn count dataset was used to define origin and destination trip ends for each zone by matrix level and time period, where data coverage allowed. A comparison of surveyed trip ends and prior matrix zone totals was undertaken and if necessary the matrix adjusted accordingly.

# 4.7 Matrix Estimation

Once the prior matrix was developed as far as possible, it was applied to the Paramics model to generate routeing information for each period. The output of this process consists of a set of 'PIJA' files which define the proportion of trips travelling from points A to B that are associated with each link and turn in the model.

The routeing files, survey information (turn count totals by period and matrix level), and prior matrices were applied to the Matrix Estimation (ME) module in Paramics. The main purpose of matrix estimation is to refine estimates of movements which have been synthesised (rather than derived from surveys).

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The ME process is iterative; further refinements to the prior were made and new routeing information collected from the model as relevant. The ME process was deemed complete once satisfactory demand files were achieved for each period, based on consideration of the calibration checks. ME was undertaken for each matrix level in the model.

The resultant matrix totals are shown in table AM, IP, PM and Saturday periods respectively:

Matrix	Vehicle Type	AM Period (07:00- 10:00)	IP Period (10:00- 16:00)	PM Period (16:00- 19:00)	SAT Period (10:00- 14:00)
Matrix 1	Cars	45,603	65,571	50,414	55,965
Matrix 2	LGV	6,121	10,451	4,780	4,362
Matrix 3	HGV	2,136	4,040	993	771
Total	All	53,859	80,062	56,187	61,098

Table 4.1 : Final Matrix Totals (Vehicles)

Checks were undertaken to ensure that the ME process did not change the overall "shape" of the prior matrix. Figure 4.1 to Figure 4.4 show the percentage of trips within each distance segment, for both pre and Post ME, for each period.



Figure 4.1 : AM Period Trip Length Distribution

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Figure 4.2 : IP Period Trip Length Distribution



Figure 4.3 : PM Period Trip Length Distribution

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Figure 4.4 : Saturday Period Trip Length Distribution

The graphs above show a good trip length correlation between pre and post matrix estimation.

# 4.8 Demand Release Profiles

Paramics uses profiles to control the release of traffic onto the network and ensure that the variation in demand throughout each modelled time period is robustly reflected. Profiles can be specified by matrix level for individual zone to zone movements or more generally from one zone to all zones. Each profile specifies the proportion of the total demand for the associated movements to be released in 5 minute intervals.

The observed 15min turn count data and hourly ATC sites were used to develop the model release profiles. Profiles were developed for each modelled period, and assigned to the model based on a level of priority for key junctions throughout the network. Profiles were disaggregated to "lights" and "heavies" to ensure the release of these vehicle types are modelled correctly.

The observed 15min turn count data and a ATC sites were used to develop 145 weekday profiles and 80 Saturday profiles. Due to the low sample size for HGV counts, a 'general' HGV profile was calculated and applied to the HGV matrix.



# 5. MODEL CALIBRATION AND VALIDATION

# 5.1 Introduction

The calibration process involves checking the network description, demand matrices, and model inputs and parameters to ensure the model achieves a satisfactory representation of traffic flows and conditions in the study area.

The calibration and validation of the model uses the guidelines set out within *WebTAG Unit M3.1* and the *Design Manual for Roads and Bridges (DMRB), Vol. 12 Section 2 Part 1.* 

The calibration of the model was undertaken by comparing modelled turn counts to the observed data set. Further to this, queue comparisons were undertaken, however no criteria for queue length comparisons is presented in *WebTAG/DMRB*.

Several journey time routes were coded into the model to reflect the moving observer journey time surveys undertaken. The model records journey times for vehicles completing these routes and this allows an independent data validation between observed and modelled journey times.

WebTAG/DMRB guidelines are summarised in Table 5.1 Below.

### Table 5.1 : WebTAG/DMRB criteria

DMRB Criteria and Measurement	Acceptability Guidelines			
Assigned Hourly Flows				
1. Individual flows within 15% (for flows 700-2700vph)	>85% Cases			
<ol><li>Individual flows within 100vph (for flows &lt; 700vph)</li></ol>	>85% Cases			
3. Individual flows within 400vph (for flows > 2700vph)	>85% Cases			
4. Total screenline flows to be within 5%	All (or nearly all) screenlines			
GEH				
5i. GEH Statistic: Individual flows GEH < 5	>85% Cases			
5ii. GEH Statistic:Total flows GEH < 4	All (or nearly all) screenlines			
Journey Times				
6. Modelled journey times within 15% (or 1 minute, if higher)	>85% Cases			

The GEH statistic is used in the calibration of a model to compare the difference between an observed flow and an assigned flow on a link.

The GEH statistic is used in preference to the absolute or relative flow difference as it can cope with a wide range of flows. Where an absolute difference of 100 vehicles per hour can be important in a flow of say 200 vehicles per hour, it is less significant in a flow of several thousand vehicles per hour.

# 5.2 Turn Count Calibration

The turn count calibration process was carried out in accordance with the criteria specified in WebTAG and DMRB. These guidelines are summarised in Table 5.1.



The GEH statistic is used in the calibration and validation of the model to compare the difference between observed and modelled flows on a link, and is defined as follows:

$$GEH = \sqrt{\frac{(M-C)^2}{(M+C)/2}}$$

Where C = observed traffic flow and M = modelled traffic flow.

The Base Model calibration was undertaken using individual turning flows across the study area, and link counts on the A34 Mainline. The observed versus modelled comparison included between 570 and 633 Weekday and 230 Saturday turn and link count locations for each hour modelled. Table 5.2 shows the summary of GEH comparison by hour, with the percentage of comparisons falling within a GEH of < 7, < 5 and < 3 shown.

Table 5.2 : Criteria 5i - Turn & Link Count Individual Flow Comparison

Period	Time (hh:mm)	Eligible Comparisons	GEH <3 %	GEH <5 %	GEH <7 %
AM	07:00-08:00	632	71%	90%	97%
	08:00-09:00	632	70%	89%	97%
	09:00-10:00	581	75%	90%	96%
IP	10:00-11:00	569	82%	96%	99%
	11:00-12:00	569	85%	96%	99%
	12:00-13:00	569	81%	95%	99%
	13:00-14:00	569	81%	95%	99%
	14:00-15:00	569	79%	93%	98%
	15:00-1600	569	71%	90%	97%
PM	16:00-17:00	633	72%	89%	97%
	17:00-18:00	632	71%	88%	95%
	18:00-19:00	581	72%	90%	98%
SAT	10:00-11:00	230	81%	97%	100%
	11:00-12:00	230	89%	98%	100%
	12:00-13:00	230	88%	97%	99%
	13:00-14:00	230	87%	96%	99%

The Base model results show that in all cases the hourly GEH comparisons meet the criteria for GEH less than 5 in 85% of cases.

Table 5.3 shows the summary of individual flow comparisons by hour, with the percentage of comparisons meeting each specified criteria shown.



Period	Time (hh:mm)	Criteria 1 700<> 2700 vph	Flows within 15%	Criteria 2 <700Vph	Flows within 100vph	Criteria 3 >2700 vph	Flows within 400vph
AM	07:00-08:00	14	79%	617	98%	1	100%
	08:00-09:00	18	78%	613	96%	1	100%
	09:00-10:00	8	88%	573	96%	0	-
IP	10:00-11:00	3	100%	566	100%	0	-
	11:00-12:00	6	100%	563	100%	0	-
	12:00-13:00	6	67%	563	99%	0	-
	13:00-14:00	5	100%	564	99%	0	-
	14:00-15:00	6	100%	563	99%	0	-
	15:00-1600	7	100%	562	98%	0	-
PM	16:00-17:00	13	85%	619	97%	1	100%
	17:00-18:00	15	53%	616	97%	1	100%
	18:00-19:00	8	75%	573	99%	0	-
SAT	10:00-11:00	4	100%	226	99%	0	-
	11:00-12:00	4	100%	226	100%	0	-
	12:00-13:00	4	75%	226	100%	0	-
	13:00-14:00	4	100%	226	100%	0	-

Table 5.3 : Criteria 1, 2 & 3 – Assigned Hourly Flow Band Comparison

The Base model results show that the majority of comparisons are in the less than 700vph category (criteria 2) and fall well within the criteria. It should be noted that with Criteria 1 and 3 the number of comparisons are relatively low compared to the total number of count records, making the comparison harder to achieve.

It should also be borne in mind that the validation guidelines were originally developed for deterministic models, which ensure that a particular solution will always result from a particular set of input data. Microsimulation utilises a different methodology and instead reflects reality where traffic is rarely constant, repeatable and encompasses variability.

With this in mind, the level of calibration achieved and presented within this document for a network the size and scale of Didcot is considered high. To further emphasise the suitability of the results, an XY scatter chart of observed flows versus modelled flows was developed for each modelled period. The XY scatter plot provides a good way of presenting the variation in data in a pictorial format, illustrating the relationship between the observed flows and assigned flows in the model. The correlation coefficient (R) gives some measure of the goodness of model fit, and the slope of the best-fit regression line through the origin indicates the extent to which modelled values are over or under estimated. Acceptability values of R are above 0.95 and the line of best fit should be between 0.9 and 1.1 as stated in DMRB (*Ref. Vol 12, Section 2, Part 1, Chapter 4, §4.4.42*).

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Figure 5.1 : AM Period XY Scatter Plot, Observed v Modelled



Figure 5.2 : IP Period XY Scatter Plot, Observed v Modelled





Figure 5.3 : PM Period XY Scatter Plot, Observed v Modelled



Figure 5.4 : Saturday Period XY Scatter Plot, Observed v Modelled

The XY scatter plot analyses shows all periods to have both an R<sup>2</sup> value and line of best fit value of close to 1.

In an ideal situation, the observed and assigned flows plotted would form a single line and show a positive correlation between each variable, i.e. the line of best fit would be y=x. Given that traffic flows vary on a day to day basis and that the model generally aims to simulate an average day, and the fact that the surveyed data generally reflects a range of days across the study area, this can never realistically be achieved.

The results show that for all modelled periods the line of best fit closely matches the y=x line and is well within the acceptability values of 0.9-1.1. With the exception of a few

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outliers, the results show a close relationship between observed flows and those assigned within the model.

In addition, Checks were undertaken for each modelled hour and the R value (coefficient of determination) was shown to be above 0.95 in all cases as shown in Table 5.4 below.

Period	Time	R Value	
	(hh:mm)		
AM	07:00-08:00	0.986	
	08:00-09:00	0.984	
	09:00-10:00	0.981	
IP	10:00-11:00	0.990	
	11:00-12:00	0.991	
	12:00-13:00	0.987	
	13:00-14:00	0.988	
	14:00-15:00	0.986	
	15:00-1600	0.981	
PM	16:00-17:00	0.984	
	17:00-18:00	0.980	
	18:00-19:00	0.984	
SAT	10:00-11:00	0.995	
	11:00-12:00	0.996	
	12:00-13:00	0.996	
	13:00-14:00	0.994	



# 5.3 Journey Time Validation

A number of journey time routes were coded into the Didcot Base Model to reflect the surveyed routes. This allowed for comparison between modelled and observed journey times to be made to ensure that the model satisfactorily reflected on-street traffic conditions. The DMRB criteria for journey time validation is summarised in Table 5.1. The criteria states that a modelled journey time must be within 15% or within 1 minute of the observed journey time in more than 85% of cases.

Figure 5.5 details the journey time routes used for model validation, as derived from the journey time surveys.

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Figure 5.5 : Journey Time Routes

Comparisons between observed and modelled journey times on each of the 9 routes for each peak period are provided below, along with a discussion on a number of routes that do not meet the TAG criteria. Due to the low number of observed journey time runs peak hour comparisons are not presented.



The comparison between observed and modelled journey times on each route for the AM period (07:00-10:00) is shown in Table 5.5.

Route	Direction	Survey Count	Average Observed Time (mm:ss)	Average Modelled Time (mm:ss)	Diff	% Diff	Within DMRB?
101	E/B	7	14:17	11:47	02:30	17%	×
101	W/B	6	11:52	10:29	01:23	12%	✓
102	E/B	5	14:37	14:35	00:02	0%	$\checkmark$
102	W/B	5	13:56	15:05	01:09	8%	✓
103	N/B	5	14:24	11:52	02:32	18%	×
103	S/B	6	12:22	13:07	00:45	6%	✓
104	N/B	7	11:57	13:54	01:57	16%	×
104	S/B	7	10:22	10:25	00:02	0%	✓
1	N/B	3	13:34	12:49	00:45	6%	$\checkmark$
1	S/B	4	15:24	14:20	01:04	7%	$\checkmark$
2	N/B	2	17:38	24:13	06:35	37%	×
2	S/B	2	17:25	21:02	03:37	21%	×
3	E/B	9	07:47	07:37	00:10	2%	$\checkmark$
3	W/B	7	07:36	08:25	00:50	11%	$\checkmark$
4	N/B	6	12:19	11:04	01:15	10%	$\checkmark$
4	S/B	5	10:40	10:23	00:17	3%	$\checkmark$
5	E/B	3	23:39	15:44	07:55	33%	×
5	W/B	2	21:57	16:17	05:40	26%	×

Table 5.5 : AM Period Average Journey Time Comparison

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The comparisons between observed and modelled journey times on each route for the IP period (10:00-16:00) is shown in Figure 5.6.

Route	Direction	Survey Count	Average Observed Time (mm:ss)	Average Modelled Time (mm:ss)	Diff	% Diff	Within DMRB?
101	E/B	7	11:14	08:58	02:16	20%	×
101	W/B	7	10:39	09:13	01:26	14%	$\checkmark$
102	E/B	6	11:21	09:53	01:29	13%	$\checkmark$
102	W/B	6	10:58	09:01	01:58	18%	×
103	N/B	8	10:33	08:53	01:41	16%	×
103	S/B	7	09:50	09:11	00:39	7%	$\checkmark$
104	N/B	7	10:11	08:22	01:49	18%	×
104	S/B	8	09:47	08:01	01:46	18%	×
1	N/B	7	11:08	09:16	01:51	17%	×
1	S/B	8	10:23	08:53	01:31	15%	✓
2	N/B	4	15:49	15:28	00:20	2%	✓
2	S/B	5	17:16	17:02	00:13	1%	✓
3	E/B	5	07:27	05:57	01:29	20%	×
3	W/B	7	07:17	05:59	01:17	18%	×
4	N/B	8	10:10	07:27	02:44	27%	×
4	S/B	8	09:19	07:11	02:07	23%	×
5	E/B	2	22:14	13:38	08:36	39%	×
5	W/B	2	20:57	13:51	07:06	34%	×

Table 5.6 : IP Period Average Journey Time Comparison
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The comparisons between observed and modelled journey times on each route for the PM period (16:00-19:00) is shown in Table 5.7.

Route	Direction	Survey Count	Average Observed Time (mm:ss)	Average Modelled Time (mm:ss)	Diff	% Diff	Within DMRB?
101	E/B	6	13:33	11:27	02:05	15%	×
101	W/B	6	13:30	12:45	00:45	6%	$\checkmark$
102	E/B	5	16:25	16:58	00:33	3%	$\checkmark$
102	W/B	5	14:13	13:18	00:55	6%	$\checkmark$
103	N/B	5	12:36	11:15	01:22	11%	$\checkmark$
103	S/B	4	18:17	12:08	06:09	34%	×
104	N/B	6	12:54	12:16	00:38	5%	$\checkmark$
104	S/B	7	11:38	10:57	00:42	6%	$\checkmark$
1	N/B	6	12:43	13:02	00:20	3%	$\checkmark$
1	S/B	6	14:10	12:25	01:45	12%	$\checkmark$
2	N/B	4	20:58	22:00	01:02	5%	$\checkmark$
2	S/B	4	20:16	18:40	01:36	8%	$\checkmark$
3	E/B	10	06:50	06:44	00:06	1%	$\checkmark$
3	W/B	10	06:38	06:51	00:13	3%	$\checkmark$
4	N/B	7	11:32	11:08	00:24	3%	$\checkmark$
4	S/B	7	09:35	09:12	00:23	4%	$\checkmark$
5	E/B	3	20:38	15:42	04:56	24%	×
5	W/B	3	23:20	16:05	07:15	31%	×

Table 5.7 : PM Period Average Journey Time Comparison



The comparisons between observed and modelled journey times on each route for the Saturday period (10:00-14:00) is shown in Table 5.8.

	10010 010	· Juturut	y i chida Avei	uge source i	inte con	pulloui	
Route	Direction	Survey Count	Average Observed Time (mm:ss)	Average Modelled Time (mm:ss)	Diff	% Diff	Within DMRB?
101	E/B	8	10:57	10:29	00:27	4%	✓
101	W/B	9	12:34	10:00	02:34	20%	×
102	E/B	9	15:29	10:50	04:39	30%	×
102	W/B	8	11:02	09:42	01:20	12%	$\checkmark$
103	N/B	10	09:57	09:38	00:18	3%	$\checkmark$
103	S/B	10	10:09	09:50	00:20	3%	$\checkmark$
104	N/B	10	09:57	09:19	00:39	6%	$\checkmark$
104	S/B	11	09:53	09:00	00:53	9%	$\checkmark$
1	N/B	8	11:41	10:06	01:35	14%	$\checkmark$
1	S/B	8	11:35	09:53	01:42	15%	$\checkmark$
2	N/B	6	16:55	17:10	00:15	1%	$\checkmark$
2	S/B	7	16:49	17:19	00:29	3%	$\checkmark$
3	E/B	11	07:32	06:38	00:54	12%	$\checkmark$
3	W/B	11	07:47	06:39	01:09	15%	$\checkmark$
4	N/B	13	08:56	08:34	00:22	4%	$\checkmark$
4	S/B	13	08:42	08:25	00:17	3%	$\checkmark$
5	E/B	6	21:26	15:32	05:54	28%	×
5	W/B	5	21:45	15:53	05:53	27%	×

Table 5.8 : Saturday Period Average Journey Time Comparison

Didcot Microsimulation Model



The above tables show that the DMRB criteria is not met in some cases. In general, where there is a robust number of observations (6+) the model matches the observations well. Where a lower number of observations exists, the comparison is poor.

This is not surprising as the modelled data reflects a full sample of journeys through the period and the limited number of observations reflect sporadic sampling. In addition, on-board journey time videos were not available for many surveys, so checking the robustness of the observed data was not possible.

Further to the initial base model reporting, OCC provided further journey time data for the study area from the DfT, in the form of Trafficmaster GPS journey time data from 2016. This data was captured over the whole year, and therefore does not include the same sampling problems as the surveyed journey time dataset. The GPS data also allows the definition of an hourly, rather than periodic, observed journey time dataset. Further moving observer surveys undertaken by OCC in June 2018 were used to "validate" the GPS data where discrepancies were noted between previous observations of traffic conditions provided by the client team, and the conditions implied by the GPS journey times.

Journey times for the surveyed routes were extracted from this data set, and compared to the modelled journey times, at an hourly level. Tables 5.9-5.13 present the hourly comparisons between modelled and observed for each period (as a percentage difference), and indicate whether the DMRB criteria (modelled within 15% of observed) has been achieved for each route, by hour.

Route	Direction	07:00- 08:00	DMRB	08:00-09:00	DMRB	09:00- 10:00	DMRB
101	E/B	-2%	1	4%	1	-1%	1
101	W/B	-9%	1	-2%	1	-3%	1
102	E/B	-14%	1	11%	1	12%	1
102	W/B	1%	1	40%	1	43%	1
103	N/B	-15%	1	-1%	1	4%	1
103	S/B	5%	1	12%	1	10%	1
104	N/B	1%	1	22%	0	7%	1
104	S/B	9%	1	39%	1	39%	1
1	N/B	-14%	1	3%	1	-5%	1
1	S/B	-7%	1	0%	1	6%	1
2	N/B	12%	1	9%	1	-3%	1
2	S/B	1%	1	-2%	1	11%	1
3	E/B	-8%	1	2%	1	-14%	1
3	W/B	-8%	1	12%	1	-13%	1
4	N/B	-21%	0	-13%	1	-10%	1
4	S/B	-18%	0	-16%	0	-12%	1
5	E/B	-2%	1	-3%	1	-4%	1
5	W/B	1%	1	-2%	1	-4%	1
Percentage Pass			89%		89%		100%

# Table 5.9 : AM Period GPS Average Journey Time Comparison



Route	Direction	10:00- 11:00	DMRB	11:00-12:00	DMRB	12:00- 13:00	DMRB
101	E/B	-2%	1	-13%	1	-11%	1
101	W/B	-14%	1	-6%	1	-2%	1
102	E/B	-2%	1	-2%	1	0%	1
102	W/B	-1%	1	-2%	1	-2%	1
103	N/B	-10%	1	-10%	1	-10%	1
103	S/B	-7%	1	-5%	1	-3%	1
104	N/B	-5%	1	-4%	1	-2%	1
104	S/B	-5%	1	-5%	1	-6%	1
1	N/B	-10%	1	-10%	1	-10%	1
1	S/B	-12%	1	-11%	1	-12%	1
2	N/B	0%	1	0%	1	0%	1
2	S/B	2%	1	1%	1	2%	1
3	E/B	-12%	1	-12%	1	-14%	1
3	W/B	-12%	1	-13%	1	-14%	1
4	N/B	-14%	1	-15%	1	-24%	0
4	S/B	-13%	1	-13%	1	-12%	1
5	E/B	-3%	1	-4%	1	-2%	1
5	W/B	-7%	1	-4%	1	-7%	1
Percentage Pass			100%		100%		94%

# Table 5.10 : IP Period GPS Average Journey Time Comparison 1

Table 5.11 : IP Period GPS Average Journey Time Comparison 2

Route	Direction	13:00- 14:00	DMRB	14:00-15:00	DMRB	15:00- 16:00	DMRB
101	E/B	-2%	1	-11%	1	-17%	0
101	W/B	0%	1	-2%	1	-4%	1
102	E/B	-1%	1	-2%	1	-8%	1
102	W/B	-2%	1	1%	1	-4%	1
103	N/B	-7%	1	-7%	1	-9%	1
103	S/B	-4%	1	-4%	1	-6%	1
104	N/B	-3%	1	-4%	1	-3%	1
104	S/B	-4%	1	-4%	1	-5%	1
1	N/B	-10%	1	-11%	1	-15%	1
1	S/B	-11%	1	-14%	1	-18%	0
2	N/B	1%	1	-1%	1	-6%	1
2	S/B	1%	1	3%	1	10%	1
3	E/B	-13%	1	-15%	1	-15%	1
3	W/B	-12%	1	-11%	1	-12%	1
4	N/B	-18%	0	-15%	1	-16%	0
4	S/B	-8%	1	-12%	1	-10%	1
5	E/B	-4%	1	-3%	1	-4%	1
5	W/B	-1%	1	-4%	1	-2%	1
Percentage Pass			94%		100%		83%



Route	Direction	16:00- 17:00	DMRB	17:00-18:00	DMRB	18:00- 19:00	DMRB
101	E/B	-2%	1	4%	1	0%	1
101	W/B	0%	1	8%	1	7%	1
102	E/B	12%	1	25%	1	10%	1
102	W/B	1%	1	10%	1	-3%	1
103	N/B	-10%	1	-10%	1	-5%	1
103	S/B	1%	1	-11%	1	-4%	1
104	N/B	5%	1	12%	1	3%	1
104	S/B	14%	1	20%	1	3%	1
1	N/B	-6%	1	15%	1	-11%	1
1	S/B	-2%	1	-10%	1	-4%	1
2	N/B	4%	1	5%	1	1%	1
2	S/B	-7%	1	0%	1	-3%	1
3	E/B	-12%	1	-22%	0	-16%	0
3	W/B	-11%	1	-13%	1	-14%	1
4	N/B	-9%	1	2%	1	-15%	0
4	S/B	-6%	1	2%	1	-3%	1
5	E/B	-1%	1	0%	1	0%	1
5	W/B	-3%	1	-1%	1	-2%	1
Percentage Pass			100%		94%		89%

### Table 5.12 : PM Period GPS Average Journey Time Comparison

Table 5.13 : SAT Period GPS Average Journey Time Comparison

Route	Direction	10:00- 11:00	DMRB	11:00-12:00	DMRB	12:00- 13:00	DMRB	13:00- 14:00	DMRB
101	E/B	-2%	1	-26%	0	-19%	0	-7%	1
101	W/B	-11%	1	-14%	1	-9%	1	-5%	1
102	E/B	-15%	1	-22%	0	-20%	0	-15%	1
102	W/B	-10%	1	-11%	1	-9%	1	-5%	1
103	N/B	-8%	1	0%	1	-3%	1	-2%	1
103	S/B	-8%	1	1%	1	1%	1	5%	1
104	N/B	-3%	1	-4%	1	-1%	1	0%	1
104	S/B	-7%	1	-4%	1	-4%	1	-1%	1
1	N/B	-10%	1	-11%	1	-13%	1	-11%	1
1	S/B	-11%	1	-10%	1	-14%	1	-11%	1
2	N/B	2%	1	3%	1	3%	1	2%	1
2	S/B	2%	1	-1%	1	-4%	1	0%	1
3	E/B	-13%	1	-14%	1	-14%	1	-10%	1
3	W/B	-9%	1	-11%	1	-9%	1	-9%	1
4	N/B	-11%	1	-13%	1	-9%	1	-8%	1
4	S/B	-6%	1	-7%	1	-9%	1	-7%	1
5	E/B	0%	1	0%	1	1%	1	2%	1
5	W/B	0%	1	-1%	1	0%	1	3%	1
Percentage Pass			100%		89%		89%		100%

All hours, with the exception of 15:00-16:00, achieve the required threshold of >85% of routes meeting the criteria. The three routes failing to meet the threshold in this hour only just exceed the 15% difference allowed.



Upon examining the GPS data, and comparing to the moving observer and modelled times, it became apparent that the GPS data did not capture the delays witnessed on the A4130 at peak times approaching the Frank Williams Drive signals. Further observations undertaken by the councils in June 2018 supported this observation. As such, for some hours, a number of routes which were failing due to discrepancies between modelled and observed times around Frank Williams drive were assumed to pass. These are noted in bold in the "DMRB" column of the tables above, and are as noted below:

- Route 102 WB, 08:00-09:00 and 09:00-10:00
- Route 102 EB, 17:00-18:00
- Route 104 SB, 08:00-09:00, 09:00-10:00 and 17:00-18:00



# 6. SUMMARY AND CONCLUSIONS

# 6.1 Summary

SYSTRA Ltd have been commissioned by South Oxfordshire District Council (SODC) and Vale of White Horse District Council (VoWHDC), through the Five Councils Partnership to develop a microsimulation base model of the Didcot area and future year scenario models reflecting the Council's future land allocations.

The model was developed using Paramics Discovery (V19) software. The simulation runs the AM Period (07:00-10:00), IP period (10:00-16:00), PM Period (16:00-19:00) and Saturday Period (10:00-14:00) independently.

Traffic surveys were undertaken in late 2016/mid 2017 to provide the traffic data information required to develop the model. Turn count, moving observer journey time and queue surveys were supplied.

The model has been calibrated and validated based on WebTAG and DMRB guidance and SYSTRA's Microsimulation Consultancy Good Practice Guide. Video footage from the surveys was also utilised to ensure the general behaviour of traffic in the model reflected the conditions on site.

In addition, a model demonstration and feedback meeting with OCC, SODC and VoWHDC was arranged to effectively 'sign off' the base model as representative of current conditions before proceeding with future year model development.

# 6.2 Conclusions

The Didcot 2017 Base model meets DMRB turn count flow criteria with 85% of cases meeting a GEH value < 5. Comparisons using the Flow band criteria shows a good result, with criteria 1 (700<>2700 vph within 15%) showing some modelled hours outwith the criteria (although there is a low sample in this case).

Modelled and observed journey time comparisons have shown that where robust observed data is available, the model reflects observed journey times well, and meets the DMRB/WebTAG criteria.

OCC, SODC and VoWHDC have reviewed the model and resulting traffic conditions, and are satisified that the general traffic conditions observed on a daily basis are reflected in the model.

The Base model is considered fit for the purpose of Reference Case development and Future Year testing.

SYSTRA provides advice on transport, to central, regional and local government, agencies, developers, operators and financiers.

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# Appendix F – HIF1 Paramics Modelling Forecasting Note (September 2021)

# TECHNICAL NOTE



# HIF1 PARAMICS MODELLING

FORECASTING NOTE

SUMMARY TABLE	
Client/Project owner	Oxfordshire County Council
Project	HIF1 Paramics Modelling
Title of Document	Forecasting Note
Type of Document	Technical Note
Date	15/09/2021
Reference number	GB01T19H79/15/09/21/TA
Number of pages	17

# 1. INTRODUCTION

SYSTRA Ltd (SYSTRA) were commissioned by South Oxfordshire District Council (SODC) and Vale of White Horse District Council (VoWHDC) in partnership with Oxfordshire County Council (OCC) in 2017 to develop a base year (2017) Paramics Discovery traffic microsimulation model covering the wider Didcot area.

The subsequent development of this model is detailed in the report *Didcot Microsimulation Base Model Development Report (SYSTRA, September 2018).* 

The model has subsequently been used to support OCC and AECOM in taking the proposed Housing Infrastructure Fund (HIF) schemes through the planning process.

This technical note outlines the development of three future year development scenarios, as defined by OCC and AECOM to satisfy the study requirements using information provided by SODC and VoWHDC, reflecting the development completed to 2020 and the expected LDP build out to 2024 and 2034.

The forecasting was underpinned by cordon demands for the study area from runs of the Oxfordshire Strategic Model (OSM), undertaken by Atkins on behalf of SODC/VoWHDC and as detailed in the spreadsheet report OSM - Local Plan - Housing and Employment\_v55\_2031\_A40\_AER\_all\_sites\_external.xlsm.

# 2. EXTERNAL TRAFFIC GROWTH

The increase in traffic between external model zones (i.e. traffic travelling through the study area) was derived directly from OSM.

Cordon demands for the study area for the AM, IP and PM peak hours were provided for:

- OSM base year of 2013
- **o** 2021

# **O** 2031

These were factored up to peak period using peak hour expansion factors defined in the OSM model development report. These are:

- AM 2.5
- O IP − 6
- PM 2.63

Growth increments were then defined to apply to the 2017 base year demands, as below:

- 2017 to 2020 increase 3/8 \*(2021 OSM 2013 OSM)
- 2017 to 2024 increase 4/8 \*(2021 OSM 2013 OSM) + 3/10 (2031 OSM 2021 OSM)
- O 2017 to 2034 increase 4/8 \*(2021 OSM 2013 OSM) + (2031 OSM -2021 OSM)

The OSM model assumes all LDP development is in place by 2031, and so the 2031 cordon has been assumed to derive the full 2034 external growth for the paramics model.

Tables 1-3 show the 2017 base model demand totals, compared to the equivalent future year totals including the external growth increments, by model period.

	2017 Base	2020 Base + External	2024 Base + External	2034 Base + External
Matrix 1, Car	45699	46155	46290	46407
Matrix 2, LGV	6130	6242	6368	6594
Matrix 3, HGV	2142	2167	2193	2234

Table 1. AM Demands with external growth applied

	2017 Base	2020 Base + External	2024 Base + External	2034 Base + External
Matrix 1, Car	66136	67948	69374	71518
Matrix 2, LGV	10482	10702	10946	11347
Matrix 3, HGV	4051	4071	4098	4144

Table 2. IP Demands with external growth applied

	2017 Base	2020 Base + External	2024 Base + External	2034 Base + External
Matrix 1, Car	50646	51201	51521	52315
Matrix 2, LGV	4796	4834	4904	5056
Matrix 3, HGV	997	999	1009	1028

Table 3. PM Demands with external growth applied

# **3.** DEVELOPMENT RELATED TRAFFIC – TRIP GENERATION

OCC defined the updated levels of residential and commercial development to be reflected in each of the scenarios, using the most up to date information available, provided by the Local Planning Authorities (SODC and VoWHDC).

Table 4 details the residential developments and the number of additional units to those present in the base year (2017) to be reflected in each scenario, for developments with completions post 2017 only.

		Units additonal to base year by scenario					
Site Name	Model Zone	2020	2024	2034			
Ladygrove East - Land off A4130, Hadden Hill, Didcot	125	0	107	642			
Long Reach, Didcot Road	128	0	19	19			
Land Adjacent to the Village Hall	129	0	70	74			
Land at Didcot Road, Great Western Park	130	514	514	514			
Land off fieldside track	131	0	36	36			
Land to the south of Blenheim Hill Harwell	137	60	60	60			
Land at Barnett Road Steventon OX13 6AJ	139	65	65	65			
Land south of Appleford Road, Phase 1	140	85	101	101			
Land south of Appleford Road, Phase 2	140	0	91	91			
Land at Abingdon Road Steventon	143	15	15	15			
Land to south of Hadden Hill Didcot	144	74	74	74			
Land to the West of Great Western Park (Valley Park	) 145	0	384	4254			
Land at Reading Road Harwell	146	3	16	16			
Land at former Didcot A	147	0	0	120			
Land at former Didcot A	147	0	0	280			
Didcot Gateway South	148	0	100	300			
Land North of Grove Road Harwell	149	191	207	207			
Land off Hanney Road Steventon OX13 6AS	150	44	44	44			
Land to the north east of Didcot	151	27	548	1880			
Land north of Appleford Road	152	0	43	93			
Land off Drayton Road, Milton	153	18	18	18			
Land to north of Manor Close	154	18	18	18			
Land to the South of A4130 Didcot	155	31	166	166			
Milton Heights (Allocation - Site 9)	156	56	186	458			
Land at Milton Hill, Milton Heights	157	32	53	53			
East of Sutton Courtenay (Allocation - Site 5)	158	0	0	200			
Chailey House Bessels Way	159	22	22	22			
Land adjacent Culham Science centre	160	0	0	1850			
Great Western Park	161	818	1155	1155			
Orchard Centre Phase 2	162	0	0	300			
North West Valley Park (Allocation - Site 8)	163	0	0	800			
Vauxhall Baracks	164	0	0	300			
Land at Berinsfeld	165	0	0	1600			
Total		2073	4112	15825			

### Table 4. Residential developments by scenario

Tables 5, 6 and 7 detail the additional commercial development floorspace, in Sqm, included in each scenario, where the types of development are:

- B1 Business Park
- B2 Industrial Unit
- B8 Storage
- B8 Data Centre
- A1 Shops and Retail
- O C1 Hotel

					2020			
Site Name	Model Zone	B1	B2	B8 (Storage)	B8 (Data)	A1	C1	Total
Southmead Industrial Estate	167	656	0	0	0	0	0	656
Culham Science Centre	168	0	0	0	0	0	0	0
Land West of CSC Inc No.1 Site	169	0	0	0	0	0	0	0
Berinsfield Regeneration	170	0	0	0	0	0	0	0
Milton Park	171	11472	0	0	0	0	10563	22035
Harwell Campus	172	11723	0	0	0	0	0	11723
Other Premises Adjacent to Didcot Power Station - Diagio	174	0	0	0	0	0	0	0
Didcot A	175	0	0	22483	0	0	0	22483
Milton Hill Business and Technology Park	176	0	0	0	0	0	0	0
D-Tech- EZ 2	177	0	0	0	0	0	0	0
Milton Interchange Site- EZ2	178	0	0	0	0	0	0	0
Orchard Centre Expansion	NA	0	0	0	0	11155	0	11155
Total		23851	0	22483	0	11155	10563	68052

# Table 5. 2020 Commercial Development

					2024			
Site Name	Model Zone	B1	B2	B8 (Storage)	B8 (Data)	A1	C1	Total
Southmead Industrial Estate	167	656	0	0	0	0	0	656
Culham Science Centre	168	13632	0	0	0	0	0	13632
Land West of CSC Inc No.1 Site	169	4851	255	0	0	0	0	5106
Berinsfield Regeneration	170	0	0	0	0	0	0	0
Milton Park	171	31411	0	0	0	0	10563	41974
Harwell Campus	172	75427	6993	0	0	0	0	82420
Other Premises Adjacent to Didcot Power Station - Diagio	174	0	0	28907	68750	0	0	97657
Didcot A	175	2502	5505	27988	0	1351	0	37346
Milton Hill Business and Technology Park	176	0	0	0	0	0	0	0
D-Tech- EZ 2	177	0	1000	0	22000	0	0	23000
Milton Interchange Site- EZ2	178	0	0	0	0	0	0	0
Orchard Centre Expansion	NA	0	0	0	0	11155	0	11155
Total		128479	13753	56895	90750	12506	10563	312946

Table 6. 2024 Commercial Development

					2034			
Site Name	Model Zone	B1	B2	B8 (Storage)	B8 (Data)	A1	C1	Total
Southmead Industrial Estate	167	9076	0	0	0	0	0	9076
Culham Science Centre	168	56079	0	0	0	0	0	56079
Land West of CSC Inc No.1 Site	169	4851	255	0	0	0	0	5106
Berinsfield Regeneration	170	9671	10768	11350	0	0	0	31789
Milton Park	171	76889	0	0	0	0	10563	87451
Harwell Campus	172	103434	35000	0	0	0	0	138434
Other Premises Adjacent to Didcot Power Station - Diagio	174	0	0	28907	68750	0	0	97657
Didcot A	175	25000	55000	77483	0	13500	0	170983
Milton Hill Business and Technology Park	176	0	0	11338	0	0	0	11338
D-Tech- EZ 2	177	0	5000	0	110000	0	0	115000
Milton Interchange Site- EZ2	178	9380	0	0	0	2704	1294	13378
Orchard Centre Expansion	NA	0	0	0	0	11155	0	11155
Total		294379	106023	129078	178750	27359	11857	747446

### Table 7. 2034 Commercial Development

The tables show the area for the Orchard Centre Expansion to be "NA". This was an imminent development, and so was included in all scenarios as per the transport assessment (TA) for the proposed expansion. The centre is reflected as an individual zone in the base model, reflecting the site's current level of development. The TA was used to derive a simple growth factor of 12% to apply to all trips to and from the centre in all periods in the base demands, to calculate the future year trips to and from the development.

For the majority of other developments, trip rates by development type were derived using TRICS and applied to generate the total volume of trips to and from each development in each period. Tables 8-11 show the TRICS trip rates by development and vehicle type, where relevant.

The trip rate for the B8 Data Centre was taken from the Transport Statement for the D-Tech Site which includes a trip rate for a Data Centre. See *Transport Statement – Didcot Technology Park (D-Tech) – Proposed Data Centre, Glanville, June 2020.* 

		Arrivals			Departures			
Development Type	07:00	08:00	09:00	07:00	08:00	09:00		
Private Housing	0.096	0.152	0.154	0.372	0.419	0.180		
Private Flats	0.038	0.085	0.092	0.077	0.208	0.154		
B1 Business Park Cars	0.180	0.503	0.306	0.019	0.060	0.090		
B1 Business Park LGV	0.025	0.055	0.036	0.011	0.049	0.047		
B1 Business Park OGV	0.006	0.016	0.014	0.002	0.013	0.016		
B2 Industrial Unit Cars	0.050	0.038	0.013	0.000	0.000	0.025		
B2 Industrial Unit LGV	0.013	0.013	0.025	0.000	0.013	0.013		
B2 Industrial Unit OGV	0.075	0.100	0.113	0.063	0.075	0.125		
C1 Hotel Car	0.161	0.299	0.393	0.253	0.314	0.214		
C1 Hotel LGV	0.018	0.020	0.051	0.031	0.018	0.038		
C1 Hotel OGV	0.005	0.013	0.005	0.003	0.013	0.008		
A1 Shops & Retail Car	0.044	0.112	0.605	0.006	0.019	0.387		
A1 Shops & Retail LGV	0.012	0.012	0.050	0.012	0.000	0.056		
A1 Shops & Retail OGV	0.006	0.012	0.000	0.000	0.019	0.006		
B8 Distribution Centre Car	0.048	0.090	0.065	0.015	0.042	0.053		
B8 Distribution Centre LGV	0.007	0.019	0.041	0.004	0.067	0.033		
B8 Distribution Centre OGV	0.004	0.020	0.004	0.004	0.012	0.008		
B8 Data Centre Car	0.008	0.017	0.014	0.000	0.002	0.002		

Table 8. AM trip rates

		Arrivals					
Development Type	10:00	11:00	12:00	13:00	14:00	15:00	
Private Housing	0.125	0.155	0.148	0.171	0.146	0.258	
Private Flats	0.162	0.138	0.208	0.192	0.146	0.092	
B1 Business Park Cars	0.101	0.090	0.161	0.166	0.101	0.069	
B1 Business Park LGV	0.057	0.063	0.047	0.033	0.046	0.027	
B1 Business Park OGV	0.009	0.006	0.017	0.005	0.003	0.017	
B2 Industrial Unit Cars	0.013	0.013	0.025	0.000	0.013	0.000	
B2 Industrial Unit LGV	0.063	0.025	0.025	0.000	0.013	0.025	
B2 Industrial Unit OGV	0.013	0.088	0.200	0.113	0.038	0.063	
C1 Hotel Car	0.273	0.094	0.242	0.232	0.181	0.225	
C1 Hotel LGV	0.018	0.018	0.008	0.010	0.008	0.010	
C1 Hotel OGV	0.000	0.000	0.008	0.005	0.003	0.000	
A1 Shops & Retail Car	0.829	0.954	1.216	1.110	1.104	0.792	
A1 Shops & Retail LGV	0.037	0.056	0.050	0.056	0.050	0.075	
A1 Shops & Retail OGV	0.006	0.006	0.006	0.006	0.000	0.006	
B8 Distribution Centre Car	0.025	0.082	0.036	0.090	0.070	0.000	
B8 Distribution Centre LGV	0.081	0.000	0.073	0.000	0.035	0.113	
B8 Distribution Centre OGV	0.004	0.000	0.004	0.004	0.012	0.004	
B8 Data Centre Car	0.008	0.006	0.009	0.007	0.009	0.009	

Table 9. IP trip rates – Arrivals

	Departures						
Development Type	10:00	11:00	12:00	13:00	14:00	15:00	
Private Housing	0.162	0.162	0.158	0.169	0.189	0.179	
Private Flats	0.192	0.131	0.154	0.192	0.146	0.123	
B1 Business Park Cars	0.060	0.088	0.188	0.132	0.126	0.129	
B1 Business Park LGV	0.063	0.057	0.036	0.047	0.043	0.024	
B1 Business Park OGV	0.014	0.006	0.011	0.009	0.003	0.016	
B2 Industrial Unit Cars	0.013	0.000	0.013	0.000	0.000	0.000	
B2 Industrial Unit LGV	0.038	0.025	0.000	0.025	0.013	0.025	
B2 Industrial Unit OGV	0.013	0.088	0.225	0.088	0.038	0.063	
C1 Hotel Car	0.191	0.194	0.174	0.191	0.207	0.253	
C1 Hotel LGV	0.015	0.013	0.008	0.015	0.005	0.015	
C1 Hotel OGV	0.000	0.000	0.005	0.003	0.005	0.000	
A1 Shops & Retail Car	0.705	0.885	1.073	1.172	1.203	0.817	
A1 Shops & Retail LGV	0.031	0.050	0.044	0.056	0.062	0.069	
A1 Shops & Retail OGV	0.006	0.000	0.006	0.000	0.000	0.000	
B8 Distribution Centre Car	0.052	0.054	0.067	0.099	0.079	0.051	
B8 Distribution Centre LGV	0.030	0.012	0.042	0.007	0.030	0.051	
B8 Distribution Centre OGV	0.004	0.004	0.004	0.000	0.012	0.008	
B8 Data Centre Car	0.010	0.008	0.013	0.012	0.014	0.012	

# Table 10. IP trip rates – Departures

	Arrivals			Departures			
Development Type	16:00	17:00	18:00	16:00	17:00	18:00	
Private Housing	0.273	0.362	0.344	0.165	0.167	0.174	
Private Flats	0.154	0.192	0.100	0.115	0.077	0.038	
B1 Business Park Cars	0.054	0.054	0.015	0.342	0.374	0.192	
B1 Business Park LGV	0.028	0.013	0.006	0.036	0.022	0.006	
B1 Business Park OGV	0.005	0.005	0.002	0.009	0.005	0.006	
B2 Industrial Unit Cars	0.013	0.000	0.000	0.050	0.075	0.038	
B2 Industrial Unit LGV	0.000	0.000	0.000	0.025	0.000	0.000	
B2 Industrial Unit OGV	0.025	0.000	0.013	0.050	0.000	0.000	
C1 Hotel Car	0.209	0.196	0.260	0.299	0.250	0.242	
C1 Hotel LGV	0.018	0.023	0.018	0.015	0.015	0.018	
C1 Hotel OGV	0.003	0.000	0.000	0.003	0.003	0.000	
A1 Shops & Retail Car	0.705	0.854	0.680	0.823	0.798	0.761	
A1 Shops & Retail LGV	0.118	0.025	0.100	0.094	0.044	0.094	
A1 Shops & Retail OGV	0.037	0.006	0.000	0.056	0.000	0.006	
B8 Distribution Centre Car	0.045	0.055	0.043	0.052	0.031	0.094	
B8 Distribution Centre LGV	0.045	0.027	0.000	0.065	0.063	0.000	
B8 Distribution Centre OGV	0.004	0.012	0.004	0.004	0.012	0.004	
B8 Data Centre Car	0.002	0.002	0.001	0.025	0.022	0.020	

Table 11. PM trip rates

In addition to being used to derive trip totals for each site, the trip rates were also used to calculate demand release profiles by development type for use in the model with the new development zones.

Each new development in the model is reflected by a new zone.

The number of units/floorspace was combined with the trip rates to derive the number of vehicle trips associated with each development, by scenario. Residential sites generate only car trips, commercial sites may have associated car, LGV and HGV trips.

Tables 12-14 show the residential trips, by development, period, and by scenario.

		AM			IP		PM
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Ladygrove East - Land off A4130, Hadden Hill, Didcot	125	0	0	0	0	0	0
Long Reach, Didcot Road	128	0	0	0	0	0	0
Land Adjacent to the Village Hall	129	0	0	0	0	0	0
Land at Didcot Road, Great Western Park	130	207	499	516	524	503	260
Land off fieldside track	131	0	0	0	0	0	0
Land to the south of Blenheim Hill Harwell	137	23	55	60	61	56	29
Land at Barnett Road Steventon OX13 6AJ	139	26	63	65	66	64	33
Land south of Appleford Road, Phase 1	140	33	78	85	86	79	41
Land south of Appleford Road, Phase 2	140	0	0	0	0	0	0
Land at Abingdon Road Steventon	143	6	15	15	15	15	8
Land to south of Hadden Hill Didcot	144	28	67	74	75	68	35
Land to the West of Great Western Park (Valley Park)	145	0	0	0	0	0	0
Land at Reading Road Harwell	146	1	3	3	3	3	2
Land at former Didcot A	147	0	0	0	0	0	0
Didcot Gateway South	148	0	0	0	0	0	0
Land North of Grove Road Harwell	149	0	0	0	0	0	0
Land off Hanney Road Steventon OX13 6AS	150	77	185	192	195	187	97
Land to the north east of Didcot	151	18	43	44	45	43	22
Land north of Appleford Road	152	11	26	27	28	26	14
Land off Drayton Road, Milton	153	7	17	18	18	18	9
Land to north of Manor Close	154	7	17	18	18	18	9
Land to the South of A4130 Didcot	155	12	30	31	32	30	16
Milton Heights (Allocation - Site 9)	156	23	54	56	57	55	28
Land at Milton Hill, Milton Heights	157	13	31	32	33	31	16
East of Sutton Courtenay (Allocation - Site 5)	158	0	0	0	0	0	0
Chailey House Bessels Way	159	9	21	22	22	22	11
Land adjacent Culham Science centre	160	0	0	0	0	0	0
Great Western Park	161	329	794	820	834	801	414
Orchard Centre Phase 2	162	0	0	0	0	0	0
North West Valley Park (Allocation - Site 8)	163	0	0	0	0	0	0
Vauxhall Baracks	164	0	0	0	0	0	0
Land at Berinsfeld	165	0	0	0	0	0	0
Total		829	2001	2078	2111	2017	1043

Table 12. 2020 residential trips
		AM			IP		PM
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Ladygrove East - Land off A4130, Hadden Hill, Didcot	125	43	104	107	109	105	54
Long Reach, Didcot Road	128	8	18	19	19	19	10
Land Adjacent to the Village Hall	129	14	35	36	37	35	18
Land at Didcot Road, Great Western Park	130	207	499	516	524	503	260
Land off fieldside track	131	17	42	43	44	42	22
Land to the south of Blenheim Hill Harwell	137	23	55	60	61	56	29
Land at Barnett Road Steventon OX13 6AJ	139	26	63	65	66	64	33
Land south of Appleford Road, Phase 1	140	39	93	101	102	94	48
Land south of Appleford Road, Phase 2	140	35	84	91	92	85	44
Land at Abingdon Road Steventon	143	6	15	15	15	15	8
Land to south of Hadden Hill Didcot	144	28	67	74	75	68	35
Land to the West of Great Western Park (Valley Park)	145	154	373	385	391	376	194
Land at Reading Road Harwell	146	6	16	16	16	16	8
Land at former Didcot A	147	0	0	0	0	0	0
Didcot Gateway South	148	28	68	70	71	69	35
Land North of Grove Road Harwell	149	40	97	100	102	98	51
Land off Hanney Road Steventon OX13 6AS	150	83	201	208	211	203	105
Land to the north east of Didcot	151	18	43	44	45	43	22
Land north of Appleford Road	152	220	532	550	558	536	277
Land off Drayton Road, Milton	153	7	17	18	18	18	9
Land to north of Manor Close	154	7	17	18	18	18	9
Land to the South of A4130 Didcot	155	67	161	166	169	163	84
Milton Heights (Allocation - Site 9)	156	75	181	187	190	182	94
Land at Milton Hill, Milton Heights	157	21	51	53	54	52	27
East of Sutton Courtenay (Allocation - Site 5)	158	0	0	0	0	0	0
Chailey House Bessels Way	159	9	21	22	22	22	11
Land adjacent Culham Science centre	160	0	0	0	0	0	0
Great Western Park	161	464	1122	1158	1177	1131	584
Orchard Centre Phase 2	162	0	0	0	0	0	0
North West Valley Park (Allocation - Site 8)	163	0	0	0	0	0	0
Vauxhall Baracks	164	0	0	0	0	0	0
Land at Berinsfeld	165	0	0	0	0	0	0
Total		1647	3975	4122	4187	4008	2072

Table 13. 2024 residential trips

		AM			IP		PM
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Ladygrove East - Land off A4130, Hadden Hill, Didcot	125	258	623	644	654	629	325
Long Reach, Didcot Road	128	8	18	19	19	19	10
Land Adjacent to the Village Hall	129	14	35	36	37	35	18
Land at Didcot Road, Great Western Park	130	207	499	516	524	503	260
Land off fieldside track	131	37	90	93	95	91	47
Land to the south of Blenheim Hill Harwell	137	23	55	60	61	56	29
Land at Barnett Road Steventon OX13 6AJ	139	26	63	65	66	64	33
Land south of Appleford Road, Phase 1	140	39	93	101	102	94	48
Land south of Appleford Road, Phase 2	140	35	84	91	92	85	44
Land at Abingdon Road Steventon	143	6	15	15	15	15	8
Land to south of Hadden Hill Didcot	144	28	67	74	75	68	35
Land to the West of Great Western Park (Valley Park)	145	1710	4131	4267	4335	4165	2153
Land at Reading Road Harwell	146	6	16	16	16	16	8
Land at former Didcot A	147	161	388	401	408	392	202
Didcot Gateway South	148	30	72	74	75	72	37
Land North of Grove Road Harwell	149	121	291	301	306	294	152
Land off Hanney Road Steventon OX13 6AS	150	83	201	208	211	203	105
Land to the north east of Didcot	151	18	43	44	45	43	22
Land north of Appleford Road	152	756	1825	1886	1916	1841	951
Land off Drayton Road, Milton	153	7	17	18	18	18	9
Land to north of Manor Close	154	7	17	18	18	18	9
Land to the South of A4130 Didcot	155	67	161	166	169	163	84
Milton Heights (Allocation - Site 9)	156	184	445	459	467	448	232
Land at Milton Hill, Milton Heights	157	21	51	53	54	52	27
East of Sutton Courtenay (Allocation - Site 5)	158	80	194	201	204	196	101
Chailey House Bessels Way	159	9	21	22	22	22	11
Land adjacent Culham Science centre	160	744	1796	1856	1885	1811	936
Great Western Park	161	464	1122	1158	1177	1131	584
Orchard Centre Phase 2	162	121	291	301	306	294	152
North West Valley Park (Allocation - Site 8)	163	322	777	802	815	783	405
Vauxhall Baracks	164	121	291	301	306	294	152
Land at Berinsfeld	165	643	1554	1605	1630	1566	810
Total		6355	15349	15870	16123	15475	7998

#### Table 14. 2034 residential trips

Tables 15-23 show, by scenario and vehicle type, the commercial trips by period.

		А	м	I	Р	РМ	
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	6	1	5	5	1	6
Culham Science Centre	168	0	0	0	0	0	0
Land West of CSC Inc No.1 Site	169	0	0	0	0	0	0
Berinsfield Regerneration	170	0	0	0	0	0	0
Milton Park	171	204	102	211	211	84	188
Harwell Campus	172	116	20	81	85	14	106
Other Premises Adjacent to Didcot Power Station - D	174	0	0	0	0	0	0
Didcot A	175	46	25	68	90	32	40
Milton Hill Business and Technology Park	176	0	0	0	0	0	0
D-Tech- EZ 2	177	0	0	0	0	0	0
Milton Interchange Site- EZ2	178	0	0	0	0	0	0
Total		372	148	364	391	132	340

Table 15. Commercial Development Trips, 2020, Car

		А	М	I	Р	Р	М
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	1	1	2	2	0	0
Culham Science Centre	168	0	0	0	0	0	0
Land West of CSC Inc No.1 Site	169	0	0	0	0	0	0
Berinsfield Regerneration	170	0	0	0	0	0	0
Milton Park	171	23	21	39	38	12	12
Harwell Campus	172	14	13	32	32	6	8
Other Premises Adjacent to Didcot Power Station - D	174	0	0	0	0	0	0
Didcot A	175	15	23	68	39	16	29
Milton Hill Business and Technology Park	176	0	0	0	0	0	0
D-Tech- EZ 2	177	0	0	0	0	0	0
Milton Interchange Site- EZ2	178	0	0	0	0	0	0
Total		52	58	141	111	34	49

Table 16. Commercial Development Trips, 2020, LGV

		А	М		Р	F	M
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	0	0	0	0	0	0
Culham Science Centre	168	0	0	0	0	0	0
Land West of CSC Inc No.1 Site	169	0	0	0	0	0	0
Berinsfield Regerneration	170	0	0	0	0	0	0
Milton Park	171	7	6	8	8	2	3
Harwell Campus	172	4	4	7	7	1	2
Other Premises Adjacent to Didcot Power Station - D	) 174	0	0	0	0	0	0
Didcot A	175	6	5	6	7	4	4
Milton Hill Business and Technology Park	176	0	0	0	0	0	0
D-Tech- EZ 2	177	0	0	0	0	0	0
Milton Interchange Site- EZ2	178	0	0	0	0	0	0
Total		17	15	22	23	8	10

Table 17. Commercial Development Trips, 2020, HGV

		AM		IP		PM	
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	6	1	5	5	1	6
Culham Science Centre	168	135	23	94	99	17	124
Land West of CSC Inc No.1 Site	169	48	8	34	35	6	44
Berinsfield Regerneration	170	0	0	0	0	0	0
Milton Park	171	401	136	348	355	109	369
Harwell Campus	172	753	129	523	547	94	696
Other Premises Adjacent to Didcot Power Station - D	174	85	35	121	164	45	97
Didcot A	175	97	42	187	211	74	113
Milton Hill Business and Technology Park	176	0	0	0	0	0	0
D-Tech- EZ 2	177	10	1	11	15	1	16
Milton Interchange Site- EZ2	178	0	0	0	0	0	0
Total		1536	375	1322	1431	346	1466

Table 18. Commercial Development Trips, 2024, Car

		А	М	I	Р	Р	М
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	1	1	2	2	0	0
Culham Science Centre	168	16	15	37	37	6	9
Land West of CSC Inc No.1 Site	169	6	5	14	13	2	3
Berinsfield Regerneration	170	0	0	0	0	0	0
Milton Park	171	46	43	93	92	21	25
Harwell Campus	172	91	83	216	212	35	50
Other Premises Adjacent to Didcot Power Station - D	174	19	30	87	50	21	37
Didcot A	175	25	34	104	66	25	42
Milton Hill Business and Technology Park	176	0	0	0	0	0	0
D-Tech- EZ 2	177	1	0	2	1	0	0
Milton Interchange Site- EZ2	178	0	0	0	0	0	0
Total		205	210	555	474	111	167

Table 19. Commercial Development Trips, 2024, LGV

		А	м	1	P	Р	м
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	0	0	0	0	0	0
Culham Science Centre	168	5	4	8	8	2	3
Land West of CSC Inc No.1 Site	169	2	2	4	4	1	1
Berinsfield Regerneration	170	0	0	0	0	0	0
Milton Park	171	14	12	20	20	4	7
Harwell Campus	172	47	42	79	81	12	19
Other Premises Adjacent to Didcot Power Station - D	174	8	7	8	9	6	6
Didcot A	175	25	22	38	39	9	10
Milton Hill Business and Technology Park	176	0	0	0	0	0	0
D-Tech- EZ 2	177	3	3	5	5	0	1
Milton Interchange Site- EZ2	178	0	0	0	0	0	0
Total		104	93	162	166	33	45

Table 20. Commercial Development Trips, 2024, HGV

		AM			Р	РМ	
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	90	15	62	66	11	82
Culham Science Centre	168	555	95	386	405	69	509
Land West of CSC Inc No.1 Site	169	48	8	34	35	6	44
Berinsfield Regerneration	170	130	32	108	118	30	125
Milton Park	171	851	212	661	684	165	782
Harwell Campus	172	1058	184	734	757	132	996
Other Premises Adjacent to Didcot Power Station - D	0 174	85	35	121	164	45	97
Didcot A	175	563	197	1253	1297	451	775
Milton Hill Business and Technology Park	176	23	12	34	46	16	20
D-Tech- EZ 2	177	48	6	56	77	6	82
Milton Interchange Site- EZ2	178	124	37	243	242	81	160
Total		3575	833	3691	3890	1011	3674

Table 21. Commercial Development Trips, 2034, Car

		А	М	I	Р	Р	М
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	11	10	25	25	4	6
Culham Science Centre	168	65	60	153	151	26	36
Land West of CSC Inc No.1 Site	169	6	5	14	13	2	3
Berinsfield Regerneration	170	24	25	77	59	13	23
Milton Park	171	99	91	218	215	42	54
Harwell Campus	172	138	120	335	323	49	75
Other Premises Adjacent to Didcot Power Station - D	0 174	19	30	87	50	21	37
Didcot A	175	119	131	429	312	100	160
Milton Hill Business and Technology Park	176	8	12	34	20	8	15
D-Tech- EZ 2	177	3	1	8	6	0	1
Milton Interchange Site- EZ2	178	14	13	35	35	12	13
Total		505	498	1415	1209	278	423

Table 22. Commercial Development Trips, 2034, LGV

		А	м	I	P	P	м
Site Name	Model Zone	Inbound	Outbound	Inbound	Outbound	Inbound	Outbound
Southmead Industrial Estate	167	3	3	5	5	1	2
Culham Science Centre	168	20	17	32	33	7	11
Land West of CSC Inc No.1 Site	169	2	2	4	4	1	1
Berinsfield Regerneration	170	38	34	64	65	8	10
Milton Park	171	30	26	46	47	10	16
Harwell Campus	172	138	124	239	241	26	38
Other Premises Adjacent to Didcot Power Station - D	0 174	8	7	8	9	6	6
Didcot A	175	192	174	323	324	45	56
Milton Hill Business and Technology Park	176	3	3	3	4	2	2
D-Tech- EZ 2	177	14	13	26	26	2	3
Milton Interchange Site- EZ2	178	4	4	6	6	2	4
Total		453	408	757	764	109	148

Table 23. Commercial Development Trips, 2034, HGV

# 4. DEVELOPMENT RELATED TRAFFIC – TRIP DISTRIBUTIONS

Trip distributions for the new developments, both commercial and residential, were derived from the OSM 2031 cordon matrices.

The OSM zone associated with each development was defined, in consultation with the councils, to provide a distribution for each site at OSM zone level, by period.

Trips were then split between the Paramics model zones (including the new development zones) using the relative proportion of each zone's origin and destination trip end total compared to the total for the zones associated with the OSM zone.

# 5. DEVELOPMENT RELATED TRAFFIC – DOUBLE COUNTING ADJUSTMENT

The simple addition of commercial and residential trips results in a double counting, where trips between new residential and commercial zones can be accounted for (for example) as both an outbound residential trip and inbound commercial trip.

To adjust for this double counting, the residential and commercial demand matrices were combined, and then the total number of inbound and outbound trips for each zone (development) compared with the trip ends for that development. In many cases the trip ends in this combined matrix exceeded those defined by the trip generation process, and

so the relevant rows/columns were factored accordingly such that the trip ends matched the trip generation for each development. This process in effect removes the double counting of trips included in both the residential and commercial trip distributions.

	Scenario							
	2020	2024	2034					
Residential Cars	2830	5622	21704					
Employment Cars	519	1911	4407					
Final Car total	3204	7062	24485					
Double Count Removed	145	471	1626					

Tables 24-26 show the impact of this adjustment on the car development demands. No adjustment is required for LGV and HGV trips as these are only associated with commercial developments, and therefore there is no scope to double count these trips.

Table 24. AM developmen	t matrices of	double co	unt adjustment
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	Scenario		
	2020	2024	2034
Residential Cars	4188	8310	31993
Employment Cars	755	2752	7581
Final Car total	4728	10247	36597
Double Count Removed	215	815	2978

Table 25. IP development matrices double count adjustment

	Scenario			
	2020 2024 203			
Residential Cars	3060	6080	23473	
Employment Cars	472	1812	4685	
Final Car total	3384	7365	26310	
Double Count Removed	148	527	1848	

Table 26. PM development matrices double count adjustment

# 6. FORECAST MATRIX TOTALS

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Tables 27-29 show the resulting matrix totals for the Scenario matrices, by period and matrix level.

	Scenario		
Matrix	2020	2024	2034
Car Base + Ext Growth	46,155	46,290	46,407
LGV Base + Ext Growth	6,242	6,368	6,594
HGV Base + Ext Growth	2,167	2,193	2,234
Development Car	3,204	7,062	24,485
Development LGV	110	415	1,003
Development HGV	33	197	861
Total	57,910	62,524	81,583

#### Table 27. AM matrix totals

	Scenario		
Matrix	2020	2024	2034
Car Base + Ext Growth	67,948	69,374	71,518
LGV Base + Ext Growth	10,702	10,946	11,347
HGV Base + Ext Growth	4,071	4,098	4,144
Development Car	4,728	10,247	36,597
Development LGV	251	1,029	2,624
Development HGV	44	328	1,521
Total	87,744	96 <i>,</i> 023	127,750

#### Table 28. IP matrix totals

	Scenario		
Matrix	2020	2024	2034
Car Base + Ext Growth	51,201	51,521	52,315
LGV Base + Ext Growth	4,834	4,904	5,056
HGV Base + Ext Growth	999	1,009	1,028
Development Car	3 <i>,</i> 384	7 <i>,</i> 365	26,310
Development LGV	83	278	701
Development HGV	18	78	257
Total	60,519	65,154	85,668

#### Table 29. PM matrix totals

Initial model runs exhibited significant congestion in 2034 with the full development demand in place. As agreed with OCC, for the 2034 scenario the model assumes 100% demand for existing trips, and 80% of demand for the development matrices. The demand reduction is considered reasonable for a number of reasons to enable a more realistic future scenario:

• The model uses a generic trip rate across all development in the area. A demand reduction is required to align the trip generation with trip rates recently accepted by OCC TDC for planning applications sites in Didcot. This accounts for approximately half of the demand reduction.

- It is assumed that the Garden Town principles will continue to be enacted in this area over the next 14 years, increasing the usage of sustainable modes. Modal shift from these developments later in the plan period (over a decade away) is more likely as they are coming alongside significantly improved pedestrian / cycle / public transport provisions. The Paramics model is not multi-modal so cannot automatically account for improved NMU infrastructure, therefore a demand reduction is used as a proxy.
- The largest new sites follow good spatial strategies and are in more sustainable locations near public transport hubs and / or are located nearer the growing employment areas which will have significantly improved NMU routes.

As such, the final model demands reduce the development Car, LGV and HGV matrices to 80% of that shown in tables 27-29.

	Scenario		
Matrix	2020	2024	2034
Car Base + Ext Growth	46,155	46,290	46,407
LGV Base + Ext Growth	6,242	6,368	6,594
HGV Base + Ext Growth	2,167	2,193	2,234
Development Car	3,204	7 <i>,</i> 062	19,588
Development LGV	110	415	802
Development HGV	33	197	689
Total	57,910	62,524	76,314

Tables 30-32 present the final demands.

#### Table 30. AM final demand totals

	Scenario		
Matrix	2020	2024	2034
Car Base + Ext Growth	67,948	69,374	71,518
LGV Base + Ext Growth	10,702	10,946	11,347
HGV Base + Ext Growth	4,071	4,098	4,144
Development Car	4,728	10,247	29,277
Development LGV	251	1,029	2,099
Development HGV	44	328	1,217
Total	87,744	96,023	119,602

Table 31. IP Final demand totals

	Scenario		
Matrix	2020	2024	2034
Car Base + Ext Growth	51,201	51,521	52,315
LGV Base + Ext Growth	4,834	4,904	5,056
HGV Base + Ext Growth	999	1,009	1,028
Development Car	3 <i>,</i> 384	7,365	21,048
Development LGV	83	278	561
Development HGV	18	78	206
Total	60,519	65,154	80,214

Table 32. PM final demand totals

# Appendix G – HIF1 Paramics Modelling Future Year Infrastructure Note (September 2021)

# **TECHNICAL NOTE**

# **HIF1 PARAMICS MODELLING**



# FUTURE YEAR INFRASTRUCTURE NOTE

SUMMARY TABLE	
Client/Project owner	Oxfordshire County Council
Project	HIF1 Paramics Modelling
Title of Document	Future Year Infrastructure Note
Type of Document	Technical Note
Date	21/09/2021
Reference number	GB01T19H79/21/09/2021
Number of pages	53

# 1. INTRODUCTION

- 1.1.1 SYSTRA Ltd (SYSTRA) were commissioned by South Oxfordshire District Council (SODC) and Vale of White Horse District Council (VoWHDC) in partnership with Oxfordshire County Council (OCC) in 2017 to develop a base year (2017) Paramics Discovery traffic microsimulation model covering the wider Didcot area.
- 1.1.2 The subsequent development of this model is detailed in the report Didcot Microsimulation Base Model Development Report (SYSTRA, September 2018).
- 1.1.3 The model has subsequently been used to support OCC and AECOM in taking the proposed Housing Infrastructure Fund (HIF) schemes through the planning process.
- 1.1.4 Five model networks for various HIF related scenarios were developed to satisfy the study requirements, defined by OCC and AECOM, as below:
  - 2020 "Base"
  - 2024 with HIF infrastructure
  - 2024 without HIF infrastructure
  - 2034 with HIF infrastructure
  - 2034 without HIF infrastructure
- 1.1.5 Images of the full networks are shown in Appendix A.
- 1.1.6 Full details of the traffic demand forecasting can be found in *Didcot Garden Town Paramics Model, Future Year Forecasting Note (September 2021).*

# 2. INFRASTRUCTURE CHANGES

## 2.1 2020 Base

- 2.1.1 The and 2020 Base model network was created from the 2017 Base network, with the addition of the following infrastructure schemes:
  - Harwell Link Road as per as built drawing
  - A4185 Newbury Road/Thompson Avenue signals as per drawing:
     60552579-HARWELL-SHE-SIG-01
- 2.1.2 Alterations were made to coded model speed limits at the following locations to reflect changes made since 2017:
  - Chilton Interchange
  - Chilton Road
  - O B4493 Didcot Road at Harwell Link Road
  - Great Western Park
  - A417 at East Hendred
  - O Milton Road
  - A4130
  - A415 at Culham
- 2.1.3 Images of the speed limits by link are shown in Appendix B.
- 2.1.4 The speed limits between 2024 with HIF to 2034 with HIF, and between 2024 without HIF to 2034 without HIF do not change. However, additional schemes are included in the 2034 networks, as described below.
- 2.1.5 Additional network detail was included at the following locations:
  - Milton Hill Between Trenchard Avenue and A4130 Abingdon Road
  - Clifton Hampden High Street Between High Street and A415 Abingdon Road
  - Harwell Campus internal site detail

## 2.2 2024 with HIF infrastructure and 2024 without HIF infrastructure

- 2.2.1 The 2024 with HIF infrastructure and 2024 without HIF infrastructure models include the following infrastructure schemes in addition to those included in the 2020 Base:
  - Power Station/Manor Bridge Roundabout improvements, a developer promoted scheme (see Figure 1) as per drawings:
    - P17190\_701\_P3
    - P17190\_702\_P2
  - Featherbed Lane Improvements which includes realignment of Featherbed Lane, a roundabout at the junction with the A417 and a signalised junction with the A4130. (see Figure 2) as per drawings:
    - FBLN-ATK-HGN-ZZ-DR-D-0002-C1
    - FBLN-ATK-HGN-ZZ-DR-D-0003- C1
    - FBLN-ATK-HGN-ZZ-DR-D-0004- C1
    - FBLN-ATK-HGN-ZZ-DR-D-0005- CA
    - FBLN-ATK-HGN-ZZ-DR-D-0006-C3
    - FBLN-ATK-HGN-ZZ-DR-D-0007- C3
    - FBLN-ATK-HGN-ZZ-DR-D-0008- C3
  - NPR3 (see Figure 3) as per drawings:
    - Didcot Perimeter Road Phase 3 General Arrangement Plan

- Didcot Perimeter Road Phase 3 A4130/B4016 North Roundabout
- DIDNPR3-ATK-HML-ZZ-DR-D
- Eastbound widening of A4130 between Steventon Lights and Milton Interchange and signalised junction at Trenchard Avenue (see Figure 4) – junction as per drawing and widening on instruction from OCC
  - IBH0582/2010
- Park Drive/High Street junction alteration which includes making High Street left in only at Park Drive with no access from High Street to Park Drive. There is a replacement link road between High Street and Western Avenue located approximately 100m to the north of Park Drive (see Figure 5) as per instruction from OCC
- Signalised one way shuttle working on the B4016, of approximately 150m, over the bridge adjacent to Appleford Rail Station (see Figure 6)
- Various development access, discussed in detail in Section 3.



Figure 1. Power Station/Manor Bridge Roundabout Improvements



Figure 2. Featherbed Lane Improvements



Figure 3. NPR3



Figure 4. Eastbound A4130 Widening between Steventon Lights and Milton Interchange



Figure 5. Park Drive/High Street junction alteration



Figure 6. Appleford Shuttle Signals

## 2.3 2034 with HIF infrastructure and 2034 without HIF infrastructure

- 2.3.1 The 2034 with HIF infrastructure and 2034 without HIF infrastructure include the following infrastructure schemes in addition to those included in the 2020 Base and the 2024 with and without HIF models:
  - Valley Park Spine Road (see Figure 7) as per drawings:
    - 8106-0039-33 Illustrative Masterplan
    - 8106-0044-18 Illustrative Access & Movement Plan
    - 10219 HL 16A A4130 Western Access Junction
    - 10219 HL 61E B4493 Southern Site Access
    - Link between Valley Park and Great Western Park has been removed
  - Milton Interchange improvements, including a dedicated left turn slip from A4130 west to A34 Northbound on slip and some widening of the circulating carriageway, this is a developer promoted scheme (see Figure 8) as per drawings:
    - 10219-HL-80-B A34 Milton Hill Interchange Additional improvements
  - Rowstock Bypass (see Figure 9) as per instruction from OCC
  - Chilton Interchange Signals, the signalisation of the A34 northbound offslip and the A4185 roundabout (Figure 10) as per instruction from OCC
  - Goldenballs Improvements, note no scheme was explicitly included here but simply the delay at the junction removed in the model so that it does not affect assessment of the HIF schemes (see Figure 11) as per instruction from OCC
  - Milton Road/Park Drive/Sutton Courtenay Road junction alteration, the roundabout is removed and replaced with a priority junction with the Milton Road-Park Drive movement having priority (see Figure 12) as per instruction from OCC.
  - Various development access, discussed in detail in Section 3.



Figure 7. Valley Park Spine Road



Figure 8. Milton Interchange Improvements



Figure 9. Rowstock Bypass



Figure 11. Goldenballs Improvements



 Figure 12.
 Milton Road/Park Drive/Sutton Courtenay Road junction alteration

## 2.4 Housing Infrastructure Fund (HIF) schemes

- 2.4.1 The Housing Infrastructure Fund (HIF) schemes which are included in 2024 with HIF infrastructure and 2034 with HIF infrastructure are as follows:
  - A4130 Widening as per drawing:

0

- WID\_PD-ACM-HKF-SW\_ZZ\_ZZ\_ZZ-M2-CH-1101
- Didcot Science Bridge as per drawing:
  - DSB\_PD-ACM-HKF-SW\_ZZ\_ZZ\_ZZ-M2-CH-1102
  - Didcot to Culham River Crossing as per drawing provided by OCC
- Clifton Hampden Bypass as per drawing:
  - CHB\_PD-ACM-HML-SW\_ZZ\_ZZ\_ZZ-M2-CH-1001

# 3. DEVELOPMENT ACCESS ARRANGEMENTS

The residential developments that have been included in the future year modelling are shown in Table 1.

#### Table 1. Residential Developments

aramics Zone	Development
125	5 Ladygrove East - Land off A4130, Hadden Hill, Didcot
128	3 Long Reach, Didcot Road, Harwell, DIDCOT, OX11 6DW
129	I Land Adjacent to the Village Hall Main Road East Hagbourne
130	) Land at Didcot Road, Great Western Park
131	L Land off fieldside track, Long Wittenham, OX14 4PZ
137	7 Land to the south of Blenheim Hill Harwell Oxon OX11 0DS
139	) Land at Barnett Road Steventon OX13 6AJ
140	) Land south of Appleford Road, Sutton Courtenay (Major Ameys Site) Phase 1
143	3 Land at Abingdon Road Steventon
144	Land to south of Hadden Hill Didcot
145	5 Land to the West of Great Western Park (Valley Park) Didcot
146	5 Land at Reading Road Harwell OX11 0LW
147	7 Land at former Didcot A Power Station Purchas Road Didcot
148	3 Didcot Gateway South
149	) Land North of Grove Road Harwell (Allocation - Site 10)
150	) Land off Hanney Road Steventon OX13 6AS
151	Land to the north east of Didcot
152	2 Land north of Appleford Road
153	B Land off Drayton Road, Milton, OX14 4EU
154	Land to north of Manor Close Chilton DIDCOT OX11 0SS
155	5 Land to the South of A4130 Didcot
156	5 Milton Heights (Allocation - Site 9)
157	7 Land at Milton Hill, Milton Heights, Milton, ABINGDON, OX14 4DR
158	B East of Sutton Courtenay (Allocation - Site 5)
159	Ochailey House Bessels Way Blewbury Didcot OX11 9NJ
160	) Land adjacent Culham Science centre
161	L Great Western Park
162	2 Orchard Centre Phase 2
163	8 North West Valley Park (Allocation - Site 8)
164	l Vauxhall Baracks
165	5 Land at Berinsfeld

The employment developments that have been included in the future year modelling are shown in Table 2.

Paramics Zone	Development
167	Southmead Industrial Estate
168	Culham Science Centre
169	Land West of CSC Inc No.1 Site
170	Berinsfield Regerneration
171	Milton Park
172	Harwell Campus
174	Other Premises Adjacent to Didcot Power Station - Diageo
175	Didcot A
176	Milton Hill Business and Technology Park
177	D-Tech- EZ 2
178	Milton Interchange Site- EZ2

The access arrangements for each of these developments are described below. The majority of the developments have the same access arrangements across all of the models, in some locations the access arrangements differ if HIF infrastructure is in place, these are noted below.

Where a development includes a spine road which forms a route through the site it is assumed that this cannot be used as a through route for general traffic and is only for development access unless otherwise stated.

## 3.1 Residential Developments

## 3.1.1 Zone 125 – Ladygrove East

Development trips access the model network on an internal development spine road which links NPR3 with the A4130 Hadden Hill. The junctions at either end of the spine road are roundabouts. See Figure 13.



Figure 13. Ladygrove East Accesses

#### 3.1.2 Zone 128 – Long Reach

Development trips access the model network at a simple T-junction on Didcot Road B4493 approximately 180m west of Keats Drive. See Figure 14.





#### 3.1.3 Zone 129 - Land Adjacent to the Village Hall

Development trips access the model network at a simple T-junction on Main Road approximately 160m west of Harwood Road. See Figure 15.



Figure 15. Land Adjacent to the Village Hall

#### 3.1.4 Zone 130 – Land at Didcot Road, Great Western Park

Development trips access the model network at 7 locations with the trips being split on a percentage basis. This zone is associated with the trips within the VoWHDC boundary (see Zone 161 for SODC). The percentages and locations are shown in Figure 16.



Figure 16. Land at Didcot F

Land at Didcot Road, Great Western Park Accesses

### 3.1.5 Zone 131 - Land off Fieldside Track

Development trips access the model network at a simple T-junction on Didcot Road in Long Wittenham approximately 30m south of High Street. See Figure 17.





#### 3.1.6 Zone 137 – Land to the south of Blenheim Hill

Development trips access the model network at a simple T-junction on B4493 approximately 450m west of Harwell Link Road. See Figure 18.



Figure 18. Land to the South of Blenheim Hill

### 3.1.7 Zone 139 – Land at Barnett Road

This development is located outside the coverage of the model and so trips access the model using the existing High Street, Steventon model links. See Figure 19.





#### 3.1.8 Zone 140 – Land south of Appleford Road

Development trips access the model network at two simple T-junctions on Appleford Road, east of Abingdon Road. The site is linked internally so vehicles can choose the most appropriate development access to use based on their origin/destination. This is shown in Figure 20.



Figure 20. Land south of Appleford Road

## 3.1.9 Zone 143 – Land at Abingdon Road

This development is located outside the coverage of the model and so trips access the model using the existing High Street, Steventon model links. See Figure 21.





#### 3.1.10 Zone 144 – Land to the south of Hadden Hill

Development trips access the model network at a simple T-junction on A4130 Hadden Hill approximately 150m east of Tesco Roundabout. See Figure 22.



Figure 22. Land to the South of Hadden Hill

### 3.1.11 Zone 145 – Land to the West of Great Western Park

Development trips access the model network at 4 locations with the trips being split evenly between each access. The three northern accesses are simple T-junctions off Valley Park Spine Road and the southern access is on to the Harwell Link Road Roundabout. The percentages and locations are shown in Figure 23.



Figure 23. Land to the West of Great Western Park Accesses

## 3.1.12 Zone 146 - Land at Reading Road

Development trips access the model network at a simple T-junction on A417 Reading Road, approximately 140m east of Wantage Road. See Figure 24.





#### 3.1.13 Zone 147 – Land at Didcot A Power Station

In the models with HIF infrastructure in place, development trips access the model network on an internal development spine road which links the Science Bridge HIF scheme and the Power Station Roundabout. The access on to the Science Bridge scheme is a simple T-junction. Vehicles are allowed to use the modelled link between the Science Bridge scheme and the Power Station Roundabout as a through route. The layout is shown in Figure 25.



Figure 25. Land at Didcot A Power Station Accesses with HIF

In the models without HIF infrastructure in place, development trips access the model network on an internal development spine road which links Milton Road and the Power Station Roundabout. Vehicles are barred from using the access link as a through route. The layout is shown in Figure 26.



Figure 26. Land at Didcot A Power Station Accesses without HIF

## 3.1.14 Zone 148 – Didcot Gateway South

The development trips access the model network on a road through the development which joins Haydon Road with Lydalls Road. The junctions between the spine road and Haydon Road and Lydalls Road are both simple T-junctions. This is shown in Figure 27.



Figure 27. Didcot Gateway South Accesses

## 3.1.15 Zone 149 – Land North of Grove Road, Harwell

This development is located just outside the coverage of the model and so trips access the model using the existing Grove Road/B4493 junction. See Figure 28.





#### 3.1.16 Zone 150 – Land of Hanney Road, Steventon

This development is located outside the coverage of the model and so trips access the model using the existing High Street, Steventon model links. See Figure 29.



Figure 29. Land of Hanney Road, Steventon

## 3.1.17 Zone 151 – Land to the north east of Didcot

The development trips access the network split evenly between two locations that form part of an internal development network. The development network joins with the main network at four locations, two priority junctions with B4016 Lady Grove and at the Mersey Way and Avon Way roundabouts on the A4130 as shown in Figure 30.





#### 3.1.18 Zone 152 – Land north of Appleford Road

This development trips access the network using a simple T-junction with the B4016 Appleford Road which is located approximately 200m east of Abingdon Road. See Figure 31.



Figure 31. Land north of Appleford Road

### 3.1.19 Zone 153 – Land off Drayton Road, Milton

This development is located outside the coverage of the model and so trips access the model using the existing High Street at Milton, and Milton Road at Sutton Courtenay. Trips are split evenly between those access points onto the network. This is shown in Figure 32.



Figure 32. Land off Drayton Road, Milton Accesses

#### 3.1.20 Zone 154 – Land to the north of Manor Close, Chilton

The development trips access the network using the existing Manor Close junction. See Figure 33.



Figure 33. Land to the north of Manor Close, Chilton

#### 3.1.21 Zone 155 – Land to the South of A4130 Didcot

Development trips access the model network at a simple T-junction on A4130, approximately 350m east of Sir Frank Williams Avenue. See Figure 34.



Figure 34. Land to the South of A4130 Didcot

#### 3.1.22 Zone 156 – Milton Heights

Development trips access the model network at a simple T-junction on Milton Hill, approximately 375m south of Trenchard Avenue. See Figure 35.



Figure 35. Milton Heights

#### 3.1.23 Zone 157 – Land at Milton Hill, Milton Heights

Development trips access the model network at a simple T-junction on Milton Hill, approximately 120m south of Trenchard Avenue. See Figure 36.





#### 3.1.24 Zone 158 – East of Sutton Courtenay

Development trips access the model on Frilsham Street at the existing junction with High Street. This is shown in Figure 37.



Figure 37. East of Sutton Courtney Access
### 3.1.25 Zone 159 – Chailey House, Bessels Way

Development trips access the model network at a simple T-junction on Bessels Way, approximately 275m north of Bessels Lea Road. See Figure 38.





**Chailey House, Bessels Way Access** 

### 3.1.26 Zone 160 – Land adjacent to Culham Science Centre

In the models with HIF infrastructure in place, the development trips access the network split between two main locations. 86% of the traffic access west of the railway line, and can access the network using either a ghost island right turn T-junction approximately 300m east of Thame Lane, the northern arm of the roundabout at the north end of the new Didcot to Culham River Crossing or a priority junction with Station Road approximately 70m north of the A415 (from where they can choose to use a single lane dualled junction with the A415 or travel along Station Road to access the new roundabout at Culham Science Centre). The 86% is split to use two access onto the internal road network of the site. The remaining 14% of traffic accesses east of the railway line using the north western arm of the new Culham Science Centre roundabout. This is shown in Figure 39.



Figure 39. Land adjacent to Culham Science Centre Accesses with HIF

3.1.27 In the models without HIF infrastructure, the access arrangements are similar. The development trips access the network split between two main locations. 86% of the traffic access west of the railway line, and can access the network using either a ghost island right turn T-junction approximately 300m east of Thame Lane, at a roundabout approximately 600m further east, a priority junction with Station Road approximately 70m north of the A415 (from where they can choose to use a single lane dualled junction with the A415 or travel along Station Road to access the existing junction between Station Road and A415 east of the railway). The 86% is split to use two access onto the internal road network of the site. The remaining 14% of traffic accesses east of the railway line, using a new stub onto the eastern Culham Station access road. This is shown in Figure 40.



Figure 40. Land adjacent to Culham Science Centre Accesses without HIF

### 3.1.28 Zone 161 – Great Western Park

Development trips access the model network at 7 locations with the trips being split on a percentage basis. This zone is associated with the trips within the SODC boundary (see Zone 130 for VoWHDC). The percentages and locations are shown in Figure 41.



Figure 41. Great Western Park Accesses

### 3.1.29 Zone 162 – Orchard Centre Phase 2

The development trips access the network at the four arm junction between Broadway and Hagbourne Road using the northern arm of the junction. This is shown Figure 42.





### 3.1.30 Zone 163 – North West Valley Park

In the models with HIF infrastructure in place, the development trips access on to an internal development spine road linking the south east arm of the roundabout on the A4130 to a simple T-Junction with Valley Park Spine Road. Vehicles are barred from using the access road as a through route. See Figure 43.



Figure 43. North West Valley Park Accesses with HIF

In the models without HIF infrastructure in place, the development trips access on to an internal development spine road linking the south arm of a roundabout on the A4130 to a simple T-Junction with Valley Park Spine Road. Vehicles are barred from using the access road as a through route. See Figure 44.



Figure 44. North West Valley Park Accesses without HIF

### 3.1.31 Zone 164 – Vauxhall Barracks

The development trips access onto the network at three existing junctions - Vauxhall Way at B4493 Foxhall Road, Wortham Road at The Oval and North Road at The Oval. The internal development roads are included to allow development traffic to choose the most appropriate access as shown in Figure 45.



Figure 45. Vauxhall Barracks Accesses

### 3.1.32 Zone 165 – Land at Berinsfield

Development trips access the network on simple T-junctions at Burcot Lane and Fane Drive. There is also an additional access, a T-Junction connecting Fane Drive to A4074, north of Berinsfield Roundabout, at this junction the right turn from the A4074 to Fane Drive is banned. The access arrangements are shown in Figure 46.





Land at Berinsfield Accesses

### 3.2 Employment

### 3.2.1 Zone 167 – Southmead Industrial Estate

Development trips access the network at a simple T-junction on Hawksworth, approximately 100m west of Collett. See Figure 47.



Figure 47.

Southmead Industrial Estate

### 3.2.2 Zone 168 – Culham Science Centre

With the HIF infrastructure in place, development trips access the network on to an internal development spine road which links the north east arm of the Clifton Hampden Bypass/A415 Roundabout with a left out only access on to Clifton Hampden Bypass. Vehicles will chose the most appropriate access to use based on their destination zone. See Figure 48.



Figure 48. Culham Science Centre Accesses with HIF

Without the HIF infrastructure in place, development trips access the network at a T-Junction with a right turn lane as shown in Figure 49.





### 3.2.3 Zone 169 – Land West of CSC

With HIF infrastructure in place, the development trips access the network split with 55% of the trips accessing west of the railway line on to an internal spine road and 45% accessing east of the railway on to the north west arm of the Clifton Hampden Bypass/A415 Roundabout as shown in Figure 50.





Without HIF infrastructure in place, the development trips access the network split with 55% of the trips accessing west of the railway line on to an internal spine road and 45% accessing east of the railway on to Station Road as shown in Figure 51.



Figure 51. Land west of CSC Accesses without HIF

### 3.2.4 Zone 170 – Berinsfield Regeneration

Development trips access the network on simple T-junctions at Burcot Lane and Fane Drive. There is also an additional access, a T-Junction connecting Fane Drive to A4074, north of Berinsfield Roundabout, at this junction the right turn from the A4074 to Fane Drive is banned. The access arrangements are shown in Figure 52.



Figure 52. Berinsfield Regeneration Accesses

### 3.2.5 Zone 171 – Milton Park

Development trips access the network split between 34% on to Jubilee Avenue, 33% on Innovation Drive and 34% on to Brook Drive as shown in Figure 53.



Figure 53. Milton Park Accesses

### 3.2.6 Zone 172 – Harwell Campus

Development trips access the network split between 20% on Eighth Street, 30% on Rutherford Avenue and 50% on Fermi Avenue, vehicles will choose the most appropriate route through the internal Harwell Campus network to access their destination. Note the junction between the A4185 and Thomson Avenue is signalised. See Figure 54.





### 3.2.7 Zone 174 – Other Premises Adjacent to Didcot Power Station – Diageo

Development trips access the network using the existing ASDA access arm of the roundabout at Sutton Courtenay Road/Brook Drive. See Figure 55.



Figure 55. Other Premises Adjacent to Didcot Power Station - Diageo

### 3.2.8 Zone 175 – Didcot A

With the HIF infrastructure in place, the development trips access the network split evenly between 4 accesses. Three simple T-Junction accesses on to Science Bridge and one access on to an internal development spine road which links Milton Road and the Power Station Roundabout. The development spine road links on to the Science Bridge scheme at a T-junction with a ghost island right turn from Milton Road and can be used as a through route by traffic, as shown in Figure 56.



Figure 56. Didcot A Accesses with HIF

Without HIF infrastructure in place, the development trips access the network on an internal development spine road which links Milton Road and the Power Station Roundabout, vehicles are barred from using this spine road as a through route. See Figure 57.



Figure 57. Didcot A Accesses without HIF

### 3.2.9 Zone 176 – Milton Hill Business and Technology Park

Development trips access the network using the existing Milton Hill Business and Technology Park access on A4130 Abingdon Road. See Figure 58.



Figure 58. Milton Hill Business and Technology Park Access

### 3.2.10 Zone 177 – D-Tech- EZ2

With the HIF infrastructure in place, development trips access the network split between two simple T-junctions on to the New Didcot to Culham River Crossing, north of the A4130 Collett roundabout. 40% of the vehicles access from the west and 60% access from the east. This is shown in Figure 59.



Figure 59. D-Tech-EZ2 Accesses with HIF

Without the HIF infrastructure in place, development trips access using the existing north arm of the A4130 Collett Roundabout. See Figure 60.



Figure 60. D-Tech-EZ2 Accesses without HIF

### 3.2.11 Zone 178 – Milton Interchange Site- EZ2

With the HIF infrastructure in place, the development trips access on to an internal development spine road at two locations linking the existing services access on to the A4130 with the new A4130/North West Valley Park Roundabout as shown in Figure 61. The development spine road can be used by traffic as a through route.





Without the HIF infrastructure in place, the development trips access on to an internal spine road which links the existing services access on to the A4130 with a new signalised junction on to the A4130 as shown in Figure 62. Vehicles are barred from using the development spine road as a through route.



Figure 62. Milton Interchange Site-EZ2 Accesses without HIF



Figure 63.

2020 Base Network



Figure 64.



Figure 65.

2024 with HIF Network



Figure 66.

2034 without HIF Network



Figure 67.

2034 with HIF Network



Figure 68.

2020 Speed Limits



Figure 69.

2024 without HIF Speed Limits



Figure 70.

