



Middle Aston Limited

Hatch End Industrial Estate, Middle Aston

Transport Statement

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Middle Aston Limited

Hatch End Industrial Estate, Middle Aston

Transport Statement

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1 Introduction

1.1 Document Context

- 1.1.1 This Transport Statement (TS) has been prepared by mode transport planning (mode) on behalf of Middle Aston Limited. It accompanies a planning application for the redevelopment of the Hatch End Industrial Estate in Middle Aston, Oxfordshire.
- 1.1.2 The development proposals are for the redevelopment of 2,297m² existing storage, warehousing and office buildings to provide 30 business units and ancillary buildings totalling 3,170m², with 97 car parking spaces, 48 cycle parking spaces and access arrangements retained onto Fir Lane. The proposed site layout is provided in [Appendix A](#).
- 1.1.3 The application site is located in Middle Aston within the Cherwell District Council (CDC) local planning authority area. Oxfordshire County Council (OCC) is the local highway authority.
- 1.1.4 A Framework Travel Plan (FTP) has also been prepared to accompany the planning application. It is recommended that both the TS and the FTP are considered together. Specific crossovers between the two documents are referenced accordingly in each.

1.2 Document Purpose

- 1.2.1 The purpose of this TS is to consider the likely impact of the development proposals on the local road network, as well as to report how the proposed site layout has been designed to operate appropriately from a transport perspective. With regards to the impact of development traffic, the scope of this document being a TS corresponds with the net increase in commercial floor space being only 873m².
- 1.2.2 More specifically, the TS seeks to confirm the following:
 - That the application site is well placed to integrate with its surroundings and a variety of local facilities and amenities in Middle Aston and Steeple Aston.
 - Forecast travel demand for the development proposals, as per the proposed land use in comparison with the existing commercial operations, demonstrating that net traffic generation will not have an adverse impact on highway safety or capacity; and
 - Access and parking strategies that provide for all travel modes to suit the forecast travel demand and car parking accumulation and relevant car parking standards, prioritising sustainable modes of travel and suitably accommodating vehicle access and servicing requirements, including swept path analysis and visibility splays at the site access.

1.3 Document Stakeholders

- 1.3.1 It is the objective of this TS to provide sufficient detail on the above to allow CDC to take an appropriate view on the planning application in transport terms, in mind of the Revised National Planning Policy Framework (NPPF, revised in February 2019) and their own transport related planning policies. The latter may also include those applied by OCC, who as local highway authority will be consulted by CDC on the planning application.

- 1.3.2 Both CDC and OCC have been consulted by way of pre-application discussions informing the development proposals submitted as part of the planning application. Comments raised by CDC and OCC have been suitably accommodated in the submitted development proposals and discussed where relevant in this TS. For reference, the OCC pre-application response in direct reference to transport is provided in [Appendix B](#).
- 1.3.3 This TS provides the necessary evidence for a BREEAM assessment focusing on the Tra 01 and 02 criteria, based on the New Construction Assessment Guidance published in 2018.

1.4 Document Structure

- 1.4.1 The remainder of this TS is structured as follows:

Section 2: Application Site

This section describes the application site in terms of its location in the context of local facilities and amenities, as well as illustrating the local transport network.

Section 3: Development Proposal

This section provides an overview of the development proposal in terms of the proposed site layout and unit schedule. This section informs the remaining sections of the TS.

Section 4: Travel Demand

This section details the forecast travel demand of the development proposals in terms of AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour over the day (07:00 – 19:00) traffic generation and an interim mode share of travel modes. This has been calculated by comparing a TRICS-based forecast of development traffic with the results of baseline traffic survey of the existing commercial operations, with the interim mode share calculated from 2011 Census data.

Section 5: Access Strategy

This section outlines the access strategy of the development proposals to suit the forecast travel demand. This is considered for each travel mode – walking, cycling, public transport and vehicles, including for servicing and deliveries.

Section 6: Parking Strategy

This section compares the proposed cycle and car parking provision with local parking standards before providing an operational assessment of car parking accumulation for the whole site over the day.

Section 7: Local Road Network and Traffic Impact

This section provides detail regarding the quantified change in traffic movements predicted on Fir Lane to the north and south of the access as a result of development implementation and the calculated net increase in traffic movements.

Section 8: Conclusions and Recommendation

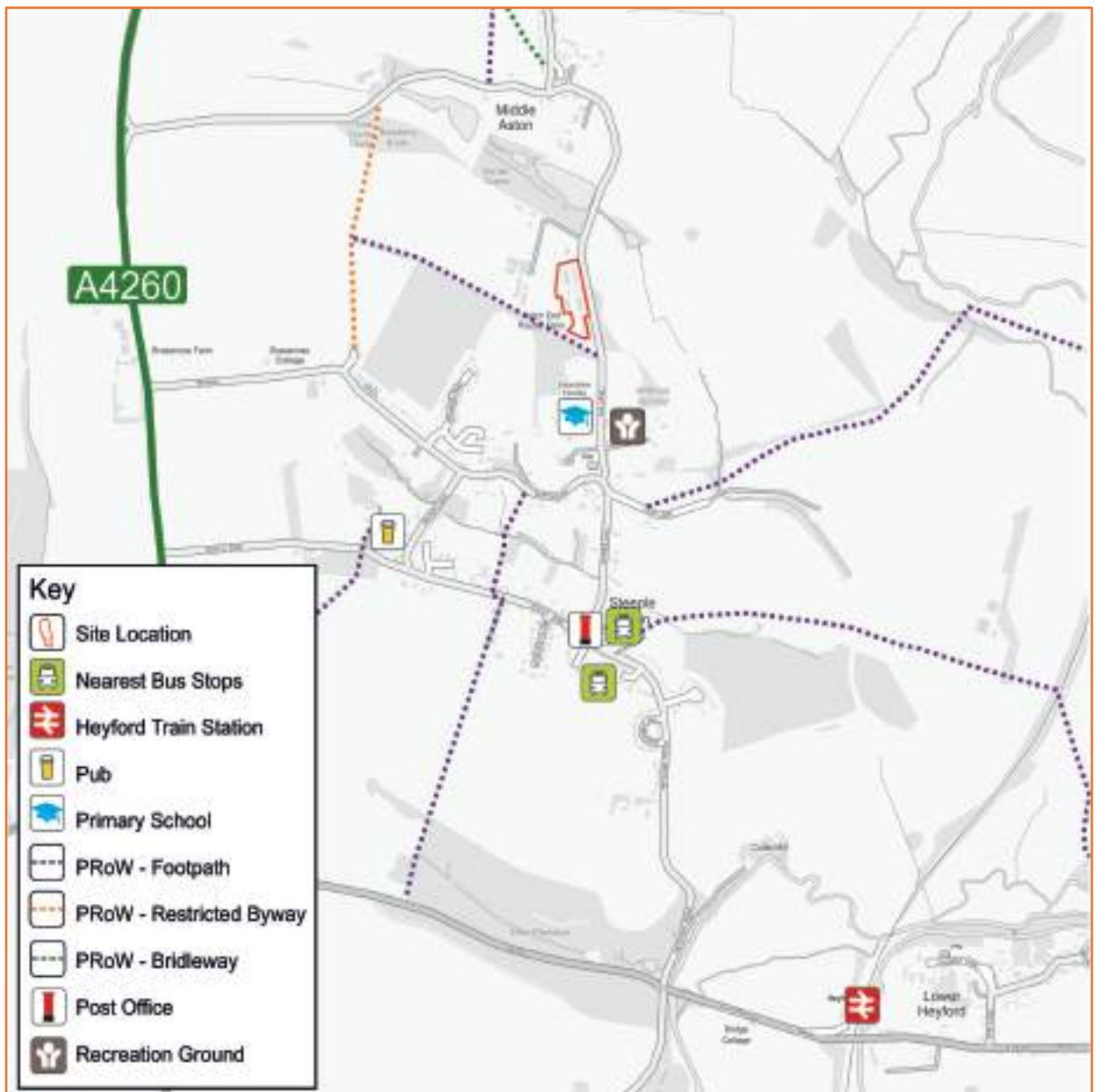
This section provides the headline conclusions of this TS in terms of satisfying the report objectives and accordance with relevant planning policy. A recommendation is provided on the basis of the conclusions.

2 Application Site

2.1 Site Location

2.1.1 The application site is situated in Middle Aston in Oxfordshire, to the west of Fir Lane. This is illustrated in the context of local facilities and amenities in the surrounding area, as well as the local transport network in **Figure 2.1**.

Figure 2.1: Site Location and Local Amenities



2.2 Existing Use

2.2.1 The Hatch End Industrial Estate application site currently accommodates warehousing, storage and office land uses totalling a Gross External Area (GEA) of 2,297m². The site is currently occupied by a range of occupiers, with remaining units currently vacant. A summary of the existing units by size, occupier and understood land use is provided in **Table 2.1**.

Table 2.1 Existing Units by Size, Occupier and Land Use

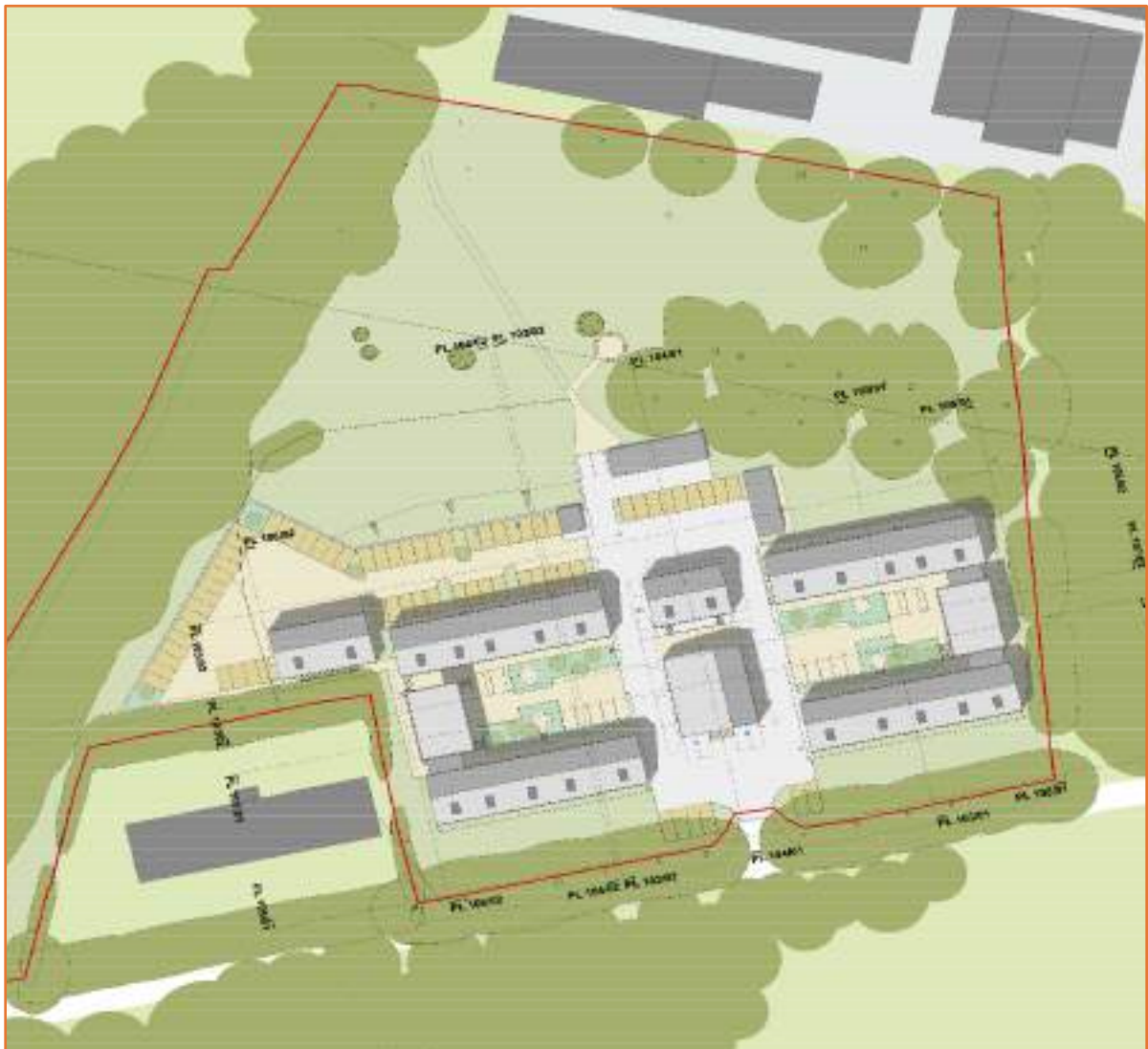
Unit	GEA (m2)	Occupier	Land Use
2a	100	The Arty Crafty Place Ltd.	B1c
2b	134	The School Photography Company Limited / Car Repairs	B1c
2c	100	Radcot Guttering Ltd	B1c
3	402	VACANT	B8
4a	184	Just Jetting Limited (drains clearance)	B1c
4b	426	Philip Smith and Louise McAuliffe (sale of car panels)	B8 with trade
5	609	VACANT	B1c
8a/b	52	VACANT	B1c
9a/b	135	The Arty Crafty Place Ltd.	B1c
Office	102	VACANT	B1a
Scout Hut	54	VACANT	B8
Total	2,297	-	-

3 Development Proposal

3.1 Overview

- 3.1.1 The development proposals are for the redevelopment of 2,297m² existing storage, warehousing and office buildings to provide 30 business units and ancillary buildings totalling 3,170m², with 97 car parking spaces, 48 cycle parking spaces and access arrangements retained onto Fir Lane.
- 3.1.2 The existing access arrangement onto Fir Lane will be able to continue to accommodate the manoeuvres of large vehicles serving the site, further explored in [Section 5](#).
- 3.1.3 The proposed site layout is shown on [Figure 3.1](#), with a scaled plan provided in [Appendix A](#).

Figure 3.1: Proposed Site Layout



Note: Site Layout subject to change during planning application consultation

3.2 Unit Schedule

3.2.1 A detailed schedule in terms of the size of each unit is provided in [Table 3.1](#).

Table 3.1 Unit Schedule

Unit	GIA (sqm)
Unit 1.1	198.7
Unit 2.1	122.6
Unit 2.2	122.6
Unit 2.3	99.3
Unit 2.4	99.3
Unit 2.5	99.3
Unit 3.1	122.6
Unit 3.2	122.6
Unit 3.3	99.3
Unit 3.4	99.3
Unit 3.5	111.7
Unit 3.6	66.0
Unit 3.7	66.0
Unit 4.1	122.6
Unit 4.2	122.6
Unit 4.3	99.3
Unit 4.4	99.3
Unit 4.5	111.7
Unit 4.6	66.0
Unit 4.7	66.0
Unit 5.1	122.6
Unit 5.2	122.6
Unit 5.3	99.3
Unit 5.4	99.3
Unit 5.5	120.1
Unit 6.01	99.3
Unit 6.02	99.3
Unit 7.01	122.6
Unit 7.02	122.6
Unit 8.01	45.9

4 Travel Demand

4.1 Overview

4.1.1 Forecast travel demand associated with the development proposals has been estimated to inform the following:

- Net traffic generation on the local road network; and
- An interim mode share for the accompanying FTP.

4.1.2 Vehicle trips for the existing land uses at the Hatch End Industrial Estate buildings have been quantified by way of a baseline traffic survey, with assumptions surrounding vacant units. Vehicle trips for the development proposals have been calculated through interrogation of comparable site surveys in the TRICS database. The difference between the two provides net traffic generation.

4.1.3 An interim mode share for the development proposals is based upon 2011 Census 'Journey to Work' data for the local area.

4.2 Baseline Traffic Generation

4.2.1 A Manual Classified Turning Count (MCTC) survey has been undertaken at the site access for the Hatch End Industrial Estate on the following basis:

- Over 24-hours at 15-minute intervals; and
- On Wednesday 13th November 2019, being a neutral weekday outside of school holiday periods or bank holidays (with no identified road works taking place at the time).

4.2.2 As Hatch End Industrial Estate currently situates units that are vacant that cover a range of B1a / B1c / B8 land uses (as summarised in [Section 2](#)), the MCTC survey has been factored up by 2.129 on the basis of 2,297m² being present at the site and only 1,079 m² being occupied at the time the MCTC survey was undertaken.

4.2.3 The full results of the MCTC survey are provided in [Appendix C](#), whilst the factored baseline traffic generation during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods and over the day (07:00 – 19:00) is summarised in [Table 4.1](#).

Table 4.1 Baseline Traffic Generation (for 2,297m²)

AM Peak (08:00 – 9:00)			PM Peak (17:00 – 18:00)			Whole Day (07:00 – 19:00)		
Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Total
13	13	26	6	11	17	66	70	136

4.2.4 As demonstrated in [Table 4.1](#), the baseline traffic generation is 26 two-way movements during the AM (08:00 – 09:00) peak hour period, comprised of 13 arrivals and 13 departures. During the PM (17:00 – 18:00) peak hour this is correspondingly 17 two-way vehicle movements, comprising 6 arrivals and 11 departures. Over the day (07:00 – 19:00) the baseline traffic generation is 136 two-way vehicle

movements, comprised of 66 arrivals and 70 departures. It is also noted that with 1 HGV recorded in the baseline traffic survey over the day, this may correspond with 2 when factored for unoccupied units.

4.3 Net Development Traffic Generation

4.3.1 In order to forecast the net development traffic generation expected as a result of the development proposals during the same peak hours and whole day periods as the baseline, the TRICS database has been interrogated for comparable site surveys and trips rates for the proposed land uses.

4.3.2 To ensure comparable sites, the TRICS database has been filtered for similar locations within the 'Employment / Business Park' land use category. The following filtering criteria resulted in the selection of eight site surveys providing for vehicle trip rates:

- UK, Excluding Greater London;
- Gross Floor Area (m²): 1,500 – 142,687m²;
- Date Range: 01/01/2011 – 26/06/2018; and
- Selected Locations: Suburban Area, Edge of Town and Neighbourhood Centre.

4.3.3 The vehicle trip rates for the eight site surveys during the traditional AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hours and over the day (07:00 – 19:00) are summarised in [Table 4.3](#). The corresponding total trips in comparison with the existing vehicle trips are also provided to quantify the net change in vehicles. Full TRICS outputs are enclosed as [Appendix D](#).

Table 4.3 TRICS Trip Rates and Trips Compared with Baseline to Provide Net Trips

Summary	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)			Daytime (07:00 – 19:00)		
	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Total
Baseline	9	9	18	5	8	12	47	50	98
Development proposal trip rates	1.204	0.132	1.336	0.081	0.863	0.944	3.249	3.191	6.44
Development proposal trips	38	4	42	3	27	30	103	101	204
Net Change	+25	-9	+17	-4	+17	+13	+37	+31	+68

4.3.4 As demonstrated in [Table 4.3](#), the development proposals are forecast to result in a net increase of 17 two-way movements during the AM (08:00 – 09:00) peak hour period, comprising of an additional 25 arrivals and 9 less departures. During the PM (17:00 – 18:00) peak hour period, there is forecast to be a net increase of 13 two-way movements, comprising of 4 less arrivals and an additional 17 departures. Over the day (07:00-19:00), there is forecast to be a net increase of 68 two-way movements, comprising of an additional 37 arrivals and 31 departures.

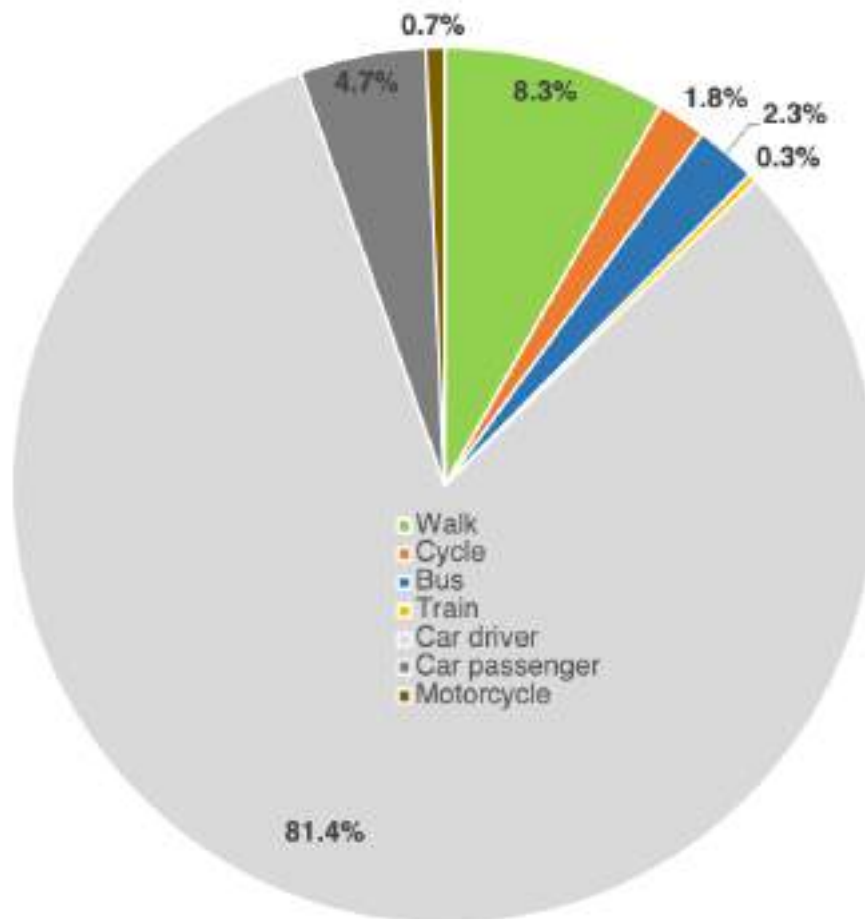
4.3.5 It is noted that the TRICS trip rates include for OGV trip rates. However, these result in a comparatively negligible quantum of OGV trips as the baseline position. This corresponds with the proposed land uses, where access by heavy vehicles is expected to be limited to refuse vehicles other than very rare

occasions. This is discussed further in [Section 5](#). No further assessment of OGVs / heavy vehicles has been undertaken on this basis.

4.4 Interim Mode Share

4.4.1 An interim mode share of the development proposals has been estimated based upon 2011 Census 'Journey to Work' data for the local area. This provides an indication of preferred travel choice by future staff of the proposed employment land use. In this case, the 'E02005930: Cherwell 010 (2011 MSOA Layer)' has been adopted, which covers the application site as a place of work. The corresponding interim mode share is demonstrated on [Figure 4.1](#).

Figure 4.1 Interim Mode Share



4.4.2 [Figure 4.1](#) demonstrates that 18.6% of staff may be expected to commute to the site by sustainable travel modes, with the remaining 81.4% being single occupancy car drivers. This is the adopted interim mode share within the FTP and will remain the assumed baseline position for future staff before the travel surveys confirm otherwise.

