Bicester Office Park,
Bicester

Transport Assessment

For

Scenic Land Developments Ltd

Document Control Sheet

Transport Assessment

Bicester Office Park, Bicester

Scenic Land Developments Ltd

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1.0 Introduction

1.1 Motion has been appointed by Scenic Land Developments Ltd to prepare this Transport Assessment in relation to development proposals on land to the east of the A41 Oxford Road, Bicester within the administrative boundary of Cherwell District Council (CDC).

1.2 The site is currently undeveloped and is bound by the A41 Oxford Road to the west and Lakeview Drive to the north whilst Wyevale Garden Centre is located to the immediate south. The Bicester – Oxford railway line operates to the east and is separated from the site by undeveloped land.

1.3 The proposals comprise the redevelopment of the site to form up to 60,000 square metres (GEA) of B1(a)/B1(b) office space along with associated parking and landscaping. Vehicle access to the site would be via the two existing roundabout junctions on Lakeview Drive.

Site History

1.4 Outline planning permission was granted in 2010 for the construction of a 60,000-square metre office park comprising 53,000 square metres of B1(a)/B1(b) office space and a 7,000-square metre C1 hotel, served by circa 1,837 car parking spaces (Planning Ref: 07/01106/OUT).

1.5 Detailed planning consent was subsequently granted in November 2013 for the construction of a Tesco food store of 8,135 square metres and petrol filling station on part of the consented office park site (Planning Ref: 12/01193/F). That planning application was supported by a Transport Assessment which considered the effect of the development proposals on the highway network local to the site. The Tesco store has since been constructed and opened in April 2016.

1.6 The S106 Deed of Variation in relation to the consented Tesco store and office park allows for the construction of up to 45,000 square metres of the B1(a)/B1(b) office space being delivered on the remainder of the site, as part of the previous outline planning consent for an office park.

Development Proposals

1.7 The current planning application seeks outline planning consent, with all matters reserved except access, for the development of up to 60,000 square metres (GEA) of B1(a)/B1(b) office space. The development would be accessed from Lakeview Drive via two existing roundabout junctions.

1.8 The current development proposals would supersede and replace the previous outline consent for an office park on the site. In comparison with the previous outline planning consent for an office park on the site, the current site area excludes the portion of the site, north of Lakeview Drive, which has since been developed for a Tesco store. However, the site area now includes a parcel of land along the frontage of the A41 Oxford Road, south of Lakeview Drive, which was previously not within the applicant's ownership and was not part of the previous outline planning consent for an office park.

Report Structure

1.9 This Transport Assessment has been prepared in accordance with national and local guidance and considers the highways and transport matters associated with the current development proposals and, in particular, the effect of the development proposals on the highway network local to the site.

1.10 A formal pre-application submission was made to Oxfordshire County Council (OCC) in April 2017 and a pre-application response was received from OCC in May 2017. A copy of the pre-application response is attached at Appendix A.

1.11 This Transport Assessment has been prepared with reference to the pre-application response received from OCC and addresses the matters identified within that response.

1.12 A Framework Travel Plan has been prepared in association with the development proposals and this is submitted alongside the planning application, under separate cover.

1.13 Following this introduction, the remainder of this report comprises the following:

- Section 2 outlines the transport planning policies that are considered pertinent to this application;
- Section 3 considers the existing use of the site and reviews the accessibility by all modes of transport;
- Section 4 provides an overview of the proposed development;
- Section 5 details the assessment methodology and the trip attraction of the development proposals;
- Section 6 outlines the results of the junction modelling undertaken; and,
- Section 7 summarises the key findings and conclusions of the report.

2.0 Policy Context

2.1 This section summarises the relevant transport policy documents against which the development proposals would be considered at a national, regional and local level. The most relevant policy documents relating to this study are detailed below:

- National Planning Policy Framework (March 2012);
- Oxfordshire Local Transport Plan 2015-2031 (July 2015); and,
- Cherwell Local Plan 2011-2031 (re-adopted December 2016).

National Planning Policy

National Planning Policy Framework (March 2012)

2.2 The National Planning Policy Framework (NPPF) was published in March 2012, and replaces the previous national planning policies that were set out in the various Planning Policy Guidance Notes / Statements. With regard to transport, the NPPF replaces policy contained within PPG13 (Transport).

2.3 The NPPF sets out a presumption in favour of sustainable development that recognises the importance of transport policies in facilitating sustainable development, and that planning decisions should have regard to local circumstances. In this regard, paragraph 29 of the NPPF states that:

2.4 "*The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas."*

2.5 Paragraph 32 states that:

"Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."

2.6 In order to promote opportunities for the use of sustainable travel, the NPPF advises that:

- *"..developments should be located and designed where practical to accommodate the efficient delivery of goods and supplies;*
- *give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;*
- *create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones;*
- *Incorporate facilities for charging plug-in and other ultra-low emission vehicles; and consider the needs of people with disabilities by all modes of transport."*

Local Planning Policy

Cherwell Local Plan 2011-2031 (December 2016)

2.7 The Cherwell Local Plan is the key planning policy document within the district and sets out the overarching planning policies upon which planning applications will be determined.