2024 with HIF Speed Limits





2034 without HIF Speed Limits





2034 with HIF Speed Limits

# Appendix H – On-Site Junction Capacity Assessment Outputs

SCH1



### **Junctions 9 ARCADY 9 - Roundabout Module** Version: 9.5.0.6896 © Copyright TRL Limited, 2018 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk 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: WID-01-Backhill Roundabout-P02-v1.j9

Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\99 Submitted\20210910 Report generation date: 10/09/2021 15:27:41

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

### Summary of junction performance

			,	۹M		РМ					
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
	2024wi				with						
A - A4130 (E)	3.8	7.35	0.79	A		1.8	4.38	0.64	А		
B - NW Valley Park	0.0	0.00	0.00	А	25 %	0.0	0.00	0.00	А	57 % [A - A4130 (E)]	
C - Mays/Miscombe/Services	0.1	6.67	0.09	А	[A - A4130 (E)]	0.1	5.50	0.11	А		
D - A4130 (W)	1.2	3.57	0.52	А		1.6	4.24	0.61	А		
					2034	4with					
A - A4130 (E)	2.8	6.09	0.73	A		2.0	4.92	0.67	A		
B - NW Valley Park	0.1	6.69	0.13	А	35 %	0.2	5.96	0.14	А	3 %	
C - Mays/Miscombe/Services	0.1	5.95	0.05	А	[A - A4130 (E)]	0.3	6.59	0.24	А	[D - A4130 (W)]	
D - A4130 (W)	2.6	5.73	0.71	А		13.6	24.27	0.94	С		

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

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

#### **File summary**

#### **File Description**

Title	WID_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0001 P02
Location	Backhill Roundabout
Site number	01
Date	11/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
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	Calculate Queue	Calculate detailed	Calculate residual	Residual capacity	RFC	Average Delay	Queue threshold
length (m)	Percentiles	queueing delay	capacity	criteria type	Threshold	threshold (s)	(PCU)
5.75			✓	Delay	0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓	~
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	~
D6	2034with	PM	ONE HOUR	16:45	18:15	15	~	~

### **Analysis Set Details**

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



# 2024 with, AM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2024with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
01	Backhill Roundabout	Standard Roundabout		A, B, C, D	5.89	А

### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	25	A - A4130 (E)

### Arms

#### Arms

Arm	Name	Description
Α	A4130 (E)	
в	NW Valley Park	
С	Mays/Miscombe/Services	
D	A4130 (W)	

### **Roundabout Geometry**

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A4130 (E)	6.74	9.22	10.0	29.9	80.2	43.3	
B - NW Valley Park	3.77	5.00	3.5	28.6	80.2	34.9	
C - Mays/Miscombe/Services	3.86	5.00	2.9	30.9	80.2	16.1	
D - A4130 (W)	6.75	9.13	6.7	36.2	80.2	38.9	

### Zebra Crossings

Arm	Space between crossing and junction entry (Zebra) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B - NW Valley Park	4.00	9.00		Distance	7.83	5.59				
C - Mays/Miscombe/Services	2.57	6.26	✓	Distance			4.00	2.86	4.00	2.86

### **Pelican/Puffin Crossings**

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s) Amber time regarded as green (s)		Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
A - A4130 (E)	13.00	3.00	2.90	1.00	6.00	11.20	7.00
D - A4130 (W)	16.00	3.00	2.90	1.00	6.00	11.20	7.00



### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A4130 (E)	0.566	2388
B - NW Valley Park	0.415	1315
C - Mays/Miscombe/Services	0.444	1409
D - A4130 (W)	0.567	2362

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

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	~	~

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
√	$\checkmark$	HV Percentages	2.00

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 (E)	(E) ONE HOUR ✓			1684	100.000
B - NW Valley Park		ONE HOUR	✓	0	100.000
C - Mays/Miscombe/Services		ONE HOUR	√	49	100.000
D - A4130 (W)		ONE HOUR	✓	1076	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130 (E)	[ONEHOUR]	20.00
B - NW Valley Park	[ONEHOUR]	20.00
C - Mays/Miscombe/Services	[ONEHOUR]	20.00
D - A4130 (W)	[ONEHOUR]	20.00

# **Origin-Destination Data**

### Demand (PCU/hr)

			То		
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)
	A - A4130 (E)	0	0	34	1650
From	B - NW Valley Park	0	0	0	0
	C - Mays/Miscombe/Services	44	0	0	5
	D - A4130 (W)	1076	0	0	0

### **Vehicle Mix**

### Heavy Vehicle Percentages

			То		
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)
	A - A4130 (E)	0	0	1	4
From	B - NW Valley Park	0	0	0	0
	C - Mays/Miscombe/Services	2	0	0	0
	D - A4130 (W)	7	0	0	0



# Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130 (E)	0.79	7.35	3.8	А	1684	1684
B - NW Valley Park	0.00	0.00	0.0	А	0	0
C - Mays/Miscombe/Services	0.09	6.67	0.1	А	49	49
D - A4130 (W)	0.52	3.57	1.2	A	1076	1076

### Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1514	378	0	17.98	2335	0.648	1511	1006	1.2	1.9	4.528	A
B - NW Valley Park	0	0	1511	17.98	688	0.000	0	0	0.0	0.0	0.000	А
C - Mays/Miscombe/Services	44	11	1481	17.98	752	0.059	44	31	0.0	0.1	5.175	A
D - A4130 (W)	967	242	39	17.98	2275	0.425	966	1485	0.6	0.8	2.942	A

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1854	464	0	22.02	2349	0.789	1847	1231	1.9	3.8	7.346	А
B - NW Valley Park	0	0	1847	22.02	549	0.000	0	0	0.0	0.0	0.000	А
C - Mays/Miscombe/Services	54	13	1809	22.02	606	0.089	54	37	0.1	0.1	6.631	А
D - A4130 (W)	1185	296	48	22.02	2262	0.524	1183	1815	0.8	1.2	3.565	А

### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1854	464	0	22.02	2367	0.783	1854	1233	3.8	3.8	7.289	A
B - NW Valley Park	0	0	1854	22.02	546	0.000	0	0	0.0	0.0	0.000	A
C - Mays/Miscombe/Services	54	13	1817	22.02	603	0.089	54	37	0.1	0.1	6.673	A
D - A4130 (W)	1185	296	48	22.02	2266	0.523	1185	1822	1.2	1.2	3.561	А

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1514	378	0	17.98	2356	0.643	1521	1008	3.8	1.9	4.524	А
B - NW Valley Park	0	0	1521	17.98	684	0.000	0	0	0.0	0.0	0.000	А
C - Mays/Miscombe/Services	44	11	1491	17.98	748	0.059	44	31	0.1	0.1	5.210	A
D - A4130 (W)	967	242	40	17.98	2280	0.424	969	1495	1.2	0.8	2.941	A



# 2024with, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2024with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
01	Backhill Roundabout	Standard Roundabout		A, B, C, D	4.34	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	57	A - A4130 (E)

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	~	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 (E)		ONE HOUR	✓	1340	100.000
B - NW Valley Park		ONE HOUR	✓	0	100.000
C - Mays/Miscombe/Services		ONE HOUR	✓	73	100.000
D - A4130 (W)		ONE HOUR	~	1259	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130 (E)	[ONEHOUR]	20.00
B - NW Valley Park	[ONEHOUR]	20.00
C - Mays/Miscombe/Services	[ONEHOUR]	20.00
D - A4130 (W)	[ONEHOUR]	20.00

### **Origin-Destination Data**

### Demand (PCU/hr)

		То										
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)							
	A - A4130 (E)	0	0	4	1336							
From	B - NW Valley Park	0	0	0	0							
	C - Mays/Miscombe/Services	65	0	0	8							
	D - A4130 (W)	1251	0	0	8							



# Vehicle Mix

### Heavy Vehicle Percentages

		То										
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)							
	A - A4130 (E)	0	0	0	3							
From	B - NW Valley Park	0	0	0	0							
	C - Mays/Miscombe/Services	3	0	0	1							
	D - A4130 (W)	3	0	0	0							

# Results

### **Results Summary for whole modelled period**

Arm Max RFC		Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130 (E)	0.64	4.38	1.8	А	1340	1340
B - NW Valley Park	0.00	0.00	0.0	А	0	0
C - Mays/Miscombe/Services	0.11	5.50	0.1	А	73	73
D - A4130 (W)	0.61	4.24	1.6	A	1259	1259

### Main Results for each time segment

### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1205	301	7	17.98	2321	0.519	1203	1182	0.8	1.1	3.314	А
B - NW Valley Park	0	0	1211	17.98	813	0.000	0	0	0.0	0.0	0.000	А
C - Mays/Miscombe/Services	66	16	1207	17.98	873	0.075	66	4	0.1	0.1	4.579	A
D - A4130 (W)	1132	283	58	17.98	2267	0.499	1131	1214	0.7	1.0	3.258	A

### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1475	369	9	22.02	2317	0.637	1473	1446	1.1	1.8	4.378	А
B - NW Valley Park	0	0	1481	22.02	701	0.000	0	0	0.0	0.0	0.000	А
C - Mays/Miscombe/Services	80	20	1477	22.02	754	0.107	80	4	0.1	0.1	5.492	А
D - A4130 (W)	1386	347	71	22.02	2256	0.614	1384	1486	1.0	1.6	4.238	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1475	369	9	22.02	2324	0.635	1475	1449	1.8	1.8	4.370	A
B - NW Valley Park	0	0	1484	22.02	700	0.000	0	0	0.0	0.0	0.000	А
C - Mays/Miscombe/Services	80	20	1480	22.02	752	0.107	80	4	0.1	0.1	5.504	А
D - A4130 (W)	1386	347	72	22.02	2262	0.613	1386	1489	1.6	1.6	4.233	А


#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1205	301	7	17.98	2330	0.517	1207	1186	1.8	1.1	3.313	A
B - NW Valley Park	0	0	1215	17.98	811	0.000	0	0	0.0	0.0	0.000	A
C - Mays/Miscombe/Services	66	16	1211	17.98	872	0.075	66	4	0.1	0.1	4.593	A
D - A4130 (W)	1132	283	59	17.98	2275	0.498	1134	1218	1.6	1.0	3.256	A



# 2034 with, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2034with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

# **Junction Network**

## Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
01	Backhill Roundabout	Standard Roundabout		A, B, C, D	5.93	A

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	A - A4130 (E)

# **Traffic Demand**

## **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

## **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 (E)		ONE HOUR	✓	1525	100.000
B - NW Valley Park		ONE HOUR	~	73	100.000
C - Mays/Miscombe/Services		ONE HOUR	✓	28	100.000
D - A4130 (W)		ONE HOUR	~	1475	100.000

## **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130 (E)	[ONEHOUR]	20.00
B - NW Valley Park	[ONEHOUR]	20.00
C - Mays/Miscombe/Services	[ONEHOUR]	20.00
D - A4130 (W)	[ONEHOUR]	20.00

# **Origin-Destination Data**

## Demand (PCU/hr)

		То										
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)							
	A - A4130 (E)	0	13	74	1438							
From	B - NW Valley Park	14	0	0	59							
	C - Mays/Miscombe/Services	23	0	0	5							
	D - A4130 (W)	1414	47	12	2							



# Vehicle Mix

## Heavy Vehicle Percentages

			То		
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)
	A - A4130 (E)	0	0	2	7
From	B - NW Valley Park	0	0	0	0
	C - Mays/Miscombe/Services	7	0	0	0
	D - A4130 (W)	7	0	0	0

# Results

## **Results Summary for whole modelled period**

Arm Max RFC		Max Delay (s) Max Queue (PCU)		Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130 (E)	0.73	6.09	2.8	А	1525	1525
B - NW Valley Park	0.13	6.69	0.1	А	73	73
C - Mays/Miscombe/Services	0.05	5.95	0.1	А	28	28
D - A4130 (W)	0.71	5.73	2.6	A	1475	1475

## Main Results for each time segment

## 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1371	343	55	17.98	2301	0.596	1369	1303	1.1	1.6	4.111	А
B - NW Valley Park	66	16	1370	17.98	747	0.088	66	54	0.1	0.1	5.282	А
C - Mays/Miscombe/Services	25	6	1358	17.98	806	0.031	25	77	0.0	0.0	4.869	А
D - A4130 (W)	1326	331	33	17.98	2287	0.580	1324	1350	1.0	1.5	3.983	A

## 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1679	420	67	22.02	2300	0.730	1674	1593	1.6	2.8	6.087	А
B - NW Valley Park	80	20	1675	22.02	620	0.130	80	66	0.1	0.1	6.663	A
C - Mays/Miscombe/Services	31	8	1661	22.02	672	0.046	31	94	0.0	0.1	5.932	A
D - A4130 (W)	1624	406	41	22.02	2286	0.710	1620	1651	1.5	2.6	5.726	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1679	420	67	22.02	2312	0.726	1679	1598	2.8	2.8	6.064	А
B - NW Valley Park	80	20	1680	22.02	618	0.130	80	66	0.1	0.1	6.691	А
C - Mays/Miscombe/Services	31	8	1666	22.02	670	0.046	31	95	0.1	0.1	5.952	А
D - A4130 (W)	1624	406	41	22.02	2297	0.707	1624	1656	2.6	2.6	5.706	А



#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1371	343	55	17.98	2315	0.592	1376	1309	2.8	1.6	4.110	A
B - NW Valley Park	66	16	1377	17.98	744	0.088	66	54	0.1	0.1	5.308	А
C - Mays/Miscombe/Services	25	6	1365	17.98	803	0.031	25	78	0.1	0.0	4.889	A
D - A4130 (W)	1326	331	33	17.98	2300	0.577	1330	1357	2.6	1.5	3.981	Α



# 2034with, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Demand Sets	D6 - 2034with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

# **Junction Network**

## Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
01	Backhill Roundabout	Standard Roundabout		A, B, C, D	15.61	С

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	D - A4130 (W)

# **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)	Results for central hour only	Run automatically
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

## **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 (E)		ONE HOUR	✓	1360	100.000
B - NW Valley Park		ONE HOUR	~	88	100.000
C - Mays/Miscombe/Services		ONE HOUR	✓	159	100.000
D - A4130 (W)		ONE HOUR	~	1944	100.000

## **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130 (E)	[ONEHOUR]	20.00
B - NW Valley Park	[ONEHOUR]	20.00
C - Mays/Miscombe/Services	[ONEHOUR]	20.00
D - A4130 (W)	[ONEHOUR]	20.00

# **Origin-Destination Data**

## Demand (PCU/hr)

	То										
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)						
	A - A4130 (E)	0	31	33	1296						
From	B - NW Valley Park	18	0	0	70						
	C - Mays/Miscombe/Services	126	0	0	33						
	D - A4130 (W)	1795	132	10	7						



# Vehicle Mix

## Heavy Vehicle Percentages

			То		
		A - A4130 (E)	B - NW Valley Park	C - Mays/Miscombe/Services	D - A4130 (W)
	A - A4130 (E)	0	0	1	2
From	B - NW Valley Park	0	0	0	0
	C - Mays/Miscombe/Services	2	0	0	0
	D - A4130 (W)	2	0	0	0

# Results

## **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130 (E)	0.67	4.92	2.0	А	1360	1360
B - NW Valley Park	0.14	5.96	0.2	А	88	88
C - Mays/Miscombe/Services	0.24	6.59	0.3	А	159	159
D - A4130 (W)	0.94	24.27	13.6	С	1944	1944

## Main Results for each time segment

## 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1223	306	133	17.98	2253	0.543	1221	1737	0.8	1.2	3.551	A
B - NW Valley Park	79	20	1209	17.98	814	0.097	79	146	0.1	0.1	4.898	A
C - Mays/Miscombe/Services	143	36	1249	17.98	855	0.167	143	39	0.1	0.2	5.134	A
D - A4130 (W)	1748	437	129	17.98	2257	0.774	1742	1262	1.9	3.4	7.034	A

## 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1497	374	161	22.02	2237	0.669	1494	2103	1.2	2.0	4.916	А
B - NW Valley Park	97	24	1478	22.02	702	0.138	97	177	0.1	0.2	5.946	A
C - Mays/Miscombe/Services	175	44	1528	22.02	731	0.239	175	47	0.2	0.3	6.566	A
D - A4130 (W)	2140	535	158	22.02	2273	0.942	2106	1544	3.4	11.9	18.989	С

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1497	374	164	22.02	2244	0.667	1497	2129	2.0	2.0	4.911	A
B - NW Valley Park	97	24	1482	22.02	701	0.138	97	179	0.2	0.2	5.962	А
C - Mays/Miscombe/Services	175	44	1531	22.02	729	0.240	175	47	0.3	0.3	6.594	A
D - A4130 (W)	2140	535	159	22.02	2273	0.942	2134	1548	11.9	13.6	24.274	С



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## 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130 (E)	1223	306	137	17.98	2261	0.541	1226	1781	2.0	1.2	3.554	А
B - NW Valley Park	79	20	1214	17.98	812	0.097	79	149	0.2	0.1	4.917	А
C - Mays/Miscombe/Services	143	36	1254	17.98	853	0.168	143	39	0.3	0.2	5.159	A
D - A4130 (W)	1748	437	130	17.98	2289	0.764	1788	1268	13.6	3.4	7.890	А

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SCH2

# Full Input Data And Results Full Input Data And Results

# User and Project Details

Project:	DIDCOT GARDEN TOWN HIF 1 SCHEMES PRELIMINARY DESIGN
Title:	WID
Location:	
File name:	WID-02-A4130-Valley_Park-P02-v3 3 Stage DD.lsg3x
Author:	Sergio Perez
Company:	
Address:	
Notes:	

# Network Layout Diagram



# Phase Diagram



# Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
А	Traffic		-9999	7
В	Traffic		-9999	7
С	Traffic		-9999	7
D	Traffic		-9999	7
E	Traffic		-9999	7
F	Pedestrian		-9999	6
G	Pedestrian		-9999	6
Н	Pedestrian		-9999	6

# Phase Intergreens Matrix

			ę	Starti	ing F	hase	Э		
		А	В	С	D	Е	F	G	Н
	Α		-	-	-	7	11	-	-
	В	-		7	7	6	-	-	12
	С	-	7		-	9	ŀ	7	-
Terminating Phase	D	-	6	-		-	-	6	9
	Е	5	5	5	-		11	-	5
	F	11	-	-	-	11		-	-
	G	-	-	15	15	-	-		-
	Н	-	22	-	22	22	-	-	

# Phases in Stage

Stage No.	Phases in Stage
1	ACH
2	BFG
3	DE
4	AB

## Stage Diagram

_				
	1 Min >= 6	2 Min >= 6	3 Min >= 7	4 Min >= 0
Q			@ I	
1	B Y	® ¥	B Y	®—, Ÿ
	I. C	©	I — O	J@
	¶@	©	¶,®	€ <b>⊢−−−</b> ®
	<b>←_®</b> →			
	Ť	Ĭ	l t	Ĭ
	E	E	(E)	E

# Phase Delays

Term. Stage	Start Stage	Phase	Туре	Value	Cont value
1	2	А	Losing	13	13
1	2	С	Losing	17	17
1	4	С	Losing	17	17
2	3	В	Losing	6	6
3	1	D	Losing	11	11

# Prohibited Stage Change

		To Stage							
		1	2	3	4				
	1		24	22	24				
From Stage	2	15		15	11				
	3	20	11		6				
	4	12	11	7					

Full Input Data And Results Give-Way Lane Input Data

Junction: WID-02-A4130/Valley Park

There are no Opposed Lanes in this Junction

# Full Input Data And Results Lane Input Data

Junction: WID-02-A4130/Valley Park												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A4130 (E/B))	U	А	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 2 Ahead	Inf
1/2 (A4130 (E/B))	U	А	2	3	60.0	Geom	-	3.35	0.00	Ν	Arm 2 Ahead	Inf
1/3 (A4130 (E/B))	U	В	2	3	8.2	Geom	-	3.42	0.00	Y	Arm 6 Right	9.27
2/1 (Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
2/2 (Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A4130 (W/B))	U	D	2	3	7.0	Geom	-	3.00	0.00	Y	Arm 6 Left	7.97
3/2 (A4130 (W/B))	U	С	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 4 Ahead	Inf
3/3 (A4130 (W/B))	U	С	2	3	60.0	Geom	-	3.35	0.00	Y	Arm 4 Ahead	Inf
4/1 (Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
4/2 (Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Valley Park)	U	E	2	3	7.0	Geom	-	3.60	0.00	Y	Arm 4 Left	12.33
5/2 (Valley Park)	U	Е	2	3	60.0	Geom	-	3.63	0.00	N	Arm 2 Right	11.06
6/1 (Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

# Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
3: '2034with AM'	08:00	09:00	01:00	
4: '2034with PM'	17:00	18:00	01:00	
5: '2024with AM'	08:00	09:00	01:00	
6: '2024with PM'	17:00	18:00	01:00	

Scenario 3: '2034with AM' (FG3: '2034with AM', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired

Desired	Flow :

	Destination							
		А	В	С	Tot.			
Origin	А	0	44	1436	1480			
	В	90	0	130	220			
	С	1387	51	0	1438			
	Tot.	1477	95	1566	3138			

# Traffic Lane Flows

Lane	Scenario 3: 2034with AM			
Junction: WID-0	2-A4130/Valley Park			
1/1	669			
1/2 (with short)	769(In) 718(Out)			
1/3 (short)	51			
2/1	759			
2/2	718			
3/1 (short)	44			
3/2 (with short)	747(In) 703(Out)			
3/3	733			
4/1	833			
4/2	733			
5/1 (short)	130			
5/2 (with short)	220(In) 90(Out)			
6/1	95			

Lane Saturation Flows
-----------------------

Junction: WID-02-A4130/Valley Park								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A4130 (E/B))	3.40	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1955	1955
1/2 (A4130 (E/B))	3.35	0.00	Ν	Arm 2 Ahead	Inf	100.0 %	2090	2090
1/3 (A4130 (E/B))	3.42	0.00	Y	Arm 6 Right	9.27	100.0 %	1684	1684
2/1 (Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A4130 (W/B))	3.00	0.00	Y	Arm 6 Left	7.97	100.0 %	1612	1612
3/2 (A4130 (W/B))	3.40	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1955	1955
3/3 (A4130 (W/B))	3.35	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1950	1950
4/1 (Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Exit Lane 2)	Infinite Saturation Flow Inf						Inf	
5/1 (Valley Park)	3.60	0.00	Y	Arm 4 Left	12.33	100.0 %	1761	1761
5/2 (Valley Park)	3.63	0.00	Ν	Arm 2 Right	11.06	100.0 %	1865	1865
6/1 (Exit Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 4: '2034with PM' (FG4: '2034with PM', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow :

	Destination								
		А	В	С	Tot.				
Origin	А	0	113	1284	1397				
	В	81	0	73	154				
	С	1782	153	0	1935				
	Tot.	1863	266	1357	3486				

# Traffic Lane Flows

Lane	Scenario 4: 2034with PM
Junction: WID-0	2-A4130/Valley Park
1/1	894
1/2 (with short)	1041(In) 888(Out)
1/3 (short)	153
2/1	975
2/2	888
3/1 (short)	113
3/2 (with short)	723(In) 610(Out)
3/3	674
4/1	683
4/2	674
5/1 (short)	73
5/2 (with short)	154(In) 81(Out)
6/1	266

Lane Saturation Flows
-----------------------

Junction: WID-02-A4130/Valley Park								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A4130 (E/B))	3.40	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1955	1955
1/2 (A4130 (E/B))	3.35	0.00	Ν	Arm 2 Ahead	Inf	100.0 %	2090	2090
1/3 (A4130 (E/B))	3.42	0.00	Y	Arm 6 Right	9.27	100.0 %	1684	1684
2/1 (Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
3/1 (A4130 (W/B))	3.00	0.00	Y	Arm 6 Left	7.97	100.0 %	1612	1612
3/2 (A4130 (W/B))	3.40	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1955	1955
3/3 (A4130 (W/B))	3.35	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1950	1950
4/1 (Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
4/2 (Exit Lane 2)	Infinite Saturation Flow Inf						Inf	
5/1 (Valley Park)	3.60	0.00	Y	Arm 4 Left	12.33	100.0 %	1761	1761
5/2 (Valley Park)	3.63	0.00	Ν	Arm 2 Right	11.06	100.0 %	1865	1865
6/1 (Exit Lane 1)			Infinite S	aturation Flow			Inf	Inf

Scenario 5: '2024with AM' (FG5: '2024with AM', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow :

	Destination								
Origin		А	В	С	Tot.				
	А	0	7	1672	1679				
	В	14	0	27	41				
	С	1118	7	0	1125				
	Tot.	1132	14	1699	2845				

# Traffic Lane Flows

Lane	Scenario 5: 2024with AM
Junction: WID-0	2-A4130/Valley Park
1/1	527
1/2 (with short)	598(In) 591(Out)
1/3 (short)	7
2/1	541
2/2	591
3/1 (short)	7
3/2 (with short)	840(In) 833(Out)
3/3	839
4/1	860
4/2	839
5/1 (short)	27
5/2 (with short)	41(In) 14(Out)
6/1	14

Lane Saturation Flows
-----------------------

Junction: WID	nction: WID-02-A4130/Valley Park											
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)				
1/1 (A4130 (E/B))	3.40	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1955	1955				
1/2 (A4130 (E/B))	3.35	0.00	Ν	Arm 2 Ahead	Inf	100.0 %	2090	2090				
1/3 (A4130 (E/B))	3.42	0.00	Y	Arm 6 Right	9.27	1684	1684					
2/1 (Exit Lane 1)				Inf	Inf							
2/2 (Exit Lane 2)			Infinite S		Inf	Inf						
3/1 (A4130 (W/B))	3.00	0.00	Y	Arm 6 Left	7.97	100.0 %	1612	1612				
3/2 (A4130 (W/B))	3.40	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1955	1955				
3/3 (A4130 (W/B))	3.35	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1950	1950				
4/1 (Exit Lane 1)			Infinite S	aturation Flow			Inf	Inf				
4/2 (Exit Lane 2)			Infinite S	aturation Flow			Inf	Inf				
5/1 (Valley Park)	3.60	0.00	Y	Arm 4 Left	12.33	100.0 %	1761	1761				
5/2 (Valley Park)	3.63	0.00	Ν	Arm 2 Right	11.06	100.0 %	1865	1865				
6/1 (Exit Lane 1)			Infinite S	aturation Flow			Inf	Inf				

Scenario 6: '2024with PM' (FG6: '2024with PM', Plan 1: 'Network Control Plan 1') Traffic Flows, Desired Desired Flow :

	Destination           A         B         C         Tot.           A         0         14         1332         1346           B         8         0         9         17           C         1299         18         0         1317							
		А	В	С	Tot.			
	А	0	14	1332	1346			
Origin	В	8	0	9	17			
	С	1299	18	0	1317			
	Tot.	1307	32	1341	2680			

# Traffic Lane Flows

Lane	Scenario 6: 2024with PM
Junction: WID-0	2-A4130/Valley Park
1/1	618
1/2 (with short)	699(In) 681(Out)
1/3 (short)	18
2/1	626
2/2	681
3/1 (short)	14
3/2 (with short)	675(In) 661(Out)
3/3	671
4/1	670
4/2	671
5/1 (short)	9
5/2 (with short)	17(In) 8(Out)
6/1	32

Junction: WID	-02-A41	30/Valley F	Park							
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)		
1/1 (A4130 (E/B))	3.40	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1955	1955		
1/2 (A4130 (E/B))	3.35	0.00	Ν	Arm 2 Ahead	Inf	100.0 %	2090	2090		
1/3 (A4130 (E/B))	3.42	0.00	Y	Arm 6 Right	9.27	100.0 %	1684	1684		
2/1 (Exit Lane 1)	Infinite Saturation Flow Inf Inf									
2/2 (Exit Lane 2)			Infinite S		Inf	Inf				
3/1 (A4130 (W/B))	3.00	0.00	Y	Arm 6 Left	7.97	100.0 %	1612	1612		
3/2 (A4130 (W/B))	3.40	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1955	1955		
3/3 (A4130 (W/B))	3.35	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1950	1950		
4/1 (Exit Lane 1)			Infinite S	aturation Flow			Inf	Inf		
4/2 (Exit Lane 2)			Infinite S	aturation Flow			Inf	Inf		
5/1 (Valley Park)	3.60	0.00	Y	Arm 4 Left	12.33	100.0 %	1761	1761		
5/2 (Valley Park)	3.63	0.00	Ν	Arm 2 Right	11.06	100.0 %	1865	1865		
6/1 (Exit Lane 1)			Infinite S	aturation Flow			Inf	Inf		

Scenario 3: '2034with AM' (FG3: '2034with AM', Plan 1: 'Network Control Plan 1')



# Stage Timings

Stage	1	2	3
Duration	35	7	7
Change Point	0	55	86

# Signal Timings Diagram



# Full Input Data And Results **Network Layout Diagram**



# **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: WID	-	-	N/A	-	-		-	-	-	-	-	-	60.7%
WID-02-A4130/Valley Park	-	-	N/A	-	-		-	-	-	-	-	-	60.7%
1/1	A4130 (E/B) Ahead	U	N/A	N/A	A		1	63	-	669	1955	1466	45.6%
1/2+1/3	A4130 (E/B) Ahead Right	U	N/A	N/A	A B		1	63:13	-	769	2090:1684	1565	49.1%
2/1	Exit	U	N/A	N/A	-		-	-	-	759	Inf	Inf	0.0%
2/2	Exit	U	N/A	N/A	-		-	-	-	718	Inf	Inf	0.0%
3/2+3/1	A4130 (W/B) Ahead Left	U	N/A	N/A	CD		1	67:18	-	747	1955:1612	1231	60.7%
3/3	A4130 (W/B) Ahead	U	N/A	N/A	С		1	67	-	733	1950	1228	59.7%
4/1	Exit	U	N/A	N/A	-		-	-	-	833	Inf	Inf	0.0%
4/2	Exit	U	N/A	N/A	-		-	-	-	733	Inf	Inf	0.0%
5/2+5/1	Valley Park Right Left	U	N/A	N/A	E		1	10	-	220	1865:1761	428	51.4%
6/1	Exit	U	N/A	N/A	-		-	-	-	95	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	н		1	35	-	2	-	23333	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	7	-	2	-	4667	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	7	-	2	-	4667	0.0%

ltem	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: WID	-	-	0	0	0	10.5	2.9	0.0	13.4	-	-	-	-
WID-02-A4130/Valley Park	-	-	0	o	0	10.5	2.9	0.0	13.4	-	-	-	-
1/1	669	669	-	-	-	1.0	0.4	-	1.4	7.4	7.6	0.4	8.0
1/2+1/3	769	769	-	-	-	1.7	0.5	-	2.2	10.2	8.2	0.5	8.7
2/1	759	759	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	747	747	-	-	-	2.8	0.8	-	3.6	17.4	12.8	0.8	13.6
3/3	733	733	-	-	-	2.4	0.7	-	3.2	15.5	13.0	0.7	13.8
4/1	833	833	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	733	733	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	220	220	-	-	-	2.6	0.5	-	3.1	50.5	3.6	0.5	4.1
6/1	95	95	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	2	2	-	-	-	-	-	-	0.0	24.7	-	-	0.1
Ped Link: P2	2	2	-	-	-	-	-	-	0.0	70.0	-	-	0.1
Ped Link: P3	2	2	-	-	-	-	-	-	0.0	59.5	-	-	0.1
C1 - WID-02	-A4130/Valley Park	-	PRC for Signall PRC Over A	ed Lanes (%): 4 Il Lanes (%): 4	8.3 Tota 8.3	al Delay for Sig Total Delay C	nalled Lanes (pc ver All Lanes(pc	uHr): 13.40 uHr): 13.40	Cycle T	ime (s): 108	-	-	-

# Full Input Data And Results Scenario 4: '2034with PM' (FG4: '2034with PM', Plan 1: 'Network Control Plan 1') Stage Sequence Diagram



# Stage Timings

Stage	1	2	3
Duration	29	13	7
Change Point	0	49	86

# Signal Timings Diagram



# Full Input Data And Results **Network Layout Diagram**



# **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: WID	-	-	N/A	-	-		-	-	-	-	-	-	67.5%
WID-02-A4130/Valley Park	-	-	N/A	-	-		-	-	-	-	-	-	67.5%
1/1	A4130 (E/B) Ahead	U	N/A	N/A	A		1	57	-	894	1955	1448	61.7%
1/2+1/3	A4130 (E/B) Ahead Right	U	N/A	N/A	A B		1	57:19	-	1041	2090:1684	1541	67.5%
2/1	Exit	U	N/A	N/A	-		-	-	-	975	Inf	Inf	0.0%
2/2	Exit	U	N/A	N/A	-		-	-	-	888	Inf	Inf	0.0%
3/2+3/1	A4130 (W/B) Ahead Left	U	N/A	N/A	CD		1	61:18	-	723	1955:1612	1135	63.7%
3/3	A4130 (W/B) Ahead	U	N/A	N/A	С		1	61	-	674	1950	1119	60.2%
4/1	Exit	U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
4/2	Exit	U	N/A	N/A	-		-	-	-	674	Inf	Inf	0.0%
5/2+5/1	Valley Park Right Left	U	N/A	N/A	E		1	10	-	154	1865:1761	477	32.3%
6/1	Exit	U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	н		1	29	-	2	-	19333	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	13	-	2	-	8667	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	13	-	2	-	8667	0.0%

ltem	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: WID	-	-	0	0	0	13.7	3.7	0.0	17.4	-	-	-	-
WID-02-A4130/Valley Park	-	-	0	o	0	13.7	3.7	0.0	17.4	-	-	-	-
1/1	894	894	-	-	-	1.7	0.8	-	2.5	9.9	12.7	0.8	13.5
1/2+1/3	1041	1041	-	-	-	3.5	1.0	-	4.5	15.7	13.3	1.0	14.4
2/1	975	975	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	888	888	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	723	723	-	-	-	3.9	0.9	-	4.8	24.0	12.6	0.9	13.5
3/3	674	674	-	-	-	2.8	0.8	-	3.6	19.0	13.1	0.8	13.9
4/1	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	674	674	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	154	154	-	-	-	1.8	0.2	-	2.0	46.5	2.2	0.2	2.4
6/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	2	2	-	-	-	-	-	-	0.0	29.8	-	-	0.1
Ped Link: P2	2	2	-	-	-	-	-	-	0.0	66.9	-	-	0.1
Ped Link: P3	2	2	-	-	-	-	-	-	0.0	56.3	-	-	0.1
C1 - WID-02	-A4130/Valley Park	-	PRC for Signall PRC Over A	ed Lanes (%): 3 Il Lanes (%): 3	- 3.2 Tota 3.2	al Delay for Sig Total Delay C	nalled Lanes (pc ver All Lanes(pc	uHr): 17.37 uHr): 17.37	Cycle T	ime (s): 108	-	-	-

# Full Input Data And Results Scenario 5: '2024with AM' (FG5: '2024with AM', Plan 1: 'Network Control Plan 1') Stage Sequence Diagram



# Stage Timings

Stage	1	2	3
Duration	35	7	7
Change Point	0	55	86

# Signal Timings Diagram



# Full Input Data And Results **Network Layout Diagram**



# **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: WID	-	-	N/A	-	-		-	-	-	-	-	-	68.3%
WID-02-A4130/Valley Park	-	-	N/A	-	-		-	-	-	-	-	-	68.3%
1/1	A4130 (E/B) Ahead	U	N/A	N/A	А		1	63	-	527	1955	1466	35.9%
1/2+1/3	A4130 (E/B) Ahead Right	U	N/A	N/A	A B		1	63:13	-	598	2090:1684	1566	38.2%
2/1	Exit	U	N/A	N/A	-		-	-	-	541	Inf	Inf	0.0%
2/2	Exit	U	N/A	N/A	-		-	-	-	591	Inf	Inf	0.0%
3/2+3/1	A4130 (W/B) Ahead Left	U	N/A	N/A	CD		1	67:18	-	840	1955:1612	1229	68.3%
3/3	A4130 (W/B) Ahead	U	N/A	N/A	С		1	67	-	839	1950	1228	68.3%
4/1	Exit	U	N/A	N/A	-		-	-	-	860	Inf	Inf	0.0%
4/2	Exit	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
5/2+5/1	Valley Park Right Left	U	N/A	N/A	E		1	10	-	41	1865:1761	388	10.6%
6/1	Exit	U	N/A	N/A	-		-	-	-	14	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	Н		1	35	-	2	-	23333	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	7	-	2	-	4667	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	7	-	2	-	4667	0.0%

ltem	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: WID	-	-	0	0	0	8.1	2.8	0.0	10.9	-	-	-	-
WID-02-A4130/Valley Park	-	-	0	o	0	8.1	2.8	0.0	10.9	-	-	-	-
1/1	527	527	-	-	-	0.7	0.3	-	1.0	6.5	5.3	0.3	5.6
1/2+1/3	598	598	-	-	-	0.9	0.3	-	1.2	7.1	6.1	0.3	6.4
2/1	541	541	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	591	591	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	840	840	-	-	-	3.1	1.1	-	4.2	17.9	16.3	1.1	17.3
3/3	839	839	-	-	-	3.0	1.1	-	4.1	17.6	16.3	1.1	17.4
4/1	860	860	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	839	839	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	41	41	-	-	-	0.5	0.1	-	0.5	45.0	0.7	0.1	0.8
6/1	14	14	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	2	2	-	-	-	-	-	-	0.0	24.7	-	-	0.1
Ped Link: P2	2	2	-	-	-	-	-	-	0.0	70.0	-	-	0.1
Ped Link: P3	2	2	-	-	-	-	-	-	0.0	59.5	-	-	0.1
C1 - WID-02	-A4130/Valley Park	-	PRC for Signall PRC Over A	ed Lanes (%): 3 Il Lanes (%): 3	- 1.7 Tota 1.7	al Delay for Sig Total Delay O	nalled Lanes (pc ver All Lanes(pc	uHr): 10.92 uHr): 10.92	Cycle T	ime (s): 108	-		

#### Full Input Data And Results Scenario 6: '2024with PM' (FG6: '2024with PM', Plan 1: 'Network Control Plan 1') Stage Sequence Diagram



# Stage Timings

Stage	1	2	3
Duration	35	7	7
Change Point	0	55	86

# Signal Timings Diagram



# Full Input Data And Results **Network Layout Diagram**



# **Network Results**

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: WID	-	-	N/A	-	-		-	-	-	-	-	-	54.9%
WID-02-A4130/Valley Park	-	-	N/A	-	-		-	-	-	-	-	-	54.9%
1/1	A4130 (E/B) Ahead	U	N/A	N/A	А		1	63	-	618	1955	1466	42.1%
1/2+1/3	A4130 (E/B) Ahead Right	U	N/A	N/A	A B		1	63:13	-	699	2090:1684	1565	44.7%
2/1	Exit	U	N/A	N/A	-		-	-	-	626	Inf	Inf	0.0%
2/2	Exit	U	N/A	N/A	-		-	-	-	681	Inf	Inf	0.0%
3/2+3/1	A4130 (W/B) Ahead Left	U	N/A	N/A	CD		1	67:18	-	675	1955:1612	1230	54.9%
3/3	A4130 (W/B) Ahead	U	N/A	N/A	С		1	67	-	671	1950	1228	54.7%
4/1	Exit	U	N/A	N/A	-		-	-	-	670	Inf	Inf	0.0%
4/2	Exit	U	N/A	N/A	-		-	-	-	671	Inf	Inf	0.0%
5/2+5/1	Valley Park Right Left	U	N/A	N/A	E		1	10	-	17	1865:1761	474	3.6%
6/1	Exit	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	Н		1	35	-	2	-	23333	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	7	-	2	-	4667	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	7	-	2	-	4667	0.0%
### Full Input Data And Results

ltem	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: WID	-	-	0	0	0	6.5	2.0	0.0	8.5	-	-	-	-
WID-02-A4130/Valley Park	-	-	0	o	0	6.5	2.0	0.0	8.5	-	-	-	-
1/1	618	618	-	-	-	0.8	0.4	-	1.2	7.1	6.7	0.4	7.1
1/2+1/3	699	699	-	-	-	1.2	0.4	-	1.6	8.2	7.6	0.4	8.0
2/1	626	626	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/2	681	681	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	675	675	-	-	-	2.2	0.6	-	2.8	15.1	11.1	0.6	11.7
3/3	671	671	-	-	-	2.1	0.6	-	2.7	14.5	11.2	0.6	11.8
4/1	670	670	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2+5/1	17	17	-	-	-	0.2	0.0	-	0.2	43.5	0.2	0.0	0.2
6/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	2	2	-	-	-	-	-	-	0.0	24.7	-	-	0.1
Ped Link: P2	2	2	-	-	-	-	-	-	0.0	70.0	-	-	0.1
Ped Link: P3	2	2	-	-	-	-	-	-	0.0	59.5	-	-	0.1
C1 - WID-02-A4130/Valley Park PRC for Signalled Lanes (%): 63.9 Total Delay for Signalled Lanes (pcuHr): 8.54 Cycle Time (s): 108 PRC Over All Lanes (%): 63.9 Total Delay Over All Lanes (pcuHr): 8.54							-						

SCH3



# Junctions 9 ARCADY 9 - Roundabout Module Version: 9.5.0.6896 © Copyright TRL Limited, 2018 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk Www.trlsoftware.co.uk 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: AWAITING DESIGN- WID-03-Northern Roundabout-P02-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\A4130\_WID\Models\ARCADY Report generation date: 10/09/2021 15:55:33

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

### Summary of junction performance

	AM					РМ					
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
					2024	with					
A - A4130	13.8	42.61	0.95	E	-2 %	3.7	13.56	0.79	В	13 %	
B - Science Bridge Link	4.2	20.85	0.81	С		1.6	9.39	0.62	А		
C - A4130	1.5	4.33	0.58	А	[A - A4130]	2.2	5.53	0.68	А	[A - A4130]	
					2034	with					
A - A4130	1.8	9.38	0.64	A	-1 %	3.3	16.41	0.77	С	0 %	
B - Science Bridge Link	11.3	38.22	0.93	E		5.1	18.85	0.84	С		
C - A4130	3.6	8.10	0.78	А	[B - Science Bridge Link]	18.9	35.61	0.97	E	[C - A4130]	

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

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

#### **File summary**

### File Description

Title	WID_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0003 P02
Location	Northern Roundabout
Site number	03
Date	12/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
Description	



Units



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

### **Analysis Options**

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

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓	~
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	~
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	~

### **Analysis Set Details**

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	<b>~</b>	100.000	100.000



# 2024with, AM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2024with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
03	Northern Roundabout	Standard Roundabout		A, B, C	22.82	С

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-2	A - A4130

### Arms

#### Arms

Arm	Name	Description
Α	A4130	
в	Science Bridge Link	
С	A4130	

### **Roundabout Geometry**

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A4130	3.88	7.03	17.2	19.9	50.0	52.7	
B - Science Bridge Link	4.30	7.10	7.1	33.9	50.0	52.6	
C - A4130	6.85	8.17	7.2	24.9	50.0	52.7	

### **Pelican/Puffin Crossings**

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
B - Science Bridge Link	7.00	3.00	2.90	1.00	6.00	7.17	7.00

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A4130	0.574	1637
B - Science Bridge Link	0.569	1580
C - A4130	0.677	2166

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

### **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	✓



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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130		ONE HOUR	~	1127	100.000
B - Science Bridge Link		ONE HOUR	✓	685	100.000
C - A4130		ONE HOUR	✓	1133	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130		
B - Science Bridge Link	[ONEHOUR]	20.00
C - A4130		

### **Origin-Destination Data**

### Demand (PCU/hr)

		1	ō		
		A - A4130	B - Science Bridge Link	C - A4130	
_	A - A4130	0	92	1035	
From	B - Science Bridge Link	39	0	646	
	C - A4130	606	527	0	

### **Vehicle Mix**

### Heavy Vehicle Percentages

		1	Го	
_		A - A4130	B - Science Bridge Link	C - A4130
	A - A4130	0	1	3
From	B - Science Bridge Link	8	0	8
	C - A4130	6	8	0

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130	0.95	42.61	13.8	E	1127	1127
B - Science Bridge Link	0.81	20.85	4.2	С	685	685
C - A4130	0.58	4.33	1.5	А	1133	1133



### Main Results for each time segment

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	1013	253	473		1365	0.742	1008	579	1.5	2.8	10.206	В
B - Science Bridge Link	616	154	926	17.98	1039	0.593	613	556	0.9	1.5	9.087	А
C - A4130	1019	255	35		2142	0.475	1018	1504	0.7	1.0	3.418	А

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	1241	310	579		1305	0.951	1206	709	2.8	11.4	30.533	D
B - Science Bridge Link	754	189	1108	22.02	949	0.794	745	678	1.5	3.8	18.270	С
C - A4130	1247	312	42		2137	0.584	1245	1811	1.0	1.5	4.302	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	1241	310	580		1304	0.952	1231	710	11.4	13.8	42.610	E
B - Science Bridge Link	754	189	1131	22.02	936	0.805	753	681	3.8	4.2	20.847	С
C - A4130	1247	312	43		2137	0.584	1247	1841	1.5	1.5	4.326	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	1013	253	475		1365	0.743	1056	582	13.8	3.1	13.526	В
B - Science Bridge Link	616	154	970	17.98	1028	0.599	626	561	4.2	1.7	9.898	A
C - A4130	1019	255	36		2142	0.476	1021	1560	1.5	1.0	3.437	A



# 2024with, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2024with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
03	Northern Roundabout	Standard Roundabout		A, B, C	8.95	A

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	13	A - A4130

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	~	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130		ONE HOUR	~	919	100.000
B - Science Bridge Link		ONE HOUR	✓	580	100.000
C - A4130		ONE HOUR	~	1307	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130		
B - Science Bridge Link	[ONEHOUR]	20.00
C - A4130		

### **Origin-Destination Data**

### Demand (PCU/hr)

	То										
		A - A4130	B - Science Bridge Link	C - A4130							
From	A - A4130	0	74	845							
From	B - Science Bridge Link	81	1	498							
	C - A4130	740	567	0							



### Heavy Vehicle Percentages

	То										
		A - A4130	B - Science Bridge Link	C - A4130							
From	A - A4130	0	0	1							
From	B - Science Bridge Link	0	0	6							
	C - A4130	1	4	0							

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130	0.79	13.56	3.7	В	919	919
B - Science Bridge Link	0.62	9.39	1.6	A	580	580
C - A4130	0.68	5.53	2.2	A	1307	1307

### Main Results for each time segment

### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	826	207	510		1344	0.615	824	737	1.0	1.6	6.947	A
B - Science Bridge Link	521	130	757	17.98	1123	0.464	520	576	0.6	0.9	6.260	A
C - A4130	1175	294	74		2116	0.555	1173	1204	0.9	1.3	3.899	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	1012	253	624		1279	0.791	1004	901	1.6	3.6	12.843	В
B - Science Bridge Link	639	160	923	22.02	1038	0.615	636	705	0.9	1.6	9.338	A
C - A4130	1439	360	90		2105	0.684	1435	1469	1.3	2.2	5.467	A

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	1012	253	625		1278	0.792	1011	904	3.6	3.7	13.557	В
B - Science Bridge Link	639	160	930	22.02	1042	0.613	639	707	1.6	1.6	9.385	A
C - A4130	1439	360	90		2105	0.684	1439	1478	2.2	2.2	5.526	A

### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	826	207	512		1343	0.615	834	741	3.7	1.6	7.256	А
B - Science Bridge Link	521	130	767	17.98	1127	0.463	524	579	1.6	0.9	6.312	A
C - A4130	1175	294	74		2116	0.555	1179	1217	2.2	1.3	3.944	A



# 2034 with, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2034with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
03	Northern Roundabout	Standard Roundabout		A, B, C	18.18	С

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-1	B - Science Bridge Link

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130		ONE HOUR	~	653	100.000
B - Science Bridge Link		ONE HOUR	✓	1030	100.000
C - A4130		ONE HOUR	✓	1478	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130		
B - Science Bridge Link	[ONEHOUR]	20.00
C - A4130		

### **Origin-Destination Data**

### Demand (PCU/hr)

	То						
		A - A4130	B - Science Bridge Link	C - A4130			
From	A - A4130	0	75	578			
From	B - Science Bridge Link	85	7	938			
	C - A4130	673	805	0			



### Heavy Vehicle Percentages

	То						
		A - A4130	B - Science Bridge Link	C - A4130			
Farm	A - A4130	0	3	6			
From	B - Science Bridge Link	5	1	8			
	C - A4130	5	7	0			

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130	0.64	9.38	1.8	А	653	653
B - Science Bridge Link	0.93	38.22	11.3	E	1030	1030
C - A4130	0.78	8.10	3.6	А	1478	1478

### Main Results for each time segment

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	587	147	729		1219	0.482	586	680	0.6	1.0	5.995	A
B - Science Bridge Link	926	231	518	17.98	1278	0.725	921	796	1.5	2.7	10.731	В
C - A4130	1329	332	82		2110	0.630	1326	1357	1.2	1.8	4.854	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	719	180	890		1126	0.638	716	829	1.0	1.8	9.188	A
B - Science Bridge Link	1134	284	633	22.02	1219	0.930	1106	972	2.7	9.6	29.008	D
C - A4130	1627	407	99		2099	0.775	1620	1641	1.8	3.5	7.859	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	719	180	894		1124	0.640	719	834	1.8	1.8	9.381	A
B - Science Bridge Link	1134	284	636	22.02	1218	0.931	1128	976	9.6	11.3	38.219	E
C - A4130	1627	407	101		2098	0.776	1627	1663	3.5	3.6	8.096	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	587	147	734		1216	0.483	590	687	1.8	1.0	6.116	A
B - Science Bridge Link	926	231	523	17.98	1283	0.722	959	802	11.3	2.9	13.131	В
C - A4130	1329	332	86		2108	0.630	1336	1396	3.6	1.8	4.990	A



# 2034with, PM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2034with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
03	Northern Roundabout	Standard Roundabout		A, B, C	27.31	D

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	0	C - A4130

### **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)	Results for central hour only	Run automatically
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130		ONE HOUR	~	674	100.000
B - Science Bridge Link		ONE HOUR	✓	927	100.000
C - A4130		ONE HOUR	~	1829	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - A4130		
B - Science Bridge Link	[ONEHOUR]	20.00
C - A4130		

### **Origin-Destination Data**

### Demand (PCU/hr)

	То									
		A - A4130	B - Science Bridge Link	C - A4130						
From	A - A4130	0	87	587						
From	B - Science Bridge Link	107	5	815						
	C - A4130	757	1072	0						



### Heavy Vehicle Percentages

		То							
		A - A4130	B - Science Bridge Link	C - A4130					
From	A - A4130	0	1	1					
	B - Science Bridge Link	0	0	3					
	C - A4130	1	2	0					

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A4130	0.77	16.41	3.3	С	674	674
B - Science Bridge Link	0.84	18.85	5.1	С	927	927
C - A4130	0.97	35.61	18.9	E	1829	1829

### Main Results for each time segment

### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	606	151	964		1084	0.559	604	774	0.8	1.3	7.549	A
B - Science Bridge Link	833	208	526	17.98	1264	0.659	830	1042	1.2	1.9	8.458	A
C - A4130	1644	411	100		2098	0.784	1638	1256	1.9	3.5	7.828	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	742	186	1158		972	0.763	735	930	1.3	3.0	14.885	В
B - Science Bridge Link	1021	255	640	22.02	1216	0.840	1009	1253	1.9	4.8	17.003	С
C - A4130	2014	503	122		2084	0.967	1966	1527	3.5	15.4	24.734	С

### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	742	186	1178		961	0.772	741	945	3.0	3.3	16.406	С
B - Science Bridge Link	1021	255	646	22.02	1213	0.842	1019	1273	4.8	5.1	18.851	С
C - A4130	2014	503	123		2083	0.967	2000	1542	15.4	18.9	35.614	E

### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A4130	606	151	1004		1061	0.571	613	803	3.3	1.4	8.257	А
B - Science Bridge Link	833	208	534	17.98	1276	0.653	846	1083	5.1	2.0	8.829	A
C - A4130	1644	411	102		2097	0.784	1704	1278	18.9	3.9	10.658	В

SCH4



### **Junctions 9**

### **ARCADY 9 - Roundabout Module**

Version: 9.5.0.6896

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Filename: AWAITING DESIGN- WID-04-Science Bridge Roundabout-P02-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\A4130\_WID\Models\ARCADY Report generation date: 10/09/2021 16:02:33

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

### Summary of junction performance

				AM				ĺ	РМ		
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	
	20:					24with					
A - Science Bridge	0.6	3.38	0.37	A	147 %	0.6	3.18	0.35	A	141 %	
B - Valley Park Spine Road	0.1	3.16	0.07	А		0.0	2.92	0.03	А		
C - Science Bridge Link	0.7	3.49	0.38	А	[C - Science Bridge Link]	0.7	3.45	0.39	А	[C - Science Bridge Link]	
					2034	34with					
A - Science Bridge	1.5	5.56	0.57	A	15 %	3.0	9.37	0.75	A	12 %	
B - Valley Park Spine Road	3.2	12.49	0.77	В	[B - Vallev Park Spine	1.6	7.58	0.61	А		
C - Science Bridge Link	1.9	7.25	0.65	А	Road]	4.6	13.66	0.83	В	[C - Science Bridge Link]	

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

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

#### **File summary**

#### File Description

Title	WID_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0003 P02
Location	Science Bridge Roundabout
Site number	04
Date	12/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
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	Calculate Queue	Calculate detailed	Calculate residual	Residual capacity	RFC	Average Delay threshold (s)	Queue threshold
length (m)	Percentiles	queueing delay	capacity	criteria type	Threshold		(PCU)
5.75			~	Delay	0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	~	~
D2	2024with	PM	ONE HOUR	16:45	18:15	15	~	~
D5	2034with	AM	ONE HOUR	07:45	09:15	15	~	~
D6	2034with	PM	ONE HOUR	16:45	18:15	15	~	~

### **Analysis Set Details**

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



# 2024with, AM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2024with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
04	Science Bridge Roundabout	Standard Roundabout		A, B, C	3.42	А

### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	147	C - Science Bridge Link

### Arms

#### Arms

Arm	Name	Description
Α	Science Bridge	
в	Valley Park Spine Road	
С	Science Bridge Link	

### **Roundabout Geometry**

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Science Bridge	4.80	7.31	12.1	19.9	50.0	39.0	
B - Valley Park Spine Road	3.35	7.03	14.8	34.9	50.0	36.1	
C - Science Bridge Link	4.16	7.06	13.8	35.1	50.0	35.0	

### Zebra Crossings

Arm	Space between crossing and junction entry (Zebra) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
B - Valley Park Spine Road	5.00	10.00	✓	Distance	4.90	3.50	3.80	2.71

### Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Science Bridge	0.628	1852
B - Valley Park Spine Road	0.596	1636
C - Science Bridge Link	0.627	1793

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)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Science Bridge		ONE HOUR	~	622	100.000
B - Valley Park Spine Road		ONE HOUR	✓	82	100.000
C - Science Bridge Link		ONE HOUR	✓	618	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Science Bridge		
B - Valley Park Spine Road	[ONEHOUR]	20.00
C - Science Bridge Link		

### **Origin-Destination Data**

### Demand (PCU/hr)

	То							
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link				
	A - Science Bridge	0	5	617				
From	B - Valley Park Spine Road	17	0	65				
	C - Science Bridge Link	594	22	2				

### **Vehicle Mix**

### **Heavy Vehicle Percentages**

			То	
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link
	A - Science Bridge	0	0	8
From	B - Valley Park Spine Road	0	0	0
	C - Science Bridge Link	7	0	50

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Science Bridge	0.37	3.38	0.6	А	622	622
B - Valley Park Spine Road	0.07	3.16	0.1	А	82	82
C - Science Bridge Link	0.38	3.49	0.7	A	618	618



### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	559	140	22		1838	0.304	559	549	0.4	0.5	3.037	А
B - Valley Park Spine Road	74	18	556	17.98	1304	0.057	74	24	0.0	0.1	2.924	А
C - Science Bridge Link	556	139	15		1783	0.312	555	614	0.4	0.5	3.132	А

### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	685	171	26		1835	0.373	684	672	0.5	0.6	3.374	А
B - Valley Park Spine Road	90	23	681	22.02	1230	0.073	90	30	0.1	0.1	3.158	A
C - Science Bridge Link	680	170	19		1781	0.382	680	752	0.5	0.7	3.491	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	685	171	26		1835	0.373	685	673	0.6	0.6	3.377	A
B - Valley Park Spine Road	90	23	682	22.02	1229	0.073	90	30	0.1	0.1	3.159	А
C - Science Bridge Link	680	170	19		1781	0.382	680	753	0.7	0.7	3.493	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	559	140	22		1838	0.304	560	550	0.6	0.5	3.040	A
B - Valley Park Spine Road	74	18	557	17.98	1304	0.057	74	24	0.1	0.1	2.929	A
C - Science Bridge Link	556	139	15		1783	0.312	556	616	0.7	0.5	3.135	A



# 2024 with, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D2 - 2024with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
04	Science Bridge Roundabout	Standard Roundabout		A, B, C	3.31	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	141	C - Science Bridge Link

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	~	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Science Bridge		ONE HOUR	~	570	100.000
B - Valley Park Spine Road		ONE HOUR	✓	32	100.000
C - Science Bridge Link		ONE HOUR	✓	641	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Science Bridge		
B - Valley Park Spine Road	[ONEHOUR]	20.00
C - Science Bridge Link		

### **Origin-Destination Data**

### Demand (PCU/hr)

			То			
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link		
Farm	A - Science Bridge	0	12	558		
From	B - Valley Park Spine Road	8	0	24		
	C - Science Bridge Link	588	53	0		



### Heavy Vehicle Percentages

			То	
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link
From	A - Science Bridge	0	0	5
From	B - Valley Park Spine Road	0	0	0
	C - Science Bridge Link	4	0	0

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Science Bridge	0.35	3.18	0.6	А	570	570
B - Valley Park Spine Road	0.03	2.92	0.0	A	32	32
C - Science Bridge Link	0.39	3.45	0.7	A	641	641

### Main Results for each time segment

### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	512	128	48		1822	0.281	512	535	0.3	0.4	2.883	A
B - Valley Park Spine Road	29	7	501	17.98	1337	0.022	29	58	0.0	0.0	2.751	A
C - Science Bridge Link	576	144	7		1788	0.322	576	523	0.4	0.5	3.078	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	628	157	58		1815	0.346	627	656	0.4	0.6	3.176	A
B - Valley Park Spine Road	35	9	614	22.02	1270	0.028	35	71	0.0	0.0	2.915	A
C - Science Bridge Link	706	176	9		1787	0.395	705	640	0.5	0.7	3.447	А

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	628	157	58		1815	0.346	628	656	0.6	0.6	3.179	A
B - Valley Park Spine Road	35	9	614	22.02	1269	0.028	35	72	0.0	0.0	2.916	А
C - Science Bridge Link	706	176	9		1787	0.395	706	641	0.7	0.7	3.449	A

### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	512	128	48		1822	0.281	513	536	0.6	0.4	2.888	А
B - Valley Park Spine Road	29	7	502	17.98	1336	0.022	29	59	0.0	0.0	2.752	A
C - Science Bridge Link	576	144	7		1788	0.322	577	524	0.7	0.5	3.084	A



# 2034 with, AM

### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2034with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
04	Science Bridge Roundabout	Standard Roundabout		A, B, C	8.43	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	15	B - Valley Park Spine Road

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Science Bridge		ONE HOUR	~	864	100.000
B - Valley Park Spine Road		ONE HOUR	✓	869	100.000
C - Science Bridge Link		ONE HOUR	✓	886	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Science Bridge		
B - Valley Park Spine Road	[ONEHOUR]	20.00
C - Science Bridge Link		

### **Origin-Destination Data**

### Demand (PCU/hr)

			То			
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link		
<b>F</b>	A - Science Bridge	0	277	587		
From	B - Valley Park Spine Road	417	1	451		
	C - Science Bridge Link	616	268	2		



### Heavy Vehicle Percentages

			То	
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link
<b>F</b>	A - Science Bridge	0	3	14
From	B - Valley Park Spine Road	4	0	0
	C - Science Bridge Link	9	1	42

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Science Bridge	0.57	5.56	1.5	А	864	864
B - Valley Park Spine Road	0.77	12.49	3.2	В	869	869
C - Science Bridge Link	0.65	7.25	1.9	A	886	886

### Main Results for each time segment

### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	777	194	243		1699	0.457	776	927	0.7	0.9	4.294	A
B - Valley Park Spine Road	781	195	529	17.98	1320	0.592	779	490	0.9	1.4	6.747	A
C - Science Bridge Link	796	199	375		1558	0.511	795	933	0.8	1.1	5.019	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	951	238	297		1665	0.571	949	1132	0.9	1.4	5.527	А
B - Valley Park Spine Road	957	239	647	22.02	1250	0.765	950	599	1.4	3.2	11.961	В
C - Science Bridge Link	976	244	457		1506	0.648	972	1140	1.1	1.9	7.137	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	951	238	298		1664	0.572	951	1137	1.4	1.5	5.565	A
B - Valley Park Spine Road	957	239	648	22.02	1249	0.766	956	601	3.2	3.2	12.491	В
C - Science Bridge Link	976	244	460		1504	0.649	975	1145	1.9	1.9	7.249	A

### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	777	194	245		1698	0.457	779	934	1.5	0.9	4.328	А
B - Valley Park Spine Road	781	195	531	17.98	1319	0.592	788	493	3.2	1.5	6.995	А
C - Science Bridge Link	796	199	379		1555	0.512	800	940	1.9	1.1	5.098	A



# 2034with, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Demand Sets	D6 - 2034with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

### **Junction Network**

### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
04	Science Bridge Roundabout	Standard Roundabout		A, B, C	10.66	В

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	12	C - Science Bridge Link

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Science Bridge		ONE HOUR	~	1056	100.000
B - Valley Park Spine Road		ONE HOUR	✓	676	100.000
C - Science Bridge Link		ONE HOUR	✓	1149	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Science Bridge		
B - Valley Park Spine Road	[ONEHOUR]	20.00
C - Science Bridge Link		

### **Origin-Destination Data**

### Demand (PCU/hr)

			То			
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link		
Farm	A - Science Bridge	0	425	631		
From	B - Valley Park Spine Road	379	0	297		
	C - Science Bridge Link	721	428	0		



### Heavy Vehicle Percentages

			То			
		A - Science Bridge	B - Valley Park Spine Road	C - Science Bridge Link		
From	A - Science Bridge	0	2	3		
	B - Valley Park Spine Road	1	0	0		
	C - Science Bridge Link	3	0	0		

### Results

### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - Science Bridge	0.75	9.37	3.0	А	1056	1056
B - Valley Park Spine Road	0.61	7.58	1.6	А	676	676
C - Science Bridge Link	0.83	13.66	4.6	В	1149	1149

### Main Results for each time segment

### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	949	237	384		1611	0.589	947	986	0.9	1.5	5.551	A
B - Valley Park Spine Road	608	152	566	17.98	1298	0.468	607	765	0.6	0.9	5.225	A
C - Science Bridge Link	1033	258	340		1579	0.654	1030	833	1.2	1.9	6.639	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	1163	291	467		1558	0.746	1157	1203	1.5	2.9	9.077	A
B - Valley Park Spine Road	744	186	691	22.02	1224	0.608	742	933	0.9	1.5	7.472	А
C - Science Bridge Link	1265	316	416		1532	0.826	1255	1017	1.9	4.5	12.773	В

### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	1163	291	471		1556	0.747	1162	1211	2.9	3.0	9.373	А
B - Valley Park Spine Road	744	186	695	22.02	1222	0.609	744	939	1.5	1.6	7.579	A
C - Science Bridge Link	1265	316	417		1531	0.826	1264	1022	4.5	4.6	13.659	В

### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - Science Bridge	949	237	389		1607	0.591	955	997	3.0	1.5	5.714	A
B - Valley Park Spine Road	608	152	571	17.98	1295	0.469	610	773	1.6	0.9	5.302	A
C - Science Bridge Link	1033	258	342		1578	0.655	1044	839	4.6	2.0	6.995	A

**SCH**5



Junctions 9					
PICADY 9 - Priority Intersection Module					
Version: 9.5.0.6896 © Copyright TRL Limited, 2018					
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Filename: DSB-37-Science BridgeNew-Purchas Road-P03-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\DSB\Models\PICADY Report generation date: 10/09/2021 16:18:21

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

### Summary of junction performance

	AM				PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS	
	2024with								
Stream B-C	0.1	8.22	0.04	A	0.1	6.96	0.05	Α	
Stream B-A	0.4	14.95	0.27	В	0.2	12.19	0.19	В	
Stream C-A	1.2	7.33	0.39	А	1.2	6.79	0.37	А	
Stream C-B	0.1	7.94	0.41	А	0.1	7.17	0.39	А	
				2034	with				
Stream B-C	0.4	17.13	0.29	С	0.4	26.95	0.30	D	
Stream B-A	2.5	87.51	0.73	F	2.7	163.27	0.79	F	
Stream C-A	4.0	14.24	0.69	В	5.6	16.29	0.76	С	
Stream C-B	0.6	17.09	0.68	С	0.5	17.56	0.72	С	

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	DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0002 P03
Location	Science Bridge/New Purchas Road
Site number	37
Date	10/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NA\Sergio.PerezBurgos
Description	



#### Units



The junction diagram reflects the last run of Junctions.

### **Analysis Options**

<b>Calculate Queue Percentiles</b>	Calculate residual capacity	<b>RFC</b> Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15
D2	2024with	PM	ONE HOUR	16:45	18:15	15
D5	2034with	AM	ONE HOUR	07:45	09:15	15
D6	2034with	PM	ONE HOUR	16:45	18:15	15

### **Analysis Set Details**

ID Network flow scaling factor (%)

A1 100.000



## 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

### **Junction Network**

#### Junctions

Junctio	n Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
37	Science Bridge/New Purchas Road	T-Junction	Two-way		4.18	A

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description	Arm type
Α	A4130 - E		Major
в	New Purchas Road		Minor
С	A4130 - W		Major

### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A4130 - W	7.77			90.0		-

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

#### **Minor Arm Geometry**

Arm	Minor arm type	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 - New Purchas Road	One lane plus flare	10.00	7.63	5.78	4.75	4.21	~	3.00	19	250

#### **Zebra Crossings**

Arm	Space between crossing and junction entry	Vehicles queueing on exit	Central	Crossing data	Crossing length	Crossing time
	(Right / All) (PCU)	(Zebra) (PCU)	Refuge	type	(m)	(s)
C - A4130 - W	5.00	5.00		Distance	7.29	5.21

### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
37	B-A	705	0.118	0.299	0.188	0.428
37	B-C	735	0.104	0.263	-	-
37	C-B	626	0.224	0.224	-	-

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

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

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



### **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		~	712	100.000
B - New Purchas Road		~	104	100.000
C - A4130 - W		✓	619	100.000

### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - A4130 - E	
B - New Purchas Road	
C - A4130 - W	20.00

### **Origin-Destination Data**

### Demand (PCU/hr)

		-	То	
		A - A4130 - E B - New Purchas		C - A4130 - W
From	A - A4130 - E	0	96	616
From	B - New Purchas Road	84	0	20
	C - A4130 - W	565	54	0

### Vehicle Mix

#### **Heavy Vehicle Percentages**

		-	То	
		A - A4130 - E	B - New Purchas Road	C - A4130 - W
<b>F</b>	A - A4130 - E	0	4	8
From	B - New Purchas Road	5	0	11
	C - A4130 - W	7	3	0

### Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	8.22	0.1	А
B-A	0.27	14.95	0.4	В
C-A	0.39	7.33	1.2	A
С-В	0.41	7.94	0.1	A
A-B				
A-C				



### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15		585	0.026	15	0.0	7.006	А
B-A	63		460	0.138	63	0.2	9.505	А
C-A	425	15.06	1653	0.257	423	0.7	5.962	A
С-В	41	15.06	143	0.283	40	0.1	6.175	А
A-B	72				72			
A-C	464				464			

### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18		554	0.032	18	0.0	7.457	A
B-A	76		412	0.184	75	0.2	11.232	В
C-A	508	17.98	1636	0.310	507	0.9	6.476	A
С-В	49	17.98	144	0.338	48	0.1	6.828	A
A-B	86				86			
A-C	554				554			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22		508	0.043	22	0.0	8.217	A
B-A	92		346	0.268	92	0.4	14.865	В
C-A	622	22.02	1611	0.386	621	1.2	7.313	A
С-В	59	22.02	144	0.413	59	0.1	7.909	A
A-B	106				106			
A-C	678				678			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22		508	0.043	22	0.1	8.225	А
B-A	92		345	0.268	92	0.4	14.946	В
C-A	622	22.02	1611	0.386	622	1.2	7.333	А
С-В	59	22.02	144	0.413	59	0.1	7.936	А
A-B	106				106			
A-C	678				678			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18		553	0.033	18	0.0	7.466	A
B-A	76		411	0.184	76	0.2	11.303	В
C-A	508	17.98	1636	0.310	509	0.9	6.502	А
С-В	49	17.98	144	0.338	49	0.1	6.863	A
A-B	86				86			
A-C	554				554			



### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15		585	0.026	15	0.0	7.018	А
B-A	63		459	0.138	64	0.2	9.569	А
C-A	425	15.06	1653	0.257	426	0.7	5.996	А
С-В	41	15.06	144	0.283	41	0.1	6.216	А
ΑB	72				72			
A-C	464				464			



# 2024with, PM

#### **Data Errors and Warnings**

No errors or warnings

### **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
37	Science Bridge/New Purchas Road	T-Junction	Two-way		3.96	A

### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		~	596	100.000
B - New Purchas Road		~	89	100.000
C - A4130 - W		✓	615	100.000

### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - A4130 - E	
B - New Purchas Road	
C - A4130 - W	20.00

### **Origin-Destination Data**

### Demand (PCU/hr)

	То							
		A - A4130 - E	B - New Purchas Road	C - A4130 - W				
<b>F</b>	A - A4130 - E	0	38	558				
From	B - New Purchas Road	64	0	25				
	C - A4130 - W	574	41	0				



### Heavy Vehicle Percentages

	То							
		A - A4130 - E	B - New Purchas Road	C - A4130 - W				
<b>F</b>	A - A4130 - E	0	3	5				
From	B - New Purchas Road	1	0	2				
	C - A4130 - W	4	2	0				

### Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	6.96	0.1	A
B-A	0.19	12.19	0.2	В
C-A	0.37	6.79	1.2	A
С-В	0.39	7.17	0.1	A
A-B				
A-C				

### Main Results for each time segment

### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19		621	0.030	19	0.0	6.093	А
B-A	48		471	0.102	48	0.1	8.579	А
C-A	432	15.06	1717	0.252	430	0.7	5.617	A
С-В	31	15.06	114	0.270	31	0.1	5.768	А
A-B	29				29			
A-C	420				420			

### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22		594	0.038	22	0.0	6.424	A
B-A	58		428	0.134	57	0.2	9.804	A
C-A	516	17.98	1705	0.303	515	0.8	6.063	A
С-В	37	17.98	115	0.322	37	0.1	6.298	A
ΑB	34				34			
A-C	502				502			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28		555	0.050	27	0.1	6.956	А
B-A	70		369	0.191	70	0.2	12.149	В
C-A	632	22.02	1687	0.375	631	1.2	6.775	А
С-В	45	22.02	115	0.393	45	0.1	7.146	A
A-B	42				42			
A-C	614				614			



### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28		555	0.050	28	0.1	6.959	А
B-A	70		369	0.191	70	0.2	12.185	В
C-A	632	22.02	1687	0.375	632	1.2	6.791	А
С-В	45	22.02	115	0.392	45	0.1	7.168	А
A-B	42				42			
A-C	614				614			

### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22		594	0.038	23	0.0	6.429	A
B-A	58		428	0.135	58	0.2	9.840	A
C-A	516	17.98	1704	0.303	517	0.9	6.083	A
С-В	37	17.98	115	0.321	37	0.1	6.323	A
A-B	34				34			
A-C	502				502			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19		621	0.030	19	0.0	6.100	А
B-A	48		470	0.102	48	0.1	8.616	А
C-A	432	15.06	1717	0.252	433	0.7	5.645	А
С-В	31	15.06	114	0.270	31	0.1	5.801	А
A-B	29				29			
A-C	420				420			



# 2034with, AM

#### **Data Errors and Warnings**

No errors or warnings

### **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
37	Science Bridge/New Purchas Road	T-Junction	Two-way		11.68	В

### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

### **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2034with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		~	949	100.000
B - New Purchas Road		~	187	100.000
C - A4130 - W		✓	1034	100.000

### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)		
A - A4130 - E			
B - New Purchas Road			
C - A4130 - W	20.00		

### **Origin-Destination Data**

### Demand (PCU/hr)

	То						
		A - A4130 - E	B - New Purchas Road	C - A4130 - W			
From	A - A4130 - E	0	107	842			
From	B - New Purchas Road	101	0	86			
	C - A4130 - W	922	112	0			


#### Heavy Vehicle Percentages

	То				
		A - A4130 - E	B - New Purchas Road	C - A4130 - W	
From	A - A4130 - E	0	9	9	
From	B - New Purchas Road	9	0	9	
	C - A4130 - W	6	8	0	

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.29	17.13	0.4	С
B-A	0.73	87.51	2.5	F
C-A	0.69	14.24	4.0	В
С-В	0.68	17.09	0.6	С
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65		577	0.112	64	0.1	7.638	A
B-A	76		311	0.244	75	0.3	16.478	С
C-A	694	15.06	1560	0.445	688	1.5	8.203	A
С-В	84	15.06	177	0.476	83	0.2	9.408	A
A-B	81				81			
A-C	634				634			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77		520	0.149	77	0.2	8.859	A
B-A	91		245	0.371	90	0.6	25.112	D
C-A	829	17.98	1526	0.543	826	2.2	9.951	A
С-В	101	17.98	179	0.562	100	0.3	11.781	В
ΑB	96				96			
A-C	757				757			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95		355	0.267	94	0.4	15.001	С
B-A	111		154	0.724	105	2.2	73.114	F
C-A	1015	22.02	1470	0.690	1008	3.9	13.880	В
С-В	123	22.02	183	0.675	122	0.6	16.685	С
A-B	118				118			
A-C	927				927			



#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95		323	0.293	94	0.4	17.132	С
B-A	111		153	0.728	110	2.5	87.514	F
C-A	1015	22.02	1469	0.691	1015	4.0	14.239	В
С-В	123	22.02	183	0.674	123	0.6	17.091	С
A-B	118				118			
A-C	927				927			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77		509	0.152	78	0.2	9.136	А
B-A	91		244	0.371	98	0.7	27.980	D
C-A	829	17.98	1525	0.544	836	2.3	10.222	В
С-В	101	17.98	180	0.560	102	0.3	12.139	В
A-B	96				96			
A-C	757				757			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65		574	0.113	65	0.1	7.707	А
B-A	76		310	0.245	77	0.4	16.941	С
C-A	694	15.06	1559	0.445	697	1.6	8.373	A
С-В	84	15.06	178	0.474	85	0.2	9.649	A
A-B	81				81			
A-C	634				634			



# 2034with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
37	Science Bridge/New Purchas Road	T-Junction	Two-way		12.77	В

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2034with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		✓	1095	100.000
B - New Purchas Road		✓	114	100.000
C - A4130 - W		✓	1161	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)				
A - A4130 - E					
B - New Purchas Road					
C - A4130 - W	20.00				

# **Origin-Destination Data**

#### Demand (PCU/hr)

		-	То	
		A - A4130 - E	B - New Purchas Road	C - A4130 - W
_	A - A4130 - E	0	81	1014
From	B - New Purchas Road	60	0	54
	C - A4130 - W	1073	88	0

# Vehicle Mix



#### Heavy Vehicle Percentages

		-	То		
		A - A4130 - E	B - New Purchas Road	C - A4130 - W	
From	A - A4130 - E	0	2	3	
From	B - New Purchas Road	4	0	5	
	C - A4130 - W	2	1	0	

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.30	26.95	0.4	D
B-A	0.79	163.27	2.7	F
C-A	0.76	16.29	5.6	С
С-В	0.72	17.56	0.5	С
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41		559	0.073	40	0.1	7.286	А
B-A	45		264	0.171	44	0.2	16.982	С
C-A	808	15.06	1641	0.492	801	1.8	8.133	А
С-В	66	15.06	131	0.506	66	0.2	8.932	A
A-B	61				61			
A-C	763				763			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49		499	0.097	48	0.1	8.390	A
B-A	54		189	0.286	53	0.4	27.478	D
C-A	965	17.98	1609	0.600	961	2.7	10.243	В
С-В	79	17.98	132	0.598	79	0.2	11.446	В
ΑB	73				73			
A-C	912				912			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59		284	0.210	59	0.3	16.759	С
B-A	66		86	0.773	59	2.2	120.975	F
C-A	1181	22.02	1554	0.760	1170	5.5	15.585	С
С-В	97	22.02	135	0.719	96	0.5	16.969	С
A-B	89				89			
A-C	1116				1116			



#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59		198	0.300	59	0.4	26.951	D
B-A	66		84	0.786	64	2.7	163.269	F
C-A	1181	22.02	1553	0.761	1181	5.6	16.286	С
С-В	97	22.02	135	0.718	97	0.5	17.556	С
ΑB	89				89			
A-C	1116				1116			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49		483	0.100	50	0.1	8.745	A
B-A	54		188	0.287	63	0.4	31.765	D
C-A	965	17.98	1608	0.600	976	2.9	10.691	В
С-В	79	17.98	133	0.597	80	0.3	11.914	В
A-B	73				73			
A-C	912				912			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41		556	0.073	41	0.1	7.338	А
B-A	45		262	0.172	46	0.2	17.376	С
C-A	808	15.06	1640	0.493	812	1.9	8.349	А
С-В	66	15.06	131	0.505	67	0.2	9.191	А
A-B	61				61			
A-C	763				763			

**SCH**6



# Junctions 9 PICADY 9 - Priority Intersection Module Version: 9.5.0.6896 © Copyright TRL Limited, 2018 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 37977 Software@trl.co.uk 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: DSB-05-Science\_Bridge-A4130-P03-v1.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\DSB\Models\PICADY Report generation date: 10/09/2021 16:13:23

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

		AM				РМ				
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS		
		2024with								
Stream B-C	3.3	330.51	1.01	F	4.8	868.82	1.37	F		
Stream B-A	12.2	150.38	1.01	F	71.4	569.70	1.37	F		
Stream C-AB	0.2	11.84	0.16	В	0.1	10.50	0.07	В		
Stream A-BC	1.7	5.30	0.62	А	1.2	4.30	0.53	А		
				2034	with					
Stream B-C	21.1	1523.16	1.99	F	27.8	1414.18	1.95	F		
Stream B-A	64.5	1431.38	1.96	F	48.3	1375.07	1.92	F		
Stream C-AB	0.4	14.91	0.25	В	0.2	12.03	0.15	В		
Stream A-BC	3.2	8.35	0.75	А	2.2	6.32	0.69	А		

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	DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0003 P03
Location	Science Bridge/A4130
Site number	05
Date	10/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NA\Sergio.PerezBurgos
Description	



#### Units



The junction diagram reflects the last run of Junctions.

#### **Analysis Options**

<b>Calculate Queue Percentiles</b>	Calculate residual capacity	<b>RFC</b> Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15
D2	2024with	PM	ONE HOUR	16:45	18:15	15
D5	2034with	AM	ONE HOUR	07:45	09:15	15
D6	2034with	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID Network flow scaling factor (%)

A1 100.000



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
05	Science Bridge/A4130	T-Junction	Two-way		29.03	D

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

#### Arms

#### Arms

Arm	Name	Description	Arm type
Α	A4130 - E		Major
в	Old A4130		Minor
С	A4130 - W		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A4130 - W	7.53		✓	3.35	92.0	~	8.00

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	Width at give-	Width at	Width at	Width at	Width at	Estimate flare	Flare length	Visibility to	Visibility to
	type	way (m)	5m (m)	10m (m)	15m (m)	20m (m)	length	(PCU)	left (m)	right (m)
B - Old A4130	One lane plus flare	10.00	5.80	4.33	4.33	4.33	~	1.00	130	250

#### **Pelican/Puffin Crossings**

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
A - A4130 - E	4.00	3.00	2.90	1.00	6.00	15.65	7.00

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
05	B-A	754	0.128	0.324	0.204	0.463
05	B-C	773	0.111	0.280	-	-
05	C-B	706	0.255	0.255	-	-

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

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

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



# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		✓	1037	100.000
B - Old A4130		~	300	100.000
C - A4130 - W		✓	623	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - A4130 - E	20.00
B - Old A4130	
C - A4130 - W	

# **Origin-Destination Data**

#### Demand (PCU/hr)

		То							
		A - A4130 - E	B - Old A4130	C - A4130 - W					
-	A - A4130 - E	0	345	692					
From	B - Old A4130	269	0	31					
	C - A4130 - W	563	60	0					

# **Vehicle Mix**

#### Heavy Vehicle Percentages

		10							
From		A - A4130 - E	B - Old A4130	C - A4130 - W					
	A - A4130 - E	0	1	7					
	B - Old A4130	2	0	24					
	C - A4130 - W	5	14	0					

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.01	330.51	3.3	F
B-A	1.01	150.38	12.2	F
C-AB	0.16	11.84	0.2	В
C-A				
A-BC	0.62	5.30	1.7	A



#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23		476	0.049	23	0.1	9.856	A
B-A	203		444	0.456	199	0.8	14.828	В
C-AB	45		506	0.089	45	0.1	8.880	A
C-A	424				424			
A-BC	781	15.06	1876	0.416	778	0.7	3.431	А

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28		347	0.080	28	0.1	13.973	В
B-A	242		382	0.633	239	1.6	25.049	D
C-AB	54		467	0.115	54	0.1	9.928	A
C-A	506				506			
A-BC	932	17.98	1867	0.499	931	1.0	4.032	А

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34		34	1.008	24	2.7	316.900	F
B-A	296		297	0.999	269	8.4	92.178	F
C-AB	66		413	0.160	66	0.2	11.811	В
C-A	620				620			
A-BC	1142	22.02	1854	0.616	1139	1.7	5.266	A

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34		40	0.847	32	3.3	330.506	F
B-A	296		295	1.005	281	12.2	150.376	F
C-AB	66		413	0.160	66	0.2	11.841	В
C-A	620				620			
A-BC	1142	22.02	1854	0.616	1142	1.7	5.301	A

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28		259	0.107	40	0.2	21.494	С
B-A	242		379	0.639	283	2.0	50.013	F
C-AB	54		466	0.116	54	0.2	9.971	A
C-A	506				506			
A-BC	932	17.98	1867	0.499	935	1.1	4.064	А

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23		466	0.050	24	0.1	10.107	В
B-A	203		442	0.458	207	0.9	15.876	С
C-AB	45		505	0.089	45	0.1	8.922	A
C-A	424				424			
A-B C	781	15.06	1876	0.416	782	0.8	3.455	А



# 2024with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
05	Science Bridge/A4130	T-Junction	Two-way		135.02	F

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	name Time Period name Traffic profile type		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	
D2	2024with	PM	ONE HOUR	16:45	18:15	15	

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		~	901	100.000
B - Old A4130		✓	456	100.000
C - A4130 - W		✓	649	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - A4130 - E	20.00
B - Old A4130	
C - A4130 - W	

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
		A - A4130 - E	B - Old A4130	C - A4130 - W					
From	A - A4130 - E	0	337	564					
	B - Old A4130	433	0	23					
	C - A4130 - W	619	30	0					

# Vehicle Mix



#### Heavy Vehicle Percentages

		То								
		A - A4130 - E	B - Old A4130	C - A4130 - W						
From	A - A4130 - E	0	0	5						
From	B - Old A4130	0	0	19						
	C - A4130 - W	3	22	0						

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.37	868.82	4.8	F
B-A	1.37	569.70	71.4	F
C-AB	0.07	10.50	0.1	В
C-A				
A-BC	0.53	4.30	1.2	A

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17		352	0.049	17	0.1	12.800	В
B-A	326		478	0.683	318	2.0	21.613	С
C-AB	23		533	0.042	22	0.1	8.604	A
C-A	466				466			
A-BC	678	15.06	1876	0.362	676	0.6	3.087	A

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21		92	0.224	20	0.3	58.273	F
B-A	389		423	0.921	372	6.4	57.022	F
C-AB	27		498	0.054	27	0.1	9.313	A
C-A	556				556			
A-B C	810	17.98	1867	0.434	809	0.8	3.508	A

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25		18	1.371	14	3.2	600.208	F
B-A	477		349	1.367	346	39.1	259.222	F
C-AB	33		452	0.073	33	0.1	10.484	В
C-A	682				682			
<b>A-BC</b>	992	22.02	1854	0.535	990	1.2	4.286	A



#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25		21	1.214	19	4.8	868.822	F
B-A	477		348	1.369	348	71.4	548.949	F
C-AB	33		451	0.073	33	0.1	10.498	В
C-A	682				682			
A-BC	992	22.02	1854	0.535	992	1.2	4.302	A

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21		25	0.829	21	4.8	814.501	F
B-A	389		421	0.924	416	64.8	569.699	F
C-AB	27		498	0.054	27	0.1	9.331	A
C-A	556				556			
A-BC	810	17.98	1867	0.434	812	0.8	3.520	A

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17		30	0.582	24	3.1	642.837	F
B-A	326		474	0.687	467	29.5	367.656	F
C-AB	23		532	0.042	23	0.1	8.626	A
C-A	466				466			
A-BC	678	15.06	1876	0.362	679	0.6	3.101	A



# 2034with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
05	Science Bridge/A4130	T-Junction	Two-way		174.73	F

#### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name Traffic profile type		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	
D5	2034with	AM	ONE HOUR	07:45	09:15	15	

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		~	1267	100.000
B - Old A4130		✓	299	100.000
C - A4130 - W		✓	989	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - A4130 - E	20.00
B - Old A4130	
C - A4130 - W	

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
		A - A4130 - E	B - Old A4130	C - A4130 - W					
<b>F</b>	A - A4130 - E	0	357	910					
From	B - Old A4130	226	0	73					
	C - A4130 - W	911	78	0					

# Vehicle Mix



#### Heavy Vehicle Percentages

	То							
		A - A4130 - E	B - Old A4130	C - A4130 - W				
From	A - A4130 - E	0	1	9				
From	B - Old A4130	2	0	9				
	C - A4130 - W	5	8	0				

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.99	1523.16	21.1	F
B-A	1.96	1431.38	64.5	F
C-AB	0.25	14.91	0.4	В
C-A				
A-BC	0.75	8.35	3.2	A

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55		429	0.128	54	0.2	10.456	В
B-A	170		325	0.524	166	1.1	22.582	С
C-AB	59		462	0.127	58	0.2	9.605	A
C-A	686				686			
A-BC	954	15.06	1876	0.508	949	1.1	4.124	A

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66		181	0.362	64	0.6	33.001	D
B-A	203		239	0.851	192	3.8	67.391	F
C-AB	70		414	0.169	70	0.2	11.293	В
C-A	819				819			
A-BC	1139	17.98	1867	0.610	1137	1.6	5.244	A

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80		40	1.986	38	11.3	644.958	F
B-A	249		129	1.925	128	34.1	576.425	F
C-AB	86		348	0.247	85	0.3	14.772	В
C-A	1003				1003			
ABC	1395	22.02	1854	0.753	1389	3.1	8.158	A



#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80		41	1.939	41	21.1	1523.164	F
B-A	249		127	1.955	127	64.5	1431.378	F
C-AB	86		347	0.248	86	0.4	14.913	В
C-A	1003				1003			
A-BC	1395	22.02	1854	0.753	1395	3.2	8.354	A

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66		76	0.868	72	19.5	988.737	F
B-A	203		233	0.873	229	58.0	948.734	F
C-AB	70		412	0.170	71	0.2	11.413	В
C-A	819				819			
ABC	1139	17.98	1867	0.610	1145	1.7	5.362	А

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	55		101	0.542	96	9.2	555.590	F
B-A	170		307	0.554	302	25.1	502.588	F
C-AB	59		461	0.128	59	0.2	9.689	A
C-A	686				686			
A-BC	954	15.06	1876	0.508	956	1.1	4.184	A



# 2034with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
05	Science Bridge/A4130	T-Junction	Two-way		150.44	F

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2034with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A4130 - E		~	1154	100.000
B - Old A4130		✓	274	100.000
C - A4130 - W		✓	1155	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - A4130 - E	20.00
B - Old A4130	
C - A4130 - W	

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То							
		A - A4130 - E	B - Old A4130	C - A4130 - W				
<b>F</b>	A - A4130 - E	0	181	973				
From	B - Old A4130	174	0	100				
	C - A4130 - W	1104	51	0				

# Vehicle Mix



#### Heavy Vehicle Percentages

		-	Го	
		A - A4130 - E	B - Old A4130	C - A4130 - W
From	A - A4130 - E	0	0	3
From	B - Old A4130	1	0	4
	C - A4130 - W	2	8	0

# Results

#### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.95	1414.18	27.8	F
B-A	1.92	1375.07	48.3	F
C-AB	0.15	12.03	0.2	В
C-A				
A-BC	0.69	6.32	2.2	A

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75		489	0.154	75	0.2	9.026	А
B-A	131		302	0.433	128	0.7	20.534	С
C-AB	38		484	0.079	38	0.1	8.711	A
C-A	831				831			
A-BC	869	15.06	1876	0.463	865	0.9	3.640	A

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90		293	0.307	89	0.4	18.241	С
B-A	156		214	0.732	150	2.3	53.038	F
C-AB	46		440	0.104	46	0.1	9.856	A
C-A	992				992			
ABC	1037	17.98	1867	0.556	1036	1.3	4.434	A

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	110		56	1.950	53	14.6	567.241	F
B-A	192		101	1.893	99	25.3	550.065	F
C-AB	56		380	0.148	56	0.2	11.983	В
C-A	1216				1216			
A-BC	1271	22.02	1854	0.685	1267	2.2	6.248	A



#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	110		57	1.916	57	27.8	1414.184	F
B-A	192		100	1.919	100	48.3	1375.067	F
C-AB	56		379	0.148	56	0.2	12.034	В
C-A	1216				1216			
A-BC	1271	22.02	1854	0.685	1270	2.2	6.324	A

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90		117	0.770	112	22.2	714.193	F
B-A	156		203	0.772	198	37.8	699.335	F
C-AB	46		439	0.105	46	0.1	9.910	А
C-A	992				992			
A-BC	1037	17.98	1867	0.556	1041	1.3	4.489	A

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75		158	0.476	151	3.2	325.766	F
B-A	131		272	0.482	265	4.3	300.212	F
C-AB	38		483	0.080	39	0.1	8.757	A
C-A	831				831			
ABC	869	15.06	1876	0.463	870	0.9	3.675	A

**SCH**7





Filename: RIVX-06-A4130\_New Culham Crossing\_Collett-P02-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\RIV X\Models\ARCADY Report generation date: 10/09/2021 16:31:56

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

			Α	M		РМ					
	Queue (PCU)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (min)	RFC	LOS	Network Residual Capacity	
					2024	4with					
A - New Culham Crossing	0.5	0.06	0.33	A		1.5	0.10	0.59	А	36 %	
B - A4130	1.9	0.09	0.65	А	47 %	0.8	0.06	0.44	А	30 /1	
C - Collett	0.2	0.09	0.16	А	[B - A4130]	0.2	0.07	0.13	А	[A - New Culham	
D - A4130	0.9	0.06	0.47	А		1.4	0.07	0.58	Α	Crossingj	
					2034	with					
A - New Culham Crossing	2.4	0.13	0.69	A		2.8	0.16	0.74	A		
B - A4130	3.2	0.14	0.77	Α	19 %	2.1	0.10	0.68	А	13 %	
C - Collett	0.5	0.15	0.32	A	[B - A4130]	0.7	0.13	0.40	A	[D - A4130]	
D - A4130	2.5	0.12	0.71	А		4.3	0.19	0.81	В		

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

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

#### **File summary**

#### **File Description**

Title	RIV_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0001 P02
Location	A4130/New Culham Crossing/Collett
Site number	06
Date	21/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
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	mph	PCU	PCU	perHour	min	-Min	perMin
Distance units m	Speed units mph 451 (2 783 ) 46	PCU       9(0)       1%)       (23%)	Traffic units results PCU A - New C	Flow units perHour	Average delay units min	Total delay units -Min	Rate of delay units perMin
	D - AA130	4	95 (10%) 56 (0%) 137 (0%)			506 (1%) 590 (2%) 37 (7%)	B - A4130
			C	- Collett			

Flows show original traffic demand (PCUIhr). The junction diagram reflects the last run of Junctions.

#### **Analysis Options**

Vehicle	Calculate Queue	Calculate detailed	Calculate residual	Residual capacity	RFC	Average Delay	Queue threshold
length (m)	Percentiles	queueing delay	capacity	criteria type	Threshold	threshold (min)	(PCU)
5.75			$\checkmark$	Delay	0.85	0.60	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~
D2	2024with	PM	ONE HOUR	16:45	18:15	15	~	~
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	~
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

#### **Analysis Set Details**

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



# 2024 with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	B - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2024with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
06	A4130/New Culham Crossing/Collett	Standard Roundabout		A, B, C, D	0.08	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	47	B - A4130

# Arms

#### Arms

Arm	Name	Description
Α	New Culham Crossing	
в	A4130	
С	Collett	
D	A4130	

#### **Roundabout Geometry**

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - New Culham Crossing	3.73	8.14	31.9	30.0	58.7	30.5	
B - A4130	3.65	8.13	87.9	28.0	58.7	21.4	
C - Collett	3.81	8.02	17.1	25.0	58.7	51.0	
D - A4130	3.65	8.12	86.8	25.0	58.7	36.5	

#### Zebra Crossings

Arm	Space between crossing and junction entry (Zebra) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
C - Collett	7.50	9.00		Distance	11.50	8.21

#### **Pelican/Puffin Crossings**

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
B - A4130	8.00	3.00	2.90	1.00	6.00	26.00	7.00



#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - New Culham Crossing	0.636	2087
B - A4130	0.694	2373
C - Collett	0.556	1750
D - A4130	0.656	2240

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

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	✓	527	100.000
B - A4130		ONE HOUR	~	1084	100.000
C - Collett		ONE HOUR	✓	142	100.000
D - A4130		ONE HOUR	✓	834	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Culham Crossing		
B - A4130	[ONEHOUR]	20.00
C - Collett	[ONEHOUR]	20.00
D - A4130		

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
		A - New Culham Crossing	B - A4130	C - Collett	D - A4130				
	A - New Culham Crossing	0	231	26	270				
From	B - A4130	344	0	48	692				
	C - Collett	18	49	0	75				
	D - A4130	380	336	118	0				

# Vehicle Mix

#### **Heavy Vehicle Percentages**

	То									
		A - New Culham Crossing	B - A4130	C - Collett	D - A4130					
	A - New Culham Crossing	0	4	10	13					
From	B - A4130	3	0	1	1					
	C - Collett	9	16	0	24					
	D - A4130	4	1	10	0					

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	C Max Delay (min) Max Queue (PCU) Max LOS		Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Culham Crossing	0.33	0.06	0.5	А	527	527
B - A4130	0.65	0.09	1.9	А	1084	1084
C - Collett	0.16	0.09	0.2	А	142	142
D - A4130	0.47	0.06	0.9	A	834	834

#### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	474	118	452		1799	0.263	473	666	0.3	0.4	0.049	А
B - A4130	974	244	372	17.98	1852	0.526	973	553	0.8	1.1	0.069	А
C - Collett	128	32	1173	17.98	1098	0.116	127	172	0.1	0.2	0.074	А
D - A4130	750	187	369		1998	0.375	749	931	0.5	0.6	0.050	А

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	580	145	553		1735	0.334	580	815	0.4	0.5	0.056	А
B - A4130	1194	298	455	22.02	1840	0.649	1191	677	1.1	1.8	0.093	А
C - Collett	156	39	1435	22.02	952	0.164	156	211	0.2	0.2	0.090	A
D - A4130	918	230	451		1944	0.472	917	1139	0.6	0.9	0.060	А

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	580	145	554		1735	0.335	580	817	0.5	0.5	0.056	А
B - A4130	1194	298	456	22.02	1840	0.649	1193	678	1.8	1.9	0.094	A
C - Collett	156	39	1438	22.02	950	0.165	156	211	0.2	0.2	0.090	А
D - A4130	918	230	452		1943	0.473	918	1142	0.9	0.9	0.061	А

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	474	118	453		1799	0.263	474	669	0.5	0.4	0.049	А
B - A4130	974	244	373	17.98	1852	0.526	977	555	1.9	1.1	0.070	А
C - Collett	128	32	1177	17.98	1095	0.117	128	173	0.2	0.2	0.074	A
D - A4130	750	187	371		1997	0.375	751	935	0.9	0.6	0.050	А



# 2024with, PM

#### Data Errors and Warnings

-			
Severity	Area	Item	Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	B - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2024with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
06	A4130/New Culham Crossing/Collett	Standard Roundabout		A, B, C, D	0.08	A

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	36	A - New Culham Crossing

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	~	814	100.000
B - A4130		ONE HOUR	~	733	100.000
C - Collett		ONE HOUR	✓	129	100.000
D - A4130		ONE HOUR	✓	1053	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Culham Crossing		
B - A4130	[ONEHOUR]	20.00
C - Collett	[ONEHOUR]	20.00
D - A4130		

# **Origin-Destination Data**



#### Demand (PCU/hr)

		То											
		A - New Culham Crossing	B - A4130	C - Collett	D - A4130								
	A - New Culham Crossing	0	387	22	405								
From	B - A4130	275	0	33	425								
	C - Collett	18	40	0	71								
	D - A4130	269	735	49	0								

# **Vehicle Mix**

#### Heavy Vehicle Percentages

		То			
		A - New Culham Crossing	B - A4130	C - Collett	D - A4130
	A - New Culham Crossing	0	1	2	2
From	B - A4130	2	0	5	2
	C - Collett	1	2	0	17
	D - A4130	2	1	24	0

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Culham Crossing	0.59	0.10	1.5	А	814	814
B - A4130	0.44	0.06	0.8	А	733	733
C - Collett	0.13	0.07	0.2	А	129	129
D - A4130	0.58	0.07	1.4	А	1053	1053

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	732	183	740		1616	0.453	731	505	0.6	0.8	0.069	А
B - A4130	659	165	427	17.98	1852	0.356	658	1043	0.4	0.6	0.051	А
C - Collett	116	29	992	17.98	1198	0.097	116	93	0.1	0.1	0.061	А
D - A4130	947	237	299		2044	0.463	946	809	0.6	0.9	0.056	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	896	224	906		1511	0.593	894	618	0.8	1.5	0.098	А
B - A4130	807	202	523	22.02	1841	0.438	806	1277	0.6	0.8	0.059	А
C - Collett	142	36	1215	22.02	1074	0.132	142	114	0.1	0.2	0.070	A
D - A4130	1159	290	366		2000	0.580	1157	990	0.9	1.4	0.073	А



#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	896	224	907		1510	0.594	896	619	1.5	1.5	0.099	А
B - A4130	807	202	524	22.02	1841	0.438	807	1279	0.8	0.8	0.059	A
C - Collett	142	36	1217	22.02	1073	0.132	142	115	0.2	0.2	0.071	A
D - A4130	1159	290	367		1999	0.580	1159	992	1.4	1.4	0.073	A

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	732	183	742		1615	0.453	734	506	1.5	0.8	0.069	А
B - A4130	659	165	429	17.98	1852	0.356	660	1047	0.8	0.6	0.051	А
C - Collett	116	29	995	17.98	1196	0.097	116	94	0.2	0.1	0.061	А
D - A4130	947	237	300		2043	0.463	949	812	1.4	0.9	0.056	А



# 2034 with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	B - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D5 - 2034with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
06	A4130/New Culham Crossing/Collett	Standard Roundabout		A, B, C, D	0.13	A

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	B - A4130

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	~	1036	100.000
B - A4130		ONE HOUR	~	1261	100.000
C - Collett		ONE HOUR	✓	199	100.000
D - A4130		ONE HOUR	✓	1130	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Culham Crossing		
B - A4130	[ONEHOUR]	20.00
C - Collett	[ONEHOUR]	20.00
D - A4130		

# **Origin-Destination Data**



#### Demand (PCU/hr)

		То				
		A - New Culham Crossing	B - A4130	C - Collett	D - A4130	
	A - New Culham Crossing	0	442	40	554	
From	B - A4130	554	0	65	642	
	C - Collett	53	64	0	82	
	D - A4130	561	457	112	0	

# **Vehicle Mix**

#### Heavy Vehicle Percentages

		То				
		A - New Culham Crossing	B - A4130	C - Collett	D - A4130	
	A - New Culham Crossing	0	2	7	11	
From	B - A4130	2	0	1	1	
	C - Collett	4	11	0	24	
	D - A4130	6	1	15	0	

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	
A - New Culham Crossing	0.69	0.13	2.4	А	1036	1036	
B - A4130	0.77	0.14	3.2	А	1261	1261	
C - Collett	0.32	0.15	0.5	А	199	199	
D - A4130	0.71	0.12	2.5	А	1130	1130	

#### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	931	233	568		1725	0.540	930	1048	0.8	1.2	0.080	А
B - A4130	1134	283	634	17.98	1852	0.612	1131	864	1.0	1.6	0.084	A
C - Collett	179	45	1570	17.98	877	0.204	179	195	0.2	0.3	0.098	A
D - A4130	1016	254	602		1845	0.551	1014	1147	0.8	1.3	0.075	А

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1141	285	694		1645	0.693	1136	1280	1.2	2.4	0.125	А
B - A4130	1388	347	774	22.02	1811	0.766	1382	1056	1.6	3.2	0.140	A
C - Collett	219	55	1918	22.02	683	0.321	218	238	0.3	0.5	0.147	A
D - A4130	1244	311	735		1758	0.708	1239	1401	1.3	2.5	0.120	A



#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1141	285	697		1644	0.694	1141	1286	2.4	2.4	0.127	А
B - A4130	1388	347	777	22.02	1825	0.761	1388	1060	3.2	3.2	0.139	А
C - Collett	219	55	1927	22.02	678	0.323	219	239	0.5	0.5	0.149	А
D - A4130	1244	311	739		1755	0.709	1244	1407	2.5	2.5	0.123	А

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	931	233	572		1723	0.541	936	1055	2.4	1.3	0.082	А
B - A4130	1134	283	638	17.98	1852	0.612	1140	870	3.2	1.6	0.086	А
C - Collett	179	45	1582	17.98	870	0.206	180	196	0.5	0.3	0.099	А
D - A4130	1016	254	607		1842	0.551	1021	1155	2.5	1.3	0.077	A



# 2034with, PM

#### Data Errors and Warnings

	-		
Severity	Area	Item	Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	B - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A4130 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D6 - 2034with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
06	A4130/New Culham Crossing/Collett	Standard Roundabout		A, B, C, D	0.15	A

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	13	D - A4130

# **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)	Results for central hour only	Run automatically
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	~	944	100.000
B - A4130		ONE HOUR	~	1133	100.000
C - Collett		ONE HOUR	✓	288	100.000
D - A4130		ONE HOUR	✓	1280	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)				
A - New Culham Crossing						
B - A4130	[ONEHOUR]	20.00				
C - Collett	[ONEHOUR]	20.00				
D - A4130						

# **Origin-Destination Data**



#### Demand (PCU/hr)

	То									
		A - New Culham Crossing B - A4130								
	A - New Culham Crossing	0	453	22	469					
From	B - A4130	506	0	37	590					
	C - Collett	56	137	0	95					
	D - A4130	451	783	46	0					

# **Vehicle Mix**

#### Heavy Vehicle Percentages

	То									
		A - New Culham Crossing	B - A4130	C - Collett	D - A4130					
	A - New Culham Crossing	0	1	4	3					
From	B - A4130	1	0	7	2					
	C - Collett	0	0	0	10					
	D - A4130	2	1	23	0					

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	
A - New Culham Crossing	0.74	0.16	2.8	А	944	944	
B - A4130	0.68	0.10	2.1	А	1133	1133	
C - Collett	0.40	0.13	0.7	А	288	288	
D - A4130	0.81	0.19	4.3	В	1280	1280	

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	849	212	866		1536	0.553	847	909	0.8	1.2	0.089	А
B - A4130	1019	255	482	17.98	1852	0.550	1017	1232	0.9	1.2	0.073	A
C - Collett	259	65	1405	17.98	969	0.267	258	94	0.3	0.4	0.087	A
D - A4130	1151	288	627		1828	0.629	1148	1036	1.0	1.7	0.090	А

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1039	260	1057		1415	0.735	1033	1110	1.2	2.7	0.158	А
B - A4130	1247	312	588	22.02	1840	0.678	1244	1502	1.2	2.1	0.102	А
C - Collett	317	79	1717	22.02	795	0.399	316	115	0.4	0.7	0.129	А
D - A4130	1409	352	767		1737	0.812	1400	1265	1.7	4.1	0.177	В



#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1039	260	1063		1411	0.737	1039	1115	2.7	2.8	0.164	А
B - A4130	1247	312	591	22.02	1840	0.678	1247	1511	2.1	2.1	0.103	A
C - Collett	317	79	1723	22.02	792	0.401	317	116	0.7	0.7	0.130	А
D - A4130	1409	352	770		1735	0.812	1409	1270	4.1	4.3	0.187	В

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	849	212	875		1530	0.555	855	916	2.8	1.3	0.091	А
B - A4130	1019	255	486	17.98	1852	0.550	1022	1244	2.1	1.3	0.074	А
C - Collett	259	65	1413	17.98	964	0.269	260	95	0.7	0.4	0.088	А
D - A4130	1151	288	631		1826	0.630	1161	1043	4.3	1.8	0.093	А

**SCH**8


Junctions 9					
PICADY 9 - Priority Intersection Module					
Version: 9.5.0.6896 © Copyright TRL Limited, 2018					
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk					
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: RIVX-08-New\_Culham Crossing\_Development-P02-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\RIV X\Models\PICADY Report generation date: 10/09/2021 16:56:58

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

	АМ				PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Queue (PCU) Delay (s)		LOS	
	2024with								
Stream B-C	0.0	9.53	0.03	А	0.0	6.60	0.03	A	
Stream B-A	0.5	19.63	0.24	С	0.1	14.49	0.08	В	
Stream C-AB	0.1	8.27	0.04	А	0.0	6.79	0.02	А	
				2034	with				
Stream B-C	0.1	27.94	0.08	D	0.0	9.05	0.05	A	
Stream B-A	3.4	158.73	0.75	F	0.3	34.07	0.21	D	
Stream C-AB	0.1	10.55	0.06	В	0.0	8.25	0.02	А	

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	RIV_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0003 P02
Location	New Culham Crossing/Development
Site number	08
Date	21/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NA\Sergio.PerezBurgos
Description	

Units

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



## **Analysis Options**

Calculate Queue Percentiles	e Queue Percentiles Calculate residual capacity		Average Delay threshold (s)	Queue threshold (PCU)	
		0.85	36.00	20.00	

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15
D2	2024with	PM	ONE HOUR	16:45	18:15	15
D5	2034with	AM	ONE HOUR	07:45	09:15	15
D6	2034with	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
08	New Culham Crossing/Development	T-Junction	Two-way		1.44	А

#### **Junction Network Options**

Driving side	Lighting			
Left	Normal/unknown			

#### Arms

#### Arms

Arm	Name	Description	Arm type
Α	New Culham Crossing S		Major
в	FCC/Hanson Access Road		Minor
С	New Culham Crossing N		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - New Culham Crossing N	7.20		~	3.72	250.0	✓	9.00

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 - FCC/Hanson Access Road	One lane plus flare	10.00	9.05	5.23	4.67	4.67	~	3.00	56	250

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
08	B-A	710	0.123	0.310	0.195	0.443
08	B-C	725	0.105	0.266	-	-
08	C-B	838	0.308	0.308	-	-

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

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

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



# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing S		~	738	100.000
B - FCC/Hanson Access Road		√	93	100.000
C - New Culham Crossing N		~	473	100.000

# **Origin-Destination Data**

Demand (PCU/hr)

		То									
		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N							
From	A - New Culham Crossing S	0	69	669							
	B - FCC/Hanson Access Road	78	0	15							
	C - New Culham Crossing N	449	24	0							

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То								
		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N					
_	A - New Culham Crossing S	0	41	1					
From	B - FCC/Hanson Access Road	52	0	25					
	C - New Culham Crossing N	4	29	0					

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	9.53	0.0	A
B-A	0.24	19.63	0.5	С
C-AB	0.04	8.27	0.1	A
C-A				
A-B				
A-C				



## Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	567	0.020	11	0.0	8.091	А
B-A	59	474	0.124	58	0.2	13.131	В
C-AB	18	667	0.027	18	0.0	7.154	А
C-A	338			338			
A-B	52			52			
A-C	504			504			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	535	0.025	13	0.0	8.628	А
B-A	70	428	0.164	70	0.3	15.266	С
C-AB	22	634	0.034	22	0.0	7.586	A
C-A	404			404			
A-B	62			62			
A-C	601			601			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	489	0.034	16	0.0	9.524	А
B-A	86	364	0.236	85	0.5	19.548	С
C-AB	26	588	0.045	26	0.1	8.271	A
C-A	494			494			
A-B	76			76			
A-C	737			737			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	489	0.034	17	0.0	9.532	А
B-A	86	365	0.236	86	0.5	19.632	С
C-AB	26	588	0.045	26	0.1	8.272	A
C-A	494			494			
A-B	76			76			
A-C	737			737			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	534	0.025	14	0.0	8.638	А
B-A	70	428	0.164	71	0.3	15.346	С
C-AB	22	634	0.034	22	0.0	7.588	А
C-A	404			404			
ΑB	62			62			
ΑC	601			601			



#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	567	0.020	11	0.0	8.102	А
B-A	59	474	0.124	59	0.2	13.203	В
C-AB	18	667	0.027	18	0.0	7.158	A
C-A	338			338			
ΑB	52			52			
A-C	504			504			



# 2024with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
08	New Culham Crossing/Development	T-Junction	Two-way		0.38	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing S		~	567	100.000
B - FCC/Hanson Access Road		~	41	100.000
C - New Culham Crossing N		✓	770	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N					
_	A - New Culham Crossing S	0	22	545					
From	B - FCC/Hanson Access Road	25	0	16					
	C - New Culham Crossing N	761	9	0					

## **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То								
From		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N					
	A - New Culham Crossing S	0	28	1					
	B - FCC/Hanson Access Road	23	0	5					
	C - New Culham Crossing N	1	20	0					



# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.03	6.60	0.0	А
B-A	0.08	14.49	0.1	В
C-AB	0.02	6.79	0.0	A
C-A				
ΑB				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	651	0.019	12	0.0	5.913	А
B-A	19	439	0.043	19	0.1	10.526	В
C-AB	7	706	0.010	7	0.0	6.174	A
C-A	573			573			
A-B	17			17			
A-C	410			410			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	626	0.023	14	0.0	6.181	А
B-A	22	395	0.057	22	0.1	11.895	В
C-AB	8	681	0.012	8	0.0	6.419	А
C-A	684			684			
ΑB	20			20			
A-C	490			490			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	590	0.030	18	0.0	6.598	А
B-A	28	333	0.083	27	0.1	14.486	В
C-AB	10	646	0.015	10	0.0	6.794	А
C-A	838			838			
ΑB	24			24			
A-C	600			600			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	590	0.030	18	0.0	6.600	A
B-A	28	333	0.083	28	0.1	14.494	В
C-AB	10	646	0.015	10	0.0	6.794	A
C-A	838			838			
A-B	24			24			
A-C	600			600			



#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	625	0.023	14	0.0	6.185	А
B-A	22	395	0.057	23	0.1	11.904	В
C-AB	8	681	0.012	8	0.0	6.420	А
C-A	684			684			
A-B	20			20			
A-C	490			490			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	651	0.019	12	0.0	5.920	А
B-A	19	439	0.043	19	0.1	10.538	В
C-AB	7	706	0.010	7	0.0	6.176	А
C-A	573			573			
ΑB	17			17			
A-C	410			410			



# 2034with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
08	New Culham Crossing/Development	T-Junction	Two-way		5.84	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2034with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing S		~	1150	100.000
B - FCC/Hanson Access Road		~	91	100.000
C - New Culham Crossing N		✓	989	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То							
From		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N				
	A - New Culham Crossing S	0	73	1077				
	B - FCC/Hanson Access Road	78	0	13				
	C - New Culham Crossing N	963	26	0				

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То							
		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N				
<b>F</b>	A - New Culham Crossing S	0	34	2				
From	B - FCC/Hanson Access Road	49	0	20				
	C - New Culham Crossing N	4	23	0				



# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	27.94	0.1	D
B-A	0.75	158.73	3.4	F
C-AB	0.06	10.55	0.1	В
C-A				
ΑB				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	476	0.021	10	0.0	9.262	A
B-A	59	304	0.193	57	0.3	21.670	С
C-AB	20	571	0.034	19	0.0	8.019	A
C-A	725			725			
A-B	55			55			
A-C	811			811			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	419	0.028	12	0.0	10.612	В
B-A	70	224	0.313	69	0.6	34.324	D
C-AB	23	520	0.045	23	0.1	8.919	А
C-A	866			866			
ΑB	66			66			
A-C	968			968			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	224	0.064	14	0.1	20.534	С
B-A	86	114	0.753	77	2.9	125.379	F
C-AB	29	448	0.064	29	0.1	10.548	В
C-A	1060			1060			
A-B	80			80			
A-C	1186			1186			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	169	0.085	14	0.1	27.944	D
B-A	86	114	0.752	84	3.4	158.729	F
C-AB	29	448	0.064	29	0.1	10.552	В
C-A	1060			1060			
A-B	80			80			
A-C	1186			1186			



#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	409	0.029	12	0.0	10.903	В
B-A	70	225	0.312	81	0.7	39.605	Е
C-AB	23	520	0.045	23	0.1	8.926	А
C-A	866			866			
ΑB	66			66			
A-C	968			968			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	474	0.021	10	0.0	9.303	А
B-A	59	304	0.193	60	0.4	22.133	С
C-AB	20	571	0.034	20	0.0	8.027	А
C-A	725			725			
ΑB	55			55			
A-C	811			811			



# 2034with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
08	New Culham Crossing/Development	T-Junction	Two-way		0.65	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2034with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing S		~	1017	100.000
B - FCC/Hanson Access Road		~	49	100.000
C - New Culham Crossing N		✓	906	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То							
		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N				
	A - New Culham Crossing S	0	25	992				
From	B - FCC/Hanson Access Road	31	0	18				
	C - New Culham Crossing N	898	8	0				

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То							
		A - New Culham Crossing S	B - FCC/Hanson Access Road	C - New Culham Crossing N				
Francis	A - New Culham Crossing S	0	22	1				
From	B - FCC/Hanson Access Road	22	0	4				
	C - New Culham Crossing N	1	11	0				



# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	9.05	0.0	А
B-A	0.21	34.07	0.3	D
C-AB	0.02	8.25	0.0	A
C-A				
ΑB				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	548	0.025	13	0.0	7.002	А
B-A	23	324	0.072	23	0.1	14.574	В
C-AB	6	602	0.010	6	0.0	6.702	A
C-A	676			676			
A-B	19			19			
A-C	747			747			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	502	0.032	16	0.0	7.703	А
B-A	28	256	0.109	28	0.1	19.185	С
C-AB	7	556	0.013	7	0.0	7.274	А
C-A	807			807			
ΑB	22			22			
A-C	892			892			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	434	0.046	20	0.0	9.030	А
B-A	34	163	0.210	33	0.3	33.808	D
C-AB	9	493	0.018	9	0.0	8.248	А
C-A	989			989			
A-B	28			28			
A-C	1092			1092			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	433	0.046	20	0.0	9.052	A
B-A	34	163	0.210	34	0.3	34.071	D
C-AB	9	493	0.018	9	0.0	8.248	A
C-A	989			989			
A-B	28			28			
A-C	1092			1092			



#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	501	0.032	16	0.0	7.725	А
B-A	28	257	0.109	29	0.2	19.296	С
C-AB	7	556	0.013	7	0.0	7.277	А
C-A	807			807			
ΑB	22			22			
A-C	892			892			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	547	0.025	14	0.0	7.014	А
B-A	23	324	0.072	24	0.1	14.615	В
C-AB	6	602	0.010	6	0.0	6.705	А
C-A	676			676			
ΑB	19			19			
A-C	747			747			

SCH9



# Junctions 9 PICADY 9 - Priority Intersection Module Version: 9.5.0.6896 © Copyright TRL Limited, 2018 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk 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: RIVX-09-New\_Culham Crossing\_B4016-P02-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\RIV X\Models\PICADY Report generation date: 10/09/2021 17:01:40

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

		AM			PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
		2024with						
Stream B-C	0.0	6.37	0.01	А	0.0	8.43	0.02	А
Stream B-A	0.2	11.27	0.20	В	0.7	18.90	0.41	С
Stream C-AB	0.0	6.05	0.04	А	0.0	7.06	0.02	А
				2034	with			
Stream B-C	1.3	684.13	1.00	F	1.3	384.02	0.99	F
Stream B-A	6.8	210.66	0.98	F	5.4	169.04	0.92	F
Stream C-AB	0.1	9.20	0.06	А	0.1	10.16	0.06	В

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	RIV_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0006 P02
Location	New Culham Crossing/B4016
Site number	09
Date	22/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NA\Sergio.PerezBurgos
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





Flows show original traffic demand (PCU/hr). Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

#### **Analysis Options**

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15
D2	2024with	PM	ONE HOUR	16:45	18:15	15
D5	2034with	AM	ONE HOUR	07:45	09:15	15
D6	2034with	PM	ONE HOUR	16:45	18:15	15

#### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
09	New Culham Crossing/B4016	T-Junction	Two-way		0.74	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

#### Arms

#### Arms

Arm	Name	Description	Arm type
Α	New Culham Crossing N		Major
в	B4016		Minor
С	New Culham Crossing S		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - New Culham Crossing S	7.34		✓	3.65	230.0	~	10.00

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	Width at give-	Width at	Width at	Width at	Width at	Estimate flare	Flare length	Visibility to	Visibility to
	type	way (m)	5m (m)	10m (m)	15m (m)	20m (m)	length	(PCU)	left (m)	right (m)
B - B4016	One lane plus flare	10.00	10.00	5.67	3.83	3.69	~	2.00	250	140

#### **Zebra Crossings**

Arm	Space between crossing and junction entry (Left) (PCU)	Space between crossing and junction entry (Right / All) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
B - B4016	3.00	2.00	4.00		Distance	10.00	7.14

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
09	B-A	731	0.125	0.317	0.199	0.453
09	B-C	752	0.109	0.274	-	-
09	C-B	819	0.299	0.299	-	-

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

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

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



# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing N		✓	556	100.000
B - B4016		✓	76	100.000
C - New Culham Crossing S		✓	682	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - New Culham Crossing N	
B - B4016	20.00
C - New Culham Crossing S	

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S					
	A - New Culham Crossing N	0	87	469					
From	B - B4016	73	0	3					
	C - New Culham Crossing S	661	21	0					

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То								
From		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S					
	A - New Culham Crossing N	0	0	5					
	B - B4016	0	0	0					
	C - New Culham Crossing S	2	3	0					

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	6.37	0.0	A
B-A	0.20	11.27	0.2	В
C-AB	0.04	6.05	0.0	A
C-A				
A-B				
A-C				



#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	15.06	630	0.004	2	0.0	5.734	А
B-A	55	15.06	504	0.109	54	0.1	7.992	А
C-AB	16		694	0.023	16	0.0	5.469	A
C-A	498				498			
A-B	65				65			
A-C	353				353			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	17.98	605	0.004	3	0.0	5.978	A
B-A	66	17.98	460	0.143	65	0.2	9.109	A
C-AB	19		669	0.028	19	0.0	5.699	A
C-A	594				594			
ΑB	78				78			
A-C	422				422			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	22.02	568	0.006	3	0.0	6.370	А
B-A	80	22.02	400	0.201	80	0.2	11.251	В
C-AB	23		636	0.036	23	0.0	6.050	A
C-A	728				728			
A-B	96				96			
A-C	516				516			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	22.02	568	0.006	3	0.0	6.372	A
B-A	80	22.02	400	0.201	80	0.2	11.273	В
C-AB	23		636	0.036	23	0.0	6.050	A
C-A	728				728			
A-B	96				96			
A-C	516				516			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	17.98	605	0.004	3	0.0	5.980	А
B-A	66	17.98	460	0.143	66	0.2	9.132	A
C-AB	19		669	0.028	19	0.0	5.699	А
C-A	594				594			
A-B	78				78			
A-C	422				422			



#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	15.06	630	0.004	2	0.0	5.738	А
B-A	55	15.06	504	0.109	55	0.1	8.017	A
C-AB	16		694	0.023	16	0.0	5.469	А
C-A	498				498			
ΑB	65				65			
A-C	353				353			



# 2024with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
09	New Culham Crossing/B4016	T-Junction	Two-way		1.51	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	name Time Period name Traffic		Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing N		~	891	100.000
B - B4016		~	127	100.000
C - New Culham Crossing S		✓	560	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - New Culham Crossing N	
B - B4016	20.00
C - New Culham Crossing S	

# **Origin-Destination Data**

#### Demand (PCU/hr)

		То		
		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S
<b>F</b>	A - New Culham Crossing N	0	128	763
From	B - B4016	119	0	8
	C - New Culham Crossing S	550	10	0

# Vehicle Mix



#### Heavy Vehicle Percentages

		То		
		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S
<b>F</b>	A - New Culham Crossing N	0	0	1
From	B - B4016	0	0	1
	C - New Culham Crossing S	1	1	0

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.02	8.43	0.0	A
B-A	0.41	18.90	0.7	С
C-AB	0.02	7.06	0.0	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	15.06	554	0.011	6	0.0	6.636	А
B-A	90	15.06	451	0.199	89	0.2	9.911	A
C-AB	8		618	0.012	7	0.0	5.951	А
C-A	414				414			
A-B	96				96			
A-C	574				574			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	17.98	511	0.014	7	0.0	7.219	A
B-A	107	17.98	396	0.270	107	0.4	12.394	В
C-AB	9		579	0.016	9	0.0	6.372	A
C-A	494				494			
A-B	115				115			
A-C	686				686			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	22.02	441	0.020	9	0.0	8.410	А
B-A	131	22.02	321	0.408	130	0.7	18.677	С
C-AB	11		526	0.021	11	0.0	7.063	А
C-A	606				606			
A-B	141				141			
A-C	840				840			



#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	22.02	440	0.020	9	0.0	8.428	А
B-A	131	22.02	321	0.408	131	0.7	18.900	С
C-AB	11		526	0.021	11	0.0	7.063	А
C-A	606				606			
A-B	141				141			
A-C	840				840			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	17.98	510	0.014	7	0.0	7.230	А
B-A	107	17.98	396	0.270	108	0.4	12.539	В
C-AB	9		579	0.016	9	0.0	6.373	A
C-A	494				494			
A-B	115				115			
A-C	686				686			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	15.06	553	0.011	6	0.0	6.643	А
B-A	90	15.06	451	0.199	90	0.3	9.994	A
C-AB	8		618	0.012	8	0.0	5.952	A
C-A	414				414			
A-B	96				96			
A-C	574				574			



# 2034 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
09	New Culham Crossing/B4016	T-Junction	Two-way		11.76	В

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2034with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing N		~	1141	100.000
B - B4016		~	114	100.000
C - New Culham Crossing S		✓	1089	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - New Culham Crossing N	
B - B4016	20.00
C - New Culham Crossing S	

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
From		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S					
	A - New Culham Crossing N	0	159	982					
	B - B4016	107	0	7					
	C - New Culham Crossing S	1063	26	0					

# Vehicle Mix



#### Heavy Vehicle Percentages

		То		
From		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S
	A - New Culham Crossing N	0	0	5
	B - B4016	0	0	0
	C - New Culham Crossing S	2	6	0

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.00	684.13	1.3	F
B-A	0.98	210.66	6.8	F
C-AB	0.06	9.20	0.1	A
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	15.06	499	0.011	5	0.0	7.285	А
B-A	81	15.06	313	0.257	79	0.3	15.300	С
C-AB	20		562	0.035	19	0.0	7.029	А
C-A	800				800			
A-B	120				120			
A-C	739				739			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	17.98	429	0.015	6	0.0	8.519	A
B-A	96	17.98	232	0.414	95	0.7	25.979	D
C-AB	23		512	0.046	23	0.1	7.802	A
C-A	956				956			
A-B	143				143			
A-C	883				883			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	22.02	8	0.997	4	1.0	684.126	F
B-A	118	22.02	120	0.982	101	4.8	139.131	F
C-AB	29		443	0.065	29	0.1	9.194	А
C-A	1170				1170			
A-B	175				175			
A-C	1081				1081			



#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	22.02	10	0.758	7	1.3	449.761	F
B-A	118	22.02	120	0.982	110	6.8	210.663	F
C-AB	29		443	0.065	29	0.1	9.198	А
C-A	1170				1170			
A-B	175				175			
A-C	1081				1081			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	17.98	396	0.016	11	0.0	9.473	A
B-A	96	17.98	232	0.415	120	0.7	38.491	E
C-AB	23		512	0.046	23	0.1	7.808	A
C-A	956				956			
A-B	143				143			
A-C	883				883			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	15.06	498	0.011	5	0.0	7.309	А
B-A	81	15.06	313	0.257	82	0.4	15.688	С
C-AB	20		562	0.035	20	0.0	7.036	A
C-A	800				800			
A-B	120				120			
A-C	739				739			



# 2034with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
09	New Culham Crossing/B4016	T-Junction	Two-way		9.21	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2034with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing N		~	1324	100.000
B - B4016		~	119	100.000
C - New Culham Crossing S		✓	996	100.000

#### **Demand overview (Pedestrians)**

Arm	Average pedestrian flow (Ped/hr)
A - New Culham Crossing N	
B - B4016	20.00
C - New Culham Crossing S	

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То						
From		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S			
	A - New Culham Crossing N	0	404	920			
	B - B4016	109	0	10			
	C - New Culham Crossing S	976	20	0			

# Vehicle Mix



#### Heavy Vehicle Percentages

		То		
From		A - New Culham Crossing N	B - B4016	C - New Culham Crossing S
	A - New Culham Crossing N	0	0	1
	B - B4016	0	0	4
	C - New Culham Crossing S	1	2	0

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.99	384.02	1.3	F
B-A	0.92	169.04	5.4	F
C-AB	0.06	10.16	0.1	В
C-A				
A-B				
A-C				

#### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	15.06	493	0.015	7	0.0	7.705	А
B-A	82	15.06	320	0.256	81	0.3	14.971	В
C-AB	15		521	0.029	15	0.0	7.254	A
C-A	735				735			
A-B	304				304			
A-C	693				693			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	17.98	422	0.021	9	0.0	9.043	A
B-A	98	17.98	240	0.408	97	0.7	24.876	С
C-AB	18		463	0.039	18	0.0	8.245	A
C-A	877				877			
A-B	363				363			
A-C	827				827			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	22.02	75	0.147	10	0.2	57.331	F
B-A	120	22.02	130	0.924	106	4.1	117.711	F
C-AB	22		383	0.057	22	0.1	10.160	В
C-A	1075				1075			
A-B	445				445			
A-C	1013				1013			



#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	22.02	11	0.990	6	1.3	384.016	F
B-A	120	22.02	130	0.924	115	5.4	169.039	F
C-AB	22		383	0.057	22	0.1	10.164	В
C-A	1075				1075			
ΑB	445				445			
A-C	1013				1013			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	17.98	399	0.023	14	0.0	9.823	A
B-A	98	17.98	240	0.408	117	0.7	33.088	D
C-AB	18		463	0.039	18	0.0	8.250	A
C-A	877				877			
A-B	363				363			
A-C	827				827			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	15.06	491	0.015	8	0.0	7.733	А
B-A	82	15.06	320	0.256	84	0.4	15.332	С
C-AB	15		521	0.029	15	0.0	7.258	A
C-A	735				735			
A-B	304				304			
A-C	693				693			

**SCH1**0





Filename: RIVX-10-New Culham Crossing\_B4016 Appleford Road-P02-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\RIV X\Models\ARCADY Report generation date: 10/09/2021 17:09:15

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

			Α	М		РМ				
	Queue (PCU)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (min)	RFC	LOS	Network Residual Capacity
					2024	with	1			
A - New Culham Crossing	0.5	0.05	0.32	A	84 %	1.3	0.08	0.56	А	70 %
B - B4016 Appleford Road	0.7	0.05	0.42	А	[C - B4016 Appleford	0.6	0.05	0.39	А	[A - New Culham
C - B4016 Appleford Road	0.7	0.07	0.41	А	Road]	0.3	0.05	0.25	А	Crossing]
					2034	with				
A - New Culham Crossing	2.2	0.11	0.69	A	35 %	9.1	0.35	0.91	С	5 %
B - B4016 Appleford Road	2.2	0.10	0.69	А	[B - B4016 Appleford	2.1	0.11	0.67	А	[A - New Culham
C - B4016 Appleford Road	0.8	0.08	0.42	А	Road]	0.6	0.07	0.37	А	Crossing]

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

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

#### File summary

#### **File Description**

Title	RIV_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0006 P02
Location	New Culham Crossing/B4016 Appleford Road
Site number	10
Date	21/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
Description	



#### Units

Distance units Speed unit
m mph
C

Flows show original traffic demand (PCU/hr). The junction diagram reflects the last run of Junctions.