4.4.3 The above interim mode share otherwise demonstrates the development proposals' potential to encourage access to the site by walking, cycling and public transport. The ability for the development site to accommodate this potential for sustainable travel is detailed in [Section 5](#).

5 Access Strategy

5.1 Site User Requirements

5.1.1 The development proposals will integrate with the existing infrastructure available to the application site whilst adapting and providing suitable access for all travel modes to the individual units. In addition to the vehicle trips detailed in **Section 4**, the development is expected to generate additional trips by other modes, including walking, cycling and the use of public transport services.

5.2 Pedestrian Connections

5.2.1 The development proposals are located as to enable pedestrian connectivity with Middle Aston and Steeple Aston akin with the semi-rural and lightly trafficked environment, with both villages being situated within a 1-kilometre or 10-minute walk (on the basis of 400m being covered per 5 minutes as per industry guidelines).

5.2.2 The above will largely relate to staff who may live locally and may not require a vehicle during the working day to travel elsewhere, with potential for attracting staff from further afield via bus stops in Steeple Aston and Heyford Railway Station. For staff living in the surrounding villages, commuting by foot could also be considered although other sustainable modes of travel may be more practical where distances increase over 2-kilometres, such as by cycling or by bus.

5.2.3 Existing footway provision on both sides of the Fir Lane carriageway begins approximately 310-metres south from the site in proximity to Dr Radcliffe's Church of England Primary School. Footway provision continues southwards as Fir Lane adjoins with Paines Hill providing pedestrian access into Steeple Aston, situating local facilities and amenities including a Post Office and a residential area.

5.2.4 A crossing opportunity with tactile paving with dropped kerbs is present as Paines Hill connects with South Side, running on a west to southeast axis. To the east South Side merges with Heyford Road, situating bus stops on both sides of the carriageway and providing for pedestrian access east and west.

5.2.5 A number of Public Rights of Way (PRoW) footpaths, byways and bridleways (as presented on the OCC interactive map) are present in proximity to the application site, as illustrated on Figure 2.1. This includes Footpath 364/5/10 running adjacent to the southern boundary of the site. These PRoWs provide the opportunity for pedestrian access into Middle Aston to the north and Steeple Aston.

5.2.6 Within the development site, a shared surface for all site users will provide for pedestrian movement within the site. This is on the basis of a low vehicle speed environment and limited servicing and delivery activity (discussed in more detail later in this section).

5.3 Cycle Connections

5.3.1 The development proposals are located as to cycle connectivity with Middle Aston as well as the wider local area, including Steeple Aston and Lower Heyford. This will offer staff (and to some degree visitors) the ability to more realistically commute to and from the site over greater distances than walking.

5.3.2 The proposed site layout makes provision for cycle parking, detailed further in **Section 6**. Provision within the development will otherwise be by way of street make-up of a suitable standard to allow for cyclists to share carriageway space with other road users.

- 5.3.3 Cyclists will be able to access the local network via Fir Lane. Fir Lane runs on a north-to-south axis, connecting with Paines Hill to the south. Paines Hill continues to run southwards, connecting with South Side running on a west to southeast axis. To the west South Side connects with the A4260, running into the centre of Oxford, and to the southeast merges with Heyford Road.
- 5.3.4 The nearest National Cycle Network (NCN) Route to the development site Route 5, running via Middle Barton approximately 6.1-kilometres west from the site. NCN Route 5 provides a connection between Reading and Holmead, via Oxford and Banbury, providing a mixture of traffic-free and on-road cycling routes.

5.4 Public Transport Services

- 5.4.1 The development proposals are located as to enable bus connectivity with the wider Oxfordshire area including Chipping Norton, Bicester, Banbury and Oxford. In addition, train services from Heyford Railway Station will enable connections from a wider region. These may offer staff the ability to commute by bus or train, if preferred over walking or cycling locally, or over greater distances where bus or train provide a practical alternative to the private car.
- 5.4.2 The nearest bus stops to the application site are the 'Post Office' bus stops, situated on both sides of Heyford Road in Steeple Aston, approximately 980-metres southeast from the site. A summary of local bus services running via the Post Office bus stops is provided in **Table 5.1**.

Table 5.1 Summary of Local Bus Services

Service	Route	Start	Finish	Frequency
2	Middle Barton – Steeple Aston	18:12	-	Once per day
5	Middle Barton – Chipping Norton	09:00	12:26	Twice per day
8	Middle Barton – Bicester	14:05	-	Once per day
S4	Oxford – Deddington - Banbury	07:57	21:00	Once per hour

Note: Bus services are subject to change

- 5.4.3 As summarised in **Table 5.1**, the local bus services serving the Post Office bus stops provide access to a number of destinations within the wider Oxfordshire area, including Middle Barton, Chipping Norton, Bicester and Banbury. Most notably is the service S4, which provides a regular service throughout the day between Oxford and Banbury (via Steeple Aston).
- 5.4.4 The nearest Train Station to the development site is Heyford Railway Station, situated approximately 2.3-kilometres southeast from the site. Heyford Railway Station provides for train services operated by Great Western Railway and Chiltern Railways. Corresponding train services are available to and from stations including Oxford, Banbury and Didcot Parkway (with subsequent or preceding changes available to and from wider destinations).

5.4.5 The above train connections are expected to benefit both staff and visitors for medium to long distances travelled. This will enable visitors throughout the UK to travel to and the from utilising sustainable modes of travel.

5.5 BREEAM Accessibility Index

5.5.1 In accordance with the BREEAM Accessibility Index (AI) Tra 01 Calculator, the development site AI score has been calculated. Classifying the site as an 'Office / Industrial' Building Type in proximity to 1 node, the development site has an AI score of 0.68.

5.6 Vehicle Access and Servicing

5.6.1 The development proposals have been designed to enable suitable access for light vehicles (including staff and visitors travelling by car) as well as for occasional goods vehicles, limited generally to vans given the use class and scale of proposed units. Larger vehicles can nevertheless be accommodated as per the existing conditions, such as for infrequent private waste collection.

5.6.2 The existing and established access onto Fir Lane will be retained in its existing form. The existing access arrangement is able to accommodate the manoeuvres of large vehicles serving the site. It is clear from site observations that this provides for a wide and visible access between the site and Fir Lane. Whilst there is a tree line along Fir Lane, all trees are sufficiently set back to enable consistent visibility in both directions, assisted by the maintenance of related vegetation.

5.6.3 For completeness, visibility splays at the existing and retained site access are demonstrated on **mode drawing 324000-001**, provided in **Appendix E**. This demonstrates visibility splays in-line with Manual for Streets Stopping Sight Distance (SSD) calculations for the recorded 85th percentile speeds to the nearest 0.5mph summarised in **Table 5.2**. This corresponds with detailed Automatic Traffic Counts (ATC) placed north and south of the access position, as provided in **Appendix C** and discussed further in **Section 7**.

Table 5.2 85th Percentile Speeds and Visibility Splay Requirements

Direction	Approach 85 th percentile speed	MfS SSD Requirement (including bonnet length)
Visibility splay south	37.5mph	57.5m
Visibility splay north	27.5mph	37.8m

5.6.4 The proposed layout demonstrates the provision of car parking courts adjacent to each building and a two loading bays located within the central circulation area. This loading bay is to be used by service vehicles, with refuse vehicles stopping mid-way around the circulation to access a communal bin store for all site users to the north.

5.6.5 Swept path analysis of a 7.5t box van and a 11.2m refuse vehicle accessing and egressing the site, and manoeuvring into the loading bay and around the central buildings is demonstrated on **mode drawing 324000-TK01** provided in **Appendix E**.

6 Parking Strategy

6.1 Cycle Parking

6.1.1 Proposed cycle parking will be provided in-line with the OCC minimum cycle parking standards, as summarised in **Table 6.1**. This is on the basis of the parking standards being applied to the total business unit floor area, excluding the ancillary buildings and retained scout hut.

Table 6.1 OCC Minimum Cycle Parking Standards and Application to Land Uses

Land Use	OCC Minimum Standard	Applied Standard (3,170sqm)
B1	1 stand per 150m ²	21 Stands (42 Spaces)

Note: 1 Stand equates to 2 cycle parking spaces

6.1.2 48 cycle parking spaces will be provided in a secure, communal shelter located in the north of the development site, adjacent to the Scout Hut building. 3 showers and 36 lockers will be provided for cyclist use.

6.2 Car Parking

6.2.1 At the request of OCC during pre-application discussions, proposed car parking will be provided in-line with the OCC 'optimum' parking standards, as summarised in **Table 6.2**. This is on the basis of the parking standards being applied to the total business unit floor area, excluding the ancillary buildings and retained scout hut.

Table 6.2 OCC 'Optimum' Car Parking Standards and Application to Land Uses

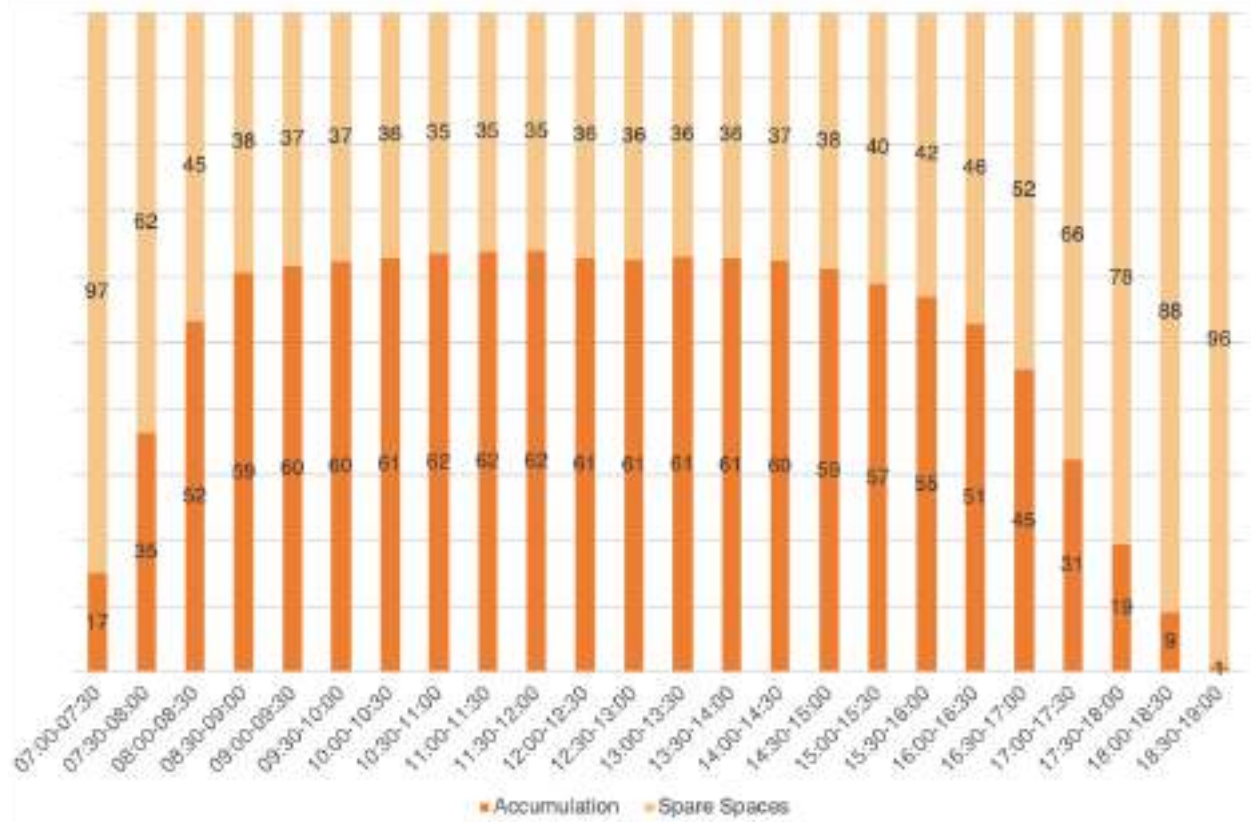
Land Use	OCC 'Optimum' Standard	Applied Standard
B1	1 space per 30m ²	97

6.2.2 The development proposals make provision for 97 car parking spaces, in line with the B1 parking standard. It is intended that these will be offered on a communal basis given the number of modestly sized units. This is with the exception of spaces with Electric Vehicle (EV) charging capabilities, which require dedicated ducting to power supplies in individual units. 10 parking spaces have EV High Speed charging capabilities, equating to 10% of total car parking spaces.

6.2.3 5 accessible bays for blue badge holders will be provided on the basis of 5% of the total car parking provision, in-line with the Department for Transport (DfT) 'Inclusive Mobility' guidance document, which recommends a minimum of 5% accessible bay provision for new employment premises.

6.2.4 To provide further evidence with regard to the suitability of the proposed car parking provision, an assessment of typical car parking accumulation has been undertaken. This has adopted the vehicle trip rates for the proposed development detailed in **Section 4**, on a half hourly basis between 07:00 - 19:00. This is demonstrated graphically on **Figure 6.1**.

Figure 6.1 Total Parking Accumulation



6.2.5 Figure 6.1 demonstrates that the proposed parking provision is more than sufficient to accommodate for the forecast parking accumulation.

6.2.6 The spare parking spaces for each unit are expected to offer the opportunity for peak occasions and higher take-up by individual occupiers.

7 Local Road Network

7.1 Scope of Network

7.1.1 The development proposals are forecast to generate modest additional traffic movements on the local road network in comparison with the existing uses, as detailed in [Section 4](#). The conditions on the local road network and the anticipated distribution percentages have been considered and traffic flows quantified in order to provide the basis for subsequent consideration of development traffic impact.

7.1.2 The local road network relevant to the development proposal is considered to comprise of the Hatch End Industrial Estate road and its connection with Fir Lane.

7.1.3 The distribution of the net traffic movements onto Fir Lane to the north or south of the access has been quantified using the existing arrival and departure distribution patterns recorded in the MCTC survey for existing traffic movements serving the Hatch End Industrial Estate. The net traffic movements and their distribution percentages during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods and over the day (07:00 – 19:00) is summarised in [Table 7.1](#).

Table 7.1 Net Traffic Movements and Distribution Percentages

Direction	AM Peak (08:00 – 09:00)		PM Peak (17:00 – 18:00)		Daytime (07:00 – 19:00)	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
Fir Lane (North)	50%	20%	33%	80%	32%	44%
	13	-2	-1	13	12	14
Fir Lane (South)	50%	80%	67%	20%	68%	56%
	13	0	-3	3	25	17

7.2 Traffic Impact

7.2.1 In order to consider traffic impact, existing weekday traffic flows on Fir Lane have been quantified. This has been achieved through the placement of 7-day ATC surveys at the following two locations between Wednesday 13th November to Wednesday 20th November 2019:

- **ATC 1** – Placed to the north of the existing access into the Hatch End Industrial Estate, prior to the access road serving Lakeside Farm Business Park; and
- **ATC 2** – Placed to the south of the existing access into the Hatch End Industrial Estate.

7.2.2 The baseline two-way weekday average traffic flows recorded at the ATC 1 and 2 locations during the AM (08:00 – 09:00), PM (17:00 – 19:00) peak hour periods and over the day (07:00 – 19:00) have been compared with the addition of the distributed net traffic movements. This is summarised in [Tables 7.2, 7.3 and 7.4](#) respectively. The full results of the ATC surveys are provided in [Appendix C](#).

Table 7.2 AM (08:00 – 09:00) Peak Hour Traffic Impact (two-way movements)

Scenario	Fir Lane (North)		Fir Lane (South)	
	Vehicles p/hour	Seconds p/vehicle	Vehicles p/hour	Seconds p/vehicle
Baseline	54	67	58	62
Baseline w/Development	65	55	71	51
Net Change	+11	-12	+13	-11

7.2.3 As demonstrated in **Table 7.2**, during the AM (08:00 – 09:00) peak hour the development proposal is anticipated to implement a net increase of 11 two-way traffic movements to the north of the access onto Fir Lane and 13 two-way movements onto Fir Lane to the south of the access. On average over this time period, this corresponds with the number of seconds between any vehicle reducing by 11 to 12 seconds, albeit this remaining approximately 1 vehicle a minute in either direction on Fir Lane.

Table 7.3 PM (17:00 – 18:00) Peak Hour Traffic Impact (two-way movements)

Scenario	Fir Lane (North)		Fir Lane (South)	
	Vehicles p/hour	Seconds p/vehicle	Vehicles p/hour	Seconds p/vehicle
Baseline	34	106	36	99
Baseline w/Development	46	78	37	97
Net Change	+12	-28	+1	-2

7.2.4 As demonstrated in **Table 7.3**, during the PM (17:00 – 18:00) peak hour the development proposal is anticipated to implement a net increase of 12 two-way traffic movements to the north of the access onto Fir Lane and 1 two-way movements onto Fir Lane to the south of the access. On average over this time period, this corresponds with the number of seconds between any vehicle reducing by 2 to 28 seconds, albeit this remaining approximately 1 vehicle every 1 to 2 minutes in either direction on Fir Lane.

Table 7.4 Daytime (07:00 – 19:00) Traffic Impact (two-way movements)

Scenario	Fir Lane (North)		Fir Lane (South)	
	Vehicles p/hour	Seconds p/vehicle	Vehicles p/hour	Seconds p/vehicle
Baseline	397	9	471	8
Baseline w/Development	423	9	513	7
Net Change	+25	0	+42	-1

7.2.5 **Table 7.4** demonstrates that over the day (07:00 – 19:00) the development proposal is anticipated to implement a net increase of 25 two-way traffic movements to the north of the access onto Fir Lane and 42 two-way movements onto Fir Lane to the south of the access. On average over this time period, this corresponds with there being a negligible difference in the number of seconds between any vehicle, with this remaining 1 vehicle every 3 to 4 minutes in either direction on Fir Lane.

7.3 Summary

7.3.1 Overall, the development traffic impact on Fir Lane is forecast to be negligible, as demonstrated through the collection and analysis of existing traffic flow ATC data compared to the distributed net traffic movements.

7.3.2 It should be noted that the forecast traffic generated by the proposed development is anticipated to be generally limited to light vehicles given the use class and scale of proposed business units in comparison to the existing industrial land uses. On this basis, there is not anticipated to be any perceptible change in HGV activity on Fir Lane.

8 Conclusions and Recommendation

8.1 Conclusions

8.1.1 This Transport Statement (TS) has confirmed all transport matters necessary for consideration of the planning application by CDC through consultation with OCC. The following conclusions are drawn in support of the document objectives and relevant planning policy:

- The application site is well placed to integrate with its surroundings and sustainable travel infrastructure in Middle Aston and the wider Oxfordshire area;
- The proposed access strategy provides for all travel modes to suit the forecast travel demand, prioritising sustainable modes of travel. The proposed site layout is demonstrated to accommodate swept paths for the largest vehicles anticipated to serve the site;
- A parking strategy will provide cycle and car parking provision in-line with OCC parking standards, as well to satisfy an operational assessment of car parking accumulation; and
- The impact of the development traffic is shown to be negligible, with no increase in HGVs added onto the local highway network. This has been demonstrated through collection and analysis of traffic count data to consider the uplift of two-way traffic movements at the site access and on Fir Lane.

8.2 Recommendation

8.2.1 Based upon the contents of this TS and above conclusions, it is recommended that the development proposals are considered suitable in transport terms. No adverse transport impacts are expected as a result of the development proposals' implementation, which will be further supported by the Framework Travel Plan accompanying this TS and planning application.

APPENDICES

APPENDIX A – Proposed Site Layout



1 Proposed Site Plan
Scale: 1:500

Rev	Date	Desn	Checkd	Description	Rev	Date	Desn	Checkd	Description
A	03.10.19	AK	RG	Additional parking spaces added					
B		AK	RG	Retaining walls adjusted, central area revised, parking provision amended					

DRAFT PLANNING ISSUE

Site Areas
Site ownership 24,600m²
Application area 9,830m²

Area within site ownership ———
Planning Application area ———

annotation key
electric car charging point e

6 King Street Bristol BS1 4EQ
T 0117 929 9293 E info@fm-architects.co.uk
F 0117 929 9296 W fm-architects.co.uk

All drawings are copyright
Report all discrepancies to project administrator
Do not scale drawing for construction purposes
All dimensions to be checked on site

0 25m

ferguson mann architects

Job Title Hatch End, Middle Aston
Client Middle Aston Limited
Scale 1:500 @ A1
1:1000 @ A3
Date 15.05.19
Drawn RG
Checked AK

Drawing Title Proposed Site Plan (Overall)
Job No 10949
Drawing No PL 100
Rev B



1 Proposed Site Plan (Phase IA & 1B)
Scale: 1:200

Rev	Date	Desn	Checkd	Description
A	03.10.19	AK	RG	Additional parking spaces added
B		AK	RG	Retaining walls adjusted, central area revised, parking provision amended

DRAFT PLANNING ISSUE

1	Site entrance	7	Scouts store
2	Central hub building	8	Refuse/recycling
3	New workspace buildings	9	Cycle store (48 no cycles)
4	Fire escape access	10	Sub-station
5	Courtyard garden area	11	Loading bay (2 spaces)
6	Sitting/meeting space	12	Disabled parking (4 spaces)

6 King Street Bristol BS1 4EQ
T 0117 929 9293 E info@fm-architects.co.uk
F 0117 929 9295 W fm-architects.co.uk

All drawings are copyright.
Report all discrepancies to project administrator
Do not scale drawing for construction purposes
All dimensions to be checked on site

0 10.0m

ferguson mann architects

Job Title: Hatch End, Middle Aston
Client: Middle Aston Limited
Scale: 1:200 @ A1
Date: 15.05.19
Drawn: RG
Checkd: AK

Drawing Title: Proposed Site Plan
Drawing No: PL 101
Rev: B

APPENDIX B – OCC Pre-Application Dialogue

OXFORDSHIRE COUNTY COUNCIL'S PRE APPLICATION ADVICE ON THE RESPONSE TO CONSULTATION ON THE FOLLOWING DEVELOPMENT PROPOSAL

District: Cherwell

Application no: 18/CH0017/Preapp

Proposal: Planning application for the redevelopment and extension of Hatch End Industrial Estate (23,500 sq ft) Industrial estate is operational and currently made up of low quality B1/B8 units. Seeking to re-develop the site to add in small/medium sized workshop units

Location: Hatch End Industrial Estate, Middle Aston, Kirtlington.

Response date: 4th December 2018

Purpose of document

This report sets out Oxfordshire County Council's view on the proposal.

This report contains officer advice in the form of a strategic response (if appropriate) and technical team response(s).

Where possible these comments contain:

- Advice on the feasibility of the location.
- Advice on what to include in a full application.
- Advice on the need for any pre-application surveying to be undertaken.

Disclaimer

Please note this advice represents the opinion of an Officer(s) of the Council only, which is given entirely without prejudice to the formal consideration of any planning application which may be submitted.