2.8 Policy SLE 4 considers transport and connections and states:

"*All development where reasonable to do so, should facilitate the use of sustainable modes of transport to make the fullest possible use of public transport, walking and cycling. Encouragement will be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. Development which is not suitable for the roads that serve the development and which have a severe traffic impact will not be supported.*"

2.9 The current application site is allocated within the Cherwell Local Plan under Policy Bicester 4 which sets out:

"*… This site to the south west of Bicester, bounded by the A41 to the north and west, is proposed for employment generating development in the form of a high-quality office scheme.*

2.10 It is further stated in paragraph C.65 that:

"There is a sustainable opportunity for the provision of strategic employment space to the south of Bicester Town Centre and adjoining the A41. The Bicester Business Park site has planning permission for a 60,000m2 business park incorporating offices (B1) and hotel (C1) use. This development area is located immediately to the east of the South West Bicester (Kingsmere) urban extension, less than 1 km from Bicester Village Railway Station and close to major retail uses and town centre facilities. The site has immediate access to the strategic highway network (Oxford-Aylesbury) with Junction 9 of the M40 motorway situated about 3 km to the south. Major growth is planned nearby with the redevelopment of Graven Hill (Policy Bicester 2: Graven Hill, phase 2 of the South West Bicester extension (Policy Bicester 3: South West Bicester Phase 2 and the expansion of the centre of the town."

Summary

2.11 It is evident that the policies set out within the NPPF and the Cherwell Local Plan focus on a presumption in favour of sustainable development and that development should only be resisted or refused on transport grounds where residual impacts of development are severe.

2.12 Furthermore, the application site is allocated for office use within the Cherwell Local Plan, confirming that the principle of office development is appropriate and in accordance with local planning policies.

3.0 Baseline Conditions

3.1 The site is located to the east of the A41, Oxford Road, and to the west of the Bicester – Oxford railway line. Both Bicester Village and town centre are located to the north of the site. The surrounding land uses comprise predominantly residential and retail uses with undeveloped land located to the east of the site.

3.2 The site location in relation to the surrounding area is shown in Figure 3.1.

Local Highway Network

3.3 Lakeview Drive forms the northern boundary of the site and the site would be accessed from Lakeview Drive via two existing roundabout junctions. The two existing roundabouts on Lakeview Drive, at the eastern end of Lakeview Drive and centrally on Lakeview Drive, currently include a southern arm on each roundabout which would form the vehicle accesses to the site. The roundabout at the eastern end of Lakeview Drive also provides access to the Tesco service yard while the central roundabout on Lakeview Drive also provides customer access to the existing Tesco store. At its western end, Lakeview Drive connects via the signalled controlled junction with the A41 Oxford Road. The A41 Oxford Road runs on a broadly north-south alignment and connects north to Bicester town and south to the M40.

3.4 North-east of the application site the A41 Oxford Road connects with the A41 at a junction known as the Esso roundabout. From the Esso roundabout, the A41 connects east towards Aylesbury. North of the Esso roundabout, Oxford Road connects north towards Bicester town centre.

3.5 As part of the consented development proposals for Bicester Village Phase 4 and the constructed Tesco store a significant package of highway works was approved and is currently under construction. The highway works included improvements to the Oxford Road junctions with Pingle Drive, Esso roundabout and Lakeview Drive.

3.6 Planning consent has recently been granted for a retail park scheme, known as 'Bicester Gateway Retail Park' on a site to the west of the A41 Oxford Road (Planning Ref: 16/02505/OUT). The consented development proposals at Bicester Gateway Retail Park include further improvements to the A41 junctions with Lakeview Drive and the Kingsmere development. The consented highway improvements associated with Bicester Gateway Retail Park also include the provision of a new bus stop and lay-by on the A41 Oxford Road just south of Lakeview Drive, directly adjacent to the current application site.

3.7 In addition, planning consent has recently been granted for a business park scheme known as 'Bicester Gateway Business Park' to the south of the current application site (Planning Ref: 16/02586/OUT). The consented development proposals at Bicester Gateway Business Park included improvements to the conventional roundabout junction between the A41 and Vendee Drive.

3.8 The Rodney House roundabout is situated to the north-east of the application site at the junction between the A41, the A4421 and London Road and currently forms a conventional roundabout. As part of consented development proposals at Graven Hill it is proposed that the Rodney House roundabout is upgraded to a signal controlled roundabout and it is understood that these works are scheduled to commence later this year.

Sustainable Transport Accessibility

3.9 It is generally accepted that walking and cycling provide important alternatives to the private car, and should also be encouraged to form part of longer journeys via public transport. Indeed, it is noteworthy that the Institution of Highways and Transportation (IHT) has prepared several guidance documents that provide advice with respect to the provision of sustainable travel in conjunction with new developments. Within these documents it is suggested that:

- Most people will walk to a destination that is less than one mile (Planning for Walking, 2015);

- The bicycle is a potential mode of transport for all journeys under five miles (approximately 8 kilometres) (Planning for Cycling, 2015); and,
- Walking distances to bus stops should not exceed 400 metres, whilst people are prepared to walk twice as far to rail stations (Planning for Walking, 2015).

3.10 The Institution of Highways and Transportation (IHT) 'Guidelines for Providing Journeys on Foot' (2000) suggests acceptable, desirable and preferred maximum walking distances ('acceptable' walking distances would vary between individuals). Table 3.1 summarises the suggested walking distances for pedestrians without mobility impairment for some common trip purposes.

	Town Centres	Commuting/Schools	Elsewhere
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200
Source: 'Providing for Journeys on Foot', IHT, 2000			

Table 3.1 Suggested Walking Distances (metres)

3.11 The following sections consider the opportunities for sustainable travel that are available in the vicinity of the site.