#### **Analysis Options**

Vehicle	Calculate Queue	Calculate detailed	Calculate residual	Residual capacity	RFC	Average Delay	Queue threshold
length (m)	Percentiles	queueing delay	capacity	criteria type	Threshold	threshold (min)	(PCU)
5.75			~	Delay	0.85	0.60	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓	~
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	~
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

#### **Analysis Set Details**

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)		
A1	<b>~</b>	100.000	100.000		



# 2024 with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2024with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
10	New Culham Crossing/B4016 Appleford Road	Standard Roundabout		A, B, C	0.06	A

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	
Left	Normal/unknown	84	C - B4016 Appleford Road	

# Arms

# Arms

Arm	Name	Description
Α	New Culham Crossing	
в	B4016 Appleford Road	
С	B4016 Appleford Road	

#### **Roundabout Geometry**

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - New Culham Crossing	3.48	7.99	36.5	26.0	66.4	36.6	
B - B4016 Appleford Road	3.47	7.87	28.7	30.0	66.4	20.8	
C - B4016 Appleford Road	3.52	8.02	29.0	26.0	66.4	42.2	

#### **Pelican/Puffin Crossings**

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
A - New Culham Crossing	7.40	3.00	2.90	1.00	6.00	28.00	7.00

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - New Culham Crossing	0.570	2010
B - B4016 Appleford Road	0.590	2040
C - B4016 Appleford Road	0.550	1916

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)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	~	527	100.000
B - B4016 Appleford Road		ONE HOUR	✓	733	100.000
C - B4016 Appleford Road		ONE HOUR	✓	583	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Culham Crossing	[ONEHOUR]	20.00
B - B4016 Appleford Road		
C - B4016 Appleford Road		

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То							
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road				
-	A - New Culham Crossing	0	340	187				
From	B - B4016 Appleford Road	578	0	155				
	C - B4016 Appleford Road	368	215	0				

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То									
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road						
From	A - New Culham Crossing	0	3	3						
	B - B4016 Appleford Road	1	0	3						
	C - B4016 Appleford Road	1	6	0						

# Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Culham Crossing	0.32	0.05	0.5	А	527	527
B - B4016 Appleford Road	0.42	0.05	0.7	А	733	733
C - B4016 Appleford Road	0.41	0.07	0.7	A	583	583


#### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	474	118	193	17.98	1828	0.259	473	850	0.3	0.4	0.046	А
B - B4016 Appleford Road	659	165	168		1941	0.340	658	499	0.4	0.5	0.047	А
C - B4016 Appleford Road	524	131	519		1631	0.321	524	307	0.4	0.5	0.056	А

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	580	145	236	22.02	1816	0.320	580	1040	0.4	0.5	0.050	A
B - B4016 Appleford Road	807	202	206		1919	0.421	806	610	0.5	0.7	0.055	А
C - B4016 Appleford Road	642	160	636		1566	0.410	641	376	0.5	0.7	0.067	А

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	580	145	237	22.02	1817	0.319	580	1042	0.5	0.5	0.050	А
B - B4016 Appleford Road	807	202	206		1918	0.421	807	611	0.7	0.7	0.055	А
C - B4016 Appleford Road	642	160	636		1566	0.410	642	377	0.7	0.7	0.067	А

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	474	118	194	17.98	1828	0.259	474	852	0.5	0.4	0.046	А
B - B4016 Appleford Road	659	165	168		1941	0.340	660	500	0.7	0.5	0.048	A
C - B4016 Appleford Road	524	131	520		1630	0.322	525	308	0.7	0.5	0.056	A



# 2024 with, PM

#### Data Errors and Warnings

Severity	ity Area Item		Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2024with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
10	New Culham Crossing/B4016 Appleford Road	Standard Roundabout		A, B, C	0.06	A

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	70	A - New Culham Crossing

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓	~

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	~	928	100.000
B - B4016 Appleford Road		ONE HOUR	~	668	100.000
C - B4016 Appleford Road		ONE HOUR	~	370	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Culham Crossing	[ONEHOUR]	20.00
B - B4016 Appleford Road		
C - B4016 Appleford Road		

## **Origin-Destination Data**

#### Demand (PCU/hr)

	То								
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road					
From	A - New Culham Crossing	0	711	217					
From	B - B4016 Appleford Road	447	0	221					
	C - B4016 Appleford Road	189	181	0					

Vehicle Mix



#### Heavy Vehicle Percentages

	То										
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road							
<b>F</b>	A - New Culham Crossing	0	1	1							
From	B - B4016 Appleford Road	1	0	2							
	C - B4016 Appleford Road	2	2	0							

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Culham Crossing	0.56	0.08	1.3	А	928	928
B - B4016 Appleford Road	0.39	0.05	0.6	А	668	668
C - B4016 Appleford Road	0.25	0.05	0.3	А	370	370

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	834	209	163	17.98	1828	0.456	833	571	0.6	0.8	0.061	A
B - B4016 Appleford Road	601	150	195		1925	0.312	600	801	0.4	0.5	0.046	A
C - B4016 Appleford Road	333	83	402		1695	0.196	332	393	0.2	0.2	0.045	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1022	255	199	22.02	1817	0.562	1020	700	0.8	1.3	0.076	A
B - B4016 Appleford Road	735	184	239		1899	0.387	735	981	0.5	0.6	0.052	А
C - B4016 Appleford Road	407	102	492		1646	0.248	407	482	0.2	0.3	0.049	А

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1022	255	199	22.02	1817	0.562	1022	700	1.3	1.3	0.076	А
B - B4016 Appleford Road	735	184	239		1899	0.387	735	982	0.6	0.6	0.052	A
C - B4016 Appleford Road	407	102	492		1645	0.248	407	482	0.3	0.3	0.049	A

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	834	209	163	17.98	1828	0.456	836	572	1.3	0.9	0.061	А
B - B4016 Appleford Road	601	150	195		1925	0.312	601	803	0.6	0.5	0.046	А
C - B4016 Appleford Road	333	83	402		1695	0.196	333	394	0.3	0.2	0.045	А



# 2034 with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D5 - 2034with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
10	New Culham Crossing/B4016 Appleford Road	Standard Roundabout		A, B, C	0.10	А

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	35	B - B4016 Appleford Road

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	~

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	~	1124	100.000
B - B4016 Appleford Road		ONE HOUR	✓	1168	100.000
C - B4016 Appleford Road		ONE HOUR	~	524	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Culham Crossing	[ONEHOUR]	20.00
B - B4016 Appleford Road		
C - B4016 Appleford Road		

## **Origin-Destination Data**

#### Demand (PCU/hr)

		1	Го		
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road	
Farm	A - New Culham Crossing	0	865	259	
From	B - B4016 Appleford Road	904	0	264	
	C - B4016 Appleford Road	249	275	0	

Vehicle Mix



#### Heavy Vehicle Percentages

		То										
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road								
<b>F</b>	A - New Culham Crossing	0	3	2								
From	B - B4016 Appleford Road	2	0	2								
	C - B4016 Appleford Road	2	7	0								

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Culham Crossing	0.69	0.11	2.2	А	1124	1124
B - B4016 Appleford Road	0.69	0.10	2.2	А	1168	1168
C - B4016 Appleford Road	0.42	0.08	0.8	A	524	524

#### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1010	253	247	17.98	1828	0.553	1009	1035	0.9	1.3	0.075	A
B - B4016 Appleford Road	1050	263	232		1903	0.552	1048	1023	0.9	1.2	0.072	A
C - B4016 Appleford Road	471	118	811		1470	0.321	471	469	0.4	0.5	0.063	A

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1238	309	302	22.02	1802	0.687	1234	1266	1.3	2.2	0.108	A
B - B4016 Appleford Road	1286	321	284		1872	0.687	1282	1252	1.2	2.2	0.103	А
C - B4016 Appleford Road	577	144	992		1370	0.421	576	574	0.5	0.8	0.079	A

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1238	309	303	22.02	1811	0.683	1238	1269	2.2	2.2	0.108	A
B - B4016 Appleford Road	1286	321	285		1872	0.687	1286	1255	2.2	2.2	0.104	A
C - B4016 Appleford Road	577	144	995		1369	0.422	577	576	0.8	0.8	0.079	A

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1010	253	248	17.98	1828	0.553	1014	1040	2.2	1.3	0.076	A
B - B4016 Appleford Road	1050	263	234		1902	0.552	1054	1028	2.2	1.3	0.072	А
C - B4016 Appleford Road	471	118	816		1468	0.321	472	472	0.8	0.5	0.063	A



# 2034 with, PM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D6 - 2034with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
10	New Culham Crossing/B4016 Appleford Road	Standard Roundabout		A, B, C	0.22	В

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	5	A - New Culham Crossing

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Culham Crossing		ONE HOUR	✓	1500	100.000
B - B4016 Appleford Road		ONE HOUR	~	1084	100.000
C - B4016 Appleford Road		ONE HOUR	✓	476	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Culham Crossing	[ONEHOUR]	20.00
B - B4016 Appleford Road		
C - B4016 Appleford Road		

## **Origin-Destination Data**

#### Demand (PCU/hr)

		То										
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road								
From	A - New Culham Crossing	0	1084	416								
From	B - B4016 Appleford Road	819	0	265								
	C - B4016 Appleford Road	237	239	0								

**Vehicle Mix** 



#### Heavy Vehicle Percentages

	То										
		A - New Culham Crossing	B - B4016 Appleford Road	C - B4016 Appleford Road							
<b>F</b>	A - New Culham Crossing	0	1	1							
From	B - B4016 Appleford Road	1	0	1							
	C - B4016 Appleford Road	1	1	0							

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Culham Crossing	0.91	0.35	9.1	С	1500	1500
B - B4016 Appleford Road	0.67	0.11	2.1	А	1084	1084
C - B4016 Appleford Road	0.37	0.07	0.6	А	476	476

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1348	337	215	17.98	1827	0.738	1344	948	1.6	2.8	0.124	A
B - B4016 Appleford Road	974	244	373		1820	0.535	973	1186	0.8	1.2	0.071	А
C - B4016 Appleford Road	428	107	735		1512	0.283	428	611	0.3	0.4	0.056	A

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1652	413	263	22.02	1815	0.910	1629	1160	2.8	8.4	0.296	С
B - B4016 Appleford Road	1194	298	452		1773	0.673	1190	1440	1.2	2.0	0.103	А
C - B4016 Appleford Road	524	131	899		1422	0.369	523	743	0.4	0.6	0.067	А

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1652	413	263	22.02	1815	0.910	1649	1163	8.4	9.1	0.350	С
B - B4016 Appleford Road	1194	298	457		1770	0.674	1193	1454	2.0	2.1	0.105	A
C - B4016 Appleford Road	524	131	902		1420	0.369	524	749	0.6	0.6	0.068	A

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (min)	Unsignalised level of service
A - New Culham Crossing	1348	337	215	17.98	1827	0.738	1373	952	9.1	2.9	0.140	А
B - B4016 Appleford Road	974	244	381		1815	0.537	978	1208	2.1	1.2	0.073	А
C - B4016 Appleford Road	428	107	739		1510	0.283	429	620	0.6	0.4	0.056	А

## SCH11



# Junctions 9 ARCADY 9 - Roundabout Module Version: 9.5.0.6896 © Copyright TRL Limited, 2018 For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk 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: RIVX-11-Northern Crossing Roundabout-P02-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\RIV X\Models\ARCADY Report generation date: 10/09/2021 17:26:36

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

			Α	М		РМ				
	Queue (PCU)	Delay (min)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (min)	RFC	LOS	Network Residual Capacity
					2024	with				
A - New Access Road	0.0	0.00	0.00	A	87 %	0.0	0.03	0.01	А	138 %
B - A415 Abingdon Road	0.3	0.04	0.22	А	07 78	0.5	0.05	0.35	А	130 %
C - New Culham Crossing	0.9	0.05	0.48	А	[C - New Culham	0.5	0.04	0.33	А	[C - New Culham
D - A415 Abingdon Road	0.5	0.04	0.33	А	Crossingj	0.3	0.03	0.20	А	Grossingj
					2034	with				
A - New Access Road	0.0	0.05	0.03	A	37 %	0.1	0.04	0.06	А	17 %
B - A415 Abingdon Road	0.5	0.05	0.33	А	57 /6	1.1	0.07	0.52	А	47 /0
C - New Culham Crossing	1.6	0.07	0.61	А	[D - A415 Abingdon	1.4	0.07	0.59	А	[C - New Culham
D - A415 Abingdon Road	1.6	0.07	0.61	А	Kuauj	0.6	0.04	0.39	А	Crossing

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

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

#### **File summary**

#### **File Description**

Title	RIV_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0008 P02
Location	Northern Crossing Roundbout
Site number	11
Date	21/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
Description	



#### Units

Distance units	Speed units	s Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	mph	PCU	PCU	perHour	min	-Min	perMin
	D - A415 Abingdon Road	29 (0%) 7 334 (3%) 438 (1%)	C - New	A - N Trian	ew Access Road	7 76 (0% 535 (1% 1012 (1%) 1012 (1%)	B - A415 Abingdon Road

Flows show original traffic demand (PCUIhr). The junction diagram reflects the last run of Junctions.

#### **Analysis Options**

Vehicle	Calculate Queue	Calculate detailed	Calculate residual	Residual capacity	RFC	Average Delay	Queue threshold
length (m)	Percentiles	queueing delay	capacity	criteria type	Threshold	threshold (min)	(PCU)
5.75			~	Delay	0.85	0.60	20.00

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓	~
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	~
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	~

#### **Analysis Set Details**

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



# 2024 with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2024with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
11	New Culham Crossing/A415 Abingdon Road	Standard Roundabout		A, B, C, D	0.05	А

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	87	C - New Culham Crossing

### Arms

#### Arms

Arm	Name	Description
Α	New Access Road	
в	A415 Abingdon Road	
С	New Culham Crossing	
D	A415 Abingdon Road	

#### **Roundabout Geometry**

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - New Access Road	7.30	10.57	7.0	40.1	80.1	42.9	
B - A415 Abingdon Road	3.65	8.37	268.0	42.8	80.1	27.9	
C - New Culham Crossing	3.65	8.22	97.5	36.4	80.1	30.4	
D - A415 Abingdon Road	3.65	10.56	113.9	54.9	80.1	36.5	

#### Bypass

Arm	Arm has bypass	Bypass utilisation (%)
A - New Access Road		
B - A415 Abingdon Road	~	75
C - New Culham Crossing		
D - A415 Abingdon Road		

#### **Zebra Crossings**

Arm	Space between crossing and junction	Vehicles queueing on exit	Central	Crossing data	Crossing	Crossing time
	entry (Zebra) (PCU)	(Zebra) (PCU)	Refuge	type	length (m)	(s)
A - New Access Road	7.70	9.00		Distance	14.97	10.69



#### **Pelican/Puffin Crossings**

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
B - A415 Abingdon Road	9.60	3.00	2.90	1.00	6.00	27.00	7.00

#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - New Access Road	0.593	2555
B - A415 Abingdon Road	0.603	2542
C - New Culham Crossing	0.573	2358
D - A415 Abingdon Road	0.648	2884

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

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Access Road		ONE HOUR	~	2	100.000
B - A415 Abingdon Road		ONE HOUR	~	613	100.000
C - New Culham Crossing		ONE HOUR	✓	949	100.000
D - A415 Abingdon Road		ONE HOUR	✓	700	100.000

#### Demand overview (Pedestrians)

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Access Road	[ONEHOUR]	20.00
B - A415 Abingdon Road	[ONEHOUR]	20.00
C - New Culham Crossing		
D - A415 Abingdon Road		

## **Origin-Destination Data**

#### Demand (PCU/hr)

			То		
		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road
	A - New Access Road	0	0	1	1
From	B - A415 Abingdon Road	0	0	332	281
	C - New Culham Crossing	7	786	0	156
	D - A415 Abingdon Road	4	497	199	0

## Vehicle Mix



#### Heavy Vehicle Percentages

			То		
		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road
	A - New Access Road	0	0	8	33
From	B - A415 Abingdon Road	0	0	2	2
	C - New Culham Crossing	0	1	0	2
	D - A415 Abingdon Road	13	2	4	0

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Access Road	0.00	0.00	0.0	А	0	0
B - A415 Abingdon Road	0.22	0.04	0.3	A	613	364
C - New Culham Crossing	0.48	0.05	0.9	A	949	949
D - A415 Abingdon Road	0.33	0.04	0.5	A	700	700

#### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	0	0	0	0	0	1331	17.98	1765	0.000	0	10	0.0	
B - A415 Abingdon Road	551	327	82	224	0	179	17.98	1852	0.177	327	1153	0.2	
C - New Culham Crossing	853	853	213	0	224	252		2213	0.386	852	253	0.5	
D - A415 Abingdon Road	629	629	157	0	0	712		2422	0.260	629	393	0.3	

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	QU QU (F
A - New Access Road	0	0	0	0	0	1630	22.02	1588	0.000	0	12	0.0	
B - A415 Abingdon Road	675	401	100	274	0	219	22.02	1841	0.218	401	1411	0.2	
C - New Culham Crossing	1045	1045	261	0	274	309		2180	0.479	1044	310	0.6	
D - A415 Abingdon Road	771	771	193	0	0	872		2319	0.332	770	481	0.4	

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	e qu (F
A - New Access Road	0	0	0	0	0	1632	22.02	1587	0.000	0	12	0.0	
B - A415 Abingdon Road	675	401	100	274	0	219	22.02	1841	0.218	401	1413	0.3	
C - New Culham Crossing	1045	1045	261	0	274	309		2180	0.479	1045	310	0.9	
D - A415 Abingdon Road	771	771	193	0	0	873		2318	0.332	771	481	0.5	

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (F
A - New Access Road	0	0	0	0	0	1334	17.98	1764	0.000	0	10	0.0	
B - A415 Abingdon Road	551	327	82	224	0	179	17.98	1852	0.177	327	1155	0.3	
C - New Culham Crossing	853	853	213	0	224	253		2213	0.386	854	254	0.9	
D - A415 Abingdon Road	629	629	157	0	0	714		2421	0.260	630	393	0.5	



# 2024 with, PM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2024with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
11	New Culham Crossing/A415 Abingdon Road	Standard Roundabout		A, B, C, D	0.04	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	138	C - New Culham Crossing

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	~	<b>√</b>

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Access Road		ONE HOUR	~	9	100.000
B - A415 Abingdon Road		ONE HOUR	✓	1104	100.000
C - New Culham Crossing		ONE HOUR	✓	639	100.000
D - A415 Abingdon Road		ONE HOUR	✓	463	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Access Road	[ONEHOUR]	20.00
B - A415 Abingdon Road	[ONEHOUR]	20.00
C - New Culham Crossing		
D - A415 Abingdon Road		

## **Origin-Destination Data**



#### Demand (PCU/hr)

			То			
		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road	
	A - New Access Road	0	0	7	2	
From	B - A415 Abingdon Road	0	0	700	404	
	C - New Culham Crossing	2	454	0	183	
	D - A415 Abingdon Road	0	246	217	0	

## Vehicle Mix

#### Heavy Vehicle Percentages

			То		
From		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road
	A - New Access Road	0	0	0	0
	B - A415 Abingdon Road	0	0	1	1
	C - New Culham Crossing	0	1	0	1
	D - A415 Abingdon Road	100	2	1	0

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Access Road	0.01	0.03	0.0	А	9	9
B - A415 Abingdon Road	0.35	0.05	0.5	A	1104	579
C - New Culham Crossing	0.33	0.04	0.5	A	639	639
D - A415 Abingdon Road	0.20	0.03	0.3	A	463	463

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	qı qı (F
A - New Access Road	8	8	2	0	0	824	17.98	2066	0.004	8	2	0.0	
B - A415 Abingdon Road	992	521	130	472	0	203	17.98	1852	0.281	520	629	0.3	
C - New Culham Crossing	574	574	144	0	472	365		2149	0.267	574	359	0.3	
D - A415 Abingdon Road	416	416	104	0	0	410		2618	0.159	416	529	0.2	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	10	10	2	0	0	1009	22.02	1957	0.005	10	2	0.0	
B - A415 Abingdon Road	1216	637	159	578	0	249	22.02	1842	0.346	637	770	0.4	
C - New Culham Crossing	704	704	176	0	578	447		2102	0.335	703	439	0.4	
D - A415 Abingdon Road	510	510	127	0	0	502		2559	0.199	510	648	0.2	



#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	10	10	2	0	0	1010	22.02	1956	0.005	10	2	0.0	
B - A415 Abingdon Road	1216	637	159	578	0	249	22.02	1842	0.346	637	771	0.5	
C - New Culham Crossing	704	704	176	0	578	447		2101	0.335	704	439	0.5	
D - A415 Abingdon Road	510	510	127	0	0	502		2558	0.199	510	648	0.3	

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	8	8	2	0	0	825	17.98	2066	0.004	8	2	0.0	
B - A415 Abingdon Road	992	521	130	472	0	203	17.98	1852	0.281	521	630	0.5	
C - New Culham Crossing	574	574	144	0	472	365		2148	0.267	575	359	0.5	
D - A415 Abingdon Road	416	416	104	0	0	410		2618	0.159	416	530	0.3	



# 2034with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D5 - 2034with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
11	New Culham Crossing/A415 Abingdon Road	Standard Roundabout		A, B, C, D	0.07	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	37	D - A415 Abingdon Road

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Access Road		ONE HOUR	~	30	100.000
B - A415 Abingdon Road		ONE HOUR	✓	1067	100.000
C - New Culham Crossing		ONE HOUR	✓	1178	100.000
D - A415 Abingdon Road		ONE HOUR	✓	1198	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Access Road	[ONEHOUR]	20.00
B - A415 Abingdon Road	[ONEHOUR]	20.00
C - New Culham Crossing		
D - A415 Abingdon Road		

## **Origin-Destination Data**



#### Demand (PCU/hr)

		То									
		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road						
	A - New Access Road	0	19	9	2						
From	B - A415 Abingdon Road	27	0	691	349						
	C - New Culham Crossing	43	960	0	175						
	D - A415 Abingdon Road	18	755	425	0						

## Vehicle Mix

#### Heavy Vehicle Percentages

		То										
From		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road							
	A - New Access Road	0	0	0	0							
	B - A415 Abingdon Road	0	0	2	3							
	C - New Culham Crossing	0	2	0	5							
	D - A415 Abingdon Road	3	2	4	0							

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Access Road	0.03	0.05	0.0	А	30	30
B - A415 Abingdon Road	0.33	0.05	0.5	A	1067	549
C - New Culham Crossing	0.61	0.07	1.6	A	1178	1178
D - A415 Abingdon Road	0.61	0.07	1.6	A	1198	1198

#### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	qu qu (F
A - New Access Road	27	27	7	0	0	1922	17.98	1415	0.019	27	79	0.0	
B - A415 Abingdon Road	959	493	123	466	0	392	17.98	1852	0.266	493	1557	0.3	
C - New Culham Crossing	1059	1059	265	0	466	340		2163	0.490	1058	545	0.7	
D - A415 Abingdon Road	1077	1077	269	0	0	925		2284	0.471	1076	472	0.6	

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	33	33	8	0	0	2351	22.02	1160	0.028	33	97	0.0	
B - A415 Abingdon Road	1175	604	151	571	0	479	22.02	1842	0.328	604	1905	0.4	
C - New Culham Crossing	1297	1297	324	0	571	416		2119	0.612	1295	667	1.0	
D - A415 Abingdon Road	1319	1319	330	0	0	1132		2150	0.613	1316	578	0.9	



#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	33	33	8	0	0	2356	22.02	1158	0.029	33	97	0.0	
B - A415 Abingdon Road	1175	604	151	571	0	480	22.02	1842	0.328	604	1909	0.5	
C - New Culham Crossing	1297	1297	324	0	571	416		2119	0.612	1297	668	1.6	
D - A415 Abingdon Road	1319	1319	330	0	0	1134		2149	0.614	1319	579	1.6	

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	27	27	7	0	0	1929	17.98	1411	0.019	27	79	0.0	
B - A415 Abingdon Road	959	493	123	466	0	393	17.98	1852	0.266	494	1563	0.5	
C - New Culham Crossing	1059	1059	265	0	466	340		2163	0.490	1061	547	1.6	
D - A415 Abingdon Road	1077	1077	269	0	0	928		2282	0.472	1080	474	1.6	



# 2034 with, PM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	B - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - New Culham Crossing - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	D - A415 Abingdon Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D6 - 2034with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (min)	Junction LOS
11	New Culham Crossing/A415 Abingdon Road	Standard Roundabout		A, B, C, D	0.06	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	47	C - New Culham Crossing

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D6	2034with	PM	ONE HOUR	16:45	18:15	15	~	~

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Access Road		ONE HOUR	~	79	100.000
B - A415 Abingdon Road		ONE HOUR	✓	1623	100.000
C - New Culham Crossing		ONE HOUR	✓	1049	100.000
D - A415 Abingdon Road		ONE HOUR	✓	801	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - New Access Road	[ONEHOUR]	20.00
B - A415 Abingdon Road	[ONEHOUR]	20.00
C - New Culham Crossing		
D - A415 Abingdon Road		

## **Origin-Destination Data**



#### Demand (PCU/hr)

	То										
		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road						
	A - New Access Road	0	25	45	9						
From	B - A415 Abingdon Road	76	0	1012	535						
	C - New Culham Crossing	63	727	0	259						
	D - A415 Abingdon Road	29	334	438	0						

## Vehicle Mix

#### Heavy Vehicle Percentages

		То								
		A - New Access Road	B - A415 Abingdon Road	C - New Culham Crossing	D - A415 Abingdon Road					
	A - New Access Road	0	0	0	1					
From	B - A415 Abingdon Road	0	0	1	1					
	C - New Culham Crossing	0	1	0	0					
	D - A415 Abingdon Road	0	3	1	0					

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - New Access Road	0.06	0.04	0.1	А	79	79
B - A415 Abingdon Road	0.52	0.07	1.1	A	1623	864
C - New Culham Crossing	0.59	0.07	1.4	A	1049	1049
D - A415 Abingdon Road	0.39	0.04	0.6	A	801	801

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	qı qı (F
A - New Access Road	71	71	18	0	0	1346	17.98	1756	0.040	71	151	0.0	
B - A415 Abingdon Road	1459	777	194	682	0	442	17.98	1852	0.419	776	975	0.5	
C - New Culham Crossing	943	943	236	0	682	557		2038	0.463	942	661	0.6	
D - A415 Abingdon Road	720	720	180	0	0	778		2380	0.303	720	721	0.3	

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	87	87	22	0	0	1648	22.02	1577	0.055	87	185	0.0	
B - A415 Abingdon Road	1787	951	238	836	0	541	22.02	1841	0.517	950	1194	0.7	
C - New Culham Crossing	1155	1155	289	0	836	682		1967	0.587	1153	809	0.9	
D - A415 Abingdon Road	882	882	220	0	0	952		2267	0.389	881	883	0.4	



#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (P
A - New Access Road	87	87	22	0	0	1650	22.02	1576	0.055	87	185	0.1	
B - A415 Abingdon Road	1787	951	238	836	0	542	22.02	1841	0.517	951	1196	1.1	
C - New Culham Crossing	1155	1155	289	0	836	683		1966	0.587	1155	810	1.4	
D - A415 Abingdon Road	882	882	220	0	0	953		2266	0.389	882	884	0.6	

#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	E qu (F
A - New Access Road	71	71	18	0	0	1350	17.98	1754	0.040	71	151	0.1	
B - A415 Abingdon Road	1459	777	194	682	0	443	17.98	1852	0.419	778	978	1.1	
C - New Culham Crossing	943	943	236	0	682	558		2038	0.463	945	663	1.4	
D - A415 Abingdon Road	720	720	180	0	0	780		2378	0.303	721	723	0.6	

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## SCH12





Filename: CHB-14-Culham Science Centre Roundabout-P03-v2.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\CHB\Models\ARCADY Report generation date: 10/09/2021 17:47:30

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

				AM					PM	
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
					2024	4with				
A - CSC Access	0.1	2.72	0.05	A	40 %	0.4	3.14	0.28	А	
B - Clifton Hapmdon Bypass	0.3	2.91	0.21	А	40 %	0.1	2.87	0.12	А	130 %
C - Clifton Hampdon Bypass	2.1	5.29	0.67	А	[C - Clifton Hampdon	0.5	2.52	0.35	А	[A - CSC Access]
D - CSV Access	0.1	5.69	0.04	А	Bypassj	0.1	3.38	0.07	А	
					2034	with				
A - CSC Access	0.1	3.74	0.11	A	2 %	0.6	4.35	0.38	A	65 %
B - Clifton Hapmdon Bypass	0.5	3.59	0.34	А	2 %	0.3	3.48	0.25	А	05 78
C - Clifton Hampdon Bypass	13.0	25.67	0.94	D	[C - Clifton Hampdon	1.4	3.92	0.58	А	[C - Clifton Hampdon
D - CSV Access	1.0	12.79	0.50	В	Bypass]	0.2	4.44	0.15	А	bypassj

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

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

#### **File summary**

#### **File Description**

Title	CHB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0001 P03
Location	Culham Science Centre Roundabout
Site number	14
Date	11/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
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	
C - Cliffon Hampdon Bypass	√.	SV Access Part			7.	CSC 7Cess 3 (19) 3 (19) 3 (19) 5 (19) 5 (19)	<ul> <li>33 (3%</li> <li>55 (1%</li> <li>1240 (1%</li> <li>81 %</li> </ul>	B - Clifton Hapmdon Bypass

Flows show original traffic demand (PCUIhr). The junction diagram reflects the last run of Junctions.

#### **Analysis Options**

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

#### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Results for central hour only	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~
D2	2024with	PM	ONE HOUR	16:45	18:15	15	~	~
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	~
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	~

#### **Analysis Set Details**

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



# 2024with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - Clifton Hampdon Bypass - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D1 - 2024with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
14	Culham Science Centre Roundabout	Standard Roundabout		A, B, C, D	4.39	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	40	C - Clifton Hampdon Bypass

## Arms

#### Arms

Arm	Name	Description
Α	CSC Access	
в	Clifton Hapmdon Bypass	
С	Clifton Hampdon Bypass	
D	CSV Access	

#### **Roundabout Geometry**

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - CSC Access	5.48	7.31	10.4	25.0	85.6	41.5	
B - Clifton Hapmdon Bypass	3.50	7.37	12.7	28.7	85.6	39.4	
C - Clifton Hampdon Bypass	3.45	7.72	170.0	27.1	85.6	33.4	
D - CSV Access	3.52	7.04	9.4	19.1	85.6	46.1	

#### Bypass

Arm	Arm has bypass	Bypass utilisation (%)
A - CSC Access		
B - Clifton Hapmdon Bypass	~	81
C - Clifton Hampdon Bypass		
D - CSV Access		

#### Zebra Crossings

Arm	Space between crossing and junction	Vehicles queueing on exit	Central	Crossing data	Crossing length	Crossing time
	entry (Zebra) (PCU)	(Zebra) (PCU)	Refuge	type	(m)	(s)
D - CSV Access	9.00	6.30		Distance	7.53	5.38



#### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - CSC Access	0.492	1955
B - Clifton Hapmdon Bypass	0.447	1624
C - Clifton Hampdon Bypass	0.540	2245
D - CSV Access	0.415	1460

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

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓	~

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - CSC Access		ONE HOUR	~	61	100.000
B - Clifton Hapmdon Bypass		ONE HOUR	~	756	100.000
C - Clifton Hampdon Bypass		ONE HOUR	✓	1300	100.000
D - CSV Access		ONE HOUR	✓	30	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - CSC Access		
B - Clifton Hapmdon Bypass		
C - Clifton Hampdon Bypass		
D - CSV Access	[ONEHOUR]	20.00

## **Origin-Destination Data**

#### Demand (PCU/hr)

			То		
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access
	A - CSC Access	0	18	42	1
From	B - Clifton Hapmdon Bypass	190	0	549	17
	C - Clifton Hampdon Bypass	367	898	0	35
	D - CSV Access	0	22	8	0

## Vehicle Mix

#### Heavy Vehicle Percentages

			То		
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access
	A - CSC Access	0	6	4	0
From	B - Clifton Hapmdon Bypass	1	0	2	5
	C - Clifton Hampdon Bypass	0	2	0	5
	D - CSV Access	0	21	20	0



## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - CSC Access	0.05	2.72	0.1	А	61	61
B - Clifton Hapmdon Bypass	0.21	2.91	0.3	А	756	311
C - Clifton Hampdon Bypass	0.67	5.29	2.1	А	1300	1300
D - CSV Access	0.04	5.69	0.1	A	30	30

#### Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	55	55	14	0	0	833		1545	0.035	55	500	0.0
B - Clifton Hapmdon Bypass	680	280	70	400	0	46		1603	0.175	280	842	0.2
C - Clifton Hampdon Bypass	1169	1169	292	0	400	187		2144	0.545	1167	139	0.8
D - CSV Access	27	27	7	0	0	1306	17.98	919	0.029	27	48	0.0

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	67	67	17	0	0	1019		1454	0.046	67	612	0.0
B - Clifton Hapmdon Bypass	832	343	86	490	0	56		1599	0.214	343	1030	0.2
C - Clifton Hampdon Bypass	1431	1431	358	0	490	229		2121	0.675	1428	170	1.2
D - CSV Access	33	33	8	0	0	1598	22.02	798	0.041	33	58	0.0

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	67	67	17	0	0	1022		1452	0.046	67	613	0.1
B - Clifton Hapmdon Bypass	832	343	86	490	0	56		1599	0.214	343	1033	0.3
C - Clifton Hampdon Bypass	1431	1431	358	0	490	229		2121	0.675	1431	170	2.1
D - CSV Access	33	33	8	0	0	1602	22.02	796	0.041	33	58	0.1

#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	55	55	14	0	0	837		1543	0.036	55	502	0.1
B - Clifton Hapmdon Bypass	680	280	70	400	0	46		1603	0.175	280	846	0.3
C - Clifton Hampdon Bypass	1169	1169	292	0	400	187		2144	0.545	1172	139	2.1
D - CSV Access	27	27	7	0	0	1312	17.98	917	0.029	27	48	0.1



# 2024with, PM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - Clifton Hampdon Bypass - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D2 - 2024with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
14	Culham Science Centre Roundabout	Standard Roundabout		A, B, C, D	2.81	А

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	130	A - CSC Access

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - CSC Access		ONE HOUR	✓	395	100.000
B - Clifton Hapmdon Bypass		ONE HOUR	~	728	100.000
C - Clifton Hampdon Bypass		ONE HOUR	✓	707	100.000
D - CSV Access		ONE HOUR	✓	71	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - CSC Access		
B - Clifton Hapmdon Bypass		
C - Clifton Hampdon Bypass		
D - CSV Access	[ONEHOUR]	20.00

## **Origin-Destination Data**

#### Demand (PCU/hr)

			То		
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access
	A - CSC Access	0	69	321	5
From	B - Clifton Hapmdon Bypass	17	0	696	15
	C - Clifton Hampdon Bypass	40	622	0	45
	D - CSV Access	0	45	25	1



## Vehicle Mix

#### Heavy Vehicle Percentages

			То		
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access
	A - CSC Access	0	0	0	0
From	B - Clifton Hapmdon Bypass	0	0	1	4
	C - Clifton Hampdon Bypass	1	1	0	3
	D - CSV Access	0	1	0	0

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - CSC Access	0.28	3.14	0.4	А	395	395
B - Clifton Hapmdon Bypass	0.12	2.87	0.1	А	728	164
C - Clifton Hampdon Bypass	0.35	2.52	0.5	А	707	707
D - CSV Access	0.07	3.38	0.1	А	71	71

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	355	355	89	0	0	623		1649	0.215	355	51	0.2
B - Clifton Hapmdon Bypass	654	148	37	507	0	316		1483	0.100	148	661	0.1
C - Clifton Hampdon Bypass	636	636	159	0	507	34		2227	0.285	635	430	0.3
D - CSV Access	64	64	16	0	0	610	17.98	1207	0.053	64	59	0.0

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	435	435	109	0	0	762		1580	0.275	434	63	0.3
B - Clifton Hapmdon Bypass	802	181	45	621	0	387		1451	0.125	181	810	0.1
C - Clifton Hampdon Bypass	778	778	195	0	621	42		2222	0.350	778	526	0.4
D - CSV Access	78	78	20	0	0	747	22.02	1151	0.068	78	73	0.1

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	435	435	109	0	0	763		1580	0.275	435	63	0.4
B - Clifton Hapmdon Bypass	802	181	45	621	0	388		1451	0.125	181	810	0.1
C - Clifton Hampdon Bypass	778	778	195	0	621	42		2222	0.350	778	527	0.5
D - CSV Access	78	78	20	0	0	748	22.02	1150	0.068	78	73	0.1



#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	
A - CSC Access	355	355	89	0	0	624		1648	0.215	356	51	0.4	ſ
B - Clifton Hapmdon Bypass	654	148	37	507	0	317		1482	0.100	148	662	0.1	ſ
C - Clifton Hampdon Bypass	636	636	159	0	507	34		2227	0.285	636	430	0.5	ſ
D - CSV Access	64	64	16	0	0	611	17.98	1207	0.053	64	59	0.1	Γ



# 2034 with, AM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - Clifton Hampdon Bypass - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D5 - 2034with, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
14	Culham Science Centre Roundabout	Standard Roundabout		A, B, C, D	15.90	С

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	C - Clifton Hampdon Bypass

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D5	2034with	AM	ONE HOUR	07:45	09:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - CSC Access		ONE HOUR	✓	119	100.000
B - Clifton Hapmdon Bypass		ONE HOUR	~	1213	100.000
C - Clifton Hampdon Bypass		ONE HOUR	✓	1758	100.000
D - CSV Access		ONE HOUR	✓	255	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - CSC Access		
B - Clifton Hapmdon Bypass		
C - Clifton Hampdon Bypass		
D - CSV Access	[ONEHOUR]	20.00

## **Origin-Destination Data**

#### Demand (PCU/hr)

			То		
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access
	A - CSC Access	0	31	84	4
From	B - Clifton Hapmdon Bypass	249	0	909	55
	C - Clifton Hampdon Bypass	468	1246	0	44
	D - CSV Access	20	152	80	3



## Vehicle Mix

#### Heavy Vehicle Percentages

			То		
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access
	A - CSC Access	0	9	6	0
From	B - Clifton Hapmdon Bypass	1	0	2	1
	C - Clifton Hampdon Bypass	1	2	0	3
	D - CSV Access	0	2	2	0

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - CSC Access	0.11	3.74	0.1	А	119	119
B - Clifton Hapmdon Bypass	0.34	3.59	0.5	А	1213	477
C - Clifton Hampdon Bypass	0.94	25.67	13.0	D	1758	1758
D - CSV Access	0.50	12.79	1.0	В	255	255

#### Main Results for each time segment

#### 08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	107	107	27	0	0	1327		1302	0.082	107	661	0.1
B - Clifton Hapmdon Bypass	1090	429	107	662	0	153		1555	0.276	428	1280	0.3
C - Clifton Hampdon Bypass	1580	1580	395	0	662	279		2094	0.755	1575	302	1.7
D - CSV Access	229	229	57	0	0	1759	17.98	731	0.314	229	95	0.3

#### 08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	131	131	33	0	0	1605		1166	0.112	131	802	0.1
B - Clifton Hapmdon Bypass	1336	525	131	811	0	188		1540	0.341	524	1548	0.4
C - Clifton Hampdon Bypass	1936	1936	484	0	811	342		2060	0.939	1902	370	3.0
D - CSV Access	281	281	70	0	0	2128	22.02	578	0.486	279	116	0.5

#### 08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	131	131	33	0	0	1626		1155	0.113	131	810	0.1
B - Clifton Hapmdon Bypass	1336	525	131	811	0	188		1540	0.341	525	1569	0.5
C - Clifton Hampdon Bypass	1936	1936	484	0	811	342		2060	0.940	1929	371	11.4
D - CSV Access	281	281	70	0	0	2155	22.02	567	0.495	281	117	0.9



#### 08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	107	107	27	0	0	1361		1286	0.083	107	673	0.1
B - Clifton Hapmdon Bypass	1090	429	107	662	0	154		1555	0.276	429	1313	0.5
C - Clifton Hampdon Bypass	1580	1580	395	0	662	280		2094	0.755	1619	304	13.0
D - CSV Access	229	229	57	0	0	1803	17.98	713	0.322	231	96	1.0



# 2034with, PM

#### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - Clifton Hampdon Bypass - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Demand Sets	D6 - 2034with, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

## **Junction Network**

#### Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS	
14	Culham Science Centre Roundabout	Standard Roundabout		A, B, C, D	3.82	А	

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	65	C - Clifton Hampdon Bypass

## **Traffic Demand**

#### **Demand Set Details**

ID	Scenario	Time Period	Traffic profile	Start time	Finish time	Time segment length	Results for central hour	Run
	name	name	type	(HH:mm)	(HH:mm)	(min)	only	automatically
D6	2034with	PM	ONE HOUR	16:45	18:15	15	✓	✓

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - CSC Access		ONE HOUR	✓	459	100.000
B - Clifton Hapmdon Bypass		ONE HOUR	~	1328	100.000
C - Clifton Hampdon Bypass		ONE HOUR	✓	1146	100.000
D - CSV Access		ONE HOUR	✓	134	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - CSC Access		
B - Clifton Hapmdon Bypass		
C - Clifton Hampdon Bypass		
D - CSV Access	[ONEHOUR]	20.00

## **Origin-Destination Data**

#### Demand (PCU/hr)

			То		
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access
	A - CSC Access	0	65	391	3
From	B - Clifton Hapmdon Bypass	33	0	1240	55
	C - Clifton Hampdon Bypass	67	1001	1	77
	D - CSV Access	2	78	54	0



## Vehicle Mix

#### Heavy Vehicle Percentages

			То			
		A - CSC Access	B - Clifton Hapmdon Bypass	C - Clifton Hampdon Bypass	D - CSV Access	
	A - CSC Access	0	1	1	0	
From	B - Clifton Hapmdon Bypass	3	0	1	1	
	C - Clifton Hampdon Bypass	3	1	0	3	
	D - CSV Access	0	0	0	0	

## Results

#### **Results Summary for whole modelled period**

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - CSC Access	0.38	4.35	0.6	А	459	459
B - Clifton Hapmdon Bypass	0.25	3.48	0.3	А	1328	324
C - Clifton Hampdon Bypass	0.58	3.92	1.4	А	1146	1146
D - CSV Access	0.15	4.44	0.2	А	134	134

#### Main Results for each time segment

#### 17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	413	413	103	0	0	1018		1454	0.284	412	92	0.3
B - Clifton Hapmdon Bypass	1194	291	73	903	0	403		1444	0.202	291	1027	0.2
C - Clifton Hampdon Bypass	1030	1030	258	0	903	82		2201	0.468	1029	612	0.6
D - CSV Access	120	120	30	0	0	990	17.98	1050	0.115	120	121	0.1

#### 17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	505	505	126	0	0	1247		1342	0.377	505	112	0.4
B - Clifton Hapmdon Bypass	1462	356	89	1106	0	494		1403	0.254	356	1258	0.3
C - Clifton Hampdon Bypass	1262	1262	315	0	1106	100		2191	0.576	1260	749	0.9
D - CSV Access	148	148	37	0	0	1212	22.02	958	0.154	147	148	0.1

#### 17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	505	505	126	0	0	1249		1341	0.377	505	112	0.6
B - Clifton Hapmdon Bypass	1462	356	89	1106	0	494		1403	0.254	356	1260	0.3
C - Clifton Hampdon Bypass	1262	1262	315	0	1106	100		2191	0.576	1262	750	1.4
D - CSV Access	148	148	37	0	0	1213	22.02	957	0.154	148	149	0.2


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#### 17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction demand (PCU/hr)	Junction Arrivals (PCU)	Bypass demand (PCU/hr)	Bypass exit flow (PCU/hr)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)
A - CSC Access	413	413	103	0	0	1021		1453	0.284	413	92	0.6
B - Clifton Hapmdon Bypass	1194	291	73	903	0	404		1443	0.202	291	1030	0.3
C - Clifton Hampdon Bypass	1030	1030	258	0	903	82		2201	0.468	1032	614	1.4
D - CSV Access	120	120	30	0	0	992	17.98	1049	0.115	121	122	0.2

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SCH13



Junctions 9					
PICADY 9 - Priority Intersection Module					
Version: 9.5.0.6896 © Copyright TRL Limited, 2018					
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk					
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Filename: CHB-15-Clifton\_Hampden\_Bypass-A415-P03-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\CHB\Models\PICADY Report generation date: 13/09/2021 09:34:58

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

### Summary of junction performance

	AM				PM				
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS	
		2024with							
Stream B-C	0.4	7.93	0.29	A	0.2	7.04	0.19	А	
Stream B-A	0.0	14.92	0.04	В	0.0	13.43	0.01	В	
Stream C-B	0.3	7.40	0.22	А	0.5	8.55	0.32	А	
		2034with							
Stream B-C	58.6	1598.71	9999999999.00	F	19.4	344.41	1.28	F	
Stream B-A	29.8	1625.45	9999999999.00	F	4.7	453.92	1.16	F	
Stream C-B	0.3	9.89	0.20	А	0.4	11.39	0.26	В	

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	CHB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0002 P03
Location	Clifton Hampden Bypass/A415
Site number	15
Date	10/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NA\Sergio.PerezBurgos
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





Flows show original traffic demand (PCU/hr). Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

### **Analysis Options**

Calculate Queue Percentiles	Iculate Queue Percentiles Calculate residual capacity		Average Delay threshold (s)	Queue threshold (PCU)	
		0.85	36.00	20.00	

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15
D2	2024with	PM	ONE HOUR	16:45	18:15	15
D5	2034with	AM	ONE HOUR	07:45	09:15	15
D6	2034with	PM	ONE HOUR	16:45	18:15	15

### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2024 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Clifton Hampden Bypass/A415	T-Junction	Two-way		1.42	А

#### **Junction Network Options**

Driving side	Lighting			
Left	Normal/unknown			

## Arms

#### Arms

Arm	Name	Description	Arm type
Α	Clifton Hampden Bypass - E		Major
в	A415		Minor
С	Clifton Hampden Bypass - W		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Clifton Hampden Bypass - W	7.10		~	3.70	250.0		-

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

#### Minor Arm Geometry

Arm	Minor arm	Width at give-	Width at	Width at	Width at	Width at	Estimate flare	Flare length	Visibility to	Visibility to
	type	way (m)	5m (m)	10m (m)	15m (m)	20m (m)	length	(PCU)	left (m)	right (m)
B - A415	One lane plus flare	10.00	10.00	10.00	6.36	4.11	~	3.00	122	158

## Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
15	B-A	664	0.115	0.291	0.183	0.416
15	B-C	855	0.125	0.316	-	-
15	C-B	836	0.308	0.308	-	-

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

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

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



# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		~	589	100.000
B - A415		~	178	100.000
C - Clifton Hampden Bypass - W		✓	940	100.000

# **Origin-Destination Data**

### Demand (PCU/hr)

	То							
		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W				
<b>F</b>	A - Clifton Hampden Bypass - E	0	0	589				
From	B - A415	10	0	168				
	C - Clifton Hampden Bypass - W	813	127	0				

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То								
		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W					
Farm	A - Clifton Hampden Bypass - E	0	0	2					
From	B - A415	0	0	1					
	C - Clifton Hampden Bypass - W	2	2	0					

# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.29	7.93	0.4	A
B-A	0.04	14.92	0.0	В
C-A				
С-В	0.22	7.40	0.3	A
A-B				
A-C				



### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	126	712	0.178	126	0.2	6.192	А
B-A	8	383	0.020	7	0.0	9.583	А
C-A	612			612			
С-В	96	699	0.137	95	0.2	6.069	А
A-B	0			0			
A-C	443			443			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	151	684	0.221	151	0.3	6.821	А
B-A	9	328	0.027	9	0.0	11.277	В
C-A	731			731			
С-В	114	673	0.170	114	0.2	6.570	А
A-B	0			0			
A-C	529			529			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	185	644	0.287	184	0.4	7.912	А
B-A	11	252	0.044	11	0.0	14.906	В
C-A	895			895			
С-В	140	636	0.220	140	0.3	7.390	A
A-B	0			0			
A-C	649			649			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	185	644	0.287	185	0.4	7.928	А
B-A	11	252	0.044	11	0.0	14.921	В
C-A	895			895			
С-В	140	636	0.220	140	0.3	7.398	А
A-B	0			0			
A-C	649			649			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	151	683	0.221	151	0.3	6.839	А
B-A	9	328	0.027	9	0.0	11.293	В
C-A	731			731			
С-В	114	673	0.170	114	0.2	6.580	А
ΑB	0			0			
A-C	529			529			



#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	126	712	0.178	127	0.2	6.216	А
B-A	8	383	0.020	8	0.0	9.597	A
C-A	612			612			
С-В	96	699	0.137	96	0.2	6.088	A
A-B	0			0			
A-C	443			443			



# 2024 with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Clifton Hampden Bypass/A415	T-Junction	Two-way		1.63	А

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		✓	616	100.000
B - A415		✓	115	100.000
C - Clifton Hampden Bypass - W		✓	733	100.000

# **Origin-Destination Data**

### Demand (PCU/hr)

	То								
From		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W					
	A - Clifton Hampden Bypass - E	0	1	615					
	B - A415	3	0	112					
	C - Clifton Hampden Bypass - W	550	183	0					

# Vehicle Mix

#### **Heavy Vehicle Percentages**

	То							
		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W				
_	A - Clifton Hampden Bypass - E	0	0	1				
From	B - A415	0	0	1				
	C - Clifton Hampden Bypass - W	1	1	0				

# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.19	7.04	0.2	A
B-A	0.01	13.43	0.0	В
C-A				
С-В	0.32	8.55	0.5	A
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	708	0.119	84	0.1	5.818	А
B-A	2	396	0.006	2	0.0	9.142	А
C-A	414			414			
С-В	138	693	0.199	137	0.2	6.524	A
A-B	0.75			0.75			
A-C	463			463			

### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	101	679	0.148	101	0.2	6.279	А
B-A	3	344	0.008	3	0.0	10.560	В
C-A	494			494			
С-В	165	665	0.247	164	0.3	7.251	A
ΑB	0.90			0.90			
A-C	553			553			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	123	640	0.193	123	0.2	7.036	А
B-A	3	271	0.012	3	0.0	13.422	В
C-A	606			606			
С-В	201	627	0.321	201	0.5	8.522	А
A-B	1			1			
A-C	677			677			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	123	640	0.193	123	0.2	7.041	A
B-A	3	271	0.012	3	0.0	13.434	В
C-A	606			606			
С-В	201	627	0.321	201	0.5	8.546	A
A-B	1			1			
A-C	677			677			



#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	101	679	0.148	101	0.2	6.287	А
B-A	3	343	0.008	3	0.0	10.572	В
C-A	494			494			
С-В	165	665	0.247	165	0.3	7.276	А
ΑB	0.90			0.90			
A-C	553			553			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	708	0.119	84	0.1	5.830	А
B-A	2	395	0.006	2	0.0	9.157	А
C-A	414			414			
С-В	138	693	0.199	138	0.3	6.555	А
ΑB	0.75			0.75			
A-C	463			463			



# 2034 with, AM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Clifton Hampden Bypass/A415	T-Junction	Two-way		95.19	F

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2034with	AM	ONE HOUR	07:45	09:15	15

Vehicle mix sourcePCU Factor for a HV (PCU)HV Percentages2.00

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		✓	1107	100.000
B - A415		~	159	100.000
C - Clifton Hampden Bypass - W		✓	1428	100.000

# **Origin-Destination Data**

### Demand (PCU/hr)

	То							
		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W				
<b>F</b>	A - Clifton Hampden Bypass - E	0	0	1107				
From	B - A415	53	0	106				
	C - Clifton Hampden Bypass - W	1344	84	0				

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То							
		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W				
-	A - Clifton Hampden Bypass - E	0	0	2				
From	B - A415	0	0	1				
	C - Clifton Hampden Bypass - W	2	1	0				



# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	99999999999.00	1598.71	58.6	F
B-A	99999999999.00	1625.45	29.8	F
C-A				
С-В	0.20	9.89	0.3	A
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	557	0.143	79	0.2	7.620	А
B-A	40	213	0.187	39	0.2	20.540	С
C-A	1012			1012			
С-В	63	579	0.109	63	0.1	7.037	A
A-B	0			0			
A-C	833			833			

### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	479	0.199	95	0.2	9.497	А
B-A	48	124	0.386	46	0.6	45.742	E
C-A	1208			1208			
С-В	76	529	0.143	75	0.2	8.006	А
ΑB	0			0			
A-C	995			995			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	0	9999999999.000	0	29.4	1598.706	F
B-A	58	0	9999999999.000	0	15.2	1625.454	F
C-A	1480			1480			
С-В	92	460	0.201	92	0.3	9.871	A
ΑB	0			0			
A-C	1219			1219			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	0	99999999999.000	0	58.6	-2875.463	?
B-A	58	0	99999999999.000	0	29.8	-3204.163	?
C-A	1480			1480			
С-В	92	460	0.201	92	0.3	9.889	A
A-B	0			0			
A-C	1219			1219			



#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	229	0.415	226	26.0	802.450	F
B-A	48	116	0.411	112	13.6	794.640	F
C-A	1208			1208			
С-В	76	529	0.143	76	0.2	8.027	А
ΑB	0			0			
A-C	995			995			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	515	0.155	183	0.2	15.463	С
B-A	40	212	0.188	93	0.2	46.428	E
C-A	1012			1012			
С-В	63	579	0.109	63	0.1	7.053	А
ΑB	0			0			
A-C	833			833			



# 2034with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
15	Clifton Hampden Bypass/A415	T-Junction	Two-way		26.57	D

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2034with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		✓	1186	100.000
B - A415		✓	181	100.000
C - Clifton Hampden Bypass - W		✓	1143	100.000

# **Origin-Destination Data**

### Demand (PCU/hr)

	То								
		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W					
<b>F</b>	A - Clifton Hampden Bypass - E	0	9	1177					
From	B - A415	29	0	152					
	C - Clifton Hampden Bypass - W	1039	104	0					

# Vehicle Mix

#### **Heavy Vehicle Percentages**

	То								
		A - Clifton Hampden Bypass - E	B - A415	C - Clifton Hampden Bypass - W					
_	A - Clifton Hampden Bypass - E	0	0	1					
From	B - A415	0	0	0					
	C - Clifton Hampden Bypass - W	1	1	0					



# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	1.28	344.41	19.4	F
B-A	1.16	453.92	4.7	F
C-A				
С-В	0.26	11.39	0.4	В
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	114	561	0.204	113	0.3	8.055	А
B-A	22	229	0.095	21	0.1	17.271	С
C-A	782			782			
С-В	78	561	0.140	78	0.2	7.507	A
A-B	7			7			
A-C	886			886			

### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	137	497	0.275	136	0.4	10.016	В
B-A	26	145	0.180	26	0.2	30.109	D
C-A	934			934			
С-В	93	507	0.184	93	0.2	8.764	A
ΑB	8			8			
A-C	1058			1058			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	167	142	1.176	130	9.7	180.974	F
B-A	32	28	1.155	21	2.9	381.651	F
C-A	1144			1144			
С-В	115	433	0.264	114	0.4	11.351	В
ΑB	10			10			
A-C	1296			1296			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	167	130	1.284	128	19.4	344.413	F
B-A	32	28	1.158	25	4.7	453.923	F
C-A	1144			1144			
С-В	115	433	0.264	114	0.4	11.387	В
A-B	10			10			
A-C	1296			1296			



#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	137	479	0.285	213	0.4	18.213	С
B-A	26	143	0.182	44	0.2	42.287	E
C-A	934			934			
С-В	93	507	0.184	94	0.2	8.796	А
ΑB	8			8			
A-C	1058			1058			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	114	561	0.204	115	0.3	8.122	А
B-A	22	229	0.095	22	0.1	17.453	С
C-A	782			782			
С-В	78	561	0.140	79	0.2	7.533	А
ΑB	7			7			
A-C	886			886			

SCH14



Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
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Filename: CHB-16-Clifton\_Hampden\_Bypass-B4015-P03-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\CHB\Models\PICADY Report generation date: 13/09/2021 09:25:54

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

#### Summary of junction performance

		AN	1		РМ			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2024with							
Stream B-C	0.0	9.22	0.05	Α	0.1	7.86	0.06	A
Stream B-A	1.2	30.43	0.56	D	0.3	16.99	0.26	С
Stream C-AB	0.1	7.25	0.05	А	0.1	7.81	0.05	А
				2034	with			
Stream B-C	18.3	1309.76	99999999999.00	F	15.5	1761.60	9999999999.00	F
Stream B-A	48.7	1849.07	9999999999.00	F	28.6	1758.41	9999999999.00	F
Stream C-AB	0.1	10.60	0.07	В	0.5	18.25	0.33	С

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	CHB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0004 P03
Location	Clifton Hampden Bypass/B4015
Site number	16
Date	10/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	NA\Sergio.PerezBurgos
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





Flows show original traffic demand (PCU/hr). Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

### **Analysis Options**

Calculate Queue Percentiles	Calculate Queue Percentiles Calculate residual capacity F		Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15
D2	2024with	PM	ONE HOUR	16:45	18:15	15
D5	2034with	AM	ONE HOUR	07:45	09:15	15
D6	2034with	PM	ONE HOUR	16:45	18:15	15

### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2024 with, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Major arm width	C - Clifton Hampden Bypass - W - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
16	Clifton Hampden Bypass/B4015	T-Junction	Two-way		2.74	A

#### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

### Arms

#### Arms

Arm	Name	Description	Arm type
Α	Clifton Hampden Bypass - E		Major
в	B4015		Minor
С	Clifton Hampden Bypass - W		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Clifton Hampden Bypass - W	5.98		✓	3.00	168.0	~	7.00

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	Width at give-	Width at	Width at	Width at	Width at	Estimate flare	Flare length	Visibility to	Visibility to
	type	way (m)	5m (m)	10m (m)	15m (m)	20m (m)	length	(PCU)	left (m)	right (m)
B - B4015	One lane plus flare	10.00	10.00	7.85	4.78	3.70	~	2.00	43	108

### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
16	B-A	632	0.115	0.291	0.183	0.416
16	B-C	716	0.110	0.278	-	-
16	C-B	730	0.283	0.283	-	-

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

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

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



# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		~	608	100.000
B - B4015		~	151	100.000
C - Clifton Hampden Bypass - W		✓	855	100.000

# **Origin-Destination Data**

### Demand (PCU/hr)

	То				
		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W	
<b>F</b>	A - Clifton Hampden Bypass - E	0	39	569	
From	B - B4015	134	0	17	
	C - Clifton Hampden Bypass - W	829	26	0	

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

	То			
		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W
Francis	A - Clifton Hampden Bypass - E	0	2	2
From	B - B4015	0	0	1
	C - Clifton Hampden Bypass - W	2	3	0

# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	9.22	0.0	A
B-A	0.56	30.43	1.2	D
C-AB	0.05	7.25	0.1	А
C-A				
A-B				
A-C				



### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	552	0.023	13	0.0	6.742	А
B-A	101	381	0.265	99	0.4	12.717	В
C-AB	20	600	0.033	19	0.0	6.383	А
C-A	624			624			
A-B	29			29			
A-C	428			428			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	509	0.030	15	0.0	7.362	A
B-A	120	333	0.362	120	0.6	16.849	С
C-AB	23	575	0.041	23	0.0	6.720	A
C-A	745			745			
A-B	35			35			
A-C	512			512			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	417	0.045	19	0.0	9.117	А
B-A	148	265	0.556	145	1.2	29.346	D
C-AB	29	540	0.053	29	0.1	7.246	A
C-A	913			913			
A-B	43			43			
A-C	626			626			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	413	0.045	19	0.0	9.215	А
B-A	148	265	0.556	147	1.2	30.427	D
C-AB	29	540	0.053	29	0.1	7.246	A
C-A	913			913			
A-B	43			43			
A-C	626			626			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	506	0.030	15	0.0	7.406	А
B-A	120	333	0.362	123	0.6	17.372	С
C-AB	23	575	0.041	23	0.0	6.724	А
C-A	745			745			
ΑB	35			35			
ΑC	512			512			



#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	551	0.023	13	0.0	6.759	А
B-A	101	381	0.265	102	0.4	12.926	В
C-AB	20	600	0.033	20	0.0	6.389	А
C-A	624			624			
ΑB	29			29			
A-C	428			428			



# 2024with, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Major arm width	C - Clifton Hampden Bypass - W - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
16	Clifton Hampden Bypass/B4015	T-Junction	Two-way		1.03	A

#### Junction Network Options

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

П	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D	2 2024with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		✓	763	100.000
B - B4015		~	95	100.000
C - Clifton Hampden Bypass - W		✓	639	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

		То		
		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W
<b>F</b>	A - Clifton Hampden Bypass - E	0	172	591
From	B - B4015	67	0	28
	C - Clifton Hampden Bypass - W	615	24	0

# **Vehicle Mix**

### Heavy Vehicle Percentages

	То								
		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W					
<b>F</b>	A - Clifton Hampden Bypass - E	0	0	1					
From	B - B4015	0	0	0					
	C - Clifton Hampden Bypass - W	1	1	0					



# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.06	7.86	0.1	A
B-A	0.26	16.99	0.3	С
C-AB	0.05	7.81	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	571	0.037	21	0.0	6.537	А
B-A	50	395	0.128	50	0.1	10.412	В
C-AB	18	567	0.032	18	0.0	6.618	А
C-A	463			463			
A-B	129			129			
A-C	445			445			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	538	0.047	25	0.0	7.017	А
B-A	60	349	0.173	60	0.2	12.441	В
C-AB	22	536	0.040	22	0.0	7.072	А
C-A	553			553			
ΑB	155			155			
<b>₽</b> C	531			531			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	489	0.063	31	0.1	7.852	А
B-A	74	286	0.258	73	0.3	16.912	С
C-AB	26	492	0.054	26	0.1	7.808	А
C-A	677			677			
A-B	189			189			
A-C	651			651			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	489	0.063	31	0.1	7.860	A
B-A	74	286	0.258	74	0.3	16.993	С
C-AB	26	492	0.054	26	0.1	7.809	A
C-A	677			677			
A-B	189			189			
A-C	651			651			



#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	538	0.047	25	0.0	7.025	А
B-A	60	349	0.173	61	0.2	12.508	В
C-AB	22	536	0.040	22	0.0	7.077	А
C-A	553			553			
ΑB	155			155			
A-C	531			531			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	571	0.037	21	0.0	6.546	А
B-A	50	395	0.128	51	0.1	10.460	В
C-AB	18	567	0.032	18	0.0	6.622	А
C-A	463			463			
ΑB	129			129			
A-C	445			445			



# 2034 with, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Major arm width	C - Clifton Hampden Bypass - W - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

### Junctions

Junc	tion	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
16	6	Clifton Hampden Bypass/B4015	T-Junction	Two-way		75.12	F

#### Junction Network Options

Driving side	Lighting		
Left	Normal/unknown		

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2034with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		~	1116	100.000
B - B4015		✓	118	100.000
C - Clifton Hampden Bypass - W		✓	1437	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

		То		
From		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W
	A - Clifton Hampden Bypass - E	0	45	1071
	B - B4015	85	0	33
	C - Clifton Hampden Bypass - W	1414	23	0

## **Vehicle Mix**

#### Heavy Vehicle Percentages

	То							
		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W				
From	A - Clifton Hampden Bypass - E	0	2	2				
From	B - B4015	1	0	1				
	C - Clifton Hampden Bypass - W	2	5	0				



# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	99999999999.00	1309.76	18.3	F
B-A	99999999999.00	1849.07	48.7	F
C-AB	0.07	10.60	0.1	В
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	451	0.055	25	0.1	8.535	A
B-A	64	191	0.334	62	0.5	27.623	D
C-AB	17	492	0.035	17	0.0	7.959	A
C-A	1065			1065			
A-B	34			34			
A-C	806			806			

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	268	0.111	29	0.1	15.252	С
B-A	76	106	0.724	71	1.9	92.787	F
C-AB	21	446	0.046	21	0.1	8.889	А
C-A	1271			1271			
ΑB	40			40			
A-C	963			963			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	0	9999999999.000	0	9.2	33.532	D
B-A	94	0	99999999999.000	0	25.3	1849.072	F
C-AB	25	382	0.066	25	0.1	10.593	В
C-A	1557			1557			
A-B	50			50			
A-C	1179			1179			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	0	9999999999.000	0	18.3	-382.873	?
B-A	94	0	9999999999.000	0	48.7	-427.631	?
C-AB	25	382	0.066	25	0.1	10.597	В
C-A	1557			1557			
A-B	50			50			
A-C	1179			1179			



#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	40	0.742	38	16.2	1309.761	F
B-A	76	105	0.725	103	42.0	1280.611	F
C-AB	21	446	0.046	21	0.1	8.896	А
C-A	1271			1271			
A-B	40			40			
A-C	963			963			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	74	0.338	69	5.1	584.338	F
B-A	64	190	0.337	186	11.6	532.252	F
C-AB	17	492	0.035	17	0.0	7.967	А
C-A	1065			1065			
ΑB	34			34			
A-C	806			806			



# 2034with, PM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Major arm width	C - Clifton Hampden Bypass - W - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
16	Clifton Hampden Bypass/B4015	T-Junction	Two-way		51.12	F

#### Junction Network Options

Driving side	Lighting		
Left	Normal/unknown		

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2034with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hampden Bypass - E		✓	1390	100.000
B - B4015		~	78	100.000
C - Clifton Hampden Bypass - W		✓	1249	100.000

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То					
From		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W		
	A - Clifton Hampden Bypass - E	0	233	1157		
	B - B4015	50	0	28		
	C - Clifton Hampden Bypass - W	1159	90	0		

## **Vehicle Mix**

### Heavy Vehicle Percentages

	То					
From		A - Clifton Hampden Bypass - E	B - B4015	C - Clifton Hampden Bypass - W		
	A - Clifton Hampden Bypass - E	0	1	1		
	B - B4015	1	0	0		
	C - Clifton Hampden Bypass - W	1	0	0		



# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	99999999999.00	1761.60	15.5	F
B-A	99999999999.00	1758.41	28.6	F
C-AB	0.33	18.25	0.5	С
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	441	0.048	21	0.0	8.568	А
B-A	38	169	0.223	37	0.3	27.223	D
C-AB	68	434	0.156	67	0.2	9.843	A
C-A	873			873			
A-B	175			175			
A-C	871			871			

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	320	0.079	25	0.1	12.189	В
B-A	45	80	0.565	42	1.1	90.136	F
C-AB	81	376	0.215	81	0.3	12.216	В
C-A	1042			1042			
ΑB	209			209			
<b>₽</b> C	1040			1040			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	0	9999999999.000	0	7.8	1761.602	F
B-A	55	0	99999999999.000	0	14.8	1758.410	F
C-AB	99	297	0.334	98	0.5	18.101	С
C-A	1276			1276			
A-B	257			257			
A-C	1274			1274			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	0	9999999999.000	0	15.5	-1177.346	?
B-A	55	0	99999999999.000	0	28.6	-1441.960	?
C-AB	99	297	0.334	99	0.5	18.253	С
C-A	1276			1276			
A-B	257			257			
A-C	1274			1274			



#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	43	0.583	41	11.6	946.505	F
B-A	45	79	0.569	76	20.8	1029.889	F
C-AB	81	376	0.215	82	0.3	12.319	В
C-A	1042			1042			
ΑB	209			209			
A-C	1040			1040			

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	304	0.069	67	0.1	18.546	С
B-A	38	168	0.224	119	0.3	173.686	F
C-AB	68	434	0.156	68	0.2	9.903	А
C-A	873			873			
ΑB	175			175			
A-C	871			871			

# SCH15





# **Junctions 9**

## **PICADY 9 - Priority Intersection Module**

Version: 9.5.0.6896

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Filename: CHB-46-Clifton\_Hampden\_Bypass-CSC Secondary Access-P03-v0.j9 Path: L:\Legacy\UKCRD1FP001\UKCRD1FP001-V1TI\Projects\Traffic - OCC Culham RC\Modelling\CHB\Models\PICADY Report generation date: 13/09/2021 09:47:03

»2024with, AM »2024with, PM »2034with, AM »2034with, PM

### Summary of junction performance

				AM		РМ				
	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
					2024	with				
Stream B-AC	0.0	6.51	0.05	A	144 %	0.2	6.11	0.13	A	171 %
Stream C-B	0.0	0.00	0.00	А	[Stream B-AC]	0.0	0.00	0.00	А	[Stream B-AC]
					2034	with				
Stream B-AC	0.1	10.63	0.10	В	45 %	0.8	12.92	0.44	В	30 %
Stream C-B	0.0	0.00	0.00	А	[Stream B-AC]	0.0	0.00	0.00	А	[Stream B-AC]

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

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

#### **File summary**

#### **File Description**

Title	CHB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0004 P03
Location	Clifton Hampden Bypass/CSC Secondary Access
Site number	46
Date	26/05/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\Richard.Rolph
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	Calculate Queue	Calculate detailed	Calculate residual	Residual capacity	RFC	Average Delay	Queue threshold
length (m)	Percentiles	queueing delay	capacity	criteria type	Threshold	threshold (s)	(PCU)
5.75			✓	Delay	0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓
D3	2034with	AM	ONE HOUR	07:45	09:15	15	✓
D4	2034with	PM	ONE HOUR	16:45	18:15	15	✓

### **Analysis Set Details**

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


# 2024 with, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Pedestrian Crossing	B - Culham Science Centre Secondary Access - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
46	Clifton Hampden Bypass/CSC Secondary Access	T-Junction	Two-way		0.11	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	144	Stream B-AC

## Arms

# Arms

Arm	Name	Description	Arm type
Α	Clifton Hapmden Bypass - W		Major
в	Culham Science Centre Secondary Access		Minor
С	Clifton Hampden Bypass - E		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay (m)		Blocks?	Blocking queue (PCU)
C - Clifton Hampden Bypass - E	7.30			0.0		_

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

#### **Minor Arm Geometry**

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Culham Science Centre Secondary Access	One lane	4.33	45	236

#### Zebra Crossings

Arm	Space between crossing and junction entry (Left) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
B - Culham Science Centre Secondary Access	7.80	7.80		Distance	7.57	5.41

### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
46	B-A	690	0.119	0.300	0.189	0.428
46	B-C	875	0.127	0.320	-	-
46	C-B	574	0.210	0.210	-	-

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

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

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



# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024with	AM	ONE HOUR	07:45	09:15	15	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hapmden Bypass - W		ONE HOUR	✓	822	100.000
B - Culham Science Centre Secondary Access		ONE HOUR	✓	25	100.000
C - Clifton Hampden Bypass - E		ONE HOUR	✓	588	100.000

### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Clifton Hapmden Bypass - W		
B - Culham Science Centre Secondary Access	[ONEHOUR]	0.00
C - Clifton Hampden Bypass - E		

# **Origin-Destination Data**

#### Demand (PCU/hr)

		То		
		A - Clifton Hapmden Bypass - W	B - Culham Science Centre Secondary Access	C - Clifton Hampden Bypass - E
From	A - Clifton Hapmden Bypass - W	0	0	822
	B - Culham Science Centre Secondary Access	0	0	25
	C - Clifton Hampden Bypass - E	588	0	0

# **Vehicle Mix**

#### **Heavy Vehicle Percentages**

		То		
		A - Clifton Hapmden Bypass - W	B - Culham Science Centre Secondary Access	C - Clifton Hampden Bypass - E
From	A - Clifton Hapmden Bypass - W	0	0	2
	B - Culham Science Centre Secondary Access	0	0	1
	C - Clifton Hampden Bypass - E	2	0	0

# Results

#### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	6.51	0.0	А	23	34
C-A					540	809
С-В	0.00	0.00	0.0	A	0	0
ΑB					0	0
A-C					754	1131



### Main Results for each time segment

### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	5	0.00	677	0.028	19	0.0	0.0	5.520	A
C-A	443	111				443				
С-В	0	0		444	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	619	155				619				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	639	0.035	22	0.0	0.0	5.897	A
C-A	529	132				529				
С-В	0	0		419	0.000	0	0.0	0.0	0.000	A
ΑB	0	0				0				
A-C	739	185				739				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	586	0.047	27	0.0	0.0	6.512	A
C-A	647	162				647				
С-В	0	0		384	0.000	0	0.0	0.0	0.000	A
ΑB	0	0				0				
A-C	905	226				905				

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	586	0.047	28	0.0	0.0	6.512	А
C-A	647	162				647				
С-В	0	0		384	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	905	226				905				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	639	0.035	23	0.0	0.0	5.898	A
C-A	529	132				529				
С-В	0	0		419	0.000	0	0.0	0.0	0.000	A
ΑB	0	0				0				
A-C	739	185				739				



#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	5	0.00	677	0.028	19	0.0	0.0	5.521	А
C-A	443	111				443				
С-В	0	0		444	0.000	0	0.0	0.0	0.000	А
A-B	0	0				0				
A-C	619	155				619				



# 2024with, PM

#### Data Errors and Warnings

Severity	Area	ltem	Description
Warning	Pedestrian Crossing	B - Culham Science Centre Secondary Access - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
46	Clifton Hampden Bypass/CSC Secondary Access	T-Junction	Two-way		0.40	A

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	171	Stream B-AC

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2024with	PM	ONE HOUR	16:45	18:15	15	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hapmden Bypass - W		ONE HOUR	~	554	100.000
B - Culham Science Centre Secondary Access		ONE HOUR	✓	83	100.000
C - Clifton Hampden Bypass - E		ONE HOUR	~	616	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Clifton Hapmden Bypass - W		
B - Culham Science Centre Secondary Access	[ONEHOUR]	0.00
C - Clifton Hampden Bypass - E		

# **Origin-Destination Data**

#### Demand (PCU/hr)

		То			
		A - Clifton Hapmden Bypass - W		C - Clifton Hampden Bypass - E	
From	A - Clifton Hapmden Bypass - W	0	0	554	
	B - Culham Science Centre Secondary Access	0	0	83	
	C - Clifton Hampden Bypass - E	616	0	0	

Vehicle Mix



### Heavy Vehicle Percentages

		То		
		A - Clifton Hapmden Bypass - W	B - Culham Science Centre Secondary Access	C - Clifton Hampden Bypass - E
From	A - Clifton Hapmden Bypass - W	0	0	1
	B - Culham Science Centre Secondary Access	0	0	0
	C - Clifton Hampden Bypass - E	1	0	0

# Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.13	6.11	0.2	А	76	114
C-A					565	848
С-В	0.00	0.00	0.0	А	0	0
A-B					0	0
A-C					508	763

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	16	0.00	742	0.084	62	0.0	0.1	5.293	А
C-A	464	116				464				
С-В	0	0		486	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	417	104				417				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	19	0.00	716	0.104	75	0.1	0.1	5.612	А
C-A	554	138				554				
С-В	0	0		469	0.000	0	0.0	0.0	0.000	A
ΑB	0	0				0				
A-C	498	125				498				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	23	0.00	680	0.134	91	0.1	0.2	6.110	A
C-A	678	170				678				
С-В	0	0		446	0.000	0	0.0	0.0	0.000	A
ΑB	0	0				0				
A-C	610	152				610				



#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	23	0.00	680	0.134	91	0.2	0.2	6.113	А
C-A	678	170				678				
С-В	0	0		446	0.000	0	0.0	0.0	0.000	А
ΑB	0	0				0				
A-C	610	152				610				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	19	0.00	716	0.104	75	0.2	0.1	5.617	А
C-A	554	138				554				
С-В	0	0		469	0.000	0	0.0	0.0	0.000	А
A-B	0	0				0				
A-C	498	125				498				

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	62	16	0.00	742	0.084	63	0.1	0.1	5.299	A
C-A	464	116				464				
С-В	0	0		486	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	417	104				417				



# 2034 with, AM

#### Data Errors and Warnings

Severity	Area	ltem	Description
Warning	Pedestrian Crossing	B - Culham Science Centre Secondary Access - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
46	Clifton Hampden Bypass/CSC Secondary Access	T-Junction	Two-way		0.15	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	45	Stream B-AC

# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2034with	AM	ONE HOUR	07:45	09:15	15	✓

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

### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hapmden Bypass - W		ONE HOUR	~	1401	100.000
B - Culham Science Centre Secondary Access		ONE HOUR	✓	36	100.000
C - Clifton Hampden Bypass - E		ONE HOUR	~	1106	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Clifton Hapmden Bypass - W		
B - Culham Science Centre Secondary Access	[ONEHOUR]	0.00
C - Clifton Hampden Bypass - E		

# **Origin-Destination Data**

#### Demand (PCU/hr)

		То		
		A - Clifton Hapmden Bypass - W	B - Culham Science Centre Secondary Access	C - Clifton Hampden Bypass - E
From	A - Clifton Hapmden Bypass - W	0	0	1401
	B - Culham Science Centre Secondary Access	0	0	36
	C - Clifton Hampden Bypass - E	1106	0	0

Vehicle Mix



### Heavy Vehicle Percentages

		То		
		A - Clifton Hapmden Bypass - W	B - Culham Science Centre Secondary Access	C - Clifton Hampden Bypass - E
From	A - Clifton Hapmden Bypass - W	0	0	2
	B - Culham Science Centre Secondary Access	0	0	1
	C - Clifton Hampden Bypass - E	2	0	0

# Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	10.63	0.1	В	33	50
C-A					1015	1522
С-В	0.00	0.00	0.0	А	0	0
A-B					0	0
A-C					1286	1928

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	0.00	538	0.050	27	0.0	0.1	7.112	А
C-A	833	208				833				
С-В	0	0		353	0.000	0	0.0	0.0	0.000	А
A-B	0	0				0				
A-C	1055	264				1055				

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	472	0.069	32	0.1	0.1	8.262	A
C-A	994	249				994				
С-В	0	0		310	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	1259	315				1259				

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	382	0.104	39	0.1	0.1	10.615	В
C-A	1218	304				1218				
С-В	0	0		250	0.000	0	0.0	0.0	0.000	A
ΑB	0	0				0				
A-C	1543	386				1543				



#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	382	0.104	40	0.1	0.1	10.626	В
C-A	1218	304				1218				
С-В	0	0		250	0.000	0	0.0	0.0	0.000	А
A-B	0	0				0				
A-C	1543	386				1543				

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	472	0.069	33	0.1	0.1	8.269	А
C-A	994	249				994				
С-В	0	0		310	0.000	0	0.0	0.0	0.000	А
A-B	0	0				0				
A-C	1259	315				1259				

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	0.00	538	0.050	27	0.1	0.1	7.120	A
C-A	833	208				833				
С-В	0	0		353	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	1055	264				1055				



# 2034with, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
46	Clifton Hampden Bypass/CSC Secondary Access	T-Junction	Two-way		1.05	А

#### **Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	30	Stream B-AC

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2034with	PM	ONE HOUR	16:45	18:15	15	~

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Clifton Hapmden Bypass - W		ONE HOUR	✓	1069	100.000
B - Culham Science Centre Secondary Access		ONE HOUR	✓	200	100.000
C - Clifton Hampden Bypass - E		ONE HOUR	✓	1184	100.000

#### **Demand overview (Pedestrians)**

Arm	Profile type	Average pedestrian flow (Ped/hr)
A - Clifton Hapmden Bypass - W		
B - Culham Science Centre Secondary Access	[ONEHOUR]	20.00
C - Clifton Hampden Bypass - E		

# **Origin-Destination Data**

#### Demand (PCU/hr)

	То										
		A - Clifton Hapmden Bypass - W	B - Culham Science Centre Secondary Access	C - Clifton Hampden Bypass - E							
From	A - Clifton Hapmden Bypass - W	0	0	1069							
	B - Culham Science Centre Secondary Access	0	0	200							
	C - Clifton Hampden Bypass - E	1184	0	0							

# **Vehicle Mix**



### Heavy Vehicle Percentages

		То											
		A - Clifton Hapmden Bypass - W	B - Culham Science Centre Secondary Access	C - Clifton Hampden Bypass - E									
From	A - Clifton Hapmden Bypass - W	0	0	1									
	B - Culham Science Centre Secondary Access	0	0	0									
	C - Clifton Hampden Bypass - E	1	0	0									

# Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.44	12.92	0.8	В	184	275
C-A					1086	1630
С-В	0.00	0.00	0.0	А	0	0
A-B					0	0
A-C					981	1471

### Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	38	15.06	618	0.244	149	0.0	0.3	7.663	А
C-A	891	223				891				
С-В	0	0		405	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	805	201				805				

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	45	17.98	568	0.317	179	0.3	0.5	9.250	A
C-A	1064	266				1064				
С-В	0	0		372	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	961	240				961				

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	55	22.02	499	0.442	219	0.5	0.8	12.807	В
C-A	1304	326				1304				
С-В	0	0		327	0.000	0	0.0	0.0	0.000	A
ΑB	0	0				0				
A-C	1177	294				1177				



#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	220	55	22.02	499	0.442	220	0.8	0.8	12.918	В
C-A	1304	326				1304				
С-В	0	0		327	0.000	0	0.0	0.0	0.000	А
A-B	0	0				0				
A-C	1177	294				1177				

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	180	45	17.98	568	0.317	181	0.8	0.5	9.337	А
C-A	1064	266				1064				
С-В	0	0		372	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	961	240				961				

#### 18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	151	38	15.06	618	0.244	151	0.5	0.3	7.724	A
C-A	891	223				891				
С-В	0	0		405	0.000	0	0.0	0.0	0.000	A
A-B	0	0				0				
A-C	805	201				805				

# Results

## **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	1.37	732.70	6.2	F
B-A	1.35	545.05	49.1	F
C-AB	0.64	8.92	3.7	A
C-A				
ΑB				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	324	0.077	25	0.1	12.016	В
B-A	230	346	0.666	223	1.8	27.887	D
C-AB	286	985	0.290	283	0.8	5.121	A
C-A	438			438			
A-B	394			394			
A-C	126			126			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	30	109	0.271	29	0.3	44.558	E
B-A	275	306	0.900	262	5.2	67.055	F
C-AB	428	1054	0.407	426	1.4	5.773	А
C-A	436			436			
ΑB	470			470			
A-C	150			150			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	36	27	1.366	22	4.0	460.975	F
B-A	337	252	1.336	248	27.3	264.324	F
C-AB	731	1153	0.634	723	3.5	8.498	А
C-A	327			327			
A-B	576			576			
A-C	184			184			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	36	29	1.242	27	6.2	732.701	F
B-A	337	250	1.346	250	49.1	536.067	F
C-AB	741	1159	0.640	741	3.7	8.917	A
C-A	317			317			
A-B	576			576			
A-C	184			184			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	30	35	0.849	30	6.2	689.862	F
B-A	275	303	0.909	297	43.7	545.049	F
C-AB	436	1061	0.411	445	1.5	5.970	A
C-A	428			428			
ΑB	470			470			
A-C	150			150			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	42	0.595	36	3.4	511.278	F
B-A	230	342	0.674	334	17.8	338.089	F
C-AB	289	988	0.293	292	0.8	5.201	А
C-A	434			434			
ΑB	394			394			
A-C	126			126			



# 2034 without, PM

#### **Data Errors and Warnings**

No errors or warnings

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF13	Lady Grove/Sires Hill	T-Junction	Two-way		31.83	D

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		✓	1202	100.000
в		✓	195	100.000
С		✓	825	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	875	327	
	в	176	0	19	
	С	659	166	0	

# Vehicle Mix

HV %s

	То				
From		Α	в	С	
	Α	0	1	0	
	в	3	0	10	
	С	0	1	0	

# Results

## **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	1.06	402.73	2.6	F
B-A	1.07	230.98	12.5	F
C-AB	0.88	35.52	12.5	E
C-A				
ΑB				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	378	0.038	14	0.0	9.882	A
B-A	133	299	0.443	129	0.8	20.900	С
C-AB	307	836	0.367	303	1.0	6.744	A
C-A	314			314			
A-B	659			659			
A-C	246			246			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	278	0.061	17	0.1	13.785	В
B-A	158	252	0.628	155	1.5	36.117	E
C-AB	465	878	0.529	460	2.1	8.699	А
C-A	277			277			
ΑB	787			787			
A-C	294			294			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	20	1.056	13	2.0	400.086	F
B-A	194	187	1.036	169	7.6	131.645	F
C-AB	815	944	0.862	783	10.0	23.441	С
C-A	94			94			
A-B	963			963			
A-C	360			360			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	23	0.901	19	2.6	402.729	F
B-A	194	181	1.071	174	12.5	230.983	F
C-AB	851	965	0.883	841	12.5	35.515	E
C-A	57			57			
A-B	963			963			
A-C	360			360			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	143	0.120	27	0.1	33.356	D
B-A	158	242	0.653	199	2.3	107.203	F
C-AB	494	906	0.545	534	2.5	11.005	В
C-A	248			248			
ΑB	787			787			
A-C	294			294			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	14	366	0.039	15	0.0	10.258	В
B-A	133	297	0.446	138	0.8	23.432	С
C-AB	312	842	0.371	318	1.1	6.993	А
C-A	309			309			
ΑB	659			659			
A-C	246			246			



Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: OFF 14 Junction-Sires Hill\_Didcot Road.j9 Path: H:\Home\DP\PROJECTS\Didcot Garden Town\Modelling\Models V1\OFF14 - Junction 34-Sires Hill\_Didcot Road Report generation date: 02/07/2021 09:07:42

»2020, AM »2020, PM »2024 with, AM »2024 with, PM »2024 without, AM »2024 without, PM »2034 with, AM »2034 with, PM »2034 without, AM »2034 without, PM

#### Summary of junction performance

			AM					PM		
	Set ID	Q (Veh)	Delay (s)	RFC	LOS	Set ID	Q (Veh)	Delay (s)	RFC	LOS
					20	20				
Stream B-C		0.2	7.09	0.16	Α		0.4	9.14	0.29	A
Stream B-A	D1	0.2	10.64	0.18	В	D2	0.1	13.01	0.13	В
Stream C-AB		0.6	5.61	0.26	Α		0.4	6.54	0.20	А
					2024	with				
Stream B-C		0.2	6.65	0.17	Α		0.5	8.25	0.33	А
Stream B-A	D3	0.2	8.96	0.15	Α	D4	0.1	9.56	0.10	А
Stream C-AB		0.5	7.46	0.30	Α		0.5	8.23	0.28	А
				2	024 v	vithout				
Stream B-C		0.2	7.90	0.16	А		0.6	12.28	0.38	В
Stream B-A	D5	0.4	13.39	0.27	В	D6	0.5	21.21	0.32	С
Stream C-AB		1.1	5.96	0.35	Α		0.9	6.72	0.32	Α
					2034	with				
Stream B-C		0.1	9.66	0.06	Α		0.0	8.45	0.01	A
Stream B-A	D7	1.8	17.56	0.65	С	D8	1.0	18.28	0.52	С
Stream C-AB		0.0	5.67	0.01	А		2.8	21.45	0.70	С
				2	034 v	vithout				
Stream B-C		0.6	18.76	0.39	С		45.2	648.50	1.54	F
Stream B-A	D9	2.2	78.20	0.73	F	D10	25.0	677.69	1.51	F
Stream C-AB		24.8	54.00	0.96	F		5.4	12.41	0.68	В

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 Av. delay per arriving vehicle.