Application no: 18/CH0017/Preapp

Location: Hatch End Industrial Estate, Middle Aston, Kirtlington.

Transport Development Comments

Based upon the limited information supplied and based upon the Counties optimum parking standards, the County would expect the following car and cycle parking provisions based upon the various mixes of use.

Car

Minimum

B1 - 1 space per 30sqm - 98.77

B2 - 1 space per 50sqm - 59.26

B8 - 1 space per 200sqm - 14.82

Average across uses - 57.62

Total 2,963sqm

Maximum

B1 - 1 space per 30sqm - 165.66

B2 - 1 space per 50sqm - 99.4

B8 - 1 space per 200sqm - 24.85

Average across uses - 96.64

Total 4,970sqm

Cycle

Minimum

B1 - 1 stand per 150sqm – 19.6

B2 - 1 stand per 350sqm – 8.5

B8 - 1 stand per 500sqm - 6

Average across uses – 11.4

Total 2,963sqm

Maximum

B1 - 1 stand per 150sqm – 33.1

B2 - 1 stand per 350sqm – 14.2

B8 - 1 stand per 500sqm - 10

Average across uses – 19.1

Total 4,970sqm

Further to the site visit that I conducted, I had concerns with over running of vehicles leaving the site and either turning towards Middle Aston or back into Steeple Aston, on the opposite side of the carriageway. Therefore, given the uncertainty with regards to what the eventual

end users of the development will be, suitable tracking should be provided with any application that show suitable access and egress from the site and within the site.

As a result of the above, should an application arise from this Preapp and based upon the information supplied, OCC are unlikely to have objection to in principal to this proposal, subject to the above optimum parking standards are adhered too and suitable HGV tracking plans are provided.

I trust this is of assistance. However, please note that the above advice represents the informal opinion of an Officer of the Council only, which is given entirely without prejudice to the formal consideration of any planning application which may be submitted.

Officer's Name: Tom Plant

Officer's Title: Area Liaison Officer

Date: 04/12/2018

CHERWELL DISTRICT COUNCIL

Pre-Application Report

Pre-application Reference No:	19/00185/PREAPP	
Proposal:	Redevelopment of site in same uses (B1, B2 and B8 use and a community use)	
Site Address:	Hatch End Old Poultry Farm Steeple Aston Road Middle Aston Bicester OX25 5QL	
Date Site Visited:	12 th August 2019	
Date & Time & Location of Meeting (if applicable):	12 th August 2019, on site	Start: 15:00
		Finish: 16:00

TECHNICAL ASSESSMENT

Internal Consultations Required: Conservation, Ecology, Tree Officer, Landscape Officer, Planning Policy, Recreation and Leisure

External Consultations Required: OCC Single Response (including Highways), Thames Water

Flood Risk: The site is within Flood Zone 1 which is the zone of lowest flood risk. The Environment Agency has produced advice for applicants and agents about assessing flood risk in the planning process, and this can be viewed online at: <https://www.gov.uk/flood-risk-assessment-for-planning-applications>. You should have regard to this advice when preparing your application.

The Environment Agency also offers a pre-application service, details about which are available online at: <https://www.gov.uk/government/publications/planning-advice-environment-agency-standard-terms-and-conditions>

Drainage: You need to consider foul and surface water drainage when designing your proposals. In respect of foul drainage, you should first seek to connect to the public sewer network. You can contact Thames Water for further advice about this; information about their pre-application service is available online at: <https://developers.thameswater.co.uk/commercial-building-works/wastewater/pre-application-help-and-advice>.

EIA Screening Opinion Required? Yes

Committee or Delegated Matter? The application would be classified as a Major Development (in excess of 1,000 sq m) and therefore would need to be reported to Planning Committee for a decision.

Relevant Planning History:

Whole site

55/00153 – Erection of poultry plant for research – Permitted

75/00367 – Residential development – Refused

82/00414 – Erection of 2 broiler houses – Permitted.

82/00483 – Extension to two broiler houses – Permitted

96/00939/F - Change of use of buildings to B1, B2 and B8 uses inc. m/cycle repair w/shop, car prep'r'n, metal fabrication, vehicle maint'n'ce, joinery store/w/shop, furniture store/restoration, catering equipment store, assoc. l/scap'g, park'g, access works. (RETROS.) – Refused due to impact on highway

97/01419/F - Change of use of building No.s 2, 3, 4, 5, 8 and 9 to various B1, B2 and B8 uses (offices/general industrial/warehouses). Use of building (Jabaville) as scout hut and use of existing office building as office not assoc. with poultry farm. (RETROSPECTIVE)- Permitted subject to conditions and a legal agreement (this required removal of buildings and laying out of access and parking and provision of landscaping etc). This include a number of conditions including condition 1 which only allows for the buildings to be used for the uses specified within the application in the interests of amenity and highway safety. It later appears that a mechanism was introduced which allowed for the occupiers to change through an exchange of letters with the Local Planning Authority. This however subsequently appears to be removed by a further letter. This consent also included conditions which restricted the use of outdoor spaces, hours of operation, parking and landscaping.

A number of further permissions have been granted on the site however these have generally be made personal to the intended occupier or strictly controlled through conditions. These include the permissions outlined below:

Northern western Building

00/00014/F - Change of use from storage of catering equipment (B8) to car disassembly (B2) and storage/distribution of parts (B8) – Permitted

00/00985/F - Change of use from storage of catering equipment (B8) to Prestige Car Preparation (B2) – Permitted

South western building

07/01779/F - Change of Use from sui generis use to Class B1 (business) use – Permitted

03/01548/F - Change of use to repair of vehicles and operate coach and mini bus for private hire and HGV freight (RETROSPECTIVE) - Permitted

Policy:

Cherwell Local Plan 2011 - 2031

Policy SLE1 - Employment Development

Policy SLE4 - Improved Transport Connections
Policy BSC12 - Indoor Sport, Recreation and Community facilities
Policy ESD1 - Mitigating and Adapting to Climate Change
Policies ESD3-ESD5 – Sustainable construction and renewable energy
Policies ESD6 – 7 – SUDS and flood risk
Policy ESD10 - Protection and Enhancement of Biodiversity and the Natural Environment
Policy ESD13 - Local Landscape Protection and Enhancement
Policy ESD15 - Design and the Built Environment
Policy ESD17 - Green Infrastructure
Policy Villages 1 - Village Categorisation

Saved Policies of the adopted Cherwell Local Plan 1996

Policy EMP1 - Allocation of sites for employment generating development
Policy TR7 - Minor roads
Policy TR10 - Heavy Goods Vehicles
Policy C8 – Sporadic Development in the Open Countryside
Policy C15 - Coalescence
Policy C28 - Design Considerations

Mid-Cherwell Neighbourhood Plan (May 2019)

Policy PD4 - Protection of Important views and vistas
Policy PD5 - Building and Site Design
Policy PD6 - Control of Light Pollution
Policy PC1 - Local Employment

PROFESSIONAL ASSESSMENT BY CASE OFFICER

Your enquiry relates to a proposed re-development of the site for B1/B2 and B8 purposes. At the meeting it was stated that B2 use is no longer being pursued. This would include the demolition of all the existing buildings on the site which have a combined floor area of 2,250 sq m of commercial floor space and a 50 sq m scout hut.

The proposed development would comprise new buildings on a similar footprint to the existing and would lead to the creation of 21 small units on the site with a central communal hub with an overall floor space of approximately 2,400 sq m. A new scout hut would also be provided to the west of the site.

It is considered that the main issues relating to your proposal are:

- § Principle
- § Impact on character and appearance including heritage assets
- § Highway safety
- § Residential amenity
- § Protected species
- § Other matters including sustainability etc.

Principle

The site is an existing employment site, albeit having a complex site history, and is subject to several planning conditions which strictly control the nature and scale of the proposed uses being capable of being undertaken at the site. You stated on site that the requirement to agree new occupiers under condition 1 of this consent had been removed by the local planning authority and have provided me a copy of this letter and therefore the advice that follows is given on this basis.

Policy SLE1 of the Cherwell Local Plan Part 1 (2015) and Policy PC1 of the Mid-Cherwell Local Plan (MCNP) (2018) (the site lies within Mid-Cherwell Neighbourhood Plan Area) are generally supportive of continued use of existing employment sites subject to a number of criteria. Policy SLE1 is also supportive of intensification of existing employment sites. In the current submission the provision of new employment units appears to be concentrated within the existing built limits of the existing authorised site, with the exception of the new scout hut, which in my opinion therefore is an 'intensification' of the *existing* site, which is generally supported by Policy SLE1 of the Cherwell Local Plan. I would suggest the red line application site of any future application is reduced solely to relate to the existing employment site rather than the much wider area which is shown on the currently submitted plans. On this basis I would consider that the redevelopment of the site (with the exception of the scout hut) could be considered acceptable principle subject to other material considerations. These matters, however, are likely to have a significant impact on the proposal as discussed below.

I am less clear on the principle of the proposed new scout hut/community use that you are seeking to provide on site. Whilst I note that the 1997 permission referred to a scout hut, the supporting information I have been able to obtain on this application implies it was only used for storage and I note that planning conditions on the 1997 only appeared to allow for B1, B2 and B8 use. I can find no planning consent for the use of this building as a scout hut and it would therefore appear, based on the information before me, that it was permitted solely as a storage facility for the scouts. Whilst I have no objection to the principle of providing a replacement storage facility for the scouts in a similar location to the existing storage building within the existing site (i.e. not in the undeveloped land to the west) I do have significant reservations regarding the principle of establishing a new community use on this site as it is away from the built limits of the village and would not be linked to the village by good footpath connections which would make it difficult for residents of the village to access. Therefore, on this basis I do not consider this would be an appropriate location of the establishment of a new community facility. On site we did discuss this and your understanding was that the building is authorised for that a scout use. If you have further information regarding the lawfulness of the use of the building as a scout hut then I would review the proposal in light of that. However, I consider a replacement building should be a similar scale to the existing and within the built limits of the existing site.

Impact on character and appearance including heritage assets

Policy ESD13 states proposals will not be permitted if they would cause undue visual intrusion into the open countryside, be inconsistent with local landscape character or harm the setting of listed buildings. Policy ESD15 states that new development will be expected to complement and enhance the character of its context through sensitive design and siting. Saved Policy C8 seeks to resist sporadic new development in the open countryside which is consistent with the NPPF which seeks to ensure that planning decisions recognise the intrinsic character and beauty of the open countryside. Saved Policy C15 also states the Council will prevent the coalescence of settlement by resisting development in areas of open land, which are important. The site lies within the open countryside for planning purpose (outside the built limits of any village) and also lies within the setting of Steeple Aston Conservation Area and the locally registered Park and Garden of Middle Aston House. Any application therefore needs to be accompanied by a Heritage Statement and Impact Assessment in accordance with the advice in the MCNP. The NPPF requires Local Planning Authorities to take account of the desirability of sustaining and enhancing the significance of heritage assets and seeks to ensure that new development should make a positive contribution to local character and distinctiveness. Policies PD5 and PD56 of the MCNP are also relevant and sets out that proposals should have full regard to the Heritage and Character Assessment of the Neighbourhood Plan, should be sensitively design and should minimise the risk of light pollution.

The existing site lies outside the built limits of the village and has a rural character and appearance. The trees around the site, including along the frontage, make a positive contribution to the character and appearance of the locality. Whilst the existing buildings on the site are of limited architectural merit, they are existing structures and maintain a strong

agricultural character and appearance, associated with their previous use as poultry sheds and these therefore do not result in a significant adverse impact on the area. The site currently contributes to the rural setting of the Conservation Area and the villages and the Conservation Area Appraisal notes that the Peripheral Areas' Character Area is closest to the site. The appraisal states '*As the name suggests, these areas are set at the extreme edges of the historic core and have a less formal feel to them when compared with the traditional streets. Despite being separated, these entrances to the village are similar in their low-key rural approaches to the historic areas.*' The visual appraisal for the area identifies significant trees and important hedges and vegetation in the area.

With the exception of the new scout hut, the layout of the buildings would largely be based on the existing arrangement of buildings on the site and would therefore reflect the existing layout of the site. I do, however, have significant reservations regarding the areas of parking to the front of the site, between the building and the road, and the detrimental and urbanising impact this would have on the setting of the Conservation Area and the general rural approach to the village as this would be prominent at the frontage of the site. Furthermore, the provision of this parking also raises concerns regarding the retention of the existing trees on the site which are important features and should be retained and strengthened. Overall, I do not consider that parking to the front of the site would be appropriate given the character and appearance of the locality.

The proposed development would replace the existing building on the site with larger and taller buildings. The existing buildings on the site maintain a strong agricultural character and appearance and generally consist of buildings with low eaves and ridge heights which reduce their visual presence. The replacement buildings would be significantly taller, bulkier and of a greater mass than the existing buildings given the proposed increase in ridge and eaves height and the provision of mono-pitched roofs to accommodate first floor accommodation. This would result in the buildings appearing significantly greater in mass, scale and bulk than the buildings they replace and result in the site having a significantly more built up appearance and character than the existing site. It would also be significantly more prominent in approaches to both villages than the existing development. In my view this would have a harmful urbanising impact on the character and appearance of the site and locality contrary to local and national planning policy in this respect.

In my view any redevelopment of the site needs to maintain the low key character and impact of the existing site and not lead to a significant urbanisation of the site as this would not only be harmful to the setting of the Conservation Area, general character and appearance of the area, but is also likely to raise concerns with Saved Policy C15 which seeks to prevent coalescence of settlements given that the site forms part of the gap of between Steeple Aston and Middle Aston. For the reasons outlined above the proposal would fail to do that.

Overall, I consider any redevelopment of the site should maintain the single storey scale of the existing buildings and ensure that the parking and servicing areas are screened from the road and the existing trees on the site are maintained and strengthened with additional planting and landscaping within and around the site. The buildings should maintain the low key and simple rural character and appearance and respect the rural approach to the villages and Conservation Area. On site we discussed moving the frontage buildings a few metres closer to the road to allow for parking to be provided to the rear of the frontage buildings which may be a possibility subject to the impact on trees and sufficient space being left to the frontage. As discussed, in my view the buildings need to maintain a low key and simple appearance.

It will also be important to understand how any proposed development of the site would address the levels of the site, as this has the potential to make the buildings significantly more prominent, particularly to the west of the site where the land rises. Furthermore, details of any external lighting at the site would also need to be considered in this sensitive rural location.

Any future planning application should also be accompanied by an arboricultural report and impact assessment which outlines the impact on the existing trees on the site and demonstrates how they would be retained. This is particularly important to the TPO'd trees

and the trees to the frontage of the site. Landscaping plans should also be provided to demonstrate how the site would be landscaped to create a high quality environment and integrate with the surrounding landscape and locality.

It is difficult to comment on the detailed design of the proposal at this stage given the limited information provided. However, regard should be had to the Heritage and Character Assessment within the Neighbourhood Plan.

I have already raised my concerns regarding the principle of a new scout hut on the site. I also have concerns regarding the proposed siting of the proposed scout hut. From page 17 of the Pre-application Report, it would appear that the intention would be to locate this away from the existing established employment site, on the open land to the west. This area never formed part of the established site and in my view extension of built form in this area would result not be acceptable and would lead to further sporadic development into the countryside contrary to Saved Policy C8, Policy ESD13 and advice in the NPPF which seeks to ensure planning decision recognise to intrinsic character and beauty of the open countryside. It would harmfully urbanise the site and would be visible from the public right of way to the south of the site and would result in the current site becoming significantly more visually connected to the site to the west of the site. It would also appear to be situated at the end of an historic tree lined avenue associated with the Middle Aston House which is a non-designated heritage asset so is therefore likely to result in some harm to the setting of this non-designated heritage asset; however, further information in the form of a heritage statement would need to be provided in this respect.

Highway safety

Having reviewed the planning site history it is clear that the impact of the development on the surrounding road network will be a key consideration. Policy PC1 of the MCNP is relevant in this context and notes that favourable consideration will be given to proposals which are unlikely to generate a volume of goods traffic which would have a significantly harmful effect on road safety or amenity. Saved Policy TR7 states that development that would attract large commercial vehicles or large number of cars onto unsuitable minor roads will not normally be permitted and Saved Policy TR10 has a similar trust in regards to HGV movements. A public footpath exists immediately to the south of the site.

I note that you have undertaken separate pre-application enquiries with the Local Highway Authority who have advised on parking requirements for the site. Given the discussion on site and the apparent intention to focus on Class B1 uses I would suggest that parking requirement is made to accommodate this focus of uses.

Any future planning application will need to be supported by a Transport Statement/Assessment, which clearly outlines the traffic impacts of the proposed development in relation to the existing site. This should take into account the restrictive conditions that existing on the site and the proposed small sized of the proposed units in looking at traffic generation.

The issue of Heavy Good Vehicles at the site is also likely to be a key consideration and I note that you state that HGVs will not visit the site. However, the Council would be seeking restrictions to secure this and would like to future understand how you propose this being controlled. On site one mechanism I suggested was to prevent amalgamation of units to prevent larger storage building being provided as this would reduce the risk of large storage units being provided on the site. Furthermore, the LHA has raised concerns with HGVs entering and leaving the site and has advised that tracking plans be provided of this.

Residential amenity

Following discussion on site I understand that it is now proposed not to include B2 (general industry) uses within the proposed scheme and this is advisable given the proximity to neighbouring property to the north.

The Council's Environmental Protection Officer has stated that details of the location, appearance and noise/odour levels should be included with any submission to understand the impact on the amenity of neighbouring properties. A Construction Environmental Management Plan is also likely to be required by condition and the hours of operation are likely to be conditioned to be in accordance with the existing consent.

Ecology

There are a records of a number of protected species in the locality including bats. The site is also within 2km of the SSSI of Horsehay Quarries. There are a number of trees subject to a Tree Preservation Order to the north west of the site.

Section 40 of the Natural Environment and Rural Communities Act 2006 (as amended) places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity. A key purpose of this duty is to embed consideration of biodiversity as an integral part of policy and decision making. Paragraph 99 of Circular 06/2005: Biodiversity and Geological Conservation states that: It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.

The NPPF also seeks to provide net gains in biodiversity where possible. This requirement is echoed by Policy ESD10 of the CLP 2031 Part 1.

The site is in a rural area, with features of ecological interest in the local area. As such a preliminary ecological appraisal (PEA) of the site should be undertaken by a suitably qualified ecologist. This should also include further surveys for protected species if required. The proposal should also demonstrate that a net gain in biodiversity would be achieved across the site and it may be appropriate to use a biodiversity calculation in this respect to demonstrate this.

Consideration of any lighting should also be including in the ecological appraisal.

Flood risk

As the site is over 1 hectare in size any application will need to be accompanied by a Flood Risk Assessment as required by Policy ESD6 of the Cherwell Local Plan Part 1 and paragraph 103 (footnote 20) of the NPPF.

If the site is over 1ha in size it will need to be accompanied by a Flood Risk Assessment.

Additionally (regardless of the whether the site is 1ha or not) the proposal will need to be accompanied by a drainage strategy which should demonstrate how the site will be drained and this should make use of SUDS in accordance with Policy ESD7. This should be undertaken in accordance with the Lead Local Flood Authority guidance which is available at <https://www.oxfordshirefloodtoolkit.com/planning/flood-management/>

Other matters

Policy ESD3 of the Cherwell Local Plan Part 1 states that will new development will be expected to meet at least BREEAM 'Very good'. Any application should include an Energy Statement which outlines how this standard will be achieved. Any application should also outline how the proposal will meet the criteria in the 5 bullet points of Policy ESD3.

Policy ESD4 requires that any development over 1,000 sq m include a feasibility study for the provision District Heating and Combined Heat and Power. Where this is demonstrated to be viable it should be provided on site. Details of this will need to be included within the application.

Any application should also include a feasibility assessment for the potential of onsite renewable energy in accordance with Policy ESD5 of the Cherwell Local Plan Part 1. Where this indicates that on site renewable energy provision is deliverable and viable this will be required as part of the development.

The Council's Environmental Health Officer has also stated that in the interest of air quality the site should be provided with the electric vehicle charging points and these should be included in the submission.

I would suggest that further discussion take place with both parish councils as you look to develop the scheme further as the site appears to have a sensitive planning history. I would also advise that you engage with the Neighbourhood Plan Forum prior to applying to understand their comments on the proposal.

Conclusion

As outlined above I have significant concerns regarding the provision of a new community use on the site. I also consider that the Council is unlikely to support the extension of the development beyond the bounds of the existing employment site to the undeveloped land to the west given the policy context and harmful impacts.

The principle of redeveloping within the existing bounds of the employment site is considered acceptable in principle. However, I do have significant concerns over the impact of the scale of the development you propose in your submission on the character and appearance of the area, setting of the village and setting of the Conservation Area. I consider that these pressures largely stem from the overall amount of development you are looking to accommodate on the site and consider a lesser amount of commercial floor space and subsequent reduction in the height and scale of the building(s) and parking requirement would help to address these concerns subject to appropriate design. The impact of the development on the surrounding highway network will need to be informed by the appropriate assessment. However, the LHA has indicated it is unlikely to object based on the information provided. There are also several other areas where further information is required to make an informed assessment of the proposal.

Date of Report: 14th August 2019

Case Officer: James Kirkham

DISCLAIMER

The above advice represents the professional views of Council Officers and although given in good faith, it cannot prejudice any decision with the Council, as Local Planning Authority, may make at either Planning Committee or delegated officer level.