Pedestrian and Cycle Network

3.12 Footways are provided along both sides of Lakeview Drive adjacent to the site and these connect with footway along both sides of the A41 Oxford Road. Signalised pedestrian crossing facilities are provided at the junction between the A41 Oxford Road and Lakeview Drive and these provide a convenient crossing opportunity across both Lakeview Drive and the A41 Oxford Road.

3.13 The highway improvements currently under construction at the A41 Esso roundabout and the A41 junctions with Pingle Drive and the Kingsmere access include signal controlled pedestrian crossing facilities which connect to the wider pedestrian network in the vicinity.

3.14 In addition, the site is well located with regard to local footpaths which offer off-road connections to between the site and local villages including Wendlebury and Chesterton.

3.15 National Cycle Network Route 51 (NCN51), runs alongside the A41 Oxford Road directly past the application site. NCN51 provides a signed cycle route connecting south towards Wendlebury, Kidlington and Oxford. North of the application site, NCN51 connects to Bicester Village and Bicester Town Centre.

3.16 There are further signed cycle routes in the vicinity of the site which operate throughout Bicester as well as connecting to Audley, Poundon and Langford Village.

3.17 Figure 3.2 summarises the local footpaths and cycle routes in the vicinity of the site.

3.18 It is evident that the pedestrian and cycle facilities in the vicinity of the application site provide connections to local retail opportunities, residential areas and public transport facilities in the vicinity of the site. It is therefore evident that the application site is well placed for future employees and visitors to undertake journeys to and from the site on foot or by cycle.

Public Transport Network

3.19 The nearest bus stop to the site is situated on the A41 Oxford Road northbound, just north of the junction between the A41 Oxford Road and Lakeview Drive. The northbound bus stop is an approximately 120 metre walk from the north-western corner of the application site and is accessible via the existing signal controlled pedestrian crossing facilities at the junction between A41 Oxford Road and Lakeview Drive. The bus stop is served by the S5 and X5 services. The S5 operates every 15 minutes Monday to Friday and every 30 minutes on Saturdays and Sundays between Oxford City Centre and Launton, as well as the Bicester Park & Ride facility. The X5 operates twice an hour on weekdays and hourly on weekends between Cambridge Parkside Bus Station and Oxford City Centre via Milton Keynes Railway Station.

3.20 There is not currently a southbound bus stop directly adjacent to the site. However, as part of highways works associated with the consented development proposals at Bicester Gateway Retail Park a new southbound bus stop and lay-by on the A41 Oxford Road would be provided. The new bus stop would be directly adjacent to the application site on the eastern side of the A41 Oxford Road. It is envisaged that the additional southbound bus stop would also be served by the S5 and X5 services

3.21 Additional bus stops are situated north of the Pingle Drive roundabout, approximately 500 metres north on Oxford Road and these are also served by the S5 and X5 services as well as the No. 26 bus service which provides a circular bus service between Bicester Town Centre, Kingsmere and Oxford Road.

3.22 A further bus stop is located on Pringle Drive approximately 800 metres to the north east and is served by the Bicester Village Shuttle operating towards Bicester North Railway Station.

3.23 The nearest station is Bicester Village Railway Station located approximately 1.4 kilometres to the north east of the site. Bicester Village Station is located on the Oxford to London Marylebone line with services operating in each direction every 30 minutes.

3.24 Bicester North Railway Station is located approximately 1.8 kilometres to the north of the site and offers connections to London Marylebone, Banbury and Birmingham Moor Street and Snow Hill. Services run up to twice per hour in each direction.

3.25 It is evident that the application site is well placed for access to public transport facilities and provides future employees and visitors to the site to undertake journeys by public transport.

Personal Injury Accident Data

3.26 Personal Injury Accident (PIA) data recorded in the immediate vicinity of the site has been obtained for the most recent five-year period available covering 01/07/2012 to 01/07/2017. Full details of the study area and accident records are attached at Appendix B. Over his period there were 47 incidents recorded of which 40 resulted in slight injury, 5 in serious injury and 2 resulted in fatality.

3.27 The incident reports in relation to the two incidents which result in a fatality, identify that they were as a result of a failure to judge other vehicle speeds and distraction within the vehicle. As such it is considered that the local highway layout was not a factor in either of these incidents.

3.28 It is noted that only one incident occurred at the junction between the A41 Oxford Road and Lakeview Drive. The report indicates that this incident resulted in slight injury and was caused by a driver disobeying automated traffic signals.

3.29 A review of the remaining accidents indicates that the identified causation factors were predominantly driver error or poor driver behaviour and, as such, are unrelated to the existing design or layout of the highway. As such, it is considered that there are no inherent safety issues associated with the existing highway in the vicinity of the site.

4.0 Development Proposals

4.1 The current planning application seeks outline planning consent, with all matters reserved except access, for the development of up to 60,000 square metres (GEA) of B1(a)/B1(b) office space. Vehicle access to the site would be via the two existing roundabout junctions on Lakeview Drive. The parameters plan of the current outline application is attached at Appendix C.

Site History

4.2 As previously highlighted, outline planning permission was granted in 2010 for the construction of a 60,000-square metre office park comprising 53,000 square metres of B1(a)/B1(b) office space and a 7,000-square metre C1 hotel, served by circa 1,837 car parking spaces (Planning Ref: 07/01106/OUT).