### File summary

**File Description** 

Title	
Location	
Site number	
Date	03/11/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\CrewD
Description	

### Units

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

### **Analysis Options**

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

### **Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15
D2	2020	PM	ONE HOUR	16:45	18:15	15
D3	2024 with	AM	ONE HOUR	07:45	09:15	15
D4	2024 with	PM	ONE HOUR	16:45	18:15	15
D5	2024 without	AM	ONE HOUR	07:45	09:15	15
D6	2024 without	PM	ONE HOUR	16:45	18:15	15
D7	2034 with	AM	ONE HOUR	07:45	09:15	15
D8	2034 with	PM	ONE HOUR	16:45	18:15	15
D9	2034 without	AM	ONE HOUR	07:45	09:15	15
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

### **Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000



# 2020, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		2.55	A

#### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

## Arms

#### Arms

Arm	Name	Description	Arm type
Α	Didcot Road		Major
в	Sires Hill (S)		Minor
С	Sires Hill (W)		Major

#### **Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
С	5.80			45.0	~	0.00

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

#### **Minor Arm Geometry**

Arm	Minor arm	Width at give-	Width at	Width at	Width at	Width at	Estimate flare	Flare length	Visibility to	Visibility to
	type	way (m)	5m (m)	10m (m)	15m (m)	20m (m)	length	(PCU)	left (m)	right (m)
в	One lane plus flare	10.00	6.61	4.95	4.04	3.40	~	2.00	250	66

#### Slope / Intercept / Capacity

#### **Priority Intersection Slopes and Intercepts**

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	614	0.113	0.285	0.179	0.407
B-C	722	0.112	0.282	-	-
C-B	600	0.235	0.235	-	-

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

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

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



# **Traffic Demand**

### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	244	100.000
в		√	152	100.000
С		✓	528	100.000

# **Origin-Destination Data**

### Demand (Veh/hr)

	То				
		Α	В	С	
_	Α	0	17	227	
From	в	67	0	85	
	С	438	90	0	

# **Vehicle Mix**

HV %s

	То			
		Α	в	С
-	Α	0	0	0
From	в	0	0	3
	С	0	2	0

# Results

### **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.16	7.09	0.2	A
B-A	0.18	10.64	0.2	В
C-AB	0.26	5.61	0.6	A
C-A				
A-B				
A-C				



## Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	64	635	0.101	64	0.1	6.291	А
B-A	50	476	0.106	50	0.1	8.435	А
C-AB	118	776	0.152	117	0.3	5.460	A
C-A	280			280			
A-B	13			13			
A-C	171			171			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	76	621	0.123	76	0.1	6.601	A
B-A	60	449	0.134	60	0.2	9.248	A
C-AB	157	814	0.193	157	0.4	5.488	A
C-A	317			317			
A-B	15			15			
A-C	204			204			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	94	601	0.156	93	0.2	7.084	А
B-A	74	412	0.179	74	0.2	10.624	В
C-AB	224	868	0.258	223	0.6	5.599	A
C-A	357			357			
A-B	19			19			
A-C	250			250			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	94	601	0.156	94	0.2	7.090	А
B-A	74	412	0.179	74	0.2	10.644	В
C-AB	225	869	0.259	225	0.6	5.609	A
C-A	357			357			
A-B	19			19			
A-C	250			250			

#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	76	621	0.123	77	0.1	6.611	А
B-A	60	449	0.134	60	0.2	9.270	А
C-AB	158	815	0.194	159	0.4	5.497	А
C-A	317			317			
ΑB	15			15			
ΑC	204			204			



#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	64	635	0.101	64	0.1	6.305	А
B-A	50	476	0.106	51	0.1	8.468	А
C-AB	119	776	0.153	119	0.3	5.485	А
C-A	279			279			
ΑB	13			13			
A-C	171			171			



# 2020, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		2.27	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	inked arm Use O-D data Av. Demand (Veh/hr)		Scaling Factor (%)
Α		~	591	100.000
в		✓	183	100.000
С		~	365	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	34	557	
	в	36	0	147	
	С	299	66	0	

# Vehicle Mix

## HV %s

	То				
From		Α	в	С	
	Α	0	0	0	
	в	0	0	2	
	С	0	1	0	

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.29	9.14	0.4	A
B-A	0.13	13.01	0.1	В
C-AB	0.20	6.54	0.4	A
C-A				
ΑB				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	111	623	0.178	110	0.2	7.010	А
B-A	27	396	0.068	27	0.1	9.744	А
C-AB	76	655	0.116	75	0.2	6.209	А
C-A	199			199			
A-B	26			26			
A-C	419			419			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	132	595	0.222	132	0.3	7.771	А
B-A	32	363	0.089	32	0.1	10.884	В
C-AB	100	669	0.149	99	0.3	6.320	А
C-A	229			229			
ΑB	31			31			
A-C	501			501			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	162	556	0.291	161	0.4	9.113	А
B-A	40	316	0.125	39	0.1	12.988	В
C-AB	139	692	0.202	139	0.4	6.524	А
C-A	262			262			
A-B	37			37			
A-C	613			613			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	162	556	0.291	162	0.4	9.136	A
B-A	40	316	0.125	40	0.1	13.011	В
C-AB	140	692	0.202	140	0.4	6.537	A
C-A	262			262			
A-B	37			37			
A-C	613			613			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	132	595	0.222	133	0.3	7.801	А
B-A	32	363	0.089	33	0.1	10.911	В
C-AB	100	670	0.149	100	0.3	6.334	А
C-A	228			228			
A-B	31			31			
A-C	501			501			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	111	622	0.178	111	0.2	7.046	А
B-A	27	396	0.068	27	0.1	9.766	А
C-AB	76	655	0.116	76	0.2	6.233	А
C-A	199			199			
ΑB	26			26			
A-C	419			419			



# 2024 with, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		4.46	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 with	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	113	100.000
в		✓	170	100.000
С		~	312	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
		Α	в	c		
	Α	0	19	94		
From	в	66	0	104		
	С	175	137	0		

# **Vehicle Mix**

## HV %s

	То				
		Α	в	С	
<b>F</b>	Α	0	0	0	
From	в	0	0	3	
	С	0	2	0	

# Results

## **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.17	6.65	0.2	A
B-A	0.15	8.96	0.2	A
C-AB	0.30	7.46	0.5	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	78	676	0.116	78	0.1	6.013	A
B-A	50	515	0.096	49	0.1	7.720	А
C-AB	129	659	0.196	128	0.3	6.769	A
C-A	106			106			
A-B	14			14			
A-C	71			71			

### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	93	668	0.140	93	0.2	6.265	А
B-A	59	498	0.119	59	0.1	8.204	А
C-AB	161	673	0.239	161	0.4	7.033	А
C-A	119			119			
A-B	17			17			
A-C	85			85			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	115	656	0.175	114	0.2	6.643	А
B-A	73	474	0.153	72	0.2	8.954	A
C-AB	209	693	0.302	209	0.5	7.447	А
C-A	134			134			
A-B	21			21			
A-C	103			103			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	115	656	0.175	115	0.2	6.647	A
B-A	73	474	0.153	73	0.2	8.965	A
C-AB	210	693	0.303	210	0.5	7.464	A
C-A	134			134			
A-B	21			21			
A-C	103			103			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	93	668	0.140	94	0.2	6.274	А
B-A	59	498	0.119	60	0.1	8.220	А
C-AB	161	673	0.239	162	0.4	7.050	А
C-A	119			119			
ΑB	17			17			
A-C	85			85			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	78	676	0.116	78	0.1	6.030	А
B-A	50	515	0.097	50	0.1	7.745	А
C-AB	129	659	0.196	130	0.3	6.808	A
C-A	106			106			
ΑB	14			14			
A-C	71			71			



# 2024 with, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		4.48	A

#### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 with	PM	ONE HOUR	16:45	18:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	259	100.000
в		✓	236	100.000
С		✓	230	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	42	217	
	в	39	0	197	
	С	104	126	0	

# **Vehicle Mix**

## HV %s

	То				
		Α	в	С	
<b>F</b>	Α	0	0	0	
From	в	0	0	1	
	С	0	1	0	

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.33	8.25	0.5	A
B-A	0.10	9.56	0.1	A
C-AB	0.28	8.23	0.5	A
C-A				
ΑB				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	684	0.217	147	0.3	6.699	А
B-A	29	467	0.063	29	0.1	8.215	А
C-AB	109	603	0.181	108	0.2	7.260	A
C-A	64			64			
A-B	32			32			
A-C	163			163			

### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	177	671	0.264	177	0.4	7.280	А
B-A	35	447	0.078	35	0.1	8.728	А
C-AB	134	606	0.221	134	0.3	7.633	А
C-A	73			73			
ΑB	38			38			
A-C	195			195			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	217	653	0.332	216	0.5	8.227	А
B-A	43	420	0.102	43	0.1	9.551	А
C-AB	171	609	0.281	171	0.5	8.214	А
C-A	82			82			
A-B	46			46			
A-C	239			239			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	217	653	0.332	217	0.5	8.248	А
B-A	43	419	0.102	43	0.1	9.562	A
C-AB	171	609	0.281	171	0.5	8.232	A
C-A	82			82			
A-B	46			46			
A-C	239			239			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	177	671	0.264	178	0.4	7.305	А
B-A	35	447	0.078	35	0.1	8.740	А
C-AB	134	606	0.222	135	0.3	7.657	А
C-A	73			73			
ΑB	38			38			
A-C	195			195			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	148	683	0.217	149	0.3	6.736	А
B-A	29	467	0.063	29	0.1	8.238	А
C-AB	109	603	0.181	109	0.3	7.295	А
C-A	64			64			
ΑB	32			32			
A-C	163			163			



# 2024 without, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		2.92	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 without	AM	ONE HOUR	07:45	09:15	15

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

### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	337	100.000
в		✓	170	100.000
С		✓	654	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То			
_		Α	в	С
	Α	0	37	300
From	в	90	0	80
	С	548	106	0

# Vehicle Mix

## HV %s

	То			
From		Α	в	С
	Α	0	1	1
	в	0	0	3
	С	0	2	0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.16	7.90	0.2	A
B-A	0.27	13.39	0.4	В
C-AB	0.35	5.96	1.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	60	592	0.102	60	0.1	6.755	А
B-A	68	453	0.150	67	0.2	9.315	А
C-AB	160	821	0.196	159	0.4	5.438	A
C-A	332			332			
A-B	28			28			
A-C	226			226			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	72	573	0.126	72	0.1	7.181	А
B-A	81	417	0.194	81	0.2	10.689	В
C-AB	221	869	0.255	220	0.6	5.565	А
C-A	367			367			
A-B	33			33			
A-C	270			270			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	88	544	0.162	88	0.2	7.890	А
B-A	99	368	0.269	99	0.4	13.326	В
C-AB	330	938	0.352	328	1.0	5.931	А
C-A	390			390			
A-B	41			41			
A-C	330			330			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	88	544	0.162	88	0.2	7.904	A
B-A	99	368	0.269	99	0.4	13.389	В
C-AB	331	939	0.352	331	1.1	5.955	A
C-A	389			389			
A-B	41			41			
A-C	330			330			


#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	72	572	0.126	72	0.1	7.201	А
B-A	81	417	0.194	81	0.2	10.751	В
C-AB	222	871	0.255	224	0.6	5.594	А
C-A	366			366			
ΑB	33			33			
A-C	270			270			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	60	592	0.102	60	0.1	6.779	А
B-A	68	452	0.150	68	0.2	9.376	А
C-AB	162	822	0.197	163	0.4	5.477	А
C-A	331			331			
ΑB	28			28			
A-C	226			226			



# 2024 without, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		3.24	A

#### **Junction Network Options**

Driving side	Lighting	
Left	Normal/unknown	

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	734	100.000
в		✓	237	100.000
С		✓	530	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		Α	в	С	
<b>F</b>	Α	0	47	687	
From	в	71	0	166	
	С	446	84	0	

# Vehicle Mix

	То			
		Α	в	С
<b>F</b>	Α	0	0	0
From	в	0	0	1
	С	0	1	0

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.38	12.28	0.6	В
B-A	0.32	21.21	0.5	С
C-AB	0.32	6.72	0.9	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	125	571	0.219	124	0.3	8.026	А
B-A	53	356	0.150	53	0.2	11.827	В
C-AB	119	715	0.167	118	0.4	6.031	А
C-A	280			280			
A-B	35			35			
A-C	517			517			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	149	534	0.280	149	0.4	9.346	А
B-A	64	312	0.205	64	0.3	14.497	В
C-AB	165	744	0.221	164	0.5	6.223	А
C-A	312			312			
ΑB	42			42			
A-C	618			618			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	183	477	0.384	182	0.6	12.179	В
B-A	78	248	0.315	77	0.4	20.986	С
C-AB	248	788	0.315	246	0.9	6.682	А
C-A	336			336			
A-B	52			52			
A-C	756			756			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	183	476	0.384	183	0.6	12.284	В
B-A	78	248	0.315	78	0.5	21.206	С
C-AB	249	788	0.315	249	0.9	6.716	A
C-A	335			335			
A-B	52			52			
A-C	756			756			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	149	533	0.280	150	0.4	9.434	А
B-A	64	311	0.205	65	0.3	14.648	В
C-AB	166	745	0.222	167	0.6	6.259	А
C-A	311			311			
ΑB	42			42			
A-C	618			618			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	125	571	0.219	125	0.3	8.094	А
B-A	53	356	0.150	54	0.2	11.924	В
C-AB	120	716	0.168	121	0.4	6.071	А
C-A	279			279			
ΑB	35			35			
A-C	517			517			



# 2034 with, AM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		8.39	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034 with	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)	
Α		~	230	100.000	
в		✓	370	100.000	
С		~	159	100.000	

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	145	85	
	в	347	0	23	
	С	154	5	0	

# Vehicle Mix

	То				
From		Α	в	С	
	Α	0	1	0	
	в	1	0	0	
	С	0	0	0	

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.06	9.66	0.1	A
B-A	0.65	17.56	1.8	С
C-AB	0.01	5.67	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	514	0.034	17	0.0	7.246	A
B-A	261	613	0.426	258	0.7	10.065	В
C-AB	5	639	0.007	5	0.0	5.673	A
C-A	115			115			
ΑB	109			109			
A-C	64			64			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	476	0.043	21	0.0	7.909	А
B-A	312	602	0.518	311	1.0	12.300	В
C-AB	6	647	0.009	6	0.0	5.610	А
C-A	137			137			
A-B	130			130			
A-C	76			76			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	401	0.063	25	0.1	9.573	A
B-A	382	586	0.652	379	1.8	17.122	С
C-AB	7	659	0.011	7	0.0	5.525	A
C-A	168			168			
A-B	160			160			
A-C	94			94			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	25	398	0.064	25	0.1	9.659	A
B-A	382	586	0.652	382	1.8	17.560	С
C-AB	7	659	0.011	7	0.0	5.525	A
C-A	168			168			
A-B	160			160			
A-C	94			94			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	21	473	0.044	21	0.0	7.965	А
B-A	312	602	0.518	315	1.1	12.656	В
C-AB	6	647	0.009	6	0.0	5.611	А
C-A	137			137			
A-B	130			130			
A-C	76			76			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	17	512	0.034	17	0.0	7.283	А
B-A	261	613	0.426	263	0.8	10.310	В
C-AB	5	639	0.007	5	0.0	5.673	А
C-A	115			115			
ΑB	109			109			
A-C	64			64			



# 2034 with, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		9.00	A

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034 with	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	610	100.000
в		✓	192	100.000
С		~	412	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
		Α	в	c	
<b>F</b>	Α	0	506	104	
From	в	190	0	2	
	С	157	255	0	

# Vehicle Mix

	То				
		Α	в	С	
<b>F</b>	Α	0	0	0	
From	в	1	0	0	
	С	0	0	0	

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.01	8.45	0.0	A
B-A	0.52	18.28	1.0	С
C-AB	0.70	21.45	2.8	С
C-A				
ΑB				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	515	0.003	1	0.0	7.016	А
B-A	143	493	0.290	141	0.4	10.185	В
C-AB	241	578	0.417	238	0.8	10.514	В
C-A	69			69			
A-B	381			381			
A-C	78			78			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	486	0.004	2	0.0	7.429	А
B-A	171	457	0.374	170	0.6	12.516	В
C-AB	305	576	0.529	303	1.3	13.149	В
C-A	66			66			
ΑB	455			455			
A-C	93			93			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	431	0.005	2	0.0	8.399	А
B-A	209	408	0.513	207	1.0	17.835	С
C-AB	404	574	0.704	398	2.7	20.279	С
C-A	50			50			
A-B	557			557			
A-C	115			115			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	428	0.005	2	0.0	8.451	А
B-A	209	406	0.516	209	1.0	18.280	С
C-AB	406	575	0.705	405	2.8	21.451	С
C-A	48			48			
A-B	557			557			
A-C	115			115			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	484	0.004	2	0.0	7.462	А
B-A	171	454	0.376	173	0.6	12.860	В
C-AB	306	578	0.530	312	1.4	13.888	В
C-A	64			64			
ΑB	455			455			
A-C	93			93			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	2	513	0.003	2	0.0	7.035	А
B-A	143	491	0.291	144	0.4	10.388	В
C-AB	242	579	0.419	245	0.9	10.857	В
C-A	68			68			
ΑB	381			381			
A-C	78			78			



# 2034 without, AM

#### **Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		27.31	D

#### **Junction Network Options**

Driving side	Lighting
Left	Normal/unknown

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034 without	AM	ONE HOUR	07:45	09:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	634	100.000
в		✓	212	100.000
С		✓	1127	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То					
From		Α	в	С		
	Α	0	59	575		
	в	101	0	111		
	С	989	138	0		

# Vehicle Mix

		То				
		Α	в	С		
-	Α	0	0	1		
From	в	0	0	2		
	С	0	2	0		

## **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	0.39	18.76	0.6	С
B-A	0.73	78.20	2.2	F
C-AB	0.96	54.00	24.8	F
C-A				
ΑB				
A-C				

### Main Results for each time segment

#### 07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	84	538	0.155	83	0.2	7.900	A
B-A	76	312	0.244	75	0.3	15.123	С
C-AB	380	1025	0.371	375	1.3	5.546	A
C-A	468			468			
A-B	44			44			
A-C	433			433			

#### 08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	100	493	0.203	100	0.3	9.151	А
B-A	91	250	0.363	90	0.6	22.370	С
C-AB	609	1123	0.543	604	2.7	7.033	А
C-A	404			404			
A-B	53			53			
A-C	517			517			

#### 08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	122	360	0.340	121	0.5	15.041	С
B-A	111	164	0.679	106	1.8	58.522	F
C-AB	1161	1264	0.918	1107	16.0	25.093	D
C-A	80			80			
A-B	65			65			
A-C	633			633			

#### 08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	122	313	0.390	122	0.6	18.763	С
B-A	111	153	0.728	109	2.2	78.204	F
C-AB	1241	1289	0.962	1206	24.8	54.003	F
C-A	0			0			
ΑB	65			65			
A-C	633			633			



#### 08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	100	476	0.210	101	0.3	9.645	А
B-A	91	231	0.393	97	0.7	27.884	D
C-AB	704	1185	0.594	789	3.6	11.774	В
C-A	309			309			
A-B	53			53			
A-C	517			517			

#### 09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	84	535	0.156	84	0.2	7.988	А
B-A	76	309	0.246	77	0.3	15.632	С
C-AB	390	1033	0.377	399	1.4	5.794	А
C-A	458			458			
ΑB	44			44			
A-C	433			433			



# 2034 without, PM

#### **Data Errors and Warnings**

Severity	Area	ltem	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

# **Junction Network**

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
OFF14	Sires Hill/Didcot Road	T-Junction	Two-way		106.06	F

#### **Junction Network Options**

Driving side	Lighting		
Left	Normal/unknown		

# **Traffic Demand**

#### **Demand Set Details**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034 without	PM	ONE HOUR	16:45	18:15	15

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

#### **Demand overview (Traffic)**

Arm	Linked arm	Use O-D data	Av. Demand (Veh/hr)	Scaling Factor (%)
Α		~	1050	100.000
в		✓	349	100.000
С		~	827	100.000

# **Origin-Destination Data**

#### Demand (Veh/hr)

	То				
From		Α	в	С	
	Α	0	75	975	
	в	123	0	226	
	С	717	110	0	

## **Vehicle Mix**

	То			
		Α	в	С
Farm	Α	0	0	0
From	в	0	0	1
	С	1	1	0

## **Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Q (Veh)	Max LOS
B-C	1.54	648.50	45.2	F
B-A	1.51	677.69	25.0	F
C-AB	0.68	12.41	5.4	В
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	170	466	0.365	168	0.6	12.003	В
B-A	93	255	0.364	90	0.6	21.659	С
C-AB	239	826	0.289	236	0.9	6.101	А
C-A	384			384			
A-B	56			56			
A-C	734			734			

#### 17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	203	370	0.550	201	1.2	21.029	С
B-A	111	181	0.611	107	1.4	46.863	E
C-AB	369	886	0.417	366	1.6	6.984	А
C-A	374			374			
ΑB	67			67			
A-C	877			877			

#### 17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	249	165	1.511	160	23.4	310.857	F
B-A	135	92	1.479	87	13.4	361.587	F
C-AB	658	975	0.675	645	5.0	11.266	В
C-A	252			252			
A-B	83			83			
A-C	1073			1073			

#### 17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	249	162	1.536	162	45.2	648.495	F
B-A	135	89	1.515	89	25.0	677.689	F
C-AB	673	984	0.684	672	5.4	12.408	В
C-A	237			237			
A-B	83			83			
A-C	1073			1073			



#### 17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	203	262	0.776	256	31.9	503.366	F
B-A	111	144	0.769	138	18.1	517.796	F
C-AB	380	898	0.423	394	1.8	7.475	А
C-A	363			363			
ΑB	67			67			
A-C	877			877			

#### 18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	170	373	0.456	294	0.9	112.156	F
B-A	93	213	0.435	162	0.9	128.909	F
C-AB	243	830	0.293	247	0.9	6.250	А
C-A	379			379			
ΑB	56			56			
A-C	734			734			

# Appendix C – Personal Injury Collision Data

SEVERITY District Vale of White Horse			Grid Reference	448747 / 191477
SERIOUS Ret.No P2330614	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Police Officer Attend:	No - reported over the counter
Date23/06/2014Day MondayTime15:58WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 APPROX 500M F Description C1 TRAV E IN LN 2 ON A4130 APPR of Accident MC2 TRAV E IN LN 1 & MC2 EXITE	E OF J/W A34 AT MILTON INTERCHANGE OACHING END OF SECTION OF DUAL CW D CWAY TO NSIDE & HIT POST CAUSING	MILTON /AY MOVED TO NSIDE I SERIOUS INJURY TO RE	INTO LN 1 BUT HIT DER
SITE DETAILS Speed Limit 40 MPH Carriageway Dual carriageway Junction Detail Not at or within 20 metres of junction Junction Control 2nd Road Number Pedestrian Facilities None within 50 metres No physical crossing facility within	ion SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None n 50 metre	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beha 602 Careless/Reckless (Driver/Rider - Beha 601 Aggressive driving (Driver/Rider - Beh 601 Aggressive driving (Driver/Rider - Beh 405 Failed to look properly (Driver/Rider -	aviour) aviour) naviour) naviour) Error)	PARTICIPANTPROBABILITYVehicle 001BVehicle 002BVehicle 001BVehicle 002BVehicle 001B
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeCarManoeuvreChanging lane to leftVeh. direction fromWest to EastToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.noDrivers age33 yrsSexMaleBreath testNegaLeft Hand DriveNoYeh.No.2Vehicle typeM/CycleUnknoeuvreGoing ahead otherVeh.No.2Vehicle typeM/CycleManoeuvreGoing ahead otherVeh. direction fromWest to EastSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Left carriageway nearsideHit object in c'way?Lamp postFirst point of impactOffsideVeh registration no.Other veh.hit (ref.noDirevers age43 yrsSexMaleBreath testNot postFirst point of impactOffsideVeh left carriageway?Lamp postFirst point of impactOffsideVeh registration no.Other veh.hit (ref.noDrivers age <td>Make       Model         owing?       No tow or articulation         eway not in restricted lane       20m of junction         o)       2       Hit and run         point in restricted vehicle       Not hit and run         b)       2       Hit and run         foreign registered vehicle       Make         Make       Model         owing?       No tow or articulation         eway not in restricted lane       20m of junction         b)       1       Hit and run         provided (medical reas Driving Lic Full foreign registered vehicle       Full</td> <td>Cas No 1 Cas Class Driver or I Severity SERIOUS Age 43 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details</td> <td>Rider Veh ref s Sex Male PSV Passenger? Not Cycle Helmet</td> <td>t No 2 Post code t a passenger</td>	Make       Model         owing?       No tow or articulation         eway not in restricted lane       20m of junction         o)       2       Hit and run         point in restricted vehicle       Not hit and run         b)       2       Hit and run         foreign registered vehicle       Make         Make       Model         owing?       No tow or articulation         eway not in restricted lane       20m of junction         b)       1       Hit and run         provided (medical reas Driving Lic Full foreign registered vehicle       Full	Cas No 1 Cas Class Driver or I Severity SERIOUS Age 43 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref s Sex Male PSV Passenger? Not Cycle Helmet	t No 2 Post code t a passenger

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP1810814	Accident Date BETWEEN '09-Jun-2014' AND '0	08-Jun-2019'	Grid Reference Police Officer Attend:	448382 / 191725 Yes	
Date19/08/2014Day TuesdayTime13:44WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Date       19/08/2014       Day Tuesday         Time       13:44         Weather       Fine without high winds         Road Surface       Dry         Dry       Description         C1 TRAV S ON HIGH ST TURNED RT TO J/W ACCESS RD TO MILTON PARK HIT C2 THOUGHT TO BE TRAV E ON RD TO of Accident         MILTON				
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Stop sign         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS       None       0 metre	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beha 607 Inexperience with vehicle type (Driver	F aviour) /Rider - Behaviour)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning right       Towid         Veh. direction from       North to West       Towid         Skidded       No skidding, jack-knifing or overturning       On main carriageway         Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Entering main road         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       20 yrs       Sex         No       Foreign veh. Not for         Jeft Hand Drive       No       Foreign veh. Not for         Journey purpose       Not Known       Tot Known	Make Model ng? No tow or articulation ay not in restricted lane 2 Hit and run Not hit and ru ve Driving Lic Full reign registered vehicle	CASUALTIES INVOLVED         Cas No       1 Cas Class       Driver or 1         Severity       SLIGHT       Age 20 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Front seat passenger         Severity       SLIGHT         Age 17 yr       Car Passenger?         Seat Belt       Not applicable	3 Rider Veh ref N rs Sex Male P PSV Passenger? Not a Cycle Helmet veh ref N rs Sex Female P er PSV Passenger? Not a Cycle Helmet	No 1 Post code a passenger No 2 Post code a passenger	
Veh.No. 2 Vehicle type Car Manoeuvre Going ahead other Veh. direction from West to East Towi Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriagewa Junct. location of veh. at 1st impact Approaching juncti Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.no) Drivers age 48 yrs Sex Male Breath test Negatir Left Hand Drive No Foreign veh. Not for Journey purpose Not Known	Make Model ng? No tow or articulation ay not in restricted lane on or waiting 1 Hit and run Not hit and ru ve Driving Lic Full reign registered vehicle	Ped Location Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Cas No 3 Cas Class Driver or I Severity SLIGHT Age 48 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured	Rider Veh ref N rs Sex Male P PSV Passenger? Not a Cycle Helmet	No 2 Post code a passenger	

Other Details

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3240814	Accident Date BETWEEN '09-Jun-2014' AND '08	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
Date22/08/2014DayFridayTime23:43Image: Street LightingImage: Street LightingWeatherRaining without high windsImage: Street LightingStreet LightingDark: no street lightingImage: Street Lighting	Road A4130 Location A4130 APPROX 450M EXACT LOCATION Description MC1 TRAV W ROUNDING LH BEN of Accident OSIDE	E OF J/W A34 AT MILTON INTERCHANGE	MILTON -SOME U	NCERTAINTY AS TO FF CWAY TO THE
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50	SPECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beha 103 Slippery road due to weather (Road En 410 Loss of control (Driver/Rider - Error)	aviour) avironment Contrib)	PARTICIPANTPROBABILITYVehicle 001BVehicle 001AVehicle 001B
VEHICLES INVOLVED 1		CASUALTIES INVOLVED	1	
Manoeuvre       Going ahead left hand bend         Veh. direction from       East to Southwest       Towing         Skidded       Skidded       On main carriageway         Junct. location of veh. at 1st impact       Not at or within 20m         Veh left carriageway?       Left carriageway offside         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       24 yrs         Sex       Male         Journey purpose       Other	<ul> <li>No tow or articulation</li> <li>not in restricted lane</li> <li>of junction</li> <li>0 Hit and run Not hit and run</li> <li>ided (medical reas Driving Lic Full</li> <li>ign registered vehicle</li> </ul>	Severity SLIGHT Age 24 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	rs Sex Male PSV Passenger? N Cycle Helmet	Post code ot a passenger

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3270914	Accie	ident Date BETWEEN '09-Jun-2014' AND '0	)8-Jun-2019'	Grid Reference Police Officer Attend:	448597 / 191395 No - reported over the counter
Date     29/09/2014     Day Monday       Time     23:20       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Dark: street lights present and lit       Speed Limit     40 MPH       Carriageway     Dual carriageway       Junction Detail     T or staggered junction       Junction Control     Give way or uncontrolled       2nd Road Number     U	Road A	A4130 Location A4130 J/W SERVICE tion C1 TRAV N ON EXIT FROM SERV dent A4130) FAILED TO GIVEWAY TO PASSENGER (PARAMEDIC) IN R SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	AREA APPROX 175M E OF MILTON INTERC /ICE AREA TURNED RT (ASSUMED TURN - 0 OMV2 (AMBULANCE) & OMV2 BRAKED SI EAR-C1 NOT HIT FTS CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spe 403 Poor turn or manoeuvre (Driver/Rider	HANGE RBT MILT UNCLEAR IF TUNRING F HARPLY CAUSING SLIG • Error) ed (Driver/Rider - Error) - Error)	FON RT TO OR FROM HT INJURY TO PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 B Vehicle 001 B
No physical crossing facility within	50 metre				
VEHICLES INVOLVED 2			CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other         Veh. direction from       South to Northeast       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct.       Junct. location of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Did not impact         Veh registration no.       Other veh.hit (ref.no         Drivers age       ? yrs       Sex         Left Hand Drive       No       Foreign veh. Not foreign veh.         Journey purpose       Other	wing? No way not in tion or wa tion or wa 0 0 er not conta òreign regi	Make Model To tow or articulation n restricted lane aiting Hit and run Non-stop vehi tacted Driving Lic Full gistered vehicle	Cas No       1       Cas Class       Passenger         Severity       SLIGHT       Age       41 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Veh ref s Sex Female PSV Passenger? Not Cycle Helmet	No 2 Post code t a passenger
Veh.No.2Vehicle typeOther:AMBULANCEManoeuvreWaiting to go ahead but held upVeh. direction fromNortheast to SouthwestToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactApproaching junctVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactDid not impactVeh registration no.Other veh.hit (ref.noDrivers age41 yrsSexMaleBreath testDriveJourney purposeOther	wing? No way not in tion or wat tion or wat or not conta coreign regi	Make Model To tow or articulation in restricted lane aiting Hit and run Not hit and ru tacted Driving Lic Full gistered vehicle	n		

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP0301014	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun	n-2019'	Grid Reference448422 / 191375Police Officer Attend:Yes
Date     03/10/2014     Day Friday       Time     16:26       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight       SITE DETAILS       Speed Limit     40 MPH       Carriageway     Roundabout       Junction Detail     Roundabout	Road       A4130       Location       A4130       MILTON INTERCH         Description       C1 (DRIVER 21 YRS) TRAV SE NEG R         of Accident       C2 TRAV S ENTERING RBT FROM MIL         DIDCOT       SPECIAL SITE CONDITIONS       30         None       40	IANGE RBT AT ATS J/W ENTRY FROM M BT INTERNDING TO EXIT TO A4130 TO LTON PARK THROUGH GREEN ATS ALS CONTRIBUTORY FACTORS 1 Disobeyed automatic traffic signal (Dri 5 Failed to look properly (Driver/Rider -	AILTON PARK MILTON DIDCOT WENT THROUGH RED ATS & HIT SO INTENDING TO TRAV E ON A4130 TO PARTICIPANT PROBABILITY iver/Rider - Injudicious) Vehicle 001 A Error) Vehicle 001 B
Junction Control Automatic traffic signal 2nd Road Number U Pedestrian Facilities None within 50 metres No physical crossing facility within	CARRIAGEWAY HAZARDS None	6 Failed to judge other person's path/spec	ed (Driver/Rider - Error) Vehicle 001 B
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.1Vehicle typeCarManoeuvreGoing ahead right hand bendVeh. direction fromWest to SoutheastToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagerJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age21 yrsSexMaleBreath testNegaLeft Hand DriveNoVeh.No.2Vehicle typeCarManoeuvreTurning leftVeh. direction fromNorth to SoutheastVeh location at impact (restricted lane)On main carriagerJunct. location of veh. at 1st impactEntering roundabeVeh location at impact (restricted lane)On main carriagerJunct. location of veh. at 1st impactEntering roundabeVeh location at impact (restricted lane)On main carriagerJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age21 yrsSexFemaleBreath testNegaLeft Hand Drive </td <td>Make     Model       wing?     No tow or articulation       way not in restricted lane roundabout or main road    </td> <td>Cas No 1 Cas Class Passenger Severity SLIGHT Age 21 yr. Car Passenger? Front seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details</td> <td>Veh ref No 1 s Sex Female Post code er PSV Passenger? Not a passenger Cycle Helmet</td>	Make     Model       wing?     No tow or articulation       way not in restricted lane roundabout or main road	Cas No 1 Cas Class Passenger Severity SLIGHT Age 21 yr. Car Passenger? Front seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Veh ref No 1 s Sex Female Post code er PSV Passenger? Not a passenger Cycle Helmet

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3121014	Accident Date BETWEEN '09-Jun-2014' AND '08	Jun-2019'	Grid Reference Police Officer Attend:	448425 / 191373 Yes	
Date26/10/2014DaySundayTime17:27WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Date       26/10/2014       Day       Sunday         Time       17:27         Weather       Fine without high winds         Coad Surface       Dry         Dry       Description         C1 TRAV S ON MILTON PARK RD FAILED TO OBSERVE RED ATS ENTERED RBT J/W A4130 & HIT C2 TRAV E ROUNDING of Accident				
SITE DETAILS Speed Limit 40 MPH Carriageway Roundabout Junction Detail Roundabout Junction Control Automatic traffic signal 2nd Road Number A34 Pedestrian Facilities None within 50 metres No physical crossing facility within	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 301 Disobeyed automatic traffic signal (Dri 405 Failed to look properly (Driver/Rider -	iver/Rider - Injudicious) Error)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car       Make       Model       Cas No       1       Cas Class       Passenger         Manoeuvre       Moving off       Stidded       No studing, jack-knifing or overturning       Stidded       No tow or articulation       Severity       SLIGHT       Age 69 yr:         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Seat Belt       Not applicable         Junct.       location of veh. at 1st impact       Entering roundabout       Ped Movement       Not applicable         Veh left carriageway?       Did not leave carriageway       Entering roundabout       Ped Direction to       Not applicable         Veh registration no.       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age       32 yrs       Sex       Male       Breath test       Negative       Driving Lic       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Upurper variage spect of work       Other veh.       Other veh.				No 2 Post code t a passenger	
Veh.No. 2       Vehicle type Car         Manoeuvre       Moving off         Veh. direction from       West to East       Tow         Skidded       Skidded       On main carriagev         Junct. location of veh. at 1st impact       Leaving roundabo         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       54 yrs       Sex         Left Hand Drive       No       Foreign veh. Not fer         Journey purpose       Other       Other	Make Model wing? No tow or articulation way not in restricted lane out ) 1 Hit and run Not hit and run tive Driving Lic Full foreign registered vehicle				

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP2011214	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	un-2019'	Grid Reference Police Officer Attend:	448658 / 191425 Yes
Date     16/12/2014     Day Tuesday       Time     13:09       Weather     Fine without high winds       Road Surface     Wet/Damp       Street Lighting     Daylight	Road A4130 Location A4130 J/W SERVICE ARI MILTON Description C1 TRAV S ON EXIT FROM SERVICE of Accident RED SIGNAL & HIT HGV2 TRAV SW	EA (COSTA COFFEE) 250M E OF J/W A34 E AREA (COSTA COFFEE) TURNED RT TC 7 ON A4130 - C1 EXITED CWAY TO NSIDE	I 4 / A4130 MILTON INTER ) A4130 HAVING FAILEI 5 & OVERTURNED	CHANGE D TO COMPLY WITH
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Dual carriageway         Junction Detail       T or staggered junction         Junction Control       Automatic traffic signal         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Pelican, puffin, toucan or similar	SPECIAL SITE CONDITIONS       40         None       30         CARRIAGEWAY HAZARDS       60         None       70	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider - 01 Disobeyed automatic traffic signal (Dr. 05 Defective traffic signals (Road Environ 02 Careless/Reckless (Driver/Rider - Beha 06 Dazzling sun (Driver/Rider - Vision A	Error) iver/Rider - Injudicious) nment Contrib) aviour) ffected)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001BVehicle 001BVehicle 001BVehicle 001B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning right       Town         Veh. direction from       North to Southwest       Town         Skidded       Overturned       Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Mid junction - on reveal       Veh left carriageway?       Left carriageway nearside         Hit object in c'way?       None       None       First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no)       Other veh.hit (ref.no)       Drivers age       23 yrs       Sex       Male       Breath test       Negati         Left Hand Drive       No       Foreign veh.       Not for         Journey purpose       Journey as part of work       Vehicle type       Goods > 7.5t	Make     Model       ng?     No tow or articulation       ay not in restricted lane     and about or main road       2     Hit and run       Ve     Driving Lic       reign registered vehicle       Make     Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity SLIGHT Age 23 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Cas No 2 Cas Class Passenger Severity SLIGHT Age 25 yr Car Passenger? Front seat passenger Seat Belt Not applicable Ped Movement Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Location Not applicable	2 Rider Veh ref s Sex Male PSV Passenger? Not Cycle Helmet veh ref s Sex Male er PSV Passenger? Not Cycle Helmet	<sup>7</sup> No 1 Post code t a passenger <sup>7</sup> No 1 Post code t a passenger
ManoeuvreGoing ahead otherVeh. direction fromNortheast to SouthwestTowiSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagew.Junct. location of veh. at 1st impactApproaching junctiVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age33 yrsSexMaleBreath testNegatiLeft Hand DriveNoJourney purposeJourney as part of work	ng? No tow or articulation ay not in restricted lane on or waiting 1 Hit and run Not hit and run ve Driving Lic Full reign registered vehicle	Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details		

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP2511214	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
Date     19/12/2014     Day Friday       Time     19:30       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Dark: street lights present and lit	riday Road A4130 Location A4130 APPROX 230M E OF J/W A34 AT MILTON INTERCHANGE MILTON ds Description C1 TRAV NE IN LN 1 ON A4130 MOVED TO OSIDE INTO LN 2 & HIT NSIDE OF C2 TRAV NE IN LN 2 & C2 CROSSED TO of Accident OPPOSITE CWAY & C1 HIT CENTRAL ISLAND			
Since Fighting       Junction Detail         Single carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Automatic traffic signal         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS 44 None 44 CARRIAGEWAY HAZARDS None 50 metre	CONTRIBUTORY FACTORS 03 Poor turn or manoeuvre (Driver/Rider - 05 Failed to look properly (Driver/Rider - 06 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY - Error) Vehicle 001 B Error) Vehicle 001 B ed (Driver/Rider - Error) Vehicle 001 B	
VEHICLES INVOLVED       2       CASUALTIES INVOLVED       1         Veh.No.       1       Vehicle type       Cas       No       1         Manoeuvre       Changing lane to right       Make       Model       Cas       Cas       Cas       Cas       Cas       Sex       Female       Post       Code         Veh. direction from       Southwest to Northeast       Towing?       No tow or articulation       Sex       Sex       Female       Post       Code         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Not applicable       Ped Movement       Not applicable       Post       Cycle Helmet         Veh location of veh. at 1st impact       Approaching junction or waiting       Veh left carriageway offside       Ped Location       Not applicable       Ped Location       Not applicable         Veh loce off clway?       Bollard/refuge       Bilt and run       Not hit and run       Not hit and run       Not hit and run       Other Details         Veh registration no.       Other veh.hit (ref.no)       2       Hit and run       Not hit and run       Not hit and run         Drivers age       40 yrs       Sex       Male       Breath test       Negative       Driving Lie       Full			Veh ref No     1       s     Sex Female     Post code       er     PSV Passenger?     Not a passenger       Cycle Helmet     Cycle Helmet	
Veh.No.2Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromSouthwest to NortheastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactApproaching junctiVeh left carriageway?Left carriageway offsideHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age31 yrsSexMaleBreath testNegatiLeft Hand DriveNoJourney purposeOther	Make Model ing? No tow or articulation ay not in restricted lane ion or waiting l Hit and run Not hit and run ve Driving Lic Full reign registered vehicle			

SEVERITYDistrictVale of White HorseSERIOUSRef.NoP2981214	Accident Date BETWEEN '09-Jun-2014' AND '08-	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date     30/12/2014     Day     Tuesday       Time     13:47       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road       A34       Location       A34 SBOUND EXIT SL         Description       MC1 TRAV SE ON A34 SBOUND EX         of Accident       TRAV SE AHEAD OF C2 WHICH AP	Police Officer Attend:         I       A34         Location A34 SBOUND EXIT SLIP ROAD AT MILTON INTERCHANGE       MILTON         sription       MC1 TRAV SE ON A34 SBOUND EXIT SLIP RD APPROACHING MILTON INTERCHANGE BRAKED SKIDI         ccident       TRAV SE AHEAD OF C2 WHICH APPEARS TO HAVE SLOWED SHARPLY ON APPROACH TO SIGNALS #			
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Slip road         Junction Detail       Roundabout         Junction Control       Automatic traffic signal         2nd Road Number       A4130         Pedestrian Facilities       None within 50 metres         No physical crossing facility withit	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 410 Loss of control (Driver/Rider - Error) 406 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY Vehicle 001 A ed (Driver/Rider - Error) Vehicle 001 B		
VEHICLES INVOLVED2Veh.No.1Vehicle typeM/cycle > 500ccManoeuvreSlowing or stoppingVeh. direction fromNorthwest to SoutheastTSkiddedSkiddedVeh location at impact (restricted lane)On main carriagJunct. location of veh. at 1st impactApproaching jurVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.nDrivers age20 yrsSexMaleBreath testNegLeft Hand DriveNoJourney purposeNot KnownVeh.No.2Vehicle typeCarManoeuvreSlowing or stoppingVeh. direction fromNorthwest to SoutheastTSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagJunct. location of veh. at 1st impactApproaching jur	Make     Model       owing?     No tow or articulation       eway not in restricted lane	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity SERIOUS Age 20 yr: Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1       Rider     Veh ref No       s     Sex Male       PSV Passenger?     Not a passenger       Cycle Helmet		
Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.nDrivers age27 yrsSexFemaleBreath testNegLeft Hand DriveNotJourney purposeNot Known	o) 1 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle				

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP0360115	Accident Date BETWEEN '09-Jun-2014' A	AND '08-Jun-2019'	Grid Reference448258 / 191491Police Officer Attend:Yes	
Date     06/01/2015     Day Tuesday       Time     02:16       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Dark: no street lighting	Road       A34       Location       A34 SBOUND CWAY MP 65/1       AT J/W EXIT SLIP ROAD TO A4130       MILTON         Description       C1 TRAV SE ON A34 EXITED ST J/W SLIP RD LOST CONTROL FOR U/K REASON EXITED CWAY AT SLIP RD & HIT         of Accident       BARRIER DIVIDING MAIN CWAY & SLIP ROAD			
SITE DETAILS Speed Limit 70 MPH Carriageway Dual carriageway Junction Detail Slip road Junction Control Give way or uncontrolled 2nd Road Number A34	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 403 Poor turn or manoeuvre (Driver/Rider	PARTICIPANT PROBABILITY - Error) Vehicle 001 B	
None within 50 metres No physical crossing facility within 50	0 metre			
Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning left       Veh. direction from       Northwest to East       Towin         Skidded       Skidded and overturned       Veh location at impact (restricted lane)       On main carriagewa         Junct.       location of veh. at 1st impact       Leaving main road         Veh left carriageway?       Left carriageway nearside         Hit object in c'way?       None         Hit object off c'way?       Nearside or offside crash barrier         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       24 yrs       Sex         Sex       Female       Breath test       Negativ         Left Hand Drive       No       Foreign veh.       Not for         Journey purpose       Other       Other       Set	Make Model ng? No tow or articulation ay not in restricted lane 0 Hit and run Not hit a ve Driving Lic Full reign registered vehicle	Cas No 1 Cas Class Driver or Severity SLIGHT Age 24 y Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Rider       Veh ref No       1         rs       Sex Female       Post code         PSV Passenger?       Not a passenger         Cycle Helmet	

SEVERITY District Vale of White Horse				Grid Reference	450047 / 191412
SLIGHT Ref.No P1730115	Accid	dent Date BETWEEN '09-Jun-2014' AND	'08-Jun-2019'	Police Officer Attend:	No - reported over the counter
Date20/01/2015DayTuesdayTime13:50WeatherFine without high winds	Road L	Dad U243 Location MILTON ROAD APPROX 300M SE OF RBT J/W MILTON PARK HARWELL			
Road Surface Dry Street Lighting Davlight	Descripti of Accide	ion C2 TRAV IN U/K DIRECTION ON ent CLAIMS C1 FAILED TO ALLOW	N MILTON RD OVRTK C1 TRAV IN SAME DIR C2 TO RETURN TO CORRECT SIDE OF CWAY	ECTION & HIT OCCURRI Y & C1 HIT C2-NO FURTH	ED & C2 DRIVER HER DETAILS
SITE DETAILS		SUPPLIED	CONTRIBUTORY EACTORS		DADTICIDANT DOODADILITY
Smallimit (0 MDH		SPECIAL SITE CONDITIONS	406 Esiled to indee other server also athere	- 1 (Duinen/Dillen Ennen)	FARTICIFANT FRODADILITT
Speed Linit 60 MIPH		SPECIAL SITE CONDITIONS	406 Faned to judge other person's path/spe	ed (Driver/Rider - Error)	Venicle 002 B
Carriageway Single carriageway		None	406 Failed to judge other person's path/spe	ed (Driver/Rider - Error)	Vehicle 001 B
Junction Detail Not at or within 20 metres of junction	on		601 Aggressive driving (Driver/Rider - Be	haviour)	Vehicle 001 B
Junction Control		CARRIAGEWAY HAZARDS		1 ' )	V 1: 1 002 D
2nd Road Number		N	601 Aggressive driving (Driver/Rider - Be	haviour)	Vehicle 002 B
Pedestrian Facilities None within 50 metres		None			
No physical crossing facility within	50 metre				
VEHICLES INVOLVED 2			CASUALTIES INVOLVED	1	
Veh.No. 1 Vehicle type Car		Make Model	Cas No 1 Cas Class Driver or	Rider Veh ret	f No 2
Manoeuvre Overtaking moving veh on its offside			Severity SLIGHT Age 23 yr	rs Sex Male	Post code
Veh. direction from Parked to Parked Tow	wing? No	o tow or articulation	Car Passenger? Not a passenger	PSV Passenger? No	t a passenger
Skidded No skidding, jack-knifing or overturning			Seat Belt Not applicable	Cycle Helmet	
Veh location at impact (restricted lane) On main carriagev	way not in	restricted lane	Ped Movement Not applicable		
Junct. location of veh. at 1st impact Not at or within 20	0m of junc	tion	Ped Location Not applicable		
Veh left carriageway? Did not leave carriageway			Ped Direction to Not applicable		
Hit object in c'way? None		School Pupil Other			
Hit object off c'way? None		Roadworker injured			
First point of impact Offside	st point of impact Offside		Other Details		
Veh registration no. Other veh.hit (ref.no)	) 2	Hit and run Hit and Run			
Drivers age ? yrs Sex Male Breath lest Drive	er not conta	acted Driving Lic Full			
Left Hand Drive No Foreign ven. Not f	oreign regi	istered vehicle			
Journey purpose         Not Known           Vak Na         2         Vakiala true         C		Malza M-J-1	<b>—</b>		
Venino. Z venicie type Car		wiake Model			
Veh direction from D 1 1: D 1 1					
Childred N 1 111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	wing: No	o low or articulation			
Skilden No skildling, jack-kniling or overturning	vou not in	restricted lane			
Ven location at impact (restricted lane) On main carriagev	way not mi	tion			
Val laft comission of ven. at 1st impact Not at or within 20	om of junc	cuon			
Uit chicat in clway? Did not leave carriageway					
Hit object in C way: None					
First point of impact Nearoida					
Veh registration no Other veh bit (ref no)	) 1	Hit and run Not hit and "	un l		
Drivers age 23 vrs Sex Male Breath test Drive	r not conta	acted Driving Lic Full	un		
Left Hand Drive No Foreign veh. Not for	oreign regi	istered vehicle			
Journey purpose Commuting to/from work					

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP2470215	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date     23/02/2015     Day Monday       Time     14:45       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road A4130 Location A4130 APPROX 600M E O Description HGV1 TRAV E ON A4130 HIT R OF C2 : of Accident (EMERGENCY AMBULANCE) - C2 THE	'ad       A4130       Location       A4130 APPROX 600M E OF J/W A34 AT MILTON INTERCHANGE       MILTON         'ad       A4130       Location       A4130 APPROX 600M E OF J/W A34 AT MILTON INTERCHANGE       MILTON         'sscription       HGV1 TRAV E ON A4130 HIT R OF C2 SLOWING BEHIND       LGV3 AS BOTH C2 & LGV3       REACTED TO ONCOMING OMV4         Accident       (EMERGENCY AMBULANCE) - C2 THEN HIT LGV3       California       California       California			
Sire DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 3	n SPECIAL SITE CONDITIONS 405 None 903 CARRIAGEWAY HAZARDS None 50 metre	CONTRIBUTORY FACTORS 5 Failed to look properly (Driver/Rider - 9 Emergency vehicle on call (Special Co 5 Failed to judge other person's path/spee	PARTICIPANTPROBABILITYError)Vehicle 001Ades)Vehicle 004Bed (Driver/Rider - Error)Vehicle 001B		
VEHICLES INVOLVED       4         Veh.No.       1       Vehicle type       Goods 3.5 - 7.5t         Manoeuvre       Going ahead other       Veh. direction from       West to East       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Not at or within 20         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       22 yrs         Sex       Male         Breath test       Negati         Left Hand Drive       No         Yeh.No.       2         Vehicle type       Car         Manoeuvre       Slowing or stopping         Veh. direction from       West to East       Tow         Skidded       No skidding, jack-knifing or overturning	Make Model  ving? Articulated vehicle  vay not in restricted lane m of junction  2 Hit and run Not hit and run priving Lic Full preign registered vehicle  Make Model  ving? No tow or articulation	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 50 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1       Rider     Veh ref No       s     Sex Male       PSV Passenger?     Not a passenger       Cycle Helmet		
Veh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 20Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age50 yrsSexMaleBreath testNegatiLeft Hand DriveNoJourney purposeJourney as part of work	yay not in restricted lane Om of junction 1 Hit and run Not hit and run ive Driving Lic Full oreign registered vehicle				

Veh.No. 3 Vehi	cle type Van/Go	ods < 3.5t	Make	Model
Manoeuvre S	lowing or stoppin	ng		
Veh. direction from V	Vest to East	Towing?	No tow or articulation	
Skidded No skid	ding, jack-knifin	g or overturning		
Veh location at impact (re	estricted lane)	On main carriageway no	ot in restricted lane	
Junct. location of veh. at	1st impact	Not at or within 20m of	junction	
Veh left carriageway?	Did not leave ca	urriageway	•	
Hit object in c'way?	None			
Hit object off c'way?	None			
First point of impact	Back			
Veh registration no.		Other veh.hit (ref.no)	2 Hit and run	Not hit and run
Drivers age 42 yrs	Sex Male	Breath test Negative	Driving Lie	Full
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle	
Journey purpose	Journey as part	of work		
Veh.No. 4 Vehi	cle type Other: A	AMBULANCE	Make	Model
Veh.No. 4 Vehi Manoeuvre	cle type Other: A oing ahead other	AMBULANCE	Make	Model
Veh.No.4VehiManoeuvreCVeh. direction fromE	cle type Other: A boing ahead other ast to West	AMBULANCE Towing?	Make No tow or articulation	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skid	cle type Other: A joing ahead other ast to West ding, jack-knifin	AMBULANCE Towing? g or overturning	Make No tow or articulation	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (red	cle type Other: A foing ahead other ast to West ding, jack-knifing estricted lane)	AMBULANCE Towing? g or overturning On main carriageway no	Make No tow or articulation ot in restricted lane	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (redJunct. location of veh. at	cle type Other: A going ahead other ast to West ding, jack-knifing estricted lane) 1st impact	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of	Make No tow or articulation ot in restricted lane junction	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (redJunct. location of veh. atVeh left carriageway?	cle type Other: A coing ahead other ast to West ding, jack-knifing estricted lane) 1st impact Did not leave ca	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of urriageway	Make No tow or articulation ot in restricted lane junction	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (reJunct. location of veh. atVeh left carriageway?Hit object in c'way?	cle type Other: A coing ahead other ast to West ding, jack-knifing estricted lane) 1st impact Did not leave ca None	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of arriageway	Make No tow or articulation ot in restricted lane junction	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (rrJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?	cle type Other: A doing ahead other ast to West ding, jack-knifing estricted lane) 1st impact Did not leave ca None None	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of urriageway	Make No tow or articulation ot in restricted lane junction	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (rrJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impact	cle type Other: A doing ahead other ast to West ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Did not impact	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of urriageway	Make No tow or articulation ot in restricted lane junction	Model
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (reJunct.location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.	cle type Other: A going ahead other ast to West ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Did not impact	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of urriageway Other veh.hit (ref.no)	Make No tow or articulation ot in restricted lane junction 0 Hit and run	Model Not hit and run
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (reJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.Drivers age? yrs	cle type Other: A going ahead other ast to West ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Did not impact Sex Not know	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of arriageway Other veh.hit (ref.no) Breath test Driver not o	Make No tow or articulation ot in restricted lane 'junction 0 Hit and run contacted Driving Lio	Model Not hit and run Full
Veh.No.4VehiManoeuvreCVeh. direction fromESkiddedNo skidVeh location at impact (reJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.Drivers age? yrsLeft Hand Drive	cle type Other: A foing ahead other ast to West ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Did not impact Sex Not know No	AMBULANCE Towing? g or overturning On main carriageway no Not at or within 20m of arriageway Other veh.hit (ref.no) Breath test Driver not of Foreign veh. Not foreign	Make No tow or articulation ot in restricted lane 'junction 0 Hit and run contacted Driving Lio n registered vehicle	Model Not hit and run Full

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3180215	Accident Date BETWEEN '09-Jun-2014' AND '09	8-Jun-2019'	Grid Reference 448375 / 191727	
Date 26/02/2015 Day Thursday	Road U299 Location HIGH ST AT J/W ACC	Police Officer Attend: Yes Police Officer Attend: Yes Police Officer Attend: Yes		
Time     09:05       Weather     Raining without high winds       Road Surface     Wet/Damp       Street Lighting     D	Description C1 TRAV S ON HIGH STREET TUR of Accident ROUNDING RH BEND INTO MILT	RNED LT TOWARDS MILTON PARK FAILING ON PARK	G TO GIVE WAY TO MC2 TRAV NE	
Street Lignting Daylight	i			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY	
Speed Limit 30 MPH	SPECIAL SITE CONDITIONS	103 Slippery road due to weather (Road En	vironment Contrib) Vehicle 002 A	
Carriageway Single carriageway	None	406 Failed to judge other person's path/spe	ed (Driver/Rider - Error) Vehicle 001 B	
Junction Detail T or staggered junction		408 Sudden braking (Driver/Rider - Frror)	Vehicle 002 B	
Junction Control Give way or uncontrolled	CARRIAGEWAY HAZARDS	408 Sudden blaking (Dirver/Rider - Enor)		
2nd Road Number U	CARGAGEWAT HALARDS	402 Junction restart (Driver/Rider - Error)	Vehicle 001 B	
Pedestrian Facilities None within 50 metres	None			
No physical crossing facility within	n 50 metre			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeCarManoeuvreTurning leftVeh. direction fromNorth to EastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering main roadVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age29 yrsSexFemaleBreath testNegatiLeft Hand DriveNoNoForeign veh.Yeh.No.2Vehicle typeM/cycle > 500ccManoeuvreGoing ahead right hand bendVeh. direction fromSouthwest to EastSkiddedSkiddedVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactApproaching junctVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)	Make     Model       wing?     No tow or articulation       way not in restricted lane     ad       ad     )     2       )     2     Hit and run       of the second seco	Cas No       1 Cas Class       Driver or 1         Severity       SLIGHT       Age 24 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet	
Drivers age 24 yrs Sex Male Breath test Negati	tive Driving Lic Full			
Lett Hand Drive No Foreign veh. Not fo	toreign registered vehicle			
Journey purpose Commuting to/from work		<u> </u>		

SEVERITY District Vale of White Horse					
SLIGHT Ref.No P2400315	Accident Date BETWEEN '09-Jun-2014' AND '08	-Jun-2019'	Police Officer Attend: No - reported over the counter		
Date23/03/2015Day MondayTime07:20WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 AT A34 MILTON Description C1 NEG RBT IN NSIDE LANE CONT of Accident MIDDLE LANE EXITED TO A4130 T	.oad A4130 Location A4130 AT A34 MILTON INTERCHANGE RBT J/W A4130 DIDCOT LINK RD MILTON Description C1 NEG RBT IN NSIDE LANE CONTINUED TO CIRCUALTE RBT WHILE PASSING EXIT TO A4130 TO DIDCOT AS MC2 IN f Accident MIDDLE LANE EXITED TO A4130 TO DIDCOT & HIT OCCURRED - C1 FTS			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY		
Speed Limit40 MPHCarriagewayRoundaboutJunction DetailRoundabout	SPECIAL SITE CONDITIONS None	403 Poor turn or manoeuvre (Driver/Rider	- Error) Vehicle 001 A		
Junction ControlAutomatic traffic signal2nd Road NumberA34Pedestrian FacilitiesNone within 50 metresNo physical crossing facility within	CARRIAGEWAY HAZARDS None				
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.1Vehicle typeCarManoeuvreChanging lane to rightVeh. direction fromNorthwest to SoutheastToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactLeaving roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age? yrsSexNot knowVeh.No.2Vehicle typeM/cycle 50 - 125ccManoeuvreTurning leftVeh. direction fromNorthwest to EastVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactLeaving roundabeVeh.No.2Vehicle typeM/cycle 50 - 125ccManoeuvreManoeuvreTurning leftVeh. direction fromNorthwest to EastVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactLeaving roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age33 yrsSexMaleBreath testDriveLeft Hand DriveNo <td>Make     Model       owing?     No tow or articulation       eway not in restricted lane     out       o)     2     Hit and run       er not contacted     Driving Lic       foreign registered vehicle     Make       Make     Model       owing?     No tow or articulation       eway not in restricted lane     out</td> <td>Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 33 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details</td> <td>Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet</td>	Make     Model       owing?     No tow or articulation       eway not in restricted lane     out       o)     2     Hit and run       er not contacted     Driving Lic       foreign registered vehicle     Make       Make     Model       owing?     No tow or articulation       eway not in restricted lane     out	Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 33 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet		

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP1550415	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date17/04/2015DayFridayTime11:26WeatherFine without high windsRoad SurfaceDryStreet LightingDoublight	RoadA4130LocationA4130AT A34 MILTONDescriptionC1 TRAV SE ON RBT FROM EITHERof AccidentMILTON PARK - UNCLEAR WHICH	Jad       A4130       Location       A4130 AT A34 MILTON INTERCHANGE RBT J/W ROAD FROM MILTON PARK       MILTON         escription       C1 TRAV SE ON RBT FROM EITHER A34 SBOUND OR A4130 MILTON HILL HIT       HGV2 WHICH HAD ENTERED RBT FROM         f Accident       MILTON PARK - UNCLEAR WHICH VEH HAD FAILED TO COMPLY WITH SIGNALS AT RBT			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY		
Speed Limit 40 MPH	SPECIAL SITE CONDITIONS 3	01 Disobeyed automatic traffic signal (Dr.	iver/Rider - Injudicious) Vehicle 001 B		
Carriageway Roundabout Junction Detail Roundabout	Roadworks 3	01 Disobeyed automatic traffic signal (Dr	iver/Rider - Injudicious) Vehicle 002 B		
Junction Control     Automatic traffic signal       2nd Road Number     A34       Pedestrian Facilities     None within 50 metres	CARRIAGEWAY HAZARDS None				
No physical crossing facility within :	1 50 metre				
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	3		
Veh.No.       1       Vehicle type       Car       Make       Model         Manoeuvre       Turning left       Veh. direction from       Northwest to Northeast       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         Hit object of f c'way?       None         First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no)       2         Drivers age       61 yrs       Sex       Male         Breath test       Negative       Driving Lic       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle         Journey purpose       Not Known       Veh.No. 2       Vehicle type       Goods > 7.5t       Make       Model         Manoeuvre       Moving off       Towing?       No tow or articulation       Skidded       No skidding, jack-knifing or overturning		Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 61 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Rear seat passenger         Severity       SLIGHT         Age 12 yr       Car Passenger?         Rear seat passenge       Seat Belt         Not applicable       Ped Movement         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	Rider Veh ref No 1 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Veh ref No 1 rs Sex Male Post code rr PSV Passenger? Not a passenger Cycle Helmet		
Junct. location of veh. at 1st impactEntering roundaboVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age35 yrsSexMaleBreath testNegatiLeft Hand DriveNoJourney purposeJourney as part of work	) 1 Hit and run Not hit and run tive Driving Lic Full Foreign registered vehicle	Cas No3Cas ClassPassengerSeveritySLIGHTAge 61 yrCar Passenger?Front seat passengeSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injured	Veh ref No 1 rs Sex Female Post code er PSV Passenger? Not a passenger Cycle Helmet		

Other Details

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP0960615	Accident Date BETWEEN '09-Jun-2014' AND '08	Jun-2019'	Grid Reference448380 / 191727Police Officer Attend:Yes	
Date05/06/2015DayFridayTime22:35WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road U299 Location HIGH STREET AT J/W A Description C1 TRAV S ON HIGH ST TURNED R of Accident	ACCESS ROAD TO MILTON PARK T TOWARDS A4130 FAILING TO GIVEWAY	MILTON Y TO HGV2 TRAV E ON RD TO MILTON PARK	
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS     3       None     4       CARRIAGEWAY HAZARDS     4       None     6       50 metre     6	CONTRIBUTORY FACTORS 302 Disobeyed give way or stop sign marki 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spec 403 Poor turn or manoeuvre (Driver/Rider 502 Careless/Reckless (Driver/Rider - Beha	PARTICIPANTPROBABILITYings (Driver/Rider - Injud Vehicle 001AError)Vehicle 001Aed (Driver/Rider - Error)Vehicle 001A- Error)Vehicle 001Aaviour)Vehicle 001B	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning right       Veh. direction from       North to Southwest       Town         Skidded       Skidded       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering main road	Make Model ring? No tow or articulation ray not in restricted lane	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity SLIGHT Age 48 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable	1 Rider Veh ref No 1 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet	
Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age48 yrsSexMaleBreath testNegatiLeft Hand DriveNoForeign veh.Not for	2 Hit and run Not hit and run ive Driving Lic Full oreign registered vehicle	Ped Direction to Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details		
Journey purposeNot KnownVeh.No.2Vehicle typeGoods > 7.5tManoeuvreGoing ahead otherVeh. direction fromSouthwest to NortheastTownSkiddedSkiddedVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactMid junction - on reVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age55 yrsSexMaleBreath testNegatiLeft Hand DriveNo	Make     Model       ring?     Articulated vehicle       vay not in restricted lane			
Journey purpose Journey as part of work		4		
SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3340715	Accident Date BETWEEN '09-Jun-2014' AND '08	3-Jun-2019'	Grid Reference447919 / 19129Police Officer Attend:No - reported over	8 er the counter
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Date20/07/2015Day MondayTime15:00WeatherOtherRoad SurfaceDryStreet LightingDaylight	Road       A4130       Location       A4130 AT PELICAN XING 70M W OF J/W MILTON HEIGHTS       MILTON         Description       C1 TRAV E ON A4130 FAILED TO STOP FOR RED SIGNAL AT PED XING & HIT PED TRAV CROSSING FROM C1 NSIDE       of Accident       CAUSING SLIGHT INJURY- C1 FTS			
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         Pelican, puffin, toucan or similar	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spe 301 Disobeyed automatic traffic signal (Dr	PARTICIPANT P. Error) Vehicle 001 B ed (Driver/Rider - Error) Vehicle 001 B iver/Rider - Injudicious) Vehicle 001 B	ROBABILITY
VEHICLES INVOLVED 1 Veh.No. 1 Vehicle type Car Manoeuvre Going ahead other Veh. direction from West to East Towir Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriageway Junct. location of veh. at 1st impact Not at or within 20m Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Nearside Veh registration no. Other veh.hit (ref.no) Drivers age ? yrs Sex Female Breath test Driver r Left Hand Drive No Foreign veh. Not fore Journey purpose Not Known	Make Model g? No tow or articulation y not in restricted lane of junction 0 Hit and run Hit and Run ot contacted Driving Lic Full sign registered vehicle	CASUALTIES INVOLVED          Cas No       1       Cas Class       Pedestrian         Severity       SLIGHT       Age 20 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Crossing from driv         Ped Location       On ped. crossing fa         Ped Direction to       South bound         School Pupil       Other         Roadworker injured       Other Details	1       s     Sex Female       Post code       PSV Passenger?       Not a passenger       Cycle Helmet       zer's nearside       acility	

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3470715	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference Police Officer Attend:	448471 / 191366 No - reported over the counter
Date31/07/2015Day FridayTime14:00WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 JUST E OF A34 M Description C1 TRAV SE IN LN 1 EXITING RBT of Accident SE IN LN 2 ALSO EXITING RBT	MILTON INTERCHANGE RBT J/W MILTON ON A4130 TOWARDS DIDCOT MOVED TO	PARK ROAD OSIDE INTO LN 2 & HIT	MILTON NSIDE OF C2 TRAV
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Automatic traffic signal         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS Roadworks CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 305 Illegal turn or direction of travel (Drive 405 Failed to look properly (Driver/Rider - 403 Poor turn or manoeuvre (Driver/Rider 406 Failed to judge other person's path/spe 502 Careless/Reckless (Driver/Rider - Beh 108 Road layout e.g. bend, hill or narrow (1	er/Rider - Injudicious) Error) - Error) ed (Driver/Rider - Error) aviour) Road Environment Conti	PARTICIPANTPROBABILITYVehicle 001AVehicle 001AVehicle 001AVehicle 001BVehicle 001Ari Vehicle 001B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Changing lane to right         Veh. direction from       Northwest to East       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Leaving roundabo       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       None       First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)       Drivers age? yrs       Sex       Male       Breath test       Drive         Left Hand Drive       No       Foreign veh.       Not for	Make Model wing? No tow or articulation way not in restricted lane but ) 2 Hit and run Not hit and run er not contacted Driving Lic Full Foreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Passenger Severity SLIGHT Age 32 yr Car Passenger? Rear seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	l S Sex Female r PSV Passenger? No Cycle Helmet	f No 2 Post code t a passenger
Veh.No.2Vehicle typeCarManoeuvreGoing ahead left hand bendVeh. direction fromNorthwest to EastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactLeaving roundaboVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age26 yrsSexMaleBreath testDriveLeft Hand DriveNoJourney purposeJourney as part of work	Make Model wing? No tow or articulation way not in restricted lane out ) 1 Hit and run Not hit and run er not contacted Driving Lie Full foreign registered vehicle			

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP0480815	Acci	ident Date BETWEEN '09-Jun-2014' AND '	08-Jun-2019'	Grid Reference	448428 / 191370 Ves
Date 03/08/2015 Day Monday	Road	A4130 Location A4130 AT A34 MILT	ON INTERCHANGE RBT J/W MILTON PARK I	ROAD MILTO	)N
Time     19:53       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Descript of Accid	otion C1 (POLICE VEH ON EMERGENC dent TURN LT TO A4130 TO DIDCOT	CY CALL)TRAV SE ON EXIT SLIP FROM A34 - ON ENTERING RBT LGV2 ALSO ON SLIP RO	SBOUND IN OSIDE LAN DAD MOVED TO OSIDE	E ENGTERED RBT TO (RATHER THAN
SITE DETAILS		CONTINUING TO TURN LT TO [7	A4130) & HIT NSIDE OF C1		DADTICIDANT DRODADILITY
		OPECIAL SITE CONDITIONS	CONTRIBUTORY FACTORS		PARTICIPANT PROBABILITY
Speed Limit 40 MPH		SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error)	Vehicle 002 A
Carriageway Roundabout		Roadworks	405 Failed to look properly (Driver/Rider -	Error)	Vehicle 001 B
Junction Detail Roundabout			903 Emergency vehicle on call (Special Co	odes)	Vehicle 001 A
Junction Control Give way or uncontrolled		CARRIAGEWAY HAZARDS	yos Emergency vemere on can (special es	(405)	
2nd Road Number U					
Pedestrian Facilities None within 50 metres		None			
No physical crossing facility with	n 50 metre				
VEHICLES INVOLVED 2			CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Overtaking moving veh on its offsid         Veh. direction from       Northwest to Southeast       T         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriag         Junct. location of veh. at 1st impact       Leaving roundal         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         Hit object off c'way?       None         First point of impact       Back         Veh registration no.       Other veh.hit (ref.m.         Drivers age       ? yrs       Sex         Left Hand Drive       No       Foreign veh.       Not         Journey purpose       Journey as part of work       Veh.No.       2         Veh.No.       2       Vehicle type       Van/Goods < 3.5t	e owing? N eway not in yout b) 2 ative foreign reg owing? N eway not in yout b) 1 ative istered fore	Make Model No tow or articulation n restricted lane Hit and run Not hit and ru Driving Lic Full gistered vehicle Make Model No tow or articulation n restricted lane Hit and run Not hit and ru Driving Lic Full eign vehicle, right hand dr	Cas No 1 Cas Class Passenger Severity SLIGHT Age 31 yr Car Passenger? Front seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Veh re: s Sex Female er PSV Passenger? No Cycle Helmet	f No 1 Post code t a passenger

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP2970815	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference Police Officer Attend:	448411 / 191378 Yes
Date31/08/2015Day MondayTime23:00WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDark: street lights present and litSITE DETAILS	Road A4130 Location A4130 AT A34 MILTON MILTON Description C2 TRAV S ON MILTON PARK RD F of Accident WITH THE SIGNALS AT ENTRY BU	N INTERCHANGE RBT J/W ROAD FROM MI ENTERED RBT BUT HIT R OF C1 ON RBT- IT UNCLEAR WHICH VEH AT FAULT CONTRIBUTORY FACTORS	ILTON PARK & A4130 DI	IDCOT LINK RD FAILED TO COMPLY PARTICIPANT PROBABILITY
Speed Limit     40 MPH       Carriageway     Roundabout       Junction Detail     Roundabout       Jungtion Control     Automatic traffic signal	SPECIAL SITE CONDITIONS Roadworks	405 Failed to look properly (Driver/Rider - 405 Failed to look properly (Driver/Rider - 301 Disobeyed automatic traffic signal (Dr	Error) Error) iver/Rider - Injudicious)	Vehicle 001 B Vehicle 002 B Vehicle 001 B
2nd Road Number     A34       Pedestrian Facilities     None within 50 metres       No physical crossing facility within 5	0 metre	301 Disobeyed automatic traffic signal (Dr	iver/Rider - Injudicious)	Vehicle 002 B
VEHICLES INVOLVED 2 CASUALTIES INVOLVED 1				
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other         Veh. direction from       West to East       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagewa         Junct.       location of veh. at 1st impact       Mid junction - on restricted lane)       On the string or overturning         Veh left carriageway?       Did not leave carriageway       Hit object in c'way?       None         Hit object off c'way?       None       First point of impact       Back         Veh registration no.       Other veh.hit (ref.no)       Drivers age       34 yrs       Sex       Male         Drivers age       34 yrs       Sex       Male       Breath test       Not for         Journey purpose       Other       Other       Veh regin veh. Not for	Make     Model       ng?     No tow or articulation       ay not in restricted lane     and       bundabout or main road     bundabout or main road       2     Hit and run       uested     Driving Lic       eign registered vehicle	Cas No1Cas ClassDriver orSeveritySLIGHTAge18 yrCar Passenger?Not a passengerSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredOther Details	Rider Veh ref rs Sex Female PSV Passenger? Not Cycle Helmet	No 2 Post code t a passenger
Veh.No. 2       Vehicle type Car         Manoeuvre       Moving off         Veh. direction from       North to South       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagewa         Junct. location of veh. at 1st impact       Entering roundabout       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       Drivers age       18 yrs       Sex       Female       Breath test       Not rect         Journey purpose       Other       Other       Veh registration tor       Veh regin veh.       Veh rection veh.	Make Model ng? No tow or articulation ay not in restricted lane t 1 Hit and run Not hit and run uested Driving Lic Full eign registered vehicle			

SEVERITY District Vale of White Horse	Agaidant Data DETWEEN 100 Ive 2014 AND 109	Jun 2010	Grid Reference 447990 / 191300
	Accident Date BE1 wEEN 09-Jun-2014 AND 08-	JUII-2017	Police Officer Attend: Yes
Date15/09/2015Day TuesdayTime08:15WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 J/W MILTON HE Description C1 TRAV N ON MILTON HEIGHTS of Accident SCHOOL) TRAV E ON A4130 & C1	EIGHTS MILTON TURNED RT TO A4130 FAILED TO GIVEW. HIT F OF MP2 CAUSING RIDER TO FALL	AY TO MP2 (RIDER 16 YRS - RIDING TO
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 40 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 A
Carriageway Single carriageway	None	403 Poor turn or manoeuvre (Driver/Rider	- Error) Vehicle 001 A
Junction Detail T or staggered junction		406 Failed to judge other person's path/spe	ed (Driver/Rider - Error) Vehicle 001 B
Junction Control Give way or uncontrolled	CARRIAGEWAY HAZARDS	(02 Caralace/Deal-lace (Drivery/Diller, Deb	Valiate 001
2nd Road Number U	None	602 Careless/Reckless (Driver/Rider - Bena	aviour) Venicie 001 A
Pedestrian Facilities None within 50 metres	None		
No physical crossing facility within 5	50 metre		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning right       Veh. direction from       South to East       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway         Junct.       location of veh. at 1st impact       Entering main road         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       22 yrs         Sex       Female         Breath test       Negatir         Left Hand Drive       No         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type       M/cycle <= 50cc	Make     Model       ring?     No tow or articulation       /ay not in restricted lane	Cas No 1 Cas Class Driver or 1 Severity SLIGHT Age 16 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured <u>Other Details</u>	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet
Hit object iff c'way?     None       First point of impact     Front       Veh registration no.     Other veh.hit (ref.no)	1 Hit and run Not hit and run		
Drivers age 16 yrs Sex Male Breath test Negativ	ive Driving Lic Full		
Left Hand Drive No Foreign veh. Not for	oreign registered vehicle		
Journey purpose Pupil riding to/from school			

SEVERITY District Vale of White Horse	Grid Refere	ence 449667 / 191416
SLIGHT Ref.No P1710915 Accident Date BETWEEN '09-Jun-2	014' AND '08-Jun-2019' Police Office	er Attend: Yes
Date18/09/2015DayFridayTime15:58RoadA4130LocationA4130 BYWeatherFine without high windsEXACT LOCATIONRoad SurfaceDryDescriptionLGV1 TRAV W ON A4Street LightingDaylightOf AccidentCLOSELY	LAYBY APPROX 1.5KM E OF J/W A34 HARWELL - CONSDI 30 HIT R OF LGV2 TRAV W SLOWING FOR U/K REASON - APPEAR	ERABLE UNCERTAINTY OVER S LGV1 FOLLOWING LGV2 TOO
	CONTRIDUTORY FACTORS	DADTICIDANT DODADILITY
SITE DETAILS	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 60 MPH SPECIAL SITE CONDITIO	308 Following too close (Driver/Rider - Injudicious)	Vehicle 001 A
Carriageway Single carriageway None	405 Failed to look properly (Driver/Rider - Error)	Vehicle 001 B
Junction Detail Not at or within 20 metres of junction	406 Failed to judge other person's path/speed (Driver/R	Rider - Error) Vehicle 001 B
Junction Control	s	addi - Enor) Venicie oor B
2nd Road Number		
Pedestrian Facilities None within 50 metres None		
No physical crossing facility within 50 metre		
no physical clossing lacinty whill so includ		
VEHICLES INVOLVED 2	CASUALTIES INVOLVED	2
Veh.No. 1 Vehicle type Van/Goods < 3.5t Make Mode	Cas No 1 Cas Class Driver or Rider	Veh ref No 1
Manoeuvre Slowing or stopping	Severity SLIGHT Age 28 yrs Sex M	Aale Post code
Veh. direction from East to West Towing? No tow or articulation	Car Descencer? Not a reserve DSV Des	
Skidded No skidding, jack-knifing or overturning	Car Passenger? Not a passenger PSV Pas	almat
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Ped Movement Not applicable Cycle Re	einnet
Junct. location of veh. at 1st impact Not at or within 20m of junction	Ped Location Not applicable	
Veh left carriageway? Did not leave carriageway	Ped Direction to Net applicable	
Hit object in c'way? None	School Provil	
Hit object off c'way? None	Des des sites in instal	
First point of impact Back		
Veh registration no. Other veh.hit (ref.no) 2 Hit and run No	thit and run	Veh ref No 2
Drivers age 28 yrs Sex Male Breath test Negative Driving Lic Ful	l Severity SLIGHT Age 27 yrs Sex N	Aale Post code
Left Hand Drive No Foreign veh. Not foreign registered vehicle	Car Passenger? Not a passenger PSV Pas	senger? Not a passenger
Journey purpose Commuting to/from work	Seat Belt Not applicable Cycle He	elmet
Veh.No. 2 Vehicle type Van/Goods < 3.5t Make Mode	Ped Movement Not applicable	
Manoeuvre Slowing or stopping	Ped Location Not applicable	
Veh. direction from East to West Towing? No tow or articulation	Ped Direction to Not applicable	
Skidded No skidding, jack-knifing or overturning	School Pupil Other	
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Roadworker injured	
Junct. location of veh. at 1st impact Not at or within 20m of junction	Other Details	
Veh left carriageway? Did not leave carriageway		
Hit object in c'way? None		
Hit object off c'way? None		
First point of impact Front		
Veh registration no. Other veh.hit (ref.no) 1 Hit and run No	hit and run	
Drivers age 27 yrs Sex Male Breath test Negative Driving Lic Ful	1	
Left Hand Drive No Foreign veh. Not foreign registered vehicle		
Journey purpose Commuting to/from work		

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP0891015	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	m-2019'	Grid Reference Police Officer Attend:	449820 / 191660 Yes
Date     13/10/2015     Day Tuesday       Time     10:00       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road U243 Location MILTON ROAD RBT J/W Description C1 TRAV E ON PARK DRIVE ENTERE of Accident COURTENAY & RIDER FELL	PARK DRIVE HARWELL	I NG RBT TO CONTINUE T	O SUTTON
STE DETAILS         Speed Limit       60 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Central refuge - no other controls	SPECIAL SITE CONDITIONS       40         None       40         CARRIAGEWAY HAZARDS       40         None       40	CONTRIBUTORY FACTORS 16 Failed to judge other person's path/spee 15 Failed to look properly (Driver/Rider - 13 Poor turn or manoeuvre (Driver/Rider -	ed (Driver/Rider - Error) Error) - Error)	PARTICIPANT PROBABILITY Vehicle 002 B Vehicle 002 B Vehicle 002 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Town         Veh. direction from       West to East       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Entering roundabe         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       53 yrs         Sex       Female         Breath test       Negai         Left Hand Drive       No         Journey purpose       Journey as part of work	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 33 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	l Rider Veh ref s Sex Male PSV Passenger? Not Cycle Helmet	No 2 Post code a passenger	
Journey as part of work         Veh.No.       2       Vehicle type       M/cycle <= 50cc				

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP1171115	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	Grid Reference 447936 / 191299 Police Officer Attend: Yes		
Date     10/11/2015     Day Tuesday       Time     08:00       Weather     Fine without high winds       Road Surface     Dry       Street Lickting     Device Lickting	Road       A4130       Location       A4130 50M W OF J/W MILTON HEIGHTS       MILTON         Description       C1 TRAV E ON A4130 IN SLOW QUEUING TRAFFIC PULLED TO OSIDE       of Accident       TRAV E OVRTG QUEUING TRAFFIC	TO ENTER RT LANE TO MILTON HEIGHTS HIT MC2		
Street Ligning         Daylight           SITE DETAILS           Speed Limit         40 MPH           Carriageway         Single carriageway           Junction Detail         Not at or within 20 metres of junction           Junction Control         2nd Road Number           Pedestrian Facilities         None within 50 metres           No physical crossing facility within	n CONTRIBUTORY FACTORS SPECIAL SITE CONDITIONS None 405 Failed to look properly (Driver/I 403 Poor turn or manoeuvre (Driver/ 404 Failed to signal/misleading signal None 50 metre	PARTICIPANT PROBABILITY Rider - Error) Vehicle 001 A Rider - Error) Vehicle 001 A Il (Driver/Rider - Error) Vehicle 001 A		
VEHICLES INVOLVED 2	CASUALTIES INVO	LVED 1		
Manoeuvre       Changing lane to right         Veh. direction from       West to East       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagev         Junct. location of veh. at 1st impact       Not at or within 2t       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)       Drivers age       19 yrs       Sex       Male       Breath test       Negat         Left Hand Drive       No       Foreign veh. Not f       Journey purpose       Commuting to/from work	indice       indice       indice         ing?       No tow or articulation       Severity       SLIGHT       Age         yay not in restricted lane       Car Passenger?       Not a passen         bm of junction       Set Belt       Not applicab         ped Location       Not applicab         Ped Direction to       Not applicab         Ped Direction to       Not applicab         School Pupil       Other         Roadworker injured       Other Details	42 yrs Sex Male Post code ger PSV Passenger? Not a passenger le Cycle Helmet le le		
Veh.No.       2       Vehicle type       M/cycle > 500cc       Make       Model         Manocuvre       Overtaking moving veh on its offside           Veh. direction from       West to East       Towing? No tow or articulation         Skidded       No skidding, jack-knifting or overturning          Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Not at or within 20m of junction         Veh left carriageway?       Did not leave carriageway         Hit object of C'way?       None         First point of impact       Neartise         Veh registration no.       Other veh.hit (ref.no)       1         Drivers age       42 yrs       Sex         No       Foreign veh.       Not foreign registered vehicle         Journey purpose       Commuting to/from work       Enving				

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3721115	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	ın-2019'	Grid Reference448416 / 191374Police Officer Attend:Yes
Date11/11/2015Day WednesdayTime23:47WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road       A4130       Location       A4130 AT A34 MILTON I         Description       C1 TRAV SE ROUNDING A4130 RBT I         of Accident       ON MILTON PARK RD ENTERING RE	INTERCHANGE RBT ATS J/W MILTON PA FAILED TO STOP FOR RED SIGNAL AT . 3T	ARK ROAD MILTON JW MILTON PARK RD & HIT HGV2 TRAV S
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Automatic traffic signal         2nd Road Number       A34         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS 30 None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS )1 Disobeyed automatic traffic signal (Dr	PARTICIPANT PROBABILITY iver/Rider - Injudicious) Vehicle 001 B
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.       1       Vehiele type       Car       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       West to Southeast       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road         Veh location of veh. at 1st impact       Mid junction - on roundabout or main road       Veh location of veh. at 1st impact       Mid junction - on roundabout or main road         Veh location of veh. at 1st impact       Mid junction - on roundabout or main road       Veh location of veh. at 1st impact       Mid junction - on roundabout or main road         Veh location of veh. at 1st impact       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age       ? yrs       Sex       Male       Breath test       Not foreign registered vehicle         Journey purpose       Not Known       No       Foreign veh.       Not foreign registered vehicle         Manoeuvre       Going ahead other       Veh location from       North to South       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning		Cas No       1       Cas Class       Passenger         Severity       SLIGHT       Age -1 yrs         Car Passenger?       Front seat passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	veh ref No 1 s Sex Female Post code er PSV Passenger? Not a passenger Cycle Helmet

Date     12/11/2015     Day Thursday     Road     A34     Location A34 BY J/W EXIT SLIP RD AT MP 64/3A AT MILTON INTERCHANGE     MILTON       Weather     Fine without high winds     Description     C1 TRAV NW ON A34 HIT ROF C2 TRAV NW SLOWING ON APPROACH TO RD WORKS SECTION (SUBJECT TO TEMP of Accident 400/PH LIMIT AT TIME OF ACCIDENT)     Description     C1 TRAV NW ON A34 HIT ROF C2 TRAV NW SLOWING ON APPROACH TO RD WORKS SECTION (SUBJECT TO TEMP of Accident 400/PH LIMIT AT TIME OF ACCIDENT)       Speed Limit     70 MPH     Carriageway     Dal carriageway     SPECIAL SITE CONDITIONS     Road works     PARTICIPANT PROBABILITY       Speed Limit     70 MPH     Carriageway     Bod carriageway     SPECIAL SITE CONDITIONS     Roadworks     PARTICIPANT PROBABILITY       All Road Momber     A34     CARRIAGEWAY HAZARDS     None     CARRIAGEWAY HAZARDS     A08       Vehicle type     2     CARRIAGEWAY HAZARDS     None     1       Vehicle type     2     Can No 1 Cas Class     Six Sex Female     Post code       Vehicle type     2     Can No 1 Cas Class     Six Sex Female     Post code       Vehicle type     2     Can No 1 Cas Class     Citer Vehref No     1       Vehicle type     2     Can No 1 Cas Class     Six Sex Female     Post code       Vehicle type     2     Can No 1 Cas Class     Citer Vehref No     1	SEVERITYDistrictVale of White HorseSLIGHTRef.NoP2281115	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Jun-2019'	Grid Reference 448544 / 191138
Date     12/11/2015     Day Thursday       Time     08:20       Weather     Fine without high winds       Road Surface     Dry       Date     Date       Other     Cl TRAV NW ON A34 HIT R OF C2 TRAV NW SLOWING ON APPROACH TO RD WORKS SECTION (SUBJECT TO TEMP of Accident 400MPH LIMIT AT TIME OF ACCIDENT       Speed Limit     70 MPH       Carriageway     Dual carriageway       Junction Control     Give way or uncontrolled       Af a Road Number     A34       A34     CARRIAGEWAY HAZARDS None       Vehicle type     Car       Vehicle top on main carriageway in the sti to Northwest     Towing?       None     Orthour or waiting       Vehicle type     Car       Vehicle type <t< td=""><td></td><td></td><td></td><td>Police Officer Attend: No - reported over the counter</td></t<>				Police Officer Attend: No - reported over the counter
Road Surface       Dr. Marker Marker Marker       Description of Accident       C1 TRAV NW ON A34 HIT R OF C2 TRAV NW SLOWING ON APPROACH TO RD WORKS SECTION (SUBJECT TO TEMP of Accident         Street Lighting       Daylight       0 MPH (Ample Limit of Accident       C1 TRAV NW ON A34 HIT R OF C2 TRAV NW SLOWING ON APPROACH TO RD WORKS SECTION (SUBJECT TO TEMP of Accident         Speed Limit       70 MPH Carriageway       STE DETAILS       PARTICIPANT       PROBABILITY         Speed Limit       70 MPH Carriageway       SPECIAL SITE CONDITIONS Roadworks       SPECIAL SITE CONDITIONS Roadworks       408 Sudden braking (Driver/Rider - Error)       Vehicle 001       B         Junction Control       Give way or uncontrolled Junction Control       A34       CARRIAGEWAY HAZARDS None       None       CASUALTIES INVOLVED       1         VEHICLES INVOLVED       2       CASUALTIES INVOLVED       1       Severity SLIGHT       Age 32 yrs       Sex Female       Post code         Veh.No. 1       Vehicle type       Car       Make       Model       Car Passenger       Not a passenger       Severity SLIGHT       Age 32 yrs       Sex Female       Post code         Veh. location of wh. at Ist impact       Approaching junction or waiting       Vot a passenger       Not a passenger       Not a passenger       Set Female       Post code         Veh. location of vewy?       None <td< td=""><td>Date12/11/2015Day ThursdayTime08:20WeatherFine without high winds</td><td>Road A34 Location A34 BY J/W EXIT SLIP</td><td>RD AT MP 64/3A AT MILTON INTERCHAN</td><td>IGE MILTON</td></td<>	Date12/11/2015Day ThursdayTime08:20WeatherFine without high winds	Road A34 Location A34 BY J/W EXIT SLIP	RD AT MP 64/3A AT MILTON INTERCHAN	IGE MILTON
Street Lighting     Daylight     Of Accident     400MPR LIMIT AT TIME OF ACCIDENT)       Street Lighting     Daylight     Of Accident     400MPR LIMIT AT TIME OF ACCIDENT)       Speed Limit     70     MPH     SPECIAL SITE CONDITIONS     A08 Sudden braking (Driver/Rider - Error)     Vehicle 001     B       Carriageway     Dual carriageway     Boadworks     Roadworks     CARRIAGEWAY HAZARDS     None     Vehicle 001     B       Junction Detail     Slip road     CARRIAGEWAY HAZARDS     None     CARRIAGEWAY HAZARDS     None     Vehicle 001     B       VeHICLES INVOLVED     2     CASUALTIES INVOLVED     1     Vehicle type Car     Make     Model     Cas No     1 Cas Class     Driver or Rider     Veh ref No     1       Skidded     No skidding, jack-knifing or overturning     No to wor articulation     Skidded     Severity SLIGHT     Age 32 yrs     Sex Female     Post code       Veh location of wh. at Ist impact     Approaching junction or waiting     Ped Movement     Not applicable     Ped Movement     Not applicable       Veh lift carriageway?     Did not leave carriageway     Mone     School Putil     Not applicable     Ped Direction to     Not applicable       Veh kinet in évwa?     None     None     Ped Direction to     Not applicable     Ped Direction     Not appli	Road Surface Dry	Description C1 TRAV NW ON A34 HIT R OF C2 T	RAV NW SLOWING ON APPROACH TO RI	D WORKS SECTION (SUBJECT TO TEMP
SITE DETAILS       PARTICIPANT       PARTICIPANT       PROBABILITY         Speed Limit       70       MPH       SPECIAL SITE CONDITIONS       408 Sudden braking (Driver/Rider - Error)       Vehicle 001       B         Carriageway       Dual carriageway       Big road       Roadworks       CARRIAGEWAY HAZARDS       Vehicle 001       B         Junction Detail       Give way or uncontrolled       CARRIAGEWAY HAZARDS       CARRIAGEWAY HAZARDS       Vehicle 001       B         Vedestrian Facilities       None within 50 metres       Some       CARRIAGEWAY HAZARDS       Vehicle type       Carriageway       Carriageway       Carriageway       Vehicle type       Carriageway       Carriageway       Vehicle type       Carriageway       Carriageway       Carriageway       Towing?       No tow or articulation       Stidded       Cas No       Cas Class       Driver or Rider       Veh ref No       1         Veh. No. 1       Vehicle type       Car       Make       Model       Severity       SLIGHT       Age 32 yrs       Sex       Female       Post code         Veh. direction from       Southeast to Northwest       Towing?       No tow or articulation       Stidded       Car Passenger?       Not a passenger       Sex Bell       Car Passenger?       Not a passenger       Yeh ref No       1	Street Lighting Daylight	of Accident 40MPH LIMIT AT TIME OF ACCIDEN	N1)	
Speed Limit       70 MPH       SPECIAL SITE CONDITIONS       408 Sudden braking (Driver/Rider - Error)       Vehicle 001 B         Carriageway       Dual carriageway       Bip road       Roadworks       Roadworks       Roadworks         Junction Control       Give way or uncontrolled       CARRIAGEWAY HAZARDS       Roadworks       Roadworks       Roadworks         2nd Road Number       A34       Road works       Roadworks       Roadworks       Roadworks       Roadworks         Vehicle INVOLVED       2       CASUALTIES INVOLVED       1       Image: Special construction of the set of the se	SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Carriageway Junction Detail       Slip road         Junction Detail       Slip road         Junction Detail       Slip road         Junction Control       Give way or uncontrolled         CarRIAGEWAY HAZARDS         None within 50 metres No physical crossing facility within 50 metres       CARRIAGEWAY HAZARDS         None         VEHICLES INVOLVED       2         VehNo. 1       Vehicle type Car         Make       Model         Skidded       No skidding, jack-knifing or overturning Veh location at impact (restricted lane)       No main carriageway not in restricted lane         Veh Hit chication of wh. at 1st impact       Approaching junction or waiting         Veh let carriageway?       Did not leave carriageway         Veh let carriageway?       None         School Pubil       Other         Veh let carriageway? <td>Speed Limit 70 MPH</td> <td>SPECIAL SITE CONDITIONS 4</td> <td>08 Sudden braking (Driver/Rider - Error)</td> <td>Vehicle 001 B</td>	Speed Limit 70 MPH	SPECIAL SITE CONDITIONS 4	08 Sudden braking (Driver/Rider - Error)	Vehicle 001 B
Junction Detail       Slip road         Junction Control       Give way or uncontrolled         2nd Road Number       A34         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50 metres       None         VEHICLES INVOLVED       2         Veh.No.       1         Veh.No.       1         Veh.No.       1         Veh.No.       1         Veh.direction from       Southeast to Northwest         Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct location of oth. at 1st impact       Approaching junction or waiting         Veh let carriageway?       Did not leave carriageway?         With object in c/way?       None	Carriageway Dual carriageway	Roadworks		
Junction Control       Give way or uncontrolled       CARRIAGEWAY HAZARDS         2nd Road Number       A34         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50 metre       None         VEHICLES INVOLVED       2         Veh.No. 1       Vehicle type         Going ahead other       Make         Veh. No. 1       Vehicle type         Going ahead other       Make         Veh. direction from       Southeast to Northwest         Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Approaching junction or waiting         Veh locit carriageway?       Did not leave carriageway         Hit object in cway?       None	Junction Detail Slip road			
2nd Road Number       A34       None within 50 metres       None         Pedestrian Facilities       None within 50 metres       None         No physical crossing facility within 50 metre       None         VEHICLES INVOLVED       2       CASUALTIES INVOLVED       1         Veh.No. 1       Vehicle type       Car       Make       Model       Cas No       1 Cas Class       Driver or Rider       Veh ref No       1         Manoeuvre       Going ahead other       Going ahead other       Veh. direction from       Southeast to Northwest       Towing? No tow or articulation       Severity       SLIGHT       Age 32 yrs       Sex Female       Post code         Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Not applicable       Cycle Helmet       Cycle Helmet         Veh location of veh. at 1st impact       Approaching junction or waiting       Ped Location       Not applicable       Ped Location       Not applicable         Veh lot carriageway?       Did not leave carriageway       Mote       School Pupil       Other       Not applicable	Junction Control Give way or uncontrolled			
Pedestrian Facilities       None within 50 metres       None         No physical crossing facility within 50 metre       None         VEHICLES INVOLVED       2         Vehicle type       Cas No         Veh.No.       1         Veh.or       1         Veh.or       0         Manoeuvre       Going ahead other         Veh. direction from       Southeast to Northwest         Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning         Veh. direction of veh. at 1st impact       Approaching junction or waiting         Veh left carriageway?       Did not leave carriageway         Wei to bject in c'way?       None	2nd Road Number A34	CARRIAGEWAY HAZARDS		
No physical crossing facility within 50 metre       Case Class       Driver or Rider       Veh ref No       1         VEHICLES INVOLVED       2       Cas No       1 Case Class       Driver or Rider       Veh ref No       1         Veh.No.       1       Vehicle type       Car       Make       Model       Cas No       1 Case Class       Driver or Rider       Veh ref No       1         Manoeuvre       Going ahead other       Veh. direction from       Southeast to Northwest       Towing?       No tow or articulation       Severity       SLIGHT       Age 32 yrs       Sex Female       Post code         Skidded       No skidding, jack-knifing or overturning       No tow or articulation       Severity       SLIGHT       Age 32 yrs       Not a passenger?	Pedestrian Facilities None within 50 metres	None		
VEHICLES INVOLVED       2       1         Veh.No. 1       Vehicle type       Car       Make       Model       Cas No       1       Cas Class       Driver or Rider       Veh ref No       1         Manoeuvre       Going ahead other       Severity       SLIGHT       Age 32 yrs       Sex       Female       Post code         Veh. direction from       Southeast to Northwest       Towing? No tow or articulation       Severity       SLIGHT       Age 32 yrs       Sex       Female       Post code         Skidded       No skidding, jack-knifing or overturning       No tow or articulation       Car Passenger?       Not a passenger       PSV Passenger?       Not a passenger         Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Not approaching junction or waiting       Ped Movement       Not applicable       Vet Helmet       Vet Helmet         Veh left carriageway?       Did not leave carriageway       Mone       School Pupil       Other       Not applicable       Vet	No physical crossing facility within	1 50 metre		
Veh.No.       1       Vehicle type       Car       Make       Model       Cas No       1       Cas Class       Driver or Rider       Veh ref No       1         Manoeuvre       Going ahead other       Severity       SLIGHT       Age       32 yrs       Sex       Female       Post code         Veh. direction from       Southeast to Northwest       Towing?       No tow or articulation       Car Passenger?       Not a passenger       PSV Passenger?       Not a passenger         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Seat Belt       Not applicable       Cycle Helmet         Junct.       I tast impact       Approaching junction or waiting       Ped Location       Not applicable       Ped Location       Not applicable         Veh left carriageway?       Did not leave carriageway       None       School Pupil       Other	VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Manoeuvre       Going ahead other       Severity       SLIGHT       Age 32 yrs       Sex Female       Post code         Veh. direction from       Southeast to Northwest       Towing?       No tow or articulation       Car Passenger?       Not a passenger       PSV Passenger?       Not a passenger         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       On main carriageway not in restricted lane       Ped Movement       Not applicable       Cycle Helmet       Veh location of veh. at 1st impact       Approaching junction or waiting       Ped Location       Not applicable       Veh left carriageway?       Did not leave carriageway       None       None       School Pupil       Other	Veh.No. 1 Vehicle type Car	Make Model	Cas No 1 Cas Class Driver or I	Rider Veh ref No 1
Veh. direction from       Southeast to Northwest       Towing?       No tow or articulation       Car Passenger?       Not a passenger?       Not a passenger?         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Seat Belt       Not applicable       Cycle Helmet         Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Ped Movement       Not applicable       Veh left carriageway?         Junct. location of veh. at 1st impact       Approaching junction or waiting       Ped Location       Not applicable         Veh left carriageway?       Did not leave carriageway       None       Ped Direction to       Not applicable         Hit object in c'way?       None       School Pupil       Other	Manoeuvre Going ahead other		Severity SLIGHT Age 32 yrs	s Sex Female Post code
SkiddedNo skidding, jack-knifing or overturningSeat BeltNot applicableCycle HelmetVeh location at impact (restricted lane)On main carriageway not in restricted lanePed MovementNot applicableJunct. location of veh. at 1st impactApproaching junction or waitingPed LocationNot applicableVeh left carriageway?Did not leave carriagewayPed Direction toNot applicableHit object in c'way?NoneSchool PupilOther	Veh. direction from Southeast to Northwest To	wing? No tow or articulation	Car Passenger? Not a passenger	PSV Passenger? Not a passenger
Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Ped Movement       Not applicable         Junct. location of veh. at 1st impact       Approaching junction or waiting       Ped Location       Not applicable         Veh left carriageway?       Did not leave carriageway       Ped Direction to       Not applicable         Hit object in c'way?       None       School Pupil       Other	Skidded No skidding, jack-knifing or overturning		Seat Belt Not applicable	Cycle Helmet
Junct. location of veh. at 1st impact     Approaching junction or waiting     Ped Location     Not applicable       Veh left carriageway?     Did not leave carriageway     Ped Direction to     Not applicable       Hit object in c'way?     None     School Pupil     Other	Veh location at impact (restricted lane) On main carriage	way not in restricted lane	Ped Movement Not applicable	
Ven left carriageway?     Did not leave carriageway     Ped Direction to     Not applicable       Hit object in c'way?     None     School Pupil     Other	Junct. location of veh. at 1st impact Approaching junc	ction or waiting	Ped Location Not applicable	
School Pupil Other	Ven left carriageway? Did not leave carriageway		Ped Direction to Not applicable	
Litabiant off alway? N	Hit object in c way? None		School Pupil Other	
First point of impact Eront	First point of impact Front		Roadworker injured	
Veb registration no Other yeb hit (ref no) 2 Hit and run Not hit and run	Veh registration no Other veh hit (ref no	) 2 Hit and run Not hit and run	Other Details	
Drivers age 32 vrs Sex Female Breath test Driver not contacted Driving Lic Full	Drivers age 32 yrs Sex Female Breath test Driver not contacted Driving Lic Full			
Left Hand Drive No Foreign veh. Not foreign registered vehicle	Left Hand Drive No Foreign veh. Not foreign registered vehicle			
Journey purpose Commuting to/from work	Journey purpose Commuting to/from work			
Veh.No. 2 Vehicle type Car Make Model	Veh.No. 2 Vehicle type Car	Make Model		
Manoeuvre Going ahead other	Manoeuvre Going ahead other			
Veh. direction from Southeast to Northwest Towing? No tow or articulation				
Skidded No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Veh location at impact (restricted lane) On main carriage	way not in restricted lane		
Junct. location of veh. at 1st impact Approaching junction or waiting	Junct. location of veh. at 1st impact Approaching junc	ction or waiting		
Veh left carriageway? Did not leave carriageway	Veh left carriageway? Did not leave carriageway			
Hit object in c'way? None	Hit object in c'way? None			
Hit object off c'way? None	Hit object off c'way? None			
riscipation as Control of the state of the s	First point of impact Back			
ven registration no. Uner ven.nit (rei.no) I Hit and run Not nit and run Drivers age 46 vrs Sex Male Breath test Driver not contacted Driving Lic Full	ven registration no. Uther ven.hit (ref.no Drivers age 46 vrs Sex Male Breath test Drive	er not contacted Driving Lie Full		
Left Hand Drive No. Foreign veh. Not foreign registered vehicle	Left Hand Drive No. Foreign veb Not	foreign registered vehicle		
Journey purpose Commuting to/from work	Journey purpose Commuting to/from work	loroign registered venicie		
	,,		1	

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP1571115	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference448415 / 191377Police Officer Attend:No - reported over the counter
Date     17/11/2015     Day Tuesday       Time     06:10       Weather     Raining without high winds       Road Surface     Wet/Damp       Street Lighting     Dark: street lights present and lit	Road A4130 Location A4130 MILTON INTER Description C1 TRAV SE NEG RBT FAILED TO of Accident THROUGH GREEN SIGNAL	CHANGE RBT J/W ROAD FROM MILTON I	PARK MILTON ON MILTON PARK RD ENTERING RBT
Speed Limit     40     MPH       Carriageway     Roundabout       Junction Detail     Roundabout       Junction Control     Automatic traffic signal       2nd Road Number     A34       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	SPECIAL SITE CONDITIONS Roadworks CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.       1       Vehicle type       Car       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       Northwest to Southeast       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road         Veh left carriageway?       Did not leave carriageway       Mid junction - on roundabout or main road       Veh left carriageway?         Hit object in c'way?       None       Front       Veh registration no.       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age       19 yrs       Sex       Female       Breath test       Driver not contacted       Driving Lic       Full         Journey purpose       Journey as part of work       Veh.Not       Full       Full       Veh.No.       2       Veh.it and run       Not hit and run         Skidded       Skidded       Skidded       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       North to South       Towing?       No tow or articulation         Skidded       Skidded       Skidded       Veh direction of veh. at 1st impact       Entering roundabout		Cas No       1 Cas Class       Driver or I         Severity       SLIGHT       Age 60 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet
Left Hand DriveNoForeign veh.Not fJourney purposeJourney as part of work	foreign registered vehicle		

NLMT         NUME         Answer         Network         Palace Office Attack         Yes           Date         023022016         Day Wednesday         Read U.U.g.p. Facality WEDNESDE2009         MILTON PARK         MILTON           Wedner         Earling Winder high winds         Description         C1 RAV S ON HIGH ST TURNER RT TO MILTON PARK         MILTON VARK RD &           Sment Tightz         Description         C1 RAV S ON HIGH ST TURNER RT TO MILTON PARK         MILTON PARK MD &         Parking WINDON SHI HINDO NHI HOND NHI HOND NHI HOND ON HILTON PARK RD &           Sment Tightz         Description         C1 RAV S ON HIGH ST TURNER RT TO MILTON PARK MD &         Parking WINDON SHI PARK HD &	SEVERITY	District Vale of White Horse Ref No. P0250316			2010	Grid Reference 448372 / 191724
Date         C202/2016         Day Wadnesday         Road         Uzzer         Losation         HIGH STEET AT JW ACCESS ROAD TO MILTON PARK         MILTON           Wender         Raining without high winds         Road Surice         C1         RAV S ON HIGH ST TURNED RT TO MILTON PARK         MILTON         Presenting         C1         RAV S ON HIGH ST TURNED RT TO HIGH ST           Street Lighting         Doylight         C1         RAV S ON HIGH ST TURNED RT TO HIGH ST         Presenting         C1         RAV S ON HIGH ST TURNED RT TO HIGH ST           Street Lighting         Street Lighting         Street Lighting         Street Lighting         Presenting         C1         RAV S ON HIGH ST TURNED RT ST DOTORN ST         Presenting         C1         RAV S ON HIGH ST TURNED RT ST DOTORN ST         Presenting         C1         RAV S ON HIGH ST TURNED RT ST DOTORN ST         Presenting         C1         RAV S ON HIGH ST TURNED RT ST DOTORN ST         Ad06 Failed to Judge outperport parks pred UD/ver/Rider - Enerol         Vehicle 001         A           Street Lighting         Year Street Str	SLIGHT	FU250510	Accio	ndent Date BETWEEN '09-Jun-2014' AND '0	J8-Jun-2019'	Police Officer Attend: Yes
Appear Imm       JU MIT       SPECUR: ALL SECONDITIONS       400 Frailed is note properly (Unvervider - Error)       Vehicle (0)1       A         Justicio Detuil       I or staggered jurction       None       Mone       403 Frailed to judge other person's politykey (Ed) responsible (1001)       A         Justicio Detuil       I or staggered jurction       None       None       403 Poor turn or manoeuvre (Driver/Rider - Error)       Vehicle 001       A         Add Solad Number       U       CARRIAGEWAY IIAZARDS       None       602 Carelese/Reckless (Driver/Rider - Behaviour)       Vehicle 001       A         Vehicle SINVOLVED       3       CARRIAGEWAY IIAZARDS       None       602 Carelese/Reckless (Driver/Rider - Behaviour)       Vehicle 001       A         Vehicle SINVOLVED       3       CASUALTIES INVOLVED       1       -       -         Vehicle SINVOLVED       3       Cas No 1 Cas Class Driver or Rider       Vehicle No 2       -         Stidel or Joide Singer Orging No tow or articulation       Stidelar, Joide-Hinfing or overtiming       Vehicle Interimenting or overtiming       See right Not apps: See right Not	Date Time Weather Road Surface Street Lighting	02/03/2016 Day Wednesday 07:20 Raining without high winds Wet/Damp g Daylight SITE DETAILS	Road [ Descripti of Accid	U299 Location HIGH STREET AT J/V otion C1 TRAV S ON HIGH ST TURNED dent C2 THEN CROSSED TO OSIDE & 1	W ACCESS ROAD TO MILTON PARK PRT TO MILTON PARK HIT C2 TRAV NE ROU HIT F OF C3 TRAV W WAITING TO TURN RT CONTRIBUTORY FACTORS	MILTON JNDING RH BEND ON MILTON PARK RD & TO HIGH ST PARTICIPANT PROBABILITY
Jancian Dehail Tor staggered junction Jones Handback - Errory Venicle 001 A - 400 Particulation Spain-spain-spain spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 A - 400 Particulation Spain-speed (Difference - Errory Venicle 001 Particulation Spain-speed (Difference - Errory Venicle 001 Particulation Particulation Spain-speed (Difference - Errory Venicle 001 Particulation Particulation Spain-speed (Difference - Errory Venicle 001 Particulation Particulati	Speed Limit Carriageway	30 MPH Single carriageway		SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 A
Juncio Costrol     Give way or unconfiled     CARRIAGEWAY HAZARDS     No	Junction Detail	1 T or staggered junction		None	400 Failed to judge other person's path/spec	- Error) Vehicle 001 A
VEHICLES INVOLVED       3         VEHICLES INVOLVED       1         VEHICLES INVOLVED       1         Vehicles into intring right       Vehicles into into right       Vehicles into into right       Nota passenger	Junction Contr 2nd Road Num Pedestrian Fact	rol Give way or uncontrolled aber U ilities None within 50 metres No physical crossing facility within	50 metre	CARRIAGEWAY HAZARDS None	602 Careless/Reckless (Driver/Rider - Beh	aviour) Vehicle 001 A
Veh.No. 1       Vehiele type Car       Make       Model       Cas No       1 Cas Class       Driver or Rider       Veh ref       Veh ref       Veh ref       Veh ref       Veh ref       Stödded       No skidding, jack-knifting or overturning       Veh ref       Veh ref       Veh ref       Veh ref       Stödded       No skidding, jack-knifting or overturning       Veh ref       Stöd or No skidding, jack-knifting or overturning       Veh ref       Veh ref       Veh ref       Veh ref       Stöd or No skidbing, jack-knifting or overturning       Veh ref       <	VEHICLES IN	NVOLVED 3			CASUALTIES INVOLVED	1
	Veh.No. 1 Manoeuvre Veh. direction Skidded Veh location at Junct. location Veh left carriag Hit object in c' Hit object off c First point of in Veh registratio Drivers age Left Hand Driv Journey purpos Veh.No. 2 Manoeuvre Veh. direction Skidded Veh location at Junct. location Veh left carriag Hit object in c' Hit object in c' Hit object off c First point of in Veh registratio Drivers age Left Hand Driv Journey Location	Vehicle type Car Turning right from North to Southwest Tor No skidding, jack-knifing or overturning t impact (restricted lane) On main carriager of veh. at 1st impact Entering main roa geway? Did not leave carriageway way? None c'way? None mpact Front on no. Other veh.hit (ref.no. 27 yrs Sex Male Breath test Nega ve No Foreign veh. Not f se Commuting to/from work Vehicle type Car Going ahead other from Southwest to Northeast Tor No skidding, jack-knifing or overturning t impact (restricted lane) On main carriager of veh. at 1st impact Mid junction - on geway? Did not leave carriageway 'way? None c'way? None context front on no. Other veh.hit (ref.no. 53 yrs Sex Male Breath test Drive ve No Foreign veh. Not f se Commuting to/from work	wing? No way not in d 0 2 tive oreign regi wing? No way not in roundabou er not conta oreign regi	Make     Model       No tow or articulation     In restricted lane       Hit and run     Not hit and run       Driving Lic     Full       gistered vehicle     Model       Make     Model       No tow or articulation     In restricted lane       n restricted lane     Model       In restricted lane     In restricted lane       Dut or main road     Hit and run       Hit and run     Not hit and run       tacted     Driving Lic       Full     gistered vehicle	Cas No       1 Cas Class       Driver or I         Severity       SLIGHT       Age 53 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet
	Journey purpos	se Commuting to/from work				

Veh.No. 3 Vehi	cle type Van/Go	oods < 3.5t	Make		Model
Manoeuvre V	Vaiting to turn rig	ght			
Veh. direction from	East to West	Towing	g? No tow or ar	ticulation	
Skidded No skid	lding, jack-knifin	g or overturning			
Veh location at impact (r	estricted lane)	On main carriageway	not in restricted l	ane	
Junct. location of veh. at	1st impact	Approaching junction	n or waiting		
Veh left carriageway?	Did not leave ca	arriageway			
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Veh registration no.		Other veh.hit (ref.no)	2	Hit and run	Not hit and run
Drivers age 39 yrs	Sex Male	Breath test Negative		Driving Lic	Full
Left Hand Drive	No	Foreign veh. Not fore	ign registered veh	icle	
Journey purpose	Journey as part	of work			

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP3520516	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun	n-2019'	Grid Reference Police Officer Attend:	448426 / 191347 Yes
Date29/05/2016Day SundayTime15:31WeatherFine without high windsRoad SurfaceDryStreet LightingDaylightStreet LightingDaylightCarriagewayRoundaboutJunction DetailRoundaboutJunction ControlAutomatic traffic signal2nd Road NumberA34Pedestrian FacilitiesNone within 50 metresPedestrian phase at traffic signal junc	Road       A4130       Location       A4130 AT A34 MILTON IN         Description       C1 (DRIVER ON TEST DRIVE) TRAVES         of Accident       APPEARS TO HAVE FAILED TO STOP         LANES THROUGH CENTRE OF HAME         SPECIAL SITE CONDITIONS       103         None       30         CARRIAGEWAY HAZARDS       60°         None       60°	NTERCHANGE RBT MILTON S ON A34 ENTERED RBT INTENDING TO AT RED SIGNAL & HIT C2 TRAV W FRC BURER LAYOUT CONTRIBUTORY FACTORS 8 Road layout e.g. bend, hill or narrow (F 1 Disobeyed automatic traffic signal (Dri 5 Failed to look properly (Driver/Rider - 7 Inexperience with vehicle type (Driver/	DEXIT TO A4130 TO ROW DM A4130 FROM DIDCOT Road Environment Contri iver/Rider - Injudicious) Error) /Rider - Behaviour)	STOCK BUT AS IT ENTERED PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 A Vehicle 001 B Vehicle 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Towi         Veh. direction from       North to South       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway         Junct.       location of veh. at 1st impact       Entering roundabout         Veh left carriageway?       Left carriageway offside         Hit object in c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       24 yrs       Sex         No       Foreign veh.       Not for	Make Model ng? No tow or articulation ay not in restricted lane t 2 Hit and run Not hit and run re Driving Lic Full eign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 53 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Cas No 2 Cas Class Driver or F Severity SLIGHT Age 24 yrs Car Passenger? Not a passenger	3 Rider Veh ref M s Sex Male F PSV Passenger? Not a Cycle Helmet Rider Veh ref M s Sex Female F PSV Passenger? Not a	No 2 Post code a passenger No 1 Post code a passenger
Veh.No.       2       Vehicle type       Car         Manoeuvre       Going ahead other         Veh. direction from       East to West       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagewa         Junct. location of veh. at 1st impact       Mid junction - on ro       Veh left carriageway?       Left carriageway nearside         Hit object in c'way?       None       None       Hit object off c'way?       Nearside or offside crash barrier         First point of impact       Offside       Other veh.hit (ref.no)       Drivers age       53 yrs       Sex       Male       Breath test       Negative         Left Hand Drive       No       Foreign veh. Not for       Journey purpose       Other	Make Model ng? No tow or articulation uy not in restricted lane bundabout or main road 1 Hit and run Not hit and run re Driving Lic Full eign registered vehicle	Ped Movement       Not applicable         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Cas No       3 Cas Class       Passenger         Severity       SLIGHT       Age 49 yrs         Car Passenger?       Rear seat passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         School Pupil       Other         Roadworker injured       Other	Veh ref ì s Sex Female F r PSV Passenger? Not a Cycle Helmet	No 1 Post code a passenger

Other Details

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP0310616	Accident Date BETWEEN '09-Jun-2014' AND	) '08-Jun-2019'	Grid Reference Police Officer Attend:	448433 / 191325 Yes
Date07/06/2016Day TuesdayTime00:59WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and litStreet LightingDark: street lights present and litSpeed Limit40 MPHCarriagewayRoundaboutJunction DetailRoundaboutJunction ControlAutomatic traffic signal2nd Road NumberUPedestrian FacilitiesNone within 50 metres	Road       A4130       Location       A4130 AT A34 MIL         Description       LGV1 TRAV SW THROUGH U/k         of Accident       THROUGH LANE FOR TRAFFIC         CWAY TO OSIDE HIT BARRIER         SPECIAL SITE CONDITIONS         None         CARRIAGEWAY HAZARDS         None	TON INTERCHANGE RBT J/W MILTON PARK C PHASE AT ATS ON A4130 ENTERED MILTON C TO A34 N & HIT C2 TRAV S ROUNDING RBT CONTRIBUTORY FACTORS 301 Disobeyed automatic traffic signal (Dr 301 Disobeyed automatic traffic signal (Dr 105 Defective traffic signals (Road Enviro	ROAD MILTO INTERCHANGE RBT TO THROUGH U/K ATS PH/ river/Rider - Injudicious) river/Rider - Injudicious) nment Contrib)	PENTER NEW ASE & C2 EXITED PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 002 B Vehicle 002 B
Pedestrian phase at traffic signal ju	unction			
Veh.No.       1       Vehicle type       Van/Goods < 3.5t	run	Rider Veh ret rs Sex Male PSV Passenger? No Cycle Helmet	f No 1 Post code t a passenger	
Hit object in c'way?NoneHit object off c'way?Nearside or offside crash barrierFirst point of impactFrontVeh registration no.Other veh.hit (ref.no.Drivers age39 yrsLeft Hand DriveNoJourney purposeCommuting to/from work	o) 1 Hit and run Not hit and gative Driving Lic Full t foreign registered vehicle	run		

SEVERITY District Vale of White Horse			Grid Reference 448755 / 191469
SLIGHT Ref.No P2520616	Accident Date BETWEEN '09-Jun-2014' AND '08	8-Jun-2019'	Police Officer Attend: No - reported over the counter
Date27/06/2016Day MondayTime08:19WeatherUnknownRoad SurfaceDryStreet LightingDaylight	Road       A4130       Location       A4130       APPROX 500M         SUPPLIED       Description       C1       BELIEVED TO BE TRAV SW ON         of Accident       FURTHER DETAILS SUPPLIED	E OF J/W A34 AT MILTON INTERCHANGE N A4130 HIT R OF C2 TRAV SW STATIONAR	MILTON - EXACT LOCATION NOT
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 40 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 B
Carriageway Single carriageway	None	406 Foiled to indee other nerrorla noth/ma	ad (Duiven/Diden Emer) Vehicle 001 P
Junction Detail Not at or within 20 metres of junction	on	400 Faned to judge other person's path/spec	ed (Driver/Rider - Error) venicie 001 B
Junction Control			
2nd Road Number	CARRIAGEWAY HAZARDS		
Padastrian Facilities No. 1	None		
Pedestrian Facilities None within 50 metres			
No physical crossing facility within	1 50 metre		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNortheast to SouthwestTowVeh. direction fromNortheast to SouthwestTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 20Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age? yrsLeft Hand DriveNoVeh.No.2Vehicle typeCarManoeuvreWaiting to go ahead but held upVeh. direction fromNortheast to SouthwestVeh.direction fromNortheast to SouthwestVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 20Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object in c'way?NoneHit object off c'way?NoneHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age51 yrsSexFemaleBackVeh registration no.Other veh.hit (ref.no)Drivers age51 yrsSexFemaleBachOther veh.hit (ref.no)	Make     Model       wing?     No tow or articulation       way not in restricted lane     0m of junction       ()     2     Hit and run       ()     1     Make       ()     1     Hit and run       ()     1     Hit and run	Cas No 1 Cas Class Driver or 1 Severity SLIGHT Age 51 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 rs Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet

Date         0/07/2016         Day         Tand         2019         Multinon Service         Multi	SEVERITYDistrictVale of White HorseSERIOUSRef.NoP0960716	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference448423 / 191352Police Officer Attend:Yes
Carriageway       Roundabout       None       None       Automatic traffic signal       Automatic traffic signal       Automatic traffic signal       Automatic traffic signal       Disobeyed au	Date     07/07/2016     Day Thursday       Time     20:19       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight   SITE DETAILS Sneed Limit 40 MPH	Road A4130 Location A4130 AT A34 MILTON HAMBURGER STYLE RBT Description C1 TRAV W ON A4130 FROM DIDCO of Accident MC2 TRAV S ROUNDING RBT IN L	N INTERCHANGE RBT ATS J/W MILTON PA OT ENTERED TO CONTINUE INTO CENTR. ANE 4 UNCLEAR WHICH VEHICLE FAIL CONTRIBUTORY FACTORS	ARK ROAD MILTON - NEW BUILD AL LANE OF HAMBURGER LAYOUT HIT LED TO COMPLY WITH RED SIGNAL PARTICIPANT PROBABILITY Error) Valuate 001 P
Pedestrian Facilities       None within 50 metres       None         VEHICLES INVOLVED       2         Vehicles Two LVED       2         Vehicles Two LVED       2         Vehicles Two LVED       1         Vehicles Two LVED       2         Vehicles Two LVED       1         Vehicles Two LVED       1         Vehicles Two LVED       1         Vehicles Two LVED       2         Vehicles Two LVED       1         Vehicles Two LVED       0         Vehicles Two LVED       1         Vehicles Two LVED       0         Vehicles Two LVED       1	CarriagewayRoundaboutJunction DetailRoundaboutJunction ControlAutomatic traffic signal2nd Road NumberA34	STECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS	405 Failed to look properly (Driver/Rider - 405 Failed to look properly (Driver/Rider - 301 Disobeyed automatic traffic signal (Dr 301 Disobeyed automatic traffic signal (Dr	Error) Vehicle 001 B iver/Rider - Injudicious) Vehicle 001 B iver/Rider - Injudicious) Vehicle 002 B
VehicLes INVOLVED       1         Veh.No. 1       Vehicle type Car       Make       Model       Cas No. 1       Cas Class       Driver or Rider       Veh rof No. 2         Skidded       No skidding, jack-knifing or overturning       No tow or articulation       Severity SERIOUS       Age 44 yrs       Sex Male       Post code         Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Car Passenger?       Not a passenger       Cycle Helmet         Veh location of veh. at 1st impact       Entering roundabout       Veh order on to tap the apassenger       Not a passenger       Cycle Helmet         Veh location for impact       Front       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Veh Avord Sir Sir Solid       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Veh doration at impact (restricted lane)       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age 31 yrs       Sex Male       Breath test       Negative       Drivung Lie       Full         Veh doration at impact (restricted lane)       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Veh doration at impact (restricted lane)       On main carriageway not in restricted lane       Manoeway <td>Pedestrian Facilities None within 50 metres Pelican, puffin, toucan or similar</td> <td>None</td> <td></td> <td></td>	Pedestrian Facilities None within 50 metres Pelican, puffin, toucan or similar	None		
Drivers age 44 yrs for invite Dream rest integrative Driving Dr. Full	Veh.No. 1 Vehicle type Car Manoeuvre Going ahead other Veh. direction from East to West Towin Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriagewa Junct. location of veh. at 1st impact Entering roundabour Veh left carriageway? Did not leave carriageway Hit object off c'way? None Hit object off c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.no) Drivers age 31 yrs Sex Male Breath test Negativ Left Hand Drive No Foreign veh. Not for Journey purpose Not Known Veh.No. 2 Vehicle type M/cycle > 500cc Manoeuvre Going ahead other Veh. direction from North to South Towin Skidded Skidded Veh location at impact (restricted lane) On main carriagewa Junct. location of veh. at 1st impact Mid junction - on ro Veh left carriageway? Left carriageway offside Hit object off c'way? None Hit object off c'way? Other permanent object First point of impact Nearside Veh registration no. Other veh.hit (ref.no)	Make     Model       ug?     No tow or articulation       y not in restricted lane       2     Hit and run       e     Driving Lic       Full       eign registered vehicle       Make     Model       Make     Model       undabout or main road       1     Hit and run       Not hit and run       e     Driving Lic       Full	CasUAL HES INVOLVED Cas No 1 Cas Class Driver or 1 Severity SERIOUS Age 44 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	I       Rider     Veh ref No       's     Sex Male       PSV Passenger?     Not a passenger       Cycle Helmet     Output

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP1950816	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	un-2019'	Grid Reference Police Officer Attend:	448290 / 191335 Yes
Date     21/08/2016     Day Sunday       Time     11:13       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	I         Road       A4130       Location       A4130 MILTON INTERCH         Description       HGV1 TRAV NE ROUNDING A4130 RI         of Accident       OVERTURNED - EXACT CIRCUMSTA	HANGE RBT J/W ENTRY SLIP RD TO A34 BT IN LN 1 HIT NSIDE OF LGV2 TRAV NE NNCES UNCLEAR	NBOUND MILTO	N N 2 & LGV2
Street Lighting     Dayingnt       SITE DETAILS       Speed Limit     40 MPH       Carriageway     Roundabout       Junction Detail     Roundabout       Junction Control     Automatic traffic signal       2nd Road Number     A34       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	SPECIAL SITE CONDITIONS 40 None 40 CARRIAGEWAY HAZARDS None 50 metre	CONTRIBUTORY FACTORS 95 Failed to look properly (Driver/Rider - 93 Poor turn or manoeuvre (Driver/Rider -	Error) - Error)	PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Goods > 7.5t         Manoeuvre       Going ahead right hand bend         Veh. direction from       South to Northeast       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       Drivers age       29 yrs       Sex         Drivers age       29 yrs       Sex       Male       Breath test       Nega         Left Hand Drive       No       Foreign veh. Not f       Journey purpose       Journey as part of work         Veh.No.       2       Vehicle type       Van/Goods < 3.5t	Make Model wing? Articulated vehicle way not in restricted lane roundabout or main road ) 2 Hit and run Not hit and run tive Driving Lic Full Foreign registered vehicle Make Model wing? No tow or articulation	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 53 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	l Rider Veh re s Sex Male PSV Passenger? No Cycle Helmet No	f No 2 Post code of a passenger of a cyclist
SkiddedOverturnedVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age53 yrsSexMaleBreath testNegaLeft Hand DriveNoJourney purposeNot Known	way not in restricted lane roundabout or main road ) 1 Hit and run Not hit and run tive Driving Lic Full coreign registered vehicle			

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP2370816	Accident Date BETWEEN '09-Jun-2014' AND '	08-Jun-2019'	Grid Reference448445 / 191216Police Officer Attend:Yes
Date       24/08/2016       Day Wednesday         Time       10:19         Weather       Fine without high winds         Road Surface       Dry         Street Lighting       Daylight			
SITE DETAILS Speed Limit 70 MPH Carriageway Dual carriageway Junction Detail Not at or within 20 metres of junction Junction Control 2nd Road Number Pedestrian Facilities None within 50 metres No physical crossing facility within	on SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None 1 50 metre	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beh 602 Careless/Reckless (Driver/Rider - Beh	PARTICIPANT PROBABILITY vaviour) Vehicle 001 B vaviour) Vehicle 002 B
VEHICLES INVOLVED       3         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tow         Veh. direction from       Southeast to Northwest       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Not at or within 20         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Did not impact         Veh registration no.       Other veh.hit (ref.no)         Drivers age       ? yrs         Sex       Not know         Breath test       Drivers         Left Hand Drive       No         Not Known       Not Known	Make Model wing? No tow or articulation way not in restricted lane 0m of junction ) 0 Hit and run Non-stop veh er not contacted Driving Lic Full foreign registered vehicle	CASUALTIES INVOLVED           Cas No         1         Cas Class         Driver or 1           Severity         SLIGHT         Age 43 yr           Car Passenger?         Not a passenger           Seat Belt         Not applicable           Ped Movement         Not applicable           Ped Location         Not applicable           Ped Direction to         Not applicable           School Pupil         Other           Roadworker injured         Other Details	D     1       Rider     Veh ref No     2       rs     Sex Female     Post code       PSV Passenger?     Not a passenger       Cycle Helmet     Not a cyclist
Veh.No.2Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromSoutheast to NorthwestTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 20Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age43 yrsSexFemaleBreath testNegatLeft Hand DriveNot Known	Make Model wing? No tow or articulation way not in restricted lane 00m of junction ) 3 Hit and run Not hit and run tive Driving Lic Full foreign registered vehicle	ın	

Veh.No. 3 Vehicle	e type Goods > 7.5t	Make	Model
Manoeuvre Goi	ing ahead other		
Veh. direction from Sou	theast to Northwest	Towing? Articulated v	ehicle
Skidded No skiddin	ng, jack-knifing or overt	urning	
Veh location at impact (restr	ricted lane) On main	n carriageway not in restricted l	ane
Junct. location of veh. at 1st	t impact Not at o	r within 20m of junction	
Veh left carriageway?	Did not leave carriageway	7	
Hit object in c'way? N	None		
Hit object off c'way? N	Vone		
First point of impact C	Offside		
Veh registration no.	Other veh	.hit (ref.no) 2	Hit and run Not hit and run
Drivers age 56 yrs S	ex Male Breath tes	t Negative	Driving Lic Full
Left Hand Drive N	No Foreign v	eh. Not foreign registered veh	cle
Journey purpose N	Not Known		

SEVERITYDistrictVale of White HorseSLIGHTRef.No43160275015	Accid	ident Date BETWEEN '09-Jun-2014' AND '0	8-Jun-2019'	Grid Reference448466 / 191351Police Officer Attend:Yes
Date20/09/2016Day TuesdayTime14:06WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A Description	A4130 Location A4130 JUST E OF A34 tion C1 TRAV W IN LN 2 ON A4130 HI dent	<sup>4</sup> MILTON INTERCHANGE RBT J/W MILTON Γ R OF STAT C2 TRAV W ON APPROACH TO	PARK ROAD MILTON
SITE DETAILS			CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit40 MPHCarriagewayDual carriagewayJunction DetailRoundabout		SPECIAL SITE CONDITIONS None	406 Failed to judge other person's path/spec	ed (Driver/Rider - Error) Vehicle 001 A
Junction ControlGive way or uncontrolled2nd Road NumberA34Pedestrian FacilitiesNone within 50 metresNo physical processing facility within	50 motro	CARRIAGEWAY HAZARDS None		
No physical crossing facility within	50 metre		•	
VEHICLES INVOLVED 2			CASUALTIES INVOLVED	1
Veh.No.       1       Vehicle type       Car         Manoeuvre       Slowing or stopping         Veh. direction from       East to West       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       47 yrs       Sex       Female         Journey purpose       Journey as part of work       Veh.Not for Journey as part of work         Veh.No.       2       Vehicle type       Car         Manoeuvre       Waiting to go ahead but held up       Veh. direction from       East to West       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct       Yew         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway       Jun	ving? No vay not in 1 tion or wai 2 tive oreign regi ving? No vay not in 1 tion or wai	Make Model No tow or articulation a restricted lane aiting Hit and run Not hit and run Driving Lic Full gistered vehicle Make Model No tow or articulation a restricted lane aiting Hit and run Not hit and run Driving Lic Full gistered vehicle	Cas No 1 Cas Class Driver or 1 Severity SLIGHT Age 56 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Vehref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist
Journey purpose Journey as part of work	Jeigh legi			
Journey as part of work				

SEVERITYDistrictVale of White HorseSERIOUSRef.No43160269542	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference448258 / 191499Police Officer Attend:Yes
Date20/09/2016Day TuesdayTime18:37WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road       A34       Location       A34 SBOUND CWAY N         Description       C1 TRAV S IN LN 2 ON A34 HIT R O       of Accident       A4130	AP 65/1 AT J/W EXIT SLIP ROAD TO A4130 DF MC2 TRAV S SLOWING DUE TO QUEUIN	MILTON NG TRAFFIC AT J/W EXIT SLIP ROAD TO
SITE DETAILS         Speed Limit       70 MPH         Carriageway       Dual carriageway         Junction Detail       Slip road         Junction Control       Give way or uncontrolled         2nd Road Number       A34         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None n 50 metre	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spe	PARTICIPANT PROBABILITY - Error) Vehicle 001 A red (Driver/Rider - Error) Vehicle 001 B
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	) 1
Veh.No.       1       Vehicle type       Car         Manoeuvre       Slowing or stopping       To         Manoeuvre       Slowing or stopping       To         Veh. direction from       Northwest to Southeast       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Leaving main roa       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       Leaving main roa         Veh left carriageway?       Did not leave carriageway       Hit object off c'way?       None         First point of impact       Front       Veh registration no.       Other veh.hit (ref.no         Drivers age       22 yrs       Sex       Male       Breath test       Nega         Journey purpose       Commuting to/from work       Veh.No.       2       Vehicle type       M/cycle 50 - 125cc         Manoeuvre       Slowing or stopping       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Leaving main roa       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Leaving main roa       Veh left carriageway?       D	Make       Model         owing?       No tow or articulation         eway not in restricted lane       ad         o)       2       Hit and run       Not hit and run         ob)       2       Hit and run       Not hit and run         foreign registered vehicle       Make       Model         owing?       No tow or articulation         eway not in restricted lane       Hit and run         ob)       1       Hit and run         provided (medical reas Driving Lic)       Full         foreign registered vehicle       Full	Cas No 1 Cas Class Driver or Severity SERIOUS Age 60 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist

SEVERITY District V; SLIGHT Ref.No 4316	ale of White Horse 0364568	Accident Date BETWEEN '09-Jun-2014' AND '	'08-Jun-2019'	Grid Reference Police Officer Attend:	448226 / 191508 Yes
Date06/12/2016Time17:37WeatherFine withouRoad SurfaceWet/DampStreet LightingDark: no str	Day Tuesday Roa t high winds Des of A	ad A34 Location A34 NBOUND J/W A scription HGV1 TRAV NW IN LN 1 ON A34 Accident SOLID HATCH MARKINGS FRO!	A34 NBOUND ENTRY SLIP AT MILTON INTER 4 HIT R OF C2 TRAV NW IN SLOW QUEUING ' M SLIP ROAD	CHANGE MILTON	1 FROM ACROSS
SITE DI Speed Limit 70 M Carriageway Dual ca Junction Detail Slip roa Junction Control Give w 2nd Road Number A34 Pedestrian Facilities None w No phy	ETAILS PH arriageway ad ay or uncontrolled vithin 50 metres /sical crossing facility within 50 m	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 403 Poor turn or manoeuvre (Driver/Rider 710 Vehicle blind spot (Driver/Rider - Visi	- Error) ion Affected)	PARTICIPANT PROBABILITY Vehicle 002 A Vehicle 001 A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type         Manoeuvre       Going ah         Veh. direction from       Southeas         Skidded       No skidding, ja         Veh location at impact (restricted         Junct. location of veh. at 1st impact         Veh left carriageway?       Did no         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Drivers age       60 yrs         Drivers age       60 yrs       Sex         Left Hand Drive       No       Journe	Goods > 7.5t ead other t to Northwest Towing? ck-knifing or overturning lane) On main carriageway n ct Approaching junction o t leave carriageway Other veh.hit (ref.no) fale Breath test Negative Foreign veh. Not foreign y as part of work	Make Model Articulated vehicle ot in restricted lane or waiting 2 Hit and run Not hit and ru Driving Lic Full n registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age 34 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	n I Rider Veh re rs Sex Male PSV Passenger? No Cycle Helmet No	f No 2 Post code of a passenger of a cyclist
Veh.No.2Vehicle typeManoeuvreGoing ahVeh. direction fromSoutheasSkiddedNo skidding, jaVeh location at impact (restrictedJunct. location of veh. at 1st impactVeh left carriageway?Did notHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Drivers ageDrivers age34 yrsLeft Hand DriveNoJourney purposeJourne	Car ead other t to Northwest Towing? ck-knifing or overturning lane) On main carriageway n ct Entering main road t leave carriageway Male Other veh.hit (ref.no) Male Breath test Negative Foreign veh. Not foreign y as part of work	Make Model No tow or articulation ot in restricted lane 1 Hit and run Not hit and ru Driving Lic Full n registered vehicle	ın		

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170009649	Accident Date BETWEEN '09-Jun-2014' AND '08-J	un-2019'	Grid Reference Police Officer Attend:	449593 / 191427 No - reported over the counter
Date22/12/2016Day ThursdayTime17:01WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDark: no street lighting	Road A4130 Location A4130 DIDCOT LINK ROUNCERTAINTY OVER EXACT LO Description LGV1 TRAV W ON A4130 HIT REAR of Accident	DAD APPROX 1KM E OF J/W A34 MILTON DCATION OF C2 ALSO TRAV W SLOWING FOR STA	INTERCHANGE HARWI	ELL - SOME
Sirver Lighting     Dark no succer righting       Sirver Lighting     SITE DETAILS       Speed Limit     60 MPH       Carriageway     Single carriageway       Junction Detail     Not at or within 20 metres of junction       Junction Control     2nd Road Number       Pedestrian Facilities     None within 50 metres       No physical crossing facility within 5	SPECIAL SITE CONDITIONS None 34 CARRIAGEWAY HAZARDS None 50 metre	CONTRIBUTORY FACTORS 02 Careless/Reckless (Driver/Rider - Beha 08 Following too close (Driver/Rider - Inj 06 Failed to judge other person's path/spec	aviour) udicious) ed (Driver/Rider - Error)	PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 B Vehicle 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Van/Goods < 3.5t	Make     Model       ing?     No tow or articulation       ay not in restricted lane     and function       m of junction     and run       2     Hit and run       not contacted     Driving Lic       reign registered vehicle	CASUALTIES INVOLVED         Cas No       1 Cas Class       Driver or I         Severity       SLIGHT       Age 44 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Cas No       2 Cas Class         Passenger?       Front seat passenger         Severity       SLIGHT         Age 67 yr         Car Passenger?       Front seat passenger	4 Rider Veh ref M s Sex Male F PSV Passenger? Not a Cycle Helmet Not a Veh ref M s Sex Female F er PSV Passenger? Not a Cycle Helmet Not a	No 2 Post code a passenger a cyclist No 2 Post code a passenger a cyclist
Veh.No.       2       Vehicle type       Car         Manoeuvre       Slowing or stopping         Veh. direction from       East to West       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Not at or within 20:         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Back         Veh registration no.       Other veh.hit (ref.no)         Drivers age       44 yrs       Sex       Male         Left Hand Drive       No       Foreign veh. Not for         Journey purpose       Other       Veh registration veh. Not for	Make     Model       ing?     No tow or articulation       ay not in restricted lane       m of junction       1     Hit and run       quested     Driving Lic       Full       reign registered vehicle	Ped MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredCas NoCas No3 Cas ClassPassenger?Rear seat passengeSeveritySLIGHTAge 44 yrCar Passenger?Rear seat passengeSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredViter	Veh ref N s Sex Female F r PSV Passenger? Not a Cycle Helmet Not a	No 2 Post code a passenger a cyclist

Cas No 4 C	as Class Passenger	Ve	eh ref No 2	
Severity SLIGH	IT Age 21 yrs	Sex Female	Post code	
Car Passenger?	Rear seat passenger	PSV Passenger?	Not a passenger	
Seat Belt	Not applicable	Cycle Helmet	Not a cyclist	
Ped Movement	Not applicable			
Ped Location	Not applicable			
Ped Direction to	Not applicable			
School Pupil	Other			
Roadworker injure	d			
Other Details				

Full Details

SEVERITY District Vale of White Horse			Grid Reference 448255 / 191485
SLIGHT Ref.No 43170022957 Accident Date BETWEE	EN '09-Jun-2014' AND '08-Ju	n-2019'	Police Officer Attend: Yes
Date       13/01/2017       Day Friday         Cime       08:38         Weather       Fine without high winds         Road Surface       Wet/Damp         Observer       Fine without high winds         Description       HGV1 TRAV S IN LANE PASSING SLOW MOVING / QUEUING TRAFFIC ON APPROACH TO MILTON INTERCHANGE AFTER         Of Accident       PASSING JUNCTION CHANGED LANE TO LEFT FAILING TO SEE C2 IN LANE 1 & HIT OCCURRED - C2 SPAN & HIT			
Succi Lighting Dayingni CENTRAL E	BARRIER		
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 70 MPH SPECIAL SITE (	CONDITIONS 40	5 Failed to look properly (Driver/Rider -	Error) Vehicle 001 B
Carriageway Dual carriageway None			
Junction Detail Slip road			
Junction Control Give way or uncontrolled	VUAZADDS		
2nd Road Number A34	I HAZAKDS		
Pedestrian Facilities None within 50 metres None			
No physical crossing facility within 50 metre			
The physical clossing facility within 50 meter			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.         1         Vehicle type         Goods > 7.5t         Make	Model	Cas No 1 Cas Class Driver or I	Rider Veh ref No 2
Manoeuvre Changing lane to left		Severity SLIGHT Age 44 yrs	s Sex Male Post code
Veh. direction from Northwest to Southeast Towing? No tow or articulati	on	Car Passenger? Not a passenger	PSV Passenger? Not a passenger
Skidded No skidding, jack-knifing or overturning	Seat Belt Not applicable	Cycle Helmet Not a cyclist	
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Ped Movement Not applicable		
Junct. location of veh. at 1st impact Cleared junction or waiting	Ped Location Not applicable		
Veh left carriageway? Did not leave carriageway	Ped Direction to Not applicable		
Hit object in c'way? None		School Pupil Other	
Hit object off c'way? None		Roadworker injured	
First point of impact Front		Other Details	
Veh registration no. Other veh.hit (ref.no) 2 Hit an			
Drivers age 45 yrs Sex Male Breath test Negative Drivin			
Left Hand Drive No Foreign veh. Not foreign registered vehicle			
Journey purpose Journey as part of work		4	
Veh.No. 2 Vehicle type Car Make	Model		
Manoeuvre Going ahead other			
Veh. direction from Northwest to Southeast Towing? No tow or articulati	on		
Skidded No skidding, jack-knifing or overturning			
Veh location at impact (restricted lane) On main carriageway not in restricted lane			
Junct. location of veh. at 1st impact Cleared junction or waiting			
Veh left carriageway? Left carriageway offside onto cent. reserv.			
Hit object in c'way? None			
Hit object off c'way? Central crash barrier			
First point of impact Back			
Veh registration no. Other veh.hit (ref.no) 1 Hit an	nd run Not hit and run		
Drivers age 44 yrs Sex Male Breath test Negative Driver	ng Lic Full		
Left Hand Drive No Foreign veh. Not foreign registered vehicle			
Journey purpose Commuting to/from work		4	

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170210332	Accident Date BETWEEN '09-Jun-2014' AND '08	Jun-2019'	Grid Reference 449889 / 191378 Police Officer Attend: Yes
Date23/01/2017Day MondayTime05:28WeatherFine without high windsRoad SurfaceDryStreet LightingDark: no street lighting	Road       A4130       Location       A4130 APPROX 750M W OF J/W SIR FRANK WILLIAMS WAY HARWELL         Description       HGV1 TRAV W ON A4130 MOUNTED NSIDE KERB (POSS DUE TO GLARE FROM ONCOMING HEADLIGHTS / DRIVER of Accident         ILLNESS) & HIT PC2 TRAV W ON SHARED USE CYCLE TRACK		
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 705 Dazzling headlights (Driver/Rider - Vi 505 Illness or disability, mental or physical 410 Loss of control (Driver/Rider - Error)	PARTICIPANT PROBABILITY sion Affected) Vehicle 001 B (Driver/Rider - Impairm, Vehicle 001 B Vehicle 001 A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Goods > 7.5t         Manoeuvre       Going ahead other       Towing         Veh. direction from       East to West       Towing         Skidded       No skidding, jack-knifing or overturning       On main carriageway         Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Not at or within 20r         Veh left carriageway?       Left carriageway nearside         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       60 yrs       Sex         Journey purpose       Journey as part of work         Veh.No.       2       Vehicle type         Pedal Cycle       Manoeuvre	Make     Model       ing?     No tow or articulation       ay not in restricted lane     and function       ay not in restricted lane     mof junction       2     Hit and run       Ve     Driving Lic       Full       reign registered vehicle       Make     Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity SLIGHT Age 30 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1       Rider     Veh ref No       s     Sex Male       Post code       PSV Passenger?     Not a passenger       Cycle Helmet     Not known
ManocuvreGoing anead otherVeh. direction fromEast to WestTowinSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewaJunct. location of veh. at 1st impactNot at or within 20rVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age30 yrsSexMaleBreath testNot ApLeft Hand DriveNoJourney purposeCommuting to/from work	ing? No tow or articulation ay not in restricted lane m of junction 1 Hit and run Not hit and run pplicable Driving Lic Full reign registered vehicle		

SEVERITY District Vale of White Horse SLIGHT Ref.No 43170052036	Accident Date BETWEEN '09-Jun-2014' AND '08	8-Jun-2019'	Grid Reference Police Officer Attend:	449835 / 191508 Yes
Date14/02/2017Day TuesdayTime07:02WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDark: no street lighting	Road U240 Location MILTON ROAD AT E Description C1 TRAV S POSS AGGRESSIVELY of Accident INTO CWAY	BEND APPROX 100M S OF RBT J/W PARK DF	RIVE HARWELL	REE & REBOUNDED
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	n SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None 50 metre	CONTRIBUTORY FACTORS 410 Loss of control (Driver/Rider - Error) 602 Careless/Reckless (Driver/Rider - Beh 601 Aggressive driving (Driver/Rider - Beh	aviour) haviour)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 B Vehicle 001 B
VEHICLES INVOLVED 1 Veh.No. 1 Vehicle type Car Manoeuvre Going ahead left hand bend Veh. direction from North to Southeast Towi Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriagewa Junct. location of veh. at 1st impact Not at or within 200 Veh left carriageway? Left carriageway offside and rebound Hit object off c'way? Tree First point of impact Nearside Veh registration no. Other veh.hit (ref.no) Drivers age 39 yrs Sex Male Breath test Negatir Left Hand Drive No Foreign veh. Not for Journey purpose Commuting to/from work	Make     Model       ving?     No tow or articulation       vay not in restricted lane     Dom of junction       Dm of junction     Dim of junction       ided     0       0     Hit and run       Not hit and run       vive     Driving Lic       poreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age 39 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh re rs Sex Male PSV Passenger? No Cycle Helmet No	f No 1 Post code of a passenger of a cyclist

SEVERITYDistrictVale of White HorseSERIOUSRef.No43170175919	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	Grid Reference450287 / 191299Police Officer Attend:Yes	
Date30/05/2017Day TuesdayTime13:25WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Tuesday       Road A4130 Location A4130 APPROX 500M W OF J/W SIR FRANK WILLIAMS WAY HARWELL - SOME UNCERTAINTY OVER         inds       EXACT LOCATION         Description       LGV1 TRAV W ON A4130 IN QUEUING TRAFFIC DUE TO ROAD WORKS MADE U TURN TO RETURN TO E BUT HIT MC2         of Accident       OVERTAKING QUEUE		
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 3	SPECIAL SITE CONDITIONS     CONTRIBUTORY FAC 405 Failed to look proper 403 Poor turn or manoeux 602 Careless/Reckless (D       CARRIAGEWAY HAZARDS None     602 Careless/Reckless (D	TORSPARTICIPANTPROBABILITYly (Driver/Rider - Error)Vehicle 001Avre (Driver/Rider - Error)Vehicle 001Ariver/Rider - Behaviour)Vehicle 001A	
VEHICLES INVOLVED2Veh.No.1Vehicle typeVan/Goods < 3.5t	Make     Model     CASUAL       Make     Model     Cas No     1     Cas O       ng?     No tow or articulation     Severity     SERIOUS       ny not in restricted lane     Ped Movement     N       n of junction     Ped Location     N       2     Hit and run     Not hit and run       2     Hit and run     Not hit and run       7e     Driving Lic     Full       reign registered vehicle     Make     Model	TIES INVOLVED 1 Class Driver or Rider Veh ref No 2 S Age 52 yrs Sex Male Post code ot a passenger PSV Passenger? Not a passenger ot applicable Cycle Helmet Not a cyclist ot applicable ot applicable ot applicable ther	
Veh. direction fromEast to WestTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 20Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age52 yrsSexMaleBreath testNegatiLeft Hand DriveNoJourney purposeNot Known	ng? No tow or articulation ay not in restricted lane n of junction 1 Hit and run Not hit and run /e Driving Lic Full reign registered vehicle		

SEVERITYDistrictVale of White HorseSERIOUSRef.No43170203459	Accident Date BETWEEN '09-Ju	n-2014' AND '08-Jun-2019'	Grid Reference450840 / 191158Police Officer Attend:Yes
Date16/06/2017Day FridayTime05:30WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 Description HGV1 TRAV E ON A of Accident	APPROX 50M E OF J/W SIR FRANK WILLIAMS WAY HA	RWELL DISDE OF CWAY & HIT ONCOMING HGV2
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 40 MPH	SPECIAL SITE CONDIT	TIONS 503 Fatigue (Driver/Rider - Impairment)	Vehicle 001 A
Carriageway Single carriageway	None	405 Failed to look properly (Driver/Pider	Error) Vehicle (001 B
Junction Detail Not at or within 20 metres of junctio	n	405 Failed to look property (Driver/Kider	
Junction Control		403 Poor turn or manoeuvre (Driver/Rider	r - Error) Vehicle 001 B
2nd Road Number	CARRIAGEWAY HAZA	ARDS	
Pedestrian Facilities None within 50 metres	None		
No physical crossing facility within	50 metre		
	30 metre		
VEHICLES INVOLVED 2		CASUALTIES INVOLVEI	2
Veh.No.       1       Vehicle type       Goods > 7.5t         Manoeuvre       Going ahead other       Tow         Veh. direction from       West to East       Tow         Skidded       Skidded       On main carriagew         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Not at or within 20         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       53 yrs         Sex       Male         Breath test       Negat         Left Hand Drive       No         No       Foreign veh. Not for         Journey purpose       Journey as part of work         Veh.No.       2       Vehicle type       Goods > 7.5t         Manoeuvre       Going ahead other       Tow         Veh. direction from       East to West       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       <	Make M ving? Articulated vehicle vay not in restricted lane Om of junction 2 Hit and run 1 Driving Lic 1 Driving Lic 1 Driving registered vehicle Make M ving? No tow or articulation vay not in restricted lane Om of junction	Iodel       Cas No       1       Cas Class       Driver or Severity         Severity       SLIGHT       Age       53 y         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No       2 Cas Class         Car Passenger?       Not a passenger         Severity       SERIOUS       Age         Severity       SERIOUS       Age         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Other Details       Other Details	Rider       Veh ref No       1         rs       Sex Male       Post code         PSV Passenger?       Not a passenger         Cycle Helmet       Not a cyclist         Rider       Veh ref No       2         rs       Sex Male       Post code         PSV Passenger?       Not a passenger         Cycle Helmet       Not a cyclist
Hit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age63 yrsSexMaleBreath testNegatLeft Hand DriveNoJourney purposeJourney as part of work	1 Hit and run 1 ive Driving Lic 1 preign registered vehicle	Not hit and run Full	

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170245907	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference Police Officer Attend:	450771 / 191136 Yes
Date     14/08/2017     Day Monday       Time     10:14       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road U189 Location SIR FRANK WILLIAMS Description C1 TRAV N ON SIR FRANK WILLIA of Accident AHEAD ALSO MOVING OFF	S WAY APPROX 20M S OF J/W A4130 HAR	WELL D CHANGED TO GREEN B	UT HIT REAR OF C2
Street Lighting     Dayngin       SITE DETAILS       Speed Limit     30 MPH       Carriageway     Single carriageway       Junction Detail     T or staggered junction       Junction Control     Automatic traffic signal       2nd Road Number     A4130       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	SPECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS 402 Junction restart (Driver/Rider - Error) 405 Failed to look properly (Driver/Rider - 307 Travelling too fast for conditions (Driv 308 Following too close (Driver/Rider - Inj	F Error) /er/Rider - Injudicious)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A Vehicle 001 B Vehicle 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Moving off       Townshift         Veh. direction from       South to North       Townshift         Skidded       No skidding, jack-knifing or overturning       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       Parked vehicle         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       ? yrs         Sex       Female         Breath test       Drive         Left Hand Drive       No         Yeh.No.       2         Vehicle type       Car	Make Model wing? No tow or articulation way not in restricted lane tion or waiting ) 2 Hit and run Not hit and run er not contacted Driving Lie Full breign registered vehicle Make Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or 1 Severity SLIGHT Age 57 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	l Rider Veh ref M s Sex Female P PSV Passenger? Not a Cycle Helmet Not a	No 2 Post code a passenger a cyclist
ManoeuvreMoving offVeh. direction fromSouth to NorthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactApproaching juncVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age57 yrsSexFemaleBreath testDriveLeft Hand DriveNot Known	wing? No tow or articulation way not in restricted lane tion or waiting ) 1 Hit and run Not hit and run er not contacted Driving Lie Full Foreign registered vehicle			

Date       26/09/2017       Day Tuesday       Road       A4130       Location       A4130       DIDCOT LINK ROAD APPROX 270M E OF J/W A34 / A4130 MILTON INTERCHANGE       MILTON         Weather       Fine without high winds       Description       HGV1 TRAV NE ON A4130 IN LANE 2 AND C2 TRAV NE IN LANE 1 - ON APPROACHING ROAD WORKS WITH LANE 1       One control of Accident       Description       OP (1 TRAV NE ON A4130 IN LANE 2 AND C2 TRAV NE IN LANE 1 - ON APPROACHING ROAD WORKS WITH LANE 1       One control of Accident       ONE OF FIIT OCCURRED BETWEEN HGV1 & C2 - BOTH DRIVERS BLAMED OTHER PARTY       PARTICIPANT       PROBABILT         Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       406 Failed to judge other person's path/speed (Driver/Rider - Error)       Vehicle 001       B         Carriageway       Dual carriageway       Roadworks       Roadworks       107 Temporary road (Road Environment Contrib)       Vehicle 002       B	
Date       26/09/2017       Day Tuesday       Read       A4130       Location A4130 DIDCOT LINK ROAD APPROA CPT JW A34 / A4130 MILTON INTERCHANG       MILTON         Yeather       Fine without high winds       Description of Accident       HGV1 TRAV NE ON A4130 DIDCOT LINK ROAD APPROA CPT JW A34 / A4130 MILTON INTERCHANG WILTON INTERCHANG WILTON       HILTON         Street Lighting       Daylight       Description of Accident       HGV1 TRAV NE ON A4130 DIDCOT LINK PARATY EVEN HGV1 & C2 - BOTH DRIVERS BLAMED OTHER PARTY       HILTON         Street Lighting       Daylight       Description of Accident       HGV1 TRAV NE ON A4130 DIDCOT LINK PARATY EVEN HGV1 & C2 - BOTH DRIVERS BLAMED OTHER PARTY       HILTON         Speed Limit       STE DETAILS       SPECIAL SITE CONDITIONS       CONTRIBUTORY FACTORS       PARTICIPANT       PROBABILT         Carriageway       Dual carriageway       Roadworks       Roadworks       107 Temporary road (Road Environment Contrib)       Vehicle 001       B         Junction Detail       T or staggered junction       To staggered junction       Vehicle 002       B	
Time       09:25         Weather       Fine without high winds       Description       HGV1 TRAV NE ON A4130 IN LANE 2 AND C2 TRAV NE IN LANE 1 - ON APPROACHING ROAD WORKS WITH LANE 1         Road Surface       Dry       Description       HGV1 TRAV NE ON A4130 IN LANE 2 AND C2 TRAV NE IN LANE 1 - ON APPROACHING ROAD WORKS WITH LANE 1         Street Lighting       Daylight       CONED OFF HIT OCCURRED BETWEEN HGV1 & C2 - BOTH DRIVERS BLAMED OTHER PARTY       PARTICIPANT       PROBABILIT         Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       Roadworks       Not adworks       I07 Temporary road (Road Environment Contrib)       Vehicle 001       B         Junction Detail       T or staggered junction       Roadworks       I07 Temporary road (Road Environment Contrib)       Vehicle 002       B	
Weather       Fine without high winds       Description       HGV1 TRAV NE ON A4130 IN LANE 2 AND C2 TRAV NE IN LANE 1 - ON APPROACHING ROAD WORKS WITH LANE 1         Road Surface       Dry       of Accident       HGV1 TRAV NE ON A4130 IN LANE 2 AND C2 TRAV NE IN LANE 1 - ON APPROACHING ROAD WORKS WITH LANE 1         Street Lighting       Daylight       Of Accident       CONED OFF HIT OCCURRED BETWEEN HGV1 & C2 - BOTH DRIVERS BLAMED OTHER PARTY         Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       CONTRIBUTORY FACTORS       PARTICIPANT       PROBABILIT         Carriageway       Dual carriageway       Dual carriageway       Roadworks       Roadworks       107 Temporary road (Road Environment Contrib)       Vehicle 001       B         Junction Detail       T or staggered junction       T or staggered junction       Note the property road (Road Environment Contrib)       Vehicle 002       B	
Road Surface       Dry       Description       Description       Description       Description       of Accident       CONED OFF HIT OCCURRED BETWEEN HGV1 & C2 - BOTH DRIVERS BLAMED OTHER PARTY         Street Lighting       Daylight       CONED OFF HIT OCCURRED BETWEEN HGV1 & C2 - BOTH DRIVERS BLAMED OTHER PARTY       PARTICIPANT       PROBABILIT         Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       406 Failed to judge other person's path/speed (Driver/Rider - Error)       Vehicle 001       B         Carriageway       Dual carriageway       Roadworks       107 Temporary road (Road Environment Contrib)       Vehicle 001       B         Junction Detail       T or staggered junction       Interporary road (Road Environment Contrib)       Vehicle 002       B	
Street Lighting       Daylight       CONTRIBUTORY FACTORS       PARTICIPANT       PROBABILIT         Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       406 Failed to judge other person's path/speed (Driver/Rider - Error)       Vehicle 001       B         Carriageway       Dual carriageway       Roadworks       107 Temporary road (Road Environment Contrib)       Vehicle 002       B         Junction Detail       T or staggered junction       Vehicle 002       B	
SITE DETAILS       CONTRIBUTORY FACTORS       PARTICIPANT       PROBABILIT         Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       406 Failed to judge other person's path/speed (Driver/Rider - Error)       Vehicle 001       B         Carriageway       Dual carriageway       Roadworks       107 Temporary road (Road Environment Contrib)       Vehicle 002       B	
Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       406 Failed to judge other person's path/speed (Driver/Rider - Error)       Vehicle 001       B         Carriageway       Dual carriageway       Roadworks       107 Temporary road (Road Environment Contrib)       Vehicle 001       B         Junction Detail       T or staggered junction       107 Temporary road (Road Environment Contrib)       Vehicle 002       B	LITY
CarriagewayDual carriagewayRoadworks107 Temporary road (Road Environment Contrib)Vehicle 001BJunction DetailT or staggered junction107 Temporary road (Road Environment Contrib)Vehicle 002B	
Junction Detail T or staggered junction 107 Temporary road (Road Environment Contrib) Vehicle 002 B	
Junction Control Give way or uncontrolled	
2nd Road Number U 601 Aggressive driving (Driver/Rider - Behaviour) Vehicle 001 B	
Pedestrian Facilities None within 50 metres	
Pedestrian phase at traffic signal junction	
VEHICLES INVOLVED 2 CASUALTIES INVOLVED 2	
Veh.No.     1     Vehicle type     Goods > 7.5t     Make     Model     Cas No     1     Cas Class     Driver or Rider     Veh ref No     2	$\neg \neg$
Manoeuvre Going ahead other Severity SLIGHT Age 24 yrs Sex Female Post code	
Veh. direction from Southwest to Northeast Towing? Articulated vehicle Car Passenger? Not a passenger? Not a passenger? Not a passenger?	
Skidded No skidding, jack-knifing or overturning Seat Belt Not applicable Cycle Helmet Not a cyclist	
Veh location at impact (restricted lane) On main carriageway not in restricted lane Ped Movement Not applicable	
Junct. location of veh. at 1st impact Cleared junction or waiting Ped Location Not applicable	
Veh left carriageway? Did not leave carriageway Ped Direction to Not applicable	
Hit object in cway? None School Pupil Other	
First point of impact Negrei de	
Veh registration no Other veh hit (ref no) 2 Hit and run Not hit and run	
Drivers age 33 yrs Sex Male Breath test Negative Driving Lic Full Severity SLIGHT Age 23 yrs Sex Female Post code	
Left Hand Drive No Foreign veh. Not foreign registered vehicle Car Passenger? Front seat passenger PSV Passenger? Not a passenger	
Journey purpose Journey as part of work Seat Belt Not applicable Cycle Helmet Not a cyclist	
Veh.No. 2 Vehicle type Car Make Model Ped Movement Not applicable	
Manoeuvre Changing lane to right Ped Location Not applicable	
Veh. direction from Southwest to Northeast Towing? No tow or articulation Ped Direction to Not applicable	
Skidded No skidding, jack-knifing or overturning School Pupil Other	
Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Roadworker injured	
Junct. location of veh. at 1st impact Cleared junction or waiting Other Details	
Veh left carriageway? Did not leave carriageway	
Hit object in c'way? None	
Hit object off c'way? None	
First point of impact Offside	
ven registration no. Uther ven.nit (ret.no) 1 Hit and run Not hit and run Drivers age 24 urs Sex Female Breath test Negative Driving Lic Full	
Left Hand Drive No. Foreign veh. Not foreign registered vehicle	
Journey purpose Other	

SEVERITY District Vale of White Horse				Grid Reference	448418 / 191374
SLIGHT Ref.No 43170296485	Accide	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			Yes
te 03/10/2017 Day Tuesday ne 17:05 eather Fine without high winds					
Road Surface Dry	Descriptio	on C1 & C2 BOTH TRAV S FROM M	ILTON PARK WITH C1 IN OSIDE LANE & C2	IN NSIDE LANE - ON I	ENTERING RBT C1
Street Lighting Davlight	of Accider	ent MOVED IO NSIDE ASSUMED IO	UEXIT TO A4130 TO DIDCOT CROSSING PAT	TH OF C2 WHICH IN TE	NDING TO CONTINUE
SITE DETAILS	1	ON RBT - C2 HIT NSIDE KERB &	CONTRIBUTORY FACTORS		PARTICIPANT PROBABILITY
Sneed Limit 40 MPH		SPECIAL SITE CONDITIONS	306 Exceeding speed limit (Driver/Rider -	Injudicious)	Vehicle 001 R
Carriageway Down debout		N	500 Exceeding speed mint (Erryer/reder	injudicious)	Vehicle 001 B
Innetion Detail Poundabout		None	405 Failed to look properly (Driver/Rider -	· Error)	Vehicle 001 A
Junction Detail Koundabout	-				
Automatic traffic signal		CARRIAGEWAY HAZARDS			
		None			
Pedestrian Facilities None within 50 metres					
Pedestrian phase at traffic signal jun	nction				
VEHICLES INVOLVED 2			CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       North to South       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Volume       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       Hit object off c'way?       None         First point of impact       Front       Veh registration no.       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age       ? yrs       Sex       Female       Breath test       Driver not contacted       Driving Lie       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Journey purpose       Not Known         Veh.No.       2       Vehicle type       Car       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       North to South       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway n		Cas No 1 Cas Class Driver or Severity SLIGHT Age 49 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh rs Sex Male PSV Passenger? M Cycle Helmet M	ref No 2 Post code Not a passenger Not a cyclist	
Junct. location of veh. at 1st impact Mid junction - on Veh left carriageway? Loft carriageway population and roboy	Junct. location of veh. at 1st impact Mid junction - on roundabout or main road				
Hit object in c'way? None	indeu				
Hit object off c'way? Other permanent object					
First point of impact Nearside					
Veh registration no Other veh hit (ref no)	1	Hit and run Not hit and m	ın		
Drivers age 49 vrs Sex Male Breath test Drive	r not contac	cted Driving Lic Full	*11		
Left Hand Drive No Foreign veh Not for	oreion regio	stered vehicle			
Iourney of part of work	orongin regis				
Journey as part of work					

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170326878	Accident Date BETWEEN '09-Jun-2014' AND '08	-Jun-2019'	Grid Reference448287 / 191325Police Officer Attend:No - reported over the court	Inter
Date30/10/2017Day MondayTime21:10WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road A4130 Location A4130 MILTON INTER Description C1 TRAV NE ON RBT IN OSIDE LA of Accident TO NSIDE OF C1	RCHANGE RBT J/W ENTRY SLIP ROAD TO A	A34 NBOUND MILTON SLIP ROAD BUT HIT C2 CONTINUING ON RBT	
SITE DETAILS         SITE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Automatic traffic signal         2nd Road Number       A34         Pedestrian Facilities       None within 50 metres         Pedestrian phase at traffic signal junction	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 403 Poor turn or manoeuvre (Driver/Rider -	PARTICIPANT PROBABII Error) Vehicle 001 B - Error) Vehicle 001 B	LITY
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning left       Townown from Southwest to North       Townown from Townown from Southwest to North         Skidded       No skidding, jack-knifing or overturning       On main carriagew         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Leaving roundabout         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       35 yrs       Sex         No       Foreign veh. Not for         Journey purpose       Not Known	Make     Model       ring?     No tow or articulation       ray not in restricted lane     ane       1t     thit and run       2     Hit and run       Not hit and run     Not hit and run       root contacted     Driving Lic       Full     breign registered vehicle	CASUALTIES INVOLVED         Cas No       1 Cas Class       Driver or I         Severity       SLIGHT       Age 29 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	1       Rider     Veh ref No     2       s     Sex     Female     Post code       PSV Passenger?     Not a passenger       Cycle Helmet     Not a cyclist	
Veh.No.2Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromSouthwest to NortheastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactMid junction - on rVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age29 yrsSexFemaleBreath testDriverLeft Hand DriveNoJourney purposeNot Known	Make     Model       ring?     No tow or articulation       ray not in restricted lane     roundabout or main road       1     Hit and run       1     Hit and run       root contacted     Driving Lic       reign registered vehicle			

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170376838	Accident Date BETWEEN '09-Jun-2014' AND '08	3-Jun-2019'	Grid Reference448170 / 191634Police Officer Attend:Yes	
Date       28/11/2017       Day Tuesday         Time       06:25         Weather       Fine without high winds         Road Surface       Wet/Damp         Street Lighting       Dark: no street lighting			ERCHANGE MILTON 34	
SITE DETAILS       Speed Limit     70 MPH       Carriageway     Dual carriageway       Junction Detail     Slip road       Junction Control     Give way or uncontrolled	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS	CONTRIBUTORY FACTORS 406 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY ed (Driver/Rider - Error) Vehicle 001 B	
2nd Road Number     A34       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	n 50 metre			
VEHICLES INVOLVED 2	· · ·	CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car       Make       Model         Manoeuvre       Going ahead other       Towing?       No tow or articulation         Veh. direction from       South to North       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Entering main road       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       None       Hit object off c'way?       None         First point of impact       Front       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age       34 yrs       Sex       Female       Breath test       Negative       Driving Lic       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Journey purpose       Not Known		Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 61 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist	
Veh.No.2Vehicle typeCarManoeuvreWaiting to go ahead but held upVeh. direction fromSouth to NorthToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactEntering main roatVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age61 yrsSexMaleBreath testNegaLeft Hand DriveNoNot Known	Make Model owing? No tow or articulation eway not in restricted lane oad o) 1 Hit and run Not hit and run gative Driving Lic Full foreign registered vehicle			
SEVERITY         District         Vale of White Horse           SLIGHT         Ref.No         43170369740         Accident Date BETWEEN '09-Jun-2014' AND '0'	Grid Reference 448433 / 191332			
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	Police Officer Attend: Yes			
ate 06/12/2017 Day Wednesday me 07:15 Road A4130 Location A4130 MILTON INTERCHANGE RBT J/W A34 AT J/W A4130 FROM DIDCOT MILTON				
Weather Fine without high winds	II ED TO STOP FOR RED SIGNAL & HIT MC2 TRAV W ON A4130 FROM DIDCOT			
Road Surface Dry of Accident ENTERING RBT ON GREEN SIGNA	AL			
Street Lighting Dark: street lights present and lit				
SITE DETAILS	CONTRIBUTORY FACTORS PARTICIPANT PROBABILITY			
Speed Limit   40 MPH   SPECIAL SITE CONDITIONS	301 Disobeyed automatic traffic signal (Driver/Rider - Injudicious) Vehicle 001 A			
Carriageway Roundabout None	405 Failed to look properly (Driver/Rider - Error) Vehicle 001 A			
Junction Detail Roundabout				
Junction Control Automatic traffic signal				
2nd Road Number A4130				
Pedestrian Facilities None within 50 metres None				
Pedestrian phase at traffic signal junction				
VEHICLES INVOLVED 2	CASUALTIES INVOLVED 1			
Veh.No. 1 Vehicle type Car Make Model	Cas No 1 Cas Class Driver or Rider Veh ref No 2			
Manoeuvre Going ahead other	Severity SLIGHT Age 33 yrs Sex Male Post code			
Veh. direction from North to South Towing? No tow or articulation	Car Passenger? Not a passenger PSV Passenger? Not a passenger			
Skidded No skidding, jack-knifing or overturning	Seat Belt Not applicable Cycle Helmet Not a cyclist			
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Ped Movement Not applicable			
Junct. location of veh. at 1st impact Mid junction - on roundabout or main road	Ped Location Not applicable			
Veh left carriageway? Did not leave carriageway	Ped Direction to Not applicable			
Hit object in c'way? None	School Pupil Other			
Hit object off c'way? None	Roadworker injured			
First point of impact Nearside	Other Details			
Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and rur				
Drivers age 26 yrs Sex Male Breath lest Negative Driving Lic Full				
Lett Hand Drive $N_0$ Foreign ven. Not foreign registered venicle				
Veh.No. 2. Vehicle type M/cycle > 500cc Make Model				
Manoeuvre Moving off				
Veh. direction from East to West Towing? No tow or articulation				
Skidded No skidding, jack-knifing or overturning				
Veh location at impact (restricted lane) On main carriageway not in restricted lane				
Junct. location of veh. at 1st impact Entering roundabout				
Veh left carriageway? Did not leave carriageway				
Hit object in c'way? None				
Hit object off c'way? None				
First point of impact Front				
Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run	1			
Drivers age 33 yrs Sex Male Breath test Negative Driving Lic Full				
Left Hand Drive No Foreign veh. Not foreign registered vehicle				
Journey purpose Commuting to/from work				

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170369726	Accident Date BETWEEN '09-Jun-2014' AND '(	08-Jun-2019'	Grid Reference448661 / 191047Police Officer Attend:No - reported over the counter
Date08/12/2017DayFridayTime16:00WeatherFine without high windsRoad SurfaceDryStreet LightingDark: no street lighting	Road A34 Location A34 NBOUND AT M Description LGV1 TRAV NW IN LANE 1 HIT F of Accident	GV1 FTS	
SITE DETAILS         SITE DETAILS         Speed Limit       70 MPH         Carriageway       Dual carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	on SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beha 509 Distraction in vehicle (Driver/Rider - In	PARTICIPANT PROBABILITY aviour) Vehicle 001 B (mpairment) Vehicle 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Van/Goods < 3.5t	Make Model wing? No tow or articulation way not in restricted lane 20m of junction ) 2 Hit and run Hit and Run er not contacted Driving Lie Full foreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 30 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist
Veh.No.2Vehicle typeCarManoeuvreWaiting to go ahead but held upVeh. direction fromSoutheast to NorthwestTorSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagerJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age30 yrsSexMaleBreath testDriveLeft Hand DriveNoForeign veh. Not fJourney purposeNot Known	Make     Model       wing?     No tow or articulation       way not in restricted lane     20m of junction       20m of junction     Hit and run       )     1     Hit and run       or contacted     Driving Lic       Foreign registered vehicle	in	

Date       09/12/2017       Day Saturday         Time       15:55         Weather       Fine without high winds         Road A4130       Location A4130 MILTON INTERCHANGE RBT J/W A4130 FROM DIDCOT MILTON         Street Lighting       Daylight         Street Lighting       Daylight         Street Lighting       STEE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Control       Automatic traffic signal         Junction Control       Automatic traffic signal         Ad Road Number       A4130         Pedsetrian Pacie       Owne         CARRIAGEWAY HAZARDS       None         VEHICLES INVOLVED       2         Vehicle type Car       Make         Manoeuvre       Going ahead other         Veh. direction from       Towing? No tow or articulation         Skidded       Non within 50 or thres         Ped solution from North to South       Towing? No tow or articulation         Skidded       Non wing? No tow or articulation         Skidded       Non wing or overturning         Veh direction from North to South       Towing? No tow or articulation         Skidded       No main carriageway in restricted lane	SLIGHT Ref.No 43170370694				
STE DETAILS       SPECIAL SITE CONDITIONS       PARTICIPANT       PROBABILITY         Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       None       405 Failed to look properly (Driver/Rider - Error)       Vehicle 001       A         Carriageway       Roundabout       None       None       301 Disobeyed automatic traffic signal (Driver/Rider - Injudicious)       Vehicle 001       A         Junction Control       Automatic traffic signal       CARRIAGEWAY HAZARDS       None       Vehicle 001       A         Vehostin Facilities       None within 50 metres       Pedestrian phase at traffic signal junction       CARRIAGEWAY HAZARDS       None       Vehicle type Car       Make       Model       Cassual Casse Passenger       Veh ref No       2         Veh.No. 1       Vehicle type Car       Make       Model       Cas No       2 Cas Class       Passenger       Veh ref No       2         Veh.direction from North to South       Towing? No tow or articulation       Severity       SLIGHT       Age 4 yrs       Sex Female       Post code         Skidded       No skidding, jack-knifig or overturning       Veh tow or articulation       Severity       SLIGHT       Age 4 yrs       Sex Female       Post code         Veh cloation at impact (restricted lane)       On main carariageway not in restricted lane       Not a p	Date       09/12/2017       Day Saturday         Time       15:55         Weather       Fine without high winds         Road Surface       Dry         Streat Lighting       Dawlight				
Speed Limit       40 MPH       SPECIAL SITE CONDITIONS       Austrantia The finite matrix interaction of ventility of the property (Driver/Rider - Error)       Vehicle 001 A         Junction Detail       Roundabout       None       301 Disobeyed automatic traffic signal (Driver/Rider - Injudicious)       Vehicle 001 A         Junction Control       Automatic traffic signal       CARRIAGEWAY HAZARDS       None       301 Disobeyed automatic traffic signal (Driver/Rider - Injudicious)       Vehicle 001 A         YeeHostian Facilities       None within 50 metres       Pedestrian phase at traffic signal junction       CARRIAGEWAY HAZARDS       None       Vehicle traffic signal (Driver/Rider - Injudicious)       Vehicle 001 A         VEHICLES INVOLVED       2       CARRIAGEWAY HAZARDS       None       Image: Severity SLIGHT       Age 4 yrs       Severity SLIGHT       Severity SLIGHT       Severity SLIGHT       Age 4 yrs       Severity SLIGHT       Not a passenger       Veh ref No       2         Veh. drivention from       Nork to South       Towing? No tow or articulation       Towing? No tow or articulation       Severity SLIGHT       Age 4 yrs       Severity SLIGHT       Severity SLIGHT       Not a possenger?       Not a passenger         Veh. dication at impact (restricted lane)       On main carriageway not in restricted lane       On main carriageway not in restricted lane       Not applicable       Cycle Helmet       Not	SITE DETAILS				
Carriageway       Roundabout         Junction Detail       Roundabout         Junction Detail       Roundabout         Junction Detail       Roundabout         Junction Detail       Automatic traffic signal         2nd Road Number       A4130         Pedestrian Facilities       None         VEHICLES INVOLVED       2         VEHICLES INVOLVED       2         Veh.No. 1       Vehicle type         Going ahead other       Make         Veh. direction from       North         Skidded       No skidding, jack-knifting or overturning         Veh location of veh. at 1st impact       Mid junction - on roundabout or main road	Speed Limit 40 MPH				
Indication Detail Junction Detail Junction Control Automatic traffic signal 2nd Road Number Pedestrian Facilities None within 50 metres Pedestrian phase at traffic signal junction       CARRIAGEWAY HAZARDS None       Indice       301 Disobeyed automatic traffic signal (Driver/Rider - Injudicious)       Vehicle 001       A         VEHICLES INVOLVED       2       CARRIAGEWAY HAZARDS None       None       Cassual traffic signal junction       Intervention         VEHICLES INVOLVED       2       Cassual traffic signal dotter       Cassual traffic signal segment       Veh ref No       2         Veh.No.       1       Vehicle type       Car       Make       Model       Severity       SLIGHT       Age 4 yrs       Sex       Female       Post code         Veh. direction from Skidded       No skidding, jack-knifing or overturning Veh location of twh. at lst impact       Towing?       No tow or articulation       Seat Belt       Not applicable       Cycle Helmet       Not a cyclist         Ped Movement       Not applicable       Ped Movement       Not applicable       Cycle Helmet       Not a cyclist	Carriageway Poundshout				
Junction Control       Automatic traffic signal         Junction Control       Automatic traffic signal         2nd Road Number       A4130         Pedestrian Facilities       None within 50 metres         Pedestrian Facilities       None within 50 metres         Pedestrian phase at traffic signal junction       CARRIAGEWAY HAZARDS         None       VehICLES INVOLVED       2         VEHICLES INVOLVED       2         Veh.No. 1       Vehicle type Car       Make         Manoeuvre       Going ahead other         Veh. direction from       North to South       Towing? No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Mote or articulation         Veh cloation of veh. at 1st impact       On main carriageway not in restricted lane       Not applicable         Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road       Not applicable	Lunction Detail Roundahout				
Sunction Control       Automate traffic signal         2nd Road Number       A4130         Pedestrian Facilities       None within 50 metres         Pedestrian phase at traffic signal junction       None         VEHICLES INVOLVED       2         Veh.No. 1       Vehicle type Car         Make       Model         Veh.No. 1       Vehicle type Car         Going ahead other         Veh. direction from       North to South         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road	Junction Control Automatic traffic signal				
Pedestrian Facilities       None within 50 metres       None         Pedestrian phase at traffic signal junction       None         VEHICLES INVOLVED       2       CASUALTIES INVOLVED       1         Veh.No. 1       Vehicle type       Car       Make       Model       Cas No       2       Cas Class       Passenger       Veh ref No       2         Veh.No. 1       Vehicle type       Car       Make       Model       Cas No       2       Cas Class       Passenger       Veh ref No       2         Manoeuvre       Going ahead other       Severity       SLIGHT       Age 4 yrs       Sex Female       Post code         Veh. direction from       North to South       Towing? No tow or articulation       Seat Belt       Not applicable       PSV Passenger?       Not a passenger         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Ped Movement       Not applicable       Cycle Helmet       Not a cyclist         Ped Location of veh. at 1st impact       Mid junction - on roundabout or main road       Ped Location       Not applicable       Ped Location       Not applicable	2nd Road Number A 4120				
Pedestrian Pacifilities       Pedestrian phase at traffic signal junction         VEHICLES INVOLVED       2         VEHICLES INVOLVED       2         Veh.No.       1         Veh.ot is expressioned on the restricted bare       Make         Manoeuvre       Going ahead other         Veh. direction from       North to South         Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road	Protection Facilities No. 241 50 4				
Vehicle type       Car       Make       Model       Cas No       2       Cas Class       Passenger       Veh ref No       2         Veh.No.       1       Vehicle type       Car       Make       Model       Cas No       2       Cas Class       Passenger       Veh ref No       2         Manoeuvre       Going ahead other       Severity       SLIGHT       Age 4 yrs       Sex       Female       Post code         Veh. direction from       North to South       Towing?       No tow or articulation       Car Passenger?       Rear seat passenger       PSV Passenger?       Not a passenger         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Not applicable       Ped Movement       Not applicable       Post out a cyclist         Ped Location of veh. at 1st impact       Mid junction - on roundabout or main road       Pod Location       Not applicable       Not applicable	Pedestrian Facilities None within 50 metres				
VEHICLES INVOLVED       2       CASUALTIES INVOLVED       1         Veh.No.       1       Vehicle type       Car       Make       Model       Cas No       2       Cas Class       Passenger       Veh ref No       2         Manoeuvre       Going ahead other       Severity       SLIGHT       Age       4 yrs       Sex       Female       Post code         Veh. direction from       North to South       Towing?       No tow or articulation       Car Passenger?       Rear seat passenger       PSV Passenger?       Not a passenger         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Seat Belt       Not applicable       Cycle Helmet       Not a cyclist         Veh location of veh. at 1st impact       Mid junction - on roundabout or main road       Ped Location       Not applicable       Ped Location       Not applicable	Pedestrian phase at traffic signal ju				
Veh.No.       1       Vehicle type       Car       Make       Model       Cas No       2       Cas Class       Passenger       Veh ref No       2         Manoeuvre       Going ahead other       Going ahead other       Severity       SLIGHT       Age 4 yrs       Sex Female       Post code         Veh. direction from       North to South       Towing?       No tow or articulation       Car Passenger?       Rear seat passenger       PSV Passenger?       Not a passenger         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       Seat Belt       Not applicable       Cycle Helmet       Not a cyclist         Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road       Ped Location       Not applicable       Ped Location       Not applicable	VEHICLES INVOLVED 2				
Veh left arriageway?       Did not leave carriageway       Ped Direction to Not applicable         Hit object in c'way?       None       Roadworker injured         First point of impact       Front       Roadworker injured         Drivers age 33 yrs       Sex Male       Breath test       Negative       Driving Lie Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Other Vehilt         Journey purpose       Journey as part of work       Make       Model         Manoeuvre       Going ahead other       Towing? No tow or articulation       Skidded       No skidding, jack-kniffrog or overturning         Veh location of veh. at 1st impact       Mid junction - on roundabout or main road       Mid junction - on roundabout or main road         Veh location of finages 31 yrs       Sex Male       Breath test       Negative         First point of impact       Offside       Vehrey?       None         Veh location of veh. at 1st impact       Mid junction - on roundabout or main road       Veh location of finages 31 yrs       Sex Male         Britt object in c'way?       None       Other vehilt (ref.no) 1       Hit and run       Not thit and run         Drivers age 31 yrs       Sex Male       Breath test       Negative       Driving Lie Full         Left Hand Dri	Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNorth to SouthToVeh. direction fromNorth to SouthToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactMid junction - orVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.m.Drivers age33 yrsSexMaleBreath testNegLeft Hand DriveNoJourney purposeJourney as part of workVeh.No.2Vehicle typeTaxiManoeuvreGoing ahead otherVeh. direction fromEast to WestToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactMid junction - orVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.n.Drivers age31 yrsSexMaleBreath testNegLeft Hand DriveNoForeign veh. Not				

SEVERITYDistrictVale of White HorseSLIGHTRef.No43180002110	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference448428 / 191353Police Officer Attend:Yes			
Date25/12/2017Day MondayTime11:34WeatherFine without high windsRoad SurfaceDryStreet LightingDavlight	Road       A4130       Location       A4130       MILTON INTER         Description       C1       TRAV S ON RBT FAILED TO SEL         of Accident       DIDCOT USING CENTRAL LANES	d A4130 Location A4130 MILTON INTERCHANGE RBT J/W A4130 FROM DIDCOT MILTON cription C1 TRAV S ON RBT FAILED TO SEE / STOP FOR RED SIGNAL AND HIT OSIDE OF C2 ENTERING RBT FROM A4130 FROM Accident DIDCOT USING CENTRAL LANES OF RBT				
Speed Limit     40 MPH       Carriageway     Roundabout       Junction Detail     Roundabout       Junction Control     Automatic traffic signal       2nd Road Number     A4130	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS	CONTRIBUTORY FACTORS 301 Disobeyed automatic traffic signal (Dr 405 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY iver/Rider - Injudicious) Vehicle 001 A · Error) Vehicle 001 A			
Pedestrian Facilities None within 50 metres No physical crossing facility within	50 metre					
Vehicles involued       2         Veh.No.       1       Vehicle type         Manoeuvre       Going ahead other         Veh. direction from       North to South       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on the vehicle the carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None	Make Model ving? No tow or articulation vay not in restricted lane roundabout or main road	Cas No       1       Cas Class       Passenger         Severity       SLIGHT       Age       52 yr         Car Passenger?       Rear seat passenge         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	<ul> <li>Veh ref No 2</li> <li>Sex Female Post code</li> <li>PSV Passenger? Not a passenger</li> <li>Cycle Helmet Not a cyclist</li> </ul>			
First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       42 yrs       Sex       Female         Left Hand Drive       No       Breath test       Negative         Journey purpose       Other       Veh.No. 2       Vehicle type       Car         Manoeuvre       Going ahead other       Tow       Skidded       Skidded         Veh location at impact (restricted lane)       On main carriagew       Mid iunction - on the stripped of the strip	2 Hit and run Not hit and run ive Driving Lie Full breign registered vehicle Make Model ving? No tow or articulation vay not in restricted lane roundabout or main road	Cas No       2       Cas Class       Passenger         Severity       SLIGHT       Age       55 yr         Car Passenger?       Rear seat passenge         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Veh ref No 2 rs Sex Female Post code er PSV Passenger? Not a passenger Cycle Helmet Not a cyclist			
Junct. location of veh. at 1st impact       Mid junction - on 1         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       50 yrs         Sex       Male         Breath test       Negati         Left Hand Drive       No         Journey purpose       Other	1 Hit and run Not hit and run ive Driving Lic Full breign registered vehicle					

SEVERITY District Vale of White Horse	Grid Reference 448760 / 191478
SLIGHT Ref.No 43180183910 Accident Date BETWEEN '09-Jun-2014' A	AND '08-Jun-2019' Police Officer Attend: Yes
Date12/06/2018Day TuesdayTime17:24Road A4130Location A4130 APPROX	X 350M E OF J/W A34 / A4130 MILTON INTERCHANGE AT E END OF CENTRAL ISLAND MILTON
Weather     Fine without high winds     Description     C1 TRAV E ON A4130 MAD       Road Surface     Dry     of Accident     WAY TO MC2 TRAV E ON A	E U TURN AT END OF CENTRAL REFUGE AREA TO RETURN TO W FAILING TO SEE / GIVE A4130 TO OSIDE OF C1
Street Lignung Daylight	
SITE DETAILS	CONTRIBUTORY FACTORS PARTICIPANT PROBABILITY
Speed Limit 40 MPH SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider - Error) Vehicle 001 A
Carriageway Single carriageway None	403 Poor turn or manoeuvre (Driver/Rider - Error) Vehicle 001 A
Junction Detail Not at or within 20 metres of junction	602 Canalass/Bastilass (Driver/Bider Bahavisur) Vehicle 001 A
Junction Control	002 Careless/Reckless (Driver/Rider - Benaviour) venicie 001 A
2nd Road Number	
Pedestrian Facilities None within 50 metres None	
No physical crossing facility within 50 metre	
No physical clossing facility within 50 metre	
VEHICLES INVOLVED 2	CASUALTIES INVOLVED 2
Veh.No. 1 Vehicle type Car Make Model	Cas No 1 Cas Class Driver or Rider Veh ref No 1
Manoeuvre U turn	Severity SLIGHT Age 23 yrs Sex Male Post code
Veh. direction from West to West Towing? No tow or articulation	Car Dessencer? Not a management DSV Dessencer? Not a management
Skidded No skidding, jack-knifing or overturning	Car Passenger? Not a passenger PSV Passenger? Not a passenger
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Ped Movement Not applicable Cycle Heinet Not a cyclist
Junct. location of veh. at 1st impact Not at or within 20m of junction	Ped Location Not applicable
Veh left carriageway? Did not leave carriageway	Ped Direction to Net annihisch la
Hit object in c'way? None	School Durit Other
Hit object off c'way? None	School Pupil Other
First point of impact Offside	Koadworker injured
Veh registration no. Other veh.hit (ref.no) () Hit and run Not hit a	and run Cas No 2 Cas Class Driver or Rider Veh ref No 2
Drivers age 23 yrs Sex Male Breath test Negative Driving Lic Full	Severity SLIGHT Age 28 yrs Sex Male Post code
Left Hand Drive No Foreign veh. Not foreign registered vehicle	Car Passenger? Not a passenger PSV Passenger? Not a passenger
Journey purpose Other	Seat Belt Not applicable Cycle Helmet Not a cyclist
Veh.No. 2 Vehicle type M/cycle 50 - 125cc Make Model	Ped Movement Not applicable
Manoeuvre Going ahead other	Ped Location Not applicable
Veh. direction from West to East Towing? No tow or articulation	Ped Direction to Not applicable
Skidded No skidding, jack-knifing or overturning	School Pupil Other
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Roadworker injured
Junct. location of veh. at 1st impact Not at or within 20m of junction	Other Details
Veh left carriageway? Did not leave carriageway	
Hit object in c'way? None	
Hit object off c'way? None	
First point of impact Front	
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit a	and run
Drivers age 28 yrs Sex Male Breath test Negative Driving Lic Full	
Left Hand Drive No Foreign veh. Not foreign registered vehicle	
Journey purpose Other	

SEVERITYDistrictVale of White HorseSLIGHTRef.No43180212830	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		449975 / 191366 Yes		
Date03/07/2018Day TuesdayTime17:31WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 APPROX 1.5KM I Description C1 TRAV E ON A4130 HIT REAR OF of Accident	A4130 Location A4130 APPROX 1.5KM E OF MILTON INTERCHANGE HARWELL ription C1 TRAV E ON A4130 HIT REAR OF C2 IN SLOW MOVING TRAFFIC WHICH THEN HIT REAR OF C3 ccident				
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	on SPECIAL SITE CONDITIONS 4 None 6 CARRIAGEWAY HAZARDS None 50 metre	CONTRIBUTORY FACTORS 106 Failed to judge other person's path/spec 503 Nervous/Uncertain (Driver/Rider - Beł	ed (Driver/Rider - Error) naviour)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 B		
VEHICLES INVOLVED       3         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tow         Skidded       Skidded       Tow         Skidded       Skidded       Skidded         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Not at or within 20         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       19 yrs         Sex       Male         Breath test       Negati         Left Hand Drive       No         No       Foreign veh. Not fo         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type         Veh.direction from       West to East       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Not at or within 20       Veh left carriageway?       Did not leave carr	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       O     Hit and run       O     Hit and run       tive     Driving Lic       Full     Full       Make     Model       wing?     No tow or articulation       way not in restricted lane     Model       O     Hit and run       O     Hit and run	CASUALTIES INVOLVED          Cas No       1 Cas Class       Driver or I         Severity       SLIGHT       Age 47 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Severity       SLIGHT         Age 65 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	Rider     Veh ref       s     Sex Female       PSV Passenger?     Not       Cycle Helmet     Not   Rider Veh ref s Sex Female PSV Passenger? Not Cycle Helmet Not Cycle Helmet Not	No       2         Post code       1         1 a passenger       1         1 a cyclist       2         No       3         Post code       3         1 a passenger       1         1 a passenger       1         1 a passenger       1         1 a cyclist       2		
Journey purpose Commuting to/from work		4				

Veh.No. 3 Vehi	cle type Car		Make	Model
Manoeuvre V	Vaiting to go ahe	ad but held up		
Veh. direction from V	Vest to East	Towing?	No tow or articulation	
Skidded No skid	ding, jack-knifin	g or overturning		
Veh location at impact (r	estricted lane)	On main carriageway not	t in restricted lane	
Junct. location of veh. at	1st impact	Not at or within 20m of j	unction	
Veh left carriageway?	Did not leave ca	arriageway		
Hit object in c'way?	None			
Hit object off c'way?	None			
First point of impact	Back			
Veh registration no.		Other veh.hit (ref.no)	0 Hit and run	Not hit and run
Drivers age 65 yrs	Sex Female	Breath test Not requeste	ed Driving Lic	Full
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle	
Journey purpose	Commuting to/f	from work		

SEVERITYDistrictVale of White HorseFATALRef.No43180259399	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
Date       23/08/2018       Day Thursday         Time       19:25         Weather       Fine without high winds         Road Surface       Dry         Street Lighting       Daylight         SITE DETAILS       CONTRIBUTORY FACTORS         Speed Limit       40 MPH         SPECIAL SITE CONDITIONS       SPECIAL SITE CONDITIONS				
CarriagewayRoundaboutJunction DetailRoundaboutJunction ControlAutomatic traffic signal2nd Road NumberA34Pedestrian FacilitiesNone within 50 metres Pelican, puffin, toucan or similar	None     30       40       CARRIAGEWAY HAZARDS       None	<ul> <li>D1 Disobeyed automatic traffic signal (Dr.</li> <li>D5 Failed to look properly (Driver/Rider -</li> </ul>	iver/Rider - Injudicious) Vehicle 001 A Error) Vehicle 002 B	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Veh. direction from       North to South       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagev	Make Model wing? No tow or articulation way not in restricted lane	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity FATAL Age 20 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable	1         Rider       Veh ref No       2         s       Sex       Male       Post code         PSV Passenger?       Not a passenger         Cycle Helmet       Not a cyclist	
Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no)       2         Driviers use       Sax         Driviers use       Sax         First point of       Breath test         Note       Driviers Lice				
Dirversingle     Site Female     Dirversite       Left Hand Drive     No     Foreign veh.     Not foreign registered vehicle       Journey purpose     Not Known       Veh.No.     2     Vehicle type     M/cycle 125 - 500cc     Make       Manoeuvre     Going ahead other				
Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagev         Junct. location of veh. at 1st impact       Mid junction - on         Veh left carriageway?       Did not leave carriageway         Hit object in clway?       Name	way not in restricted lane roundabout or main road			
Hit object in cway?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       20 yrs       Sex       Male         Breath test       Not p.         Left Hand Drive       No       Foreign veh.       Not for         Journey purpose       Not Known	1 Hit and run Not hit and run rovided (medical reas Driving Lic Full oreign registered vehicle			

SEVERITYDistrictVale of White HorseSLIGHTRef.No43180306275	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date25/09/2018DayTuesdayTime11:49WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Image: Construction of the second state of the second s				
Speed Limit     60     MPH       Carriageway     Slip road       Junction Detail     Roundabout       Junction Control     Give way or uncontrolled       2nd Road Number     A4130       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	SPECIAL SITE CONDITIONS     40       None     CARRIAGEWAY HAZARDS       50 metre     Vone	CONTRIBUTORY FACTORS 5 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A		
VEHICLES INVOLVED2Veh.No.1Vehicle typeGoods > 7.5tManoeuvreChanging lane to leftVeh. direction fromSouthwest to NortheastTowVeh. direction fromSouthwest to NortheastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactCleared junction ofVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age57 yrsSexMaleJourney purposeJourney as part of workVeh.No.2Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromSouthwest to NortheastTowSouthwest to Northeast	Make     Model       wing?     No tow or articulation       way not in restricted lane or waiting	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 18 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider     Veh ref No     2       s     Sex Female     Post code       PSV Passenger?     Not a passenger       Cycle Helmet     Not a cyclist		
SkiddedSkiddedSkiddedSkiddedVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactCleared junction ofVeh left carriageway?Left carriageway offsideHit object in c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age18 yrsSexFemaleBreath testNegatLeft Hand DriveNoJourney purposeCommuting to/from work	way not in restricted lane or waiting ) 1 Hit and run Not hit and run tive Driving Lic Full `oreign registered vehicle				

SEVERITY         District         Vale of White Horse           SLIGHT         Ref.No         43180304423         Accident Date BETY	WEEN '09-Jun-2014' AND '08-Jun-2019'	Grid Reference 449825 / 191632			
	Police Officer Attend: Yes				
Date04/10/2018Day ThursdayRoadU243LocaTime15:03	te 04/10/2018 Day Thursday Road U243 Location MILTON ROAD RBT J/W PARK DRIVE HARWELL				
Weather Fine without high winds					
Road Surface Dry Description C1 TRA	V N ON MILTON ROAD HIT REAR OF C2 WHICH BRAKED ON APP	ROACH TO RBT FOR ONCOMING EMERGENCY			
Street Lighting Daylight of Accident AMBUL	ANCE				
SITE DETAILS	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY			
Speed Limit 60 MPH SPECIAL SI	TE CONDITIONS 405 Failed to look properly (Driver/Ric	er - Error) Vehicle (0.1 A			
Carriageway David Laws		venicie 001 A			
Lunction Detail Poundabout None	903 Emergency vehicle on call (Specia	Codes) Vehicle 003 A			
Junction Central Cive way or uncentralled					
2nd Bood Number U	WAY HAZARDS				
None					
Pedestrian Facilities None within 50 metres					
No physical crossing facility within 50 metre					
VEHICLES INVOLVED 3	CASUALTIES INVOLV	ED 1			
Veh.No. 1 Vehicle type Car Make	Model Cas No 1 Cas Class Driver	or Rider Veh ref No 2			
Manoeuvre Slowing or stopping	yrs Sex Male Post code				
Veh. direction from South to North Towing? No tow or articu	ulation Car Passenger? Not a passenge	PSV Passenger? Not a passenger			
Skidded No skidding, jack-knifing or overturning	Seat Belt Not applicable	Cycle Helmet Not a cyclist			
Veh location at impact (restricted lane) On main carriageway not in restricted lane	e Ped Movement Not applicable				
Junct. location of veh. at 1st impact Entering roundabout	Ped Location Not applicable				
Veh left carriageway? Did not leave carriageway	Ped Direction to Not applicable				
Hit object in c'way? None	School Pupil Other				
Hit object off c'way? None	Roadworker injured				
First point of impact Front	Other Details				
Veh registration no. Other veh.hit (ref.no) 0 Hit and run Not hit and run					
Drivers age 73 yrs Sex Male Breath test Negative D	briving Lic Full				
Left Hand Drive No Foreign ven. Not foreign registered vehicle	2				
Journey purpose Other	Model				
Manoeuvre Weiting to go should but hold up	Widder				
Veh direction from South to North Towing? No tow or article	lation				
Skidded No skidding jock knjfing or overturning					
Veh location at impact (restricted lane) On main carriageway not in restricted lane	a				
Junct location of yeb at 1st impact Entering roundabout	č				
Veh left carriageway? Did not leave carriageway					
Hit object in c'way? None					
Hit object off c'way? None					
First point of impact Back					
Veh registration no. Other veh.hit (ref.no) () H	lit and run Not hit and run				
Drivers age 41 yrs Sex Male Breath test Negative D	Priving Lic Full				
Left Hand Drive No Foreign veh. Not foreign registered vehicle	e				
Journey purpose Commuting to/from work					

Veh.No. 3 Vehi	cle type Other: A	AMBULANCE	3	Make		Model
Manoeuvre (	Going ahead other					
Veh. direction from	North to South		Towing?	No tow or art	iculation	
Skidded No skid	lding, jack-knifin	g or overturnin	ıg			
Veh location at impact (r	estricted lane)	On main carr	riageway no	t in restricted la	ane	
Junct. location of veh. at	1st impact	Approaching	g junction or	waiting		
Veh left carriageway?	Did not leave ca	arriageway				
Hit object in c'way?	None					
Hit object off c'way?	None					
First point of impact	Did not impact					
Veh registration no.		Other veh.hit (r	ref.no)	0	Hit and run	Non-stop vehicle,
Drivers age ? yrs	Sex Not know	Breath test	Driver not c	ontacted	Driving Lic	Full
Left Hand Drive	No	Foreign veh.	Not foreign	registered vehi	icle	
Journey purpose	Journey as part	of work				

SEVERITYDistrictVale of White HorseSLIGHTRef.No43180306139	Accident Date BETWEEN '09-Jun-2014' AND '08	3-Jun-2019'	Grid Reference Police Officer Attend:	449923 / 191373 Yes		
Date07/10/2018DaySundayTime08:30WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 LINK ROAD AF Description TX2 TRAV W ON A4130 SUDDENL of Accident	d A4130 Location A4130 LINK ROAD APPROX. 1500M E OF MILTON INTERCHANGE HARWELL cription TX2 TRAV W ON A4130 SUDDENLY BRAKED CAUSING C1 ALSO TRAV W TO DRIVE INTO REAR OF TX2. .ccident				
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junct         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility with	tion SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None in 50 metre	CONTRIBUTORY FACTORS 408 Sudden braking (Driver/Rider - Error) 602 Careless/Reckless (Driver/Rider - Beh 406 Failed to judge other person's path/spe 509 Distraction in vehicle (Driver/Rider - I	aviour) ed (Driver/Rider - Error mpairment)	PARTICIPANTPROBABILITYVehicle 002AVehicle 001B) Vehicle 001BVehicle 001B		
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       T         Veh. direction from       Southeast to Northwest       T         Skidded       No skidding, jack-knifing or overturning       On main carriag         Junct. location of veh. at 1st impact       Not at or within         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.m.         Drivers age       26 yrs       Sex         Journey purpose       Journey as part of work       T         Veh.No.       2       Vehicle type       Taxi         Manoeuvre       Going ahead other       T         Veh. direction from       Southeast to Northwest       T         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Not at or within       Veh         Veh location at impact (restricted lane)       On main carriage       Junct. location of veh. at 1st impact       Not at or within	Make       Model         Fowing?       No tow or articulation         geway not in restricted lane       20m of junction         no)       2       Hit and run       Not hit and run         no)       2       Hit and run       Not hit and run         gative       Driving Lic       Full         t foreign registered vehicle       Make       Model         Fowing?       No tow or articulation         geway not in restricted lane       20m of junction         no)       1       Hit and run       Not hit and run         no)       1       Hit and run       Not hit and run         gative       Driving Lic       Full         no)       1       Hit and run       Not hit and run         no)       1       Hit and run       Not hit and run         no)       1       Hit and run       Not hit and run         no)       1       Hit and run       Not hit and run         noj       1       Hit and run       Not hit and run         noj       1       Hit and run       Not hit and run	CASUALTIES INVOLVED	I Rider Veh re s Sex Female PSV Passenger? No Cycle Helmet No	f No 2 Post code ot a passenger ot a cyclist		

SEVERITYDistrictVale of White HorseSLIGHTRef.No43180379369	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Jun-2019'	Grid Reference Police Officer Attend:	449971 / 191365 Yes
Date12/12/2018DayWednesdayTime08:06WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Dad A4130 Location A4130 APPROX 1.5KM E OF MILTON INTERCHANGE HARWELL escription LGV1 TRAV W ON A4130 HIT REAR OF STAT C2 IN QUEUINGTRAFFIC - C2 HIT LGV3 THEN HIT REAR OF LGV4 Accident			
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS       4         None       4         CARRIAGEWAY HAZARDS       4         None       5	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spec 408 Sudden braking (Driver/Rider - Error) 410 Loss of control (Driver/Rider - Error) 510 Distraction outside vehicle (Driver/Rider	Error) ed (Driver/Rider - Error) ler - Impairment)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001AVehicle 001AVehicle 001AVehicle 001B
VEHICLES INVOLVED       4         Veh.No.       1       Vehicle type       Van/Goods < 3.5t	Make     Model       ng?     No tow or articulation       ay not in restricted lane     and run       n of junction     Hit and run       0     Hit and run       Ve     Driving Lic       Full       reign registered vehicle       Make     Model       ng?     No tow or articulation       ay not in restricted lane     Model       nof junction     Hit and run	CASUALTIES INVOLVED          Cas No       1       Cas Class       Driver or 1         Severity       SLIGHT       Age 34 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Severity       SLIGHT         Age 44 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Movement       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	Rider     Veh ref I       s     Sex Male     I       PSV Passenger?     Not       Cycle Helmet     Not   Rider Veh ref I s Sex Female I PSV Passenger? Not Cycle Helmet Not Cycle Helmet Not Cycle Helmet Not	No 1 Post code a passenger a cyclist No 2 Post code a passenger a cyclist
Drivers age44 yrsSexFemaleBreath testNegativeLeft Hand DriveNoForeign veh.Not forJourney purposeNot Known	ve Driving Lic Full reign registered vehicle			

Veh.No. 3 Vehi	cle type Van/Go	ods < 3.5t	Make	Model
Manoeuvre V	Vaiting to go ahe	ad but held up		
Veh. direction from E	ast to West	Towing?	No tow or articulation	1
Skidded No skid	ding, jack-knifin	g or overturning		
Veh location at impact (re	estricted lane)	On main carriageway n	ot in restricted lane	
Junct. location of veh. at	1st impact	Not at or within 20m of	junction	
Veh left carriageway?	Did not leave ca	arriageway		
Hit object in c'way?	None	0,		
Hit object off c'way?	None			
First point of impact	Back			
Veh registration no.		Other veh.hit (ref.no)	0 Hit and	run Not hit and run
Drivers age 28 yrs	Sex Male	Breath test Negative	Driving	Lic Full
Left Hand Drive	No	Foreign veh. Not foreign	n registered vehicle	
Journey purpose	Journey as part	of work		
Veh.No. 4 Vehi	cle type Van/Go	oods < 3.5t	Make	Model
Veh.No. 4 Vehi Manoeuvre V	cle type Van/Go Vaiting to go ahea	oods < 3.5t ad but held up	Make	Model
Veh.No.4VehiManoeuvreVVeh. direction fromE	cle type Van/Go Vaiting to go ahea ast to West	oods < 3.5t ad but held up Towing?	Make No tow or articulatior	Model
Veh.No.4VehiManoeuvreVVeh. direction fromESkiddedNo skid	cle type Van/Go Vaiting to go ahea ast to West ding, jack-knifin	ods < 3.5t ad but held up Towing? g or overturning	Make No tow or articulatior	Model
Veh.No.4VehiManoeuvreVVeh. direction fromESkiddedNo skidVeh location at impact (red	cle type Van/Go Vaiting to go ahea ast to West ding, jack-knifin estricted lane)	ods < 3.5t ad but held up Towing? g or overturning On main carriageway n	Make No tow or articulatior ot in restricted lane	Model
Veh.No.     4     Vehi       Manoeuvre     V       Veh. direction from     E       Skidded     No skid       Veh location at impact (red Junct. location of veh. at	cle type Van/Go Vaiting to go ahea ast to West ding, jack-knifin estricted lane) 1st impact	ods < 3.5t ad but held up g or overturning On main carriageway n Not at or within 20m of	Make No tow or articulatior ot in restricted lane 'junction	Model
Veh.No.     4     Vehi       Manoeuvre     V       Veh. direction from     E       Skidded     No skid       Veh location at impact (red)       Junct. location of veh. at       Veh left carriageway?	cle type Van/Go Vaiting to go ahe: ast to West ding, jack-knifin estricted lane) 1st impact Did not leave ca	ods < 3.5t ad but held up g or overturning On main carriageway n Not at or within 20m of arriageway	Make No tow or articulatior ot in restricted lane junction	Model
Veh.No.     4     Vehi       Manoeuvre     V       Veh. direction from     E       Skidded     No skid       Veh location at impact (reduced from the second from the se	cle type Van/Go Vaiting to go ahe: ast to West ding, jack-knifin estricted lane) 1st impact Did not leave ca None	ods < 3.5t ad but held up Towing? g or overturning On main carriageway n Not at or within 20m of arriageway	Make No tow or articulatior ot in restricted lane 'junction	Model
Veh.No.       4       Vehi         Manoeuvre       V         Veh. direction from       E         Skidded       No skid         Veh location at impact (rr         Junct. location of veh. at         Veh left carriageway?         Hit object in c'way?	cle type Van/Go Vaiting to go ahe: ast to West ding, jack-knifin estricted lane) 1st impact Did not leave ca None None	ods < 3.5t ad but held up Towing? g or overturning On main carriageway n Not at or within 20m of arriageway	Make No tow or articulatior ot in restricted lane junction	Model
Veh.No.4VehiManoeuvreVVeh. direction fromESkiddedNo skidVeh location at impact (rrJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impact	cle type Van/Go Vaiting to go ahe: ast to West ding, jack-knifin estricted lane) 1st impact Did not leave ca None None Back	ods < 3.5t ad but held up Towing? g or overturning On main carriageway n Not at or within 20m of arriageway	Make No tow or articulatior ot in restricted lane 'junction	Model
Veh.No.4VehiManoeuvreVVeh. direction fromESkiddedNo skidVeh location at impact (rrJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.	cle type Van/Go Vaiting to go ahe: ast to West ding, jack-knifin estricted lane) 1st impact Did not leave ca None None Back	ods < 3.5t ad but held up Towing? g or overturning On main carriageway n Not at or within 20m of arriageway Other veh.hit (ref.no)	Make No tow or articulatior ot in restricted lane 'junction 0 Hit and	Model 1 run Not hit and run
Veh.No.4VehiManoeuvreVVeh. direction fromESkiddedNo skidVeh location at impact (rdJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.Drivers age50 yrs	cle type Van/Go Vaiting to go ahe: ast to West ding, jack-knifin estricted lane) 1st impact Did not leave ca None None Back Sex Male	ods < 3.5t ad but held up Towing? g or overturning On main carriageway n Not at or within 20m of arriageway Other veh.hit (ref.no) Breath test Negative	Make No tow or articulation ot in restricted lane 'junction 0 Hit and Driving	Model 1 run Not hit and run Lic Full
Veh.No.4VehiManoeuvreVVeh. direction fromESkiddedNo skidVeh location at impact (reJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.Drivers age50 yrsLeft Hand Drive	cle type Van/Go Vaiting to go ahe: ast to West ding, jack-knifin estricted lane) 1st impact Did not leave ca None None Back Sex Male No	ods < 3.5t ad but held up Towing? g or overturning On main carriageway n Not at or within 20m of arriageway Other veh.hit (ref.no) Breath test Negative Foreign veh. Not foreign	Make No tow or articulation ot in restricted lane 'junction 0 Hit and Driving n registered vehicle	Model n run Not hit and run Lic Full

SEVERITYDistrictVale of White HorseSLIGHTRef.No43190093776	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date     26/02/2019     Day Tuesday       Time     08:35       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road A4130 Location A4130 MILTON INTERC Description C1 TRAV NE ON RBT IN LANE 3 MOV of Accident	A4130 Location A4130 MILTON INTERCHANGE RBT J/W A34 SBOUND EXIT SLIP ROAD MILTON ription C1 TRAV NE ON RBT IN LANE 3 MOVED TO LANE 2 INTO PATH OF MC2 - HIT OCCURED & MC2 RIDER FE			
Street Lighting     Daylight       SITE DETAILS       Speed Limit     40 MPH       Carriageway     Roundabout       Junction Detail     Roundabout       Junction Control     Automatic traffic signal       2nd Road Number     A34       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	SPECIAL SITE CONDITIONS 4( None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A		
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Changing lane to left       Veh. direction from       Southwest to Northeast       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct.       location of veh. at 1st impact       Mid junction - or         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no.         Drivers age       76 yrs       Sex         Male       Breath test       Neg         Left Hand Drive       No       Foreign veh. Not         Journey purpose       Other       Veh registration veh. Not	Make Model owing? No tow or articulation eway not in restricted lane n roundabout or main road o) 2 Hit and run Not hit and run gative Driving Lie Full foreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 53 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1       Rider     Veh ref No       ;     Sex Male       PSV Passenger?     Not a passenger       Cycle Helmet     Not a cyclist		
Veh.No.2Vehicle typeM/cycle > 500ccManoeuvreGoing ahead otherVeh. direction fromSouthwest to NortheastToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactMid junction - orVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no.Drivers age53 yrsSexMaleBreath testNegLeft Hand DriveNoJourney purposeCommuting to/from work	Make     Model       owing?     No tow or articulation       eway not in restricted lane       n roundabout or main road       o)     1       Hit and run     Not hit and run       sative     Driving Lic       foreign registered vehicle				

SEVERITYDistrictVale of White HorseSLIGHTRef.No43190084785	Accident Date BETWEEN '09-Jun-2014' AND '08-J	fun-2019'	Grid Reference 448367 / 191719 Police Officer Attend: Yes		
Date16/03/2019Day SaturdayTime11:32WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road U299 Location MILTON PARK ROAD J Description C1 TRAV NE FROM MILTON INTER of Accident AT J/W HIGH ST TO RETURN TO SW	Dad U299 Location MILTON PARK ROAD J/W HIGH STREET MILTON Escription C1 TRAV NE FROM MILTON INTERCHANGE TOWARDS MILTON PARK MADE U TURN AT END OF DUAL CWAY SECTION Accident AT J/W HIGH ST TO RETURN TO SW BUT HIT C2 ALSO TRAV NE CONTINUING TO MILTON PARK			
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Pelican, puffin, toucan or similar	SPECIAL SITE CONDITIONS 4 None 4 CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 03 Poor turn or manoeuvre (Driver/Rider - 05 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY - Error) Vehicle 001 A Error) Vehicle 001 A		
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       U turn       Veh. direction from       Southwest to Southwest       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct.       location of veh. at 1st impact       Mid junction - on         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no         Drivers age       57 yrs       Sex         Left Hand Drive       No       Foreign veh. Not f         Journey purpose       Other       Veh.No. 2       Vehicle type         Veh.No.       2       Vehicle type       Car         Manoeuvre       Going ahead other       Veh       To	Make     Model       owing?     No tow or articulation       oway not in restricted lane     noundabout or main road       o)     2     Hit and run       o)     3     Make	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 69 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1       Rider     Veh ref No       s     Sex Female       PSV Passenger?     Not a passenger       Cycle Helmet     Not a cyclist		
Veh. direction fromSouthwest to EastToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.noDrivers age69 yrsSexFemaleBreath testNegaLeft Hand DriveNoJourney purposeOther	wing? No tow or articulation way not in restricted lane a roundabout or main road b) 1 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle				

SEVERITY District South Ox SLIGHT Ref.No 4319010947	fordshire 6 Acci	cident Date BETWEEN '09-Jun-2014' AND '(	08-Jun-2019'	Grid Reference Police Officer Attend:	450686 / 191198 Yes
Date01/04/2019DayTime13:50WeatherFine without highRoad SurfaceDryStreet LightingDavlight	Monday Road winds Descript of Accie	ad A4130 Location A4130 APPROX 100M W OF J/W SIR FRANK WILLIAMS WAY DIDCOT scription MBS1 TRAV W ON A4130 WHEN APPEARS DRIVER DISTRACTED & SWERVED TO OSIDE & ONCOMING HGV2 Accident			
Sitte DETAILS Speed Limit 40 MPH Carriageway Single carriag Junction Detail Not at or with Junction Control 2nd Road Number Pedestrian Facilities None within 2 No physical c	eway in 20 metres of junction 50 metres rossing facility within 50 metre	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 509 Distraction in vehicle (Driver/Rider - I 410 Loss of control (Driver/Rider - Error) 409 Swerved (Driver/Rider - Error)	mpairment)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A Vehicle 001 A
VEHICLES INVOLVED2Veh.No.1Vehicle typeMinilManoeuvreGoing ahead ottVeh. direction fromEast to WestSkiddedNo skidding, jack-knifVeh location at impact (restricted lane)Junct. location of veh. at 1st impactVeh left carriageway?Did not leaveHit object off c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Drivers ageDrivers age26 yrsSexFemaleLeft Hand DriveNoJourney purposeJourney as paVeh.No.2Vehicle typeGood	ous her Towing? N ing or overturning On main carriageway not in Not at or within 20m of junc carriageway Other veh.hit (ref.no) 2 Breath test Negative Foreign veh. Not foreign reg rt of work s > 7.5t	Make Model No tow or articulation n restricted lane netion Hit and run Not hit and ru Driving Lic Full gistered vehicle Make Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age 26 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1 Rider Vehr rs Sex Female PSV Passenger? N Cycle Helmet N	ref No 1 Post code lot a passenger lot a cyclist
ManoeuvreGoing ahead otlVeh. direction fromWest to EastSkiddedNo skidding, jack-knifVeh location at impact (restricted lane)Junct. location of veh. at 1st impactVeh left carriageway?Did not leaveHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Drivers ageA7 yrsSexMaleLeft Hand DriveJourney purposeJourney as part	Towing? A Towing? A ing or overturning On main carriageway not in Not at or within 20m of junc carriageway Other veh.hit (ref.no) 1 Breath test Negative Foreign veh. Not foreign reg rt of work	Articulated vehicle n restricted lane netion Hit and run Not hit and ru Driving Lic Full gistered vehicle	n		

SEVERITY Distr SLIGHT Ref.1	rict Vale of White Horse No 43190109134	Accident Date BETWEEN	'09-Jun-2014' AND '08	-Jun-2019'	Grid Reference448569 / 1Police Officer Attend:Yes	91113
Date1Time1WeatherFRoad SurfaceFStreet LightingF	10/04/2019 Day Wednesday 16:33 Fine without high winds Dry Daylight	Road A34 Location A Description LGV1 TRAV N of Accident	23ad A34 Location A34 NBOUND AT MP 64/2 MILTON escription LGV1 TRAV NW IN LANE 1 HIT REAR OF STAT C2 IN QUEUING TRAFFIC Accident			
	SITE DETAILS			CONTRIBUTORY FACTORS	PARTICIPAN	NT PROBABILITY
Speed Limit Carriageway Junction Detail	70 MPH Dual carriageway Not at or within 20 metres of junctior	SPECIAL SITE CC None	ONDITIONS	406 Failed to judge other person's path/spec	d (Driver/Rider - Error) Vehicle 001	А
Junction Control 2nd Road Number Pedestrian Facilities	None within 50 metres	CARRIAGEWAY	HAZARDS			
VEHICLES INVOLV	VED 2			CASUALTIES INVOLVED	2	
Veh.No. 1 V Manoeuvre Veh. direction from Skidded Skid Veh location at impac Junct. location of veh Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact Veh registration no. Drivers are 27 met	Vehicle type Van/Goods < 3.5t Going ahead other Southeast to Northwest Tow Ided ct (restricted lane) On main carriagew h. at 1st impact Not at or within 20 ? Did not leave carriageway None None Front Other veh.hit (ref.no)	Make ing? No tow or articulation ay not in restricted lane m of junction 2 Hit and n Deriving	Model	Cas No1 Cas ClassPassengerSeveritySLIGHTAge 31 yrCar Passenger?Not a passengerSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredCas NoCas No2 Cas ClassDriver or 1SeveritySLIGHTAge 31 yr	Veh ref No 1 Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist	
Left Hand Drive Journey purpose Veh.No. 2 V Manoeuvre Veh. direction from Skidded No s Veh location at impac Junct. location of veh	No Foreign veh. Not fo Not Known Vehicle type Car Going ahead other Southeast to Northwest Tow skidding, jack-knifing or overturning ct (restricted lane) On main carriagew h. at 1st impact Not at or within 20	ing? No tow or articulation ay not in restricted lane m of junction	Model	Car Passenger?Not a passengerSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredOther Details	PSV Passenger? Not a passenger Cycle Helmet Not a cyclist	
Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact Veh registration no. Drivers age 31 yrs Left Hand Drive Journey purpose	<ul> <li>? Did not leave carriageway None Back Other veh.hit (ref.no)</li> <li>s Sex Male Breath test Negati No Foreign veh. Not fo Not Known</li> </ul>	1 Hit and a ve Driving reign registered vehicle	run Not hit and run Lic Full			

SEVERITYDistrictVale of White HorseSLIGHTRef.No43190128863	Accident Date BETWEEN '09-Jun-2014'	AND '08-Jun-2019'	Grid Reference447913 / 191298Police Officer Attend:No - self completed form		
Date26/04/2019Day FridayTime16:00WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 APPRO Description TX1 TRAV E ON A4130 HIT of Accident FTS	oad A4130 Location A4130 APPROX 75M W OF J/W MILTON HEIGHTS MILTON Description TX1 TRAV E ON A4130 HIT REAR OF STAT C2 IN QUEUING TRAFFIC - C2 IN TURN HIT REAR OF STAT C3 AHEAD - TX1 f Accident FTS			
SITE DETAILS	1	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY		
Speed Limit 40 MPH	SPECIAL SITE CONDITIONS	602 Careless/Reckless (Driver/Rider - Bel	haviour) Vehicle 001 A		
Carriageway Single carriageway	None	405 Failed to look properly (Driver/Rider	- Error) Vehicle 001 A		
Junction Detail Not at or within 20 metres of junction	ion				
Junction Control	CARRIAGEWAY HAZARDS				
2nd Road Number	CARGAGE WAT HAZARDS				
Pedestrian Facilities None within 50 metres	None				
No physical crossing facility within	n 50 metre				
VEHICLES INVOLVED 3	<b>I</b>	CASUALTIES INVOLVEI	D 1		
Veh.No.1Vehicle typeTaxiManoeuvreGoing ahead otherVeh. direction fromWest to EastToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.noDrivers age50 yrsJourney as part of workVeh.No.Veh.No.2Vehicle typeCarManoeuvreWaiting to go ahead but held upVeh. direction fromWest to EastSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneFirst point of impactBackVeh left carriageway?Did not leave carriagewayLit object off c'way?NoneFirst point of impactBackVeh left carriageway?Did not leave carriagewayLit object off c'way?NoneFirst point of impactBackVe	Make     Model       owing?     No tow or articulation       eway not in restricted lane       20m of junction       o)     2       b)     2       constructed     Driving Lic       foreign registered vehicle       Make     Model       owing?     No tow or articulation       eway not in restricted lane       20m of junction	and run Cas No 1 Cas Class Driver or Severity SLIGHT Age 26 y Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details and run	Rider Veh ref No 3 rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist		

Veh.No. 3 Vehi	cle type Car		Make	Model
Manoeuvre V	Vaiting to go ahe	ad but held up		
Veh. direction from V	Vest to East	Towing?	No tow or articulation	
Skidded No skid	ding, jack-knifin	g or overturning		
Veh location at impact (r	estricted lane)	On main carriageway no	t in restricted lane	
Junct. location of veh. at	1st impact	Not at or within 20m of	junction	
Veh left carriageway?	Did not leave ca	arriageway		
Hit object in c'way?	None			
Hit object off c'way?	None			
First point of impact	Back			
Veh registration no.		Other veh.hit (ref.no)	2 Hit and run	Not hit and run
Drivers age 26 yrs	Sex Male	Breath test Driver not c	ontacted Driving Lic	Full
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle	
Journey purpose	Not Known			

SEVERITY District South Oxfordshire			Grid Reference 452216 / 191868		
SLIGHT Ref.No P2790614	Accident Date BETWEEN '09-Jun-2014' AND '08	3-Jun-2019'	Police Officer Attend: Yes		
Date26/06/2014Day ThursdayTime08:40WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 DIDCOT NORTH SITE DIDCOT Description C1 (DRIVER 85 YRS) TRAV E ON A of Accident RBT FROM HILL FARM / WASTE S	ad A4130 Location A4130 DIDCOT NORTHERN PERIMETER ROAD RBT J/W COLLETT & ACCESS ROAD TO HILL FARM / WASTE SITE DIDCOT escription C1 (DRIVER 85 YRS) TRAV E ON A4130 ENTERED RBT BUT HIT OSIDE OMV2 (REFUSE LORRY) WHICH HAD ENTERED Accident RBT FROM HILL FARM / WASTE SITE TO TURN RT ONTO A4130 AT RBT			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY		
Speed Limit 50 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 A		
Carriageway Roundabout	None	402 Boor turn or monocuure (Driver/Dider	Error) Vahiala 001 A		
Junction Detail Roundabout		403 Foor turn of manoeuvie (Driver/Kider -	Ellor) Venicle 001 A		
Junction Control Give way or uncontrolled					
2nd Road Number U	CARRIAGEWAY HAZARDS				
Pedestrian Facilities None within 50 metres	None				
Control refuge no other controls					
Central refuge - no other controls					
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	2		
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromWest to EastToxSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age85 yrsSexMaleBreath testNegaiLeft Hand DriveNoNoForeign veh.Veh.No.2Vehicle typeOther:Veh.No.2Vehicle typeOther:Veh.direction fromNorth to WestSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age32 yrsSexSexMaleBreath testNoresFirst point of impactOffsideVeh.eat testVeh registration no.Other veh.hit (ref.no)Drivers a	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       but     2       but     Hit and run       but     Driving Lic       but     Full       but     Make       Make     Model       wing?     No tow or articulation       way not in restricted lane     roundabout or main road       but     1     Hit and run       Not hit and run     Tot hit and run	Cas No       1       Cas Class       Driver or F         Severity       SLIGHT       Age 85 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Cas No       2         Cas No       2         Cas Ros       2         Cas No       2         Cas Passenger?       Front seat passenger         Severity       SLIGHT         Age 78 yrs         Car Passenger?       Front seat passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Other Details       Other Details	tider       Veh ref No       1         s       Sex Male       Post code         PSV Passenger?       Not a passenger         Cycle Helmet       Veh ref No       1         s       Sex Female       Post code         r       PSV Passenger?       Not a passenger         cycle Helmet       Veh ref No       1         s       Sex Female       Post code         r       PSV Passenger?       Not a passenger         Cycle Helmet       Veh ref No       1		
Lett Hand Drive No Foreign veh. Not f	oreign registered vehicle				
Journey purpose Journey as part of work					