APPENDIX C – Traffic Survey Results



ADVANCED
TRANSPORT
RESEARCH

Job Number & Name: 23859 Aston

Site Number/Name: Fir Lane/Access

Client: Mode Transport

Date: 14/11/2019

Weather: Cloudy and dry

Comments: none

PCU Values

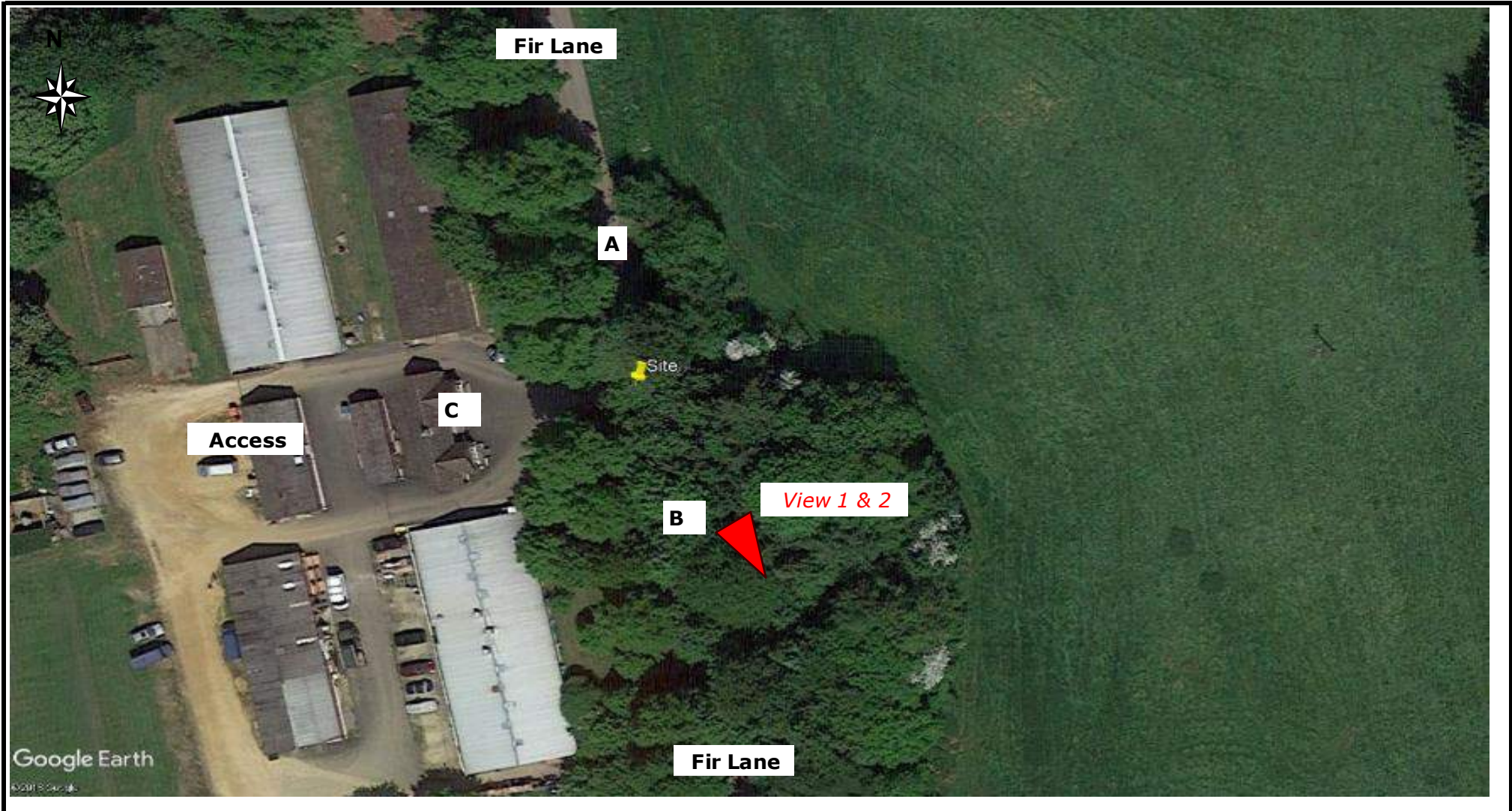
Cars 1.0
LGV 1.0
OGV1 1.5
OGV2 2.3
PSV 2.0
M/B 0.4
Cyc 0.2

Job Type: Junction Count

Co-ordinates: 51° 56' 6.41"N, 1° 18' 33.09"W

Postcode: OX25 6QL

Times: 24hrs



Play Lines/Access
PCI Values

Table with columns for Time, Core, LQV, OPV1, OPV2, PFF, M/B, Qro, Total, and sub-sections A to A, A to B, A to C, B to A, B to B, B to C, C to A, C to B, C to C. Each sub-section contains 10 columns of data.

Advanced Transport Research

Report Id - CustomList-1019
 Site Name - 23859-001
 Description - FIR LANE SOUTH MIDDLE ASTON OXFORDSHIRE [60M]
 Direction - North

13 November 2019

Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	1	0	0	0	0	0	0	0	0	0	28.2	-	0	0	0	0	0	
0600	2	0	2	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	0	0	2	0	0	0	0	0	0	0	37.6	-	0	0	0	0	0	
0700	18	0	17	0	0	0	1	0	0	0	0	0	0700	0	0	2	1	3	6	5	0	1	0	0	0	0	0	31.8	38.6	0	0	0	0	0	
0800	25	0	24	0	1	0	0	0	0	0	0	0	0800	0	0	1	3	8	11	2	0	0	0	0	0	0	0	29.4	33.4	0	0	0	0	0	
0900	27	0	25	0	1	1	0	0	0	0	0	0	0900	0	0	1	3	7	8	8	0	0	0	0	0	0	0	31.1	37.6	0	0	0	0	0	
1000	13	1	10	0	1	1	0	0	0	0	0	0	1000	0	0	1	0	5	5	1	1	0	0	0	0	0	0	29.9	35.1	0	0	0	0	0	
1100	14	0	10	0	3	1	0	0	0	0	0	0	1100	1	0	0	0	4	4	3	1	1	0	0	0	0	0	32.4	40.5	0	0	0	0	0	
1200	15	1	13	0	1	0	0	0	0	0	0	0	1200	0	1	0	0	5	5	4	0	0	0	0	0	0	0	25.8	31.3	0	0	0	0	0	
1300	9	0	9	0	0	0	0	0	0	0	0	0	1300	0	0	0	0	4	3	1	1	0	0	0	0	0	0	31.7	-	0	0	0	0	0	
1400	21	0	18	0	2	1	0	0	0	0	0	0	1400	0	0	2	2	12	3	2	0	0	0	0	0	0	0	27.8	32.7	0	0	0	0	0	
1500	28	0	28	0	0	0	0	0	0	0	0	0	1500	0	2	0	4	6	13	3	0	0	0	0	0	0	0	29	34.2	0	0	0	0	0	
1600	19	0	15	0	3	1	0	0	0	0	0	0	1600	0	0	0	1	4	9	5	0	0	0	0	0	0	0	32.1	37.9	0	0	0	0	0	
1700	16	2	13	0	0	1	0	0	0	0	0	0	1700	1	1	0	0	4	9	1	0	0	0	0	0	0	0	29.5	34.5	0	0	0	0	0	
1800	19	0	18	1	0	0	0	0	0	0	0	0	1800	0	0	1	0	7	5	3	2	0	1	0	0	0	0	33	42.9	0	0	0	0	0	
1900	6	0	6	0	0	0	0	0	0	0	0	0	1900	0	0	0	1	1	3	0	1	0	0	0	0	0	0	31.2	-	0	0	0	0	0	
2000	6	0	6	0	0	0	0	0	0	0	0	0	2000	0	0	0	1	0	2	1	2	0	0	0	0	0	0	35	-	0	0	0	0	0	
2100	4	0	4	0	0	0	0	0	0	0	0	0	2100	0	0	0	0	1	1	1	0	1	0	0	0	0	0	35.9	-	0	0	0	0	0	
2200	3	0	3	0	0	0	0	0	0	0	0	0	2200	0	0	0	0	0	2	1	0	0	0	0	0	0	0	33.4	-	0	0	0	0	0	
2300	0	0	0	0	0	0	0	0	0	0	0	0	2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	
07-19	224	4	200	1	12	6	1	0	0	0	0	0	07-19	2	4	8	19	69	80	34	5	2	1	0	0	0	0	30.2	35.8	0	0	0	0	0	0
06-22	242	4	218	1	12	6	1	0	0	0	0	0	06-22	2	4	8	21	71	86	38	8	3	1	0	0	0	0	30.5	36.2	0	0	0	0	0	0
06-00	245	4	221	1	12	6	1	0	0	0	0	0	06-00	2	4	8	21	71	88	39	8	3	1	0	0	0	0	30.5	36.2	0	0	0	0	0	0
00-00	246	4	222	1	12	6	1	0	0	0	0	0	00-00	2	4	8	21	72	88	39	8	3	1	0	0	0	0	30.5	36.2	0	0	0	0	0	0

14 November 2019

Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT	
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0500	2	0	2	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	35.3	-	0	0	0	0	0	0
0600	1	0	1	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	34.9	-	0	0	0	0	0	0
0700	13	0	13	0	0	0	0	0	0	0	0	0	0700	0	0	0	1	1	7	2	2	0	0	0	0	0	0	0	33.8	40.7	0	0	0	0	0	0
0800	19	0	16	0	2	1	0	0	0	0	0	0	0800	0	2	0	4	10	0	3	0	0	0	0	0	0	0	0	26.3	35	0	0	0	0	0	0
0900	27	0	25	0	1	1	0	0	0	0	0	0	0900	0	1	0	3	13	9	0	1	0	0	0	0	0	0	0	28.7	33.4	0	0	0	0	0	0
1000	11	0	9	0	1	1	0	0	0	0	0	0	1000	0	0	1	3	4	3	0	0	0	0	0	0	0	0	0	26.6	32.5	0	0	0	0	0	0
1100	18	0	15	0	1	2	0	0	0	0	0	0	1100	0	0	0	1	7	6	3	0	0	0	0	0	0	0	0	29.2	35.8	0	0	0	0	0	0
1200	12	0	7	1	3	1	0	0	0	0	0	0	1200	0	0	0	3	5	3	1	0	0	0	0	0	0	0	0	27.6	31.3	0	0	0	0	0	0
1300	9	0	7	0	1	0	0	0	1	0	0	0	1300	0	0	1	3	3	0	2	0	0	0	0	0	0	0	0	26.8	-	0	0	0	0	0	0
1400	27	1	20	0	2	3	0	0	1	0	0	0	1400	3	1	4	2	10	5	0	1	1	0	0	0	0	0	24.8	32.3	0	0	0	0	0	0	
1500	31	0	30	0	1	0	0	0	0	0	0	0	1500	2	3	5	8	7	5	1	0	0	0	0	0	0	0	0	22.6	31.8	0	0	0	0	0	0
1600	23	0	20	0	2	1	0	0	0	0	0	0	1600	0	0	0	3	3	13	3	0	1	0	0	0	0	0	0	31.5	36	0	0	0	0	0	0
1700	16	0	15	0	0	1	0	0	0	0	0	0	1700	0	0	2	2	4	5	3	0	0	0	0	0	0	0	0	29.2	35.9	0	0	0	0	0	0
1800	14	0	12	0	1	1	0	0	0	0	0	0	1800	0	0	0	2	3	6	2	1	0	0	0	0	0	0	31.7	39	0	0	0	0	0	0	
1900	6	0	6	0	0	0	0	0	0	0	0	0	1900	0	0	0	0	0	5	1	0	0	0	0	0	0	0	32.7	-	0	0	0	0	0	0	
2000	4	0	4	0	0	0	0	0	0	0	0	0	2000	0	0	0	0	1	0	3																

15 November 2019

Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	2	0	2	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	2	0	0	0	0	0	0	0	32.6	-	0	0	0	0	0	0	
0100	1	0	1	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	1	0	0	0	0	0	41.1	-	0	0	0	0	0	0	
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	0	0	0	1	0	0	0	0	0	44.3	-	0	0	0	0	0	0	
0600	1	0	1	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	0	0	1	0	0	0	0	0	0	37.5	-	0	0	0	0	0	0	
0700	15	0	12	0	3	0	0	0	0	0	0	0	0700	0	0	3	1	3	6	1	1	0	0	0	0	0	34.1	41.7	0	0	0	0	0	0	
0800	20	0	18	0	2	0	0	0	0	0	0	0	0800	0	1	1	4	7	3	2	2	0	0	0	0	0	29.1	39.5	0	0	0	0	0	0	
0900	21	0	16	0	1	3	0	0	1	0	0	0	0900	0	0	0	4	10	4	3	0	0	0	0	0	0	28.9	35.3	0	0	0	0	0	0	
1000	13	0	11	0	2	0	0	0	0	0	0	0	1000	0	0	1	0	5	6	1	0	0	0	0	0	0	29.1	31.8	0	0	0	0	0	0	
1100	17	0	16	0	0	0	0	0	1	0	0	0	1100	1	0	1	1	6	4	4	0	0	0	0	0	0	29.6	37.4	0	0	0	0	0	0	
1200	16	0	14	0	2	0	0	0	0	0	0	0	1200	0	0	0	3	7	3	3	0	0	0	0	0	0	34.4	40.7	0	0	0	0	0	0	
1300	11	0	11	0	0	0	0	0	0	0	0	0	1300	0	0	2	0	1	4	2	2	0	0	0	0	0	31.3	40.4	0	0	0	0	0	0	
1400	17	0	15	0	2	0	0	0	0	0	0	0	1400	0	1	2	1	0	5	8	0	0	0	0	0	0	31.2	38.3	0	0	0	0	0	0	
1500	27	0	25	0	0	2	0	0	0	0	0	0	1500	1	2	1	4	5	7	6	0	1	0	0	0	0	29.2	37.8	0	0	0	0	0	0	
1600	27	0	25	0	1	1	0	0	0	0	0	0	1600	0	0	0	4	12	7	2	2	0	0	0	0	0	29.7	35.1	0	0	0	0	0	0	
1700	22	0	21	0	0	1	0	0	0	0	0	0	1700	0	0	0	0	6	10	5	0	1	0	0	0	0	32.4	35.7	0	0	0	0	0	0	
1800	40	0	36	0	1	3	0	0	0	0	0	0	1800	0	1	0	2	13	19	5	0	0	0	0	0	0	30.7	34.8	0	0	0	0	0	0	
1900	74	0	71	0	0	3	0	0	0	0	0	0	1900	0	0	1	7	46	13	5	2	0	0	0	0	0	29	32.5	0	0	0	0	0	0	
2000	17	0	17	0	0	0	0	0	0	0	0	0	2000	0	0	3	4	6	3	1	0	0	0	0	0	0	26.3	31.1	0	0	0	0	0	0	
2100	4	0	3	0	0	1	0	0	0	0	0	0	2100	0	0	0	0	0	1	3	0	0	0	0	0	0	35.9	-	0	0	0	0	0	0	
2200	4	0	2	0	1	1	0	0	0	0	0	0	2200	0	1	0	0	1	1	0	0	0	0	0	0	0	27.2	-	0	0	0	0	0	0	
2300	5	0	4	0	0	1	0	0	0	0	0	0	2300	0	0	0	0	2	1	1	1	0	0	0	0	0	38.2	-	0	0	0	0	0	0	
07-19	246	0	220	0	12	12	0	0	2	0	0	0	07-19	2	5	8	23	69	79	47	10	3	0	0	0	0	30.6	36.7	0	0	0	0	0	0	
06-22	342	0	312	0	12	16	0	0	2	0	0	0	06-22	2	5	12	34	121	96	57	12	3	0	0	0	0	30.2	36.2	0	0	0	0	0	0	
06-00	351	0	318	0	13	18	0	0	2	0	0	0	06-00	2	6	12	34	122	99	59	13	4	0	0	0	0	30.2	36.4	0	0	0	0	0	0	
00-00	355	0	322	0	13	18	0	0	2	0	0	0	00-00	2	6	12	34	122	101	59	15	4	0	0	0	0	30.3	36.4	0	0	0	0	0	0	

16 November 2019

Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	2	0	2	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	1	0	0	0	0	0	0	0	27.8	-	0	0	0	0	0	0	
0100	2	0	2	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	1	0	0	0	0	0	38.3	-	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0300	1	0	1	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	1	0	0	0	0	0	0	0	0	33.3	-	0	0	0	0	0	0
0400	2	0	1	0	0	1	0	0	0	0	0	0	0400	0	0	0	0	0	0	1	1	0	0	0	0	0	0	39.3	-	0	0	0	0	0	0
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	0	0	0	1	0	0	0	0	0	0	40.5	-	0	0	0	0	0	0
0600	1	0	0	1	0	0	0	0	0	0	0	0	0600	0	0	0	0	1	0	0	0	0	0	0	0	0	29.9	-	0	0	0	0	0	0	
0700	3	0	3	0	0	0	0	0	0	0	0	0	0700	0	0	0	0	0	1	2	0	0	0	0	0	0	0	36	-	0	0	0	0	0	0
0800	9	0	9	0	0	0	0	0	0	0	0	0	0800	0	0	0	1	2	3	3	0	0	0	0	0	0	31.5	-	0	0	0	0	0	0	
0900	18	0	17	0	0	1	0	0	0	0	0	0	0900	0	0	0	1	4	7	6	0	0	0	0	0	0	32.5	35.9	0	0	0	0	0	0	
1000	15	0	15	0	0	0	0	0	0	0	0	0	1000	0	1	1	0	7	5	1	0	0	0	0	0	0	28.6	34	0	0	0	0	0	0	
1100	14	1	13	0	0	0	0	0	0	0	0	0	1100	0	0	2	2	3	3	3	0	1	0	0	0	0	0	29.7	37.3	0	0	0	0	0	0
1200	9	1	7	0	0	0	1	0	0	0	0	0	1200	0	0	2	1	3	2	0	1	0	0	0	0	0	27.9	-	0	0	0	0	0	0	
1300	15	1	14	0	0	0	0	0	0	0	0	0	1300	0	0	1	0	3	9	2	0	0	0	0	0	0	31.1	35.3	0	0	0	0	0	0	
1400	18	0	15	0	2	1	0	0	0	0	0	0	1400	0	0	1	2	5	6	3	1	0	0	0	0	0	30.1	38.5	0	0	0	0	0	0	
1500	18	0	14	0	2	2	0	0	0	0	0	0	1500	0	0	1	3	9	1	3	1	0	0	0	0	0	28.5	36.9	0	0	0	0	0	0	
1600	9	0	8	0	0	1	0	0	0	0	0	0	1600	0	0	0	1	1	3	4	0	0	0	0	0	0	33.2	-	0	0	0	0	0	0	
1700	7	0	6	0	0	1	0	0	0	0	0	0	1700	0	0	0	0	1	3	1	1	0	0	0	0	0	36.5	-	0	0	0	0	0	0	
1800	2	0	2	0	0	0	0	0	0	0	0	0	1800	0	0	0	0	0	2	0	0	0	0	0	0	0	31.5	-	0	0	0	0	0	0	
1900	2	0	2	0	0	0	0	0	0	0	0	0	1900	0	0	0	0	0	0	2	0	0	0	0	0	0	38.5	-	0	0	0	0	0	0	
2000	3	0	3	0	0	0	0	0	0	0	0	0	2000	0	0	0	0	0	0	0	0	0	0	0	0	0	33.7	-	0	0	0	0	0	0	
2100	5	0	5	0	0	0	0	0	0	0	0	0	2100	0	0	0	1	2	1	0	0	1	0	0	0	0	31.8	-	0	0	0	0	0	0	
2200	10																																		

Advanced Transport Research

Report Id - CustomList-1019
 Site Name - 23859-001
 Description - FIR LANE SOUTH MIDDLE ASTON OXFORDSHIRE [60M]
 Direction - South

13 November 2019

Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0400	1	0	0	0	1	0	0	0	0	0	0	0	0400	0	0	0	0	0	1	0	0	0	0	0	0	0	0	34.5	-	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0600	3	0	3	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	0	3	0	0	0	0	0	0	0	0	32.4	-	0	0	0	0	0	0
0700	12	0	11	0	0	1	0	0	0	0	0	0	0700	0	0	1	0	4	3	2	2	0	0	0	0	0	0	32.4	42.1	0	0	0	0	0	0
0800	33	0	30	0	3	0	0	0	0	0	0	0	0800	0	1	0	8	14	6	4	0	0	0	0	0	0	0	27.5	34	0	0	0	0	0	0
0900	17	1	14	0	2	0	0	0	0	0	0	0	0900	0	1	0	3	8	4	1	0	0	0	0	0	0	0	27.7	33.1	0	0	0	0	0	0
1000	19	2	16	0	1	0	0	0	0	0	0	0	1000	0	0	3	4	7	5	0	0	0	0	0	0	0	0	26.2	32.5	0	0	0	0	0	0
1100	19	0	14	0	5	0	0	0	0	0	0	0	1100	0	0	0	3	6	7	3	0	0	0	0	0	0	0	30.5	36.6	0	0	0	0	0	0
1200	16	0	12	0	2	1	0	0	0	0	0	1	1200	0	2	1	1	7	3	1	1	0	0	0	0	0	0	27.6	35.6	0	0	0	0	0	0
1300	10	1	7	0	2	0	0	0	0	0	0	0	1300	0	0	2	1	3	2	2	0	0	0	0	0	0	0	28.1	-	0	0	0	0	0	0
1400	21	0	21	0	0	0	0	0	0	0	0	0	1400	0	0	0	4	10	6	1	0	0	0	0	0	0	0	28.1	31.5	0	0	0	0	0	0
1500	15	0	13	0	2	0	0	0	0	0	0	0	1500	0	1	1	3	8	1	1	0	0	0	0	0	0	0	26	30	0	0	0	0	0	0
1600	24	0	20	0	3	1	0	0	0	0	0	0	1600	0	0	1	4	8	9	2	0	0	0	0	0	0	0	29.2	34.8	0	0	0	0	0	0
1700	26	0	24	0	2	0	0	0	0	0	0	0	1700	0	0	1	2	9	12	2	0	0	0	0	0	0	0	30	34.7	0	0	0	0	0	0
1800	8	0	8	0	0	0	0	0	0	0	0	0	1800	0	0	0	1	0	4	3	0	0	0	0	0	0	0	32.8	-	0	0	0	0	0	0
1900	6	0	6	0	0	0	0	0	0	0	0	0	1900	0	0	0	0	2	2	2	0	0	0	0	0	0	0	33	-	0	0	0	0	0	0
2000	3	0	3	0	0	0	0	0	0	0	0	0	2000	0	0	0	2	0	1	0	0	0	0	0	0	0	0	26.9	-	0	0	0	0	0	0
2100	1	0	1	0	0	0	0	0	0	0	0	0	2100	0	0	0	0	1	0	0	0	0	0	0	0	0	0	25.2	-	0	0	0	0	0	0
2200	1	0	1	0	0	0	0	0	0	0	0	0	2200	0	0	0	0	0	1	0	0	0	0	0	0	0	0	33.5	-	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	2300	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
07-19	220	4	190	0	22	3	0	0	0	0	0	1	07-19	0	5	10	34	84	62	22	3	0	0	0	0	0	0	28.6	34.3	0	0	0	0	0	0
06-22	233	4	203	0	22	3	0	0	0	0	0	1	06-22	0	5	10	36	87	68	24	3	0	0	0	0	0	0	28.7	34.3	0	0	0	0	0	0
06-00	234	4	204	0	22	3	0	0	0	0	0	1	06-00	0	5	10	36	87	69	24	3	0	0	0	0	0	0	28.7	34.3	0	0	0	0	0	0
00-00	235	4	204	0	23	3	0	0	0	0	0	1	00-00	0	5	10	36	87	70	24	3	0	0	0	0	0	0	28.7	34.5	0	0	0	0	0	0