4.3 Detailed planning consent was subsequently granted in November 2013 for the construction of a Tesco food store of 8,135 square metres and petrol filing station on part of the consented office park site (Planning Ref: 12/01193/F). That planning application was supported by a Transport Assessment which considered the effect of the development proposals on the highway network local to the site. The Tesco store has since been constructed and opened in April 2016.

4.4 The S106 Deed of Variation in relation to the consented Tesco store and office park allows for the construction of up to 45,000 square metres of the B1(a)/B1(b) office space being delivered on the remainder of the site, as part of the previous outline planning consent for an office park.

Current Planning Application

4.5 The current development proposals seek outline planning consent for the construction of an office park providing up to 60,000 square metres of B1(a)/B1(b) office space.

4.6 The current development proposals would supersede and replace the previous outline consent for an office park on the site. In comparison with the previous outline planning consent for an office park on the site, the current site area excludes the portion of the site, north of Lakeview Drive, which has since been developed for a Tesco store. However, the site area now includes a parcel of land along the frontage of the A41 Oxford Road, south of Lakeview Drive, which was previously not within the applicant's ownership and was not part of the previous outline planning consent for an office park.

Access

4.7 Lakeview Drive forms the northern boundary of the site and vehicle access to the site would be taken from Lakeview Drive via two existing roundabout junctions. The two existing roundabouts on Lakeview Drive, at the eastern end of Lakeview Drive and centrally on Lakeview Drive, currently include a southern arm on each roundabout which would form the vehicle accesses to the site. The roundabout at the eastern end of Lakeview Drive also provides access to the Tesco service yard while the central roundabout on Lakeview Drive also provides customer access to the existing Tesco store.

4.8 Pedestrian footway is currently provided along both sides of Lakeview Drive adjacent to the application site and this extends along the exiting southern arms of the existing roundabout junctions. This footway would provide the main pedestrian access to the site and connects west to existing signal controlled pedestrian crossing facilities at the junction between Lakeview Drive at the A41 Oxford Road. In addition, it is proposed that a further pedestrian access is provided on the western boundary of the site with A41 Oxford Road. The additional pedestrian access would be positioned to coincide with the existing pedestrian crossing facilities on the A41 Oxford Road at its junction with the Kingsmere access, with materials to match with existing, subject to agreement with the local highway authority.

4.9 The proposed access arrangements to the site are summarised at the Highways Access Plan, attached at Appendix D.

4.10 Given that the current application is outline, the internal site layout has not been designed at this stage. A parameters plan is attached at Appendix C. Full details of the internal site layout including internal road layout and internal pedestrian network will be provided at the reserved matters stage and with consideration of local design guidance.

Parking

4.11 Car parking will be provided in accordance with OCC maximum parking standards. OCC parking standards allow the provision 1 space per 30 square metres of B1 office floor space. The proposed office park will therefore provide 2,000 car parking spaces to serve the development. The proposed car parking provision is in accordance with OCC parking standards and is considered appropriate to meet the needs of the development.

4.12 Traffic Advisory Leaflet 5/95 'Parking for Disabled People' advises that for employment uses providing over 200 car parking spaces, disabled parking should be provided at a ratio of 6 bays plus 2% of total capacity. Disabled parking will be provided in accordance with this guidance and based on the provision of 2,000 car parking spaces it is envisaged that 46 disabled car parking spaces will be provided.

4.13 Cycle parking will be provided in accordance with OCC standards and will provide a mixture of long-stay parking for employees and short stay parking for visitors. For B1 employment use, OCC standards require the provision of 1 cycle parking space per 150 square metres for long stay employee cycle parking and 1 space per 500 square metres for short stay visitor parking. On that basis, a total of 520 cycle parking spaces would be provided on site, comprising 400 long stay spaces and 120 short stay cycle parking spaces.

Servicing and Deliveries

4.14 Servicing and deliveries associated with the development, including refuse collection, will be undertaken on site and off the public highway.

4.15 Given that the current application is outline, the internal site layout has not been designed at this stage. A parameters plan is attached at Appendix C. Full details of the internal site layout including internal road layout will be provided at the reserved matters stage and with consideration of local design guidance, vehicle requirements and with swept path analysis where required.

Proposed Highways Works

4.16 Following an assessment of the effect of the development proposals on the highway network local to the site, highway mitigation works have been identified at two junctions, namely; the A41 Oxford Road/ Lakeview Drive junction and the Oxford Road/ Middleton Stoney Road junction.

4.17 Further details of the assessment of the development proposals on the local highway network and the proposed off-site highways works are detailed at Section 6 of this Transport Assessment and drawings showing the proposed highway mitigation works are provided at Appendix G.

4.18 The assessment has concluded that, subject to the identified highway mitigation works, the development proposals would not result in a material effect on the operation of the highway network local to the site. As such, no further mitigation measures or Section 106 obligation towards further transport schemes, such as the South Eastern Perimeter Road (SEPR), are considered necessary or justified in planning terms.

5.0 Assessment Methodology and Trip Attraction

5.1 This section of the report considers the expected trip attraction of the development proposals and the methodology for assessing the effect of the development proposals on the highway network local to the site.