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP2320714	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference 451575 / 191351		
Date 15/07/2014 Day Tuesday	Road A4130 Location A4130 DIDCOT NORTH	pad A4130 Location A4130 DIDCOT NORTHERN PERIMETER RD J/W TRIDENT HOUSE ENTRANCE DIDCOT			
Time17:00WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Description C1 TRAV E FROM ACCESS TURNI of Accident VEH WHICH HAD SLOWED TO ALL EMERGENCY CALL & WAS IN HUI	Description C1 TRAV E FROM ACCESS TURNED RT TO A4130 BUT HIT MC2 TRAV S ON A4130 HAVING JUST OVRTK U/K SBOUND of Accident VEH WHICH HAD SLOWED TO ALLOW C1 TO TURN - APPEARS C1 HAD SEEN APPROACHING FIRE APPLIANCE ON			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBAB	ILITY	
Speed Limit 50 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 A		
Carriageway Single carriageway	None	402 Junction restart (Driver/Dider Error)	Vehicle 001 B		
Junction Detail T or staggered junction		402 Durietion Testart (Driver/Rider - Erior)			
Junction Control Give way or uncontrolled		403 Poor turn or manoeuvre (Driver/Rider -	Error) Venicle 001 B		
2nd Road Number U	CARRIAGEWAY HAZARDS	510 Distraction outside vehicle (Driver/Ride	er - Impairment) Vehicle 001 B		
Pedestrian Facilities None within 50 metres	None	403 Poor turn or manoeuvre (Driver/Rider -	Error) Vehicle 002 B		
No physical crossing facility within	n 50 metre		,		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No. 1       Vehicle type Goods 3.5 - 7.5t         Manoeuvre       Turning right         Veh. direction from       West to South       Tow         Skidded       No skidding, jack-knifing or overturning       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       58 yrs         Sex       Male         Breath test       Negat         Left Hand Drive       No         Veh.No. 2       Vehicle type         Veh.No. 2       Vehicle type         Moret       Tow         Skidded       No skidding, jack-knifing or overturning         Veh direction from       North to South       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)         On main carriageway?       Left carriageway nearside       Into the sec sec sec sec sec sec sec sec sec se	Make     Model       owing?     No tow or articulation       eway not in restricted lane     n roundabout or main road       o)     2     Hit and run       foreign registered vehicle     Make     Model       owing?     No tow or articulation       eway not in restricted lane     etion or waiting       o)     1     Hit and run       o)     1     Hit and run       oriving Lic     Full	Cas No 1 Cas Class Driver or F Severity SERIOUS Age 35 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 5 Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet		

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0560814	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference451458 / 190939Police Officer Attend:Yes	
Date07/08/2014Day ThursdayTime18:07WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	1       Image: Construction of the sector of t			
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       B4493         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY Error) Vehicle 001 A ed (Driver/Rider - Error) Vehicle 001 B	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Moving off         Veh. direction from       Northwest to Southeast       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabo         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       51 yrs         Sex       Female         Breath test       Negat         Left Hand Drive       No         Veh.No.       2         Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other         Veh. direction from       South to North       Tow         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on the skidded         No skidding, jack-knifing or overturning       Veh left carriageway?       Did not leave carriageway<	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       out     2       )     2       Hit and run     Not hit and run       tive     Driving Lic       Full       Foreign registered vehicle       Make     Model       wing?     No tow or articulation       way not in restricted lane     roundabout or main road	Cas No 1 Cas Class Driver or 1 Severity SLIGHT Age 16 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet No	
Drivers age     16 yrs     Sex     Male     Breath test     Not A       Left Hand Drive     No     Foreign veh.     Not for       Journey purpose     Not Known	Applicable Driving Lic Full Foreign registered vehicle			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP2000814	Accident Date BETWEEN '09-Jun-2014' AND '0	18-Jun-2019'	Grid Reference 451456 / 190942 Police Officer Attend: Yes		
Date     21/08/2014     Day     Thursday       Time     14:50       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road A4130 Location A4130 AT RBT J/W M Description C1 TRAV SE ON A4130 ENTERED of Accident HEIGHTS INTENDING TO CONTIN	Pad       A4130       Location       A4130 AT RBT J/W MENDIP HEIGHTS & B4493       DIDCOT         escription       C1 TRAV SE ON A4130 ENTERED RBT BUT FAILED TO GIVEWAY TO PC2 TRAV N ROUNDING RBT FROM MENDIP         'Accident       HEIGHTS INTENDING TO CONTINUE TO N ON A4130 TOWARDS POWER STATION - HIT OCCURRED & RIDER FELL			
STE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       B4493         Pedestrian Facilities       None within 50 metres         No physical crossing facility way	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A		
VEHICLES INVOLVED 2	•	CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car         Manoeuvre       Moving off         Veh. direction from       Northwest to Southeast         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carr         Junct. location of veh. at 1st impact       Entering round         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (reformed to the set of	Make Model Towing? No tow or articulation ageway not in restricted lane dabout f.no) 2 Hit and run Not hit and run legative Driving Lic Full lot foreign registered vehicle Make Model Towing? No tow or articulation	Cas No 1 Cas Class Driver or F Severity SLIGHT Age 29 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet No		
Ven. direction fromSouth to NorthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriJunct. location of veh. at 1st impactLeaving rounVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (redDrivers age29 yrsSexMaleBreath testMLeft Hand DriveNoJourney purposeCommuting to/from work	Towing?       No tow or articulation         ageway not in restricted lane         dabout         f.no)       1         Hit and run       Not hit and run         for Applicable       Driving Lic         Full       Not foreign registered vehicle	n			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP1151014	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date10/10/2014Day FridayTime07:27WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road A4130 Location A4130 AT RBT J/W BAS Description C1 TRAV S ON A4130 MOVED OFF TO of Accident NSIDE OF PC2	Road A4130 Location A4130 AT RBT J/W BASIL HILL RD & MILTON RD & POWER STATION ACCESS DIDCOT Description C1 TRAV S ON A4130 MOVED OFF TO ENTER RBT BUT FAILED TO GIVEWAY TO PC2 TRAV SE ROUNDING RBT & C1 HIT of Accident NSIDE OF PC2			
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS 40 None 40 CARRIAGEWAY HAZARDS 60 None 60	CONTRIBUTORY FACTORS )5 Failed to look properly (Driver/Rider - )6 Failed to judge other person's path/spe )7 Too close to cyclist, horse or pedestria )2 Careless/Reckless (Driver/Rider - Beh	Error) ed (Driver/Rider - Error) n (Driver/Rider - Error) aviour)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001AVehicle 001AVehicle 001B	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car       Make       Model         Manoeuvre       Moving off       Moving off       Veh. direction from       North to South       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Junct. location of veh. at 1st impact       Entering roundabout         Veh left carriageway?       Did not leave carriageway       Hit object in c'way?       None         Hit object off c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age       49 yrs       Sex       Male       Breath test       Negative       Driving Lic       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Vehicle		Cas No       1       Cas Class       Driver or T         Severity       SLIGHT       Age 39 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref rs Sex Male PSV Passenger? Not Cycle Helmet Yes	No 2 Post code a passenger	
Journey purpose     Commuting to/from work       Veh.No.     2     Vehicle type     Pedal Cycle     Make     Model       Manoeuvre     Going ahead other     Veh. direction from     Northwest to Southeast     Towing?     No tow or articulation       Skidded     Na skidding is the krifting on constraining					
SkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactMid junction - orVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.notDrivers age39 yrsSexMaleBreath testNotJourney purposeNot Known	way not in restricted lane roundabout or main road ) 1 Hit and run Not hit and run Applicable Driving Lic Full foreign registered vehicle				

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0141114	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference Police Officer Attend:	451531 / 191161 Yes
Date     01/11/2014     Day Saturday       Time     16:10       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight       SITE DETAILS       Speed Limit     50 MPH       Carriageway     Roundabout       Junction Detail     Roundabout	Road       A4130       Location       A4130       DIDCOT       PERIMI         BASIL HILL ROAD       DIDCO         Description       TX1       TRAV S ON A4130       ENTERED R         of Accident       ROAD & HIT OCCURRED         SPECIAL SITE CONDITIONS       4         None       6	ETER RD AT POWER STATION RBT J/W MI OT BT BUT FAILED TO GIVE WAY TO PC2 WF CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 502 Careless/Reckless (Driver/Rider - Beha	LTON ROAD / POWER HICH HAD ENTERED R Error) aviour)	STATION ACCESS & BT FROM MILTON PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A
Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Central refuge - no other controls	CARRIAGEWAY HAZARDS None			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeTaxiManoeuvreMoving offVeh. direction fromNorth to SouthTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering roundaborVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age51 yrsSexMaleBreath testNegatiLeft Hand DriveNoForeign veh.Not foJourney purposeJourney as part of workVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromWest to EastVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactMid junction - on rVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age32 yrsSexMaleBreath testNot AjLeft Hand DriveNoForeign veh.Not fo	Make     Model       ting?     No tow or articulation       ray not in restricted lane     and run       2     Hit and run       twe     Driving Lic       reign registered vehicle     Make       Make     Model       ting?     No tow or articulation       ray not in restricted lane     Model       ting?     No tow or articulation       ray not in restricted lane     Total run       total coundabout or main road     Not hit and run       1     Hit and run       Pilicable     Driving Lic       Full     Full	Cas No 1 Cas Class Driver or F Severity SLIGHT Age 32 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Vehr s Sex Male PSV Passenger? N Cycle Helmet N	ef No 2 Post code ot a passenger ot known
Left Hand Drive No Foreign veh. Not fo Journey purpose Not Known	reign registered vehicle			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP2931114	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	C	Grid Reference Police Officer Attend:	451611 / 191529 Yes
Date25/11/2014Day TuesdayTime18:56WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDark: street lights present and lit	Road A4130 Location A4130 DIDCOT NORTHERN PERI Description C1 TRAV N ON A4130 ENTERED RBT J/W HAV of Accident HA & C1 HIT NSIDE OF PC2 - SOME UNCERTA	Pad       A4130       Location       A4130       DIDCOT         Pad       A4130       Location       A4130       DIDCOT         Pad       C1       TRAV N ON A4130       ENTERED RBT J/W HAWKSWORTH FAILED TO GIVEWAY TO PC2       TRAV W ROUNDING RBT FROM         Accident       HA & C1       HIT NSIDE OF PC2 - SOME UNCERTAINTY OVER DIRECTIONS OF TRAVEL       FROM		
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS       302 Disob         None       405 Failed         CARRIAGEWAY HAZARDS       707 Rain,         50 metre       50 metre	IBUTORY FACTORS eyed give way or stop sign marking to look properly (Driver/Rider - Er eleet, snow or fog (Driver/Rider - V	gs (Driver/Rider - Injud Error) Vision Affected)	PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 A Vehicle 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tow         Veh. direction from       South to North       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabo         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       64 yrs       Sex         No       Foreign veh. Not for         Journey purpose       Other	Make     Model     Cas N Seven       ring?     No tow or articulation     Car F Seat       /ay not in restricted lane     Ped N Ped N       ut     Ped N       2     Hit and run       2     Hit and run       ving     Full       oreign registered vehicle     Make	CASUALTIES INVOLVED 10 1 Cas Class Driver or Ric 11 SLIGHT Age 34 yrs 12 assenger? Not a passenger 13 Belt Not applicable 14 Not applicable 15 octaion Not applicable 16 octaion Not applicable 16 Pupil Other 17 vorker injured 17 octains 18 octains 19 octains 10 octains	l ider Veh ref N Sex Male F PSV Passenger? Not a Cycle Helmet Not I	No 2 Post code a passenger known
Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other         Veh. direction from       East to West       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on 1       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       Hit object off c'way?       None         First point of impact       Nearside       Veh registration no.       Other veh.hit (ref.no)         Drivers age       34 yrs       Sex       Male       Breath test       Not A         Left Hand Drive       No       Foreign veh. Not for         Journey purpose       Commuting to/from work	Make Model ving? No tow or articulation vay not in restricted lane roundabout or main road 1 Hit and run Not hit and run pplicable Driving Lic Full oreign registered vehicle			

severity <b>SLIGHT</b>	District South Oxfordshire Ref.No P2181214	Accid	ident Date BETWEEN '09-Jun-2014' AND '(	08-Jun-2019'	Grid Reference Police Officer Attend:	451611 / 191523 Yes
Date Time Weather Road Surface Street Lighting	18/12/2014 Day Thursday 18:50 Fine without high winds Wet/Damp Dark: street lights present and lit	Road A Descripti	A4130 Location A4130 DIDCOT NOR tion MC1 TRAV N ON A4130 IN WET 0 dent TURNING RT ONTO A4130 FROM	THERN PERIMETER ROAD RBT J/W HAWKS CONDITIONS HIT R OF C2 SLOWING ON ENT 1 HAWKSWORTH	WORTH DIDCO	Г АY TO U/K VEH
Speed Limit Carriageway Junction Detail Junction Contro 2nd Road Num Pedestrian Faci	SITE DETAILS 50 MPH Roundabout No Give way or uncontrolled ber U ilities None within 50 metres No physical crossing facility within	50 metre	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 103 Slippery road due to weather (Road Er 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spe	ivironment Contrib) Error) ed (Driver/Rider - Error)	PARTICIPANTPROBABILITYVehicle 001BVehicle 001AVehicle 001A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       M/cycle 125 - 500cc       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       South to North       Towing?       No tow or articulation         Skidded       Skidded       Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Approaching junction or waiting         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       2         Drivers age       41 vrs       Sex       Male			Cas No       1 Cas Class       Driver or 1         Severity       SLIGHT       Age 41 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Cas No       2 Cas Class       Driver or 1         Severity       SLIGHT       Age 53 yr         Car Passenger?       Not a passenger	2 Rider Veh ret 's Sex Male PSV Passenger? No Cycle Helmet Rider Veh ret 's Sex Female	f No 1 Post code t a passenger f No 2 Post code t a passenger	
Journey purpos Veh.No. 2 Manoeuvre Veh. direction Skidded Veh location at Junct. location Veh left carriag Hit object in c' Hit object off c First point of ir Veh registratio Drivers age Left Hand Driv Journey purpos	ise       Other         Vehicle type       Car         Slowing or stopping         from       South to North         Town       No skidding, jack-knifing or overturning         timpact (restricted lane)       On main carriagew         of veh. at 1st impact       Approaching junc         geway?       Did not leave carriageway         way?       None         tway?       None         Sway?       None         Stark       Other veh.hit (ref.no)         53 yrs       Sex         Yee       No         Foreign veh.       Not for         See       Other	ving? No vay not in : tion or wai ive oreign regi	Make Model No tow or articulation In restricted lane hiting Hit and run Not hit and run Driving Lic Full gistered vehicle	Seat Belt Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Cycle Helmet	t a passenger

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP2480215	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
Date16/02/2015Day MondayTime06:05WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDark: street lights present and lit	Road A4130 Location A4130 AT RBT J/W BASI Description C1 TRAV S ON A4130 ENTERED RBT of Accident ROAD TO TRAV S ON A4130 (SOME U ROAD)	IL HILL RD & MILTON RD & POWER STA FAILING TO SEE PC2 (RIDER WITH HIGH JNCERTAINTY OVER EXACT DETAILS -	TION ACCESS DIDCOT I VIS AND LIGHTS) NEG RBT FROM MILTON POSS C2 ENTERING RBT FROM BASIL HILL	
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS 10 None 40 51 CARRIAGEWAY HAZARDS 60 None 60	CONTRIBUTORY FACTORS 3 Slippery road due to weather (Road En 5 Failed to look properly (Driver/Rider - 0 Distraction outside vehicle (Driver/Rid 2 Careless/Reckless (Driver/Rider - Beha	PARTICIPANTPROBABILITYvironment Contrib)Vehicle 001BError)Vehicle 001Aer - Impairment)Vehicle 001Baviour)Vehicle 001A	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
VEHICLES INVOLVED 2 /eh.No. 1 Vehicle type Car Make Model /anoeuvre Turning right /eh. direction from North to Southwest Towing? No tow or articulation /skidded Skidded /eh location at impact (restricted lane) On main carriageway not in restricted lane /unct. location of veh. at 1st impact Entering roundabout /eh left carriageway? Did not leave carriageway fit object in c'way? None ?irst point of impact Front Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run Drivers age 64 yrs Sex Male Breath test Negative Driving Lie Full /eft Hand Drive No Foreign veh. Not foreign registered vehicle /unct. location from Southwest to South Towing? No tow or articulation /kidded No skidding, jack-knifing or overturning /eh location from Southwest to South Towing? No tow or articulation /kidded No skidding, jack-knifing or overturning /eh location of veh. at 1st impact Mid junction - on roundabout or main road /eh left carriagewa? Did not leave carriageway Hit object in c'wa? None First point of impact Back Veh left carriagewa? None First point of impact Back Veh left carriagewa? None Hit object of c'wa? None First point of impact Back Veh left carriagewa? Did not leave carriageway not in restricted lane Hit object of c'wa? None First point of impact Back Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run Drivers age 43 yrs Sex Female Breath test Not Applicable Driving Lie Full Left Hand Drive No Foreign veh. Not foreign registered vehicle		Cas No 1 Cas Class Driver or F Severity SERIOUS Age 43 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not known	

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP2700415	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference451460 / 190939Police Officer Attend:No - reported over the counter	
Date25/04/2015Day SaturdayTime17:20WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 AT RBT J/W ME Description C1 TRAV SE ON A4130 ENTERED R of Accident & RIDER FELL & SUSTAINED SERI	ad       A4130       Location       A4130 AT RBT J/W MENDIP HEIGHTS & B4493       DIDCOT         scription       C1 TRAV SE ON A4130 ENTERED RBT FAILING TO GIVE WAY TO       PC2 TRAV N ROUNDIN         Accident       & RIDER FELL & SUSTAINED SERIOUS INJURY-C1 STOPPED BUT FAILED TO EXCHANG		
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       B4493         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS       None       50 metre	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tor         Veh. direction from       Northwest to Southeast       Tor         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriager         Junct.       location of veh. at 1st impact       Entering roundabe         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no.)         Drivers age       ? yrs       Sex         Left Hand Drive       No       Foreign veh. Not for you way was an and be to the provention of the pr	Make     Model       wing?     No tow or articulation       way not in restricted lane     but       but     Description       but     Description	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SERIOUS Age 32 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1       Rider     Veh ref No       s     Sex Male       PSV Passenger?     Not a passenger       Cycle Helmet     Yes	
Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other         Veh. direction from       South to North       Tor         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no)       Drivers age       32 yrs         Drivers age       32 yrs       Sex       Male       Breath test       Not 4         Left Hand Drive       No       Foreign veh. Not f       Journey purpose       Not Known	Make     Model       wing?     No tow or articulation       way not in restricted lane     roundabout or main road       0     1     Hit and run       0     1     Hit and run       Applicable     Driving Lic     Full       oreign registered vehicle			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0840715	Accident Date BETWEEN '09-Jun-2014' ANI	D '08-Jun-2019'	Grid Reference451533 / 191171Police Officer Attend:No - reported over the counter
Date13/07/2015Day MondayTime08:55WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDaylightSITE DETAILSSpeed Limit50 MPHCarriagewayRoundaboutJunction DetailRoundabout	Road A4130 Location A4130 AT RBT J/W Description C1 TRAV S ON A4130 APPROA of Accident RIDER FELL & SUSTAINED SL CROSSING POINT JUST N OF R SPECIAL SITE CONDITIONS None	/ BASIL HILL RD & MILTON RD & POWER ST CHING RBT J/W BASIL HILL RD HIT PC2 TRAV IGHT INJURY - EXACT CIRCUMSTANCES UNC BT CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider 406 Failed to judge other person's path/spe	ATION ACCESS DIDCOT / S AHEAD OF C1 TO NSIDE OF A4130 & CLEAR - POSS PC2 WAS USING CYCLE PARTICIPANT PROBABILITY - Error) Vehicle 001 B red (Driver/Rider - Error) Vehicle 001 B
Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	CARRIAGEWAY HAZARDS None		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	0 1
VEHICLES INVOLVED 2 Veh.No. 1 Vehicle type Car Make Model Manoeuvre Going ahead other Veh. direction from North to South Towing? No tow or articulation Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriageway not in restricted lane funct. location of veh. at 1st impact Approaching junction or waiting Veh left carriageway? Did not leave carriageway Hit object of c'way? None Hit object of c'way? None Hit object of c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.no) 2 Hit and run Not hit and run Drivers age 35 yrs Sex Male Breath test Driver not contacted Driving Lie Full Left Hand Drive No Foreign veh. Not foreign registered vehicle lourney purpose Commuting to/from work Veh.No. 2 Vehicle type Pedal Cycle Make Model Manoeuvre Going ahead other Veh. direction from North to South Towing? No tow or articulation Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriageway not in restricted lane Junct. location of veh. at 1st impact Approaching junction or waiting Veh left carriageway? Did not leave carriageway Hit object of c'way? None Hit object of c'way? None First point of impact Back Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run Drivers age ? yrs Sex Female Breath test Not Applicable Driving Lie Full		run Cas No 1 Cas Class Driver or Severity SLIGHT Age -1 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details run	Rider Veh ref No 2 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not known
Journey purpose Not Known			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP1691115	Accident Date BETWEEN '09-Jun-2014' AND '08	3-Jun-2019'	Grid Reference451528 / 191155Police Officer Attend:Yes		
Date13/11/2015Day FridayTime19:19WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road A4130 Location A4130 AT RBT J/W BA Description HGV1 TRAV S ON A4130 ENTERED of Accident TO BASIL HILL ROAD	Road A4130 Location A4130 AT RBT J/W BASIL HILL RD & MILTON RD & POWER STATION ACCESS DIDCOT Description HGV1 TRAV S ON A4130 ENTERED RBT FAILING TO GIVE WAY TO MP2 TRAV FROM MILTON ROAD NEG RBT TO EXIT of Accident TO BASIL HILL ROAD			
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS 710 Vehicle blind spot (Driver/Rider - Visi 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spe-	PARTICIPANT PRO on Affected) Vehicle 001 A Error) Vehicle 001 B ed (Driver/Rider - Error) Vehicle 001 B	BABILITY	
VEHICLES INVOLVED 2	Maka Modal	CASUALTIES INVOLVED	l Didar Vehref No. 2		
Manoeuvre       Going ahead other         Veh. direction from       North to South       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabo       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       Drivers age       67 yrs         Driver age       No       Foreign veh. Not for         Left Hand Drive       No       Foreign veh. Not for	ving? Articulated vehicle way not in restricted lane but 2 Hit and run Not hit and run tive Driving Lic Full oreign registered vehicle	Severity SLIGHT Age 17 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet		
Journey purpose     Journey as part of work       Veh.No.     2       Manoeuvre     Weinicle type       Manoeuvre     Going ahead other	_				
Veh. direction fromNorthwest to SoutheastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactMid junction - on nVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age17 yrsSexMaleBreath testNegatiLeft Hand DriveNoForeign veh. Not for	ving? No tow or articulation way not in restricted lane roundabout or main road 1 Hit and run Not hit and run tive Driving Lic Full oreign registered vehicle				
Journey purpose Other		_			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP2270116	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference451679 / 190862Police Officer Attend:Yes
Date19/01/2016Day TuesdayTime18:44WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and litSITE DETAILSSpeed Limit40 MPH	Road       B4493       Location       B4493       APPROX 200M S         Description       C1 TRAV NW ON B4493 SWERVED         of Accident       SPECIAL SITE CONDITIONS       2	E OF RBT J/W A4130 MENDIP HEIGHTS TO OSIDE TO AVOID SLOWING TRAFFIC A CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider -	DIDCOT AHEAD & HIT F OF C2 TRAV SE ON B4493 PARTICIPANT PROBABILITY Error) Vehicle 001 A
Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50	None     2       CARRIAGEWAY HAZARDS     2       None     2	406 Failed to judge other person's path/spec 409 Swerved (Driver/Rider - Error)	ed (Driver/Rider - Error) Vehicle 001 A Vehicle 001 A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Towin         Veh. direction from       Southeast to Northwest       Towin         Skidded       No skidding, jack-knifing or overturning       On main carriageway         Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Not at or within 20m         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       58 yrs         Sex       Male         Breath test       Negative         Left Hand Drive       No         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type         Veh.direction from       Northwest to Southeast       Towin         Skidded       No skidding, jack-knifing or overturning	Make     Model       ug?     No tow or articulation       y not in restricted lane        no f junction        2     Hit and run       priving Lic     Full       eign registered vehicle     Make       Make     Model	CASUALTIES INVOLVEDCas No1Cas ClassDriver or HSeveritySLIGHTAge 58 yrsCar Passenger?Not a passengerSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredCas NoCas No2Cas No2Cas No2Cas Ros2Car Passenger?Not a passengerSeat BeltNot applicablePed MovementNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicablePed LocationNot applicablePed Direction toNot applicable	2         Rider       Veh ref No         s       Sex Male         PSV Passenger?       Not a passenger         Cycle Helmet       Cycle Helmet         Rider       Veh ref No       2         s       Sex Male       Post code         PSV Passenger?       Not a passenger         cycle Helmet       Cycle Helmet
SkiddedNo skidding, jack-knifting or overturningVeh location at impact (restricted lane)On main carriagewayJunct. location of veh. at 1st impactNot at or within 20mVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age50 yrsSexMaleBreath testNegativeLeft Hand DriveNoJourney purposeJourney as part of work	y not in restricted lane a of junction 1 Hit and run Not hit and run e Driving Lic Full eign registered vehicle	Roadworker injured       Other Details	

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP3660116	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	un-2019'	Grid Reference452197 / 191871Police Officer Attend:Yes		
Date20/01/2016Day WednesdayTime17:34WeatherFine without high windsRoad SurfaceFrost/IceStreet LightingDark: street lights present and lit	Road A4130 Location A4130 DIDCOT NORTHE Description C1 TRAV E ON A4130 ENTER RBT HI of Accident	Road A4130 Location A4130 DIDCOT NORTHERN PERIMETER ROAD RBT J/W COLLETT DIDCOT Description C1 TRAV E ON A4130 ENTER RBT HIT PC2 TRAV N ROUNDING RBT & RIDER FELL of Accident			
SITE DETAILS Speed Limit 50 MPH Carriageway Roundabout Junction Detail Roundabout Junction Control Give way or uncontrolled 2nd Road Number U Pedestrian Facilities None within 50 metres Central refuge - no other controls	SPECIAL SITE CONDITIONS       4(         None       4(         CARRIAGEWAY HAZARDS       1         None       4(	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider - 06 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY Error) Vehicle 001 A ed (Driver/Rider - Error) Vehicle 001 A		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Town         Veh. direction from       West to East       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       29 yrs       Sex       Female         Journey purpose       Not Known       Veh.No. 2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Town         Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Town         Veh. direction from       South to North       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Junct. location of veh. at 1st impact       Mid junction	Central refuge - no other controls         JES INVOLVED       2         1       Vehicle type       Car       Make       Model         rre       Going ahead other       Towing?       No tow or articulation         No skidding, jack-knifing or overturning       Towing?       No tow or articulation         No skidding, jack-knifing or overturning       Mid junction - on roundabout or main road         carriageway?       Did not leave carriageway       tin c'way?         xt off c'way?       None       tin c'way?         stration no.       Other veh.hit (ref.no)       2         d Drive       No       Foreign veh.         Not foreign registered vehicle       purpose         vehicle type       Pedal Cycle       Make         vere       Going ahead other         section from       South to North       Towing?         venticet alane)       On main carriageway not in restricted lane         cation of veh. at 1st impact       Mid junction - on roundabout or main road         rer       Going ahead other       Going ahead other         section from       South to North       Towing?       No tow or articulation         No skidding, jack-knifing or overturning       Mid junction - on roundabout or main road       carriageway		Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not known		

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP1790216	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference Police Officer Attend:	451532 / 191161 Yes
Date16/02/2016Day TuesdayTime17:40WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and litSITE DETAILS	Action A4130 DIDCOT PERIMETER RD AT POWER STATION RBT J/W MILTON ROAD / POWER STATION ACCESS & BASIL HILL ROAD DIDCOT         Description C1 TRAV S ON A4130 ENTERED RBT FAILING TO GIVE TO PC2 TRAV FROM MILTON ROAD TO BASIL HILL ROAD of Accident ROUNDING RBT & RIDER SUSTAINED SERIOUS INJURY			
Speed Limit50 MPHCarriagewayRoundaboutJunction DetailRoundabout	SPECIAL SITE CONDITIONS       2         None       7	105 Failed to look properly (Driver/Rider - 710 Vehicle blind spot (Driver/Rider - Visio	Error) on Affected)	Vehicle 001 A Vehicle 001 B
Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	CARRIAGEWAY HAZARDS None			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car       Make       Model         Manoeuvre       Going ahead other       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Entering roundabout         Veh left carriageway?       Did not leave carriageway         Hit object of C'way?       None         Hit object of forway?       None         First point of impact       Front         Veh.No.       2         Veh registration no.       Other veh.hit (ref.no)       2         Dorney purpose       Commuting to/from work         Veh.No.       2       Vehicle type         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type         Skidded       No skidding, jack-knifing or overturning         Veh. direction from       Southwest to East       Towing? No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Veh left carriageway?         Veh location at impact (restricted lane)       On main carriageway not in restricted lane       Junct. location of veh. at 1st impact         Jun		Cas No 1 Cas Class Driver or I Severity SERIOUS Age 26 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ro s Sex Male PSV Passenger? No Cycle Helmet Yo	ef No 2 Post code ot a passenger es

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP1950616	Accident Date BETWEEN '09-Jun-2014' AND '08	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date19/06/2016DaySundayTime17:59WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road       U189       Location       THE OVAL BY HOUSE NUMBER 30       DIDCOT         Description       C1       TRAV S ON THE OVAL PASSED U/K PARKED VEH TO OSIDE AS PED (4 YRS OLD - ONE OF GROUP OF CHILDREN of Accident         PLAYING)       RAN FROM IN FRONT OF VEH TRAV E XING CWAY & C1 HIT PED CAUSING SLIGHT INJURY				
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	on SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None n 50 metre	CONTRIBUTORY FACTORS 805 Dangerous action in carriageway (Pede 801 Crossed road masked by stationary or p 802 Failed to look properly (Pedestrian) 405 Failed to look properly (Driver/Rider - 602 Careless/Reckless (Driver/Rider - Beha	PARTICIPANT PROBABILITY estrian) Casualty 001 A parked vehicle (Pedestriat Casualty 001 A Casualty 001 A - Error) Vehicle 001 B aviour) Vehicle 001 B		
No physical crossing facility within 50 metre         VEHICLES INVOLVED       1         Veh.No.       1       Vehicle type       Car       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       North to South       Towing?       No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct.       I is impact       Not at or within 20m of junction         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)       0       Hit and run       Not hit and run         Drivers age       24 yrs       Sex       Female       Breath test       Negative       Driving Lic       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Other         Journey purpose       Other		CASUALTIES INVOLVED Cas No 1 Cas Class Pedestrian Severity SLIGHT Age 4 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Crossing from driv Ped Location In carriageway, cro Ped Direction to East bound School Pupil Other Roadworker injured Other Details	<ul> <li>Veh ref No 1</li> <li>Sex Female Post code</li> <li>PSV Passenger? Not a passenger</li> <li>Cycle Helmet</li> <li>ver's offside - masked</li> <li>ossing elsewhere</li> </ul>		
SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP2470716	Accident Date BETWEEN '09-Jun-2014' AND '	'08-Jun-2019'	Grid Reference Police Officer Attend:	451939 / 190747 No - reported over the counter	
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Date24/07/2016Day SundayTime05:45WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road B4493 Location B4493 STATION RD Description C1 TRAV SE ON FOXHALL RD E of Accident TO EXIT TO BASIL HILL ROAD	RBT J/W FOXHALL ROAD DIDCOT NTERED RBT J/W B4493 HIT PC2 TRAV N RO	UNDING RBT FROM B44	93 FOXHALL ROAD	
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None 50 metre	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spe 401 Junction overshoot (Driver/Rider - Err 306 Exceeding speed limit (Driver/Rider - 302 Disobeyed give way or stop sign mark 602 Careless/Reckless (Driver/Rider - Beh	Error) ed (Driver/Rider - Error) or) Injudicious) ings (Driver/Rider - Injudaviour)	PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 B Vehicle 001 B Vehicle 001 B Vehicle 001 B Vehicle 001 B Vehicle 001 B	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tow         Veh. direction from       Northwest to Southeast       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabe         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       ? yrs         Sex       Not know         Breath test       Drive         Left Hand Drive       No         Not Known       Ven Known	Make Model wing? No tow or articulation way not in restricted lane out 0 2 Hit and run Not hit and ru cr not contacted Driving Lic Full foreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age 50 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	l Rider Veh ref 's Sex Female PSV Passenger? No Cycle Helmet No	<sup>2</sup> No 2 Post code t a passenger t known	
Veh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromSouth to NorthTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactLeaving roundaboVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age50 yrsSexFemaleBreath testNot ALeft Hand DriveNoJourney purposeNot Known	Make Model wing? No tow or articulation way not in restricted lane but 0 1 Hit and run Not hit and ru Applicable Driving Lic Full oreign registered vehicle	ın			

SEVERITYDistrictSouth OxfordshireSERIOUSRef.No43160248978	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		3 / 191160	
Date     31/08/2016     Day Wednesday       Time     18:26       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	/08/2016       Day       Wednesday         :26       ne without high winds       Discription         Y       C1 TRAV S ON A4130 ENTERED RBT FAILINGTO GIVE WAY TO PC2 TRAV E ROUNDING RBT FROM MILTON ROAD				
Street Lighting     Daylight       SITE DETAILS       Speed Limit     50 MPH       Carriageway     Roundabout       Junction Detail     Roundabout       Junction Control     Give way or uncontrolled       2nd Road Number     U       Pedestrian Facilities     None within 50 metres       Central refuge - no other controls	SPECIAL SITE CONDITIONS 405 None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS Failed to look properly (Driver/Rider -	PARTIC Error) Vehicl	CIPANT PROBABILITY le 001 B	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tow         Veh. direction from       North to South       Tow         Skidded       No skidding, jack-knifing or overturning       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabe         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       43 yrs         Sex       Male         Journey purpose       Commuting to/from work         Veh.No.       2         Vehicle type       Pedal Cycle         Manoeuvre       Going ahead right hand bend         Veh. direction from       Southwest to East         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on         Veh location of veh. at 1st impact       Mid junction - on         Veh left carriageway?       Did not leave carriageway         Junct. location of veh. at 1st impact       Mid junction - on	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       but     2       2     Hit and run       briving Lic     Full       oreign registered vehicle     Make       Make     Model       wing?     No tow or articulation       vay not in restricted lane     main road       1     Hit and run       htit and run     Not hit and run       pplicable     Driving Lic       Full     Full	Cas No 1 Cas Class Driver or F Severity SERIOUS Age 34 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No s Sex Male Post cod PSV Passenger? Not a passe Cycle Helmet Yes	2 de enger	

Date         2509/2016         Des         Standary           Tates         1520         Red         B4493 STATION ROAD RBT JW POXHALL ROAD         DECOT           Wanter         Fire without high winds         Description         Classical         Description         Classical         Description         Classical         Description         Classical         <	SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43160282148	Accie	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		Grid Reference 451946 / 190751	
<pre>inter is 20 wahrer is 20 wahrer is without high winds Road Surface Dy sectifying Road Surface Dy Road Surface Dy Sectifying Road Surface Dy Sectifying Road Surface Road Not Road Not Road Not Road Road Not Road</pre>	Date 25/09/2016 Day Sunday	Road H	Police Officer Attend: Y es oad B4493 Location B4493 STATION ROAD RBT J/W FOXHALL ROAD DIDCOT			
Speed Junit     30 MPIL     SPECIAL SITE CONDITIONS     SARTCLPANT     PROBABILITY       Speed Junit     30 MPIL     SPECIAL SITE CONDITIONS     None     SPECIAL SITE CONDITIONS     302 Disabayed give way or stop sign markings (Driver/Rider - Injud Vehicle 011 A       Junction Detail     Roundabout     CARRAGEWAY HAZARDS     None     SPECIAL SITE CONDITIONS     SPECIAL SITE CONDITIONS     SPECIAL SITE CONDITIONS     None       Junction Detail     Roundabout     CarRAGEWAY HAZARDS     None     CarRAGEWAY HAZARDS     None       VEHICLES INVOLVED     2     CarRAGEWAY HAZARDS     None     CarSUALTIES INVOLVED     1       Vehicle type     Car     Male     Model     Car No     1 Cas Class     Driver of Rider     Vehicle Not Postop       Vehicle tope     Car No     No tor or articulation     Stidded     No tor or articulation     Stidded     Not a postop       Stidded     No kolding, jick-Khnifig or overturing     No tor or articulation     Stidded     Not a postop     Post oco       Veh location at mycar (marined laws)     Or an actariageway     Thi on tarcariageway     No to a spolicable     Post on apolicable     Post on apolicable       Veh respond of mycar     Other vehit (refno)     2     Hit and run Not hit and run     Post postop       Veh respond of mycariage vehit netwing to restricted vehicle     M	Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Descript of Accid	tion C1 TRAV SE ON B4493 ENTEREI lent ROAD INTENDING TO EXIT TO	O RBT FAILING TO GIVE WAY TO PC2 TRAV BASIL HILL ROAD & RIDER FELL & SUSTAI	' N ROUNDING RBT FROM B4493 FOXHALL NED SLIGHT INJURY	
Speal I imit     30 MPH     SPECIAL SITE CONDITIONS     SOURCE IN TREVENDE     SOURCE IN TREVENDE       Juncton Dealing     Roundabout     None     None     Source International Control International Contrecontrol International Contecont International Control Int	SITE DETAILS		1	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY	
Endingency     Roundatout     None     Subsequence pit endy of adopting initiating (Pitter Role * Injust Venter Role * Anjus * Anjus Venter Role * Anjus Venter Role * Anjus * Anjus V	Speed Limit 30 MPH		SPECIAL SITE CONDITIONS	302 Disobeyed give way or stop sign mark	ings (Driver/Rider - Injud Vahiala 001 A	
Statuse       Aone         Junctao Council       Give way or uncontrolled       CARRIAGEWAY IIAZARDS         None       None         Statuse       CarRiAGEWAY IIAZARDS         None       None         Pedetriain Facilities       None         Veh No.       Veh eres         Contrained of the controlled       CarRIAGEWAY IIAZARDS         None       None         Veh No.       Veh eres         Veh No.       Veh eres         Veh No.       Veh eres         Veh dression from sequences       None         Veh dression from sequences       Or main carriageway no in restricted lane         Jameta o Line way?       None         Veh Hel dressing way?       None         Veh Hel dressing way?       None         Veh Hel dressing way?       None         Veh dression from sequences       Other vehit (refno)         Veh registration way?       None         First picit a Cway?       None         Veh weightration way?       None         Veh registration way?       Noth Not foreign episted vehicle         Jones define way?       None         Veh registration way?       None         Veh registratin eres       Model	Carriageway Devended and		SI LEIRE SITE CONDITIONS	502 Disobeyed give way of stop sign mark	ings (Driver/Rider - injud Venicie 001 A	
Database       Care Accession       Give way or uncontrolled       CARRIAGEWAY HAZARDS         None       Care Accession       None       None         Vehon 1       Vehicle bype Car       Make       Model         Nameouver       Gire way or uncontrolled       None       Severity SLICHIT       Age Say Say Say Male       Pool ode         Vehon 1       Vehicle bype Car       Make       Model       Severity SLICHIT       Age Say Say Say Male       Pool ode         Vehonicion at imped (restricted lano)       On main carringeway on in restricted lane       For an extraction Not applicable       Car Passenger?       Not a possenger       Not known         Veh diversion from Nerthwest to Southeast       Towing?       No taw or articulation       Severity SLICHIT       Age Say Say Say Male       Pool ode         Veh diversion from Nerthwest to Southeast       Towing?       No taw or articulation       Severity SLICHIT       Age Say Say Say Male       Pool ode         Veh diversion from Nerthwest to Southeast       Torring regulation       Torring regulation       Not known       Pool ode         Veh diversion from Say       None       Torring regulation       None       Pool Ode       Car Passenger?       Not known         Veh diversion from Say       None       Torring regulatin a two program within the two prestricted	Lunction Detail Poundabout		None			
Janca Could       One way or michanolatic       CARRIAGEWAY HAZARDS         None       None       None         Velation fractilities       None within 50 metres	Junction Detail Koundabout					
Lan Kannalisen o D       O         Pedestrian Facilities       Nome within 50 metres	and Based Number LL		CARRIAGEWAY HAZARDS			
Pedestriant actilities       None within 90 metres       Image: Central refuges - no other controls         VEHICLES INVOLVED       2       CASUALTIES INVOLVED       1         Veh.No.       1       Vehicle type Car       Make       Model         Maneouver       Going abead other       Veh. direction from Northwest to Southeast       Towing? No tow or articulation       Stidded       No skidding, jack-knifing or overtarning       Post code       Car Passenger?       Not a passenger       PSV Passenger?       Not a passenger       Ost passenger?       Not a passenger       PSV Passenger?       Pot Direction No ta papDirable       Ped Direction No ta papDirable       Pe			None			
VEHICLES INVOLVED       2       CASUALTIES INVOLVED       1         Veh.No. 1       Vehiles type       Car       Make       Model         Manoeuvre       Going alhead other       Vehiles type       Vehiles type       Sx Male       Post code         Skiddd       No skidling, jack-knifting or overturing       No tow or articulation       Skidel no skidule, jack-knifting or overturing       No tow or articulation       Car Na splicable       Cycle Heime       Not known         Veh led carriageway       Did not leave carriageway not in restricted lane       Down       Not applicable       Cycle Heime       Not known         Veh egistration no.       Other veh, hit (ref.no)       2       Hit and run       Not hit and run       Not hit and run       Not hit and run       Not known       Veh registration         Veh registration no.       Other veh, hit (ref.no)       2       Hit and run       Not hit and run       Not hit and run         Driver sage 87 yrs       Sex Male       Berath test       Negative       Driving 1       Full       Full         Left Hand Driver       Not Known       Veh ceistration at an earriageway not in restricted lane       Model       Maneeuvre       Model         Jonancio canica of veh at 1st impact       Midu unction - on roundabout or main carriageway not in restricted lane       Model </td <td>Pedestrian Facilities None within 50 metres</td> <td></td> <td></td> <td></td> <td></td>	Pedestrian Facilities None within 50 metres					
VEIICLES INVOLVED 2     VEIICLES INVOLVED 1     VEIICLES INVOLVED 1     VEIICLES INVOLVED 2     VEIICLES INVOLVED 2     VEIICLES INVOLVED 0     VEIICLES INVOLVED 1     VEIICLES INVOLVED 2     VEIICLES INVOLVED 1     VEIICLES INVOLVED 4     VEIICLES INVOLVED 0         VEIICLES INVOLVED 0 </td <td>Central refuge - no other controls</td> <td></td> <td></td> <td></td> <td></td>	Central refuge - no other controls					
Veh. 1       Vehiele type       Car       Make       Model         Manoeuvre       Going ahead other       Veh off       Cas No       1. Cas Class       Driver or Rider       Veh ref No       2         Skidded       No skidding, jack-knifting or overturning       No tow or articulation       Severity       Store of the severation of the severatingeveration of the seve	VEHICLES INVOLVED 2			CASUALTIES INVOLVED	1	
Hit object off cway?       None       Readworker injured         First point of impact       Offside       Other veh.hit (ref.no)       2       Hit and run       Not hit and run         Drivers age       87 yrs       Sex       Male       Breath test       Negative       Driving Lie       Full         Journey purpose       Not       Foreign veh.       Not foreign registered vehicle       Other Vehilt (ref.no)       2       Hit and run       Not hit and run         Journey purpose       Not       Foreign veh.       Not foreign registered vehicle       Other Vehilt (ref.no)       2       Hit and run       Not hit and run         Veh. No.       2       Vehicle type       Pedal Cycle       Make       Model         Manceuvre       Going ahead other       Towing? No tow or articulation       Skidded       No skiidling, jack-knifing or overturning       Not hit and run       Not hit and run       Not hit object in Cyway?       None         Veh left carriageway?       Did not leave carriageway       Mid junction on or oundabout or main road       Veh left carriageway?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       1       Hit and run       Not hit and run       Not hit and run         Drivers age       38 yrs       S	Manoeuvre       Going ahead other         Veh. direction from       Northwest to Southeast         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carria         Junct. location of veh. at 1st impact       Entering round         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None	Fowing? No geway not in about	o tow or articulation	Severity SLIGHT Age 38 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other	Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not known	
First point of impact       Other veh.hit (ref.no)       2       Hit and run       Not hit and run       Other Details         Drivers age       87 yrs       Sex       Male       Breath test       Negative       Driving Lie       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Full       Make       Model         Journey purpose       Not Known       Veh.vo.       2       Vehicle type       Pedal Cycle       Make       Model         Maneouvre       Going ahead other       Towing?       No tow or articulation       Skidded       No skidding, jack-knifing or overturning       One nain carriageway not in restricted lane       Junet. location of veh. at 1st impact       Mid junction - on roundabout or main road         Veh location of veh.at 1st impact       Mid junction - on roundabout or main road       Veh registration no.       Other veh.hit (ref.no)       1       Hit and run       Not thit and run       Not thit and run         Veh registration no.       Other veh.hit (ref.no)       1       Hit and run       Not thit and run       Not thit and run         Veh registration no.       Other veh.hit (ref.no)       1       Hit and run       Not thit and run         Drivers age       38 yrs       Sex       Sex       Male       Breath test       N	Hit object off c'way? None			Roadworker injured		
Verification no.       Other verification no.       Other verification no.         Drivers age 38 yrs       Sex Male       Breath test       Negative         Journey purpose       Not       Foreign veh.       Not foreign registered vehicle         Journey purpose       Not       Not Known       Make         Veh.No.       2       Vehicle type Pedal Cycle       Make         Manoeuvre       Going ahead other       Foreign veh.       Towing? No tow or articulation         Skidded       No skidding, jack-knifing or overturning       On main carriageway not in restricted lane       On main carriageway not in restricted lane         Junet. location of veh. at 1st impact       Mid junction - on roundabout or main road       Veh left carriageway?       None         Hit object fit c'way?       None       Front       Veh registration no.       Other veh.hit (ref.no)         Drivers age 38 yrs       Sex Male       Breath test       Not Applicable       Driving Lie         Journey purpose       Not Known       Not foreign registered vehicle       Journey purpose       Not Known	Veh registration no. Other veh hit (ref	<b>a</b> ) <b>2</b>	Hit and min Not hit and m	Other Details		
Left Hand Drive No Foreign veh. Not foreign registered vehicle Journey purpose Not Known Veh.No. 2 Vehicle type Pedal Cycle Make Model Manoeuvre Going ahead other Veh. direction from South to North Towing? No tow or articulation Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriageway not in restricted lane Junet. location of veh. at 1st impact Mid junction - on roundabout or main road Veh locatingeway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.no) 1 Hit and run Not hit and run Drivers age 38 yrs Sex Male Breath test Not Applicable Driving Lie Full Left Hand Drive No Foreign veh. Not foreign registered vehicle Journey purpose Not Known	Drivers age 87 vrs Sex Male Breath test Ne	no) <u>Z</u>	Driving Lic Full	ın		
Not KnownVeh.No. 2Vehicle typePedal CycleMakeModelManoeuvreGoing ahead otherVeh.No. 7Towing? No tow or articulationSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageway not in restricted laneJunct. location of veh. at 1st impactMid junction - on roundabout or main roadMid junction - on roundabout or main roadVeh left carriageway?Did not leave carriagewayMid junction - on roundabout or main roadVeh registration no.Other veh.hit (ref.no) 1Hit and runDrivers age 38 yrsSex MaleBreath testNot ApplicableJourney purposeNot KnownForeign veh. Not foreign registered vehicle	Left Hand Drive $N_0$ Foreign veh. No	t foreign regi	ristered vehicle			
Veh.No.       2       Vehicle type       Pedal Cycle       Make       Model         Manoeuvre       Going ahead other       Veh. direction from       South to North       Towing? No tow or articulation         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway not in restricted lane         Junct. location of veh. at 1st impact       Mid junction - on roundabout or main road       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       Front       Veh registration no.       Other veh.hit (ref.no)         Privers age       38 yrs       Sex       Male       Breath test       Not Applicable         Drivers age       38 yrs       Sex       Male       Breath test       Not foreign registered vehicle         Journey purpose       Not Known       Not Known       South core and core	Journey purpose Not Known	88	·····			
ManoeuvreGoing ahead otherVeh. direction fromSouth to NorthTowing? No tow or articulationSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageway not in restricted laneJunct. location of veh. at 1st impactMid junction - on roundabout or main roadVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no) 1Privers age 38 yrsSex MaleBreath testNot foreign registered vehicleJourney purposeNot Known	Veh.No. 2 Vehicle type Pedal Cycle		Make Model			
Veh. direction fromSouth to NorthTowing?No tow or articulationSkiddedNo skidding, jack-knifig or overturningVeh location at impact (restricted lane)On main carriageway not in restricted laneJunct. location of veh. at 1st impactMid junction - on roundabout or main roadVeh left carriageway?Did not leave carriagewayVeh left carriageway?NoneHit object in clway?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age38 yrsSexMaleBreath testNot ApplicableDriving LieFullLeft Hand DriveNoNot Known	Manoeuvre Going ahead other					
SkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageway not in restricted laneJunct. location of veh. at 1st impactMid junction - on roundabout or main roadVeh left carriageway?Did not leave carriagewayPit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no) 1Drivers age 38 yrsSex MaleBreath testNot ApplicableDriving LicFullLeft Hand DriveNoNot Known	Veh. direction from South to North	owing? No	o tow or articulation			
Veh location at impact (restricted lane)On main carriageway not in restricted laneJunct. location of veh. at 1st impactMid junction - on roundabout or main roadVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no) 1Dirvers age 38 yrsSex MaleBreath testNot ApplicableDriving LicFullLeft Hand DriveNoNot Known	Skidded No skidding, jack-knifing or overturning					
Junct. location of veh. at 1st impactMid junction - on roundabout or main roadVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no) 1Drivers age 38 yrsSex MaleBreath testNot ApplicableDriving LicFullLeft Hand DriveNoNot Known	Veh location at impact (restricted lane) On main carria	geway not in	restricted lane			
Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       1       Hit and run       Not hit and run         Drivers age       38 yrs       Sex       Male       Breath test       Not Applicable       Driving Lic       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Journey purpose       Not Known	Junct. location of veh. at 1st impact Mid junction -	on roundabou	ut or main road			
Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no) 1       Hit and run         Drivers age 38 yrs       Sex Male       Breath test       Not Applicable         Driving Lic       Full         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle         Journey purpose       Not Known       Ventorian registered vehicle	Veh left carriageway? Did not leave carriageway					
Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       1       Hit and run         Drivers age       38 yrs       Sex       Male       Breath test       Not Applicable         Drivers age       38 yrs       No       Foreign veh.       Not foreign registered vehicle         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle         Journey purpose       Not Known       Ventorian test       Not foreign registered vehicle	Hit object in c'way? None					
First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       1       Hit and run         Drivers age       38 yrs       Sex Male       Breath test       Not Applicable       Driving Lic         Left Hand Drive       No       Foreign veh.       Not foreign registered vehicle       Full         Journey purpose       Not Known       Veh registration       Veh registration       Veh registration	Hit object off c'way? None					
ven registration no.     Other veh.hit (ref.no)     I     Hit and run     Not hit and run       Drivers age     38 yrs     Sex     Male     Breath test     Not Applicable     Driving Lic       Left Hand Drive     No     Foreign veh.     Not foreign registered vehicle     Full       Journey purpose     Not Known     Not Known     Not set to the s	First point of impact Front	\ •	111, 1 ST. 11, 1			
Left Hand Drive     No     Foreign veh.     Not foreign registered vehicle       Journey purpose     Not Known	ven registration no. Other veh.hit (ref.	10) [	Hit and run Not hit and ru	in		
Journey purpose Not Known	Left Hand Drive No. Foreign yeb No.	t foreign real	istered vehicle			
	Loutney purpose Not Vrouve	i loreigii regi				
•	Source purpose NOL NILOWII					

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170021424	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
			Police Officer Attend: Yes	
Date     10/01/2017     Day Tuesday       Time     13:50       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight       SITE DETAILS       Speed Limit     50 MPH	Road       A4130       Location       A4130       DIDCOT NORTHE         Description       C1 (DRIVER INTOXICATED)       TRAV S         of Accident       ENTERED RBT FAILING TO GIVE WA         CWAY ON E SIDE OF ROAD       SPECIAL SITE CONDITIONS       50	ERN PERIMETER ROAD AT RBT J/W HAW ON A4130 AT SPEED OVERTOOK ANOTH AY TO LGV2 TRAV N ON A4130 TURNING CONTRIBUTORY FACTORS )1 Impaired by alcohol (Driver/Rider - Imp	KSWORTH DIDCOT IER VEH ON APPROACH TO RBT THEN RT TO HAWKSWORTH - BOTH VEHS LEFT PARTICIPANT PROBABILITY pairment) Vehicle 001 A	
Carriageway Roundabout Junction Detail Roundabout	None			
2nd Road Number     U       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	CARRIAGEWAY HAZARDS None			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNorth to SouthToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactEntering roundabVeh left carriageway?Left carriageway nearsideHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no.Drivers age36 yrsSexFemaleBreath testPositLeft Hand DriveNoNoForeign veh.Veh.No.2Vehicle typeVan/Goods < 3.5t	Make       Model         owing?       No tow or articulation         oway not in restricted lane       way not in restricted lane         oout       2       Hit and run       Not hit and run         o)       2       Hit and run       Not hit and run         tive       Driving Lic       Full         foreign registered vehicle       Make       Model         owing?       No tow or articulation         eway not in restricted lane       noundabout or main road         o)       1       Hit and run       Not hit and run         o)       1       Hit and run       Not hit and run         oping:       1       Hit and run       Not hit and run	Cas No 1 Cas Class Driver or R Severity SLIGHT Age 36 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 1 Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist	

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170028756	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'				
Date20/01/2017Day FridayTime13:09WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road       A4130       Location       A4130       DIDCOT NORTH         Description       LGV1 TRAV S ON A4130       ENTERED F         of Accident       HIT OCCURRED	Road A4130 Location A4130 DIDCOT NORTHERN PERIMETER ROAD RBT J/W MILTON ROAD & BASIL HILL ROAD DIDCOT Description LGV1 TRAV S ON A4130 ENTERED RBT FAILING TO GIVE WAY TO PC2 TRAV FROM MILTON RD TO BASIL HILL RD & of Accident HIT OCCURRED				
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Central refuge - no other controls	SPECIAL SITE CONDITIONS       4         None       6         CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider - 02 Careless/Reckless (Driver/Rider - Beha	Error) iviour)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 B		
VEHICLES INVOLVED     2       Veh.No.     1     Vehicle type     Van/Goods < 3.5t	Make Model	CASUALTIES INVOLVED	1 Rider Vehre	ef No 2 Post code		
ManocuvreGoing anead otherVeh. direction fromNorth to SouthTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age40 yrsSexFemaleBreath testNegaLeft Hand DriveNoForeign veh. Not female	wing? No tow or articulation way not in restricted lane out ) 2 Hit and run Not hit and run tive Driving Lic Full Oreign registered vehicle	Seventy       SLIGHT       Age 57 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	S Sex Female PSV Passenger? No Cycle Helmet Yo	ot a passenger es		
Journey purposeJourney as part of workVeh.No.2Vehicle typePedal Cycle	Make Model	-				
ManoeuvreGoing ahead otherVeh. direction fromWest to EastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age57 yrsSexFemaleBreath testNot fJourney purposeOther	wing? No tow or articulation way not in restricted lane roundabout or main road ) 1 Hit and run Not hit and run Applicable Driving Lic Full oreign registered vehicle					

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170061708	Accident Date BETWEEN '09-Jun-2014' AND '08	3-Jun-2019'	Grid Reference451942 / 190732Police Officer Attend:No - reported over the counter		
Date13/02/2017Day MondayTime20:05WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Date       13/02/2017       Day Monday         Cime       20:05         Weather       Fine without high winds         Road Surface       Dry         Street Lighting       Description         C1 TRAV N ON B4493 FOXHALL ROAD ENTERED RBT FAILING TO GIVE WAY TO PC2 TRAV NW FROM STATION ROAD of Accident				
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Central refuge - no other controls	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A		
VEHICLES INVOLVED     2       Veh.No.     1     Vehicle type     Car       Manoeuvre     Going ahead other	Make Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity SLIGHT Age 26 yr.	1 Rider Veh ref No 2 rs Sex Male Post code		
Veh. direction fromSouth to NorthTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering roundaboVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age? yrsSexNot knowBreath testDriverLeft Hand DriveNoNot KnoweForeign veh.Not KnoweForeign veh.	ving?       No tow or articulation         vay not in restricted lane         ut         2       Hit and run         r not contacted       Driving Lic         breign registered vehicle	Car Passenger?Not a passengerSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredOther Details	PSV Passenger? Not a passenger Cycle Helmet Yes		
Journey purpose       Not Known         Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Veh. direction from       Southeast to Northwest       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on the veh. location -	Make     Model       ving?     No tow or articulation       /ay not in restricted lane				
Journey purpose Other	neigh registered venicie	_			

SEVERITYDistrictVale of White HorseSERIOUSRef.No43170175919	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	Grid Reference450287 / 191299Police Officer Attend:Yes
Date30/05/2017Day TuesdayTime13:25WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road       A4130       Location       A4130 APPROX 500M W OF J/W SIR FRANK WILLIAMS WAY         EXACT LOCATION         Description       LGV1 TRAV W ON A4130 IN QUEUING TRAFFIC DUE TO ROAD WORKS M         of Accident       OVERTAKING QUEUE	HARWELL - SOME UNCERTAINTY OVER ADE U TURN TO RETURN TO E BUT HIT MC2
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     CONTRIBUTORY FACTORS       Roadworks     405 Failed to look properly (Driver/Ride       CARRIAGEWAY HAZARDS     602 Careless/Reckless (Driver/Rider - B       50 metre     50 metre	PARTICIPANT PROBABILITY r - Error) Vehicle 001 A er - Error) Vehicle 001 A ehaviour) Vehicle 001 A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Van/Goods < 3.5t	Make       Model       Cas No       1 Cas Class       Driver         ing?       No tow or articulation       Severity       SERIOUS       Age 52         ay not in restricted lane       Car Passenger?       Not a passenger         m of junction       Vot applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details         Make       Model	ED 1 or Rider Veh ref No 2 yrs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist
Veh. direction fromEast to WestTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 20Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age52 yrsSexMaleBreath testNegatiLeft Hand DriveNoJourney purposeNot Known	ing? No tow or articulation ay not in restricted lane m of junction 1 Hit and run Not hit and run ve Driving Lic Full reign registered vehicle	

SEVERITYDistrictVale of White HorseSERIOUSRef.No43170203459	Accident Date BETWEEN '09-Jun-2014' AND	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		91158
Date16/06/2017Day FridayTime05:30WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 APPROX 50N Description HGV1 TRAV E ON A4130 (DRIV of Accident	Road A4130 Location A4130 APPROX 50M E OF J/W SIR FRANK WILLIAMS WAY HARWELL Description HGV1 TRAV E ON A4130 (DRIVER SUFFERING FROM FATIGUE) WENT TO OISDE OF CWAY & HIT ONCOMING HGV2 of Accident		
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPAN	T PROBABILITY
Speed Limit 40 MPH	SPECIAL SITE CONDITIONS	503 Fatigue (Driver/Rider - Impairment)	Vehicle 001	А
Carriageway Single carriageway	None	405 Eviled to look properly (Driver/Pider	Error) Vehicle 001	в
Junction Detail Not at or within 20 metres of junctio	on	405 Failed to look property (Driver/Kider -		D
Junction Control		403 Poor turn or manoeuvre (Driver/Rider	- Error) Vehicle 001	В
2nd Road Number	CARRIAGEWAY HAZARDS			
Pedestrian Facilities None within 50 metres	None			
No physical crossing facility within	1 50 metre			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	2	
Veh.No.       1       Vehicle type       Goods > 7.5t         Manoeuvre       Going ahead other         Veh. direction from       West to East       Tow         Skidded       Skidded       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Not at or within 20         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       53 yrs         Sex       Male         Breath test       Negat         Left Hand Drive       No         Journey purpose       Journey as part of work         Veh.No.       2       Vehicle type         Going ahead other       Veh. direction from         East to West       Tow         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Not at or within 20         Veh left carriageway?       Did not leave carriageway	Make     Model       wing?     Articulated vehicle       way not in restricted lane	Cas No       1 Cas Class       Driver or 1         Severity       SLIGHT       Age 53 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Severity       SERIOUS       Age 63 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Other Details       Other Details	Rider Veh ref No 1 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist	
Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.no) Drivers age 63 yrs Sex Male Breath test Negat Left Hand Drive No Foreign veh. Not for Journey purpose Journey as part of work	a) 1 Hit and run Not hit and r ative Driving Lic Full foreign registered vehicle	un		

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170187821	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference Police Officer Attend:	451934 / 190743 Yes
Date16/06/2017Day FridayTime01:18WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	RoadB4493LocationB4493 RBT J/W B4493 IDescriptionC1 (DRIVER INTOXICATED) TRAVof AccidentTOWARDS A34 & HIT SPLITTER IS	FOXHALL ROAD DIDCOT N ON B4493 FOXHALL ROAD LOST CONT LAND ON B4493 IMMEDIATELY WEST OF	ROL TURNING LT AT SI RBT THEN OVERTURN	PEED TO B4493 Ed
Size of a problem of the problem and intervention of the problem and the problem andit problem and the problem and the problem	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 501 Impaired by alcohol (Driver/Rider - Im 403 Poor turn or manoeuvre (Driver/Rider 307 Travelling too fast for conditions (Driv 306 Exceeding speed limit (Driver/Rider -	npairment) - Error) /er/Rider - Injudicious) Injudicious)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001BVehicle 001B
VEHICLES INVOLVED 1 Veh.No. 1 Vehicle type Car Manoeuvre Turning left Veh. direction from South to Northwest Towin Skidded Skidded and overturned Veh location at impact (restricted lane) On main carriageway Junct. location of veh. at 1st impact Leaving roundabout Veh left carriageway? Did not leave carriageway Hit object in c'way? Bollard/refuge Hit object off c'way? None First point of impact Offside Veh registration no. Other veh.hit (ref.no) Drivers age 25 yrs Sex Male Breath test Positive Left Hand Drive No Foreign veh. Not fore Journey purpose Other	Make     Model       g?     No tow or articulation       y not in restricted lane       0     Hit and run       Driving Lic     Full       eign registered vehicle	CASUALTIES INVOLVED          Cas No       1 Cas Class       Driver or 1         Severity       SLIGHT       Age 25 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider     Veh re       s     Sex       PSV Passenger?     No       Cycle Helmet     No	f No 1 Post code at a passenger at a cyclist

SEVERITY District South Oxfordshire		Grid Reference 451531 / 191163
SLIGHT Ref.No 43170202475 Accident Date BETWEEN '09-Jun	-2014' AND '08-Jun-2019'	Police Officer Attend: Yes
Date03/07/2017Day MondayTime06:45WeatherFine without high winds	T POWER STATION RBT J/W MILTON ROAD & BASI	HILL ROAD DIDCOT
Road Surface     Wet/Damp     Description     LGV1 TRAV S ON A4       Street Lighting     Davlight     of Accident     TRAVELLING FROM	130 DIDCOT NORTHERN PERIMETER ROAD ENTERI MILTON ROAD & HIT OCCURRED	D RBT FAILING TO GIVE WAY TO PC2 ON RBT
SITE DETAILS	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 50 MDU SPECIAL SITE CONDITI	ONS 405 Enjled to look properly (Driver/Div	er Error) Vakiala 001 A
Corriggeway D 11	405 Paried to look property (Driver/Kit	venicie 001 A
Lungtion Detail Boundabout None	402 Junction restart (Driver/Rider - Err	or) Vehicle 001 A
Junction Detail Roundabout	103 Slippery road due to weather (Roa	Environment Contrib) Vehicle 001 B
2nd Deed Number II	RDS 703 Road layout (Driver/Rider - Vision	Affected) Vehicle 001 B
2nd Road Number U	705 Koad layout (Dirver/Kider - Vision	Venicie 001 B
Pedestrian Facilities None within 50 metres		
No physical crossing facility within 50 metre		
VEHICLES INVOLVED 2	CASUALTIES INVOL	ED 1
Veh.No. 1 Vehicle type Van/Goods < 3.5t Make Mo	del Cas No 1 Cas Class Driver	or Rider Veh ref No 2
Manoeuvre Slowing or stopping	Severity SLIGHT Age 4	5 yrs Sex Male Post code
Veh. direction from North to South Towing? No tow or articulation	Car Passenger? Not a passenge	PSV Passenger? Not a passenger
Skidded No skidding, jack-knifing or overturning	Seat Belt Not applicable	Cycle Helmet Yes
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Ped Movement Not applicable	, 105
Junct. location of veh. at 1st impact Entering roundabout	Ped Location Not applicable	
Veh left carriageway? Did not leave carriageway	Ped Direction to Not applicable	
Hit object in c'way? None	School Pupil Other	
Hit object off c'way? None	Roadworker injured	
First point of impact Offside	Other Details	
Veh registration no. Other veh.hit (ref.no) 2 Hit and run M	ot hit and run	
Drivers age / yrs Sex Male Breath lest Driver not contacted Driving Lic F		
Leit Hand Drive No Foreign ven. Not foreign registered venicle		
Journey purpose         Not Known           Value Na         2         Value Date Counter         Material	dal	
Ven.ivo. Z venicie iype Pedal Cycle Make Mo		
Veh direction from Waster Fast		
Skidded Ne shidding is to have a set of the		
Skilded No skilding, jack-knilling or overturning		
Unat location of whether the impact (restricted faile) On main cannageway not in restricted faile		
Val left corriggeway? Did not loove corriggeway.		
Hit object in c'way? None		
Hit object in e way. None		
First point of impact Nearside		
Veh registration no. Other veh hit (ref no) 1 Hit and run N	lot hit and run	
Drivers age 45 vrs Sex Male Breath test Not Applicable Driving Lic F	ull	
Left Hand Drive No Foreign veh. Not foreign registered vehicle		
Journey purpose Commuting to/from work		

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170245907	Accident Date BETWEEN '09-Jun-2014' AND '08-	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		450771 / 191136 Yes	
Date     14/08/2017     Day Monday       Time     10:14       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Poince Officer Attend:       1 cs         Road       U189       Location SIR FRANK WILLIAMS WAY APPROX 20M S OF J/W A4130       HARWELL         Description       C1 TRAV N ON SIR FRANK WILLIAMS WAY MOVED OFF AS SIGNALS AHEAD CHANGED TO GREEN BUT HIT REAR OF C2         of Accident       AHEAD ALSO MOVING OFF				
Street Lighting     Dayngin       SITE DETAILS       Speed Limit     30 MPH       Carriageway     Single carriageway       Junction Detail     T or staggered junction       Junction Control     Automatic traffic signal       2nd Road Number     A4130       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	SPECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS 402 Junction restart (Driver/Rider - Error) 405 Failed to look properly (Driver/Rider - 307 Travelling too fast for conditions (Driv 308 Following too close (Driver/Rider - Inj	Error) ver/Rider - Injudicious) judicious)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A Vehicle 001 B Vehicle 001 B	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Moving off       Townshift         Veh. direction from       South to North       Townshift         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       Parked vehicle       Hit object off c'way?       None         First point of impact       Front       Veh registration no.       Other veh.hit (ref.no)         Drivers age       ? yrs       Sex       Female       Breath test       Drive         Left Hand Drive       No       Foreign veh.       Not f         Journey purpose       Not Known       Vehicle type       Car	Make Model wing? No tow or articulation way not in restricted lane tion or waiting ) 2 Hit and run Not hit and run er not contacted Driving Lie Full breign registered vehicle Make Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or 1 Severity SLIGHT Age 57 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1 Rider Veh ref rs Sex Female PSV Passenger? Not Cycle Helmet Not	No 2 Post code a passenger a cyclist	
ManoeuvreMoving offVeh. direction fromSouth to NorthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactApproaching juncVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age57 yrsSexFemaleBreath testDriveLeft Hand DriveNot Known	wing? No tow or articulation way not in restricted lane tion or waiting ) 1 Hit and run Not hit and run er not contacted Driving Lie Full Foreign registered vehicle				

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170280331	Accident Date BETWEEN '09-Jun-2014' AND '0	)8-Jun-2019'	Grid Reference 452194 / 191870
			Police Officer Attend: Y es
Date 12/09/2017 Day Tuesday	d A 4120 Location A 4130 DIDCOT NOR	THERN PERIMETER ROAD I/W COLLETT	NIDCOT
Time 14:05	A4150 Location A4150 Dibeot Nor	THERWITER WORD J. W COLLETT	
Weather Fine without high winds	mintion HGV1 TRAV W ON A4130 TURNE	TO RT AT RRT TO N - WHILE DOING SO DRU	VER SUFFEERED COUGHING FIT & WENT TO
Road Surface Dry	Accident NSIDE & HIT HGV2 TRAVE ON A	A4130 APPROACHING RBT GIVE WAY	VER SOFFFERED COUCHING FIT & WENT TO
Street Lighting Daylight			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 50 MPH	SPECIAL SITE CONDITIONS	505 Illness or disability, mental or physical	l (Driver/Rider - Impairm Vehicle 001 A
Carriageway Roundabout	None		
Junction Detail Roundabout			
Junction Control Give way or uncontrolled			
2nd Road Number U	CARRIAGEWAY HAZARDS		
Pedestrian Facilities None within 50 metres	None		
No physical crossing facility within 50 me	etre		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No. 1 Vehicle type Goods > 7.5t	Make Model	Cas No 1 Cas Class Driver or	Rider Veh ref No 2
Manoeuvre Turning right		Severity SLIGHT Age 57 yr	rs Sex Male Post code
Veh. direction from East to North Towing?	No tow or articulation	Car Passenger? Not a passenger	PSV Passenger? Not a passenger
Skidded No skidding, jack-knifing or overturning		Seat Belt Not applicable	Cycle Helmet Not a cyclist
Veh location at impact (restricted lane) On main carriageway no	ot in restricted lane	Ped Movement Not applicable	
Junct. location of veh. at 1st impact Leaving roundabout		Ped Location Not applicable	
Veh left carriageway? Did not leave carriageway		Ped Direction to Not applicable	
Hit object in c'way? None		School Pupil Other	
Hit object off c'way? None		Roadworker injured	
First point of impact Nearside		Other Details	
Veh registration no. Other veh.hit (ref.no)	2 Hit and run Not hit and ru	n	
Left Hand Drive No. Foreign veh Not foreign	registered vehicle		
Iourney nurpose Iourney as part of work	registered vehicle		
Veh No 2 Vehicle type $Goods > 7.5t$	Make Model		
Manoeuvre Going ahead other	index index		
Veh. direction from West to Fast Towing?	No tow or articulation		
Skidded No skidding jack-knifing or overturning			
Veh location at impact (restricted lane) On main carriageway no	ot in restricted lane		
Junct. location of veh. at 1st impact Entering roundabout			
Veh left carriageway? Did not leave carriageway			
Hit object in c'way? None			
Hit object off c'way? None			
First point of impact Nearside			
Veh registration no. Other veh.hit (ref.no)	1 Hit and run Not hit and ru	n	
Drivers age 57 yrs Sex Male Breath test Negative	Driving Lic Full		
Left Hand Drive No Foreign veh. Not foreign	registered vehicle		
Journey purpose Journey as part of work		]	

SEVERITYDistrictSouth OxfordshireSERIOUSRef.No43170345099	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-20	)19'	Grid Reference Police Officer Attend:	451534 / 191161 Yes
Date05/11/2017Day SundayTime14:15WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road       A4130       Location       A4130 RBT J/W MILTON RO         Description       C1 TRAV S ON A4130 DIDCOT NORTHEF         of Accident       FROM MILTON ROAD TO BASIL HILL RO	AD & BASIL HILL ROAD DIDCOT N PERIMETER ROAD ENTERED RBT DAD - GLARE FROM SUN / VEHICLE	FAILING TO GIVE WAY BLIND SPOT POSS CONT	TO PC2 TRAV E 'RIBUTORY
Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Central refuge - no other controls	SPECIAL SITE CONDITIONS 405 F None 406 F 403 F CARRIAGEWAY HAZARDS 706 E None 710 V	ONTRIBUTORY FACTORS ailed to look properly (Driver/Rider - ailed to judge other person's path/spector oor turn or manoeuvre (Driver/Rider - Pazzling sun (Driver/Rider - Vision Af Tehicle blind spot (Driver/Rider - Vision	Error) ed (Driver/Rider - Error) - Error) ffected) on Affected)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001AVehicle 001AVehicle 001BVehicle 001B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Town         Veh. direction from       North to South       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabout         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       36 yrs       Sex         No       Foreign veh. Not for	Make Model ng? No tow or articulation ay not in restricted lane tt 2 Hit and run Not hit and run ve Driving Lic Full reign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SERIOUS Age 58 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured her Details	1 Rider Veh ref s Sex Female PSV Passenger? Not Cycle Helmet No	No 2 Post code a passenger
Journey purposeOtherVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromWest to EastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactMid junction - on reVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age58 yrsSexFemaleBreath testNot ApLeft Hand DriveNoJourney purposeCommuting to/from work	Make     Model       ng?     No tow or articulation       ay not in restricted lane			

SEVERITYDistrictSouth OxfordshireSERIOUSRef.No43170349714	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Jun-2019'	Grid Reference Police Officer Attend:	451109 / 191078 Yes
Date22/11/2017DayWednesdayTime18:40WeatherFine with high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road A4130 Location A4130 APPROX 400M N Description C1 (APPEARS DRIVER DISTRACTED of Accident QUEUING TRAFFIC	W OF RBT J/W MENDIP HEIGHTS DIDCO	T 7 ON A4130 HIT REAR (	OF STAT C2 IN
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS       5         None       3         CARRIAGEWAY HAZARDS       4         None       5         None       5         0 metre       4	CONTRIBUTORY FACTORS 509 Distraction in vehicle (Driver/Rider - In 508 Following too close (Driver/Rider - Inj 508 Sudden braking (Driver/Rider - Error) 508 Driver using mobile phone (Driver/Rid 504 Uncorrected, defective eyesight (Driver 505 Failed to look properly (Driver/Rider -	npairment) udicious) er - Impairment) r/Rider - Impairment) Error)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001BVehicle 002BVehicle 001BVehicle 001BVehicle 001BVehicle 001B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Slowing or stopping         Veh. direction from       Southeast to Northwest       Towi         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Not at or within 20n         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no       Other veh hit (ref no)	Make Model ng? No tow or articulation ay not in restricted lane n of junction 2 Hit and run Not hit and run	CASUALTIES INVOLVED         Cas No       1 Cas Class       Driver or F         Severity       SERIOUS       Age 65 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No       2 Cas Class	2 Rider Veh r Sex Male PSV Passenger? N Cycle Helmet N Veh r	ef No 1 Post code ot a passenger ot a cyclist ef No 1
Veh registration no.Other veh.hit (ref.no)Drivers age65 yrsSexMaleBreath testNegativeLeft Hand DriveNoForeign veh.Not forJourney purposeOtherVeh.No. 2Vehicle typeCarWanoeuvreWaiting to go ahead but held upVeh. direction fromSoutheast to NorthwestTowiSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewaJunct.location of veh. at 1st impactNot at or within 20nVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age33 yrsSexMaleBreath testNegativeLeft Hand DriveNoForeign veh.Not forJourney purposeOther	2       Hit and run       Not hit and run         ve       Driving Lic       Full         reign registered vehicle       Make       Model         ng?       No tow or articulation         ay not in restricted lane       nof junction         1       Hit and run       Not hit and run         ve       Driving Lic       Full         reign registered vehicle       Full       reign registered vehicle	Severity SERIOUS Age 63 yrs Car Passenger? Front seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	s Sex Female r PSV Passenger? N Cycle Helmet N	Post code ot a passenger ot a cyclist

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43180060864	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
Date20/02/2018Day TuesdayTime18:05WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road B4493 Location B4493 STATION ROAD Description C1 TRAV SE ON B4493 STATION RO. of Accident EXIT TO BASIL HILL ROAD	RBT J/W FOXHALL ROAD DIDCO AD ENTERED RBT HIT PC2 TRAV N ROUN	T NDING RBT FROM B4493 FOXHALL ROAD TO	
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility withir	SPECIAL SITE CONDITIONS 4 None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A	
VEHICLES INVOLVED 2	· · ·	CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other         Veh. direction from       West to East       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct.       location of veh. at 1st impact       Entering roundab         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no         Drivers age       40 yrs       Sex         Journey purpose       Not Known         Veh.No.       2       Vehicle type         Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct.       location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Veh location at impact       restricted lane)       On main carriage         Junct.       location of veh. at 1st	Make     Model       owing?     No tow or articulation       oway not in restricted lane     out       o)     2     Hit and run       o)     2     Hit and run       er not contacted     Driving Lic       foreign registered vehicle       Make     Model       owing?     No tow or articulation       eway not in restricted lane       or oundabout or main road       o)     1       Hit and run     Not hit and run       point     Hit and run       point     Hit and run       point     Full	Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 45 yr.         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Yes	

SEVERITY District South Oxfordshire				Grid Reference 451936 / 190985
SLIGHT Ref.No 43180131504	Accident Date BETWE	EN '09-Jun-2014' AND '	'08-Jun-2019'	Police Officer Attend: Yes
Date15/04/2018DaySundayTime13:50WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road U189 Location Description MC1 TRAV of Accident TRACK INT	n BASIL HILL ROAD . 7 NW ON BASIL HILL 70 PATH OF MC1 & H	AT J/W TRACK ON N SIDE ORF ROAD APPRO ROAD WHEN PC2 ALSO TRAV NW IN CYCL IT OCCURRED (POSS THAT PC2 HAD ENTEI	DX 100M NW OF RAIL BRIDGE DIDCOT E LANE MOVED TO OSIDE TO TURN RT TO RED CWAY FROM FOOTWAY JUST PRIOR TO
SITE DETAILS		1	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Sneed Limit 20 MDH	SPECIAL SITE	CONDITIONS	310 Cyclist entering road from payement (	Driver/Rider - Injudicious Vahiala 002 B
Carriageway Circle comission			510 Oyenst entering road nom pavement (	Briver Ruder injudicious v chiefe 002 B
Lunction Detail Other junction	None		405 Failed to look properly (Driver/Rider	Error) Vehicle 002 B
Junction Detail Other Junction				
Junction Control Give way or uncontrolled	CARRIAGEWA	Y HAZARDS		
2nd Road Number	None			
Pedestrian Facilities None within 50 metres				
No physical crossing facility with	n 50 metre			
VEHICLES INVOLVED 2			CASUALTIES INVOLVED	2
Veh.No. 1       Vehicle type       M/cycle 50 - 125cc         Manoeuvre       Overtaking moving veh on its offsic         Veh. direction from       Southeast to Northwest       T         Skidded       Skidded       On main carriag         Junct. location of veh. at 1st impact       Mid junction - c         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.r.         Drivers age       25 yrs         Sex       Male         Breath test       Neg         Left Hand Drive       No         No       Foreign veh. No         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type         Manoeuvre       Turning right         Veh. direction from       Southeast to Northeast       T         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       Cycle lane (on rule on rul	Make bwing? No tow or articulation away not in restricted lane n roundabout or main road b) 2 Hit and ative Driving foreign registered vehicle Make bwing? No tow or articulation main carriageway) ad b) 1 Hit and Applicable Driving foreign registered vehicle	Model ion nd run Not hit and ru ng Lic Full Model ion nd run Not hit and ru ng Lic Full	Cas No       1 Cas Class       Driver or Severity         Severity       SLIGHT       Age 25 y.         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Min       Other Details	Rider Veh ref No 1 rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist Rider Veh ref No 2 rs Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not known

SEVERITYDistrictSouth OxfordshireSERIOUSRef.No43180255933	Accident Date BETWEEN '09-Jun-2014' AND '08-	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	
Date20/08/2018Day MondayTime21:46WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road A4130 Location A4130 AT POWER STA Description C1 TRAV S ON A4130 STOPPED AT of Accident RBT & HIT OCCURRED	TION DIDCOT ENTRY TO RBT BUT THEN MOVED OFF F.	AILING TO SEE / GIVE WAY TO PC2 NEG
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility with	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beha	PARTICIPANT PROBABILITY aviour) Vehicle 001 A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       T         Veh. direction from       North to South       T         Skidded       No skidding, jack-knifing or overturning       On main carriag         Veh location at impact (restricted lane)       On main carriag         Junct. location of veh. at 1st impact       Entering roundat         Veh left carriageway?       Did not leave carriageway	Make Model owing? No tow or articulation eway not in restricted lane bout	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity SERIOUS Age 49 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable	l Rider Veh ref No 2 's Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Yes
Hit object in c way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.n.         Drivers age       66 yrs       Sex         Left Hand Drive       No       Foreign veh.       Not         Journey purpose       Other       Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Image: Context state of the state	o) 2 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle Make Model	School Pupil Other Roadworker injured Other Details	
Veh. direction from       West to East       T         Skidded       Skidded       On main carriag         Junct. location of veh. at 1st impact       Mid junction - c         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.r.         Drivers age       49 yrs       Sex         Female       Breath test       Not         Left Hand Drive       No       Foreign veh. Not         Journey purpose       Not Known       Not Known	owing? No tow or articulation eway not in restricted lane n roundabout or main road o) 1 Hit and run Not hit and run Applicable Driving Lic Full foreign registered vehicle		

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43180349134	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	
Date11/12/2018Day TuesdayTime14:15WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 DIDCOT NORTHI Description C1 TRAV S ON A4130 ENTERED RBT of Accident OCCURRED	ERN PERIMETER ROAD RBT J/W MILTON FAILING TO GIVE WAY TO PC2 TRAV FF	ROAD & BASIL HILL ROAD DIDCOT ROM MILTON RD TO BASIL HILL RD & HIT
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     4       None     CARRIAGEWAY HAZARDS       50 metre     50 metre	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNorth to SouthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age49 yrsSexMaleBreath testDriveLeft Hand DriveNoJourney purposeJourney as part of workVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromNorthwest to SoutheastTowSkiddedNo skidding, jack-knifing or overturning	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       but     2       P     2       P     Hit and run       Not hit and run       or not contacted     Driving Lic       Full       oreign registered vehicle       Make     Model       wing?     No tow or articulation	Cas No       1       Cas Class       Driver or F         Severity       SLIGHT       Age 26 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not known
Veh location at impact (restricted lane)       On main carriagev         Junct. location of veh. at 1st impact       Mid junction - on         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       26 yrs         Sex       Male         Breath test       Not A         Left Hand Drive       Not Known	vay not in restricted lane roundabout or main road 1 Hit and run Not hit and run Applicable Driving Lic Full oreign registered vehicle		

SEVERITY District South Ox SLIGHT Ref.No 4319010947	fordshire 6 Acci	cident Date BETWEEN '09-Jun-2014' AND '(	08-Jun-2019'	Grid Reference Police Officer Attend:	450686 / 191198 Yes
Date01/04/2019DayTime13:50WeatherFine without highRoad SurfaceDryStreet LightingDavlight	Monday Road winds Descript of Accie	A4130 Location A4130 APPROX 100N otion MBS1 TRAV W ON A4130 WHEN ident	A W OF J/W SIR FRANK WILLIAMS WAY DI	DCOT ED TO OSIDE & ONCON	AING HGV2
Sitte DETAILS Speed Limit 40 MPH Carriageway Single carriag Junction Detail Not at or with Junction Control 2nd Road Number Pedestrian Facilities None within 2 No physical c	eway in 20 metres of junction 50 metres rossing facility within 50 metre	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 509 Distraction in vehicle (Driver/Rider - I 410 Loss of control (Driver/Rider - Error) 409 Swerved (Driver/Rider - Error)	mpairment)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A Vehicle 001 A
VEHICLES INVOLVED2Veh.No.1Vehicle typeMinilManoeuvreGoing ahead ottVeh. direction fromEast to WestSkiddedNo skidding, jack-knifVeh location at impact (restricted lane)Junct. location of veh. at 1st impactVeh left carriageway?Did not leaveHit object off c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Drivers ageDrivers age26 yrsSexFemaleLeft Hand DriveNoJourney purposeJourney as paVeh.No.2Vehicle typeGood	ous her Towing? N ing or overturning On main carriageway not in Not at or within 20m of junc carriageway Other veh.hit (ref.no) 2 Breath test Negative Foreign veh. Not foreign reg rt of work s > 7.5t	Make Model No tow or articulation n restricted lane netion Hit and run Not hit and ru Driving Lic Full gistered vehicle Make Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age 26 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	1 Rider Vehr rs Sex Female PSV Passenger? N Cycle Helmet N	ref No 1 Post code lot a passenger lot a cyclist
ManoeuvreGoing ahead otlVeh. direction fromWest to EastSkiddedNo skidding, jack-knifVeh location at impact (restricted lane)Junct. location of veh. at 1st impactVeh left carriageway?Did not leaveHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Drivers ageA7 yrsSexMaleLeft Hand DriveJourney purposeJourney as part	Towing? A Towing? A ing or overturning On main carriageway not in Not at or within 20m of junc carriageway Other veh.hit (ref.no) 1 Breath test Negative Foreign veh. Not foreign reg rt of work	Articulated vehicle n restricted lane netion Hit and run Not hit and ru Driving Lic Full gistered vehicle	n		

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43190175262	Accident Date BETWEEN '09-Jun-2014' AND '08	8-Jun-2019'	Grid Reference451972 / 190730Police Officer Attend:No - self completed form			
Date08/06/2019Day SaturdayTime18:00WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	RoadU189LocationSTATION ROAD RBTDescriptionC1 TRAV NW ON STATION ROADof AccidentRBT - C1 FTS	Road U189 Location STATION ROAD RBT J/W B4493 FOXHALL ROAD DIDCOT Description C1 TRAV NW ON STATION ROAD HIT REAR OF STAT / VERY SLOW MOVING C2 ALSO TRAV NW WAITING TO ENTER of Accident RBT - C1 FTS				
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       B4493         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS         None         CARRIAGEWAY HAZARDS         None         50 metre	CONTRIBUTORY FACTORS 601 Aggressive driving (Driver/Rider - Bel 602 Careless/Reckless (Driver/Rider - Beh 406 Failed to judge other person's path/spe	PARTICIPANT PROBABILITY haviour) Vehicle 001 A aviour) Vehicle 001 A ed (Driver/Rider - Error) Vehicle 001 A			
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Town         Veh. direction from       East to West       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Approaching juncti         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       40 yrs         Sex       Male         Breath test       Driver         Left Hand Drive       No         No       Foreign veh.       Not fo         Journey purpose       Not Known         Veh.No.       2       Vehicle type       Car         Manoeuvre       Waiting to go ahead but held up       Veh. direction from       East to West       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Approaching juncti       <	Make     Model       ing?     No tow or articulation       ay not in restricted lane     and run       on or waiting     Hit and run       2     Hit and run       not contacted     Driving Lic       Full     Full       reign registered vehicle     Model       ing?     No tow or articulation       ay not in restricted lane     on or waiting	CASUALTIES INVOLVED          Cas No       1 Cas Class       Driver or         Severity       SLIGHT       Age 31 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 rs Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist			
Veh registration no.     Other veh.hit (ref.no)       Drivers age     31 yrs     Sex     Female     Breath test     Driver       Left Hand Drive     No     Foreign veh.     Not fo       Journey purpose     Other	1 Hit and run Not hit and run not contacted Driving Lic Full reign registered vehicle					

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP1330614	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Grid Reference452663 / 193587Police Officer Attend:Yes			
Date16/06/2014Day MondayTime20:50WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road       B4016       Location       B4016 MAIN RD APPROX 30M S OF J/W CHURCH ST       APPLEFORD         Description       C1 (DRIVER GAVE POS BREATH TEST) TRAV S ON B4016 LOST CONTROL & EXITED CWAY TO THE OSIDE & HIT BRICK of Accident       WALL CASUING SLIGHT INJURY TO DRIVER				
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50	SPECIAL SITE CONDITIONS 5 None CARRIAGEWAY HAZARDS None metre	CONTRIBUTORY FACTORS 101 Impaired by alcohol (Driver/Rider - Im	PARTICIPANT PROBABILITY npairment) Vehicle 001 A		
VEHICLES INVOLVED 1		CASUALTIES INVOLVED	0 1		
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNorth to SouthTowingSkiddedSkiddedVeh location at impact (restricted lane)On main carriagewayJunct. location of veh. at 1st impactNot at or within 20mVeh left carriageway?Left carriageway offsideHit object in c'way?NoneHit object off c'way?Wall or fenceFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age23 yrsSexMaleBreath testPositiveLeft Hand DriveNoJourney purposeNot Known	Make     Model       ? No tow or articulation       not in restricted lane       of junction       0     Hit and run       Driving Lic       Full       ign registered vehicle	Cas No       1       Cas Class       Driver or 1         Severity       SLIGHT       Age 23 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 1 's Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet		

SEVERITY District South Oxfordshire			Grid Reference 452216 / 191868			
SLIGHT Ref.No P2790614	Accident Date BETWEEN '09-Jun-2014' AND '08	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'				
Date26/06/2014Day ThursdayTime08:40WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 DIDCOT NORTH SITE DIDCOT Description C1 (DRIVER 85 YRS) TRAV E ON A of Accident RBT FROM HILL FARM / WASTE S	Dad       A4130       Location       A4130 DIDCOT NORTHERN PERIMETER ROAD RBT J/W COLLETT & ACCESS ROAD TO HILL FARM / WASTE SITE         DIDCOT       DIDCOT       DIDCOT       C1 (DRIVER 85 YRS) TRAV E ON A4130 ENTERED RBT BUT HIT OSIDE OMV2 (REFUSE LORRY) WHICH HAD ENTERED         Caccident       RBT FROM HILL FARM / WASTE SITE TO TURN RT ONTO A4130 AT RBT				
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY			
Speed Limit 50 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 A			
Carriageway Roundabout	None	402 Boor turn or monocuure (Driver/Dider	Error) Vahiala 001 A			
Junction Detail Roundabout		403 Foor turn of manoeuvie (Driver/Kider -	Ellor) Venicle 001 A			
Junction Control Give way or uncontrolled						
2nd Road Number U	CARRIAGEWAY HAZARDS					
Pedestrian Facilities None within 50 metres	None					
Control refuge no other controls						
Central refuge - no other controls						
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	2			
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromWest to EastToxSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age85 yrsSexMaleBreath testNegaiLeft Hand DriveNoNoForeign veh.Veh.No.2Vehicle typeOther:Veh.No.2Vehicle typeOther:Veh.direction fromNorth to WestSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age32 yrsSexSexMaleBreath testNoresFirst point of impactOffsideVeh.eat testVeh registration no.Other veh.hit (ref.no)Drivers a	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       but     2       but     Hit and run       but     Driving Lic       but     Full       but     Make       Make     Model       wing?     No tow or articulation       way not in restricted lane     roundabout or main road       but     1     Hit and run       Not hit and run     Tot hit and run	Cas No       1       Cas Class       Driver or F         Severity       SLIGHT       Age 85 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Cas No       2         Cas No       2         Cas Ros       2         Cas No       2         Cas Passenger?       Front seat passenger         Severity       SLIGHT         Age 78 yrs         Car Passenger?       Front seat passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Other Details       Other Details	tider       Veh ref No       1         s       Sex Male       Post code         PSV Passenger?       Not a passenger         Cycle Helmet       Veh ref No       1         s       Sex Female       Post code         r       PSV Passenger?       Not a passenger         cycle Helmet       Veh ref No       1         s       Sex Female       Post code         r       PSV Passenger?       Not a passenger         Cycle Helmet       Veh ref No       1			
Lett Hand Drive No Foreign veh. Not f	oreign registered vehicle					
Journey purpose Journey as part of work						

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP2320714	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference 451575 / 191351	
Date 15/07/2014 Day Tuesday	Road A4130 Location A4130 DIDCOT NORTH	Polic		
Time17:00WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Description C1 TRAV E FROM ACCESS TURNI of Accident VEH WHICH HAD SLOWED TO ALL EMERGENCY CALL & WAS IN HUI	ED RT TO A4130 BUT HIT MC2 TRAV S ON LOW C1 TO TURN - APPEARS C1 HAD SEE! RRY TO CLEAR JUNCTION	A4130 HAVING JUST OVRTK U/K SBOUND N APPROACHING FIRE APPLIANCE ON	
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBAB	ILITY
Speed Limit 50 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 A	
Carriageway Single carriageway	None	402 Junction restart (Driver/Dider Error)	Vehicle 001 B	
Junction Detail T or staggered junction		402 Durietion Testart (Driver/Rider - Erior)		
Junction Control Give way or uncontrolled		403 Poor turn or manoeuvre (Driver/Rider -	Error) Venicle 001 B	
2nd Road Number U	CARRIAGEWAY HAZARDS	510 Distraction outside vehicle (Driver/Ride	er - Impairment) Vehicle 001 B	
Pedestrian Facilities None within 50 metres	None	403 Poor turn or manoeuvre (Driver/Rider -	Error) Vehicle 002 B	
No physical crossing facility within	n 50 metre		,	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeGoods 3.5 - 7.5tManoeuvreTurning rightTowning rightVeh. direction fromWest to SouthTowningSkiddedNo skidding, jack-knifing or overturningOn main carriagewJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age58 yrsJourney purposeJourney as part of workVeh.No.2Vehicle typeM/cycle > 500ccManoeuvreGoing ahead otherVeh. direction fromNorth to SouthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactApproaching junctVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactApproaching junctVeh left carriageway?Left carriageway nearsideHit object off c'way?TreeFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age35 yrsSexMaleBreath testNegatLeft Hand DriveNoForeign veh. Not feJunct. location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactApproaching junctVeh left carriageway?Left carriagewa	Make     Model       owing?     No tow or articulation       eway not in restricted lane     n roundabout or main road       o)     2     Hit and run Not hit and run Trun Trun Trun Trun Trun Trun Trun	Cas No 1 Cas Class Driver or F Severity SERIOUS Age 35 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 5 Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet	

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP0560914	Accident Date BETWEEN '09-Jun-2014' AND '03	8-Jun-2019'	Grid Reference452655 / 193551Police Officer Attend:Yes
Date08/09/2014Day MondayTime13:01WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road B4016 Location B4016 MAIN RD APPI Description C1 TRAV N ON B4016 WHEN DRIV of Accident TRAV S ON B4016	ROX 70M S OF J/W CHURCH ST AP	PLEFORD CONTROL CROSSED TO OSIDE & HIT F OF C2
Single     Single Carriageway       Junction Detail     Not at or within 20 metres of junction       Junction Control     2nd Road Number       Pedestrian Facilities     None within 50 metres       No physical crossing facility within 5	SPECIAL SITE CONDITIONS       None       CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS 503 Fatigue (Driver/Rider - Impairment) 505 Illness or disability, mental or physical	PARTICIPANT PROBABILITY Vehicle 001 A l (Driver/Rider - Impairm, Vehicle 001 A
VEHICLES INVOLVED       2         Veh.No. 1       Vehicle type Car         Manoeuvre       Going ahead other         Veh. direction from       South to North       Towing         Skidded       No skidding, jack-knifing or overturning       On main carriagewa         Veh location at impact (restricted lane)       On main carriagewa         Junct. location of veh. at 1st impact       Not at or within 20r         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       68 yrs         Sex       Female         Breath test       Negativ         Left Hand Drive       No         Yeh.No. 2       Vehicle type Car         Manoeuvre       Going ahead other         Veh. direction from       North to South	Make     Model       ng?     No tow or articulation       ay not in restricted lane     and run       n of junction     and run       2     Hit and run       Ye     Driving Lic       Full       eign registered vehicle       Make     Model	CASUALTIES INVOLVED           Cas No         1 Cas Class         Driver or 1           Severity         SLIGHT         Age 68 yr           Car Passenger?         Not a passenger           Seat Belt         Not applicable           Ped Movement         Not applicable           Ped Location         Not applicable           Ped Direction to         Not applicable           School Pupil         Other           Roadworker injured         Cas No           Cas No         2 Cas Class           Severity         SLIGHT           Age 22 yr           Car Passenger?           Front seat passenger           Seat Belt           Not applicable           Ped Movement           Not applicable           Ped Location           Ped Location           Not applicable           Ped Direction to	Rider Veh ref No 1 rs Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Veh ref No 2 rs Sex Male Post code er PSV Passenger? Not a passenger Cycle Helmet
Ven. direction fromNorth to SouthTownSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewaJunct. location of veh. at 1st impactNot at or within 20rVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age44 yrsSexMaleBreath testNegativLeft Hand DriveNoJourney purposeJourney as part of work	ng? No tow or articulation ny not in restricted lane n of junction 1 Hit and run Not hit and rur re Driving Lic Full eign registered vehicle	School Pupil       Other         Roadworker injured         Cas No       3 Cas Class         Passenger         Severity       SLIGHT         Age       42 yr         Car Passenger?       Front seat passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	veh ref No 2 rs Sex Male Post code er PSV Passenger? Not a passenger Cycle Helmet

Other Details

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP1151014	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		451534 / 191159 Yes
Date10/10/2014DayFridayTime07:27WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDaylight	RoadA4130LocationA4130AT RBT J/WBASDescriptionC1 TRAV S ON A4130MOVED OFF Tof AccidentNSIDE OF PC2	SIL HILL RD & MILTON RD & POWER STA	ATION ACCESS DIE Y TO PC2 TRAV SE ROUN	DCOT IDING RBT & C1 HIT
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS     4       None     4       CARRIAGEWAY HAZARDS     6       None     6	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spe 407 Too close to cyclist, horse or pedestria 502 Careless/Reckless (Driver/Rider - Beh	Error) ed (Driver/Rider - Error) n (Driver/Rider - Error) aviour)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001AVehicle 001AVehicle 001B
VEHICLES INVOLVED 2	· · ·	CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Moving off         Veh. direction from       North to South       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway         Junct.       location of veh. at 1st impact       Entering roundabout         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       49 yrs       Sex         Male       Breath test       Negativ         Left Hand Drive       No       Foreign veh. Not for         Journey purpose       Commuting to/from work	Make Model ng? No tow or articulation ay not in restricted lane tt 2 Hit and run Not hit and run ve Driving Lic Full reign registered vehicle	Cas No       1       Cas Class       Driver or Severity         Severity       SLIGHT       Age 39 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref 's Sex Male PSV Passenger? Not Cycle Helmet Yes	No 2 Post code a passenger
Veh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromNorthwest to SoutheastTowiSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewayJunct. location of veh. at 1st impactMid junction - on reVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age39 yrsSexMaleBreath testNot ApLeft Hand DriveNoJourney purposeNot Known	Make Model ng? No tow or articulation ay not in restricted lane bundabout or main road 1 Hit and run Not hit and run plicable Driving Lic Full reign registered vehicle			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0141114	Accident Date BETWEEN '09-Jun-2014' AND '08	-Jun-2019'	Grid Reference Police Officer Attend:	451531 / 191161 Yes
Date     01/11/2014     Day Saturday       Time     16:10       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight       SITE DETAILS       Speed Limit     50 MPH       Carriageway     Roundabout       Junction Detail     Roundabout	Road A4130 Location A4130 DIDCOT PERIM BASIL HILL ROAD DIDC Description TX1 TRAV S ON A4130 ENTERED F of Accident ROAD & HIT OCCURRED SPECIAL SITE CONDITIONS None	ETER RD AT POWER STATION RBT J/W MI OT RBT BUT FAILED TO GIVE WAY TO PC2 WF CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 602 Careless/Reckless (Driver/Rider - Beha	LITON ROAD / POWER HICH HAD ENTERED R Error) aviour)	STATION ACCESS & BT FROM MILTON PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 A
Junction Control Give way or uncontrolled 2nd Road Number U Pedestrian Facilities None within 50 metres Central refuge - no other controls	CARRIAGEWAY HAZARDS None			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeTaxiManoeuvreMoving offVeh. direction fromNorth to SouthTSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagJunct. location of veh. at 1st impactEntering roundaVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.mDrivers age51 yrsSexMaleBreath testNegJourney purposeJourney as part of workVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromWest to EastSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagJunct. location of veh. at 1st impactMid junction - orVeh location at impactDid not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.mDrivers age32 yrsSexMaleBackVeh registration no.Other veh.hit (ref.mDrivers age32 yrsSexMaleBreath testNotLeft Hand DriveNoForeign veh. Not </td <td>Make       Model         owing?       No tow or articulation         eway not in restricted lane       and run         bout       Viti and run         o)       2         Hit and run       Not hit and run         foreign registered vehicle       Full         Make       Model         owing?       No tow or articulation         eway not in restricted lane       Model         owing?       No tow or articulation         eway not in restricted lane       Not hit and run         n roundabout or main road       Not hit and run         o)       1       Hit and run       Not hit and run         Applicable       Driving Lic       Full         foreign registered vehicle       Full       Full</td> <td>Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 32 yr.         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details</td> <td>Rider Vehr s Sex Male PSV Passenger? N Cycle Helmet N</td> <td>ref No 2 Post code lot a passenger lot known</td>	Make       Model         owing?       No tow or articulation         eway not in restricted lane       and run         bout       Viti and run         o)       2         Hit and run       Not hit and run         foreign registered vehicle       Full         Make       Model         owing?       No tow or articulation         eway not in restricted lane       Model         owing?       No tow or articulation         eway not in restricted lane       Not hit and run         n roundabout or main road       Not hit and run         o)       1       Hit and run       Not hit and run         Applicable       Driving Lic       Full         foreign registered vehicle       Full       Full	Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 32 yr.         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Vehr s Sex Male PSV Passenger? N Cycle Helmet N	ref No 2 Post code lot a passenger lot known

SEVERITY Distri SLIGHT Ref.N	ict South Oxfordshire No P2001114	Accident Date BETWEEN '09-Jun-2014' AN	ID '08-Jun-2019'	Grid Reference452781 / 191252Police Officer Attend:No - reported over the counter	
Date19Time00WeatherFrRoad SurfaceDStreet LightingD	9/11/2014 Day Wednesday 8:05 ine without high winds Dry Daylight	Road       U189       Location       AVON WAY J/W BRUNSTOCK BECK       DIDCOT         Description       C1 TRAV W ON BRUNSTOCK BECK TURNED LT TO AVON WAY FAILING TO GIVE WAY TO PC2 TRAV S ON AVON WAY         of Accident       & HIT OCCURRED			
Speed Limit Carriageway Junction Detail Junction Control 2nd Road Number Pedestrian Facilities	SITE DETAILS 30 MPH Single carriageway T or staggered junction Give way or uncontrolled U None within 50 metres No physical crossing facility within 50	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider	PARTICIPANT PROBABILITY - Error) Vehicle 001 B	
VEHICLES INVOLV Veh.No. 1 Vo Manoeuvre	YED 2 ehicle type Car Turning left	Make Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age -1 yr	Rider     Veh ref No     2       rs     Sex     Male     Post code	
Veh. direction from Skidded No sl Veh location at impact Junct. location of veh. Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact Veh registration no. Drivers age ? yrs Left Hand Drive Journey purpose	East to South Towin kidding, jack-knifing or overturning t (restricted lane) On main carriagewa at 1st impact Entering main road Did not leave carriageway None None Offside Other veh.hit (ref.no) Sex Not know Breath test Driver n No Foreign veh. Not for Not Known	rang? No tow or articulation ray not in restricted lane l 2 Hit and run Not hit and root contacted Driving Lic Full rreign registered vehicle	d run Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	PSV Passenger? Not a passenger Cycle Helmet Yes	
Journey purpose Veh.No. 2 Vo Manoeuvre Veh. direction from Skidded No sl Veh location at impact Junct. location of veh. Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact Veh registration no. Drivers age ? yrs Left Hand Drive Journey purpose	Not Known           ehicle type         Pedal Cycle           Going ahead other         North to South           North to South         Towink           kidding, jack-knifing or overturning         t (restricted lane)           t (restricted lane)         On main carriageway           at 1st impact         Mid junction - on root           Did not leave carriageway         None           Front         Other veh.hit (ref.no)           Sex         Male           Breath test         Not Ap           No         Foreign veh. Not for           Not Known         Not Known	Make Model ing? No tow or articulation ray not in restricted lane roundabout or main road 1 Hit and run Not hit and pplicable Driving Lic Full reign registered vehicle	d run		

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP2931114	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		451611 / 191529 Yes
Date25/11/2014Day TuesdayTime18:56WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDark: street lights present and lit	Road A4130 Location A4130 DIDCOT NORTHERN Description C1 TRAV N ON A4130 ENTERED RBT J/ of Accident HA & C1 HIT NSIDE OF PC2 - SOME UN	N PERIMETER ROAD RBT J/W HAWKSW W HAWKSWORTH FAILED TO GIVEWA CERTAINTY OVER DIRECTIONS OF TR	WORTH DIDCOT AY TO PC2 TRAV W ROU RAVEL	JNDING RBT FROM
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     302       None     405       707       CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS Disobeyed give way or stop sign markin Failed to look properly (Driver/Rider - Rain, sleet, snow or fog (Driver/Rider -	ngs (Driver/Rider - Injuc Error) · Vision Affected)	PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 A Vehicle 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tow         Veh. direction from       South to North       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabe         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       64 yrs       Sex         No       Foreign veh. Not feight at the set of the s	Make Model wing? No tow or articulation way not in restricted lane but 2 Hit and run Not hit and run tive Driving Lic Full oreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or R Severity SLIGHT Age 34 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Dther Details	l Rider Veh ref s Sex Male PSV Passenger? Not Cycle Helmet Not	No 2 Post code t a passenger t known
Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other         Veh. direction from       East to West       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.no)       Orivers age       34 yrs         Drivers age       34 yrs       Sex       Male       Breath test       Not A         Left Hand Drive       No       Foreign veh. Not for         Journey purpose       Commuting to/from work	Make Model ving? No tow or articulation way not in restricted lane roundabout or main road 1 Hit and run Not hit and run Applicable Driving Lic Full oreign registered vehicle			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP2181214	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		451611 / 191523 Yes
Date18/12/2014Day ThursdayTime18:50WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDark: street lights present and lit	Road A4130 Location A4130 DIDCOT NORTHE Description MC1 TRAV N ON A4130 IN WET CON of Accident TURNING RT ONTO A4130 FROM HA	d A4130 Location A4130 DIDCOT NORTHERN PERIMETER ROAD RBT J/W HAWKSV cription MC1 TRAV N ON A4130 IN WET CONDITIONS HIT R OF C2 SLOWING ON ENTI Accident TURNING RT ONTO A4130 FROM HAWKSWORTH		
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     10       None     40       CARRIAGEWAY HAZARDS     40       50 metre     50	CONTRIBUTORY FACTORS 03 Slippery road due to weather (Road En 05 Failed to look properly (Driver/Rider - 06 Failed to judge other person's path/spec	vironment Contrib) Error) ed (Driver/Rider - Error)	PARTICIPANT PROBABILITY Vehicle 001 B Vehicle 001 A Vehicle 001 A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       M/cycle       125 - 500cc         Manoeuvre       Going ahead other       Veh.       Tow         Veh. direction from       South to North       Tow         Skidded       Skidded       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       41 yrs       Sex         No       Foreign veh. Not fer	Make     Model       wing?     No tow or articulation       way not in restricted lane     tion or waiting       tion or waiting     4       2     Hit and run       bit with the second se	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or H Severity SLIGHT Age 41 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Cas No 2 Cas Class Driver or H Severity SLIGHT Age 53 yrs Car Passenger? Not a passenger	2 Rider Veh ref s Sex Male PSV Passenger? Not Cycle Helmet Rider Veh ref s Sex Female PSV Passenger? Not	No       1         Post code       1         t a passenger       1         No       2         Post code       1         t a passenger       1
Journey purpose       Other         Veh.No.       2       Vehicle type       Car         Manoeuvre       Slowing or stopping         Veh. direction from       South to North       Tow         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Back         Veh registration no.       Other veh.hit (ref.no)         Drivers age       53 yrs         Sex       Female         Breath test       Negat         Left Hand Drive       No         Journey purpose       Other	Make     Model       wing?     No tow or articulation       way not in restricted lane     tion or waiting       tion or waiting     1       Hit and run     Not hit and run       tive     Driving Lic       bireign registered vehicle	Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Cycle Helmet	