14 November 2019

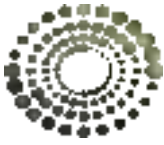
Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT	
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	1	0	0	0	0	0	0	0	0	0	29.9	-	0	0	0	0	0	0	
0600	3	0	3	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	1	2	0	0	0	0	0	0	0	0	31.9	-	0	0	0	0	0	0	
0700	15	0	11	0	4	0	0	0	0	0	0	0	0700	0	0	0	4	7	3	0	1	0	0	0	0	0	0	28	33	0	0	0	0	0	0	
0800	42	0	37	0	3	2	0	0	0	0	0	0	0800	0	3	8	18	10	3	0	0	0	0	0	0	0	0	0	22.9	28.9	0	0	0	0	0	0
0900	17	0	14	0	3	0	0	0	0	0	0	0	0900	0	0	2	5	5	4	0	0	0	0	0	0	0	0	0	25.8	31.7	0	0	0	0	0	0
1000	7	0	7	0	0	0	0	0	0	0	0	0	1000	0	0	2	5	1	2	0	0	0	0	0	0	0	0	25.5	-	0	0	0	0	0	0	
1100	16	0	11	0	5	0	0	0	0	0	0	0	1100	0	0	3	4	7	2	0	0	0	0	0	0	0	0	25.2	30	0	0	0	0	0	0	
1200	16	0	12	1	3	0	0	0	0	0	0	0	1200	0	0	1	7	5	2	1	0	0	0	0	0	0	0	25.9	31.7	0	0	0	0	0	0	
1300	17	0	16	0	1	0	0	0	0	0	0	0	1300	0	0	4	4	7	2	0	0	0	0	0	0	0	0	24.6	30.1	0	0	0	0	0	0	
1400	31	0	30	0	1	0	0	0	0	0	0	0	1400	1	2	4	4	14	5	1	0	0	0	0	0	0	0	25.7	32.8	0	0	0	0	0	0	
1500	26	0	22	0	3	1	0	0	0	0	0	0	1500	0	1	10	7	4	3	1	0	0	0	0	0	0	0	22.9	30.3	0	0	0	0	0	0	
1600	27	0	25	0	2	0	0	0	0	0	0	0	1600	0	0	2	9	7	7	1	0	0	1	0	0	0	0	28.5	34.5	0	0	0	0	0	0	
1700	24	0	22	0	2	0	0	0	0	0	0	0	1700	0	0	1	2	10	9	1	0	1	0	0	0	0	0	29.8	33.4	0	0	0	0	0	0	
1800	8	0	7	0	1	0	0	0	0	0	0	0	1800	0	0	0	1	4	2	1	0	0	0	0	0	0	0	29.4	-	0	0	0	0	0	0	
1900	3	0	3	0	0	0	0	0	0	0	0	0	1900	0	0	0	0	1	1	1	0	0	0	0	0	0	0	33.1	-	0	0	0	0	0	0	
2000	7	0	6	0	1	0	0	0	0	0	0	0	2000	0	0	0	1	2																		

15 November 2019

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0	Vbin 10	Vbin 15	Vbin 20	Vbin 25	Vbin 30	Vbin 35	Vbin 40	Vbin 45	Vbin 50	Vbin 60	Vbin 70	Vbin 80	Vbin 90	Vbin 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	1	0	0	0	0	1	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.3	-	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	
0400	1	0	0	0	1	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	1	0	0	0	0	0	0	0	35.3	-	0	0	0	0	0	0	
0500	0	0	0	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0600	3	0	2	0	0	0	0	0	1	0	0	0	0600	0	0	1	0	0	2	0	0	0	0	0	0	0	0	31.9	-	0	0	0	0	0	0	
0700	16	0	14	0	2	0	0	0	0	0	0	0	0700	0	0	3	7	3	1	1	0	0	0	0	0	0	0	28.7	35.6	0	0	0	0	0	0	
0800	31	0	26	0	3	0	2	0	0	0	0	0	0800	1	1	2	8	6	10	1	0	0	0	0	0	0	0	26.5	32.8	0	0	0	0	0	0	
0900	7	0	7	0	0	0	0	0	0	0	0	0	0900	1	0	0	0	5	1	1	0	0	0	0	0	0	0	29.2	-	0	0	0	0	0	0	
1000	13	0	10	0	3	0	0	0	0	0	0	0	1000	0	0	1	0	9	2	1	0	0	0	0	0	0	0	27.8	34.3	0	0	0	0	0	0	
1100	15	0	15	0	0	0	0	0	0	0	0	0	1100	1	0	0	3	7	4	0	0	0	0	0	0	0	0	26.1	32	0	0	0	0	0	0	
1200	17	0	15	1	1	0	0	0	0	0	0	0	1200	0	0	0	4	7	5	1	0	0	0	0	0	0	0	28.8	33.1	0	0	0	0	0	0	
1300	9	0	9	0	0	0	0	0	0	0	0	0	1300	0	0	0	2	3	3	1	0	0	0	0	0	0	0	29.8	-	0	0	0	0	0	0	
1400	27	0	27	0	0	0	0	0	0	0	0	0	1400	1	1	3	7	12	1	2	0	0	0	0	0	0	0	24.7	29.2	0	0	0	0	0	0	
1500	24	0	21	0	1	2	0	0	0	0	0	0	1500	0	0	2	6	10	5	1	0	0	0	0	0	0	0	27.2	33.2	0	0	0	0	0	0	
1600	12	1	11	0	0	0	0	0	0	0	0	0	1600	0	1	0	4	2	3	2	0	0	0	0	0	0	0	27.7	36.3	0	0	0	0	0	0	
1700	20	0	18	0	2	0	0	0	0	0	0	0	1700	0	0	0	3	7	8	2	0	0	0	0	0	0	0	29.4	33.1	0	0	0	0	0	0	
1800	10	0	7	1	2	0	0	0	0	0	0	0	1800	0	0	1	3	4	1	1	0	0	0	0	0	0	0	27.2	-	0	0	0	0	0	0	
1900	28	0	28	0	0	0	0	0	0	0	0	0	1900	0	0	3	10	11	3	1	0	0	0	0	0	0	0	25.2	29.8	0	0	0	0	0	0	
2000	37	0	37	0	0	0	0	0	0	0	0	0	2000	0	0	2	15	13	6	1	0	0	0	0	0	0	0	26	31.2	0	0	0	0	0	0	
2100	27	0	27	0	0	0	0	0	0	0	0	0	2100	0	0	2	4	17	3	1	0	0	0	0	0	0	0	26.7	30.1	0	0	0	0	0	0	
2200	15	0	14	0	1	0	0	0	0	0	0	0	2200	0	0	1	4	6	0	3	1	0	0	0	0	0	0	28.3	36.6	0	0	0	0	0	0	
2300	6	0	6	0	0	0	0	0	0	0	0	0	2300	0	0	0	0	3	2	1	0	0	0	0	0	0	0	31.2	-	0	0	0	0	0	0	
07-19	201	1	180	2	14	2	2	0	0	0	0	0	07-19	3	3	10	43	81	46	14	1	0	0	0	0	0	0	27.4	33	0	0	0	0	0	0	
06-22	296	1	274	2	14	2	2	0	1	0	0	0	06-22	3	3	17	73	122	58	19	1	0	0	0	0	0	0	27	32.3	0	0	0	0	0	0	
06-00	317	1	294	2	15	2	2	0	1	0	0	0	06-00	3	3	18	77	131	60	23	2	0	0	0	0	0	0	27.1	32.7	0	0	0	0	0	0	
00-00	319	1	294	2	16	3	2	0	1	0	0	0	00-00	3	3	19	77	131	60	24	2	0	0	0	0	0	0	27.1	32.7	0	0	0	0	0	0	

16 November 2019

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0	Vbin 10	Vbin 15	Vbin 20	Vbin 25	Vbin 30	Vbin 35	Vbin 40	Vbin 45	Vbin 50	Vbin 60	Vbin 70	Vbin 80	Vbin 90	Vbin 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT	
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	24.6	-	0	0	0	0	0	0	
0600	2	0	2	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	2	0	0	0	0	0	0	0	0	0	30.4	-	0	0	0	0	0	0		
0700	2	0	2	0	0	0	0	0	0	0	0	0	0700	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	27.7	-	0	0	0	0	0	0	
0800	6	0	6	0	0	0	0	0	0	0	0	0	0800	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	24.7	-	0	0	0	0	0	0	
0900	10	0	10	0	0	0	0	0	0	0	0	0	0900	0	0	0	4	5	1	0	0	0	0	0	0	0	0	0	26.4	-	0	0	0	0	0	0	
1000	10	1	8	0	1	0	0	0	0	0	0	0	1000	1	0	1	3	4	1	0	0	0	0	0	0	0	0	23.3	-	0	0	0	0	0	0		
1100	10	1	6	0	3	0	0	0	0	0	0	0	1100	0	1	0	4	4	1	0	0	0	0	0	0	0	0	24.9	-	0	0	0	0	0	0		
1200	21	0	19	0	1	0	0	0	0	0	1	0	1200	0	0	1	3	8	8	1	0	0	0	0	0	0	0	28.4	32.3	0	0	0	0	0	0		
1300	22	2	17	0	1	2	0	0	0	0	0	0	1300	0	1	2	3	7	9	0	0	0	0	0	0	0	0	27.2	32.2	0	0	0	0	0	0		
1400	20	0	19	1	0	0	0	0	0	0	0	0	1400	0	0	0	5	10	4	1	0	0	0	0	0	0	0	26.8	31	0	0	0	0	0	0		
1500	18	0	16	0	2	0	0	0	0	0	0	0	1500	0	0	1	2	5	9	1	0	0	0	0	0	0	0	29.3	34.1	0	0	0	0	0	0		
1600	6	0	6	0	0	0	0	0	0	0	0	0	1600	0	0	1	2	3	0	0	0	0	0	0	0	0	0	29.5	-	0	0	0	0	0	0		
1700	7	0	7	0	0	0	0	0	0	0	0	0	1700	0	0	1	0	2	4	0	0	0	0	0	0	0	0	28.7	-	0	0	0	0	0	0		
1800	5	0	5	0	0	0	0	0	0	0	0	0	1800	0	0	0	0	4	0	1	0	0	0	0	0	0	0	33.8	-	0	0	0	0	0	0		
1900	5	0	5	0	0	0	0	0	0	0	0	0	1900	0	0	0	0	1	2	2	0	0	0	0	0	0	0	33.2	-	0	0	0	0	0	0		
2000	3	0	2	0	1	0	0	0	0	0	0	0	2000	0	0	0	1	1	1	0	0	0	0	0	0	0	0	27.9	-	0	0	0	0	0	0		
2100	1																																				



ATC SUMMARY REPORT

PROJECT	23859 Fir Lane, Middle Aston
LOCATION	23859-001 - Fir Lane (South)
LOC. DESC.	Fir Lane (South)
START DATE	Wed 13 Nov, 2019
END DATE	Tue 19 Nov, 2019
SPEED LIMIT	60mph
SURVEY TYPE	7-day ATC, 15min periods, 10 veh. classes

OVERVIEW

A 7-day automatic traffic count on Fir Lane (South), commencing Wed 13 Nov 2019, recorded a total of 3,107 vehicles. The posted speed limit of 60mph was exceeded by 0.0% of vehicles, and the seasonally adjusted, combined AADT value is 511 (see Equipment & Methodology below).

COMBINED

Total recorded volume	3,107
Avg daily volume (based on 7 days)	443.9
Average daily speed (7 days)	29.4mph
Average daily 85%ile (7 days)	35.1mph
AADT (annual average daily traffic)	511

Avg weekday volume (Mon-Fri, 24hrs)	510.6
Avg weekday speed (Mon-Fri, 24hrs)	29.2mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	434.6
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	29.0mph

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data. Speeding vehicles are defined as those travelling 61mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

SOUTHBOUND ↓

Total recorded volume	1,519
Avg daily volume (based on 7 days)	217.0
Average daily speed (7 days)	28.1mph
Average daily 85%ile (7 days)	33.5mph
% of vehicles exceeding 60mph	0.0%

Avg weekday volume (Mon-Fri, 24hrs)	251.2
Avg weekday speed (Mon-Fri, 24hrs)	28.0mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	215.2
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	28.0mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	33.3mph

NORTHBOUND ↑

Total recorded volume	1,588
Avg daily volume (based on 7 days)	226.9
Average daily speed (7 days)	30.7mph
Average daily 85%ile (7 days)	36.8mph
% of vehicles exceeding 60mph	0.0%

Avg weekday volume (Mon-Fri, 24hrs)	259.4
Avg weekday speed (Mon-Fri, 24hrs)	30.3mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	219.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	30.0mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	35.7mph

SITE LOCATION

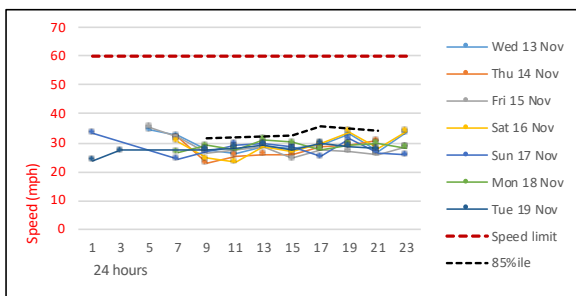


Location	Fir Lane (South)
Desc.	Fir Lane (South)

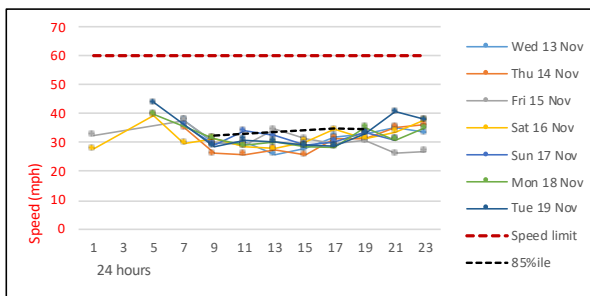
Lat, lng.	51°56'3.20"N/1°18'31.92"W
Project & site	23859-001
PSL	60mph
Bus route	Yes
Direction 1	Southbound ↓
Direction 2	Northbound ↑

DAILY SPEEDS

SOUTHBOUND ↓



NORTHBOUND ↑

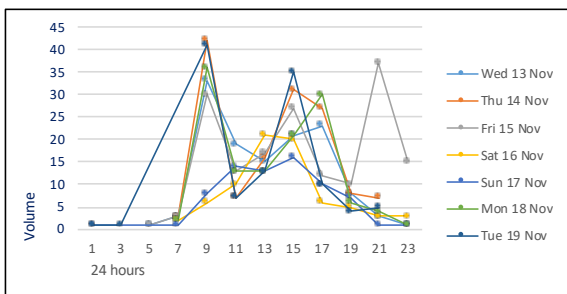


Average daily speeds (solid thin colours) and 85%ile (dashed black) compared against 60mph posted speed limit (dashed red). The 85%ile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin is required for this calculation, hence the overnight low-volume 85%ile values may be zero.

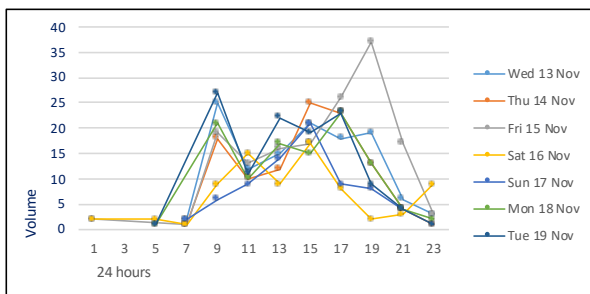
The peak average southbound daytime speed was 41.3mph at 18:30 on Mon 18 Nov, whilst the peak average northbound speed was 44.6mph at 13:15 on Sun 17 Nov (based on 15min averages between 0700 & 1900).

HOURLY VOLUMES

SOUTHBOUND ↓



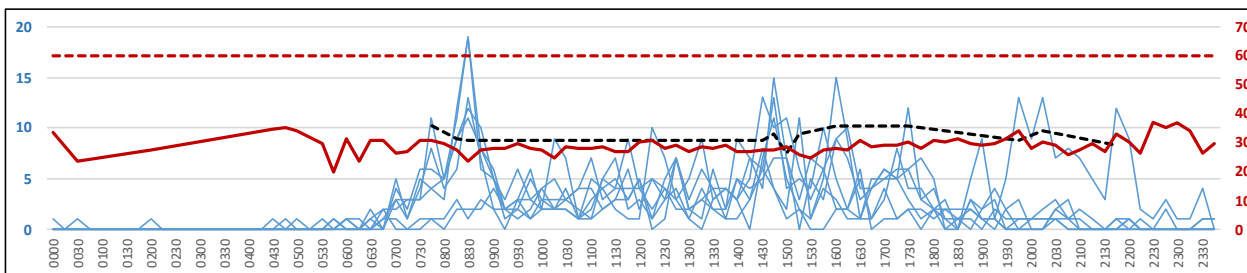
NORTHBOUND ↑



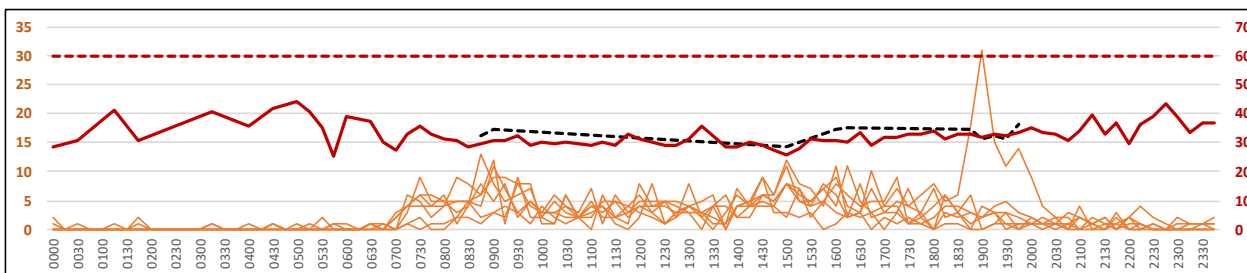
↓ Hourly southbound traffic volumes over each 24hr period for 7 days from all available data.

↑ Hourly northbound traffic volumes over each 24hr period for 7 days from all available data.

15min VOL & SPEED



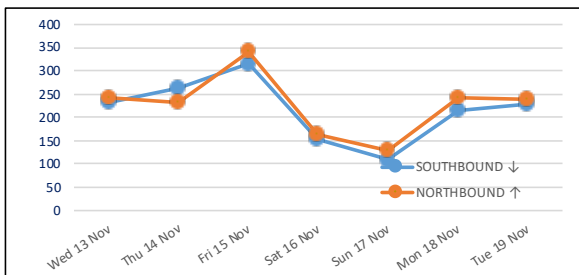
↓ 15min daily southbound flows (blue), against the average speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.



↑ 15min daily northbound flows (orange), against the average weekly speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.

DAILY VOLUMES

SOUTH & NORTHBOUND



Total 24hr southbound (blue) and northbound (orange) traffic volumes over 7 consecutive days from all available data.

As can be expected, the lowest volumes were recorded on the Sunday, whilst the highest was on the Friday.

7-DAY AVERAGE CLASSES

SOUTHBOUND 7-DAY AVG ↓

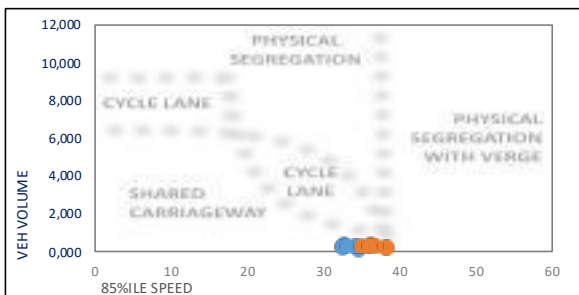
TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.0	0.3	0.0	0.0	0.0	0.3
0100	0.0	0.0	0.0	0.0	0.0	0.0
0200	0.0	0.1	0.0	0.0	0.0	0.1
0300	0.0	0.0	0.0	0.0	0.0	0.0
0400	0.0	0.0	0.3	0.0	0.0	0.3
0500	0.0	0.4	0.1	0.0	0.0	0.6
0600	0.0	1.7	0.1	0.1	0.0	2.0
0700	0.0	9.7	2.0	0.0	0.4	12.1
0800	0.3	24.9	2.0	0.1	0.7	28.0
0900	0.1	9.9	1.7	0.0	0.0	11.7
1000	0.6	10.0	1.3	0.0	0.0	11.9
1100	0.1	11.1	3.6	0.0	0.0	14.9
1200	0.0	12.9	2.1	0.4	0.0	15.4
1300	0.4	10.3	1.3	0.0	0.0	12.0
1400	0.0	23.0	1.4	0.0	0.0	24.4
1500	0.0	15.3	1.6	0.1	0.3	17.3
1600	0.4	14.7	1.7	0.0	0.0	16.9
1700	0.0	15.1	1.4	0.0	0.0	16.6
1800	0.0	6.1	0.7	0.0	0.0	6.9
1900	0.0	7.9	0.1	0.0	0.0	8.0
2000	0.0	7.4	1.1	0.0	0.0	8.6
2100	0.0	4.7	0.0	0.0	0.0	4.7
2200	0.0	2.7	0.3	0.0	0.0	3.0
2300	0.0	1.4	0.0	0.0	0.0	1.4
12hr TTL	2.0	163.0	20.9	0.7	1.4	188.0
24hr TTL	2.0	189.7	23.0	0.9	1.4	217.0
	1%	87%	11%	0%	1%	

NORTHBOUND 7-DAY AVG ↑

TIME	MOTOR CYCLES	CARS / LGV1	LGV2 / MGVS	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.0	0.6	0.0	0.0	0.0	0.6
0100	0.0	0.6	0.0	0.0	0.0	0.6
0200	0.0	0.0	0.0	0.0	0.0	0.0
0300	0.1	0.1	0.0	0.0	0.0	0.3
0400	0.0	0.4	0.1	0.0	0.0	0.6
0500	0.0	0.7	0.1	0.0	0.0	0.9
0600	0.0	1.0	0.0	0.0	0.0	1.0
0700	0.0	11.0	1.0	0.0	0.0	12.0
0800	0.1	17.1	0.4	0.1	0.0	17.9
0900	0.0	21.7	0.9	0.0	0.0	22.6
1000	0.1	10.7	0.4	0.1	0.0	11.4
1100	0.1	12.0	0.7	0.0	0.0	12.9
1200	0.7	13.1	1.1	0.0	0.0	15.0
1300	0.1	11.1	0.6	0.1	0.0	12.0
1400	0.4	17.6	1.3	0.0	0.0	19.3
1500	0.0	21.9	0.7	0.0	0.0	22.6
1600	0.1	17.7	0.6	0.1	0.0	18.6
1700	0.3	12.4	0.3	0.0	0.0	13.0
1800	0.0	14.4	0.0	0.0	0.0	14.4
1900	0.0	16.6	0.0	0.0	0.0	16.6
2000	0.0	6.0	0.0	0.0	0.0	6.0
2100	0.0	4.1	0.0	0.0	0.0	4.1
2200	0.0	2.7	0.0	0.0	0.0	2.7
2300	0.0	2.0	0.0	0.0	0.0	2.0
12hr TTL	2.1	180.9	8.0	0.6	0.0	191.6
24hr TTL	2.3	215.7	8.3	0.6	0.0	226.9
	1%	95%	4%	0%	0%	

Average daily southbound and northbound volumes by class (condensed to the AQMA scheme), including 12hr totals for 0700-1900 and overall average percentages. Calculated from all available data over 7 days.