Scope of Assessment

5.2 As part of pre-application scoping discussions, Officers at OCC have requested that the following junctions be assessed as part of the Transport Assessment:

- Oxford Road (A41) / Lakeview Drive signalised junction;
- Oxford Road / A41 signalised roundabout;
- Oxford Road / Pingle Drive roundabout;
- Oxford Road / Middleton Stoney Road mini-roundabout;
- Oxford Road (A41) / Kingsmere signalised junction;
- A41 Oxford Road/ Vendee Drive; and
- A41/ A4421 Rodney House Roundabout.

5.3 As previously identified, highway improvement works are currently under construction at a number of the junctions listed above. In addition, further highway improvement works are consented at some junctions listed above in association with recently consented development proposals. The highway capacity assessment undertaken within this Transport Assessment considers the consented junction improvements at the junctions listed above.

Baseline Traffic Flows, Consented Developments & Assessment Periods

5.4 As part of the pre-application scoping discussions Officers at OCC have requested that the assessment of the highway network local to the site be undertaken using traffic flow information provided from the Bicester Transport Model (BTM).

5.5 The BTM is based on a future assessment of 2026, 9 years in advance of the current application submission date. The assessment of a future baseline year 9 years after the submission of a planning application is considered a robust assessment of the local highway network. OCC have confirmed that the outputs from the BTM include all development expected to come forward in that period.

5.6 OCC have provided outputs from the BTM for the weekday morning and evening peak hours. BTM outputs provided by OCC are attached at Appendix E. In addition, Figures 5.1 and 5.2, attached, summarises the 2026 baseline traffic flows for the weekday morning and evening peak hours which will form the base for the assessment.

5.7 The current planning application is for a B1(a)/B1(b) office park and, as such, the primary effect of the development proposals on the highway network local to the site will be during the weekday morning and evening peak periods. Given the proposed office use of the site it is considered that outside these periods and, in particular during the weekend Saturday and Sunday peak periods, the development will attract negligible vehicle trips and, as such, would not have a material effect on the operation of the highway network at these times. As such, this Transport Assessment will consider the effect of the development proposals on the highway network during the weekday morning and evening peaks.

Trip Attraction

5.8 The pre-application response from OCC requested that the expected trip attraction of the current development proposals be considered with reference to trip rates presented within the Transport Assessment supporting the recently consented development proposals at Bicester Gateway Business Park (Planning Ref: 16/02586/OUT).

5.9 Table 5.1 below summarises the vehicle trip rates and expected vehicle trips associated with the proposed 60,000 square metres of B1(a)/B1(b) office floorspace during the weekday morning and evening peak periods.

	Trip Rate (per 100sqm)			Total Trips (60,000sqm)		
	In	Out	Total	In	Out	Total
Morning Peak Hour	1.533	0.141	1.674	920	85	1,004
Evening Peak Hour	0.111	1.602	1.713	67	961	1,028

Table 5.1: Trip Rates and Vehicle Trips - Office Park

5.10 Table 5.1 demonstrates that the proposed development is expected to result in 1,004 vehicle trips during the morning peak hour and 1,028 vehicle trips during the evening peak hour.

5.11 As previously highlighted the application site has previously been subject to a planning application for an office park development with outline planning permission granted in 2010 for the construction of a 60,000-square metre office park comprising 53,000 square metres of B1(a)/B1(b) office space and a 7,000-square metre C1 hotel, served by circa 1,837 car parking spaces (Planning Ref: 07/01106/OUT). Detailed planning consent was subsequently granted in November 2013 for the construction of a Tesco food store of 8,135 square metres and petrol filing station on part of the consented office park site (Planning Ref: 12/01193/F). The Tesco store has since been constructed and opened in April 2016.

5.12 The planning application for the Tesco development was supported by a Transport Assessment which considered the effect of the Tesco development proposals on the highway network local to the site. The S106 Deed of Variation in relation to the consented Tesco store and office park allows for the construction of up to 45,000 square metres of the B1(a)/B1(b) office space being delivered on the remainder of the site, as part of the previous outline planning consent for an office park.

5.13 The Transport Assessment supporting the Tesco development proposals assessed the effect of 45,000 square metres of office park development coming forward on the current application site. To this extent, the junction between Lakeview Drive and the A41 Oxford Road has been designed and was previously assessed to accommodate traffic associated with up to 45,000 square metres of the B1(a)/B1(b) office space in addition to the constructed Tesco store. Furthermore, the Tesco Transport Assessment assessed the effect of up to 45,000 square metres of the B1(a)/B1(b) office space, in addition to the constructed Tesco store, on the highway network local to site. As such the highway improvements designed and under construction in relation to the Tesco development included consideration of 45,000 square metres of B1(a)/B1(b) office space on the application site.

5.14 It is therefore evident that the current outline planning application for 60,000 square metres of B1(a)/B1(b) office space comprise an additional 15,000 square metres of office space in comparison with that previous assessed on the local highway network as part of recently consented planning applications. Based on the vehicle trip rates provided a Table 5.1, Table 5.2 below summarises the additional trip generation of the current proposals over that previously assessed on the local highway network.

	Trip Rate (per 100sqm)			Total Trips (15,000sqm)		
	In	Out	Total	In	Out	Total
Morning Peak Hour	1.533	0.141	1.674	230	21	251
Evening Peak Hour	0.111	1.602	1.713	17	240	257

Table 5.2: Trip Rates and Vehicle – Additional 15,000 sqm Office Space

5.15 Table 5.2 demonstrates that, in comparison with the 45,000 square metres of B1(a)/B1(b) office space, previously assesses on the highway network as part of previous applications, the current proposals for 60,000 square metres of B1(a)/B1(b) office space would result in an additional 251 vehicle trips during the morning peak hour and 257 vehicle trips during the evening peak hour.