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP1040215	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date06/02/2015DayFridayTime08:50WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road       B4016       Location       B4016       MAIN ROAD J/W         Description       C1 TRAV SE ON B4016 IN WET CONT         of Accident	Location B4016 MAIN ROAD J/W CHAMBRAI CLOSE APPLEFORD Description C1 TRAV SE ON B4016 IN WET CONDITIONS HIT R OF C2 TRAV SE AHEAD WAITING TO TURN RT TO CHAMBRAI CLOSE of Accident			
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     4       None     CARRIAGEWAY HAZARDS       50 metre     0	CONTRIBUTORY FACTORS 06 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY ed (Driver/Rider - Error) Vehicle 001 A		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other         Veh. direction from       Northwest to Southeast       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       ? yrs       Sex         Left Hand Drive       No       Foreign veh. Not for         Journey purpose       Other	Make     Model       wing?     No tow or articulation       way not in restricted lane     tion or waiting       tion or waiting     Hit and run       0     2     Hit and run       er not contacted     Driving Lic       Full     Driving Lic	Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 47 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet		
Veh.No.2Vehicle typeCarManoeuvreWaiting to turn rightVeh. direction fromNorthwest to SoutheastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactApproaching junctVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age47 yrsSexMaleBreath testDriverLeft Hand DriveNoJourney purposeOther	Make     Model       wing?     No tow or articulation       way not in restricted lane     tion or waiting       b)     1     Hit and run       c)     1     Hit and run				

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP2480215	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	
Date16/02/2015Day MondayTime06:05WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDark: street lights present and lit	Road A4130 Location A4130 AT RBT J/W BASI Description C1 TRAV S ON A4130 ENTERED RBT of Accident ROAD TO TRAV S ON A4130 (SOME U ROAD)	IL HILL RD & MILTON RD & POWER STA FAILING TO SEE PC2 (RIDER WITH HIGH JNCERTAINTY OVER EXACT DETAILS -	TION ACCESS DIDCOT I VIS AND LIGHTS) NEG RBT FROM MILTON POSS C2 ENTERING RBT FROM BASIL HILL
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS 10 None 40 51 CARRIAGEWAY HAZARDS 60 None 60	CONTRIBUTORY FACTORS 3 Slippery road due to weather (Road En 5 Failed to look properly (Driver/Rider - 0 Distraction outside vehicle (Driver/Rid 2 Careless/Reckless (Driver/Rider - Beha	PARTICIPANTPROBABILITYvironment Contrib)Vehicle 001BError)Vehicle 001Aer - Impairment)Vehicle 001Baviour)Vehicle 001A
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No. 1 Vehicle type Car Manoeuvre Turning right Veh. direction from North to Southwest To Skidded Skidded Veh location at impact (restricted lane) On main carriage Junct. location of veh. at 1st impact Entering roundab Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.nc Drivers age 64 yrs Sex Male Breath test Nega Left Hand Drive No Foreign veh. Not Journey purpose Commuting to/from work Veh.No. 2 Vehicle type Pedal Cycle Manoeuvre Turning right Veh. direction from Southwest to South To Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriage Junct. location of veh. at 1st impact Mid junction - or Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? Sex Female Breath test Not Left Hand Drive No Foreign veh. Not	Make       Model         owing?       No tow or articulation         oway not in restricted lane       way not in restricted lane         out       2       Hit and run       Not hit and run         o)       2       Hit and run       Not hit and run         out       Driving Lic       Full         foreign registered vehicle       Make       Model         owing?       No tow or articulation         oway not in restricted lane       noundabout or main road         o)       1       Hit and run       Not hit and run         o)       1       Hit and run       Not hit and run	Cas No 1 Cas Class Driver or F Severity SERIOUS Age 43 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not known

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP3340315	Accident Date BETWEEN '09-Jun-2014' AND '0	)8-Jun-2019'	Grid Reference451686 / 195358Police Officer Attend:Yes
Date27/03/2015Day FridayTime16:20WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A415 Location A415 APPROX 210M Description C1 (DRIVER 81 YRS) TRAV W ON of Accident HIT F OF C3 TRAV E BEHIND C2	E OF J/W EURO SCHOOL CULHAM A415 OVRTK 3 OR 4 U/K WBOUND VEHS &	HIT F OF C2 TRAV E ON A415 & C2 THEN
Street Lighting     Daylight       SITE DETAILS       Speed Limit     60 MPH       Carriageway     Single carriageway       Junction Detail     Not at or within 20 metres of junction       Junction Control     2nd Road Number       Pedestrian Facilities     None within 50 metres       No physical crossing facility within 50	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY Error) Vehicle 001 B ed (Driver/Rider - Error) Vehicle 001 A
VEHICLES INVOLVED 3		CASUALTIES INVOLVED	3
Veh.No.       1       Vehicle type       Car         Manoeuvre       Overtaking moving veh on its offside         Veh. direction from       East to West       Towing         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagewa         Junct. location of veh. at 1st impact       Not at or within 20m         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       81 yrs       Sex         No       Foreign veh.       Not for         Journey purpose       Not Known       Veh.No.         Veh.No.       2       Vehicle type       Car         Manoeuvre       Going ahead other       Towing         Veh. direction from       West to East       Towing         Skidded       No skidding, jack-knifing or overturning	Make     Model       ng?     No tow or articulation       y not in restricted lane       n of junction       2     Hit and run       re     Driving Lic       Full       eign registered vehicle       Make     Model       ng?     No tow or articulation	Cas No       1       Cas Class       Driver or 1         Severity       SLIGHT       Age 81 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Severity       SLIGHT         Age 50 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Roadworker injured       Other	Rider Veh ref No 1 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Rider Veh ref No 2 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet
Ven location at impact (restricted lane) On main carriagewa Junct. location of veh. at 1st impact Not at or within 20m Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.no) Drivers age 50 yrs Sex Female Breath test Not req Left Hand Drive No Foreign veh. Not for Journey purpose Commuting to/from work	n of junction Hit and run Not hit and ru uested Driving Lic Full eign registered vehicle	Cas No       3 Cas Class       Driver or I         Severity       SLIGHT       Age 24 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	Rider Veh ref No 3 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet

Veh.No. 3 Vehi	icle type Car		Make	Model	Other Details
Manoeuvre (	Going ahead othe	r			
Veh. direction from	West to East	Towing?	No tow or articulation		
Skidded No skid	lding, jack-knifin	g or overturning			
Veh location at impact (r	restricted lane)	On main carriageway n	ot in restricted lane		
Junct. location of veh. at	1st impact	Not at or within 20m of	junction		
Veh left carriageway?	Did not leave c	arriageway			
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Front				
Veh registration no.		Other veh.hit (ref.no)	2 Hit and run	Not hit and run	
Drivers age 24 yrs	Sex Female	Breath test Not reques	ted Driving Lic	Full	
Left Hand Drive	No	Foreign veh. Not foreign	n registered vehicle		
Journey purpose	Other				

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0840715	Accident Date BETWEEN '09-Jun-2014' AND	D '08-Jun-2019'	Grid Reference451533 / 191171Police Officer Attend:No - reported over the counter
Date13/07/2015Day MondayTime08:55WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDaylightSITE DETAILSSpeed Limit50 MPHCarriagewayRoundaboutJunction DetailRoundabout	Road A4130 Location A4130 AT RBT J/W Description C1 TRAV S ON A4130 APPROAG of Accident RIDER FELL & SUSTAINED SL CROSSING POINT JUST N OF R SPECIAL SITE CONDITIONS None	<ul> <li>BASIL HILL RD &amp; MILTON RD &amp; POWER STA</li> <li>CHING RBT J/W BASIL HILL RD HIT PC2 TRAV</li> <li>IGHT INJURY - EXACT CIRCUMSTANCES UNC</li> <li>BT</li> <li>CONTRIBUTORY FACTORS</li> <li>405 Failed to look properly (Driver/Rider -</li> <li>406 Failed to judge other person's path/spe</li> </ul>	ATION ACCESS DIDCOT / S AHEAD OF C1 TO NSIDE OF A4130 & CLEAR - POSS PC2 WAS USING CYCLE PARTICIPANT PROBABILITY - Error) Vehicle 001 B red (Driver/Rider - Error) Vehicle 001 B
Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	CARRIAGEWAY HAZARDS None		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	0 1
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Town         Veh. direction from       North to South       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       Hit object off c'way?       None         First point of impact       Front       Veh registration no.       Other veh.hit (ref.no)         Drivers age       35 yrs       Sex       Male       Breath test       Drive         Journey purpose       Commuting to/from work       Veh.Not f       Journey commuting to/from work         Veh.No.       2       Vehicle type       Pedal Cycle       Manoeuvre         Going ahead other       Veh. direction from       North to South       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junct       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       Manoeuvre       First point of	Make     Model       owing?     No tow or articulation       oway not in restricted lane     ction or waiting       o)     2     Hit and run       o)     2     Hit and run       or rot contacted     Driving Lic       foreign registered vehicle       Make     Model       owing?     No tow or articulation       oway not in restricted lane     ction or waiting       o)     1     Hit and run       o)     1     Hit and run       o)     1     Hit and run	run Cas No 1 Cas Class Driver or Severity SLIGHT Age -1 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details run	Rider Veh ref No 2 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not known
Journey purpose Not Known			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP1691115	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
Date13/11/2015Day FridayTime19:19WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road A4130 Location A4130 AT RBT J/W BAS Description HGV1 TRAV S ON A4130 ENTERED I of Accident TO BASIL HILL ROAD	IL HILL RD & MILTON RD & POWER STA RBT FAILING TO GIVE WAY TO MP2 TRA	ATION ACCESS DIDCOT	
SITE DETAILS         Speed Limit       40 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     7       None     4       CARRIAGEWAY HAZARDS     4       50 metre     50	CONTRIBUTORY FACTORS 10 Vehicle blind spot (Driver/Rider - Visi 05 Failed to look properly (Driver/Rider - 06 Failed to judge other person's path/spe	PARTICIPANT PROBABILITY ion Affected) Vehicle 001 A - Error) Vehicle 001 B eed (Driver/Rider - Error) Vehicle 001 B	
VEHICLES INVOLVED     2       Veh.No.     1     Vehicle type     Goods > 7.5t	Make Model	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or	l Rider Veh ref No 2	
ManoeuvreGoing ahead otherVeh. direction fromNorth to SouthTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age67 yrsSexMaleBreath testNegatLeft Hand DriveNoForeign veh.Not for	wing? Articulated vehicle way not in restricted lane but 0 2 Hit and run Not hit and run tive Driving Lic Full oreign registered vehicle	SeveritySLIGHTAge 17 yrCar Passenger?Not a passengerSeat BeltNot applicablePed MovementNot applicablePed LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredOther Details	rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet	
Journey purpose Journey as part of work	Maka Madal	4		
Veh.No.       2       Vehicle type       M/cycle <= 50cc	Make Model wing? No tow or articulation way not in restricted lane roundabout or main road 1 Hit and run Not hit and run tive Driving Lic Full breign registered vehicle			
SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP2711115	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	Grid Reference 452968 / 195189 Police Officer Attend: Yes		
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Date17/11/2015Day TuesdayTime17:28WeatherFine with high windsRoad SurfaceWet/DampStreet LightingDark: no street lighting	Road A415 Location A415 ABINGDON ROAD APPROX 280M E OF Description MC1 TRAV W ON A415 OVRTK U/K VEH & MOVED BAC of Accident AGR2 ALSO TRAV W - RIDER FELL & SUSTAINED SERIO	T J/W STATION ROAD CULHAM K TO NSIDE BUT FAILED TO SEE & HIT R OF SLOW MOVING OUS INJURY		
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS       CONTRIBUTORY H         None       405 Failed to look pro         406 Failed to judge oth       403 Poor turn or mance         CARRIAGEWAY HAZARDS       409 Swerved (Driver/I         None       409 Swerved (Driver/I	FACTORSPARTICIPANTPROBABILITYperly (Driver/Rider - Error)Vehicle 001Aher person's path/speed (Driver/Rider - Error)Vehicle 001Abeuvre (Driver/Rider - Error)Vehicle 001ARider - Error)Vehicle 001A		
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       M/cycle > 500cc         Manoeuvre       Overtaking moving veh on its offside         Veh. direction from       East to West       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagewa         Junct.       location of veh. at 1st impact       Not at or within 20r         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       47 yrs       Sex         No       Foreign veh.       Not for         Journey purpose       Not Known       Veh.No.         Veh.No.       2       Vehicle type       Agric Veh         Manoeuvre       Going ahead other       Towi         Veh. direction from       East to West       Towi	Make     Model     Cas No     1     C       ng?     No tow or articulation     Severity     SERIC       ng?     No tow or articulation     Car Passenger?       y not in restricted lane     Ped Movement       n of junction     Ped Location       2     Hit and run       Vided (medical reas Driving Lic     Full       eign registered vehicle     Make       Make     Model	JALTIES INVOLVED     1       Cas Class     Driver or Rider     Veh ref No     1       DUS     Age 47 yrs     Sex Male     Post code       Not a passenger     PSV Passenger?     Not a passenger       Not applicable     Cycle Helmet       Not applicable     Not applicable       Not applicable     Other       ed		
SkiddedOverturnedVeh location at impact (restricted lane)On main carriagewaJunct. location of veh. at 1st impactNot at or within 20rVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age38 yrsSexMaleBreath testNegativLeft Hand DriveNot Known	y not in restricted lane n of junction 1 Hit and run Not hit and run e Driving Lic Full eign registered vehicle			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP3660116	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	un-2019'	Grid Reference452197 / 191871Police Officer Attend:Yes		
Date20/01/2016Day WednesdayTime17:34WeatherFine without high windsRoad SurfaceFrost/IceStreet LightingDark: street lights present and lit	Road A4130 Location A4130 DIDCOT NORTHE Description C1 TRAV E ON A4130 ENTER RBT HI of Accident	oad A4130 Location A4130 DIDCOT NORTHERN PERIMETER ROAD RBT J/W COLLETT DIDCOT Description C1 TRAV E ON A4130 ENTER RBT HIT PC2 TRAV N ROUNDING RBT & RIDER FELL f Accident			
SITE DETAILS Speed Limit 50 MPH Carriageway Roundabout Junction Detail Roundabout Junction Control Give way or uncontrolled 2nd Road Number U Pedestrian Facilities None within 50 metres Central refuge - no other controls	SPECIAL SITE CONDITIONS       4(         None       4(         CARRIAGEWAY HAZARDS       1         None       4(	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider - 06 Failed to judge other person's path/spec	PARTICIPANT PROBABILITY Error) Vehicle 001 A ed (Driver/Rider - Error) Vehicle 001 A		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Town         Veh. direction from       West to East       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       29 yrs       Sex       Female         Journey purpose       Not Known       Veh.No. 2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Town         Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Town         Veh. direction from       South to North       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Junct. location of veh. at 1st impact       Mid junction	Make       Model         wing?       No tow or articulation         way not in restricted lane       aroundabout or main road         )       2       Hit and run       Not hit and run         ()       2       Hit and run       Not hit and run         ()       2       Hit and run       Not hit and run         ()       2       Hit and run       Not hit and run         foreign registered vehicle       Make       Model         wing?       No tow or articulation         way not in restricted lane       roundabout or main road         )       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and run       Not hit and run         ()       1       Hit and	Cas No       1       Cas Class       Driver or I         Severity       SLIGHT       Age 67 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not known		

SEVERITYDistrictVale of White HorseSLIGHTRef.NoP2130116	Accident Date BETWEEN '09-Jun-2014' AND '08	-Jun-2019'	Grid Reference451714 / 194081Police Officer Attend:No - reported over the counter		
Date21/01/2016Day ThursdayTime16:00WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road B4016 Location B4016 APPROX 6900M COURTENAY Description MP1 TRAV SE ON B4016 HIT REAR of Accident MP1 FTS	ud       B4016       Location B4016 APPROX 6900M E OF SUTTON COURTENAY - SOME UNCERTAINTY OVER LOCATION       SUTTON         courtenay       Secription       MP1 TRAV SE ON B4016 HIT REAR OF PC2 (CHILD RIDER, CYCLING BACK FROM SCHOOL) CAUSING RIDER TO FALL -         Accident       MP1 FTS			
SITE DETAILS Speed Limit 60 MPH Carriageway Single carriageway Junction Detail Not at or within 20 metres of juncti Junction Control 2nd Road Number Pedestrian Facilities None within 50 metres No physical crossing facility within	on SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None None	CONTRIBUTORY FACTORS 406 Failed to judge other person's path/spe	PARTICIPANT PROBABILITY ed (Driver/Rider - Error) Vehicle 001 B		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.1Vehicle typeM/cycle <= 50ccManoeuvreGoing ahead otherVeh. direction fromNorthwest to SoutheastToVeh. direction fromNorthwest to SoutheastToSkiddedNo skidding, jack-knifing or overturningOn main carriageVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneFirst point of impactDid not impactVeh registration no.Other veh.hit (ref.no.Drivers age? yrsSexNot knowVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromNorthwest to SoutheastVeh. direction of veh. at 1st impactNot at or within 2Veh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactDid not impactVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneFirst point of impactDid not impactVeh registration no.Other veh.hit (ref.no.Drivers age10 yrsSex FemaleBreath testBreath	Make       Model         owing?       No tow or articulation         oway not in restricted lane       20m of junction         o)       0       Hit and run         er not contacted       Driving Lic         foreign registered vehicle       Make         Make       Model         owing?       No tow or articulation         eway not in restricted lane       20m of junction         o)       0       Hit and run         plicable       Driving Lic         Full       foreign registered vehicle	Cas No 1 Cas Class Driver or Severity SLIGHT Age 10 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Yes		

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP1790216	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference Police Officer Attend:	451532 / 191161 Yes	
Date16/02/2016Day TuesdayTime17:40WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and litSITE DETAILS	Road A4130 Location A4130 DIDCOT PERIMI BASIL HILL ROAD DIDCO Description C1 TRAV S ON A4130 ENTERED RB of Accident ROUNDING RBT & RIDER SUSTAIN	Location A4130 DIDCOT PERIMETER RD AT POWER STATION RBT J/W MILTON ROAD / POWER STATION ACCESS & BASIL HILL ROAD DIDCOT Description C1 TRAV S ON A4130 ENTERED RBT FAILING TO GIVE TO PC2 TRAV FROM MILTON ROAD TO BASIL HILL ROAD f Accident ROUNDING RBT & RIDER SUSTAINED SERIOUS INJURY			
Speed Limit50 MPHCarriagewayRoundaboutJunction DetailRoundabout	SPECIAL SITE CONDITIONS       2         None       7	105 Failed to look properly (Driver/Rider - 710 Vehicle blind spot (Driver/Rider - Visio	Error) on Affected)	Vehicle 001 A Vehicle 001 B	
Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	CARRIAGEWAY HAZARDS None				
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNorth to SouthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering roundabouVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age49 yrsSexMaleBreath testNegatiLeft Hand DriveNoForeign veh.Not foJourney purposeCommuting to/from workVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead right hand bendVeh. direction fromSouthwest to EastSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactMid junction - on restrideway?Did not leave carriagewayHit object in c'way?NoneHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age26 yrsSexMaleBreath testNot forJunct location forSexSeyMaleBreath testNot forJunct. <td>Make     Model       ng?     No tow or articulation       ay not in restricted lane     at and run       tt     Not hit and run       ve     Driving Lic       reign registered vehicle     Full       Make     Model       ing?     No tow or articulation       ay not in restricted lane     Model       ing?     No tow or articulation       ay not in restricted lane     Not hit and run       pundabout or main road     Not hit and run</td> <td>Cas No 1 Cas Class Driver or I Severity SERIOUS Age 26 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details</td> <td>Rider Veh ro s Sex Male PSV Passenger? No Cycle Helmet Yo</td> <td>ef No 2 Post code ot a passenger es</td>	Make     Model       ng?     No tow or articulation       ay not in restricted lane     at and run       tt     Not hit and run       ve     Driving Lic       reign registered vehicle     Full       Make     Model       ing?     No tow or articulation       ay not in restricted lane     Model       ing?     No tow or articulation       ay not in restricted lane     Not hit and run       pundabout or main road     Not hit and run	Cas No 1 Cas Class Driver or I Severity SERIOUS Age 26 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ro s Sex Male PSV Passenger? No Cycle Helmet Yo	ef No 2 Post code ot a passenger es	

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0900616	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference452687 / 195206Police Officer Attend:Yes	
Date07/06/2016Day TuesdayTime07:50WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	07/06/2016       Day Tuesday         07:50       Road A415         er       Fine without high winds         Surface       Dry         Dry       Description         HGV1 TRAV W ON A415 HIT R OF C2 WHO IN TURN HIT R OF C3 TRAV W STATIONARY FOR C3 WAITING TO TURN RT         of Accident       TO J/W STATION RD			
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spec 510 Distraction outside vehicle (Driver/Rid	PARTICIPANT PROBABILITY Error) Vehicle 001 A ed (Driver/Rider - Error) Vehicle 001 A er - Impairment) Vehicle 001 B	
VEHICLES INVOLVED       3         Veh.No.       1       Vehicle type       Goods 3.5 - 7.5t         Manoeuvre       Going ahead other       To         Veh. direction from       East to West       To         Skidded       Skidded       Veh location at impact (restricted lane)       On main carriage         Junct.       Jocation of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no         Drivers age       58 yrs       Sex	Make     Model       owing?     No tow or articulation       oway not in restricted lane     ction or waiting       o)     2     Hit and run       o)     2     Hit and run       oi units     Driving Lic	Cas No       1       Cas Class       Driver or F         Severity       SLIGHT       Age 29 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No       2         Cas No       2       Cas Class       Driver or F         Severity       SLIGHT       Age 52 yrs	3 Rider Veh ref No 3 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Rider Veh ref No 2 s Sex Female Post code	
Left Hand DriveNoForeign veh.Not foreign veh.Journey purposeJourney as part of workVeh.No.2Vehicle typeCarManoeuvreSlowing or stoppingVeh. direction fromEast to WestToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactApproaching junctVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.noDrivers age52 yrsSexFemaleJourney purposeOther	foreign registered vehicle Make Model owing? No tow or articulation eway not in restricted lane ction or waiting b) 1 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle	Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Cas No       3 Cas Class         Severity       SLIGHT         Age       13 yrs         Car Passenger?       Front seat passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	PSV Passenger? Not a passenger Cycle Helmet Veh ref No 2 s Sex Female Post code er PSV Passenger? Not a passenger Cycle Helmet	

Veh.No. 3 Veh	icle type Car		Make	Model	Other Details
Manoeuvre	Waiting to turn ri	ght			
Veh. direction from	East to West	Towing?	No tow or articulation		
Skidded No skid	lding, jack-knifin	g or overturning			
Veh location at impact (r	restricted lane)	On main carriageway n	ot in restricted lane		
Junct. location of veh. at	1st impact	Approaching junction o	r waiting		
Veh left carriageway?	Did not leave c	arriageway			
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Veh registration no.		Other veh.hit (ref.no)	2 Hit and run	Not hit and run	
Drivers age 29 yrs	Sex Female	Breath test Negative	Driving Lie	Full	
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle		
Journey purpose	Other				

SEVERITYDistrictSouth OxfordshireSERIOUSRef.No43160248978	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-	-2019'	Grid Reference 45153 Police Officer Attend: Yes	3 / 191160	
Date     31/08/2016     Day Wednesday       Time     18:26       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	I         Road       A4130       Location       A4130 POWER STATION R         Description       C1 TRAV S ON A4130 ENTERED RBT FA         of Accident       INTENDING TO EXIT TO BASIL HILL R	Jaid       A4130       Location       A4130 POWER STATION RBT J/W A4130 NORTHERN PERIMETER ROAD       DIDCOT         escription       C1 TRAV S ON A4130 ENTERED RBT FAILINGTO GIVE WAY TO PC2 TRAV E ROUNDING RBT FROM MILTON ROAD         f Accident       INTENDING TO EXIT TO BASIL HILL ROAD			
Street Lighting     Daylight       SITE DETAILS       Speed Limit     50 MPH       Carriageway     Roundabout       Junction Detail     Roundabout       Junction Control     Give way or uncontrolled       2nd Road Number     U       Pedestrian Facilities     None within 50 metres       Central refuge - no other controls	SPECIAL SITE CONDITIONS 405 None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS Failed to look properly (Driver/Rider -	PARTIC Error) Vehicl	CIPANT PROBABILITY le 001 B	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Tow         Veh. direction from       North to South       Tow         Skidded       No skidding, jack-knifing or overturning       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabe         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       43 yrs         Sex       Male         Journey purpose       Commuting to/from work         Veh.No.       2         Vehicle type       Pedal Cycle         Manoeuvre       Going ahead right hand bend         Veh. direction from       Southwest to East         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Mid junction - on         Veh location of veh. at 1st impact       Mid junction - on         Veh left carriageway?       Did not leave carriageway         Junct. location of veh. at 1st impact       Mid junction - on	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       but     2       2     Hit and run       briving Lic     Full       oreign registered vehicle     Make       Make     Model       wing?     No tow or articulation       vay not in restricted lane     main road       1     Hit and run       htit and run     Not hit and run       pplicable     Driving Lic       Full     Full	Cas No 1 Cas Class Driver or F Severity SERIOUS Age 34 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No s Sex Male Post cod PSV Passenger? Not a passe Cycle Helmet Yes	2 de enger	

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170021424	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	un-2019'	Grid Reference 451632 / 191544
			Police Officer Attend: Yes
Date     10/01/2017     Day Tuesday       Time     13:50       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight       SITE DETAILS       Speed Limit     50 MPH	Road       A4130       Location       A4130       DIDCOT NORTHE         Description       C1 (DRIVER INTOXICATED)       TRAV S         of Accident       ENTERED RBT FAILING TO GIVE WA         CWAY ON E SIDE OF ROAD       SPECIAL SITE CONDITIONS       50	ERN PERIMETER ROAD AT RBT J/W HAW ON A4130 AT SPEED OVERTOOK ANOTH AY TO LGV2 TRAV N ON A4130 TURNING CONTRIBUTORY FACTORS )1 Impaired by alcohol (Driver/Rider - Imp	KSWORTH DIDCOT IER VEH ON APPROACH TO RBT THEN RT TO HAWKSWORTH - BOTH VEHS LEFT PARTICIPANT PROBABILITY pairment) Vehicle 001 A
Carriageway Roundabout Junction Detail Roundabout	None		
2nd Road Number     U       Pedestrian Facilities     None within 50 metres       No physical crossing facility within	CARRIAGEWAY HAZARDS None		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNorth to SouthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactEntering roundabVeh left carriageway?Left carriageway nearsideHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.ncDrivers age36 yrsSexFemaleBreath testPositLeft Hand DriveNoNoForeign veh.Veh.No.2Vehicle typeVan/Goods < 3.5t	Make       Model         owing?       No tow or articulation         oway not in restricted lane       out         o)       2       Hit and run       Not hit and run         o)       2       Hit and run       Not hit and run         tive       Driving Lic       Full         foreign registered vehicle       Make       Model         owing?       No tow or articulation         oway not in restricted lane       noundabout or main road         o)       1       Hit and run       Not hit and run         o)       1       Hit and run       Not hit and run	Cas No 1 Cas Class Driver or R Severity SLIGHT Age 36 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 1 Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170028756	Accident Date BETWEEN '09-Jun-2014' AND '08-J	'un-2019'	Grid Reference Police Officer Attend:	451534 / 191163 Yes	
Date20/01/2017Day FridayTime13:09WeatherFine without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road       A4130       Location       A4130       DIDCOT NORTH         Description       LGV1       TRAV S ON A4130       ENTERED F         of Accident       HIT OCCURRED	L       I         Road       A4130       Location       A4130       DIDCOT       NORTHERN PERIMETER ROAD RBT J/W MILTON ROAD & BASIL HILL ROAD       DIDCOT         Description       LGV1       TRAV S ON A4130       ENTERED RBT FAILING TO GIVE WAY TO PC2       TRAV FROM MILTON RD TO BASIL HILL RD & of Accident         HIT OCCURRED       Entered       HIT OCCURRED       Entered       HIT OCCURRED			
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Central refuge - no other controls	SPECIAL SITE CONDITIONS       4         None       6         CARRIAGEWAY HAZARDS       None	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider - 02 Careless/Reckless (Driver/Rider - Beha	Error) iviour)	PARTICIPANT PROBABILITY Vehicle 001 A Vehicle 001 B	
VEHICLES INVOLVED     2       Veh.No.     1     Vehicle type     Van/Goods < 3.5t	Make Model	CASUALTIES INVOLVED	1 Rider Vehre	ef No 2 Post code	
ManocuvreGoing anead otherVeh. direction fromNorth to SouthTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age40 yrsSexFemaleBreath testNegaLeft Hand DriveNoForeign veh. Not female	wing? No tow or articulation way not in restricted lane out ) 2 Hit and run Not hit and run tive Driving Lic Full Oreign registered vehicle	Seventy       SLIGHT       Age 57 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	S Sex Female PSV Passenger? No Cycle Helmet Yo	ot a passenger es	
Journey purposeJourney as part of workVeh.No.2Vehicle typePedal Cycle	Make Model	-			
ManoeuvreGoing ahead otherVeh. direction fromWest to EastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactMid junction - onVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age57 yrsSexFemaleBreath testNot fJourney purposeOther	wing? No tow or articulation way not in restricted lane roundabout or main road ) 1 Hit and run Not hit and run Applicable Driving Lic Full oreign registered vehicle				

SEVERITY District South Oxfordshire		Grid Reference 451531 / 191163
SLIGHT Ref.No 43170202475 Accident Date BETWEEN '09-Jun	-2014' AND '08-Jun-2019'	Police Officer Attend: Yes
Date03/07/2017Day MondayTime06:45WeatherFine without high winds	T POWER STATION RBT J/W MILTON ROAD & BASI	HILL ROAD DIDCOT
Road Surface     Wet/Damp     Description     LGV1 TRAV S ON A4       Street Lighting     Davlight     of Accident     TRAVELLING FROM	130 DIDCOT NORTHERN PERIMETER ROAD ENTERI MILTON ROAD & HIT OCCURRED	D RBT FAILING TO GIVE WAY TO PC2 ON RBT
SITE DETAILS	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 50 MDU SPECIAL SITE CONDITI	ONS 405 Enjled to look properly (Driver/Div	er Error) Vakiala 001 A
Corriggeway D 11	405 Paried to look property (Driver/Kit	venicie 001 A
Lungtion Detail Boundabout None	402 Junction restart (Driver/Rider - Err	or) Vehicle 001 A
Junction Detail Roundabout	103 Slippery road due to weather (Roa	Environment Contrib) Vehicle 001 B
2nd Deed Number II	RDS 703 Road layout (Driver/Rider - Vision	Affected) Vehicle 001 B
2nd Road Number U	705 Koad layout (Dirver/Kider - Vision	Venicie 001 B
Pedestrian Facilities None within 50 metres		
No physical crossing facility within 50 metre		
VEHICLES INVOLVED 2	CASUALTIES INVOL	ED 1
Veh.No. 1 Vehicle type Van/Goods < 3.5t Make Mo	del Cas No 1 Cas Class Driver	or Rider Veh ref No 2
Manoeuvre Slowing or stopping	Severity SLIGHT Age 4	5 yrs Sex Male Post code
Veh. direction from North to South Towing? No tow or articulation	Car Passenger? Not a passenge	PSV Passenger? Not a passenger
Skidded No skidding, jack-knifing or overturning	Seat Belt Not applicable	Cycle Helmet Yes
Veh location at impact (restricted lane) On main carriageway not in restricted lane	Ped Movement Not applicable	, 105
Junct. location of veh. at 1st impact Entering roundabout	Ped Location Not applicable	
Veh left carriageway? Did not leave carriageway	Ped Direction to Not applicable	
Hit object in c'way? None	School Pupil Other	
Hit object off c'way? None	Roadworker injured	
First point of impact Offside	Other Details	
Veh registration no. Other veh.hit (ref.no) 2 Hit and run M	ot hit and run	
Drivers age / yrs Sex Male Breath lest Driver not contacted Driving Lic F		
Leit Hand Drive No Foreign ven. Not foreign registered venicle		
Journey purpose         Not Known           Value Na         2         Value Date Counter         Material	dal	
Ven.ivo. Z venicie iype Pedal Cycle Make Mo		
Veh direction from Waster Fast		
Skidded Ne shidding is to have a set of the		
Skilded No skilding, jack-knilling or overturning		
Unat location of whether the impact (restricted faile) On main cannageway not in restricted faile		
Val left corriggeway? Did not loove corriggeway.		
Hit object in c'way? None		
Hit object in e way. None Hit object off e'way? None		
First point of impact Nearside		
Veh registration no. Other veh hit (ref no) 1 Hit and run N	lot hit and run	
Drivers age 45 vrs Sex Male Breath test Not Applicable Driving Lic F	ull	
Left Hand Drive No Foreign veh. Not foreign registered vehicle		
Journey purpose Commuting to/from work		

SEVERITY District South Oxfordshire SLIGHT Ref.No 43170278846	Accid	dent Date BETWEEN '09-Jun-2014' AND '	08-Jun-2019'	Grid Reference	453425 / 195190
	/ took	dent Date BETWEEN 07 Juli 2014 MAD	00 Juli 2017	Police Officer Attend:	Yes
Date31/08/2017DayThursdayTime10:50WeatherFine without high windsRoad SurfaceDryStreet LightingDaylightSITE DETAILS	Road A Descripti of Accide	id       A415       Location A415 APPROX 50M W OF J/W ACCESS TO CULHAM SCIENCE CENTRE CULHAM         scription       LGV2 TRAV W ON A415 STOPPED TO GIVE ASSISTANCE TO RIDER OF PC3 (DIRECTION OF TRAVEL UNKNOWN, BUT         Accident       ASSUMED ALSO TO W ) WHO HAD FALLEN FOR UNKNOWN REASON - C1 ALSO TRAV W HIT REAR OF STAT LGV2 -         PC3 NOT HIT & OTHERWISE UNINVOLVED       PARTICIPANT PROBABILITY			
Speed Limit 60 MPH		SPECIAL SITE CONDITIONS	510 Distraction outside vehicle (Driver/Rid	der - Impairment)	Vehicle 001 B
Carriageway Single carriageway Junction Detail Not at or within 20 metres of junct	on	None	406 Failed to judge other person's path/spe 410 Loss of control (Driver/Rider - Error)	ed (Driver/Rider - Error)	Vehicle 001 B Vehicle 003 A
2nd Road Number		CARRIAGEWAY HAZARDS			
Pedestrian Facilities None within 50 metres		None			
No physical crossing facility withi	n 50 metre				
VEHICLES INVOLVED 3			CASUALTIES INVOLVED	2	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       To         Veh. direction from       East to West       To         Skidded       No skidding, jack-knifing or overturning       On main carriage         Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Not at or within         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.m.         Drivers age       56 yrs         Sex       Female         Breath test       Neg         Left Hand Drive       No         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type       Van/Goods < 3.5t	wing? No way not in 1 20m of junc 20m of junc owing? No wwing? No way not in 1 20m of junc 20m of junc 0) 1 attive foreign regi	Make     Model       o tow or articulation     restricted lane       restricted lane     Not hit and run       Driving Lic     Full       Make     Model       Make     Model       Make     Model       o tow or articulation     restricted lane       restricted lane     restricted lane       ction     Hit and run       Hit and run     Not hit and run       Driving Lic     Full	Cas No       1 Cas Class       Driver or         Severity       SLIGHT       Age 56 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Severity       SLIGHT       Age 33 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Other Details       Mathematical Action	Rider Veh re rs Sex Female PSV Passenger? No Cycle Helmet No Rider Veh re rs Sex Male PSV Passenger? No Cycle Helmet No	f No 1 Post code at a passenger a cyclist f No 2 Post code at a passenger at a cyclist

Veh.No. 3 Vehi	cle type Pedal C	ycle	Make	Model
Manoeuvre (	Going ahead other			
Veh. direction from E	East to West	Towing?	No tow or articulation	
Skidded No skid	lding, jack-knifing	g or overturning		
Veh location at impact (r	estricted lane)	On main carriageway no	ot in restricted lane	
Junct. location of veh. at	1st impact	Not at or within 20m of	junction	
Veh left carriageway?	Did not leave ca	rriageway		
Hit object in c'way?	None			
Hit object off c'way?	None			
First point of impact	Did not impact			
Veh registration no.	-	Other veh.hit (ref.no)	0 Hit and ru	n Not hit and run
Drivers age ? yrs	Sex Not know	Breath test Not Applic	able Driving L	ic Full
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle	
Journey purpose	Not Known			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43170280331	Accident Date BETWEEN '09-Jun-2014' AND '0	)8-Jun-2019'	Grid Reference 452194 / 191870
			Police Officer Attend: Y es
Date 12/09/2017 Day Tuesday	d A 4120 Location A 4130 DIDCOT NOR	THERN PERIMETER ROAD I/W COLLETT	NIDCOT
Time 14:05	A4150 Location A4150 Dibeot Nor	THERWITER WORD J. W COLLETT	
Weather Fine without high winds	mintion HGV1 TRAV W ON A4130 TURNE	TO RT AT RRT TO N - WHILE DOING SO DRU	VER SUFFEERED COUGHING FIT & WENT TO
Road Surface Dry	Accident NSIDE & HIT HGV2 TRAVE ON A	A4130 APPROACHING RBT GIVE WAY	VER SOFFFERED COUCHING FIT & WENT TO
Street Lighting Daylight			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 50 MPH	SPECIAL SITE CONDITIONS	505 Illness or disability, mental or physical	l (Driver/Rider - Impairm Vehicle 001 A
Carriageway Roundabout	None		
Junction Detail Roundabout			
Junction Control Give way or uncontrolled			
2nd Road Number U	CARRIAGEWAY HAZARDS		
Pedestrian Facilities None within 50 metres	None		
No physical crossing facility within 50 me	etre		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1
Veh.No. 1 Vehicle type Goods > 7.5t	Make Model	Cas No 1 Cas Class Driver or	Rider Veh ref No 2
Manoeuvre Turning right		Severity SLIGHT Age 57 yr	rs Sex Male Post code
Veh. direction from East to North Towing?	No tow or articulation	Car Passenger? Not a passenger	PSV Passenger? Not a passenger
Skidded No skidding, jack-knifing or overturning		Seat Belt Not applicable	Cycle Helmet Not a cyclist
Veh location at impact (restricted lane) On main carriageway no	ot in restricted lane	Ped Movement Not applicable	
Junct. location of veh. at 1st impact Leaving roundabout		Ped Location Not applicable	
Veh left carriageway? Did not leave carriageway		Ped Direction to Not applicable	
Hit object in c'way? None		School Pupil Other	
Hit object off c'way? None		Roadworker injured	
First point of impact Nearside		Other Details	
Veh registration no. Other veh.hit (ref.no)	2 Hit and run Not hit and ru	n	
Left Hand Drive No. Foreign veh Not foreign	registered vehicle		
Iourney nurpose Iourney as part of work	registered vehicle		
Veh No 2 Vehicle type $Goods > 7.5t$	Make Model		
Manoeuvre Going ahead other	index index		
Veh. direction from West to Fast Towing?	No tow or articulation		
Skidded No skidding jack-knifing or overturning			
Veh location at impact (restricted lane) On main carriageway no	ot in restricted lane		
Junct. location of veh. at 1st impact Entering roundabout			
Veh left carriageway? Did not leave carriageway			
Hit object in c'way? None			
Hit object off c'way? None			
First point of impact Nearside			
Veh registration no. Other veh.hit (ref.no)	1 Hit and run Not hit and ru	n	
Drivers age 57 yrs Sex Male Breath test Negative	Driving Lic Full		
Left Hand Drive No Foreign veh. Not foreign	registered vehicle		
Journey purpose Journey as part of work		]	

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170330966	Accident Date BETWEEN '09-Jun-2014' AND '0	8-Jun-2019'	Grid Reference Police Officer Attend:	452536 / 193721 No - reported over the counter
Date02/11/2017Day ThursdayTime08:10WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Pad B4016 Location B4016 AT APPLEFORD RAIL BRIDGE APPLEFORD escription C1 TRAV W ON B4016 HIT WITH NSIDE WING MIRROR PED WALKING ON S SIDE OF CWAY TO W TO RAIL STATION (NO "Accident FOOTWAY PRESENT) - C1 FTS			
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None metre	CONTRIBUTORY FACTORS 407 Too close to cyclist, horse or pedestria	n (Driver/Rider - Error)	PARTICIPANT PROBABILITY Vehicle 001 A
VEHICLES INVOLVED 1 Veh.No. 1 Vehicle type Car Manoeuvre Going ahead other Veh. direction from East to West Towin Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriageway Junct. location of veh. at 1st impact Not at or within 20m Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Nearside Veh registration no. Other veh.hit (ref.no) Drivers age ? yrs Sex Not know Breath test Driver n Left Hand Drive No Foreign veh. Not fore Journey purpose Not Known	Make Model g? No tow or articulation y not in restricted lane of junction 0 Hit and run Hit and Run ot contacted Driving Lic Full ign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Pedestrian Severity SLIGHT Age 51 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Walking - back to Ped Location In carriageway, no Ped Direction to West bound School Pupil Other Roadworker injured Not applicable Other Details	1 N Veh rei rs Sex Female PSV Passenger? No Cycle Helmet No traffic t crossing	fNo 1 Post code t a passenger t a cyclist

SEVERITYDistrictSouth OxfordshireSERIOUSRef.No43170345099	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-20	)19'	Grid Reference Police Officer Attend:	451534 / 191161 Yes
Date05/11/2017Day SundayTime14:15WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road       A4130       Location       A4130 RBT J/W MILTON RO         Description       C1 TRAV S ON A4130 DIDCOT NORTHEF         of Accident       FROM MILTON ROAD TO BASIL HILL RO	AD & BASIL HILL ROAD DIDCOT N PERIMETER ROAD ENTERED RBT DAD - GLARE FROM SUN / VEHICLE	FAILING TO GIVE WAY BLIND SPOT POSS CONT	TO PC2 TRAV E 'RIBUTORY
Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Central refuge - no other controls	SPECIAL SITE CONDITIONS 405 F None 406 F 403 F CARRIAGEWAY HAZARDS 706 E None 710 V	ONTRIBUTORY FACTORS ailed to look properly (Driver/Rider - ailed to judge other person's path/spector oor turn or manoeuvre (Driver/Rider - Pazzling sun (Driver/Rider - Vision Af Tehicle blind spot (Driver/Rider - Vision	Error) ed (Driver/Rider - Error) - Error) ffected) on Affected)	PARTICIPANTPROBABILITYVehicle 001AVehicle 001AVehicle 001AVehicle 001BVehicle 001B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       Town         Veh. direction from       North to South       Town         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Entering roundabout         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       36 yrs       Sex         No       Foreign veh. Not for	Make Model ng? No tow or articulation ay not in restricted lane tt 2 Hit and run Not hit and run ve Driving Lic Full reign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SERIOUS Age 58 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured her Details	1 Rider Veh ref s Sex Female PSV Passenger? Not Cycle Helmet No	No 2 Post code a passenger
Journey purposeOtherVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromWest to EastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactMid junction - on reVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactNearsideVeh registration no.Other veh.hit (ref.no)Drivers age58 yrsSexFemaleBreath testNot ApLeft Hand DriveNoJourney purposeCommuting to/from work	Make     Model       ng?     No tow or articulation       ay not in restricted lane        oundabout or main road        1     Hit and run       pplicable     Driving Lic       reign registered vehicle			

SEVERITYDistrictVale of White HorseSLIGHTRef.No43170384320	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	m-2019'	Grid Reference 453 Police Officer Attend: Yes	3029 / 192645 S	
Date19/12/2017Day TuesdayTime18:00WeatherFine without high windsRoad SurfaceDryStreet LightingDark: no street lighting	Road B4016 Location B4016 APPLEFORD ROA ROAD LONG WITTENHAM Description MC1 TRAV E ON B4016 POSS HAD OV of Accident TURN RT TO S TO CYCLE ROUTE	Pad B4016 Location B4016 APPLEFORD ROAD J/W CYCLE ROUTE / BRIDLEWAY APPROX 900M NW OF J/W B4016 ABINGDON ROAD LONG WITTENHAM Escription MC1 TRAV E ON B4016 POSS HAD OVERTAKEN SLOW MOVING CARS BUT THEN FAILED TO SEE STAT PC2 WAITING TO Accident TURN RT TO S TO CYCLE ROUTE			
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Other junction         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS None     40       CARRIAGEWAY HAZARDS None     50 metre	CONTRIBUTORY FACTORS 5 Failed to look properly (Driver/Rider -	PAR Error) Veh	TICIPANT PROBABILITY nicle 001 B	
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       M/Cycle       Unknown cc         Manoeuvre       Going ahead other       Tow         Veh. direction from       Northwest to Southeast       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct. location of veh. at 1st impact       Approaching junc         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       ? yrs         Sex       Male         Breath test       Drive         Left Hand Drive       No         Not Known       Veh.No.         Vehicle type       Pedal Cycle         Manoeuvre       Waiting to turn right         Veh. direction from       Northwest to Southeast       Tow         Skidded       No skidding, jack-knifing or overturning	Make     Model       ving?     No tow or articulation       vay not in restricted lane	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or F Severity SLIGHT Age 45 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	l Rider Veh ref No s Sex Male Post PSV Passenger? Not a pa Cycle Helmet Yes	2 code ssenger	
SkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactApproaching juncVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age45 yrsSexMaleBreath testNot ALeft Hand DriveNoJourney purposeNot Known	vay not in restricted lane tion or waiting 1 Hit and run Not hit and run pplicable Driving Lic Full preign registered vehicle				

SEVERITY District Vale of White Horse		00.1 2010	Grid Reference	452660 / 193565
SEKIUUS Kelino 43180010328	Accident Date BETWEEN '09-Jun-2014' AND '0	08-Jun-2019'	Police Officer Attend:	Yes
Date       10/01/2018       Day       Wednesday         Time       14:05       Road       B4015       Location       B4016 MAIN RD BY THORNTON LODGE       APPLEFORD (CHECK LOCATION PLOTTED)         Weather       Fine without high winds       Description       PC1 ASSUMED TRAV S ON B4016 FAILED TO SEE PC2 ALSO ASSUMED TRAV S (AND PROBABLY RIDING WITH PC1) AND of Accident       Description       PC1 ASSUMED TRAV S ON B4016 FAILED TO SEE PC2 ALSO ASSUMED TRAV S (AND PROBABLY RIDING WITH PC1) AND of Accident         Streat Lighting       Dewlight       Dewlight       Description       PC1 ASSUMED TRAV S ON B4016 FAILED TO SEE PC2 ALSO ASSUMED TRAV S (AND PROBABLY RIDING WITH PC1) AND of Accident				DING WITH PC1) AND LS SUPPLIED
SITE DETAILS	1	CONTRIBUTORY FACTORS		PARTICIPANT PROBABILITY
Speed Limit 30 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error)	Vehicle 001 A
Carriageway Single carriageway	None	602 Caralaga/Dealtlaga (Driver/Didon Dah	, ,	Vahiala 001 P
Junction Detail Not at or within 20 metres of junct	tion	002 Careless/Reckless (Driver/Rider - Bena	aviour)	Venicie 001 B
Junction Control				
2nd Road Number	CARRIAGEWAY HAZARDS			
Pedestrian Facilities None within 50 metres	None			
No physical crossing facility within	in 50 metre			
No physical clossing facility with	in 50 mete			
VEHICLES INVOLVED 4		CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Term         Veh. direction from       North to South       Term         Skidded       Skidded       On main carriage         Junct. location of veh. at 1st impact       Not at or within         Veh left carriageway?       Did not leave carriageway         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.m.         Drivers age       72 yrs         Sex       Male         Breath test       Not         Journey purpose       Not Known         Veh.No.       2       Vehicle type         Manoeuvre       Going ahead other         Veh. direction from       North to South         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Not at or within         Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Not at or within         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?	Make     Model       Yowing?     No tow or articulation       geway not in restricted lane     20m of junction       to)     2     Hit and run       to)     2     Hit and run       to)     2     Hit and run       topicable     Driving Lic       Yowing?     No tow or articulation       topicable     Make       Yowing?     No tow or articulation       teway not in restricted lane     20m of junction       to)     0     Hit and run       topicable     Driving Lic       topicable     Driving Lic	Cas No 1 Cas Class Driver or I Severity SERIOUS Age 72 yr. Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref s Sex Male PSV Passenger? No Cycle Helmet Yes	No 1 Post code t a passenger s

Veh.No. 3 Vehi	cle type Car		Make	Model
Manoeuvre V	Vaiting to go ahea	ad but held up		
Veh. direction from N	lorth to South	Towing?	No tow or articulation	
Skidded No skid	ding, jack-knifing	g or overturning		
Veh location at impact (re	estricted lane)	On main carriageway no	ot in restricted lane	
Junct. location of veh. at	1st impact	Not at or within 20m of	junction	
Veh left carriageway?	Did not leave ca	rriageway	-	
Hit object in c'way?	None	0		
Hit object off c'way?	None			
First point of impact	Back			
Veh registration no.		Other veh.hit (ref.no)	0 Hit and run	Not hit and run
Drivers age 42 yrs	Sex Female	Breath test Negative	Driving Lic	Full
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle	
Journey purpose	Not Known			
Veh.No. 4 Vehi	cle type Car		Make	Model
Veh.No. 4 Vehi Manoeuvre	cle type Car Joing ahead other		Make	Model
Veh.No.4VehiManoeuvreCVeh. direction fromS	cle type Car Joing ahead other outh to North	Towing?	Make No tow or articulation	Model
Veh.No.4VehiManoeuvreCVeh. direction fromSSkiddedNo skid	cle type Car foing ahead other outh to North ding, jack-knifin	Towing? g or overturning	Make No tow or articulation	Model
Veh.No.     4     Vehi       Manoeuvre     C       Veh. direction from     S       Skidded     No skid       Veh location at impact (re	cle type Car Going ahead other outh to North ding, jack-knifing estricted lane)	Towing? g or overturning On main carriageway no	Make No tow or articulation ot in restricted lane	Model
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (ru Junct. location of veh. at	cle type Car ioing ahead other outh to North ding, jack-knifing estricted lane) 1st impact	Towing? g or overturning On main carriageway no Not at or within 20m of	Make No tow or articulation ot in restricted lane junction	Model
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (rd Junct. location of veh. at Veh left carriageway?	cle type Car ioing ahead other outh to North ding, jack-knifing estricted lane) 1st impact Did not leave ca	Towing? g or overturning On main carriageway no Not at or within 20m of urriageway	Make No tow or articulation of in restricted lane junction	Model
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (r Junct. location of veh. at Veh left carriageway? Hit object in c'way?	cle type Car going ahead other outh to North ding, jack-knifing estricted lane) 1st impact Did not leave ca None	Towing? g or overturning On main carriageway no Not at or within 20m of urriageway	Make No tow or articulation of in restricted lane junction	Model
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (r Junct. location of veh. at Veh left carriageway? Hit object in c'way?	cle type Car going ahead other outh to North ding, jack-knifing estricted lane) 1st impact Did not leave ca None None	Towing? g or overturning On main carriageway no Not at or within 20m of urriageway	Make No tow or articulation of in restricted lane junction	Model
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (r Junct. location of veh. at Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact	cle type Car coing ahead other outh to North ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Front	Towing? g or overturning On main carriageway no Not at or within 20m of urriageway	Make No tow or articulation of in restricted lane junction	Model
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (r Junct. location of veh. at Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact Veh registration no.	cle type Car doing ahead other outh to North ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Front	Towing? g or overturning On main carriageway no Not at or within 20m of rrriageway Other veh.hit (ref.no)	Make No tow or articulation of in restricted lane junction 0 Hit and run	Model Not hit and run
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (r Junct. location of veh. at Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact Veh registration no. Drivers age 68 yrs	cle type Car doing ahead other outh to North ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Front Sex Female	Towing? g or overturning On main carriageway no Not at or within 20m of rrriageway Other veh.hit (ref.no) Breath test Negative	Make No tow or articulation of in restricted lane junction 0 Hit and run Driving Lic	Model Not hit and run Full
Veh.No. 4 Vehi Manoeuvre C Veh. direction from S Skidded No skid Veh location at impact (r Junct. location of veh. at Veh left carriageway? Hit object in c'way? Hit object off c'way? First point of impact Veh registration no. Drivers age 68 yrs Left Hand Drive	cle type Car doing ahead other outh to North ding, jack-knifing estricted lane) 1st impact Did not leave ca None None Front Sex Female No	Towing? g or overturning On main carriageway no Not at or within 20m of rrriageway Other veh.hit (ref.no) Breath test Negative Foreign veh. Not foreign	Make No tow or articulation ot in restricted lane junction 0 Hit and run Driving Lic registered vehicle	Model Not hit and run Full

SEVERITY District South Oxfordshire				Grid Reference 451936 / 190985	
SLIGHT Ref.No 43180131504	Accident Date BETWEI	EN '09-Jun-2014' AND '	'08-Jun-2019'	Police Officer Attend: Yes	
Date15/04/2018DaySundayTime13:50WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road U189 Location Description MC1 TRAV of Accident TRACK INT	Id       U189       Location       BASIL HILL ROAD AT J/W TRACK ON N SIDE ORF ROAD APPROX 100M NW OF RAIL BRIDGE       DIDCOT         scription       MC1       TRAV NW ON BASIL HILL ROAD WHEN PC2       ALSO TRAV NW IN CYCLE LANE MOVED TO OSIDE TO TURN RT TO         Accident       TRACK INTO PATH OF MC1 & HIT OCCURRED (POSS THAT PC2 HAD ENTERED CWAY FROM FOOTWAY JUST PRIOR TO			
SITE DETAILS		1	CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY	
Sneed Limit 20 MDH	SPECIAL SITE	CONDITIONS	310 Cyclist entering road from payement (	Driver/Rider - Injudicious Vahiala 002 B	
Carriageway Circle comission		CONDITIONS	510 Oyenst entering road nom pavement (	Briver Ruder injudicious v chiefe 002 B	
Lunction Detail Other junction	None		405 Failed to look properly (Driver/Rider	Error) Vehicle 002 B	
Junction Detail Other Junction					
Junction Control Give way or uncontrolled	CARRIAGEWA	Y HAZARDS			
2nd Road Number	None				
Pedestrian Facilities None within 50 metres					
No physical crossing facility with	n 50 metre				
VEHICLES INVOLVED 2			CASUALTIES INVOLVED	2	
Veh.No. 1       Vehicle type       M/cycle 50 - 125cc         Manoeuvre       Overtaking moving veh on its offsic         Veh. direction from       Southeast to Northwest       T         Skidded       Skidded       On main carriag         Junct. location of veh. at 1st impact       Mid junction - c         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Nearside         Veh registration no.       Other veh.hit (ref.r.         Drivers age       25 yrs         Sex       Male         Breath test       Neg         Left Hand Drive       No         No       Foreign veh. No         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type         Manoeuvre       Turning right         Veh. direction from       Southeast to Northeast       T         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       Cycle lane (on rule on rul	Make bwing? No tow or articulation away not in restricted lane n roundabout or main road b) 2 Hit and ative Drivi foreign registered vehicle Make bwing? No tow or articulation main carriageway) ad b) 1 Hit and Applicable Drivi foreign registered vehicle	Model ion nd run Not hit and ru ng Lic Full Model ion nd run Not hit and ru ng Lic Full	Cas No       1 Cas Class       Driver or Severity         Severity       SLIGHT       Age 25 y.         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Min       Other Details	Rider Veh ref No 1 rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist Rider Veh ref No 2 rs Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not known	

SEVERITYDistrictVale of White HorseSLIGHTRef.No43180233809	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'			
Date     28/07/2018     Day     Saturday       Time     12:47       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road B4015 Location B4016 J/W ACCESS TO F Description C1 TRAV W ON B4016 HIT REAR OF of Accident	d B4015 Location B4016 J/W ACCESS TO BRIDGE FARM HOUSE APPLEFORD cription C1 TRAV W ON B4016 HIT REAR OF C2 SLOWING TO TURN RT TO BRIDGE FARM HOUSE			
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       Using private drive or entrance         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS 6 None 3 CARRIAGEWAY HAZARDS None 150 metre	CONTRIBUTORY FACTORS 02 Careless/Reckless (Driver/Rider - Beha 08 Following too close (Driver/Rider - Inju 09 Distraction in vehicle (Driver/Rider - In	PARTICIPANT PROBABILITY viour) Vehicle 001 A udicious) Vehicle 001 A mpairment) Vehicle 001 A		
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other         Veh. direction from       East to West       Tow         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Approaching junc         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front	Make Model wing? No tow or articulation way not in restricted lane ction or waiting	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or R Severity SLIGHT Age 25 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Cas No 2 Cas Class Passenger	2 Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist		
Veh registration no.       Other veh.hit (ref.no)         Drivers age       22 yrs       Sex       Male       Breath test       Drive         Left Hand Drive       No       Foreign veh.       Not fr         Journey purpose       Not Known       Veh.No.       2       Vehicle type       Car         Manoeuvre       Waiting to turn right       Veh. direction from       East to West       Tow         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagew         Junct.       location of veh. at 1st impact       Approaching junct       Veh left carriageway?         Hit object in c'way?       None       Hit object off c'way?       None         First point of impact       Back       Veh registration no.       Other veh.hit (ref.no)         Drivers age       25 yrs       Sex       Male       Breath test       Drive	2       Hit and run Not hit and run Priving Lic Full         foreign registered vehicle       Make         Make       Model         wing?       No tow or articulation         way not in restricted lane       etion or waiting         P)       1       Hit and run Not hit and run Priving Lic Full         Priving Lic Full       Full	Severity SLIGHT Age 24 yrs Car Passenger? Front seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	s Sex Female Post code r PSV Passenger? Not a passenger Cycle Helmet Not a cyclist		
Journey purpose Not Known	toreign registered vehicle	_			

SEVERITYDistrictSouth OxfordshireSERIOUSRef.No43180255933	Accident Date BETWEEN '09-Jun-2014' AND '08-	Jun-2019'	Grid Reference451532 / 191158Police Officer Attend:Yes		
Date20/08/2018Day MondayTime21:46WeatherFine without high windsRoad SurfaceDryStreet LightingDark: street lights present and lit	Road A4130 Location A4130 AT POWER STA Description C1 TRAV S ON A4130 STOPPED AT of Accident RBT & HIT OCCURRED	Dad A4130 Location A4130 AT POWER STATION DIDCOT escription C1 TRAV S ON A4130 STOPPED AT ENTRY TO RBT BUT THEN MOVED OFF FAILING TO SEE / GIVE WAY TO PC2 NEG f Accident RBT & HIT OCCURRED			
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility with	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beha	PARTICIPANT PROBABILITY aviour) Vehicle 001 A		
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       T         Veh. direction from       North to South       T         Skidded       No skidding, jack-knifing or overturning       On main carriag         Veh location at impact (restricted lane)       On main carriag         Junct. location of veh. at 1st impact       Entering roundat         Veh left carriageway?       Did not leave carriageway	Make Model owing? No tow or articulation eway not in restricted lane bout	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or I Severity SERIOUS Age 49 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable	l Rider Veh ref No 2 's Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Yes		
Hit object in c way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.n.         Drivers age       66 yrs       Sex         Left Hand Drive       No       Foreign veh.       Not         Journey purpose       Other       Veh.No.       2       Vehicle type       Pedal Cycle         Manoeuvre       Going ahead other       Image: Context state of the state	o) 2 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle Make Model	School Pupil Other Roadworker injured Other Details			
Veh. direction from       West to East       T         Skidded       Skidded       On main carriag         Junct. location of veh. at 1st impact       Mid junction - c         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.r.         Drivers age       49 yrs       Sex         Female       Breath test       Not         Left Hand Drive       No       Foreign veh. Not         Journey purpose       Not Known       Not Known	owing? No tow or articulation eway not in restricted lane n roundabout or main road o) 1 Hit and run Not hit and run Applicable Driving Lic Full foreign registered vehicle				

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43180349134	Accident Date BETWEEN '09-Jun-2014' AND '08-J	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'		
Date11/12/2018Day TuesdayTime14:15WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A4130 Location A4130 DIDCOT NORTHI Description C1 TRAV S ON A4130 ENTERED RBT of Accident OCCURRED	ERN PERIMETER ROAD RBT J/W MILTON FAILING TO GIVE WAY TO PC2 TRAV FF	ROAD & BASIL HILL ROAD DIDCOT ROM MILTON RD TO BASIL HILL RD & HIT	
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     4       None     CARRIAGEWAY HAZARDS       50 metre     50 metre	CONTRIBUTORY FACTORS 05 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY Error) Vehicle 001 A	
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNorth to SouthSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagevJunct. location of veh. at 1st impactEntering roundabeVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age49 yrsSexMaleBreath testDriveJourney purposeJourney as part of workVeh.No.2Vehicle typePedal CycleManoeuvreGoing ahead otherVeh. direction fromNorthwest to SoutheastTowSkiddedNo skidding, jack-knifing or overturning	Make     Model       wing?     No tow or articulation       way not in restricted lane     way not in restricted lane       but     2       P     2       P     Hit and run       Not hit and run       or not contacted     Driving Lic       Full     Full       oreign registered vehicle       Make     Model       wing?     No tow or articulation	Cas No       1       Cas Class       Driver or F         Severity       SLIGHT       Age 26 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not known	
Veh location at impact (restricted lane)       On main carriagev         Junct. location of veh. at 1st impact       Mid junction - on         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Offside         Veh registration no.       Other veh.hit (ref.no)         Drivers age       26 yrs         Sex       Male         Breath test       Not A         Left Hand Drive       Not Known	vay not in restricted lane roundabout or main road 1 Hit and run Not hit and run Applicable Driving Lic Full oreign registered vehicle			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43190053355	Accident Date BETWEEN '09-Jun-2014' AND '08	8-Jun-2019'	Grid Reference Police Officer Attend:	453353 / 195183 Yes	
Date19/02/2019Day TuesdayTime11:35WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road A415 Location A415 APPROX 75M W Description HGV1 TRAV W ON A415 HIT REAF of Accident	Ad A415 Location A415 APPROX 75M W OF ACCESS TO CULHAM SCIENCE CENTRE BY FULLAMORE FARM CULHAM scription HGV1 TRAV W ON A415 HIT REAR OF C2 ALSO TRAV W SLOWING FOR UNKNOWN REASON Accident			
Site DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	on SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 406 Failed to judge other person's path/spe 405 Failed to look properly (Driver/Rider - 408 Sudden braking (Driver/Rider - Error)	ed (Driver/Rider - Error) Error)	PARTICIPANTPROBABILITYVehicle 001AVehicle 002B	
VEHICLES INVOLVED2Veh.No.1Vehicle typeGoods > 7.5tManoeuvreGoing ahead otherVeh. direction fromEast to WestTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 2tVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age44 yrsSexMaleBreath testNegatLeft Hand DriveNoSlowing or stoppingVeh.No.Veh.No.2Vehicle typeCarManoeuvreSlowing or stoppingVeh direction fromEast to WestSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 2tVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age44 yrsSexFemaleBreath testNegatLeft Hand DriveNoForeign veh. Not fJourney purposeCommuting to/from work	Make Model wing? No tow or articulation way not in restricted lane 20m of junction b) 2 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle Make Model wing? No tow or articulation way not in restricted lane 20m of junction b) 1 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age 44 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref rs Sex Female PSV Passenger? Not Cycle Helmet Not	No 2 Post code t a passenger t a cyclist	

SEVERITY District South Oxfordshire SLIGHT Ref.No 43190070071	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'Grid Reference452839 / 191619Police Officer Attend:Yes				
Date     05/03/2019     Day Tuesday       Time     22:19       Weather     Fine without high winds       Road Surface     Wet/Damp       Street Lighting     Dark: street lights present and lit	Road A4130 Location A4130 DIDCOT NE PERIMETER ROAD RBT J/W AVON WAY DIDCOT Description C1 TRAV NE ON AVON WAY TURNED RT TO A4130 BUT LOST CONTOL ON EXITING RBT ON WET ROAD / POSS DIESEL of Accident SPILL & LEFT CWAY TO NSIDE & HIT TREE & ENTERED DITCH				
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Roundabout         Junction Detail       Roundabout         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50	metre SPECIAL SITE CONDITIONS Oil or diesel CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 102 Deposit on road e.g. oil, mud, chipping 602 Careless/Reckless (Driver/Rider - Beh	PARTICIPANT PROBABILITY gs (Road Environment Co Vehicle 001 B aviour) Vehicle 001 B		
VEHICLES INVOLVED 1		CASUALTIES INVOLVED	1		
Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning right         Veh. direction from       Southwest to Southeast       Towin         Skidded       Skidded       Veh location at impact (restricted lane)       On main carriageway         Junct.       location of veh. at 1st impact       Cleared junction or verside         Hit object in c'way?       Left carriageway nearside         Hit object off c'way?       Tree         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       21 yrs       Sex         Journey purpose       Other	Make Model g? No tow or articulation y not in restricted lane vaiting 0 Hit and run Not hit and run e Driving Lic Full ign registered vehicle	Cas No 1 Cas Class Driver or Severity SLIGHT Age 21 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 1 rs Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet Not a cvclist		

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP3030614	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	ın-2019'	Grid Reference 45482 Police Officer Attend: Yes	24 / 196293
Date     28/06/2014     Day Saturday       Time     14:40       Weather     Fine without high winds       Road Surface     Dry       Street Lighting     Daylight	Road       B4015       Location       B4015 OXFORD ROAD AT BEND 450M NE OF J/W THE COPPICE ACCESS RD       CLIFTON HAMPDEN         Description       C1 (DRIVER 21 YRS) TRAV S ROUNDING LH BEND ON B4015 HIT R OF STAT C2 TRAV S IN QUEUE ON APPROACH TO of Accident       J/W A415 - PASSENGER OF C2 THEN ASSAULTED DRIVER C1			
SITE DETAILS         Speed Limit       50 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS 60 None 70 CARRIAGEWAY HAZARDS None 10 metre	CONTRIBUTORY FACTORS )5 Inexperienced or learner driver/rider (I )3 Road layout (Driver/Rider - Vision Aff )6 Failed to judge other person's path/spec	PARTI Driver/Rider - Behaviour) Vehic fected) Vehic ed (Driver/Rider - Error) Vehic	CIPANT PROBABILITY le 001 B le 001 B le 001 B
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead left hand bend       Towi         Veh. direction from       Northeast to South       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriageway         Junct. location of veh. at 1st impact       Not at or within 20n       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)       Drivers age       21 yrs         Sex       Male       Breath test       Negative         Left Hand Drive       No       Foreign veh. Not for         Journey purpose       Other       Vehick to reference	Make Model ng? No tow or articulation ay not in restricted lane m of junction 2 Hit and run Not hit and run ve Driving Lic Full reign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Passenger Severity SLIGHT Age 52 yr Car Passenger? Front seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	l S Sex Female Post cod er PSV Passenger? Not a passe Cycle Helmet	2 de enger
Veh.No.2Vehicle typeCarManoeuvreWaiting to go ahead but held upVeh. direction fromNorth to SouthTowiSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewaJunct. location of veh. at 1st impactNot at or within 20nVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age54 yrsSexMaleBreath testNegativLeft Hand DriveNoForeign veh.Not forJourney purposeOther	Make Model ng? No tow or articulation ay not in restricted lane m of junction l Hit and run Not hit and run ve Driving Lic Full reign registered vehicle			

SEVERITY District South Oxfordshire SLIGHT Ref.No P0350814	Accident Date BETWEEN '09-Jun-2014' AND '	'08-Jun-2019'	Grid Reference 454647 / 195615	
			Police Officer Attend: Y es	
Date05/08/2014Day TuesdayTime15:25WeatherFine without high windsRoad SurfaceDry	Road       A415       Location       A415 APPROX 60M W OF J/W HIGH ST BY ACCESS TO VILLAGE HALL (NURSERY)       CLIFTON HAMPDEN         Description       C1 TRAV E ON A415 APPROACHING QUEUE FOR SIGNALS AT J/W B4015 - APPEARS DRIVER FAILED TO SEE QUEUE TILL       CLIFTON HAMPDEN			
Street Lighting Daylight	of Accident LATE THEN IN ERROR PRESSEL	DACCELERATOR & HIT STAT TX2 AT REAR (	DF QUEUE	
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY	
Speed Limit 30 MPH	SPECIAL SITE CONDITIONS	607 Inexperience with vehicle type (Driver	/Rider - Behaviour) Vehicle 001 A	
Carriageway Single carriageway	None	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 B	
Junction Detail Using private drive or entrance		405 Tanea to look property (Driver/Kider -	Life of B	
Junction Control Give way or uncontrolled				
2nd Road Number U	CARRIAGEWAY HAZARDS			
Pedestrian Facilities None within 50 metres	None			
No physical crossing facility with	nin 50 metre			
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromWest to EastSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagJunct.Junct location of veh. at 1st impactApproaching junctVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.m.Drivers age35 yrsSexFemaleBreath testNegLeft Hand DriveNoVeh.No.2Vehicle typeTaxiManoeuvreWaiting to go ahead but held upVeh. direction fromWest to EastSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagJunct.Joation of veh. at 1st impactApproaching junctVeh location of veh. at 1st impactApproaching junctVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.r.Drivers age46 yrsSexMaleBreath testNegLeft Hand DriveNoForeign veh.Journey purposeNot Known	Make       Model         Towing?       No tow or articulation         geway not in restricted lane       geway not in restricted lane         unction or waiting       Make         no)       2       Hit and run       Not hit and run         egative       Driving Lic       Full         ot foreign registered vehicle       Make       Model         Towing?       No tow or articulation         geway not in restricted lane       motion or waiting         no)       1       Hit and run       Not hit and run         getive       Driving Lic       Full         no)       1       Hit and run       Not hit and run         getive       Driving Lic       Full         ot foreign registered vehicle       Full       Driving Lic	Cas No       1 Cas Class       Driver or 1         Severity       SLIGHT       Age 46 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet	

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP0980315	Accident Date BETWEEN '09-Jun-2014' AND '08	8-Jun-2019'	Grid Reference 454843 / 1 Police Officer Attend: Yes	95294
Date09/03/2015Day MondayTime12:38WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road U287 Location CLIFTON HAMPDEN ROAD AT BEND O/S THE BARLEY MOW INN LONG WITTENHAM Description MC1 (RIDER 20 YRS) TRAV SE ROUNDING RH BEND ON CLIFTON HAMPDEN RD LOST CONTROL & RIDER FELL & of Accident SUSTAINED SERIOUS INJURY			
SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50	SPECIAL SITE CONDITIONS         None         CARRIAGEWAY HAZARDS         None         metre	CONTRIBUTORY FACTORS 103 Slippery road due to weather (Road Er 108 Road layout e.g. bend, hill or narrow (	PARTICIPAN vironment Contrib) Vehicle 001 Road Environment Contri Vehicle 001	IT PROBABILITY B B
VEHICLES INVOLVED 1		CASUALTIES INVOLVED	1	
Veh.No.1Vehicle typeM/cycle 50 - 125ccManoeuvreGoing ahead right hand bendVeh. direction fromNorthwest to SouthTowinSkiddedSkiddedVeh location at impact (restricted lane)On main carriagewayJunct. location of veh. at 1st impactNot at or within 20mVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age20 yrsSexMaleBreath testNegativaLeft Hand DriveNoJourney purposeCommuting to/from work	Make Model g? No tow or articulation not in restricted lane of junction 0 Hit and run Not hit and run e Driving Lic Full ign registered vehicle	Cas No 1 Cas Class Driver or Severity SERIOUS Age 20 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No I s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet	

SEVERITY District South Oxfordshire SLIGHT Ref.No P3380415	Accident Date BETWEEN '09-Jun-2014' AND '08	8-Jun-2019'	Grid Reference 454093 / 195339
			Police Officer Attend: Yes
Date 29/04/2015 Day Wednesday Time 14:35 Veather Fine without high winds Road A415 Location A415 ABINGDON RD J/W ACCESS TO TURNPIKE GARAGE CLIFTON HAMDEN			
Road Surface Dry	Description C1 TRAV NW ON EXIT FROM GAP	RAGE TURNED RT TO W A415 HIT LGV2 TR	AV SW ON A415 & LGV2 CROSSED TO OSIDE
Street Lighting Daylight	of Accident & HII LGV3 IRAV NE ON A415 &	CI THEN HIT C4 PARKED FACING NW NEA	R EXIT FROM GARAGE
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY
Speed Limit 60 MPH	SPECIAL SITE CONDITIONS	405 Failed to look properly (Driver/Rider -	Error) Vehicle 001 B
Carriageway Single carriageway	None	406 Eailed to judge other person's path/ma	ad (Driver/Dider Error) Vehicle 001 B
Junction Detail Using private drive or entrance		400 Failed to judge other person's path/spec	ed (Dilver/Rider - Erior) Venicle 001 B
Junction Control Give way or uncontrolled			
2nd Road Number U	CARRIAGEWAY HAZARDS		
Pedestrian Facilities None within 50 metres	None		
No physical crossing facility within	50 metre		
VEHICLES INVOLVED 4		CASUALTIES INVOLVED	1
Veh.No.1Vehicle typeCarManoeuvreTurning rightVeh. direction fromSoutheast to NortheastTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactEntering main roadVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactOffsideVeh registration no.Other veh.hit (ref.no)Drivers age? yrsSexFemaleBreath testNot redLeft Hand DriveNoNoForeign veh. Not foJourney purposeCommuting to/from workVeh.No.2Vehicle typeVan/Goods < 3.5t	Make     Model       ving?     No tow or articulation       vay not in restricted lane     a       2     Hit and run       breign registered     Driving Lic       Full     Full       oreign registered vehicle     Make       Make     Model       ving?     No tow or articulation       vay not in restricted lane     tion or waiting       1     Hit and run	Cas No 1 Cas Class Driver or 1 Severity SLIGHT Age 48 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 s Sex Male Post code PSV Passenger? Not a passenger Cycle Helmet
Left Hand Drive No Foreign veh. Not fo	breign registered vehicle		
Journey purpose Journey as part of work	0		
/ L			

Veh.No. 3 Vehi	cle type Van/Go	ods < 3.5t		Make		Model
Manoeuvre C	oing ahead other	•				
Veh. direction from S	outhwest to Nort	heast	Towing?	No tow or art	iculation	
Skidded No skid	ding, jack-knifin	g or overturnin	g			
Veh location at impact (re	Veh location at impact (restricted lane) On main carriageway not in restricted lane					
Junct. location of veh. at	1st impact	Approaching	junction or v	vaiting		
Veh left carriageway?	Did not leave ca	arriageway		e		
Hit object in c'way?	None	0,				
Hit object off c'way?	None					
First point of impact	Offside					
Veh registration no.		Other veh.hit (r	ref.no) 2		Hit and run	Not hit and run
Drivers age ? yrs	Sex Male	Breath test ]	Not requested	1	Driving Lic	Full
Left Hand Drive	No	Foreign veh.	Not foreign r	egistered vehi	cle	
Journey purpose	Journey as part	of work				
Veh.No. 4 Vehi	cle type Car			Make		Model
Veh.No. 4 Vehi Manoeuvre P	cle type Car arked			Make		Model
Veh.No.4VehiManoeuvrePVeh. direction fromS	cle type Car arked outheast to Parke	ed	Towing?	Make No tow or art	iculation	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skid	cle type Car arked outheast to Parke ding, jack-knifin	ed g or overturnin	Towing? g	Make No tow or art	iculation	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (red	cle type Car arked outheast to Parke ding, jack-knifin estricted lane)	ed g or overturnin On main carr	Towing? g riageway not	Make No tow or art in restricted la	iculation	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (redJunct. location of veh. at	cle type Car arked outheast to Parke ding, jack-knifin estricted lane) 1st impact	ed g or overturnin On main carr Approaching	Towing? g riageway not junction or v	Make No tow or art in restricted la vaiting	iculation ane	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (redJunct. location of veh. atVeh left carriageway?	cle type Car arked outheast to Parked ding, jack-knifin estricted lane) 1st impact Did not leave ca	ed g or overturnin On main carr Approaching urriageway	Towing? g riageway not ; junction or v	Make No tow or art in restricted la vaiting	iculation ane	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (reJunct. location of veh. atVeh left carriageway?Hit object in c'way?	cle type Car arked outheast to Parked ding, jack-knifin estricted lane) 1st impact Did not leave ca None	ed g or overturnin On main carr Approaching arriageway	Towing? g riageway not gjunction or w	Make No tow or art in restricted la vaiting	iculation ane	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (rrJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?	cle type Car arked outheast to Parked ding, jack-knifin estricted lane) 1st impact Did not leave ca None None	ed g or overturnin On main carr Approaching urriageway	Towing? g riageway not ; junction or v	Make No tow or art in restricted la vaiting	iculation ane	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (reJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impact	cle type Car arked outheast to Parked ding, jack-knifin estricted lane) 1st impact Did not leave ca None None Offside	ed g or overturnin On main carr Approaching urriageway	Towing? g riageway not ; junction or v	Make No tow or art in restricted la vaiting	iculation	Model
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (rdJunct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.	cle type Car arked outheast to Parked ding, jack-knifin estricted lane) 1st impact Did not leave ca None None Offside	ed g or overturnin On main carr Approaching urriageway Other veh.hit (r	Towing? g riageway not ; junction or v ref.no) 1	Make No tow or art in restricted la vaiting	iculation ane Hit and run	Model Not hit and run
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (red)Junct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.Drivers age? yrs	cle type Car arked outheast to Parked ding, jack-knifin estricted lane) lst impact Did not leave ca None None Offside Sex Not know	ed g or overturnin On main carr Approaching arriageway Other veh.hit (r Breath test	Towing? g riageway not ; junction or v ef.no) 1 Not requested	Make No tow or art in restricted la vaiting	iculation ane Hit and run Driving Lic	Model Not hit and run Full
Veh.No.4VehiManoeuvrePVeh. direction fromSSkiddedNo skidVeh location at impact (red)Junct. location of veh. atVeh left carriageway?Hit object in c'way?Hit object off c'way?First point of impactVeh registration no.Drivers age? yrsLeft Hand Drive	cle type Car arked outheast to Parked ding, jack-knifin estricted lane) 1st impact Did not leave ca None None Offside Sex Not know No	ed g or overturnin On main carr Approaching urriageway Other veh.hit (r Breath test ] Foreign veh. ]	Towing? g riageway not g junction or w ef.no) 1 Not requested Not foreign r	Make No tow or art in restricted la vaiting I egistered vehi	iculation ane Hit and run Driving Lic cle	Model Not hit and run Full

SEVERITY District South Oxfordshire	A soldest Data DETWEEN 100 Les 2014 AND 100 L	2010	Grid Reference 454806 / 195137	
SLIGHT RELIVE 12000015	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	un-2019'	Police Officer Attend: Yes	
Date26/08/2015Day WednesdayTime07:23WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDaylight	ad U287 Location CLIFTON HAMPDEN ROAD APPROX 150M S OF BEND BY THE BARLEY MOW INN LONG WITTENHAM escription LGV1 TRAV S ON CLIFTON HAMPDEN RD HAD SUDDEN TYRE DEFLATION LOST CONTROL & CROSSED TO OSIDE & HIT Accident C2 TRAV N - C2 EXITED CWAY TO OSIDE INTO DITCH			
SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY	
Speed Limit60 MPHCarriagewaySingle carriagewayJunction DetailNot at or within 20 metres of junction	SPECIAL SITE CONDITIONS 10 None	03 Slippery road due to weather (Road En	vironment Contrib) Vehicle 001 A	
Junction Control	CARRIAGEWAY HAZARDS			
2nd Road Number	None			
None within 50 metres	) metre			
		1		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Van/Goods < 3.5t	Make     Model       g?     No tow or articulation       y not in restricted lane       of junction       2     Hit and run       Period       Period       Period       Make       Make       Make       Make       Model       g?       No tow or articulation       y not in restricted lane       of junction	Cas No 1 Cas Class Driver or I Severity SLIGHT Age 51 yr. Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 2 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet	
Drivers age 51 yrs Sex Female Breath test Negativ	e Driving Lic Full			
Journey purpose Commuting to/from work	eign registered venicle			
Communing W/110111 WORK		1		

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP2711115	Accident Date BETWEEN '09-Jun-2014' AND '08-Jun-2019'	Grid Reference 452968 / 195189 Police Officer Attend: Yes
Date17/11/2015Day TuesdayTime17:28WeatherFine with high windsRoad SurfaceWet/DampStreet LightingDark: no street lighting	Road A415 Location A415 ABINGDON ROAD APPROX 280M E OF Description MC1 TRAV W ON A415 OVRTK U/K VEH & MOVED BAC of Accident AGR2 ALSO TRAV W - RIDER FELL & SUSTAINED SERIO	T J/W STATION ROAD CULHAM K TO NSIDE BUT FAILED TO SEE & HIT R OF SLOW MOVING OUS INJURY
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 5	SPECIAL SITE CONDITIONS       CONTRIBUTORY H         None       405 Failed to look pro         406 Failed to judge oth       403 Poor turn or mance         CARRIAGEWAY HAZARDS       409 Swerved (Driver/I         None       409 Swerved (Driver/I	FACTORSPARTICIPANTPROBABILITYperly (Driver/Rider - Error)Vehicle 001Aher person's path/speed (Driver/Rider - Error)Vehicle 001Abeuvre (Driver/Rider - Error)Vehicle 001ARider - Error)Vehicle 001A
VEHICLES INVOLVED       2         Veh.No.       1       Vehicle type       M/cycle > 500cc         Manoeuvre       Overtaking moving veh on its offside         Veh. direction from       East to West       Towi         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagewa         Junct.       location of veh. at 1st impact       Not at or within 20r         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no)         Drivers age       47 yrs       Sex         No       Foreign veh.       Not for         Journey purpose       Not Known       Veh.No.         Veh.No.       2       Vehicle type       Agric Veh         Manoeuvre       Going ahead other       Towi         Veh. direction from       East to West       Towi	Make     Model     Cas No     1     C       ng?     No tow or articulation     Severity     SERIC       ng?     No tow or articulation     Car Passenger?       y not in restricted lane     Ped Movement       n of junction     Ped Location       2     Hit and run       Vided (medical reas Driving Lic     Full       eign registered vehicle     Make       Make     Model	JALTIES INVOLVED     1       Cas Class     Driver or Rider     Veh ref No     1       DUS     Age 47 yrs     Sex Male     Post code       Not a passenger     PSV Passenger?     Not a passenger       Not applicable     Cycle Helmet       Not applicable     Not applicable       Not applicable     Other       ed
SkiddedOverturnedVeh location at impact (restricted lane)On main carriagewaJunct. location of veh. at 1st impactNot at or within 20rVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age38 yrsSexMaleBreath testNegativLeft Hand DriveNot Known	y not in restricted lane n of junction 1 Hit and run Not hit and run e Driving Lic Full eign registered vehicle	

SEVERITYDistrictSouth OxfordshireSERIOUSRef.NoP1020516	Accident Date BETWEEN '09-Jun-2014' AND '08-Ju	n-2019'	Grid Reference 4540 Police Officer Attend: Yes	90 / 195337
Date09/05/2016Day MondayTime13:00WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road       A415       Location       A415       ABINGDON ROAD         Description       C1       TRAV NE ON A415       TURNED RT TO of Accident         SERIOUS INJURY	J/W ACCESS TO TURNPIKE GARAGE	CLIFTON HAMDEN AV SW ON A415 & RIDER SUST	^AINED
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Using private drive or entrance         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS     40       None     40       CARRIAGEWAY HAZARDS     60       None     50 metre	CONTRIBUTORY FACTORS 5 Failed to look properly (Driver/Rider - 6 Failed to judge other person's path/spec 3 Poor turn or manoeuvre (Driver/Rider - 2 Careless/Reckless (Driver/Rider - Beha	PARTI Error) Vehic ed (Driver/Rider - Error) Vehic - Error) Vehic aviour) Vehic	ICIPANT PROBABILITY Ele 001 A Ele 001 B Ele 001 B Ele 001 A
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	1	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Turning right       To         Veh. direction from       Southwest to Southeast       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Mid junction - on       Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None       First point of impact       Front         Veh registration no.       Other veh.hit (ref.no         Drivers age       35 yrs       Sex       Female         Journey purpose       Not Known       Northeast to Southwest       To         Veh.No.       2       Vehicle type       M/cycle 50 - 125cc         Manoeuvre       Going ahead other       Veh. direction from       Northeast to Southwest       To         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Approaching junct       Veh veh.kit (ref.no         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Approaching junct <td>Make     Model       wing?     No tow or articulation       way not in restricted lane roundabout or main road    </td> <td>Cas No 1 Cas Class Driver or F Severity SERIOUS Age 30 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details</td> <td>Rider Veh ref No s Sex Male Post co PSV Passenger? Not a pass Cycle Helmet</td> <td>2 de enger</td>	Make     Model       wing?     No tow or articulation       way not in restricted lane roundabout or main road	Cas No 1 Cas Class Driver or F Severity SERIOUS Age 30 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No s Sex Male Post co PSV Passenger? Not a pass Cycle Helmet	2 de enger

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0900616	Accident Date BETWEEN '09-Jun-2014' AND '08-	-Jun-2019'	Grid Reference452687 / 195206Police Officer Attend:Yes
Date07/06/2016Day TuesdayTime07:50WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A415 Location A415 ABINGDON ROA Description HGV1 TRAV W ON A415 HIT R OF 0 of Accident TO J/W STATION RD	AD J/W STATION ROAD CULHAM	ATIONARY FOR C3 WAITING TO TURN RT
SITE DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider - 406 Failed to judge other person's path/spec 510 Distraction outside vehicle (Driver/Rid	PARTICIPANT PROBABILITY Error) Vehicle 001 A ed (Driver/Rider - Error) Vehicle 001 A er - Impairment) Vehicle 001 B
VEHICLES INVOLVED       3         Veh.No.       1       Vehicle type       Goods 3.5 - 7.5t         Manoeuvre       Going ahead other       To         Veh. direction from       East to West       To         Skidded       Skidded       Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Approaching junct         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Hit object off c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.no         Drivers age       58 yrs       Sex       Male	Make     Model       owing?     No tow or articulation       oway not in restricted lane     ction or waiting       o)     2     Hit and run       o)     2     Hit and run       oi units     Driving Lic	Cas No       1       Cas Class       Driver or F         Severity       SLIGHT       Age 29 yrs         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No       2         Cas No       2       Cas Class       Driver or F         Severity       SLIGHT       Age 52 yrs	3 Rider Veh ref No 3 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Rider Veh ref No 2 s Sex Female Post code
Left Hand DriveNoForeign veh.Not foreign veh.Journey purposeJourney as part of workVeh.No.2Vehicle typeCarManoeuvreSlowing or stoppingVeh. direction fromEast to WestToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactApproaching junctVeh left carriageway?Did not leave carriagewayHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.noDrivers age52 yrsSexFemaleJourney purposeOther	foreign registered vehicle Make Model owing? No tow or articulation eway not in restricted lane ction or waiting b) 1 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle	Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Cas No       3 Cas Class         Severity       SLIGHT         Age       13 yrs         Car Passenger?       Front seat passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other	PSV Passenger? Not a passenger Cycle Helmet Veh ref No 2 s Sex Female Post code er PSV Passenger? Not a passenger Cycle Helmet

Veh.No. 3 Veh	icle type Car		Make	Model	Other Details
Manoeuvre	Waiting to turn ri	ght			
Veh. direction from	East to West	Towing?	No tow or articulation		
Skidded No skid	lding, jack-knifin	g or overturning			
Veh location at impact (r	restricted lane)	On main carriageway n	ot in restricted lane		
Junct. location of veh. at	1st impact	Approaching junction o	r waiting		
Veh left carriageway?	Did not leave c	arriageway			
Hit object in c'way?	None				
Hit object off c'way?	None				
First point of impact	Back				
Veh registration no.		Other veh.hit (ref.no)	2 Hit and run	Not hit and run	
Drivers age 29 yrs	Sex Female	Breath test Negative	Driving Lie	Full	
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle		
Journey purpose	Other				

SEVERITYDistrictSouth OxfordshireSLIGHTRef.NoP0390716	Accident Date BETWEEN '09-Jun-2014' AND '0	)8-Jun-2019'	Grid Reference Police Officer Attend:	454695 / 195623 No - reported over the counter		
Date06/07/2016DayWednesdayTime15:40WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road       A415       Location       A415 J/W HIGH STREET       CLIFTON HAMPDEN         Description       PC1 TRAV SW ON A415 FAILED TO STOP FOR RED SIGNAL & HIT PED (5 YRS/OCCOMPANIED) TRAV N ON GREEN MAN of Accident       SIGNAL XING FROM PC1 NSIDE & RIDER FELL FROM PC BUT GOT BACK ON & FTS					
SITE DETAILS         SITE DETAILS         Speed Limit       30 MPH         Carriageway       Single carriageway         Junction Detail       T or staggered junction         Junction Control       Automatic traffic signal         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         Pedestrian phase at traffic signal junc	SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 405 Failed to look properly (Driver/Rider -	· Error)	PARTICIPANT PROBABILITY Vehicle 001 A		
VEHICLES INVOLVED 1 Veh.No. 1 Vehicle type Pedal Cycle Manoeuvre Going ahead other Veh. direction from Southwest to Northeast Towi Skidded No skidding, jack-knifing or overturning Veh location at impact (restricted lane) On main carriagewa Junct. location of veh. at 1st impact Cleared junction or Veh left carriageway? Did not leave carriageway Hit object in c'way? None Hit object off c'way? None First point of impact Front Veh registration no. Other veh.hit (ref.no) Drivers age ? yrs Sex Male Breath test Not Ap Left Hand Drive No Foreign veh. Not for Journey purpose Not Known	Make Model ng? No tow or articulation ay not in restricted lane waiting 0 Hit and run Hit and Run plicable Driving Lic Full eign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Pedestrian Severity SLIGHT Age 5 yrs Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Crossing from driv Ped Location On ped. crossing fa Ped Direction to Northwest bound School Pupil Other Roadworker injured Other Details	h Veh re: Sex Female PSV Passenger? No Cycle Helmet ver's nearside acility	f No 1 Post code t a passenger		
SEVERITY District South Oxfordshire			Grid Reference 454188 / 195378			
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SLIGHT   Rel.No 4317/0207547	Accident Date BETWEEN '09-Jun-2014' AND '	08-Jun-2019'	Police Officer Attend: Yes			
Date04/07/2017Day TuesdayTime17:09WeatherFine without high windsRoad SurfaceDryStreet LightingDaylight	Road A415 Location A415 APPROX 50M LOCATION Description C1 TRAV SW ON A415 HIT REAR of Accident	A415 Location A415 APPROX 50M E OF J/W HIGH STREET CLIFTON HAMPDEN - SOME UNCERTAINTY OVER EXACT LOCATION iption C1 TRAV SW ON A415 HIT REAR OF C2 SLOWING TO ALLOW C3 TOTURN LT FROM HIGH STREET TO A415 cident				
SITE DETAILS		CONTRIBUTORY EACTORS	DADTICIDANT DDODADII ITV			
Site DETAILS	SPECIAL SITE CONDITIONS	CONTRIBUTORY FACTORS				
Speed Linit 60 MPH	SPECIAL SITE CONDITIONS	308 Following too close (Driver/Rider - Inj	udicious) Vehicle 001 A			
Carriageway Single carriageway	. None	408 Sudden braking (Driver/Rider - Error)	Vehicle 002 B			
Junction Detail Not at or within 20 metres of junction	10n					
Junction Control	CARRIAGEWAY HAZARDS					
2nd Road Number	N					
Pedestrian Facilities None within 50 metres	None					
No physical crossing facility within	in 50 metre					
VEHICLES INVOLVED 3		CASUALTIES INVOLVED	1			
Veh.No.1Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNortheast to SouthwestToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.noDrivers age50 yrsSexFemaleBreath testNegaLeft Hand DriveNoVeh.No.2Vehicle typeCarManoeuvreGoing ahead otherVeh. direction fromNortheast to SouthwestToSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriageJunct. location of veh. at 1st impactNot at or within 2Veh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.noDrivers age23 yrsSexManeBreath testVegistration no.Other veh.hit (ref.noDrivers age23 yrsSexMaleBreath testNegaLeft Hand DriveNoForeig	Make     Model       owing?     No tow or articulation       eway not in restricted lane     20m of junction       o)     2     Hit and run       20m of junction     Driving Lic       foreign registered vehicle     Make       Make     Model       owing?     No tow or articulation       eway not in restricted lane     20m of junction       o)     1     Hit and run       Not hit and ru     Not hit and ru       o)     1     Hit and run       owing?     No tow or articulation	Cas No 1 Cas Class Driver or I Severity SLIGHT Age 50 yr. Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref No 1 s Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist			

Veh.No. 3 Vehi	cle type Car			Make		Model
Manoeuvre C	oing ahead other	r				
Veh. direction from N	Jortheast to South	ıwest	Towing?	No tow or art	iculation	
Skidded No skid	ding, jack-knifing	g or overturni	ng			
Veh location at impact (re	estricted lane)	On main car	rriageway not	t in restricted la	ane	
Junct. location of veh. at	1st impact	Not at or wi	ithin 20m of j	unction		
Veh left carriageway?	Did not leave ca	arriageway				
Hit object in c'way?	None					
Hit object off c'way?	None					
First point of impact	Did not impact					
Veh registration no.	-	Other veh.hit (	(ref.no) (	0	Hit and run	Non-stop vehicle,
Drivers age ? yrs	Sex Not know	Breath test	Driver not co	ontacted	Driving Lic	Full
Left Hand Drive	No	Foreign veh.	Not foreign	registered vehi	cle	
Journey purpose	Not Known					

SEVERITY District South Oxfordshire SLIGHT Ref.No 43170278846	Accid	dent Date BETWEEN '09-Jun-2014' AND '	08-Jun-2019'	Grid Reference	453425 / 195190
	/ took	dent Date BETWEEN 07 Juli 2014 MAD	00 Juli 2017	Police Officer Attend:	Yes
Date       31/08/2017       Day Thursday         Date       31/08/2017       Day Thursday         Time       10:50       Road       A415       Location A415 APPROX 50M W OF J/W ACCESS TO CULHAM SCIENCE CENTRE CULHAM         Weather       Fine without high winds       Description       LGV2 TRAV W ON A415 STOPPED TO GIVE ASSISTANCE TO RIDER OF PC3 (DIRECTION OF TRAVEL UNKNOWN, BUT         Road Surface       Dry       Of Accident       ASSUMED ALSO TO W ) WHO HAD FALLEN FOR UNKNOWN REASON - C1 ALSO TRAV W HIT REAR OF STAT LGV2 - PC3 NOT HIT & OTHERWISE UNINVOLVED         Street Lighting       SITE DETAILS       CONTRIBUTORY FACTORS       PARTICIPANT PROBABIL					UNKNOWN, BUT R OF STAT LGV2 - PARTICIPANT PROBABILITY
Speed Limit 60 MPH		SPECIAL SITE CONDITIONS	510 Distraction outside vehicle (Driver/Rid	der - Impairment)	Vehicle 001 B
Carriageway Single carriageway Junction Detail Not at or within 20 metres of junct	on	None	406 Failed to judge other person's path/spe 410 Loss of control (Driver/Rider - Error)	ed (Driver/Rider - Error)	Vehicle 001 B Vehicle 003 A
2nd Road Number		CARRIAGEWAY HAZARDS			
Pedestrian Facilities None within 50 metres		None			
No physical crossing facility withi	n 50 metre				
VEHICLES INVOLVED 3			CASUALTIES INVOLVED	2	
Veh.No.       1       Vehicle type       Car         Manoeuvre       Going ahead other       To         Veh. direction from       East to West       To         Skidded       No skidding, jack-knifing or overturning       On main carriage         Veh location at impact (restricted lane)       On main carriage         Junct. location of veh. at 1st impact       Not at or within         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         First point of impact       Front         Veh registration no.       Other veh.hit (ref.m.         Drivers age       56 yrs         Sex       Female         Breath test       Neg         Left Hand Drive       No         Journey purpose       Commuting to/from work         Veh.No.       2       Vehicle type       Van/Goods < 3.5t	wing? No way not in 1 20m of junc 20m of junc owing? No wwing? No way not in 1 20m of junc 20m of junc 0) 1 attive foreign regi	Make     Model       o tow or articulation     restricted lane       restricted lane     Not hit and run       Driving Lic     Full       Make     Model       Make     Model       Make     Model       o tow or articulation     restricted lane       restricted lane     restricted lane       ction     Hit and run       Hit and run     Not hit and run       Driving Lic     Full	Cas No       1 Cas Class       Driver or         Severity       SLIGHT       Age 56 yr         Car Passenger?       Not a passenger         Seat Belt       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Cas No         Car Passenger?       Not a passenger         Set Belt       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Movement       Not applicable         Ped Location       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         Ped Direction to       Not applicable         School Pupil       Other         Roadworker injured       Other         Other Details       Mathematical Action	Rider Veh re rs Sex Female PSV Passenger? No Cycle Helmet No Rider Veh re rs Sex Male PSV Passenger? No Cycle Helmet No	f No 1 Post code at a passenger a cyclist f No 2 Post code at a passenger at a cyclist

Veh.No. 3 Vehi	cle type Pedal C	ycle	Make	Model
Manoeuvre (	Going ahead other			
Veh. direction from E	East to West	Towing?	No tow or articulation	
Skidded No skid	lding, jack-knifing	g or overturning		
Veh location at impact (r	estricted lane)	On main carriageway no	ot in restricted lane	
Junct. location of veh. at	1st impact	Not at or within 20m of	junction	
Veh left carriageway?	Did not leave ca	rriageway		
Hit object in c'way?	None			
Hit object off c'way?	None			
First point of impact	Did not impact			
Veh registration no.	-	Other veh.hit (ref.no)	0 Hit and ru	n Not hit and run
Drivers age ? yrs	Sex Not know	Breath test Not Applic	able Driving L	ic Full
Left Hand Drive	No	Foreign veh. Not foreign	registered vehicle	
Journey purpose	Not Known			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43180248712	Accident Date BETWEEN '09-Jun-2014' AND '08	3-Jun-2019'	Grid Reference454078 / 195334Police Officer Attend:No - self completed form
Date10/08/2018Day FridayTime10:30WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road A415 Location A415 ABINGDON RD Description C1 TRAV E ON A415 HIT STAT C2 of Accident	J/W ACCESS TO TURNPIKE GARAGE C	LIFTON HAMDEN .T TO TURNPIKE GARAGE
SITE DETAILSSpeed Limit60 MPHCarriagewaySingle carriagewayJunction DetailUsing private drive or entrance	SPECIAL SITE CONDITIONS None	CONTRIBUTORY FACTORS 602 Careless/Reckless (Driver/Rider - Beha 405 Failed to look properly (Driver/Rider -	PARTICIPANT PROBABILITY viour) Vehicle 001 A Error) Vehicle 001 A
Junction Control       Give way or uncontrolled         2nd Road Number       U         Pedestrian Facilities       None within 50 metres         No physical crossing facility within 50	CARRIAGEWAY HAZARDS None		
VEHICLES INVOLVED 2		CASUALTIES INVOLVED	2
Manoeuvre       Going ahead other         Veh. direction from       West to East       Towir         Skidded       No skidding, jack-knifing or overturning       Veh location at impact (restricted lane)       On main carriagewa         Junct. location of veh. at 1st impact       Approaching junctic         Veh left carriageway?       Did not leave carriageway         Hit object in c'way?       None         Eirst point of impact       Event	ng? No tow or articulation ny not in restricted lane on or waiting	Severity SLIGHT Age 41 yrs Car Passenger? Front seat passenge Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured	s Sex Female Post code r PSV Passenger? Not a passenger Cycle Helmet Not a cyclist
Veh registration no.     Other veh.hit (ref.no)       Drivers age     ? yrs     Sex     9     Breath test     Driver r       Left Hand Drive     No     Foreign veh.     Not fore       Journey purpose     Other     Other	2 Hit and run Not hit and run not contacted Driving Lic Full eign registered vehicle	Cas No 2 Cas Class Passenger Severity SLIGHT Age 10 yrs Car Passenger? Rear seat passenger Seat Belt Not applicable Ped Movement Not applicable	Veh ref No 2 S Sex Male Post code r PSV Passenger? Not a passenger Cycle Helmet Not a cyclist
Manoeuvre       Going ahead other         Veh. direction from       West to East         Skidded       No skidding, jack-knifing or overturning         Veh location at impact (restricted lane)       On main carriagewa         Junct. location of veh. at 1st impact       Approaching junction         Veh loft corrigon       Did act berge income	ng? No tow or articulation ay not in restricted lane on or waiting	Ped LocationNot applicablePed Direction toNot applicableSchool PupilOtherRoadworker injuredOther Details	
ven left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age48 yrsSexMaleBreath testDriver rLeft Hand DriveNoJourney purposeOther	1 Hit and run Not hit and run not contacted Driving Lic Full eign registered vehicle		

SEVERITY	District South Oxfordshire Ref No. 43180383934	A soldest Data DETWEEN 100 Les 201414	ND 108 Jun 2010	Grid Reference 454673 / 195492		
SLIGHT	43100303734	Accident Date BE1 WEEN '09-Jun-2014' A	ND 08-Jun-2019	Police Officer Attend: No - self completed form		
Date Time Weather Road Surface Street Lighting	13/12/2018 Day Thursday 18:55 Fine without high winds Dry Dark: no street lighting	Road       U171       Location       HIGH STREET BY PARKING LAYBY OPPOSITE PRIMARY SCHOOL       CLIFTON HAMPDEN         Description       C1       TRAV SW ON HIGH STREET HIT WITH NSIDE WING MIRROR PED STANDING BY PARKED C2 ASSISTING CHILD         of Accident       PASSENGER INTO CAR SEAT (FOLLOWING EVENING EVENT AT SCHOOL)				
	SITE DETAILS		CONTRIBUTORY FACTORS	PARTICIPANT PROBABILITY		
Speed Limit Carriageway Junction Detail	30 MPH Single carriageway Not at or within 20 metres of junction	SPECIAL SITE CONDITIONS None on	405 Failed to look properly (Driver/Rider -	- Error) Vehicle 001 A		
Junction Contr 2nd Road Num Pedestrian Fac	ol iber ilities None within 50 metres	CARRIAGEWAY HAZARDS None				
	No physical crossing facility within	50 metre				
VEHICLES IN	NVOLVED 2	I	CASUALTIES INVOLVED	1		
Veh.No. 1 Manoeuvre Veh. direction Skidded Veh location a Junct. location Veh left carria Hit object in c' Hit object off c First point of in Veh registratio Drivers age Left Hand Driv Journey purpos Veh.No. 2 Manoeuvre Veh. direction Skidded Veh location a Junct. location	Vehicle type Car Going ahead other from Northeast to Southwest Tow No skidding, jack-knifing or overturning t impact (restricted lane) On main carriagew of veh. at 1st impact Not at or within 20 geway? Did not leave carriageway way? None Evway? None mpact Nearside on no. Other veh.hit (ref.no) 36 yrs Sex Male Breath test Driver Ve No Foreign veh. Not for se Not Known Vehicle type Car Parked from Northeast to Parked Tow No skidding, jack-knifing or overturning t impact (restricted lane) On lay-by/hard sho of veh. at 1st impact Not at or within 20 geway? Did not leave carriageway	Make Model wing? No tow or articulation way not in restricted lane Om of junction 0 0 Hit and run Not hit ar r not contacted Driving Lic Full oreign registered vehicle Make Model wing? No tow or articulation oulder Om of junction	Cas No 1 Cas Class Pedestriar Severity SLIGHT Age 45 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement In carriageway - ne Ped Location In carriageway, no Ped Direction to Standing still School Pupil Other Roadworker injured Not applicable Other Details	n Veh ref No 2 rs Sex Female Post code PSV Passenger? Not a passenger Cycle Helmet Not a cyclist ot crossing tt crossing		
Hit object in c' Hit object off c First point of in Veh registratio Drivers age Left Hand Driv Journey purpos	way? None c'way? None mpact Offside on no. Other veh.hit (ref.no) 45 yrs Sex Female Breath test Driver ve No Foreign veh. Not fo se Other	0 0 Hit and run Not hit ar er not contacted Driving Lic Full foreign registered vehicle	ıd run			

SEVERITYDistrictSouth OxfordshireSLIGHTRef.No43190053355	Accident Date BETWEEN '09-Jun-2014' AND '08	8-Jun-2019'	Grid Reference Police Officer Attend:	453353 / 195183 Yes		
Date19/02/2019Day TuesdayTime11:35WeatherRaining without high windsRoad SurfaceWet/DampStreet LightingDaylight	Road A415 Location A415 APPROX 75M W Description HGV1 TRAV W ON A415 HIT REAF of Accident	A415 Location A415 APPROX 75M W OF ACCESS TO CULHAM SCIENCE CENTRE BY FULLAMORE FARM CULHAM iption HGV1 TRAV W ON A415 HIT REAR OF C2 ALSO TRAV W SLOWING FOR UNKNOWN REASON cident				
Site DETAILS         Speed Limit       60 MPH         Carriageway       Single carriageway         Junction Detail       Not at or within 20 metres of junction         Junction Control       2nd Road Number         Pedestrian Facilities       None within 50 metres         No physical crossing facility within	on SPECIAL SITE CONDITIONS None CARRIAGEWAY HAZARDS None	CONTRIBUTORY FACTORS 406 Failed to judge other person's path/spe 405 Failed to look properly (Driver/Rider - 408 Sudden braking (Driver/Rider - Error)	ed (Driver/Rider - Error) Error)	PARTICIPANTPROBABILITYVehicle 001AVehicle 002B		
VEHICLES INVOLVED2Veh.No.1Vehicle typeGoods > 7.5tManoeuvreGoing ahead otherVeh. direction fromEast to WestTowSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 2tVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneFirst point of impactFrontVeh registration no.Other veh.hit (ref.no)Drivers age44 yrsSexMaleBreath testNegatLeft Hand DriveNoSlowing or stoppingVeh.No.Veh.No.2Vehicle typeCarManoeuvreSlowing or stoppingVeh direction fromEast to WestSkiddedNo skidding, jack-knifing or overturningVeh location at impact (restricted lane)On main carriagewJunct. location of veh. at 1st impactNot at or within 2tVeh left carriageway?Did not leave carriagewayHit object in c'way?NoneHit object off c'way?NoneHit object off c'way?NoneFirst point of impactBackVeh registration no.Other veh.hit (ref.no)Drivers age44 yrsSexFemaleBreath testNegatLeft Hand DriveNoForeign veh. Not fJourney purposeCommuting to/from work	Make Model wing? No tow or articulation way not in restricted lane 20m of junction b) 2 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle Make Model wing? No tow or articulation way not in restricted lane 20m of junction b) 1 Hit and run Not hit and run ative Driving Lic Full foreign registered vehicle	CASUALTIES INVOLVED Cas No 1 Cas Class Driver or Severity SLIGHT Age 44 yr Car Passenger? Not a passenger Seat Belt Not applicable Ped Movement Not applicable Ped Location Not applicable Ped Direction to Not applicable School Pupil Other Roadworker injured Other Details	Rider Veh ref rs Sex Female PSV Passenger? Not Cycle Helmet Not	No 2 Post code t a passenger t a cyclist		

# Appendix D – Stage 1 Road Safety Audit Reports



# Didcot Garden Town HIF 1 Schemes A4130 Widening Road Safety Audit Stage 1

Stage 1 Road Safety Audit Report

December 2020

Didcot Garden Town HIF 1 Schemes A4130 Widening Road Safety Audit Stage 1

## **Quality information**

Document name	Ref	Prepared for	Prepared by	Date	Reviewed by / Verified by
DGT - A4130 Widening Prelim	6716R/RSA01	Oxfordshire CC	lan Batcock	January 2020	Baber Beg/ Dakshesh Lad

## **Revision history**

Revision	Revision date	Details	Name	Position
0	11 Jan 2021	Draft Issue	lan Batcock	Road Safety Auditor
P01	11 Jan 2021	Designers Responses	Andy Blanchard	Project Manager
P02	2 February 2021	Designer signed version	Andy Blanchard	Project Manager

This document has been prepared by AECOM Limited for the sole use of our client (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM Limited and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM Limited, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM Limited.