CYCLE PROVISION



The diagram compares total daily traffic flow (vertical axis) against the average daily 85%ile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85%iles are required to plot the graph.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

In queuing conditions, the accuracy of ATC recording equipment will reduce as follows;

- 20 – 30mph: potential reduction of 9% accuracy in volume values
- 10 – 20mph: potential reduction of 26% accuracy in volume values
- 00 – 10mph: potential reduction of 39% accuracy in volume values

These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

AADTs are calculated using the seasonal COBA methodology; DMRB Vol. 13, Pt 4:

Weather & environmental

Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, A-T-R cannot be held responsible for the forecast accuracy.

CLASS	ABBREV.	DESCRIPTION	LENGTH	COBA
1	MC	Motorcycle	SHORT Up to 5.5m	N/A
2	SV	Cars, taxis, 4WD, vans	MEDIUM 5.5m to 14.5m	CAR & LGV
3	SVT	Class 2 plus trailer		OGV1 & PSV
4	TB2	2 axle truck / bus		OGV1
5	TB3	3 axle truck / bus		OGV2
6	T4	4 axle truck		
7	ART3	3 axle articulated		
8	ART4	4 axle articulated		
9	ART5	5 axle articulated		
10	ART6	6+ axle articulated	LONG 11.5m to 19.0m	

Equipment damage & failure

Although checked intermittently the equipment remains unmanned for much of the duration of the survey, and can potentially be interfered with, vandalised, damaged or stolen and A-T-R cannot be held responsible for any periods where data has not been captured.

The equipment is located in accordance with the details provided by the client and A-T-R cannot be held responsible for the accuracy of the data or loss of equipment due to theft and vandalism.

Roadworks & events

Where possible, roadworks checks are made 10 days before, and 48 hours before, the survey commences. Additionally, influencing major local events are also monitored, covering the immediate vicinity of the surveys and any routes likely to affect the outcome of the survey.

Vehicle classifications

Vehicles recorded by the ATC are placed into one of ten classes based on axle spacing and pattern. This scheme is based on the AustRoad 94 algorithm and modified for UK traffic, referred to as ARX. The table on the left aligns the ARX classifications with the COBA Chapter 8 (Vol 13, Sec 1) classifications.

Under adverse conditions the accuracy of ATC classifications will deteriorate and an appropriate link count should be used for validation.

Disclaimer

Although every attempt is made to achieve accuracy, A-T-R may not be held liable for errors of fact or interpretation.

Generated 22 Nov 2019 v6.0

23859-001 Fir Lane, Middle Aston ATC Summary.xlsx

Advanced Transport Research

Column	
Time [--	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time [--	24-hour time (0000 - 2359)
Vbin 0 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 60	Speed bin totals
Vbin 60 70	Speed bin totals
Vbin 70 80	Speed bin totals
Vbin 80 90	Speed bin totals
Vbin 90 100	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
JPSL 60	Number exceeding Posted Speed Limit
JPSL% 60	Percent exceeding Posted Speed Limit
JSL1 68 ACPO	Number exceeding Speed Limit 1
JSL1% 68 ACPO	Percent exceeding Speed Limit 1
JSL2 75 DFT	Number exceeding Speed Limit 2
JSL2% 75 DFT	Percent exceeding Speed Limit 2

15 November 2019

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0	Vbin 10	Vbin 15	Vbin 20	Vbin 25	Vbin 30	Vbin 35	Vbin 40	Vbin 45	Vbin 50	Vbin 60	Vbin 70	Vbin 80	Vbin 90	Vbin 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	3	0	3	0	0	0	0	0	0	0	0	0	0000	1	1	0	0	1	0	0	0	0	0	0	0	0	0	15.1	-	0	0	0	0	0	0	
0100	1	0	1	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	1	0	0	0	0	0	0	0	0	0	27.5	-	0	0	0	0	0	0	
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	1	0	0	0	0	0	0	0	0	0	33.1	-	0	0	0	0	0	0	
0600	1	0	1	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	1	0	0	0	0	0	0	0	0	0	28.4	-	0	0	0	0	0	0	
0700	13	0	9	0	3	1	0	0	0	0	0	0	0700	1	0	4	4	4	0	0	0	0	0	0	0	0	0	21.3	28.3	0	0	0	0	0	0	
0800	17	2	15	0	0	0	0	0	0	0	0	0	0800	0	2	3	6	6	0	0	0	0	0	0	0	0	0	22.2	27.1	0	0	0	0	0	0	
0900	17	0	14	0	2	0	1	0	0	0	0	0	0900	0	2	5	9	1	0	0	0	0	0	0	0	0	0	20.4	24.4	0	0	0	0	0	0	
1000	12	0	12	0	0	0	0	0	0	0	0	0	1000	0	0	3	6	3	0	0	0	0	0	0	0	0	0	21.5	25.7	0	0	0	0	0	0	
1100	15	0	15	0	0	0	0	0	0	0	0	0	1100	0	1	3	7	3	1	0	0	0	0	0	0	0	0	22.1	26.7	0	0	0	0	0	0	
1200	15	0	15	0	0	0	0	0	0	0	0	0	1200	0	1	5	6	3	0	0	0	0	0	0	0	0	0	20.7	26.1	0	0	0	0	0	0	
1300	10	0	10	0	0	0	0	0	0	0	0	0	1300	0	1	5	1	3	0	0	0	0	0	0	0	0	0	19.6	-	0	0	0	0	0	0	
1400	15	0	14	0	1	0	0	0	0	0	0	0	1400	0	0	1	6	8	0	0	0	0	0	0	0	0	0	24.3	26.8	0	0	0	0	0	0	
1500	23	1	21	0	1	0	0	0	0	0	0	0	1500	1	0	2	11	9	0	0	0	0	0	0	0	0	0	23.6	28.5	0	0	0	0	0	0	
1600	27	0	27	0	0	0	0	0	0	0	0	0	1600	0	0	2	18	5	2	0	0	0	0	0	0	0	0	23.8	26.6	0	0	0	0	0	0	
1700	22	0	18	0	1	3	0	0	0	0	0	0	1700	3	4	7	5	3	0	0	0	0	0	0	0	0	0	18.2	24.6	0	0	0	0	0	0	
1800	37	0	36	0	0	1	0	0	0	0	0	0	1800	0	2	2	23	10	0	0	0	0	0	0	0	0	0	22.5	25.7	0	0	0	0	0	0	
1900	74	0	72	0	1	1	0	0	0	0	0	0	1900	4	12	19	31	8	0	0	0	0	0	0	0	0	0	19	24.1	0	0	0	0	0	0	
2000	14	0	14	0	0	0	0	0	0	0	0	0	2000	0	2	5	5	1	1	0	0	0	0	0	0	0	0	21	28.2	0	0	0	0	0	0	
2100	3	0	3	0	0	0	0	0	0	0	0	0	2100	0	0	0	2	1	0	0	0	0	0	0	0	0	0	25.9	-	0	0	0	0	0	0	
2200	3	0	3	0	0	0	0	0	0	0	0	0	2200	0	0	3	0	0	0	0	0	0	0	0	0	0	0	18.2	-	0	0	0	0	0	0	
2300	4	0	4	0	0	0	0	0	0	0	0	0	2300	0	0	0	0	3	0	1	0	0	0	0	0	0	0	30.1	-	0	0	0	0	0	0	
07-19	223	3	206	0	8	5	1	0	0	0	0	0	07-19	5	13	42	102	58	3	0	0	0	0	0	0	0	0	21.9	26.3	0	0	0	0	0	0	
06-22	315	3	296	0	9	6	1	0	0	0	0	0	06-22	9	27	66	140	69	4	0	0	0	0	0	0	0	0	21.2	25.9	0	0	0	0	0	0	
06-00	322	3	303	0	9	6	1	0	0	0	0	0	06-00	9	27	69	140	72	4	1	0	0	0	0	0	0	0	21.3	26.1	0	0	0	0	0	0	
00-00	327	3	308	0	9	6	1	0	0	0	0	0	00-00	10	28	69	140	74	5	1	0	0	0	0	0	0	0	21.3	26.1	0	0	0	0	0	0	

16 November 2019

Time	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time	Vbin 0	Vbin 10	Vbin 15	Vbin 20	Vbin 25	Vbin 30	Vbin 35	Vbin 40	Vbin 45	Vbin 50	Vbin 60	Vbin 70	Vbin 80	Vbin 90	Vbin 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	2	0	2	0	0	0	0	0	0	0	0	0	0000	0	0	0	1	0	0	0	0	0	0	0	0	0	0	21.4	-	0	0	0	0	0	0	
0100	2	0	2	0	0	0	0	0	0	0	0	0	0100	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	30	-	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0300	1	0	1	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	1	0	0	0	0	0	0	0	0	0	29.7	-	0	0	0	0	0	0	
0400	2	0	1	0	1	0	0	0	0	0	0	0	0400	0	0	1	0	1	0	0	0	0	0	0	0	0	0	22.9	-	0	0	0	0	0	0	
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	1	0	0	0	0	0	0	0	0	0	30.5	-	0	0	0	0	0	0	
0600	2	0	2	0	0	0	0	0	0	0	0	0	0600	0	0	0	2	0	0	0	0	0	0	0	0	0	0	28.1	-	0	0	0	0	0	0	
0700	3	0	3	0	0	0	0	0	0	0	0	0	0700	0	0	1	2	0	0	0	0	0	0	0	0	0	0	21.1	-	0	0	0	0	0	0	
0800	9	0	8	0	0	1	0	0	0	0	0	0	0800	0	0	4	4	1	0	0	0	0	0	0	0	0	0	20.9	-	0	0	0	0	0	0	
0900	11	0	11	0	0	0	0	0	0	0	0	0	0900	0	0	3	4	4	0	0	0	0	0	0	0	0	0	23.3	27.5	0	0	0	0	0	0	
1000	12	0	12	0	0	0	0	0	0	0	0	0	1000	0	1	5	4	2	0	0	0	0	0	0	0	0	0	20.4	26.2	0	0	0	0	0	0	
1100	12	1	11	0	0	0	0	0	0	0	0	0	1100	0	0	5	4	2	1	0	0	0	0	0	0	0	0	22.3	28.7	0	0	0	0	0	0	
1200	10	3	7	0	0	0	0	0	0	0	0	0	1200	0	0	4	3	2	1	0	0	0	0	0	0	0	0	21.2	-	0	0	0	0	0	0	
1300	15	1	14	0	0	0	0	0	0	0	0	0	1300	0	2	3	9	1	0	0	0	0	0	0	0	0	0	20.6	24.9	0	0	0	0	0	0	
1400	18	0	16	0	1	1	0	0	0	0	0	0	1400	0	2	6	7	3	0	0	0	0	0	0	0	0	0	20.6	25.7	0	0	0	0	0	0	
1500	18	0	18	0	0	0	0	0	0	0	0	0	1500	0	0	2	13	2	1	0	0	0	0	0	0	0	0	23.1	26.3	0	0	0	0	0	0	
1600	11	0	11	0	0	0	0	0	0	0	0	0	1600	0	1	3	4	3	0	0	0	0	0	0	0	0	0	21.7	26.8	0	0	0	0	0	0	
1700	7	0	6	0	1	0	0	0	0	0	0	0	1700	0	0	1	3	2	1	0	0	0	0	0	0	0	0	24.4	-	0	0	0	0	0	0	
1800	2	0	2	0	0	0	0	0	0	0	0	0	1800	0	0	0	1	1	0	0	0	0	0	0	0	0	0	24.2	-	0	0	0	0	0	0	
1900	3	0	3	0	0	0	0	0	0	0	0	0	1900	0	0	0	0	3	0	0	0	0	0	0	0	0	0	26.8	-	0	0	0	0	0	0	
2000	5	0	5	0	0	0	0	0	0	0	0	0	2000	0	0	0	5	0	0	0	0	0	0	0	0	0	0	23.2	-	0	0	0	0	0	0	
2100	5	0	4	0	1	0	0	0																												

Advanced Transport Research

Report Id - CustomList-1020
 Site Name - 23859-002
 Description - FIR LANE NORTH MIDDLE ASTON OXFORDSHIRE [60M]
 Direction - South

13 November 2019

Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0
0400	1	0	0	0	0	1	0	0	0	0	0	0	0400	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	15.7	-	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	
0600	3	0	3	0	0	0	0	0	0	0	0	0	0600	0	0	0	2	1	0	0	0	0	0	0	0	0	0	24.9	-	0	0	0	0	0	
0700	12	0	11	0	1	0	0	0	0	0	0	0	0700	1	0	0	3	5	2	1	0	0	0	0	0	0	0	26.6	33.7	0	0	0	0	0	
0800	36	0	33	0	2	1	0	0	0	0	0	0	0800	1	2	2	16	13	1	1	0	0	0	0	0	0	0	24.1	27.6	0	0	0	0	0	
0900	19	0	17	0	2	0	0	0	0	0	0	0	0900	0	5	2	6	6	0	0	0	0	0	0	0	0	0	20.7	26.3	0	0	0	0	0	
1000	13	0	13	0	0	0	0	0	0	0	0	0	1000	0	5	4	1	3	0	0	0	0	0	0	0	0	0	18.8	27.6	0	0	0	0	0	
1100	18	0	14	0	3	0	1	0	0	0	0	0	1100	1	4	1	4	8	0	0	0	0	0	0	0	0	0	21.5	27.4	0	0	0	0	0	
1200	15	0	15	0	0	0	0	0	0	0	0	0	1200	0	5	1	5	3	0	1	0	0	0	0	0	0	0	20.6	26.5	0	0	0	0	0	
1300	7	0	6	0	1	0	0	0	0	0	0	0	1300	0	2	2	1	1	1	0	0	0	0	0	0	0	0	20.4	-	0	0	0	0	0	
1400	22	0	22	0	0	0	0	0	0	0	0	0	1400	1	1	2	9	9	0	0	0	0	0	0	0	0	0	22.7	26.9	0	0	0	0	0	
1500	9	0	7	0	2	0	0	0	0	0	0	0	1500	0	1	2	1	5	0	0	0	0	0	0	0	0	0	22.4	-	0	0	0	0	0	
1600	21	0	21	0	0	0	0	0	0	0	0	0	1600	0	4	5	5	7	0	0	0	0	0	0	0	0	0	21.1	27.4	0	0	0	0	0	
1700	26	0	25	0	1	0	0	0	0	0	0	0	1700	1	1	5	10	7	2	0	0	0	0	0	0	0	0	22.3	28.2	0	0	0	0	0	
1800	10	0	10	0	0	0	0	0	0	0	0	0	1800	0	0	1	3	5	1	0	0	0	0	0	0	0	0	25.5	-	0	0	0	0	0	
1900	6	0	6	0	0	0	0	0	0	0	0	0	1900	0	2	1	1	2	0	0	0	0	0	0	0	0	0	20.2	-	0	0	0	0	0	
2000	3	0	3	0	0	0	0	0	0	0	0	0	2000	0	1	1	1	0	0	0	0	0	0	0	0	0	0	16.7	-	0	0	0	0	0	
2100	1	0	1	0	0	0	0	0	0	0	0	0	2100	0	0	0	1	0	0	0	0	0	0	0	0	0	0	20.5	-	0	0	0	0	0	
2200	1	0	1	0	0	0	0	0	0	0	0	0	2200	0	0	0	0	1	0	0	0	0	0	0	0	0	0	22.1	-	0	0	0	0	0	
2300	0	0	0	0	0	0	0	0	0	0	0	0	2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	
07-19	208	0	194	0	12	1	1	0	0	0	0	0	07-19	5	30	27	64	72	7	3	0	0	0	0	0	0	0	22.3	27.3	0	0	0	0	0	0
06-22	221	0	207	0	12	1	1	0	0	0	0	0	06-22	5	33	29	69	75	7	3	0	0	0	0	0	0	0	22.2	27.3	0	0	0	0	0	0
06-00	222	0	208	0	12	1	1	0	0	0	0	0	06-00	5	33	29	70	75	7	3	0	0	0	0	0	0	0	22.2	27.3	0	0	0	0	0	0
00-00	223	0	208	0	12	2	1	0	0	0	0	0	00-00	5	33	30	70	75	7	3	0	0	0	0	0	0	0	22.2	27.3	0	0	0	0	0	0

14 November 2019

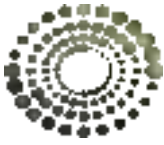
Time [-]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [-]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT	
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0500	1	0	0	0	1	0	0	0	0	0	0	0	0500	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	29.5	-	0	0	0	0	0	0
0600	2	0	2	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	28	-	0	0	0	0	0	0
0700	14	0	11	0	2	1	0	0	0	0	0	0	0700	0	2	1	4	4	2	1	0	0	0	0	0	0	0	0	24.6	33.6	0	0	0	0	0	0
0800	39	1	34	0	4	0	0	0	0	0	0	0	0800	1	2	7	20	8	1	0	0	0	0	0	0	0	0	0	21.8	26.3	0	0	0	0	0	0
0900	17	0	14	0	3	0	0	0	0	0	0	0	0900	1	4	1	6	5	0	0	0	0	0	0	0	0	0	0	20.2	27.1	0	0	0	0	0	0
1000	6	0	5	0	0	0	1	0	0	0	0	0	1000	2	2	0	0	1	1	0	0	0	0	0	0	0	0	17.2	-	0	0	0	0	0	0	
1100	17	0	15	0	2	0	0	0	0	0	0	0	1100	1	4	6	5	1	0	0	0	0	0	0	0	0	0	0	17.5	23.5	0	0	0	0	0	0
1200	18	0	16	0	2	0	0	0	0	0	0	0	1200	1	6	3	7	1	0	0	0	0	0	0	0	0	0	0	18	24.2	0	0	0	0	0	0
1300	17	1	13	0	2	1	0	0	0	0	0	0	1300	1	6	3	5	1	1	0	0	0	0	0	0	0	0	0	17.7	24.6	0	0	0	0	0	0
1400	25	0	23	0	2	0	0	0	0	0	0	0	1400	0	3	0	13	6	3	0	0	0	0	0	0	0	0	0	23.5	29.7	0	0	0	0	0	0
1500	19	1	13	0	3	1	1	0	0	0	0	0	1500	1	4	5	7	2	0	0	0	0	0	0	0	0	0	0	19	24.3	0	0	0	0	0	0
1600	26	0	25	0	1	0	0	0	0	0	0	0	1600	0	3	4	11	8	0	0	0	0	0	0	0	0	0	0	21.8	25.5	0	0	0	0	0	0
1700	21	0	20	0	1	0	0	0	0	0	0	0	1700	0	4	4	9	2	2	0	0	0	0	0	0	0	0	0	21.3	27.2	0	0	0	0	0	0
1800	6	0	6	0	0	0	0	0	0	0	0	0	1800	0	0	2	3	1	0	0	0	0	0	0	0	0	0	21.8	-	0	0	0	0	0	0	
1900	5	0	4	0	1	0	0	0	0	0	0	0	1900	0	0	0	3	1	0	1	0	0	0	0	0	0	0	26.9	-	0	0	0	0	0	0	
2000	6	0	6	0	0	0	0	0	0	0	0	0	2000	0	3	0	2	1	0	0	0	0														

15 November 2019

Time [--]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [--]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT
0000	1	0	1	0	0	0	0	0	0	0	0	0	0000	1	0	0	0	0	0	0	0	0	0	0	0	0	6.2	-	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0		
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0		
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0		
0400	1	0	1	0	0	0	0	0	0	0	0	0	0400	0	0	1	0	0	0	0	0	0	0	0	0	0	15.6	-	0	0	0	0	0	0	
0500	0	0	0	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0600	3	0	2	0	1	0	0	0	0	0	0	0	0600	0	0	0	0	3	0	0	0	0	0	0	0	0	28.3	-	0	0	0	0	0	0	
0700	14	0	12	0	0	2	0	0	0	0	0	0	0700	0	2	4	4	6	1	0	0	1	0	0	0	0	25.6	30.9	0	0	0	0	0	0	
0800	26	0	23	0	2	1	0	0	0	0	0	0	0800	0	2	4	12	6	2	0	0	0	0	0	0	0	22.7	27.2	0	0	0	0	0	0	
0900	9	0	9	0	0	0	0	0	0	0	0	0	0900	0	1	1	6	1	0	0	0	0	0	0	0	0	22	-	0	0	0	0	0	0	
1000	14	0	11	0	3	0	0	0	0	0	0	0	1000	0	3	5	3	3	0	0	0	0	0	0	0	0	19.6	27.7	0	0	0	0	0	0	
1100	14	0	14	0	0	0	0	0	0	0	0	0	1100	0	8	0	4	2	0	0	0	0	0	0	0	0	16.8	24.6	0	0	0	0	0	0	
1200	17	0	15	1	1	0	0	0	0	0	0	0	1200	0	6	5	3	1	2	0	0	0	0	0	0	0	19.1	29.1	0	0	0	0	0	0	
1300	7	0	7	0	0	0	0	0	0	0	0	0	1300	0	0	1	3	2	1	0	0	0	0	0	0	0	25.3	-	0	0	0	0	0	0	
1400	29	0	28	0	1	0	0	0	0	0	0	0	1400	1	4	7	11	4	2	0	0	0	0	0	0	0	20.7	28	0	0	0	0	0	0	
1500	16	1	14	0	0	1	0	0	0	0	0	0	1500	0	2	2	4	6	2	0	0	0	0	0	0	0	24.1	29.7	0	0	0	0	0	0	
1600	10	0	9	0	1	0	0	0	0	0	0	0	1600	0	4	3	2	1	0	0	0	0	0	0	0	0	17.6	-	0	0	0	0	0	0	
1700	14	0	13	0	0	0	0	0	0	0	1	0	1700	1	4	4	3	1	0	0	0	0	1	0	0	0	19.4	27	0	0	0	0	0	0	
1800	5	0	4	0	1	0	0	0	0	0	0	0	1800	0	0	0	3	2	0	0	0	0	0	0	0	0	25.3	-	0	0	0	0	0	0	
1900	23	0	21	1	0	1	0	0	0	0	0	0	1900	2	3	6	9	3	0	0	0	0	0	0	0	0	19.5	25.1	0	0	0	0	0	0	
2000	38	0	37	0	1	0	0	0	0	0	0	0	2000	0	4	21	11	2	0	0	0	0	0	0	0	0	18.9	23.2	0	0	0	0	0	0	
2100	27	0	27	0	0	0	0	0	0	0	0	0	2100	0	1	7	14	4	1	0	0	0	0	0	0	0	21.4	25.1	0	0	0	0	0	0	
2200	15	0	14	0	0	0	1	0	0	0	0	0	2200	0	0	3	6	2	3	0	0	0	1	0	0	0	26	32.1	0	0	0	0	0	0	
2300	6	0	6	0	0	0	0	0	0	0	0	0	2300	0	0	0	3	1	2	0	0	0	0	0	0	0	25.9	-	0	0	0	0	0	0	
07-19	175	1	159	1	9	4	0	0	0	1	0	0	07-19	2	36	32	58	35	10	0	0	1	1	0	0	0	21.3	28.1	0	0	0	0	0	0	
06-22	266	1	246	2	11	5	0	0	0	1	0	0	06-22	4	44	66	92	47	11	0	0	1	1	0	0	0	20.9	27.2	0	0	0	0	0	0	
06-00	287	1	266	2	11	5	1	0	0	1	0	0	06-00	4	44	69	101	50	16	0	0	1	2	0	0	0	21.2	27.4	0	0	0	0	0	0	
00-00	289	1	268	2	11	5	1	0	0	1	0	0	00-00	5	44	70	101	50	16	0	0	1	2	0	0	0	21.2	27.4	0	0	0	0	0	0	