Trip Distribution

5.16 In order to determine the likely distribution of vehicle trips on the local road network, reference has been made to journey to work data from the 2011 Census for the Cherwell 015 output area in which the application site is located.

5.17 Figure 5.3, attached, details the expected distribution of vehicle trips on the local highway network and this is summarised below:

- A41 South 27%
- Vendee Drive 12%
- Kingsmere 3%
- A41 East 23%
- A41 North 35%

5.18 Vehicle trips associated with the development proposals, as set out in Table 5.1, have been assigned on the local road network based on the distribution set out at Figure 5.3. Figures 5.4 and 5.5 show the expected distribution of vehicle trips during the weekday morning and evening peak hours, respectively.

'With Development' Assessment

5.19 As set out above, Figures 5.1 and 5.2, attached, present 2026 baseline traffic flows from the BTM for the weekday morning and evening peak hours, respectively.

5.20 Traffic flows associated with the development proposals, as shown on Figures 5.4 and 5.5, have been added to the baseline traffic flows in order to determine the 2026 traffic flows with the development proposals in place. Figures 5.6 and 5.7, attached, show the expected traffic flows on the local road network in 2026 with the development proposals in place.

6.0 Effect of Development

6.1 This section of the report considers the effect of the development on the highway network local to the site based on junction capacity modelling of the junctions agreed with Officers at OCC during pre-application scoping discussions.

6.2 As part of pre-application scoping discussions, Officers at OCC have requested that the following junctions be assessed as part of the Transport Assessment:

- Oxford Road (A41) / Lakeview Drive signalised junction;
- Oxford Road / A41 signalised roundabout;
- Oxford Road / Pingle Drive roundabout;
- Oxford Road / Middleton Stoney Road mini-roundabout;
- Oxford Road (A41) / Kingsmere signalised junction;
- A41 Oxford Road/ Vendee Drive; and
- A41/ A4421 Rodney House Roundabout.

6.3 As previously identified, highway improvement works are currently under construction at a number of the junctions listed above. In addition, further highway improvement works are consented at some junctions listed above in association with recently consented development proposals. The highway capacity assessment undertaken within this Transport Assessment considers the operation of the junctions with these improvements in place. Junction capacity modelling has been undertaken using the industry standard modelling package for each junction type i.e. ARCADY for conventional roundabouts and mini-roundabouts and LinSig for signal controlled junctions and signal controlled roundabouts.

Oxford Road/ Middleton Stoney Road/ Kings End

6.4 The mini-roundabout junction between Oxford Road, Middleton Stoney Road and Kings End has been modelled using ARCADY. It is noted that ARCADY is subject to limitations when assessing the operation of mini-roundabouts and can be unrepresentative of observed operation. To this extent it is considered more appropriate to assess the operation of the junction as a conventional roundabout within ARCADY.

6.5 Table 6.1 shows the operation of the junction in the 2026 baseline scenario based on the traffic flows provided by OCC from the BTM. Model output files are attached at Appendix F.

Approach	AM Peak		PM Peak	
	RFC	Queue (veh)	RFC	Queue (veh)
Middleton Stoney Road	0.729	3	0.801	4
Kings End	1.075	40	0.971	15
Oxford Road	0.528	1	0.808	4

Table 6.1: Oxford Road/ Middleton Stoney Road/ Kings End – 2026 Baseline Operation

6.6 The analysis shows that the junction is expected to operate slightly over theoretical capacity during the morning peak period in the baseline scenario with a maximum queue of 40 vehicles expected. During the evening peak period, the junction operates within capacity, with a maximum queue of 15 vehicles expected.

6.7 The analysis of the scenario with the development proposals in place identified that the development proposals would have an effect on the operation of the mini-roundabout junction between Oxford Road, Middleton Stoney Road and Kings End. As such, a highway improvement scheme has been designed to mitigate the effect of the development at this junction. The proposed highway improvement scheme is detailed at Appendix G.

6.8 Table 6.2 shows the operation of the junction in the 2026 scenario with the proposed development and the proposed highway works in place. Model output files are attached at Appendix F.

Approach	AM Peak		PM Peak	
	RFC	Queue (veh)	RFC	Queue (veh)
Middleton Stoney Road	0.825	5	0.845	5
Kings End	0.900	8	0.725	3
Oxford Road	0.535	1	0.881	7

Table 6.2: Oxford Road/ Middleton Stoney Road/ Kings End – 2026 With Development Operation

6.9 The result of the analysis demonstrate that the proposed highway works mitigate the effect of the development proposals and that the junction would operate within capacity during both the morning and evening peak periods. To this extent, the mitigation works provide a betterment to the operation of the junction, in comparison with the baseline operation of the junction.

A41 Highway Network

6.10 As part of the consented development proposals for Bicester Village Phase 4 and the constructed Tesco store, a package of highway works is under construction covering the following junctions:

- Oxford Road / Pingle Drive roundabout;
- A41 Oxford Road / Oxford Road signalised roundabout (Esso roundabout);
- A41 Oxford Road (A41) / Lakeview Drive signalised junction;
- A41 Oxford Road (A41) / Kingsmere signalised junction;

6.11 In addition, further highway improvements have been consented at the A41 Oxford Road junctions with Kingsmere and Lakeview Drive as part of the recently consented development proposals at Bicester Gateway Retail Park (Planning Ref: 16/02505/OUT).