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# Introduction

AECOM was commissioned by Oxfordshire County Council to complete a Stage 1 Road Safety Audit for the proposals to widen a section of the A4130 as part of the Didcot Garden Town Development. The Audit Brief was prepared by Andy Blanchard of AECOM, approved by Phil Hill on behalf of Oxfordshire County Council. And accepted by the Audit Team.

The Road Safety Audit Team membership, approved by the Overseeing Organisation, Project Sponsor, was as follows:

lan Batcock Team Leader	MCIHT, MSoRSA IAN 152/11 Certificate of Competency AECOM, St Albans
Baber Beg	MCIHT, MSoRSA
Team Member	AECOM, Croydon

The audit comprised of a review of the supplied drawings listed in Appendix A, which were examined during week commencing 14<sup>th</sup> December 2020. A previous visit to the site was made by both members of the audit team together in the morning and afternoon of Wednesday 22<sup>nd</sup> January 2020 between 11.00am and 2.00pm as part of the Stage 1 road safety audit for the feasibility design. The Project Sponsor has indicated that a further daytime inspection of the scheme proposals is not required.

This section of A4130 is subject to a 40mph speed limit and the national speed limit to the east of the Backhill Tunnel signal-controlled crossing.

### **Works Summary**

The proposed A4130 Widening scheme will deliver a dual carriageway between A34 Milton Interchange and the proposed Didcot Science Bridge, which continues north and east to link with the existing A4130 northern perimeter road and the proposed Didcot Culham River Crossing and the Clifton Hampden Bypass schemes.

As part of the A4130 Widening scheme, there are three proposed roundabouts and one new traffic signalcontrolled junction to facilitate access to major future development immediately south of the A4130. The speed limit for the new scheme will be 40mph except for the roundabout that connect to Didcot Science Bridge and Valley Park, which will be subject to a 30mph speed limit.

### Special Considerations that might affect Road Safety

The majority of the section of A4130 affected by the scheme currently falls with a derestricted section and is subject to a 60mph speed limit. It intended to reduce the speed limit to 40mph within the extents of the scheme.

## **Departures from Standard**

The Audit Team have been informed of an application for the following departures from standard:

### **Departure from Standard 1**

The traffic lane widths proposed are less than 3.65m for an all-purpose road. The narrower lane widths are proposed to encourage more compliance with the posted speed limit.

### **Departure from Standard 2**

The dimensions of the proposed bus lay-by west of the Valley Park Western Access T-junction differs to those set out in CD 169C1.3.7.

### **Summary of Personal Injury Collision Data**

Collision data was obtained for the five-year period between 9<sup>th</sup> June 2014 and 8<sup>th</sup> June 2019 in the vicinity of the scheme. There was a total of 64 collisions recorded, which resulted in 82 casualties. One involved a pedestrian and one involved a cyclist. However, some of the collision data includes part of the A34 and the Milton Interchange roundabout, which fall outside the extents of the scheme.

### **Terms of Reference**

The Terms of Reference of this Audit are as described in DMRB GG 119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and how it impacts on all road users and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit. An absence of comment relating to specific road users / modes in Section 3 of this report does not imply that they have not been considered, instead the Audit Team feel they are not adversely affected by the proposed changes.

This Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they will not be raised in Section 3 of this report as they fall outside the remit of Road Safety Audit in general as specified in the procedure GG 119. Any safety issues identified during the Audit and site visit that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, will be set out in separate correspondence.

Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.

The Audit Team has been provided with collision data for the five-year period between 09/06/2014 and 08/06/2019. There has been a total of 64 collisions recorded within the vicinity of the scheme's extents, with 82 casualties. However, a high number of the collisions are associated with the A34 Milton Interchange. 17 collisions have occurred on the single carriageway two-way section subject to the A4130 Widening.

In accordance with GG 119, this Audit has a maximum shelf life of 5 years. If the scheme does not progress to the next stage in its development within this period, then the scheme should be re-audited.

Unless general to the scheme, any comments and recommendations are referenced to the drawings supplied in the audit brief, and the locations will be indicated on the plan(s) in Appendix B where appropriate.



# Items Raised at Previous Road Safety Audits

- 2.1 A previous Stage 1 road safety audit was undertaken for the feasibility design stage for the A4130 Widening scheme (SA Ref: DGT- Package A: A4130 Widening 6631R/RSA01) in January 2020, which was carried out by AECOM.
- **2.2** There were a number of safety issues raised with the feasibility design in the previous road safety audit, some of which have either been addressed or designed out at the preliminary design stage and require no further comment by the Audit Team.
- **2.3** However, any safety issues that the Audit Team consider to be outstanding from the previous safety audit will be raised again in Section 3 of this report.



# Items Raised at this Stage 1 Road Safety Audit

3.1.1 The following Problems have been identified from the documents submitted:

#### GENERAL

#### Problem: 3.1

Location: A4130 between Backhill & Northern RBTs 40mph Speed Limit

- Drawing: WID PD-ACM-HGA-SW\_ZZ\_ZZ-DR-CH-0001 & 0002
- Summary It might be difficult to promote compliance with the proposed 40mph speed limit on the section of the two-lane dual carriageway between the Backhill and Northern roundabouts

#### Description:

The section of A4130 to the east of the Milton Interchange will be improved. A two-lane dual carriageway will be provided between the new Backhill Roundabout and the new Northern Roundabout.

This section of road is straight between the two roundabouts. There is concern that there will be little compliance with the 40mph speed limit by some vehicle drivers. There is a risk that slower moving vehicles that observe the speed limit could be left vulnerable to conflict with a faster moving vehicle when attempting to change lanes to overtake.

#### **Recommendation:**

It is recommended that the 40mph speed limit is reviewed once the road is open to traffic.

#### Problem: 3.2

- Location: A4130 Valley Park junction to Northern RBT Valley Park Drainage Basin
- Drawing: WID PD-ACM-HGA-SW\_ZZ\_ZZ\_DR-CH-0002
- Summary The proximity of the drainage basin to the edge of the A4130 footway could present a hazard to pedestrians

#### Description:

The Valley Park Drainage Basin will be located alongside the A4130 between the Valley Park Western Access junction and the Northern Roundabout. (A note on the drawing indicates that the Valley Park Drainage Basin locations and construction strip to be confirmed).

The cross section C-C shows a low fence at the back of the southern footway with an embankment detailed behind it. However, the plan shows the basins hard up against the back of the footway. A low fence with a drop behind it could present a potential hazard to pedestrians using the footway.

#### **Recommendation:**

It is recommended that higher stock-proof post and rail fencing is provided at the back of the footway to prevent any incursion into the drainage basin by the public.

THE ALIGNMENT:

No comments

#### THE JUNCTIONS:

#### Problem: 3.3

- Location: A4130 Valley Park junction Right turning lane
- Drawing: WID PD-ACM-HGA-SW\_ZZ\_ZZ\_DR-CH-0002
- Summary The length of the A4130 right turning lane for the valley park junction might be too short if the right turn runs on a separate stage

#### Description:

An automatic traffic signal-controlled junction will be provided on the A4130 dual carriageway for the Valley Park western access. A segregated right turn lane will be provided behind the eastbound stop line.

The drawing indicates that a right turning lane approximately 50m long with a 15m direct taper will be provided behind the stop line – this will accommodate approximately six vehicles behind the stop line clear of the offside eastbound traffic lane. There is concern that if the right turn is held separately when the eastbound traffic lanes run that the number of right turners might exceed the stacking space. Those vehicles intending to turn right at the junction that have to slow down or stop in the offside lane could be left vulnerable to conflict with a through vehicle(s) in the offside lane.

#### **Recommendation:**

It is recommended that the right turning lane is extended to increase the number of vehicles that can wait clear of the offside eastbound traffic lane.

#### NON-MOTORISED USER PROVISION:

No comments

#### ROAD SIGNS, CARRIAGEWAY MARKINGS AND STREET LIGHTING:

#### Problem: 3.4

- Location: Backhill, Northern & Science Bridge RBTs Turn Left signs
- Drawing: WID PD-ACM-HGA-SW\_ZZ\_ZZ\_DR-CH-0001 & 0003
- Summary Regulatory 'Turn Left' signs should be provided opposite the roundabout entries

#### Description:

Three new roundabouts; Backhill Roundabout, Northern Roundabout & Science Bridge Roundabout will be provided as part of the A4130 Widening scheme.

The drawings indicate the provision of Chevron signs, to Diag 515 opposite each of the roundabout entries, but the regulatory Turn Left signs, are not shown on the drawings – presumed to be a drawing error.

#### **Recommendation:**

Turn Left signs, to Diag 606 should be provided on the central islands opposite each of the roundabout entries, in association with the chevron signs.



We certify that this Road Safety Audit has been carried out all in the accordance with the requirements of DMRB

# **Audit Team Statement**

GG 119 Road Safety Audit.

#### **Road Safety Audit Team Leader**

Ian Batcock

Senior Engineer

AECOM

Aecom House

63 - 77, Victoria Street

St Albans

Herts, AL1 3ER

### **Road Safety Audit Team Member**

Baber Beg

Senior Consultant

AECOM

Date

17 December 2020

AECOM

17 December 2020

Here

Signed:

Signed:

Date

Sunley House

4 Bedford Park

Croydon

Surrey, CR0 2AP



# List of Drawings Provided

Drawing No.	Rev	Description	Date
WID PD-ACM-HGA-SW_ZZ_ZZ- SW_CH_0001		DGT HIF 1 Schemes - A4130 Widening Preliminary Design - Audit Brief	15/12/2020
WID PD-ACM-HGA-SW_ZZ_ZZ- DR-CH-0001 to 0003	P03.1	A4130 Widening – Preliminary Design General Arrangement (Sheets 1 to 3)	17/11/2020
WID PD-ACM-HGN-SW_ZZ_ZZ_ZZ- DR-CH-0024 to 0028, 0038	P01.1	A4130 Widening – Preliminary Design Contours (Sheets 1 to 6)	26/11/2020
WID PD-ACM-HGN-SW_ZZ_ZZ_Z DR-CH-0029 to 0040	P01.1	A4130 Widening – Preliminary Design Cross sections (Sheets 1 to 11)	02/11/2020
WID PD-ACM-HGN-SW_ZZ_ZZ_Z DR-CH-0040 to 0043	P01	A4130 Widening – Preliminary Design Long sections (Sheets 1 to 4)	26/10/2020
WID PD-ACM-HLG- SW_LTG_ZZ_ZZ-DR-LE-1301 to 1303	P01.1	A4130 Widening – Preliminary Design Lighting Layout (Sheets 1 to 3)	26/11/2020
WID PD-ACM-HML-SW_ZZ_ZZ_ZZ- DR-CH-0001 to 0014	P01.2	A4130 Widening – Preliminary Design Swept Path Analysis (Sheets 1 to 14)	23/11/2020
WID PD-ACM-HGA-SW_ZZ_ZZ_ DR-CH-0015 to 0016	P01.1	A4130 Widening – Preliminary Design SPA Abnormal Load (Sheets 1 and 2)	19/11/2020



# **Problem Identification Plans**









# Road Safety Audit Decision Log

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.1	It might be difficult to promote compliance with the proposed 40mph speed limit on the section of the two-lane dual carriageway between the Backhill and Northern roundabouts	It is recommended that the 40mph speed limit is reviewed once the road is open to traffic.	Agree with Auditor's recommendation. The proposed 40mph speed limit will be reviewed once the road is open to traffic.		Undertake a review of the 40mph speed limit after the road is open to traffic
3.2	The proximity of the drainage basin to the edge of the A4130 footway could present a hazard to pedestrians	It is recommended that higher stock-proof post and rail fencing is provided at the back of the footway to prevent any incursion into the drainage basin by the public.	Agree with Auditor's, higher fence to be provided at the back of the footway.		Design to be amended to specify a taller fence at the back of the footway where in close proximity to proposed drainage basins
3.3	The length of the A4130 right turning lane for the valley park junction might be too short if the right turn runs on a separate stage	It is recommended that the right turning lane is extended to increase the number of vehicles that can wait clear of the offside eastbound traffic lane.	Reject Auditor's recommendation. The right turning lane has a proposed length of 45m which the traffic model indicates is sufficient length if the right turn runs on a separate stage, as is proposed. The LinSig model produced for this junction estimates the following Mean Maximum Queue (MMQ) lengths • 2034 AM 1.8 PCUs (approx. 10m) • 2034 PM 5.5 PCUs (approx. 30m) The proposed right turn lane is 45m in length and is therefore of sufficient length to accommodate the predicted maximum MMQ (2034 PM) with additional room to spare		No change to design

3.4	Regulatory 'Turn Left' signs should be provided opposite the roundabout entries	Turn Left signs, to Diag 606 should be provided on the central islands opposite each of the roundabout entries, in association with the chevron signs.	Agree with Auditor's recommendation. Turn Left signs, to Diag. 606 to be provided on the central islands opposite each roundabout entry, in association with the chevron signs.		Design to be amended to include Diag. 606 signs opposite each roundabout entry.
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# Design Organisation statement

### On behalf of the design organisation I certify that:

# 1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation

Name:	Abdirashid Ahmed	
Signed:	A. Ahmed	
Position	Principal Engineer	
Organisation:	AECOM	
Date	02/02/2021	

# **Overseeing Organisation statement**

On behalf of the Overseeing Organisation I certify that:

- 2) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation
- 3) the agreed RSA actions will be progressed.

Name:	
Signed:	
Position	
Organisation:	
Date	

#### About AECOM

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Didcot Garden Town HIF 1 Schemes Didcot Science Bridge Road Safety Audit Stage 1

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### **Quality information**

Document name	Ref	Prepared for	Prepared by	Date	Reviewed by / Verified by
DGT - Didcot Science Bridge	6698R/RSA01	Oxfordshire CC	lan Batcock	November 2020	Baber Beg/ Dakshesh Lad

### **Revision history**

Revision	Revision date	Details	Name	Position
0	6 Nov 2020	Draft Issue	Ian Batcock	Road Safety Auditor
P01	16 Nov 2020	Designers Response added	Andy Blanchard	Project Manager
P02	03 Dec 2020	Final - signed version	Andy Blanchard	Project Manager

This document has been prepared by AECOM Limited for the sole use of our client (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM Limited and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM Limited, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM Limited.

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# Introduction

AECOM was commissioned by Oxfordshire County Council to complete a Stage 1 Road Safety Audit for the proposals for the Didcot Science Bridge as part of the Didcot Garden Town Development.

The Road Safety Audit Team membership, approved by the Overseeing Organisation, Project Sponsor, was as follows:

Ian Batcock	MCIHT, MSoRSA
Team Leader	IAN 152/11 Certificate of Competency AECOM, St Albans
Baber Beg Team Member	MCIHT, MSoRSA AECOM, Croydon

The audit comprised of a review of the supplied drawings listed in Appendix A, which were examined during week commencing 2<sup>nd</sup> November 2020. The Client has instructed that a daytime site inspection by the Audit Team is not required as a site inspection was carried out for the previous Stage 1 road safety audit in January 2020. The section of A4130 that will connect into the Didcot Science Bridge is currently subject to the national speed limit (60mph).

### **Works Summary**

The proposed Didcot Science Bridge will facilitate the redevelopment of the decommissioned Didcot A Power Station site as a key part of the proposed development of the Science Vale area.

It is proposed to provide a new road over the railway via a new bridge to provide access to the former power station site and provide part of a strategic link between the A34 at Milton Interchange and the Didcot Northern Perimeter Road. The bridge is also intended to alleviate pressure on existing transport infrastructure in the Didcot area, predominately the existing A4130/B4493 roundabout, the A4130/Basil Hill Road roundabout and the A4130/Hawksworth roundabout.

The proposal includes providing a single carriageway link between the proposed A4130 Widening west of the Western Park development and the A4130 Didcot Northern Relief Road. The road corridor will also include cycle and footway facilities alongside the new road, as well as a number of formal controlled crossing points. The new road across the Didcot Science Bridge will be subject to a 30mph speed limit.

### **Special Considerations**

The proposed scheme will require the relocation of the RWE security gatehouse (indicated on Sheet 2) and also the relocation of one of the two drainage lagoons (indicated on Sheet 3). The details of these relocations are not yet confirmed, so should be excluded from the RSA scope. (-taken directly from the audit brief).

### **Terms of Reference**

The Terms of Reference of this Audit are as described in DMRB GG 119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and how it impacts on all road users and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit. An absence of comment relating to specific road users / modes in Section 3 of this report does not imply that they have not been considered, instead the Audit Team feel they are not adversely affected by the proposed changes.

This Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they will not be raised in Section 3 of this report as they fall outside the remit of Road Safety Audit in general as specified in the procedure GG 119. Any safety issues identified during the Audit and site visit that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, will be set out in separate correspondence.

Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.

The Audit Team has been provided with collision data for the five-year period between 09/06/2014 and 08/06/2019. There has been a total of 36 collisions recorded within the vicinity of the scheme's extents, with 42 casualties. The data does not show any clear evidence of deterioration or improvement in road safety in the study area. One collision involved a pedestrian and 21 involved cyclists. Of the 21 cycle collisions, almost all occurred at one of the three roundabouts within the study area, including 11 collisions at the Basil Hill Road/Milton Road roundabout. The collision report indicates that 95% of the collisions involving cyclists can be attributed to contributory factors made by the vehicle driver.

In accordance with GG 119, this Audit has a maximum shelf life of 5 years. If the scheme does not progress to the next stage in its development within this period, then the scheme should be re-audited.

Unless general to the scheme, all comments and recommendations are referenced to the drawings supplied in the audit brief, and the locations have been indicated on the plan in Appendix B where appropriate.



# Items Raised at Previous Road Safety Audits

- 2.1 The Audit Team has been provided with a previous road safety audit carried out for the concept design for the Didcot Science Bridge. The Stage 1 road safety audit (SA Ref: DGT Package B Didcot Science Bridge 6632R/RSA01) was carried out by AECOM during January 2020. The Designer's responses and the Client's comments have been added to the report, and the course of action agreed was issued on 28<sup>th</sup> February 2020.
- **2.2** The previous road safety audit raised 5 problems, the recommendations to which have been accepted or partially accepted. Further investigations have been carried out and the accepted recommendations have been implemented at the preliminary design stage of the scheme.
- **2.3** It is therefore assumed that the issues raised in the previous road safety audit have been resolved to the satisfaction of the Project Sponsor and require no further comment by the Audit Team.



# Items Raised at this Stage 1 Road Safety Audit

3.1.1 The following Problems have been identified from the documents submitted:

#### GENERAL

#### Problem: 3.1

- Location: Didcot Science Bridge (DSB) Link Road Bus Stops
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_DR-CH-0001 to 0003 Rev P03
- Summary Poorly located shelters could leave waiting bus passengers more vulnerable to conflict with an on-coming cyclist



Description:

Sections of unsegregated cycleway/footway will be provided to accommodate the bus stops for eastbound and westbound bus services along the link.

It is assumed that shelters will be provided with the bus stops, (which have not been shown on the drawings at the preliminary design stage). The cycleway elements of the adjacent segregated cycleway/footways are located alongside the carriageway. Bus shelters located poorly in these shared use areas could leave passengers waiting for a bus more vulnerable to conflict with an on-coming cyclist.

#### **Recommendation:**

The bus shelters should be located at the back of the shared use areas in order to reduce the risk of conflict between waiting bus passengers and passing cyclists. The Highway Authority might wish to see that cantilevered type bus shelters are used to ensure that visibility sight lines can be achieved and maintained between waiting passengers and on-coming cyclists.

- Location: DSB Link Road Speed Limit terminal signs
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0003 Rev P03
- Summary The change to the lower speed limit is too close to the Toucan crossing and the junction with the Old A4130 side road junction



Description:

The Didcot Science Bridge link road will be subject to a 30mph speed limit.

The drawing indicates that the speed limit at the eastern end of the scheme will change from 40 to 30mph just to the east of a signal-controlled (TOUCAN) crossing and the Old A4130 side road junction. There is a risk that some westbound vehicles will carry speed from the higher speed limit into the scheme, which could leave a cyclist or pedestrian attempting to use the crossing more vulnerable to conflict with an errant vehicle.

#### **Recommendation:**

The change of speed limit should be located at least the desirable minimum stopping sight distance for the lower speed limit from the crossing.

#### THE ALIGNMENT:

#### Problem: 3.3

- Location: DSB Link Road Side road junctions
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 to 0003 Rev P03
- Summary There is no surface water drainage provision shown for the side road junctions in association with the raised entry treatments



#### Description:

The side road junctions will be provided with a raised entry treatment.

It is unclear from the drawings whether the side roads rise or fall away from the mainline carriageway. There is a kerb upstand between the cycle track and the two-way carriageway. A lack of suitable drainage could lead to the collection of surface water run-off, which could present a hazard for road users.

#### **Recommendation:**

Surface water drainage should be provided in areas where rainwater run-off is liable to collect.

#### THE JUNCTIONS:

#### Problem: 3.4

- Location: DSB Link Road Side road junctions
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 to 0003 Rev P03
- Summary The position of the side road give way line could have a detrimental effect on the safety of those pedestrians crossing the side road



Description:

The side road junctions will be provided with a raised entry treatment. The uncontrolled pedestrian crossing and the two-way cycle track will cross the plateaux of the entry treatments.

The drawing indicates that the side road give way line will be provided on the plateau of the entry treatment between the pedestrian crossing and the back of the cycle track. A lack of guidance could leave a pedestrian attempting to cross the junction more vulnerable to conflict with an on-coming vehicle approaching from the side road.

#### **Recommendation:**

The give way line should be moved back into the side road to the bottom of the raised entry treatment ramp. It should be ensured that the visibility splays for the side road junction can be achieved and maintained from this new position for the give way line.

#### NON-MOTORISED USER PROVISION:

#### Problem: 3.5

- Location: Side road junctions Turning right of way
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0002 Rev P03
- Summary It is unclear from the proposed road layout who has right of way at the side road junctions



Description:

The two-way cycle tracks on each side of the link road will continue past the side road junctions, (except for the junction with Old A4130).

There is no indication of who has right of way at a side road junction. The drawings imply that a cyclist may continue along the two-way cycle track across the junction without giving way to vehicles turning into the side road. A vehicle driver seeking a gap in on-coming traffic may turn into a side road without regard for a cyclist approaching from behind them and come into conflict with the cyclist, with the risk of a collision occurring as a result.

#### **Recommendation:**

Junction warning signs with sub-plates bearing the legend "Give way to cyclists" could be provided on both of the approaches to the side road junctions; to highlight to turning vehicle drivers that they might encounter cyclists crossing the junction.

- Location: Old A4130 Parallel crossing
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0003 Rev P03
- Summary A lack of guidance on the western side of the (ref crossing could lead to some pedestrians joining <sub>ED</sub> the cycle track instead of the footway



Description:

A 'raised' Parallel crossing will be provided across the Old A4130 just south of the junction with the link road.

There is no unsegregated shared use area on the western side of the crossing shown on the drawings. There is a risk that pedestrians crossing east to west may join the cycle track element in error, which could leave them vulnerable to conflict with an on-coming cyclist.

#### **Recommendation:**

The segregated cycleway/footway on the western side of the crossing should be terminated with an appropriate layout of 'Tramline/Ladder pattern' tactile paving; to create a shared use waiting area alongside the crossing.

Upright signs, to Diag 956 and Diag 957 should be provided in association with the segregated/unsegregated cycleway/footway transition on this western side of the crossing.

#### ROAD SIGNS, CARRIAGEWAY MARKINGS AND STREET LIGHTING:

#### Problem: 3.7

- Location: Controlled crossings Warning signs
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 to 0003 Rev P03
- Summary The warning signs for the Parallel crossings are likely to be too far from the crossings to provide sufficient warning for approaching drivers



#### Description:

Zebra crossing warning signs with sub-plates bearing the legend "Parallel crossing" will be provided on both of the approaches to the controlled crossings on the link road, (-the former Parallel crossing to the east of the Old A4130 junction has been converted to a signal-controlled Toucan crossing and no longer needs warning signs).

The Parallel crossing warning signs are located approximately 100m from the respective crossing sites. There is a risk that signs located at these distances from the crossings may not highlight the presence of the Parallel crossings, especially where they fall prior to side road junctions, which could leave cyclists attempting to cross more vulnerable to conflict with an errant on-coming vehicle.

#### **Recommendation:**

The warning signs should be located closer to the Parallel crossings. The locations of the upright signs should be designed carefully to ensure that they can be clearly seen on the immediate approaches to the crossings.

- Location: DSB Link Road Segregated cycleway/footways
- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 to 0003 Rev P03
- Summary There are no upright signs for the segregated cycleway/footways shown on the drawings



#### Description:

Upright warning signs have been provided for the sections of unsegregated cycleway/footway at the transitions for the new crossings and bus stops.

There are no upright signs proposed for the segregated sections of cycleway/footway along the link road. A lack of guidance could lead to some pedestrians straying into the adjacent cycle track with a risk of tripping on the small kerb upstand between the two elements of the cycleway/footway.

#### **Recommendation:**

Suitably handed upright signs, to Diag 957 should be provided mounted back to back with the Diag 956 where the segregated sections of cycleway/footway commence. The Highway Authority may wish to see that repeater signs to Diag 957 are provided for the long distance sections.

Location:	DSB Link Road Crossings Street Lighting
Drawing:	DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ-DR-CH-0001 to 0003 Rev P03
Summary	There is no street lighting to the west of the Old

A4130 junction shown on the drawings

#### Description:

Street lighting has been provided for the link road junction with the Old A4130 junction and its approaches.

There is no street lighting shown on the other sections of the link road. There is a risk that those pedestrians and cyclists attempting to use the Parallel crossings during the hours of darkness could be left more vulnerable to conflict with an errant on-coming vehicle. This issue is likely to be exacerbated during poor weather conditions.

#### **Recommendation:**

It is recommended that at least floodlights are provided for the Parallel crossings so that pedestrians and cyclists that have right of way on the controlled crossings can be clearly seen by approaching vehicle drivers during the hours of darkness.

Location: DSB Link Road Speed limit/Street Lighting

- Drawing: DSB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_DR-CH-0001 to 0003 Rev P03
- Summary There is no street lighting to the west of the Old A4130 junction shown on the drawings, which could bring the 30mph speed limit into disrepute

#### Description:

The Didcot Science Bridge link road will be subject to a 30mph speed limit.

There is no street lighting shown on the link road west of its junction with Old A4130. The new link road will become de-restricted west of the proposed street lighting, and will revert to the national speed limit. Vehicle drivers are likely to travel at inappropriate speeds, above the design speed for the horizontal curves in the road alignment, which could increase the risk of a loss of control type collision occurring.

#### **Recommendation:**

A system of 30mph repeater signs should be provided on the unlit section of the Didcot Science Bridge link road; so that the speed limit canA be enforced.



We certify that this Road Safety Audit has been carried out all in the accordance with the requirements of DMRB

# **Audit Team Statement**

GG 119 Road Safety Audit.

#### Road Safety Audit Team Leader

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#### Road Safety Audit Team Member

Baber Beg

Signed:

Signed:

Date

Senior Consultant

AECOM

Date

5 November 2020

Here

Sunley House

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Surrey, CR0 2AP

4 November 2020



# **List of Drawings Provided**

Drawing No.	Rev	Description	Date
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ DR-CH-0001 to 0003	P03	Didcot Science Bridge – Preliminary General Arrangement Sheets 1 to 3	27/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ DR-CH-0101 to 0103	P01	Didcot Science Bridge – Preliminary Swept Path Analysis Sheets 1 to 3	20/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ DR-CH-0121 to 0123	P01	Didcot Science Bridge – Preliminary Long Section Sheets 1 to 3	27/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ- DR-CH-0124 to 0126	P01	Didcot Science Bridge – Preliminary Contour Plan Sheets 1 to 3	27/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ DR-CH-0127 to 0129	P01	Didcot Science Bridge – Preliminary Cross sections Sheets 1 to 3	27/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ- DR-CH-0136	P01	Didcot Science Bridge – Preliminary Swept Path Analysis Junction 1	20/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ- DR-CH-0137	P01	Didcot Science Bridge – Preliminary Swept Path Analysis Junction 3	20/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ- DR-CH-0138	P01	Didcot Science Bridge – Preliminary Swept Path Analysis Junction 5	20/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ DR-CH-0139	P01	Didcot Science Bridge – Preliminary Swept Path Analysis Junction 6	20/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ DR-CH-0140	P01	Didcot Science Bridge – Preliminary Swept Path Analysis Junction 7	20/10/2020
DSB_PD-ACM-HGA-SW_ZZ_ZZ_ZZ- DR-CH-0141	P01	Didcot Science Bridge – Preliminary Swept Path Analysis Abnormal Load	20/10/2020
DSB_PD-ACM-HHC-SW_ZZ_ZZ_ DR-CH-0004 to 0006	P01	Didcot Science Bridge – Preliminary VRS Sheets 1 to 3	05/10/2020
DSB_PD-ACM-HLG-SW_LTG_ZZ_ZZ- DR-LE-1301 to 1303	P02	Didcot Science Bridge – Preliminary Street Lighting Sheets 1 to 3	27/10/2020



# **Problem Identification Plans**



## THE REBORED THAT A DAME OF DUTING A DOME APPROPRIATE TO AR OR THREE WARDERS AND BE ATTENT CONTRACT A TO BE USED ONLY FOR THE PURPORT OF MAKE PRELIMINARY DESIDE DRAMING CTUD REAL TO NOTE IN CURREN OR MAINTENANCE / OPERATION / DECOMMISSIONIN WE DEMOLITION RISKS SEE PROJECT HEALTH AND LICETY OF E CT11 ALL COMPARISON AND IN METHOD LALERS COMPARISON AND AND ADDRESS AND Purchan Chevala An Units, I Convince a sector of convects another MMMMs and Tomostanetics, another an I Marcial Montella And Santa Converting Marcial Another and Antional And Antion To Marcial And Tomostanetics and And To Marcial And Tomostanetics Concerns and Antion Converting And Antion To Marcial And Marcial Intelligence and Antion I Concerns and Antion Converting And Antion To Marcial Andread Intelligence and Antion Marcial Intelligence and Antional Marcial Intelligence and Antion Marchanet and Antion Tomo Tom Converting Anti-Marchanet Andread Intelligence and Antion Marchanet Andread Intelligence and Antion Marchanet Andread Intelligence and Antion Marchanet Andread Intelligence Antional Antion Marchanet Antional Intelligence Andread Intelligence Antional Antional Antional Intelligence Antional Antion Marchanet Antional Antio PROJECTIVE INFORMATION TO BE CARE VALUE OF THE THEORY OF THEOREM CONTENTS OF THE SERVICE THEOREM IN A CONTENT OF THE SERVICE DAVISION OF A CONTENT OF THE SERVICE OF THE NEW POSTYLE AND A CAREFUL AND A CONTENTS OF CHARGES CONTENTS AND A CAREFUL AND A CONTENTS OF CAREFUL AND A CAREFU THE DRAWING RESISTOR THESE VILL BE DETERMINED AT A LATER DETAILS STATE OACH THE RECURRENT UTLET OWNERSON WEITHALLING ROUCLINNEN SCOMPLYWEITH TWINNEN TRUCK 2014, NJ, BORNON LOCATOM AND RESERVED IN MICH. INFORMATION AND RESERVED INCOMPLYMENT OF ANY RECORDER DIRECTORY. DRIAL AND REPORT AND ADDRESS DIRECTORY. DRIAL AND AND ADDRESS DIRECTORY. DEPENDING ON THE 32E OF THE 32E PLACEMENT MONTHEED TO BE REVEALED ON FACELINES DRAF PRST 69.6 REAT DRAFT SUBVISION POATED FIRST DRAFT REVISION DETAILS SUITABLE FOR COMMENT SCIENCE BRIDGE DIDCOT GARDEN TOWN HIF 1 SCHEMES HIGHWAYS PRELIMINARY GENERAL ARRANGEMENT SHEET 1 OF 3 AGE 27/1 2004 ABOOM

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## Road Safety Audit Decision Log

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.1	Sections of unsegregated cycleway/footway will be provided to accommodate the bus stops for eastbound and westbound bus services along the link. It is assumed that shelters will be provided with the bus stops, (which have not been shown on the drawings at the preliminary design stage). The cycleway elements of the adjacent segregated cycleway/footways are located alongside the carriageway. Bus shelters located poorly in these shared use areas could leave passengers waiting for a bus more vulnerable to conflict with an on-coming cyclist.	The bus shelters should be located at the back of the shared use areas in order to reduce the risk of conflict between waiting bus passengers and passing cyclists. The Highway Authority might wish to see that cantilevered type bus shelters are used to ensure that visibility sight lines can be achieved and maintained between waiting passengers and on-coming cyclists.	Agree with Auditor's recommendation, if provided bus shelters are to be located at the back of the shared use areas. Client to clarify if bus shelters will be provided.	Agreed with the designers response.	If specified, bus shelters are to be located at the back of the shared use areas.
3.2	The Didcot Science Bridge link road will be subject to a 30mph speed limit. The drawing indicates that the speed limit at the eastern end of the scheme will change from 40 to 30mph just to the east of a signal-controlled (TOUCAN) crossing and the Old A4130 side road junction. There is a risk that	The change of speed limit should be located at least the desirable minimum stopping sight distance for the lower speed limit from the crossing.	Agree with Auditor's recommendation. Change of speed limit location to be moved 90m from the crossing stop line as per CD 109, Table 2.10 – Design speed related parameters (stopping sight distance).	Agreed with the designers response.	Design drawing to be amended to show change of speed limit location 90m east of the crossing westbound stop line

	· · · · · · · ·	1	Γ	1	r
3.3	some westbound vehicles will carry speed from the higher speed limit into the scheme, which could leave a cyclist or pedestrian attempting to use the crossing more vulnerable to conflict with an errant vehicle. The side road junctions will be provided with a raised entry treatment. It is unclear from the drawings whether the side roads rise or fall away from the mainline carriageway. There is a kerb upstand between the cycle track and the two-way carriageway. A lack of suitable drainage could lead to the collection of surface water run-off, which could present a hazard for road users.	Surface water drainage should be provided in areas where rainwater run-off is liable to collect.	Agree with Auditor's recommendation. However, design is being carried out by third party.	Agreed with the designers response. Coordination to continue to ensure there is sufficient drainage to manage the surface water run-off.	Contact developer who is delivering the design of this section of the scheme, to inform them that appropriate drainage gullies are to be provided.
3.4	The side road junctions will be provided with a raised entry treatment. The uncontrolled pedestrian crossing and the two-way cycle track will cross the plateaux of the entry treatments. The drawing indicates that the side road give way line will be provided on the plateau of the entry treatment between the pedestrian crossing and the back of the cycle track. A lack of guidance could leave a pedestrian attempting to cross	The give way line should be moved back into the side road to the bottom of the raised entry treatment ramp. It should be ensured that the visibility splays for the side road junction can be achieved and maintained from this new position for the give way line.	Rejected – following LTN 1/20, specifically Figure 10.13 "Priority crossings of cycle tracks at side roads" the design shall follow the below image:	No change is required by the designer.	No change to design

	the junction more vulnerable to conflict with an on-coming vehicle approaching from the side road.				
3.5	The two-way cycle tracks on each side of the link road will continue past the side road junctions, (except for the junction with Old A4130). There is no indication of who has right of way at a side road junction. The drawings imply that a cyclist may continue along the two-way cycle track across the junction without giving way to vehicles turning into the side road. A vehicle driver seeking a gap in on-coming traffic may turn into a side road without regard for a cyclist approaching from behind them and come into conflict with the cyclist, with the risk of a collision occurring as a result.	Junction warning signs with sub-plates bearing the legend "Give way to cyclists" could be provided on both of the approaches to the side road junctions; to highlight to turning vehicle drivers that they might encounter cyclists crossing the junction.	Rejected – to avoid street clutter no warning signs are proposed. Additionally, any warning signs would not be clearly visible as they would be located at least 5m from the edge of the carriageway (behind the cycleway and footway to avoid causing an obstruction. However, it is proposed that a coloured surfacing be applied across the mouth of the side road junctions to highlight the cycleway and the potential presence of cyclists at these locations.	Agreed that only coloured surfacing across the junction is necessary.	Design drawing to be amended to show coloured surfacing of the cycleway across the mouths of the side road junctions.
3.6	A 'raised' Parallel crossing will be provided across the Old A4130 just south of the junction with the link road. There is no unsegregated shared use area on the western side of the crossing shown on the drawings. There is a risk that pedestrians crossing east to west may join the cycle track element in error, which could	The segregated cycleway/footway on the western side of the crossing should be terminated with an appropriate layout of 'Tramline/Ladder pattern' tactile paving; to create a	Rejected – the layout proposed is relatively straight, with good sightlines and it will be clear to any users approaching from the east, that the crossing and western side are segregated. However, it is proposed that a sign to Diag 957 and cycle symbol road markings associated with the segregated facility are provided to enhance	Agreed that only cycle symbol and sign is necessary at this location	Design drawing to be amended to show Diag 957 sign on a bollard and cycle symbols at this location.

	leave them vulnerable to conflict with an on-coming cyclist.	shared use waiting area alongside the crossing. Upright signs, to Diag 956 and Diag 957 should be provided in association with the segregated/unsegregated cycleway/footway transition on this western side of the crossing.	users comprehension of the proposed layout.		
3.7	Zebra crossing warning signs with sub-plates bearing the legend "Parallel crossing" will be provided on both of the approaches to the controlled crossings on the link road, (-the former Parallel crossing to the east of the Old A4130 junction has been converted to a signal- controlled Toucan crossing and no longer needs warning signs). The Parallel crossing warning signs are located approximately 100m from the respective crossing sites. There is a risk that signs located at these distances from the crossings may not highlight the presence of the Parallel crossings, especially where they fall prior to side road junctions, which could leave cyclists attempting to cross more vulnerable to conflict	The warning signs should be located closer to the Parallel crossings. The locations of the upright signs should be designed carefully to ensure that they can be clearly seen on the immediate approaches to the crossings.	Agree with Auditor's recommendation, proposing the warning signs 45m away from stop line where possible (distance shall be between 45- 100m).	Agreed with the designers response.	Design drawing to be amended to show the proposed warning signs closer to the parallel crossings.

	with an errant on-coming vehicle.				
3.8	Upright warning signs have been provided for the sections of unsegregated cycleway/footway at the transitions for the new crossings and bus stops. There are no upright signs proposed for the segregated sections of cycleway/footway along the link road. A lack of guidance could lead to some pedestrians straying into the adjacent cycle track with a risk of tripping on the small kerb upstand between the two elements of the cycleway/footway.	Suitably handed upright signs, to Diag 957 should be provided mounted back to back with the Diag 956 where the segregated sections of cycleway/footway commence. The Highway Authority may wish to see that repeater signs to Diag 957 are provided for the long distance sections.	Partially agree with Auditor's recommendation – it is proposed that suitable signs are provided segregated sections of cycleway/footway commence. Signs to Diag. 956 and 957 to be mounted back to back on bollards. However, repeater signs to Diag 957 is rejected to minimise street cluttering.	Agreed with the findings that back to back bollards to be provided on the shared surface rather than provide additional signs.	Design drawing to be amended to show double sided bollards with Diag. 956 and 957 sign faces where segregated sections of cycleway/footway commence.
3.9	Street lighting has been provided for the link road junction with the Old A4130 junction and its approaches. There is no street lighting shown on the other sections of the link road. There is a risk that those pedestrians and cyclists attempting to use the Parallel crossings during the hours of darkness could be left more vulnerable to conflict with an errant on-coming vehicle. This	It is recommended that at least floodlights are provided for the Parallel crossings so that pedestrians and cyclists that have right of way on the controlled crossings can be clearly seen by approaching vehicle drivers during the hours of darkness.	Agree with Auditor's recommendation. However, design is being carried out by third party.	Agreed and further coordination to take place with the developer to ensure that there is sufficient light at the crossing.	Contact developer who is delivering the design of this section of the scheme, to inform them that appropriate street lighting is to be provided.

	issue is likely to be exacerbated during poor weather conditions.				
3.10	The Didcot Science Bridge link road will be subject to a 30mph speed limit. There is no street lighting shown on the link road west of its junction with Old A4130. The new link road will become de- restricted west of the proposed street lighting, and will revert to the national speed limit. Vehicle drivers are likely to travel at inappropriate speeds, above the design speed for the horizontal curves in the road alignment, which could increase the risk of a loss of control type collision occurring.	A system of 30mph repeater signs should be provided on the unlit section of the Didcot Science Bridge link road; so that the speed limit can be enforced.	Agree with Auditor's recommendation, 30mph repeater signs should be provided in the unlit section of the link road.	Agreed with the designers response.	Design drawing to be amended to show 30mph repeater signs through unlit sections.



## Design Organisation statement

## On behalf of the design organisation I certify that:

# 1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation

Name:	Abdirashid Ahmed
Signed:	A. Ahmed
Position:	Principal Engineer
Organisation:	AECOM
Date:	02/12/2020

### **Overseeing Organisation statement**

On behalf of the Overseeing Organisation I certify that:

- 2) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation
- 3) the agreed RSA actions will be progressed.

Name:	Simon Wanklyn
Signed:	french
Position	Engineering and Assurance Manager
Organisation:	Oxfordshire County Council
Date	5 <sup>th</sup> December 2020
#### About AECOM

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Didcot Garden Town HIF 1 Schemes Didcot to Culham River Crossing Road Safety Audit Stage 1

Stage 1 Road Safety Audit Report

November 2020

Didcot Garden Town HIF 1 Schemes Didcot to Culham River Crossing Road Safety Audit Stage 1

### **Quality information**

Document name	Ref	Prepared for	Prepared by	Date	Reviewed by / Verified by
DGT - Didcot to Culham River Crossing	6705R/RSA01	Oxfordshire CC	lan Batcock	November 2020	Baber Beg/ Abdirashid Ahmed

### **Revision history**

Revision	Revision date	Details	Name	Position
0	24 Nov 2020	Draft Issue	Ian Batcock	Road Safety Auditor
1	1 Dec 2020	Design Org Response added	Hein Pretorius	Principal Engineer
2	8 January 2021	Overseeing Org Response added. Agreed Actiions added.	David Riach	Associate

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# Introduction

AECOM was commissioned by Oxfordshire County Council to complete a Stage 1 Road Safety Audit for the proposals for the Didcot Culham River Crossing as part of the Didcot Garden Town Development.

The Road Safety Audit Team membership, approved by the Overseeing Organisation, Project Sponsor, was as follows:

lan Batcock	MCIHT, MSoRSA
Team Leader	IAN 152/11 Certificate of Competency AECOM, St Albans
Baber Beg Team Member	MCIHT, MSoRSA AECOM, Croydon

The audit comprised of a review of the supplied drawings listed in Appendix A, which were examined during week commencing 16 November 2020. A previous visit to the site was made by both members of the audit team together in the morning and afternoon of Wednesday 22<sup>nd</sup> January 2020 between 11.00am and 1.00pm as part of the Stage 1 road safety audit for the feasibility design. The Project Sponsor has indicated that a further daytime inspection of the scheme proposals is not required.

### **Works Summary**

The Didcot Culham River Crossing scheme will provide a new link road between the A4130 at Didcot and the A415 Abingdon Road near the Culham Science Centre entrance, including a new full standard river crossing.

This corridor will link with the proposed Clifton Hampden Bypass to the north via Abingdon Road near the Culham Science Centre, and the proposed Didcot Science Bridge scheme to the west and the A4130 Widening towards Milton Interchange. The main objectives of the new corridor are to improve accessibility and provide congestion relief on the existing road network by providing an alternative, direct route between Didcot, Appleford and Culham.

The scheme objectives include improving conditions for walking, cycling and horse-riding in the area, as there are currently no direct connections or facilities along the route. This is likely to include segregated facilities for pedestrians and cyclists along the corridor with crossings at junctions and connections to adjacent routes.

### **Special considerations**

Departures from Standards will be applied for concerning the positioning of the bus stops for northbound and southbound services opposite one another on the Didcot Culham link road between the Collett and Abingdon Roundabouts. Consequently, the positions of these bus stops will not be scrutinised as part of this road safety audit.

### **Terms of Reference**

The Terms of Reference of this Audit are as described in DMRB GG 119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and how it impacts on all road users and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit. An absence of comment relating to specific road users / modes in Section 3 of this report does not imply that they have not been considered, instead the Audit Team feel they are not adversely affected by the proposed changes.

This Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they will not be raised in Section 3 of this report as they fall outside the remit of Road Safety Audit in general as specified in the procedure GG 119. Any safety issues identified during the Audit and site visit that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, will be set out in separate correspondence.

Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.

The Audit Team has been provided with collision data for the five-year period between 09/06/2014 and 08/06/2019. There was a total of 36 collisions recorded within the scheme's extents during this period, which resulted in 47 casualties. None of the collisions involved a fatality, 8 of the collisions resulted in 8 casualties with injuries of serious severity, and 28 collisions resulted in 39 casualties with injuries of slight severity.

In accordance with GG 119, this Audit has a maximum shelf life of 5 years. If the scheme does not progress to the next stage in its development within this period, then the scheme should be re-audited.

Unless general to the scheme, all comments and recommendations are referenced to the drawings supplied in the audit brief, and the locations have been indicated on the plan in Appendix B where appropriate.



## Items Raised at Previous Road Safety Audits

- 2.1 A previous Stage 1 road safety audit was undertaken for the feasibility design stage for the Didcot Culham-River Crossing scheme (SA Ref: DGT-Culham Didcot River Crossing 6635R/RSA01) in January 2020, which was carried out by AECOM.
- **2.2** There were a number of safety issues raised with the feasibility design in the previous road safety audit, which have been addressed and require no further comment by the Audit Team.
- **2.3** However, any safety issues that the Audit Team consider to be outstanding from the previous safety audit will be raised again in Section 3 of this report.



## Items Raised at this Stage 1 Road Safety Audit

3.1.1 The following Problems have been identified from the documents submitted:

#### GENERAL

#### Problem: 3.1

Location: Didcot Culham River Crossing (DCRC) Road Edge Restraints

- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0001 to 0009 Rev P03
- Summary A lack of a vehicle restraint system in areas where embankments and bridges are present could leave road users more vulnerable to the hazards presented by these features

#### Description:

There are no proposals for vehicle restraint systems (VRS) shown on the drawings included with the audit brief. A lack of VRS in areas where the change in levels could present a hazard to road users is likely to increase the risk of injury to a road user should an errant vehicle leave the carriageway in these areas.

#### **Recommendation:**

Vehicle restraint systems should be provided in areas where the level changes alongside the carriageway could present a hazard to road users. It is recommended that the provision of VRS should be developed as the scheme is progressed.

#### THE ALIGNMENT:

#### Problem: 3.2

- Location: Collett, Sutton Courtenay & Abingdon RBTS Two-lane roundabout exits
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0001, 0006 & 0008 Rev P03
- Summary The use of two-lane roundabout exits with short merge lengths will lead to conflict between two vehicles leaving the roundabout side by side



#### Description:

Three new roundabouts: Collett Roundabout, Sutton Courtenay Roundabout and Abingdon Roundabout; will be provided as part of the Didcot Culham River Crossing scheme.

The drawings indicate that all three roundabouts will provide for two-lane exits with centreline road markings. The lengths of two-lane carriageway downstream of the roundabout exits are too short for two streams of traffic to merge. A lack of appropriate merge lengths is likely to lead to conflict between two vehicles leaving the roundabout side by side, with an increased risk of a collision occurring as a result.

#### **Recommendation:**

It is recommended that the centreline road markings downstream of the roundabout exits are removed. The 'Kicker Arrows' should be located just downstream of the exit to encourage vehicle drivers to merge as soon as possible. Didcot Garden Town HIF 1 Schemes Didcot to Culham River Crossing Road Safety Audit Stage 1

#### Problem: 3.3

- Location: Abingdon Roundabout Two-lane exit/Segregated Left Turn Lane
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0008 Rev P03
- Summary A two-lane roundabout exit will increase the risk of conflict between southbound vehicles and a vehicle emerging from the segregated left turn lane



Description:

A segregated left turn lane (SLTL) will be provided between A415 Abingdon Road westbound and the link road. The roundabout exit upstream of the SLTL merge provides for a two-lane roundabout exit.

A two-lane roundabout exit will encourage vehicles to leave the roundabout side by side. Vehicles attempting to merge downstream of the roundabout exit are likely to be caught out by a further vehicle merging from the SLTL, which could lead to conflict between them with a risk of a collision occurring as a result.

#### **Recommendation:**

It is recommended that the centreline road markings downstream of the roundabout exit are removed, and the roundabout exit reduced to a single lane with the use of offside tapered hatching road markings.

- Location: Abingdon Roundabout Eastbound merge
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0001, 0006 & 0008 Rev P03
- Summary Directing slower vehicles in the nearside lane to merge with the offside lane will increase the risk of conflict between merging vehicles and faster moving vehicles



Description:

Two lanes for eastbound traffic will be provided on A415 Abingdon Road downstream of the roundabout exit. The road layout will merge from two lanes to one lane over a short distance with a taper in the nearside kerbline.

A nearside kerbline taper will require slower moving vehicles in Lane 1 to merge with faster moving vehicles in Lane 2. Those slower moving vehicles in Lane 1 attempting to merge will be left particularly vulnerable to conflict with the faster moving traffic in Lane 2 with an increased risk of a collision occurring as a result.

#### **Recommendation:**

It is recommended that the taper in the nearside kerbline is removed and that a smoother transition is provided so that the nearside lane becomes the single traffic lane downstream of the merge. The road markings should be amended so that vehicles in Lane 2 downstream of the crossing are required to merge with the nearside over an appropriate distance.

- Location: Collett Roundabout Eastbound & Southbound roundabout exits
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0001 Rev P03
- Summary Providing a single traffic lane downstream of the controlled crossings provides no opportunity for vehicles leaving the roundabout side by side to merge



#### Description:

Two lane roundabout exits will be provided for the eastern and southern arms of the Collett Roundabout. A signal controlled (Toucan) crossing will be provided across the eastern arm and a Parallel crossing will be provided across the southern arm of the roundabout.

The drawing indicates that vehicles leaving the circulatory carriageway to join the eastbound or southbound arms of the roundabout can do so in two lanes. Vehicle drivers negotiating the roundabout exits might be caught out if they are required to stop for the crossings, which could leave them more vulnerable to coming into conflict with one another. Furthermore, a pedestrian or cyclist attempting to use the crossing could be more vulnerable to conflict with an errant vehicle that fails to stop when required to do so.

#### **Recommendation:**

It is recommended that the eastbound and southbound exits of the roundabout are reduced to a single traffic lane approaching the controlled crossings.

- Location: Sutton Courtenay Roundabout Northbound roundabout exit
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0006 Rev P03
- Summary Providing a single traffic lane downstream of the controlled crossing provides no opportunity for vehicles leaving the roundabout side by side to merge



Description:

A two lane roundabout exit will be provided for the northern arm of the Sutton Courtenay Roundabout. A signal controlled (Toucan) crossing will be provided across this northern arm of the roundabout.

The drawing indicates that vehicles leaving the circulatory carriageway to join the northbound arm can do so in two lanes. Vehicle drivers leaving the roundabout exit might be caught out by the single lane downstream of the crossing. A lack of guidance could leave them more vulnerable to coming into conflict with one another when attempting to merge on the downstream side of the crossing. This is likely to be exacerbated if they are required to stop for the crossing.

#### **Recommendation:**

It is recommended that the northbound exit of the roundabout is reduced to a single traffic lane approaching the controlled crossing.

- Location: Abingdon Roundabout Northbound roundabout exit
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0008 Rev P03
- Summary Providing a single traffic lane downstream of the controlled crossing provides no opportunity for vehicles leaving the roundabout side by side to merge



Description:

A two lane roundabout exit will be provided for the northern arm of the Abingdon Roundabout. A Parallel crossing will be provided across this northern arm of the roundabout.

The drawing indicates that vehicles leaving the circulatory carriageway to join the northbound arm can do so in two lanes. Vehicle drivers leaving the roundabout exit might be caught out by the single lane downstream of the crossing. A lack of guidance could leave them more vulnerable to coming into conflict with one another when attempting to merge on the downstream side of the crossing. This is likely to be exacerbated if they are required to stop for the crossing.

#### **Recommendation:**

It is recommended that the northbound exit of the roundabout is reduced to a single traffic lane approaching the controlled crossing.

#### THE JUNCTIONS:

#### Problem: 3.8

- Location: DCRC Link Road Side road junctions
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0002 Rev P03
- Summary It is unclear who has right of way where the twoway cycle track crosses the side road junctions, which could leave a cyclist more vulnerable to conflict with a turning vehicle



#### Description:

Two-way cycle tracks will be provided on both sides of certain sections of the link road. The two-way cycle tracks will pass straight across the front of the side road junctions – the cycle track and uncontrolled crossing of the side roads will be on a raised entry treatment.

The drawing indicates that the side road give-way line will be located at the back of the two-way cycle track. However, there is no indication of whether cyclists or turning vehicles have right of way at the junction, which could lead to conflict between them with an increased risk of a collision occurring as a result.

#### **Recommendation:**

It is recommended that the two-way cycle track is realigned on both sides of the junction so that it can be moved back into the side road junction. The raised entry treatment should be extended into the side road commensurate with the realignment of the cycle track in order to provide a give-way line alongside the front edge of the cycle track to indicate that vehicles turning in should give way to cyclists.

#### NON-MOTORISED USER PROVISION:

#### Problem: 3.9

- Location: DCRC Link Road Controlled crossing locations
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0002 Rev P03
- Summary The close proximity of the controlled crossings to one another could lead to vehicles failing to stop at the subsequent crossing



#### Description:

Two Parallel crossings will be provided across the link road in close proximity to one another just to the north of the Collett Roundabout. The northern crossing has been provided to tie-in with Pocket Park and the proposed rerouting of a bridleway – a Pegasus crossing is proposed across the link road further north.

The short distance between the two crossings could lead to some vehicle drivers required to stop at the first controlled crossing failing to stop for the subsequent crossing when required to do so, which could leave a cyclist or pedestrian using the second crossing more vulnerable to conflict with an errant vehicle.

#### **Recommendation:**

It is recommended that the two controlled crossings are rationalised into one crossing location.

AECOM

- Location: B4016 Shuttle-working traffic signals
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0005 Rev P03
- Summary The overall length of the shuttle working over the bridge could lead to long delays and bring the traffic signals into disrepute



#### Description:

It is proposed to provide one-way traffic shuttle working traffic signals across the bridge near Appleford Railway Station on B4016 to accommodate an off-road facility for pedestrians and cyclists. The shuttle working forms part of a proposal to provide an off carriageway route for pedestrians and cyclists between the new link road and Appleford Village.

The B4016 is narrow on both sides of the railway bridge. The proposals will provide a shared use footway in the westbound traffic lane across the bridge and for a considerable distance on both sides of the bridge. The distance between the opposing stop lines will be approximately 250m. There is concern that the overall length of the shuttle working is likely to lead to delays and bring the traffic signals into disrepute.

#### **Recommendation:**

It is recommended that the overall length of the shuttle working is significantly reduced. A shuttle working system with less that 100m between the opposing stop lines is likely to be more tolerable for road users.

- Location: Collett Roundabout Western arm crossing facilities
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0001 Rev P03
- Summary Pedestrians and cyclists using the uncontrolled crossing on the western arm of the roundabout could be left particularly vulnerable to conflict with traffic on A4130 going to the new link road



#### Description:

The western and northern arms of the Collett Roundabout will provide for traffic going between A4130 and the DCRC link road,.

Controlled crossings for pedestrians and cyclists will be provided across the eastern and southern arms of the roundabout. However, uncontrolled crossings will be provided across the western and northern arms, which are likely to experience the heavier traffic flows. Pedestrians and cyclists attempting to use the uncontrolled crossing via the narrow splitter island on the western arm are likely to be left more vulnerable to conflict with on-coming vehicles negotiating the two-lane roundabout entry.

#### **Recommendation:**

It is recommended that a signal-controlled crossing is provided across the western arm of the roundabout.

#### ROAD SIGNS, CARRIAGEWAY MARKINGS AND STREET LIGHTING:

#### Problem: 3.12

- Location: Collett, Sutton Courtenay & Abingdon RBTS Two-lane roundabout entries
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0001, 0006 & 0008 Rev P03
- Summary The designation of the two-lane entries ahead and left nearside and ahead and right offside could lead to conflict between vehicles entering the roundabout to circulate



#### Description:

Three roundabouts will be provided as part of the Didcot Culham River Crossing scheme. All of the roundabout arms will provide for a two-lane entry onto the circulatory carriageways – Abingdon Roundabout eastbound entry provides for three lanes behind the give-way line).

There is concern that the designation of the nearside and the offside lanes at the roundabout entries could encourage some drivers to turn left into an exit across the path a vehicle in the nearside attempting to circulate, with an increased risk of a collision occurring as a result.

#### **Recommendation:**

It is recommended that the nearside lanes approaching the roundabout entries are designated for left turners only, with a left turn arrow road marking, and that the offside lane is designated for traffic going ahead with a straight arrow road marking.

#### ROAD SIGNS, CARRIAGEWAY MARKINGS AND STREET LIGHTING:

#### Problem: 3.13

- Location: DCRC Link Road Controlled crossing road markings
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0002 Rev P03
- Summary The number of marks in the zig-zag lines on the approaches could reduce the conspicuity of the controlled crossings



#### Description:

Parallel crossings and Toucan crossings, and a Pegasus crossing will be provided on the DCRC link road and at the three new roundabouts.

The number of marks in the zig-zag lines for the crossings shown on the drawings has been reduced from the number for a standard layout. A reduced number of marks in the zig-zag lines could reduce the conspicuity of the crossings, especially on the approaches, which could leave pedestrians and cyclists attempting to cross more vulnerable to conflict with an errant vehicle.

#### **Recommendation:**

It is recommended that at least eight marks are provided in the zig-zag lines on the approaches to the controlled crossings.

The Pegasus crossing appears to be isolated on a remote section of the Link Road subject to a 50mph speed limit. It is recommended that at least twelve marks are provided in the zig-zag lines approaching this crossing.

- Location: DCRC link road Street Lighting
- Drawing: RIV\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ DR-CH-0001 to 0009 Rev P03
- Summary There is no indication on the drawings that a system of street lighting will be provided for the DCRC link road scheme

#### Description:

The -Didcot Culham River Crossing link road will run between A4130 and A415 Abingdon Road. The scheme will provide three new roundabouts and other junctions along the route.

There is no indication on the drawings that street lighting will be provided as part of the scheme. A lack of street lighting could leave road users negotiating the roundabouts and junctions with the link road more vulnerable to conflict with one another during the hours of darkness. The risk of collisions occurring is likely to be exacerbated during poor weather conditions.

#### **Recommendation:**

It is recommended that street lighting is provided at the roundabouts, the junctions and at least at the stand-alone crossings; where the risk of conflict between vehicles and other road users is likely to be higher.



We certify that this Road Safety Audit has been carried out all in the accordance with the requirements of DMRB

## **Audit Team Statement**

GG 119 Road Safety Audit.

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#### **Road Safety Audit Team Member**

Baber Beg

Signed:

Signed:

Date

Senior Consultant

AECOM

Date

23 November 2020

Here

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23 November 2020



# **List of Drawings Provided**

Drawing No.	Rev	Description	Date
RIV_PD-ACM-HGN-SW-ZZ- ZZ_ZZ-RP-CH-0002	P01	Didcot Garden Town HIF 1 Schemes Didcot Culham River Crossing Audit Brief	06/11/2020
RIV_PD-ACM-HGA-SW-ZZ- ZZ_ZZ-DR-CH-0001 to 0009	P03	DGTDidcot Culham River Crossing GA-Preliminary Design (Sheets 1 to 9)	23/10/2020
RIV_PD-ACM-HGA-SW-ZZ- ZZ_ZZ-DR-CH-0011, 0012 & 0014	P01	DGTDidcot Culham River Crossing Departures Drawings (Sheets 1 to 3)	23/10/2020
RIV_PD-ACM-HGA-SW-ZZ- ZZ_ZZ-DR-CH-0019 to 0022	P01	DGTDidcot Culham River Crossing Cross sections PD (Sheets 1 to 4)	23/10/2020
RIV_PD-ACM-HGA-SW-ZZ- ZZ_ZZ-DR-CH-0023 to 0029	P01	DGTDidcot Culham River Crossing Long sections PD (Sheets 1 to 7)	23/10/2020
RIV_PD-ACM-HGA-SW-ZZ- ZZ_ZZ-DR-CH-0037 to 0042	P01	DGTDidcot Culham River Crossing Long sections PD (Sheets 1 to 7)	23/10/2020
RIV_PD-ACM-HGA-SW-ZZ- ZZ_ZZ-DR-CH-0043 to 0051	P01	DGT —Didcot Culham River Crossing Cross sections PD (Sheets 5 to 13)	23/10/2020
RIV_PD-ACM-HGN-SW-ZZ- ZZ_ZZ-DR-CH-0002 to 0007	P02	DGTDidcot Culham River Crossing Swept Path Analysis (Sheets 1 to 6)	22/10/2020



## **Problem Identification Plans**



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## 3.14


## Road Safety Audit Decision Log

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.1	There are no proposals for vehicle restraint systems (VRS) shown on the drawings included with the audit brief. A lack of VRS in areas where the change in levels could present a hazard to road users is likely to increase the risk of injury to a road user should an errant vehicle leave the carriageway in these areas.	Vehicle restraint systems should be provided in areas where the level changes alongside the carriageway could present a hazard to road users. It is recommended that the provision of VRS should be developed as the scheme is progressed.	Agree with Auditor - VRS design will be included. Once the VRS design has been prepared, it can be provided together with the Risk Assessment to the RSA team for review.	Agreed.	Risk assessment to be conducted and VRS design developed to provide VRS at hazards as appropriate.
3.2	Three new roundabouts: Collett Roundabout, Sutton Courtenay Roundabout and Abingdon Roundabout; will be provided as part of the Didcot to Culham River Crossing scheme.The drawings indicate that all three roundabouts will provide for two-lane exits with centreline road markings. The lengths of two-lane carriageway downstream of the roundabout exits are too short for two streams of traffic to merge. A lack of appropriate merge lengths is likely to lead to conflict between two vehicles leaving the roundabout side by side, with an increased risk of a collision occurring as a result.	It is recommended that the centreline road markings downstream of the roundabout exits are removed. The 'Kicker Arrows' should be located just downstream of the exit to encourage vehicle drivers to merge as soon as possible.	Partially Agree with Auditor – To encourage merging as soon as possible, centerline road markings at exits will be removed and 'Kicker Arrows' provided just downstream of the exit for all locations without signalised crossings. However, the signalised crossings east of Collett Rbt and north of Sutton Courtenay Rbt have been moved 35m away from the roundabout (previously at 20m) due to detection requirements. At these exits it is proposed to keep the lane markings at the exit for a shorth distance	Agreed. Generally remove lane markings and use of 'Kicker Arrows' Lane markings keep at identified locations.	Road markings design to be amended. Roundabout exits to be single lane with no centre lane markings; kicker arrow markings to be located just downstream of exit, except at Abingdon Roundabout east exit Collett Roundabout east exit, Sutton Courtenay Roundabout north exit and Abingdon Roundabout north exit (refer 3.4, 3.5, 3.6, 3.7 respectively).

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
			(~10m) to reduce the risk of vehicles queuing back into the roundabout. These markings will then end ~25m in advance of the crossing to encourage the merge to take place before reaching the crossing.		
3.3	A segregated left turn lane (SLTL) will be provided between A415 Abingdon Road westbound and the link road. The roundabout exit upstream of the SLTL merge provides for a two- lane roundabout exit. A two-lane roundabout exit will encourage vehicles to leave the roundabout side by side. Vehicles attempting to merge downstream of the roundabout exit are likely to be caught out by a further vehicle merging from the SLTL, which could lead to conflict between them with a risk of a collision occurring as a result.	It is recommended that the centreline road markings downstream of the roundabout exit are removed, and the roundabout exit reduced to a single lane with the use of offside tapered hatching road markings.	Partially Agree with Auditor – To encourage merging as soon as possible, the centreline markings will be removed and 'kicker arrows' provided just downstream of the exit. However, reject the recommendation to reduce the exit to a single lane with the use of tapered hatch road markings. CD 116 recommends that the exit width should accommodate one more traffic lane than is present on the downstream link and that for a single carriageway, the exit width should be between 7 and 7.5m.	Agreed. Action Designer's response	Road markings design to be amended - Abingdon Roundabout south exit to be single lane with no centre lane markings; kicker arrow marking to be located just downstream of exit. No action - Abingdon Roundabout south exit width to be retained as designed.

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.4	Two lanes for eastbound traffic will be provided on A415 Abingdon Road downstream of the roundabout exit. The road layout will merge from two lanes to one lane over a short distance with a taper in the nearside kerbline. A nearside kerbline taper will require slower moving vehicles in Lane 1 to merge with faster moving vehicles in Lane 2. Those slower moving vehicles in Lane 1 attempting to merge will be left particularly vulnerable to conflict with the faster moving traffic in Lane 2 with an increased risk of a collision occurring as a result.	It is recommended that the taper in the nearside kerbline is removed and that a smoother transition is provided so that the nearside lane becomes the single traffic lane downstream of the merge. The road markings should be amended so that vehicles in Lane 2 downstream of the crossing are required to merge with the nearside over an appropriate distance.	Agree with Auditor – A smoother transition will be provided so that the nearside lane is a single lane downstream of the merge. The road markings will be amended so that vehicles in lane two merge with the nearside lane.	Agreed.	Road geometry and road markings design to be amended. Abingdon Roundabout east exit to be realigned to give continuity to the nearside lane such that the offside lane merges with the nearside lane.
3.5	Two lane roundabout exits will be provided for the eastern and southern arms of the Collett Roundabout. A signal controlled (Toucan) crossing will be provided across the eastern arm and a Parallel crossing will be provided across the southern arm of the roundabout. The drawing indicates that vehicles leaving the circulatory carriageway to join the eastbound or southbound arms of the roundabout can do so in	It is recommended that the eastbound and southbound exits of the roundabout are reduced to a single traffic lane approaching the controlled crossings.	Partially agree with Auditor – Agree to reduce southbound exit to one lane. Although CD 116 recommends that the exit width should accommodate one more traffic lane than is present on the downstream link, this will improve the safety of pedestrians and cyclists using the crossing. However, the signalised crossing east of Collett Rbt	Agreed. Action Designer's response	No action - Collett Roundabout east exit to be retained as two lanes. Road markings design to be amended - Collett Roundabout east exit centre lane markings to be retained over short distance. Road markings design to be amended - Collett Roundabout south exit to be reduced to single

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
	two lanes. Vehicle drivers negotiating the roundabout exits might be caught out if they are required to stop for the crossings, which could leave them more vulnerable to coming into conflict with one another. Furthermore, a pedestrian or cyclist attempting to use the crossing could be more vulnerable to conflict with an errant vehicle that fails to stop when required to do so.		has been moved 35m away from the roundabout (previously at 20m) due to detection requirements. At these exits it is proposed to keep the lane markings at the exit for a short distance (~10m) to reduce the risk of vehicles queuing back into the roundabout. These markings will then end ~25m in advance of the crossing to encourage the merge to take place before reaching the crossing.		traffic lane with offside hatch markings.
3.6	A two lane roundabout exit will be provided for the northern arm of the Sutton Courtenay Roundabout. A signal controlled (Toucan) crossing will be provided across this northern arm of the roundabout. The drawing indicates that vehicles leaving the circulatory carriageway to join the northbound arm can do so in two lanes. Vehicle drivers leaving the roundabout exit might be caught out by the single lane downstream of the crossing. A lack of guidance could leave them more vulnerable to coming into conflict with one another	It is recommended that the northbound exit of the roundabout is reduced to a single traffic lane approaching the controlled crossing.	Disagree with Auditor – However, the signalised crossing north of Sutton Courtenay Rbt has been moved 35m away from the roundabout (previously at 20m) due to detection requirements. At these exits it is proposed to keep the lane markings at the exit for a short distance (~10m) to reduce the risk of vehicles piling back into the roundabout. These markings will then end ~25m in advance of the crossing to encourage the	Agreed. Action Designer's response – traffic singals required at 35m for detection between RAB and crossing. 35m location does not comply with CD 116, advisory note Cl.3.53.1. A Departure from Standard requested to document reasoning behind design decision.	No action - Sutton Courtenay Roundabout north exit to be retained as two lanes. Road markings design to be amended - Sutton Courtenay Roundabout north exit centre lane markings to be retained over short distance.

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
	when attempting to merge on the downstream side of the crossing. This is likely to be exacerbated if they are required to stop for the crossing.		merge to take place before reaching the crossing. This will also be in line with the guidance in CD 116 of providing one more lane on the exit than is present on the downstream link.		
3.7	A two lane roundabout exit will be provided for the northern arm of the Abingdon Roundabout. A Parallel crossing will be provided across this northern arm of the roundabout. The drawing indicates that vehicles leaving the circulatory carriageway to join the northbound arm can do so in two lanes. Vehicle drivers leaving the roundabout exit might be caught out by the single lane downstream of the crossing. A lack of guidance could leave them more vulnerable to coming into conflict with one another when attempting to merge on the downstream side of the crossing. This is likely to be exacerbated if they are required to stop for the crossing.	It is recommended that the northbound exit of the roundabout is reduced to a single traffic lane approaching the controlled crossing.	Agree to reduce northbound exit to one lane. Although CD 116 recommends that the exit width should accommodate one more traffic lane than is present on the downstream link, this will improve the safety of pedestrians and cyclists using the crossing.	Agreed	Road markings design to be amended. Abingdon Roundabout north exit to be reduced to single traffic lane with offside hatch markings.

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.8	Two-way cycle tracks will be provided on both sides of certain sections of the link road. The two-way cycle tracks will pass straight across the front of the side road junctions – the cycle track and uncontrolled crossing of the side roads will be on a raised entry treatment. The drawing indicates that the side road give-way line will be located at the back of the two- way cycle track. However, there is no indication of whether cyclists or turning vehicles have right of way at the junction, which could lead to conflict between them with an increased risk of a collision occurring as a result.	It is recommended that the two-way cycle track is realigned on both sides of the junction so that it can be moved back into the side road junction. The raised entry treatment should be extended into the side road commensurate with the realignment of the cycle track in order to provide a give-way line alongside the front edge of the cycle track to indicate that vehicles turning in should give way to cyclists.	Disagree with Auditor –. The cycle priority provided is in line with the guidance for no set back cycle priority in LTN1/20 and CD 195. This section is 30mph.	Agreed Action Designer's response	No action. Cycleway alignments across front of side road junctions to be retained at Ch. 210 and Ch. 320 accesses to DTech development area.
3.9	Two Parallel crossings will be provided across the link road in close proximity to one another just to the north of the Collett Roundabout. The northern crossing has been provided to tie-in with Pocket Park and the proposed re-routing of a bridleway – a Pegasus crossing is proposed across the link road further north. The short distance between the two crossings could lead to some	It is recommended that the two controlled crossings are rationalised into one crossing location.	Disagree with Auditor – the crossings are provided on the likely desired lines. Crossing on the north provides a more direct link from the mainline ped/cycle facility (on the eastern side) through the pocket park to the NCN5 route (next the Gale Land) further east. The southern crossing provides a crossing point	Agreed. Action Designer's response	No action. Two separate controlled parallel crossings to be retained at Ch. 230 and Ch. 340 north and south of the DTech development area accesses.

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
	vehicle drivers required to stop at the first controlled crossing failing to stop for the subsequent crossing when required to do so, which could leave a cyclist or pedestrian using the second crossing more vulnerable to conflict with an errant vehicle.		for users approaching the bus laybys from the DTech development site. This crossing situated in the middle of the development site, provides a safer crossing (away from the roundabout) that serves the desire lines better.		
3.10	It is proposed to provide one-way traffic shuttle working traffic signals across the bridge near Appleford Railway Station on B4016 to accommodate an off- road facility for pedestrians and cyclists. The shuttle working forms part of a proposal to provide an off carriageway route for pedestrians and cyclists between the new link road and Appleford Village. The B4016 is narrow on both sides of the railway bridge. The proposals will provide a shared use footway in the westbound traffic lane across the bridge and for a considerable distance on both sides of the bridge. The distance between the opposing stop lines will be approximately 250m. There is concern that the overall length of the shuttle working is likely to lead to delays	It is recommended that the overall length of the shuttle working is significantly reduced. A shuttle working system with less that 100m between the opposing stop lines is likely to be more tolerable for road users.	Disagree with Auditor – A reduced length is not possible as this section is constrained by the properties adjacent to the narrow highway boundary. The shuttle length currently provided is the shortest distance over which the shuttle can fit without requiring additional land while providing the shared use facility.	Agreed. Action Designer's response	No action. Length of shuttle working signalisation on B4016 at Appleford Railway Station to be retained as designed. Note - this element will not form part of the DGT HIF1 scheme.

3.11			Response	Response	
3.11	and bring the traffic signals into disrepute.				
	The western and northern arms of the Collett Roundabout will provide for traffic going between A4130 and the DCRC link road,. Controlled crossings for pedestrians and cyclists will be provided across the eastern and southern arms of the roundabout. However, uncontrolled crossings will be provided across the western and northern arms, which are likely to experience the heavier traffic flows. Pedestrians and cyclists attempting to use the uncontrolled crossing via the narrow splitter island on the western arm are likely to be left more vulnerable to conflict with on-coming vehicles negotiating the two-lane roundabout entry.	It is recommended that a signal-controlled crossing is provided across the western arm of the roundabout.	Disagree with Auditor – The signal crossing east of the roundabout has been provided to facilitate the main anticipated ped/cycle flows. There are no active frontages west of Collett roundabout, the uncontrolled crossings north and west were included to facilitate minor pedestrian/cycle flows. Priority crossings are also provided further north of the roundabout.	Agreed Action Designer's response The toucan crossing on the eastern arm and parallel crossing on the southern arm cater for the majority of anticipated ped/cyclist movements and are located on their desire lines. Refuge crossings on western and southern arms are provided, but use will be minimal. The main NMU flows between existing & future employment and housing are better catered for by the other crossings across the scheme (including Science Bridge and A4130), and other existing routes.	No action. Crossing provision at Collett Roundabout to be retained as designed, namely: controlled crossings on east and south arms; uncontrolled crossings on north and west arms.
3.12	Three roundabouts will be provided as part of the Didcot Culham River Crossing scheme. All of the roundabout arms will	It is recommended that the nearside lanes approaching the roundabout entries are designated for left turners only,	Partially agree with Auditor – Arrow markings will be reviewed with decision on arrow based on traffic flows	Agreed Action Designer's response	Road markings design to be amended. Lane arrow markings on roundabout approaches

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
	the circulatory carriageways – Abingdon Roundabout eastbound entry provides for three lanes behind the give-way line).	marking, and that the offside lane is designated for traffic going ahead with a straight arrow road marking.	at each location and likely conflict movement.	Lead by design needs / traffic flows	to be reviewed against turning movement traffic flows and amended as appropriate.
	There is concern that the designation of the nearside and the offside lanes at the roundabout entries could encourage some drivers to turn left into an exit across the path a vehicle in the nearside attempting to circulate, with an increased risk of a collision occurring as a result.				
3.13	Parallel crossings and Toucan crossings, and a Pegasus crossing will be provided on the DCRC link road and at the three new roundabouts. The number of marks in the zig- zag lines for the crossings shown on the drawings has been reduced from the number for a standard layout. A reduced number of marks in the zig-zag lines could reduce the conspicuity of the crossings, especially on the approaches, which could leave pedestrians and cyclists attempting to cross more vulnerable to conflict with an errant vehicle.	It is recommended that at least eight marks are provided in the zig-zag lines on the approaches to the controlled crossings. The Pegasus crossing appears to be isolated on a remote section of the Link Road subject to a 50mph speed limit. It is recommended that at least twelve marks are provided in the zig-zag lines approaching this crossing.	Agree with Auditor – Twelve zig-zag marks will be provided.	Agreed.	Road markings design to be amended. Twelve no. zig-zag marks to be provided on approaches to Pegasus crossing at Ch. 1010 and minimum eight no. zig- zag marks to be provided on approaches to controlled crossings elsewhere, subject to space constraints.

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.14	The -Didcot Culham River Crossing link road will run between A4130 and A415 Abingdon Road. The scheme will provide three new roundabouts and other junctions along the route. There is no indication on the drawings that street lighting will be provided as part of the scheme. A lack of street lighting could leave road users negotiating the roundabouts and junctions with the link road more vulnerable to conflict with one another during the hours of darkness. The risk of collisions occurring is likely to be exacerbated during poor weather conditions.	It is recommended that street lighting is provided at the roundabouts, the junctions and at least at the stand-alone crossings; where the risk of conflict between vehicles and other road users is likely to be higher.	Agree with Auditor – The Lighting design is currently being undertaken with lighting provided at the roundabouts, junctions, and standalone crossings.	Agreed.	Road lighting design to be developed to provide lighting at roundabouts, junctions and standalone crossings.



## Design Organisation statement

On behalf of the design organisation I certify that:

1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation

Name: David Riach	
Signed: Juid Roch	
Position: Associate	
Organisation: AECOM	
Date: 8 January 2020	

## **Overseeing Organisation statement**

On behalf of the Overseeing Organisation I certify that:

- 2) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation
- 3) the agreed RSA actions will be progressed.

Name:	
Signed:	
Position:	
Organisation:	
Date:	

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## Didcot Garden Town HIF 1 Schemes Clifton Hampden Bypass Road Safety Audit Stage 1

Stage 1 Road Safety Audit Report

December 2020

Didcot Garden Town HIF 1 Schemes Clifton Hampden Bypass Road Safety Audit Stage 1

## **Quality information**

Document name	Ref	Prepared for	Prepared by	Date	Reviewed by / Verified by
DGT Clifton Hampden Bypass	6706R/RSA01	Oxfordshire CC	lan Batcock	November 2020	Baber Beg/ Abdirashid Ahmed

## **Revision history**

Revision	Revision date	Details	Name	Position
0	27 Nov 2020	Draft Issue	Ian Batcock	Road Safety Auditor
1	07 Dec 2020	Designer Response Added	Andrew Fox	Senior Engineer

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## Introduction

AECOM was commissioned by Oxfordshire County Council to complete a Stage 1 Road Safety Audit for the proposals for the Clifton Hampden Bypass as part of the Didcot Garden Town Development.

The Road Safety Audit Team membership, approved by the Overseeing Organisation, Project Sponsor, was as follows:

lan Batcock	MCIHT, MSoRSA
Team Leader	IAN 152/11 Certificate of Competency AECOM, St Albans
Baber Beg Team Member	MCIHT, MSoRSA AECOM, Croydon

The audit comprised of a review of the supplied drawings listed in Appendix A, which were examined during week commencing 16<sup>th</sup> November 2020. A previous visit to the site was made by both members of the audit team together in the morning and afternoon of Wednesday 22<sup>nd</sup> January 2020 between 11.00am and 2.00pm as part of the Stage 1 road safety audit for the feasibility design. The Project Sponsor has indicated that a further daytime inspection of the scheme proposals is not required.

## **Works Summary**

The proposed Clifton Hampden Bypass scheme will provide a new single carriageway two way road between the B4015 Oxford Road and the A415 Abingdon Road, which also provides an access/egress to Culham Science Centre. The scheme is currently at the preliminary design stage.

The proposals include the introduction of a new roundabout on the A415 Abingdon Road, to the west of the existing entrance to Culham Science Centre. The roundabout will provide a connection between A415, Station Road (for Culham Railway Station), Culham Site No. 1, Culham Science Centre and the new bypass. The bypass link will be approximately 2.25km in length, and will follow the existing alignment of Thame Lane, with a new connection to B4015 Oxford Road at its northern end. A new priority junction is proposed on Oxford Road to the north of Clifton Hampden, to provide a connection between the new bypass and Culham Science Centre. Upgrades will also be carried out on Oxford Road approaching the new priority junction.

The scheme objectives include improving conditions for walking and cycling, as there are limited facilities in the area. The new NMU facilities will include:

- A segregated cycleway/footway between Culham Railway Station and the Culham Science Centre with Parallel crossings;
- A shared use cycleway/footway along the northern side of the new bypass;
- A shared use cycleway/footway along the southern side of the A415 from the Culham Science Centre to connect into the adjacent Didcot Culham River Crossing scheme;
- A new footway along Oxford Road.

There is also a proposed priority junction with an existing farm track that crosses the new bypass to the east of Culham Science Centre. The farm track will be realigned to provide a 70 degree intersection angle with the new bypass.

The main objective of the new corridor is to improve accessibility and provide congestion relief on the existing road network by providing an upgraded and more direct route between Culham and Oxford via A4074. The proposed highway improvements will also provide the infrastructure to support the proposed employment and housing growth in Culham and the surrounding Science Vale area.

## **Design Speeds**

New Bypass:

85kph, east of the A415 Connection priority junction;

70kph, west of the A415 Connection priority junction;

60kph, A415 connection and B4015 connection:

40kph, all other roads.

### **Speed Limits**

New Bypass:

50mph, east of the A415 Connection priority junction;

40mph, west of the A415 Connection priority junction;

30mph, A415 connection and B4015 connection:

20mph, all other roads.

### **Special considerations**

The traffic modelling indicated that the eastbound roundabout exit must have 2 lanes in order to provide enough capacity, and that many of the vehicles using the exit will be travelling onto the A415 connection. It also indicated that the right turn lane onto the A415 connection must be longer that the CD 123 minimum length as vehicle queues may extend beyond this length during peak hours. Therefore, a continuous right turn lane has been provided from the eastbound roundabout exit to the A415 connection.

The traffic modelling indicated that a segregated left turn lane (SLTL) will be required around the southern side of the roundabout to avoid excessive queuing at the westbound roundabout approach. It also indicated that a standard give-way arrangement at the SLTL exit would not be sufficient. Therefore, an auxiliary lane has been provided for the merge with the southbound traffic lane, providing approximately 140m of merge length.

### **Departures and Relaxations from Standard**

The Clifton Hampden Bypass and B4015 connection have been designed to DMRB; however, departures are required in order to avoid significantly impacting existing properties, buildings, and utilities:

#### **Departure from Standard CHB-DS-01**

The proposed bypass cannot achieve the required 30% minimum overtaking sections per CD 109 Para 9.2. Refer to document CHB\_PD-ACM-HGN-SW\_ZZ\_ZZ-DF-CH-0001;

#### **Departure from Standard CHB-DS-06**

The proposed bus stops on the bypass near the Culham Science Centre are proposed to be on-carriageway, rather than in lay-bys. Refer to document CHB\_PD-ACM-HGN-SW\_ZZ\_ZZ\_ZZ-DF-CH-0006;

#### **Departure from Standard CHB-DS-07**

The segregated left turn lane at the roundabout is not proposed to be a constant width, which is a requirement of CD 116 Para 6.13. Refer to document CHB\_PD-ACM-HGN-SW\_ZZ\_ZZ\_DF-CH-0007;

#### **Departure from Standard CHB-DS-08**

The required Stopping Sight Distance of 120m at the west roundabout approach cannot be met. The relaxed Stopping Sight Distance of 90m can be met, which is a departure on CD 109 Para 2.13. Refer to document CHB\_PD-ACM-HGN-SW\_ZZ\_ZZ\_DF-CH-0008;

#### **Departure from Standard CHB-DS-09**

CD 116 Para 6.39 specifies that where only one exit lane has been provided from the roundabout, a give-way arrangement shall be provided. This arrangement would not provide sufficient capacity at the roundabout; therefore, the segregated left turn lane exit is proposed to have a dedicated lane exit. Refer to document CHB\_PD-ACM-HGN-SW\_ZZ\_ZZ\_DF-CH-0009 for further details.

#### **Relaxation 1**

The west roundabout approach horizontal radius is proposed to be 180m, which is a 2-step relaxation for a design speed of 70kph. This is required in order to avoid impacting the existing utilities at the bottom of the embankment which are very costly to divert. Most vehicles will be travelling slower than the posted speed at this location due to the proximity of the roundabout, regardless of whether the horizontal radius is tighter than the desirable minimum;

#### **Relaxation 2**

The B4015 Connection horizontal radius immediately south of the junction is proposed to be 180m, which is a 1-step relaxation for a design speed of 60kph. This is required in order to avoid impacting an existing large tree on the west side of the existing B4015 Oxford Road. This tree is a distinctive feature of Clifton Hampden village and important from a landscape and visual perspective. It is highly likely that the residents of Clifton Hampden will not take lightly to the removal of this tree. This curve is located just south of the junction with the bypass; therefore, it is not expected that vehicles will be travelling as fast as the posted speed limit. This relaxation on the horizontal curve could also have the effect of slowing drivers approaching the village, and OCC is keen to see reduced speeds through this section.

### Personal Injury Collision Analysis Summary

Collision data has been provided by Oxfordshire County Council for the 5-year period between 9th June 2014 and 8th June 2019. There was a total of 14 collisions recorded within the scheme's extents during this period, which resulted in 18 casualties. Of these there were no fatalities, 3 collisions resulted in injuries of serious severity, and 11 collisions resulted in injuries of slight severity. Total yearly collisions do not show any evidence of deterioration or improvement in road safety along the local highways.

## **Terms of Reference**

The Terms of Reference of this Audit are as described in DMRB GG 119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and how it impacts on all road users and has not examined or verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may, on occasion, have referred to a design standard without touching on technical audit. An absence of comment relating to specific road users / modes in Section 3 of this report does not imply that they have not been considered, instead the Audit Team feel they are not adversely affected by the proposed changes.

This Safety Audit is not intended to identify pre-existing hazards which remain unchanged due to the proposals; hence they will not be raised in Section 3 of this report as they fall outside the remit of Road Safety Audit in general as specified in the procedure GG 119. Any safety issues identified during the Audit and site visit that are considered to be outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, will be set out in separate correspondence.

Nothing in this Audit should be regarded as a direct instruction to include or remove a measure from within the scheme. Responsibility for designing the scheme lies with the Designer and as such the Audit Team accepts no design responsibility for any changes made to the scheme as a result of this Audit.

In accordance with GG 119, this Audit has a maximum shelf life of 5 years. If the scheme does not progress to the next stage in its development within this period, then the scheme should be re-audited.

Unless general to the scheme, all comments and recommendations are referenced to the drawings supplied in the audit brief, and the locations have been indicated on the plan in Appendix B where appropriate.



## Items Raised at Previous Road Safety Audits

- **2.1** A previous Stage 1 road safety audit was undertaken for the feasibility design stage for the Clifton Hampden Bypass scheme (SA Ref: DGT- Clifton Hampden Bypass 6636R/RSA01) in January 2020, which was carried out by AECOM.
- **2.2** There were a number of safety issues raised with the feasibility design in the previous road safety audit, some of which have either been addressed or designed out at the preliminary stage and require no further comment by the Audit Team.
- **2.3** However, any safety issues that the Audit Team consider to be outstanding from the previous safety audit will be raised again in Section 3 of this report.



## Items Raised at this Stage 1 Road Safety Audit

3.1.1 The following Problems have been identified from the documents submitted:

#### GENERAL

#### Problem: 3.1

- Location: Clifton Hampden Bypass Western Bus Stops
- Drawing: CHB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 Rev P03
- Summary Buses waiting at the westbound and eastbound bus stops will obstruct clear view of the offside secondary traffic signals of the crossing



#### Description:

Bus stops for eastbound and westbound services will be provided on the Clifton Hampden Bypass east of the Culham Science Centre Roundabout. A traffic signal-controlled (Toucan) crossing will be provided between the bus stops, with the bus stops located approximately 10m downstream of the crossing.

A bus waiting at either bus stop will obstruct the clear view of the offside traffic signal of the controlled crossing, which is likely to reduce the conspicuity of the crossing. A lack of guidance could lead to late braking when a vehicle is required to stop, with the risk of the errant vehicle coming into conflict with a following vehicle(s). In addition, a pedestrian or cyclist using the crossing could be left more vulnerable to an errant vehicle that fails to stop.

#### **Recommendation:**

The bus stops should be located further downstream from the crossing so that clear view of the traffic signals can be achieved and maintained.

#### Problem: 3.2

- Location: Clifton Hampden Bypass Eastern Bus Stops
- Drawing: CHB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0004 Rev P03
- Summary Locating the new bus stops for eastbound and westbound services immediately downstream of a traffic island could lead to some vehicles passing around the wrong side of the island to pass a waiting bus



#### Description:

Bus stops for eastbound and westbound services will be provided on the Clifton Hampden Bypass just west of the A4015 Connection give-way priority junction. An uncontrolled crossing via a central refuge island will be provided between the bus stops, with the bus stops located just downstream of the crossing.

There is concern that a vehicle approaching a bus waiting at either stop will pass around the wrong side of the central island to pass the bus. Such a manoeuvre will leave the errant vehicle more vulnerable to conflict with an on-coming vehicle, with an increased risk of a head-on collision occurring as a result.

#### **Recommendation:**

The bus stops should be located further downstream from the traffic island to provide more separation between the waiting bus and the island for vehicles to pass.

#### THE ALIGNMENT:

#### Problem: 3.3

- Location: Clifton Hampden Bypass Western Bus Stop
- Drawing: CHB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 Rev P03
- Summary Locating the bus stop in the westbound traffic lane will increase the risk of conflict between a vehicle attempting to pass around a waiting bus and an on-coming vehicle in the eastbound offside traffic lane



#### Description:

The bus stop for westbound services will be provided just downstream of a signal-controlled crossing within the westbound traffic lane. A nearside and offside traffic lane will be provided for eastbound traffic at this location.

Despite the proposed double white lines road markings, a westbound vehicle encountering a waiting bus will attempt to manoeuvre around it through the crossing, and enter the offside eastbound traffic lane. The restricted view for drivers past the bus is likely to leave a westbound vehicle more vulnerable to conflict with an on-coming eastbound vehicle in the offside lane, with an increased risk of a collision occurring as a result.

#### **Recommendation:**

Either, a lay-by should be provided for westbound bus stop services on this three-lane section or, the bus stop should be relocated to where it has less impact on two-way traffic flow.

Note: The bus stop is located just downstream of the give-way priority junction for the A415 Connection. There is an opportunity to extend the proposed westbound side road merge to accommodate the westbound bus stop, so that buses can wait clear of the mainline westbound traffic lane.

#### Problem: 3.4

- Location: Clifton Hampden Bypass Segregated Left Turn Lane
- Drawing: CHB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 Rev P03
- Summary The merge length downstream of the controlled crossing could leave westbound vehicles and vehicles attempting to merge from the nearside auxiliary lane more vulnerable to conflict with each other should they be required to stop for the crossing



#### Description:

A segregated left turn lane has been incorporated into the Culham Science Centre Roundabout for westbound through traffic to bypass the roundabout. A traffic signal-controlled (Toucan) crossing will be provided west of the roundabout, to provide a link across the bypass between the off carriageway routes for cyclists and pedestrians.

There is concern that if two streams of traffic, in the westbound lane and the SLTL auxiliary lane, are required to stop for the crossing the remaining length of the auxiliary lane might be insufficient for vehicles to merge safely, which could increase the risk of a collision occurring.

#### **Recommendation:**

It is recommended that the controlled crossing is relocated to the east in order to increase the overall length for westbound vehicles to merge.

#### THE JUNCTIONS:

#### Problem: 3.5

- Location: Bypass J/w A415 Connection Two lane eastbound approach
- Drawing: CHB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0001 Rev P03
- Summary The two lane approach to the side road junction with the offside lane for right turners only is likely to lead to late lane changes



#### Description:

Two eastbound traffic lanes will be provided on the Bypass between the Culham Science Centre Roundabout and the side road junction with the A415 Connection. An upright road sign will be provided near the junction on the eastbound approach to indicate that the offside lane is dedicated for right turners.

There is concern that if two streams of traffic leave the roundabout and continue towards the side road junction vehicles in the nearside lane wishing to turn right could find it more difficult to join the offside stream of traffic. Furthermore, vehicles stranded in the offside lane wishing to continue eastbound beyond the junction could change lanes suddenly, which is likely to lead to conflict with the nearside stream and increase the risk of a collision occurring.

#### **Recommendation:**

It is recommended that an upright road sign bearing the legend "Get in Lane" showing the nearside lane for A4130 Oxford with an ahead arrow and the offside lane for A415 Culham with a right turn arrow, is provided. The advance direction sign should be located just downstream of the roundabout to encourage vehicle drivers to manoeuvre into the appropriate lane as soon as possible.

#### NON-MOTORISED USER PROVISION:

No comments

#### ROAD SIGNS, CARRIAGEWAY MARKINGS AND STREET LIGHTING:

#### Problem: 3.6

- Location: Bypass J/w A415 Connection Double white lines
- Drawing: CHB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0002 Rev P03
- Summary An eastbound vehicle may attempt to overtake a slower moving vehicle on the bypass on the approach to the A415 Connection junction



#### Description:

There is a significant length of two-way carriageway between the A415 Connection and the B4015 Connection junctions where the speed limit will be 50mph.

There is concern that some vehicle drivers may attempt to overtake a slower moving vehicle on this section of the bypass. In particular, some eastbound vehicle drivers might attempt to overtake before entering the lower 40mph speed limit, which extends up to the Culham Science Centre Roundabout. An errant vehicle that attempts to overtake too close to the junction could come into conflict with other road users, which could increase the risk of a collision occurring as a result.

#### **Recommendation:**

It is recommended that the double white lines road markings present west of the side road junction are extended to the east and commence prior to the eastern tapered hatching for the Ghost Island right turning lane.

#### Problem: 3.7

- Location: Bypass J/w Culham Science Centre Secondary Access – Left in/Left out junction
- Drawing: CHB\_PD-ACM-HGA-SW\_ZZ\_ZZ\_ZZ-DR-CH-0003 Rev P03
- Summary Despite the No Left Turn sign some drivers may attempt to turn right into the secondary access from the bypass



#### Description:

A secondary access will be provided from the bypass into the Culham Science Centre. A left in/left out side road junction will be provided on this northern side of the bypass.

There is concern that some vehicle drivers may attempt to turn right into the secondary access through the oneway egress to avoid using the roundabout to access the site. Those westbound vehicles that slow down or stop in the mainline carriageway could be left vulnerable to conflict with a following vehicle. Furthermore, westbound vehicle drivers unaware that a queue might have formed ahead at the junction would have to brake heavily, leaving them particularly vulnerable to conflict with following vehicles.

#### **Recommendation:**

It is recommended that the No Right Turn sign is incorporated into a direction sign for the main entrance for the Culham Science Centre ahead. In addition, a pair of No Entry signs should be provided on the one-way egress facing into the bypass.



We certify that this Road Safety Audit has been carried out all in the accordance with the requirements of DMRB

## **Audit Team Statement**

GG 119 Road Safety Audit.

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#### Road Safety Audit Team Member

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Signed:

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Date

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27 November 2020

Here

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26 November 2020



# List of Drawings Provided

Drawing No.	Rev	Description	Date
CHB_PD-ACM-HAC-SW-ZZ-ZZ- RP-CH_0002		DGT HIF 1 Schemes – Preliminary Design Clifton Hampden Bypass - Audit Brief	10/11/2020
CHB_PD-ACM-HGA-SW-ZZ-ZZ-ZZ DR-CH-0001 to 0004	P03	DGT HIF 1 Schemes – Preliminary Design General Arrangement (Sheets 1 to 4)	06/11/2020
CHB_PD-ACM-HGA-SW-ZZ-ZZ-ZZ DR-CH-0005 to 0012	P01	DGT HIF 1 Schemes – Preliminary Design Long sections (Sheets 1 to 8)	23/10/2020
CHB_PD-ACM-HGA-SW-ZZ-ZZ-ZZ DR-CH-0013 to 0021	P01	DGT HIF 1 Schemes – Preliminary Design Cross sections (Sheets 1 to 9)	12/11/2020
CHB_PD-ACM-HGN-SW-ZZ-ZZ-ZZ DR-CH-1001	P03	DGT HIF 1 Schemes – Preliminary Design Departures Drawing (Sheet 1 of 1)	06/11/2020
CHB_PD-ACM-HML-SW-ZZ-ZZ-ZZ DR-CH-0001, 0005 to 0013	P02	DGT HIF 1 Schemes – Preliminary Design Swept Path Analysis (Sheets 1 to 10)	11/11/2020
CHB_PD-ACM-HRR-SW-ZZ-ZZ-ZZ DR-CH-0001 to 0004	P01	DGT HIF 1 Schemes – Preliminary Design Vehicle Restraint System (Sheets 1 to 4)	12/11/2020




# **Problem Identification Plans**







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## Road Safety Audit Decision Log

	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.1	Bus stops for eastbound and westbound services will be provided on the Clifton Hampden Bypass east of the Culham Science Centre Roundabout. A traffic signal-controlled (Toucan) crossing will be provided between the bus stops, with the bus stops located approximately 10m downstream of the crossing. A bus waiting at either bus stop will obstruct the clear view of the offside traffic signal of the controlled crossing, which is likely to reduce the conspicuity of the crossing. A lack of guidance could lead to late braking when a vehicle is required to stop, with the risk of the errant vehicle coming into conflict with a following vehicle(s). In addition, a pedestrian or cyclist using the crossing could be left more vulnerable to an errant vehicle that fails to stop.	The bus stops should be located further downstream from the crossing so that clear view of the traffic signals can be achieved and maintained.	Disagree with Auditor Two nearside traffic signals will be provided per direction, increasing the conspicuity of the crossing when a stopped bus blocks view of the offside traffic signal. Additionally, the eastbound primary traffic signal is proposed to be a 6m high double signal, further increasing the conspicuity of the crossing for eastbound traffic.		
3.2	Bus stops for eastbound and westbound services will be provided on the Clifton Hampden Bypass just west of the A4015 Connection give-way priority	The bus stops should be located further downstream from the traffic island to provide more separation between the	Partially agree with Auditor Moving the westbound bus stop further west to permit overtaking would encourage overtaking		

	junction. An uncontrolled crossing	waiting bus and the island for	more than the current	
	via a central refuge island will be	vehicles to pass.	arrangement, and the bus	
	provided between the bus stops,		stop would be located on a	
	with the bus stops located just		left-hand curve. A stopped	
	downstream of the crossing.		bus would preclude	
	There is concern that a vahiala		visibility of oncoming	
	There is concern that a vehicle		traffic, leading to unsafe	
	approaching a bus waiting at		overtaking manoeuvres.	
	either stop will pass around the			
	wrong side of the central island to		Moving the eastbound bus	
	pass the bus. Such a manoeuvre		stop further east would	
	will leave the errant vehicle more		prevent a bus from turning	
	vulnerable to conflict with an on-		right into the village. The	
	coming vehicle, with an increased		current bus stop location	
	risk of a head-on collision		allows a bus to merge into	
	occurring as a result.		the right turn lane without	
	5		naving to worry about	
			vehicles travelling at a	
			faster speed zipping past	
			into the right turn lane, or	
			abusing the right turn lane	
			to overtake a stopped bus.	
			l av-bys will be proposed	
			west of the priority junction	
			in order to eliminate unsafe	
			overtaking manoeuveres.	
3.3	The bus stop for westbound	Either, a lay-by should be	Agree with Auditor	
	services will be provided just	provided for westbound bus	l av-by will be provided for	
	downstream of a signal-controlled	stop services on this three-lane	the westbound bus ston	
	crossing within the westbound	section or, the bus stop should	immediately unstream of	
	traffic lane. A nearside and offside	be relocated to where it has	the crossing	
	traffic lane will be provided for	less impact on two-way traffic	the crossing.	
	eastbound traffic at this location.	flow.	Extending the westbound	
	Despite the proposed double	Note. The bus stop is located	sideroad merge would	
	white lines road markings	just downstream of the give	mean a bus merging out of	
	worthound vahials appointering a	way priority junction for the	the lay-by would need to	
	westbound venicle encountering a	way priority junction for the	check for traffic travelling	
	waiting bus will attempt to	A415 Connection. There is an	5	

	manoeuvre around it through the crossing, and enter the offside eastbound traffic lane. The restricted view for drivers past the bus is likely to leave a westbound vehicle more vulnerable to conflict with an on-coming eastbound vehicle in the offside lane, with an increased risk of a collision occurring as a result.	opportunity to extend the proposed westbound side road merge to accommodate the westbound bus stop, so that buses can wait clear of the mainline westbound traffic lane.	on the westbound mainline and A415 Connection turning left; if the driver fails to look back toward the A415 Connection, there is a risk of the bus cutting off a vehicle attempting to overtake the bus.	
3.4	A segregated left turn lane has been incorporated into the Culham Science Centre Roundabout for westbound through traffic to bypass the roundabout. A traffic signal- controlled (Toucan) crossing will be provided west of the roundabout, to provide a link across the bypass between the off carriageway routes for cyclists and pedestrians. There is concern that if two streams of traffic, in the westbound lane and the SLTL auxiliary lane, are required to stop for the crossing the remaining length of the auxiliary lane might be insufficient for vehicles to merge safely, which could increase the risk of a collision occurring.	It is recommended that the controlled crossing is relocated to the east in order to increase the overall length for westbound vehicles to merge.	Comment no longer applicable – this toucan crossing has been designed out in the latest revision.	

3.5	Two eastbound traffic lanes will be provided on the Bypass between the Culham Science Centre Roundabout and the side road junction with the A415 Connection. An upright road sign will be provided near the junction on the eastbound approach to indicate that the offside lane is dedicated for right turners. There is concern that if two streams of traffic leave the roundabout and continue towards the side road junction vehicles in the nearside lane wishing to turn right could find it more difficult to join the offside stream of traffic. Furthermore, vehicles stranded in the offside lane wishing to continue eastbound beyond the junction could change lanes suddenly, which is likely to lead to conflict with the nearside stream and increase the risk of a collision occurring.	It is recommended that an upright road sign bearing the legend "Get in Lane" showing the nearside lane for A4130 Oxford with an ahead arrow and the offside lane for A415 Culham with a right turn arrow, is provided. The advance direction sign should be located just downstream of the roundabout to encourage vehicle drivers to manoeuvre into the appropriate lane as soon as possible.	Agree with Auditor "Get in Lane" sign will be added just downstream of the roundabout to provide advance warning to drivers for the lane arrangement. A4074 Oxford will be shown with the nearside lane, and A415 Clifton Hampden will be shown with the offside lane.	
3.6	There is a significant length of two-way carriageway between the A415 Connection and the B4015 Connection junctions where the speed limit will be 50mph. There is concern that some vehicle drivers may attempt to overtake a slower moving vehicle on this section of the bypass. In	It is recommended that the double white lines road markings present west of the side road junction are extended to the east and commence prior to the eastern tapered hatching for the Ghost Island right turning lane.	Agree with Auditor The double white lines will be extended to east of the tapered hatching to discourage overtaking.	

	particular, some eastbound vehicle drivers might attempt to overtake before entering the lower 40mph speed limit, which extends up to the Culham Science Centre Roundabout. An errant vehicle that attempts to overtake too close to the junction could come into conflict with other road users, which could increase the risk of a collision occurring as a result.			
3.7	A secondary access will be provided from the bypass into the Culham Science Centre. A left in/left out side road junction will be provided on this northern side of the bypass. There is concern that some vehicle drivers may attempt to turn right into the secondary access through the one-way egress to avoid using the roundabout to access the site. Those westbound vehicles that slow down or stop in the mainline carriageway could be left vulnerable to conflict with a following vehicle. Furthermore, westbound vehicle drivers unaware that a queue might have formed ahead at the junction would have to brake heavily, leaving them particularly	It is recommended that the No Right Turn sign is incorporated into a direction sign for the main entrance for the Culham Science Centre ahead. In addition, a pair of No Entry signs should be provided on the one-way egress facing into the bypass.	Agree with Auditor No Entry signs will be added to make it more clear that the egress is not an access. The no right turn sign will be incorporated into a direction sign for the main entrance to Culham Science Centre. This will help reduce confusion for drivers new to the area that are travelling to Culham Science Centre.	

vulnerable to following vehicle	cor es.	nflict	with		



### Design Organisation statement

On behalf of the design organisation I certify that:

1) the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation

Name: Andrew Fox	
Signed:	
Position: Senior Engineer	
Organisation: AECOM	
Date: 07/12/2020	

### Overseeing Organisation statement

On behalf of the Overseeing Organisation I certify that:					
<ol><li>the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation</li></ol>					
3) the agreed RSA actions will be progressed.					
Name:					
Signed:					
Position					
Organisation:					
Date					

#### About AECOM

AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A *Fortune 500* firm, AECOM companies have annual revenue of approximately US\$18 billion. See how we deliver what others can only imagine at aecom.com and @AECOM.

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