16 November 2019

Time [--]	Total	Cls 1	Cls 2	Cls 3	Cls 4	Cls 5	Cls 6	Cls 7	Cls 8	Cls 9	Cls 10	Fix1	Time [--]	Vbin 0 10	Vbin 10 15	Vbin 15 20	Vbin 20 25	Vbin 25 30	Vbin 30 35	Vbin 35 40	Vbin 40 45	Vbin 45 50	Vbin 50 60	Vbin 60 70	Vbin 70 80	Vbin 80 90	Vbin 90 100	Mean	Vpp 85	JPSL 60	JPSL% 60	JSL1 68 ACPO	JSL1% 68 ACPO	JSL2 75 DFT	JSL2% 75 DFT	
0000	0	0	0	0	0	0	0	0	0	0	0	0	0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	0	0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	0	0	0	0	0
0500	1	0	1	0	0	0	0	0	0	0	0	0	0500	0	0	0	0	1	0	0	0	0	0	0	0	0	0	25.2	-	0	0	0	0	0	0	
0600	3	0	3	0	0	0	0	0	0	0	0	0	0600	0	0	0	0	2	1	0	0	0	0	0	0	0	0	28.1	-	0	0	0	0	0	0	
0700	1	0	1	0	0	0	0	0	0	0	0	0	0700	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7.9	-	0	0	0	0	0	0	
0800	6	0	6	0	0	0	0	0	0	0	0	0	0800	0	1	2	1	2	0	0	0	0	0	0	0	0	0	21.2	-	0	0	0	0	0	0	
0900	9	0	9	0	0	0	0	0	0	0	0	0	0900	0	2	3	2	2	0	0	0	0	0	0	0	0	0	20.2	-	0	0	0	0	0	0	
1000	7	0	6	0	1	0	0	0	0	0	0	0	1000	0	2	0	3	2	0	0	0	0	0	0	0	0	20.6	-	0	0	0	0	0	0		
1100	9	0	7	0	2	0	0	0	0	0	0	0	1100	0	1	1	5	2	0	0	0	0	0	0	0	0	21.9	-	0	0	0	0	0	0		
1200	19	0	19	0	0	0	0	0	0	0	0	0	1200	2	1	1	6	7	2	0	0	0	0	0	0	0	22.6	28.4	0	0	0	0	0	0		
1300	19	1	16	0	1	1	0	0	0	0	0	0	1300	0	4	4	5	5	0	1	0	0	0	0	0	0	21.1	26.4	0	0	0	0	0	0		
1400	19	0	18	1	0	0	0	0	0	0	0	0	1400	0	4	7	6	2	0	0	0	0	0	0	0	0	19.4	24.4	0	0	0	0	0	0		
1500	15	0	13	0	2	0	0	0	0	0	0	0	1500	0	2	4	6	3	0	0	0	0	0	0	0	0	21.1	27.3	0	0	0	0	0	0		
1600	4	0	4	0	0	0	0	0	0	0	0	0	1600	0	1	1	1	1	0	0	0	0	0	0	0	0	19.1	-	0	0	0	0	0	0		
1700	6	0	6	0	0	0	0	0	0	0	0	0	1700	0	1	1	3	1	0	0	0	0	0	0	0	0	21.1	-	0	0	0	0	0	0		
1800	5	0	5	0	0	0	0	0	0	0	0	0	1800	0	1	0	2	2	0	0	0	0	0	0	0	0	22.3	-	0	0	0	0	0	0		
1900	5	0	5	0	0	0	0	0	0	0	0	0	1900	0	1	1	1	1	0	0	0	0	0	0	0	0	22.1	-	0	0	0	0	0	0		
2000	3	0	1	0	1	1	0	0	0	0	0	0	2000	0	1	0	1	1	0	0	0	0	0	0	0	0	21.4	-	0	0	0	0	0	0		
2100	1	0	1	0	0	0	0	0	0	0	0	0	2100	0	0	0	0	0	1	0	0	0														



ATC SUMMARY REPORT

PROJECT	23859 Fir Lane, Middle Aston
LOCATION	23859-002 - Fir Lane (North)
LOC. DESC.	Fir Lane (North)
START DATE	Wed 13 Nov, 2019
END DATE	Tue 19 Nov, 2019
SPEED LIMIT	60mph
SURVEY TYPE	7-day ATC, 15min periods, 10 veh. classes

OVERVIEW

A 7-day automatic traffic count on Fir Lane (North), commencing Wed 13 Nov 2019, recorded a total of 2,878 vehicles. The posted speed limit of 60mph was exceeded by 0.0% of vehicles, and the seasonally adjusted, combined AADT value is 472 (see Equipment & Methodology below).

COMBINED

Total recorded volume	2,878
Avg daily volume (based on 7 days)	411.1
Average daily speed (7 days)	22.0mph
Average daily 85%ile (7 days)	27.2mph
AADT (annual average daily traffic)	472

Avg weekday volume (Mon-Fri, 24hrs)	471.2
Avg weekday speed (Mon-Fri, 24hrs)	21.9mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	397.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	21.9mph

The combined summary on the left shows the total volumes, average speeds, AADT and 85%iles recorded in both directions from all the recorded data. Speeding vehicles are defined as those travelling 61mph and above.

The summaries below provide directionalised details including speeding percentages and weekday daytime details.

SOUTHBOUND ↓

Total recorded volume	1,375
Avg daily volume (based on 7 days)	196.4
Average daily speed (7 days)	21.7mph
Average daily 85%ile (7 days)	27.4mph
% of vehicles exceeding 60mph	0.0%

Avg weekday volume (Mon-Fri, 24hrs)	228.2
Avg weekday speed (Mon-Fri, 24hrs)	21.7mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	194.4
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	21.8mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	27.5mph

NORTHBOUND ↑

Total recorded volume	1,503
Avg daily volume (based on 7 days)	214.7
Average daily speed (7 days)	22.3mph
Average daily 85%ile (7 days)	26.9mph
% of vehicles exceeding 60mph	0.0%

Avg weekday volume (Mon-Fri, 24hrs)	243.0
Avg weekday speed (Mon-Fri, 24hrs)	22.0mph
Avg 12hr weekday volume (Mon-Fri, 0700-1900)	203.0
Avg 12hr weekday speed (Mon-Fri, 0700-1900)	21.9mph
Avg 12hr weekday 85%ile (Mon-Fri, 0700-1900)	26.5mph

SITE LOCATION



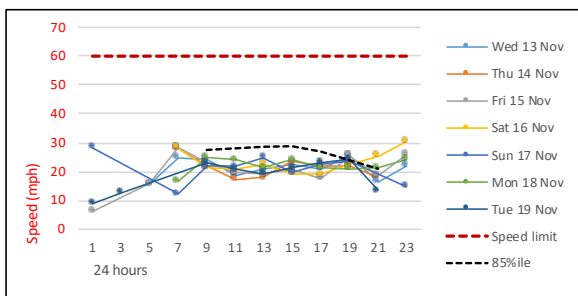
Location Fir Lane (North)

Desc. Fir Lane (North)

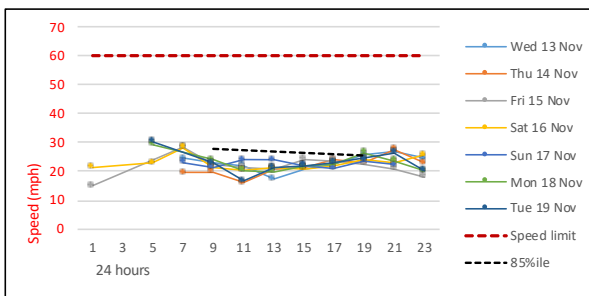
Lat, lng.	51°56'9.89"N/1°18'33.91"W
Project & site	23859-002
PSL	60mph
Bus route	Yes
Direction 1	Southbound ↓
Direction 2	Northbound ↑

DAILY SPEEDS

SOUTHBOUND ↓



NORTHBOUND ↑

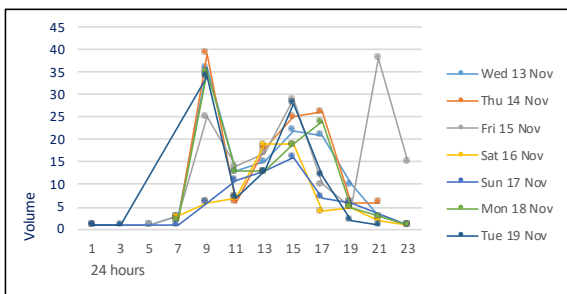


Average daily speeds (solid thin colours) and 85%ile (dashed black) compared against 60mph posted speed limit (dashed red). The 85%ile is the speed at which 85% of all vehicles are observed to travel under free flowing conditions. A minimum of ten vehicles per speed bin is required for this calculation, hence the overnight low-volume 85%ile values may be zero.

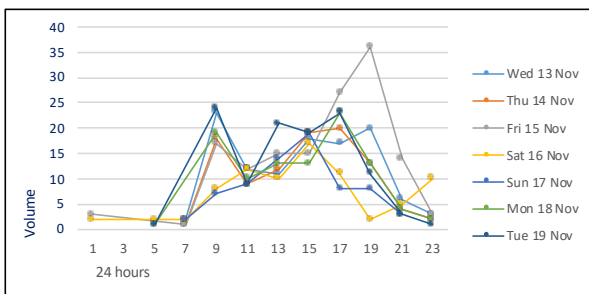
The peak average southbound daytime speed was 34.4mph at 18:30 on Mon 18 Nov, whilst the peak average northbound speed was 30.9mph at 17:45 on Mon 18 Nov (based on 15min averages between 0700 & 1900).

HOURLY VOLUMES

SOUTHBOUND ↓



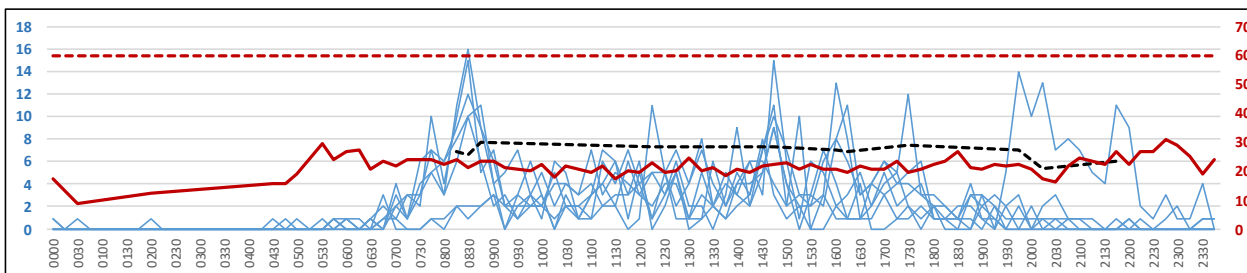
NORTHBOUND ↑



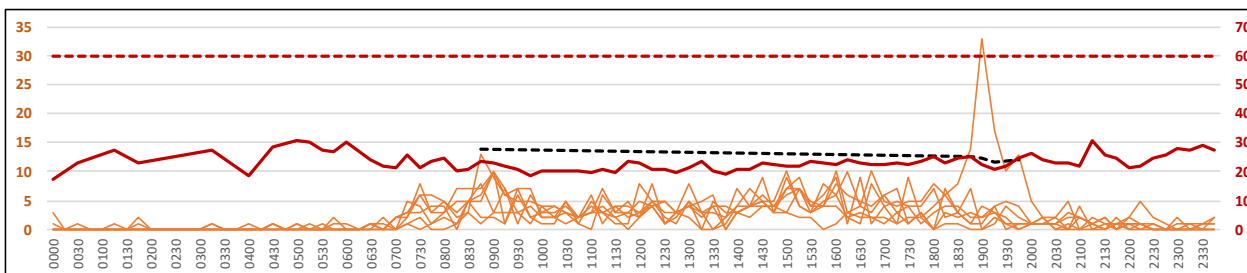
↓ Hourly southbound traffic volumes over each 24hr period for 7 days from all available data.

↑ Hourly northbound traffic volumes over each 24hr period for 7 days from all available data.

15min VOL & SPEED



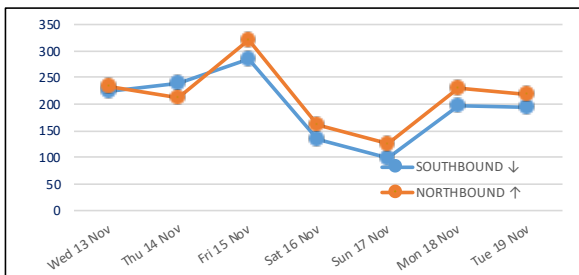
↓ 15min daily southbound flows (blue), against the average speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.



↑ 15min daily northbound flows (orange), against the average weekly speed (red) and 85%ile (dotted black) for each 15min period over the 7-day period.

DAILY VOLUMES

SOUTH & NORTHBOUND



Total 24hr southbound (blue) and northbound (orange) traffic volumes over 7 consecutive days from all available data.

As can be expected, the lowest volumes were recorded on the Sunday, whilst the highest was on the Friday.

7-DAY AVERAGE CLASSES

SOUTHBOUND 7-DAY AVG ↓

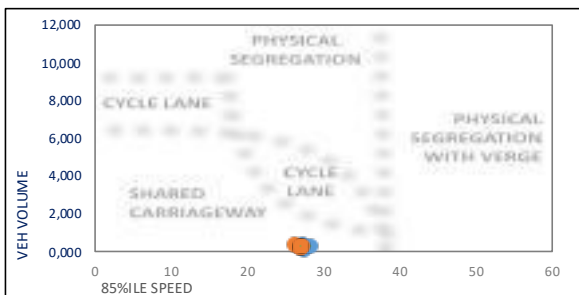
TIME	MOTOR CYCLES	CARS / LGV1	LG2 / MG2	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.0	0.4	0.0	0.0	0.0	0.4
0100	0.0	0.0	0.0	0.0	0.0	0.0
0200	0.0	0.1	0.0	0.0	0.0	0.1
0300	0.0	0.0	0.0	0.0	0.0	0.0
0400	0.0	0.1	0.1	0.0	0.0	0.3
0500	0.0	0.6	0.1	0.0	0.0	0.7
0600	0.1	1.7	0.1	0.0	0.0	2.0
0700	0.0	9.0	1.3	0.0	0.6	10.9
0800	0.1	23.9	1.3	0.0	0.6	25.9
0900	0.0	10.7	1.1	0.0	0.0	11.9
1000	0.3	9.0	0.7	0.1	0.0	10.1
1100	0.0	11.4	3.0	0.1	0.0	14.6
1200	0.0	13.7	1.7	0.0	0.0	15.4
1300	0.3	9.1	1.4	0.0	0.0	10.9
1400	0.1	20.9	1.6	0.0	0.0	22.6
1500	0.3	11.0	0.7	0.1	0.6	12.7
1600	0.0	14.0	0.7	0.1	0.0	14.9
1700	0.0	13.0	0.7	0.1	0.0	13.9
1800	0.0	5.1	0.4	0.0	0.0	5.6
1900	0.0	7.1	0.1	0.0	0.0	7.3
2000	0.0	6.7	0.9	0.0	0.0	7.6
2100	0.0	4.3	0.1	0.0	0.0	4.4
2200	0.0	2.4	0.1	0.1	0.0	2.7
2300	0.0	1.7	0.0	0.0	0.0	1.7
12hr TTL	1.1	150.9	14.7	0.7	1.7	169.1
24hr TTL	1.3	176.1	16.4	0.9	1.7	196.4
	1%	90%	8%	0%	1%	

NORTHBOUND 7-DAY AVG ↑

TIME	MOTOR CYCLES	CARS / LGV1	LG2 / MG2	HGV RIGID	HGV ARTIC'D	TOTAL
0000	0.0	0.7	0.0	0.0	0.0	0.7
0100	0.0	0.6	0.0	0.0	0.0	0.6
0200	0.0	0.0	0.0	0.0	0.0	0.0
0300	0.1	0.1	0.0	0.0	0.0	0.3
0400	0.0	0.4	0.1	0.0	0.0	0.6
0500	0.0	1.0	0.0	0.0	0.0	1.0
0600	0.0	1.1	0.0	0.0	0.0	1.1
0700	0.0	9.6	0.3	0.1	0.0	10.0
0800	0.4	16.0	0.1	0.0	0.0	16.6
0900	0.1	19.1	0.3	0.0	0.0	19.6
1000	0.1	10.0	0.3	0.0	0.0	10.4
1100	0.1	12.0	0.4	0.0	0.0	12.6
1200	1.0	12.4	0.3	0.0	0.0	13.7
1300	0.4	11.1	0.1	0.0	0.0	11.7
1400	0.7	15.6	0.9	0.0	0.0	17.1
1500	0.3	19.1	0.4	0.1	0.0	20.0
1600	0.3	18.0	0.1	0.0	0.0	18.4
1700	0.0	13.7	0.3	0.0	0.0	14.0
1800	0.0	14.7	0.0	0.0	0.0	14.7
1900	0.0	17.1	0.0	0.0	0.0	17.1
2000	0.0	5.6	0.0	0.0	0.0	5.6
2100	0.0	3.9	0.0	0.0	0.0	3.9
2200	0.0	3.0	0.0	0.0	0.0	3.0
2300	0.0	2.0	0.0	0.0	0.0	2.0
12hr TTL	3.6	171.4	3.6	0.3	0.0	178.9
24hr TTL	3.7	207.0	3.7	0.3	0.0	214.7
	2%	96%	2%	0%	0%	

Average daily southbound and northbound volumes by class (condensed to the AQMA scheme), including 12hr totals for 0700-1900 and overall average percentages. Calculated from all available data over 7 days.

CYCLE PROVISION



The diagram compares total daily traffic flow (vertical axis) against the average daily 85%ile speed (horizontal axis) to demonstrate cyclist and vulnerable user considerations.

The guidelines are based on the Sustrans Design Manual (Apr 2014); Understanding User Needs, part 2.

Valid 85%iles are required to plot the graph.

METHODOLOGY

Equipment & methodology

Automatic traffic counts are undertaken using a pair of pneumatic tubes installed securely across the carriageway, one metre apart, recording air pulses to determine vehicle speed, class and volume. The ATC equipment generally remains in place for a consecutive seven day period, and the data analysed post-survey.

In queuing conditions, the accuracy of ATC recording equipment will reduce as follows;

- 20 – 30mph: potential reduction of 9% accuracy in volume values
- 10 – 20mph: potential reduction of 26% accuracy in volume values
- 00 – 10mph: potential reduction of 39% accuracy in volume values

These figures are based on multiple ATC results compared against accepted reference values from resilient manual counts.

AADTs are calculated using the seasonal COBA methodology; DMRB Vol. 13, Pt 4:

Weather & environmental

Inclement conditions during winter months or outbreaks of unseasonable weather may affect survey data collection. This can result in distorted traffic flows or unusable data and should be considered prior to survey approval. Although forecast checks are made prior to the survey commencing, A-T-R cannot be held responsible for the forecast accuracy.

CLASS	ABBREV.	DESCRIPTION	LENGTH	COBA
1	MC	Motorcycle	SHORT Up to 5.5m	N/A
2	SV	Cars, taxis, 4WD, vans	MEDIUM 5.5m to 14.5m	CAR & LGV
3	SVT	Class 2 plus trailer		OGV1 & PSV
4	TB2	2 axle truck / bus		OGV1
5	TB3	3 axle truck / bus		OGV2
6	T4	4 axle truck		
7	ART3	3 axle articulated		
8	ART4	4 axle articulated		
9	ART5	5 axle articulated		
10	ART6	6+ axle articulated	LONG 11.5m to 19.0m	

Equipment damage & failure

Although checked intermittently the equipment remains unmanned for much of the duration of the survey, and can potentially be interfered with, vandalised, damaged or stolen and A-T-R cannot be held responsible for any periods where data has not been captured.

The equipment is located in accordance with the details provided by the client and A-T-R cannot be held responsible for the accuracy of the data or loss of equipment due to theft and vandalism.

Roadworks & events

Where possible, roadworks checks are made 10 days before, and 48 hours before, the survey commences. Additionally, influencing major local events are also monitored, covering the immediate vicinity of the surveys and any routes likely to affect the outcome of the survey.

Vehicle classifications

Vehicles recorded by the ATC are placed into one of ten classes based on axle spacing and pattern. This scheme is based on the AustRoad 94 algorithm and modified for UK traffic, referred to as ARX. The table on the left aligns the ARX classifications with the COBA Chapter 8 (Vol 13, Sec 1) classifications.

Under adverse conditions the accuracy of ATC classifications will deteriorate and an appropriate link count should be used for validation.

Disclaimer

Although every attempt is made to achieve accuracy, A-T-R may not be held liable for errors of fact or interpretation.