6.12 The operation of the above junctions has been assessed using the industry standard package for signal controlled junctions, LinSig. In line with assessments undertaken from the consented Bicester Village Phase 4, Tesco and Bicester Gateway retail Park Schemes the four junctions have been modelled within a single LinSig model. LinSig model parameters have been based on the most recently approved LinSig model for the Bicester Gateway Retail Park development and, as such, include the consented highway works.

6.13 Table 6.3 provides a summary of the operation of the junctions in the 2026 baseline scenario based on the traffic flows provided by OCC from the BTM. Given the extent of model and the number of links, the below Table provides a summary of the operation of each junction and full link details for the A41/ Lakeview Drive junction. Full model output files are attached at Appendix F.

Junction	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
Oxford Road/ Pingle Drive	44.7%	-	53.2%	-
Esso Roundabout	92.7%	-	99.0%	-
Oxford Road/ Kingsmere	69.3%	-	72.3%	-
Oxford Road/ Lakeview Drive	77.2%	-	86.5%	-
Oxford Road n/b (Ahead)	24.1%	1	44.4%	8
Oxford Road n/b (Ahead)	49.3%	4	48.5%	8
Oxford Road n/b (Ahead/ Right)	77.2%	29	62.1%	31
Oxford Road s/b (Ahead)	15.3%	1	26.3%	4
Oxford Road s/b (Ahead)	69.0%	18	74.6%	19
Oxford Road s/b (Left)	73.7%	16	81.4%	17
Lakeview Drive (Left/ Right)	38.2%	5	86.5%	16
Lakeview Drive (Right)	40.7%	2	46.3%	3
Overall PRC	-3.0%		-10.0%	

Table 6.3 – Oxford Road Corridor – 2026 Baseline Operation

6.14 The results of the analysis demonstrate that the junction is expected to operate within theoretical capacity although with negative Practical Reserve Capacity during both the morning and evening peak periods in the 2026 baseline scenario.

6.15 The analysis of the scenario with the development proposals in place identified that the development proposals would have an effect on the operation of the junction between the A41 Oxford Road and Lakeview Drive. As such, a highway improvement scheme has been designed to mitigate the effect of the development at this junction and is shown at Appendix G.

6.16 Table 6.4 shows the operation of the junctions along the Oxford Road corridor in the 2026 scenario with the proposed development and the proposed highway works in place. Model output files are attached at Appendix F.

Junction	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
Oxford Road/ Pingle Drive	52.4%	-	60.8%	-
Esso Roundabout	87.1%	-	91.7%	-
Oxford Road/ Kingsmere	75.1%	-	84.9%	-
Oxford Road/ Lakeview Drive	90.3%	-	90.7%	-
Oxford Road n/b (Ahead)	32.6%	3	76.3%	15
Oxford Road n/b (Ahead)	33.4%	5	76.9%	15
Oxford Road n/b (Ahead)	56.9%	11	77.2%	20
Oxford Road n/b (Right)	90.3%	16	46.4%	4
Oxford Road s/b (Left/ Ahead)	89.9%	26	85.4%	25
Oxford Road s/b (Ahead)	67.2%	18	73.6%	15
Oxford Road s/b (Ahead)	76.0%	9	72.5%	11
Lakeview Drive (Left/ Right)	44.3%	5	90.7%	29
Lakeview Drive (Right)	52.7%	3	84.6%	18
Overall PRC	-0.3%		-1.9%	

Table 6.4 – Oxford Road Corridor – 2026 With Development

6.17 The results of the analysis demonstrate that the junction is expected to operate within theoretical capacity, although with negative Practical Reserve Capacity, during both the morning and evening peak periods in the 2026 with the proposed development in place. To this extent, the analysis demonstrates that the proposed highways works mitigate the effect of the development proposals and provide a slight betterment to the operation of the junction between the A41 Oxford Road during both peak periods. As such, it is concluded that, subject to the mitigation works identified, the development would not have a material effect on the operation of this junction and no further assessment or mitigation is considered necessary.

A41 / Bicester Park & Ride / Vendee Drive

6.18 The conventional roundabout junction between the A41, Vendee Drive and Bicester Park and Ride has been assessed using the industry standard software package for roundabout junctions, ARCADY.

6.19 The consented development proposals at Bicester Gateway Business Park (Planning Ref: 16/02586/OUT) include highway improvement works to the A41, Vendee Drive junction. The operation of the junction has been modelled inclusive of the consented junction improvements.

6.20 Table 6.5 below shows the operation of the junction in the 2026 baseline scenario based on the traffic flows provided by OCC from the BTM. Model output files are attached at Appendix F.

Approach	AM Peak		PM Peak	
	RFC	Queue (veh)	RFC	Queue (veh)
Vendee Drive	0.266	0	0.293	0
A41 (North)	0.739	3	0.844	5
Unnamed Road	0.175	0	0.416	1
A41 (South)	0.729	3	0.854	6
Bicester Park and Ride	0.026	0	0.212	0

Table 6.5 – A41/ Vendee Drive – 2026 Baseline Operation

6.21 The analysis demonstrates that the junction is expected to operate within theoretical capacity during both the morning and evening peak periods in the 2026 baseline scenario.