Generated 22 Nov 2019 v6.0

23859-002 Fir Lane, Middle Aston ATC Summary.xlsx

Advanced Transport Research

Column	
Time [--	24-hour time (0000 - 2359)
Total	Number in time step
Cls 1	Class totals
Cls 2	Class totals
Cls 3	Class totals
Cls 4	Class totals
Cls 5	Class totals
Cls 6	Class totals
Cls 7	Class totals
Cls 8	Class totals
Cls 9	Class totals
Cls 10	Class totals
Fix1	User defined fixed text
Time [--	24-hour time (0000 - 2359)
Vbin 0 10	Speed bin totals
Vbin 10 15	Speed bin totals
Vbin 15 20	Speed bin totals
Vbin 20 25	Speed bin totals
Vbin 25 30	Speed bin totals
Vbin 30 35	Speed bin totals
Vbin 35 40	Speed bin totals
Vbin 40 45	Speed bin totals
Vbin 45 50	Speed bin totals
Vbin 50 60	Speed bin totals
Vbin 60 70	Speed bin totals
Vbin 70 80	Speed bin totals
Vbin 80 90	Speed bin totals
Vbin 90 100	Speed bin totals
Mean	Average speed
Vpp 85	Percentile speed
JPSL 60	Number exceeding Posted Speed Limit
JPSL% 60	Percent exceeding Posted Speed Limit
JSL1 68 ACPO	Number exceeding Speed Limit 1
JSL1% 68 ACPO	Percent exceeding Speed Limit 1
JSL2 75 DFT	Number exceeding Speed Limit 2
JSL2% 75 DFT	Percent exceeding Speed Limit 2

APPENDIX D – Full TRICS Outputs

mode transport limited Lombard House, 145 Great Charles Street Birmingham, B3 3LP

Licence No: 754101

Filtering Summary

Land Use	02/B	EMPLOYMENT/BUSINESS PARK
Selected Trip Rate Calculation Parameter Range	975-142687 sqm GFA	
Actual Trip Rate Calculation Parameter Range	1500-142687 sqm GFA	
Date Range	Minimum: 01/01/11	Maximum: 26/06/18
Parking Spaces Range	All Surveys Included	
Days of the week selected	Tuesday	1
	Wednesday	2
	Thursday	1
	Friday	4
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	1
	Edge of Town	6
	Neighbourhood Centre (PPS6 Local Centre)	1
Population <1 Mile ranges selected	5,001 to 10,000	2
	10,001 to 15,000	4
	15,001 to 20,000	1
	20,001 to 25,000	1
Population <5 Mile ranges selected	50,001 to 75,000	2
	125,001 to 250,000	5
	250,001 to 500,000	1
Car Ownership <5 Mile ranges selected	0.6 to 1.0	3
	1.1 to 1.5	5
PTAL Rating	No PTAL Present	8

Calculation Reference: AUDIT-754101-191114-1143

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : B - BUSINESS PARK
 MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	2 days
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
	WO WORCESTERSHIRE	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1500 to 142687 (units: sqm)
 Range Selected by User: 975 to 142687 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 26/06/18

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

Selected survey days:

Tuesday	1 days
Wednesday	2 days
Thursday	1 days
Friday	4 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	1
Village	1
No Sub Category	2

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

Secondary Filtering selection:

Use Class:

B1 8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

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

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

Population within 5 miles:

50,001 to 75,000 2 days
125,001 to 250,000 5 days
250,001 to 500,000 1 days

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

Car ownership within 5 miles:

0.6 to 1.0 3 days
1.1 to 1.5 5 days

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

Travel Plan:

Yes 1 days
No 7 days

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

PTAL Rating:

No PTAL Present 8 days

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

LIST OF SITES relevant to selection parameters

Site(1):	CA-02-B-03	Gross floor area:	142687 sqm
Development Name:	SCIENCE PARK	Parking spaces:	4167
Location:	CAMBRIDGE	Number of Employees:	5000
Postcode:	CB4 0FZ	Survey Date:	06/10/17
Main Location Type:	Edge of Town	Survey Day:	Friday
Sub-Location Type:	No Sub Category		
PTAL:	n/a		
Site(2):	DV-02-B-01	Gross floor area:	1500 sqm
Development Name:	BUSINESS PARK	Parking spaces:	44
Location:	EXETER	Number of Employees:	51
Postcode:	EX2 8PF	Survey Date:	05/07/17
Main Location Type:	Edge of Town	Survey Day:	Wednesday
Sub-Location Type:	Commercial Zone		
PTAL:	n/a		
Site(3):	EX-02-B-01	Gross floor area:	2900 sqm
Development Name:	BUSINESS PARK	Parking spaces:	153
Location:	COLCHESTER	Number of Employees:	114
Postcode:	CO4 9XP	Survey Date:	18/05/18
Main Location Type:	Edge of Town	Survey Day:	Friday
Sub-Location Type:	Industrial Zone		
PTAL:	n/a		
Site(4):	EX-02-B-02	Gross floor area:	4083 sqm
Development Name:	BUSINESS PARK	Parking spaces:	179
Location:	COLCHESTER	Number of Employees:	107
Postcode:	CO4 9HT	Survey Date:	18/05/18
Main Location Type:	Edge of Town	Survey Day:	Friday
Sub-Location Type:	Industrial Zone		
PTAL:	n/a		
Site(5):	HC-02-B-02	Gross floor area:	55000 sqm
Development Name:	BUSINESS PARK	Parking spaces:	2732
Location:	PORTSMOUTH	Number of Employees:	2800
Postcode:	PO6 3EZ	Survey Date:	18/10/13
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Day:	Friday
Sub-Location Type:	No Sub Category		
PTAL:	n/a		
Site(6):	LN-02-B-02	Gross floor area:	5000 sqm
Development Name:	BUSINESS PARK	Parking spaces:	114
Location:	LINCOLN	Number of Employees:	105
Postcode:	LN2 4SY	Survey Date:	25/06/15
Main Location Type:	Edge of Town	Survey Day:	Thursday
Sub-Location Type:	Industrial Zone		
PTAL:	n/a		
Site(7):	ST-02-B-04	Gross floor area:	20760 sqm
Development Name:	BUSINESS PARK	Parking spaces:	925
Location:	STAFFORD	Number of Employees:	1082
Postcode:	ST16 1GZ	Survey Date:	22/11/17
Main Location Type:	Edge of Town	Survey Day:	Wednesday
Sub-Location Type:	Industrial Zone		
PTAL:	n/a		
Site(8):	WO-02-B-02	Gross floor area:	4187 sqm
Development Name:	BUSINESS PARK	Parking spaces:	233
Location:	NEAR BROMSGROVE	Number of Employees:	282
Postcode:	B61 0GD	Survey Date:	26/06/18
Main Location Type:	Neighbourhood Centre (PPS6 Local Centre)	Survey Day:	Tuesday
Sub-Location Type:	Village		
PTAL:	n/a		

Trip Rates for Key Periods		Trips per 100 sqm GFA	
Period	Inbound	Outbound	Total
0800-0900	1.204	0.132	1.336
1700-1800	0.081	0.863	0.944

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	8	29515	0.187	8	29515	0.034	8	29515	0.221
07:30 - 08:00	8	29515	0.421	8	29515	0.054	8	29515	0.475
08:00 - 08:30	8	29515	0.620	8	29515	0.065	8	29515	0.685
08:30 - 09:00	8	29515	0.584	8	29515	0.067	8	29515	0.651
09:00 - 09:30	8	29515	0.291	8	29515	0.070	8	29515	0.361
09:30 - 10:00	8	29515	0.104	8	29515	0.055	8	29515	0.159
10:00 - 10:30	8	29515	0.073	8	29515	0.044	8	29515	0.117
10:30 - 11:00	8	29515	0.061	8	29515	0.044	8	29515	0.105
11:00 - 11:30	8	29515	0.065	8	29515	0.059	8	29515	0.124
11:30 - 12:00	8	29515	0.069	8	29515	0.067	8	29515	0.136
12:00 - 12:30	8	29515	0.068	8	29515	0.115	8	29515	0.183
12:30 - 13:00	8	29515	0.086	8	29515	0.102	8	29515	0.188
13:00 - 13:30	8	29515	0.090	8	29515	0.074	8	29515	0.164
13:30 - 14:00	8	29515	0.088	8	29515	0.078	8	29515	0.166
14:00 - 14:30	8	29515	0.072	8	29515	0.069	8	29515	0.141
14:30 - 15:00	8	29515	0.055	8	29515	0.083	8	29515	0.138
15:00 - 15:30	8	29515	0.047	8	29515	0.115	8	29515	0.162
15:30 - 16:00	8	29515	0.046	8	29515	0.111	8	29515	0.157
16:00 - 16:30	8	29515	0.050	8	29515	0.178	8	29515	0.228
16:30 - 17:00	8	29515	0.051	8	29515	0.258	8	29515	0.309
17:00 - 17:30	8	29515	0.049	8	29515	0.449	8	29515	0.498
17:30 - 18:00	8	29515	0.032	8	29515	0.414	8	29515	0.446
18:00 - 18:30	8	29515	0.022	8	29515	0.338	8	29515	0.360
18:30 - 19:00	8	29515	0.018	8	29515	0.248	8	29515	0.266
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.249			3.191			6.440

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

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

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Parameter summary

Trip rate parameter range selected:	1500 - 142687 (units: sqm)
Survey date date range:	01/01/11 - 26/06/18
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	8	29515	0.003	8	29515	0.002	8	29515	0.005
07:30 - 08:00	8	29515	0.002	8	29515	0.003	8	29515	0.005
08:00 - 08:30	8	29515	0.000	8	29515	0.000	8	29515	0.000
08:30 - 09:00	8	29515	0.003	8	29515	0.003	8	29515	0.006
09:00 - 09:30	8	29515	0.003	8	29515	0.003	8	29515	0.006
09:30 - 10:00	8	29515	0.003	8	29515	0.002	8	29515	0.005
10:00 - 10:30	8	29515	0.002	8	29515	0.003	8	29515	0.005
10:30 - 11:00	8	29515	0.001	8	29515	0.002	8	29515	0.003
11:00 - 11:30	8	29515	0.001	8	29515	0.001	8	29515	0.002
11:30 - 12:00	8	29515	0.003	8	29515	0.003	8	29515	0.006
12:00 - 12:30	8	29515	0.002	8	29515	0.002	8	29515	0.004
12:30 - 13:00	8	29515	0.002	8	29515	0.002	8	29515	0.004
13:00 - 13:30	8	29515	0.001	8	29515	0.000	8	29515	0.001
13:30 - 14:00	8	29515	0.002	8	29515	0.002	8	29515	0.004
14:00 - 14:30	8	29515	0.000	8	29515	0.002	8	29515	0.002
14:30 - 15:00	8	29515	0.001	8	29515	0.001	8	29515	0.002
15:00 - 15:30	8	29515	0.004	8	29515	0.003	8	29515	0.007
15:30 - 16:00	8	29515	0.001	8	29515	0.002	8	29515	0.003
16:00 - 16:30	8	29515	0.002	8	29515	0.001	8	29515	0.003
16:30 - 17:00	8	29515	0.000	8	29515	0.001	8	29515	0.001
17:00 - 17:30	8	29515	0.000	8	29515	0.001	8	29515	0.001
17:30 - 18:00	8	29515	0.001	8	29515	0.002	8	29515	0.003
18:00 - 18:30	8	29515	0.000	8	29515	0.001	8	29515	0.001
18:30 - 19:00	8	29515	0.000	8	29515	0.001	8	29515	0.001
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.037			0.043			0.080

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

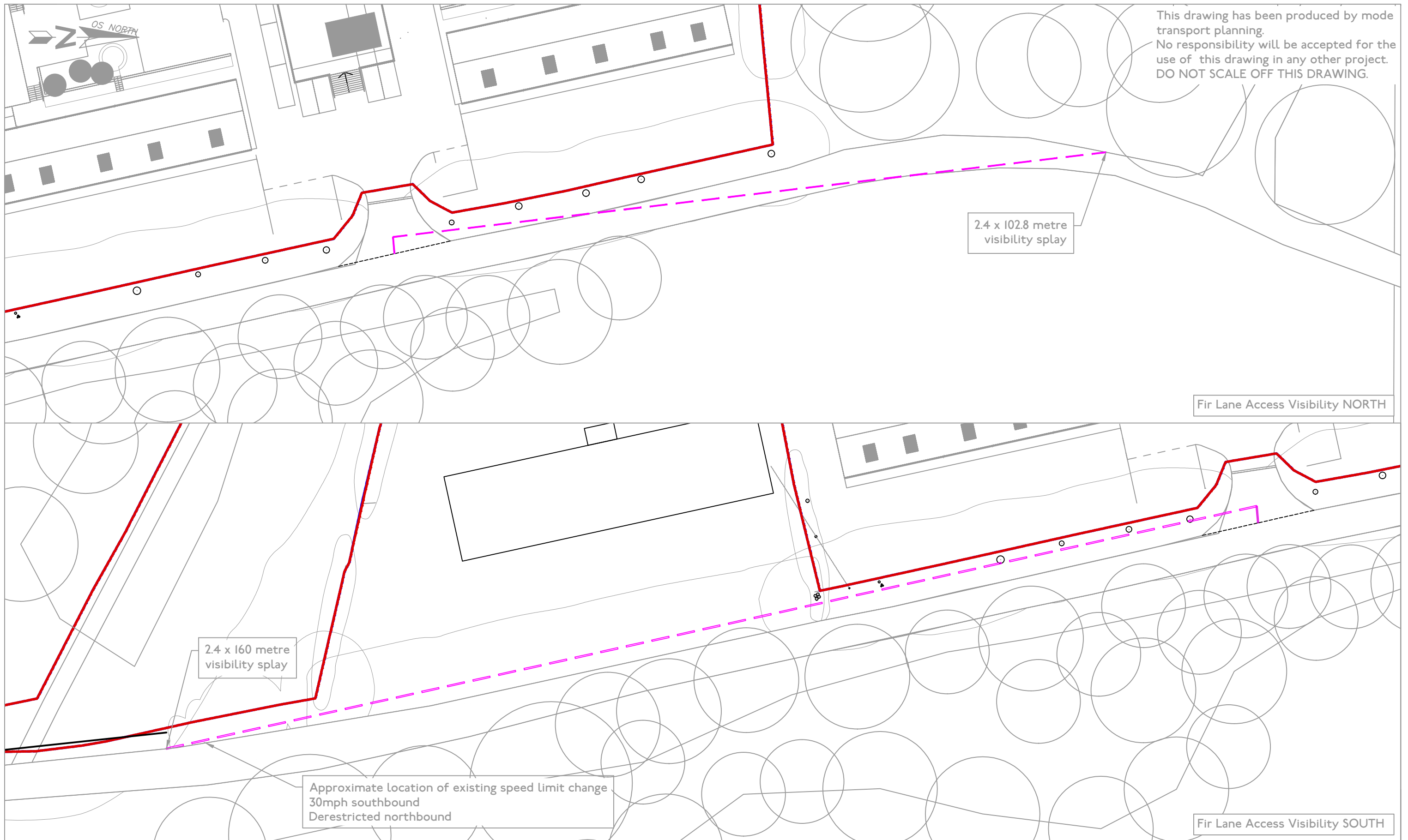
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	8	29515	0.265	8	29515	0.044	8	29515	0.309
07:30 - 08:00	8	29515	0.578	8	29515	0.070	8	29515	0.648
08:00 - 08:30	8	29515	0.881	8	29515	0.125	8	29515	1.006
08:30 - 09:00	8	29515	0.834	8	29515	0.105	8	29515	0.939
09:00 - 09:30	8	29515	0.448	8	29515	0.100	8	29515	0.548
09:30 - 10:00	8	29515	0.198	8	29515	0.086	8	29515	0.284
10:00 - 10:30	8	29515	0.135	8	29515	0.082	8	29515	0.217
10:30 - 11:00	8	29515	0.118	8	29515	0.075	8	29515	0.193
11:00 - 11:30	8	29515	0.118	8	29515	0.089	8	29515	0.207
11:30 - 12:00	8	29515	0.114	8	29515	0.119	8	29515	0.233
12:00 - 12:30	8	29515	0.133	8	29515	0.201	8	29515	0.334
12:30 - 13:00	8	29515	0.166	8	29515	0.172	8	29515	0.338
13:00 - 13:30	8	29515	0.185	8	29515	0.152	8	29515	0.337
13:30 - 14:00	8	29515	0.170	8	29515	0.129	8	29515	0.299
14:00 - 14:30	8	29515	0.117	8	29515	0.114	8	29515	0.231
14:30 - 15:00	8	29515	0.096	8	29515	0.130	8	29515	0.226
15:00 - 15:30	8	29515	0.087	8	29515	0.183	8	29515	0.270
15:30 - 16:00	8	29515	0.079	8	29515	0.182	8	29515	0.261
16:00 - 16:30	8	29515	0.091	8	29515	0.312	8	29515	0.403
16:30 - 17:00	8	29515	0.097	8	29515	0.424	8	29515	0.521
17:00 - 17:30	8	29515	0.095	8	29515	0.686	8	29515	0.781
17:30 - 18:00	8	29515	0.063	8	29515	0.629	8	29515	0.692
18:00 - 18:30	8	29515	0.054	8	29515	0.477	8	29515	0.531
18:30 - 19:00	8	29515	0.035	8	29515	0.349	8	29515	0.384
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			5.157			5.035			10.192

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

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

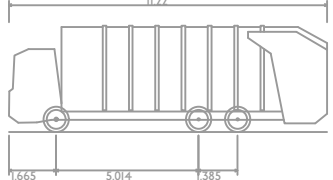
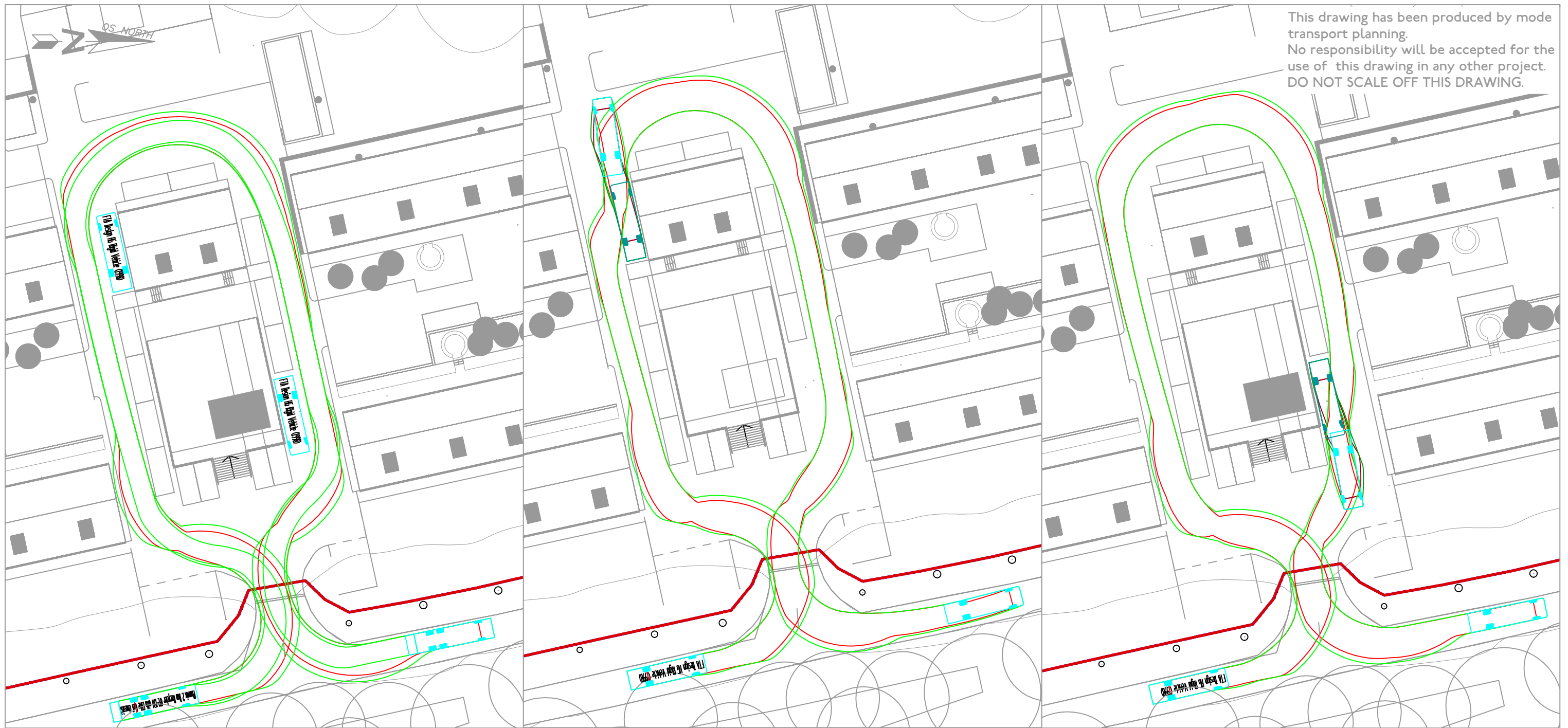
APPENDIX E – mode Drawings



This drawing has been produced by mode transport planning. No responsibility will be accepted for the use of this drawing in any other project. DO NOT SCALE OFF THIS DRAWING.

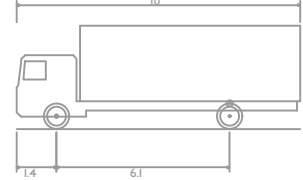
drawing title Existing Site Access with Achievable Visibility Splays	client Middle Aston Limited	mode transport planning 9 Greyfriars Road Reading RG1 1NU t 0118 206 2945 e info@modetransport.co.uk w www.modetransport.co.uk	scale 1:500@A3	A -	24.03.20 08.11.19	Updated Layout First Issue
	job title Hatch End Industrial Estate, Middle Aston					
			checked CH	drawing no. J32-4000-001		
			created 08.11.19			

This drawing has been produced by mode transport planning.
 No responsibility will be accepted for the use of this drawing in any other project.
DO NOT SCALE OFF THIS DRAWING.



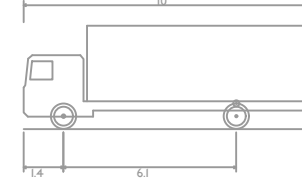
Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)
 Overall Length 11.220m
 Overall Width 2.530m
 Overall Body Height 3.756m
 Min Body Ground Clearance 0.309m
 Track Width 2.530m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 11.550m

Refuse Vehicle Manoeuvring Within Internal Loop



FTA Design HG Rigid Vehicle (1998)
 Overall Length 10.000m
 Overall Width 2.500m
 Overall Body Height 3.645m
 Min Body Ground Clearance 0.440m
 Track Width 2.470m
 Lock to lock time 3.00s
 Kerb to Kerb Turning Radius 11.000m

HGV Servicing Strategy



FTA Design HG Rigid Vehicle (1998)
 Overall Length 10.000m
 Overall Width 2.500m
 Overall Body Height 3.645m
 Min Body Ground Clearance 0.440m
 Track Width 2.470m
 Lock to lock time 3.00s
 Kerb to Kerb Turning Radius 11.000m

HGV Servicing Strategy

drawing title Proposed Layout Swept Path Analysis	client Middle Aston Limited	mode transport planning 9 Greyfriars Road Reading RG1 1NU t 0118 206 2945 e info@modetransport.co.uk w www.modetransport.co.uk	scale 1:500@A3	B A -	24.03.20 19.11.19 08.11.19	Updated Layout and Tracking Updated Layout and Tracking First Issue
	job title Hatch End Industrial Estate, Middle Aston		drawn MF			



mode

transport planning

keep up with mode:



Birmingham

☎ 0121 794 8390

London

☎ 020 7293 0217

Manchester

☎ 0161 974 3208

Reading

☎ 0118 206 2945

✉ info@modetransport.co.uk

📍 modetransport.co.uk

🐦 [@mode_transport](https://twitter.com/mode_transport)