6.22 Table 6.6 below shows the operation of the junction in the 2026 with the proposed development in place. Model output files are attached at Appendix F.

Approach	AM Peak		PM Peak	
	RFC	Queue (veh)	RFC	Queue (veh)
Vendee Drive	0.421	1	0.307	0
A41 (North)	0.751	3	0.966	21
Unnamed Road	0.180	0	0.725	2
A41 (South)	0.801	4	0.892	8
Bicester Park and Ride	0.034	0	0.337	1

Table 6.5 – A41/ Vendee Drive – 2026 With Development Operation

6.23 The analysis demonstrates that the junction is expected to operate within theoretical capacity during both the morning and evening peak periods in 2026 with the proposed development in place.

6.24 It is acknowledged that, based on the scenario assessed, the additional traffic associated with the development would result in an increase in queuing on some arms of the junctions. However, as previously highlighted the analysis is based a future year assessment, 9 years in advance of the submission of the planning application submission and this is considered a robust assessment of the operation of the highway network. On the basis that the junction is shown to operate within theoretical capacity under this robust assessment, no mitigation or further assessment is considered necessary.

A41/ A4421 – Rodney House Roundabout

6.25 The Rodney House roundabout is currently a conventional roundabout. As part of consented development proposals at Graven Hill, highway improvement works are proposed at the Rodney House roundabout which include the signalisation of the junction. Officers at OCC have provided Motion with plans of the consented highway works at the junction.

6.26 Capacity modelling for the Rodney House roundabout has therefore been undertaken using the industry standard package for signal controlled roundabouts, LinSig. Junction geometries and parameters have been based on the consented highways works drawing provided by OCC.

6.27 Table 6.7 below shows the operation of the junctions in the 2026 baseline scenario based on the traffic flows provided by OCC from the BTM. Model output files are attached at Appendix F.

Approach	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
A41 (Left/ Ahead)	70.9%	7	82.2%	10
A41 (Ahead)	6.4%	1	22.2%	2
Graven Hill Road (Left)	67.3%	5	70.9%	4
Graven Hill Road (Ahead)	36.2%	2	41.8%	2
A41 (Left/ Ahead)	54.4%	5	63.6%	7
A41 (Ahead)	47.5%	6	52.3%	7
B4100 (Left/ Ahead)	38.9%	2	44.0%	3
B4100 (Ahead)	42.3%	2	59.9%	4
A4421 (Left/ Ahead)	59.5%	5	61.1%	5
A4421 (Ahead)	42.8%	4	50.7%	4
Overall PRC	+26.9%		+7.5%	

Table 6.7: Rodney House Roundabout – 2026 Baseline Operation

6.28 The results of the analysis demonstrate that the junction is expected to operate within capacity during both the morning and evening peak periods in the 2026 baseline scenario.

6.29 Table 6.8 below shows the operation of the junction in the 2026 with the proposed development tin place. Model output files are attached at Appendix F.

Approach	AM Peak		PM Peak	
	DoS	MMQ	DoS	MMQ
A41 (Left/ Ahead)	79.3%	9	82.9%	10
A41 (Ahead)	8.7%	1	22.2%	2
Graven Hill Road (Left)	67.1%	5	70.9%	4
Graven Hill Road (Ahead)	38.2%	3	42.2%	2
A41 (Left/ Ahead)	56.3%	6	70.1%	8
A41 (Ahead)	46.8%	6	60.1%	8
B4100 (Left/ Ahead)	38.9%	2	44.0%	3
B4100 (Ahead)	56.1%	3	60.7%	4
A4421 (Left/ Ahead)	57.8%	5	62.8%	5
A4421 (Ahead)	51.4%	4	58.2%	4
Overall PRC	+12.9%		+7.5%	

Table 6.8: Rodney House Roundabout – 2026 Baseline with Development Operation

6.30 The results of the analysis demonstrate that the junction is expected to operate within capacity during both the morning and evening peak periods in the 2026 with the proposed development in place. On that basis, it is evident that the proposed development would not have a material effect on the operation of this junction and no further assessment or mitigation measures is considered necessary.

Summary

6.31 The effect of the development proposals on the local highway network has been assessed at the following junctions, as agreed with OCC:

- A41 Oxford Road / Lakeview Drive signalised junction;
- Oxford Road / A41 signalised roundabout;
- Oxford Road / Pingle Drive roundabout;
- Oxford Road / Middleton Stoney Road mini-roundabout;
- A41 Oxford Road / Kingsmere signalised junction;
- A41 Oxford Road/ Vendee Drive; and
- A41/ A4421 Rodney House Roundabout.

6.32 The results of detailed junction capacity analysis demonstrate that, subject to the highway mitigation works identified at the junctions between A41 Oxford Road/ Lakeview Drive and at the junction between Oxford Road and Middleton Stoney Road, the development proposals would not result in a material effect in the operation of the highway network local to the site.

6.33 As such it concluded that the proposed highway works, as shown in drawings presented at Appendix G, are sufficient to mitigate the effect of the development on the local highway network. To this extent no further assessment, mitigation measures or Section 106 obligation towards further transport schemes, such as the South-Eastern Perimeter Rad (SEPR), are considered necessary or justified in planning terms.

6.34 The highway mitigation works presented at Appendix G, are to mitigate for the effect of traffic associated with the full development proposals of 60,000 square metres (GEA) of B1(a)/B1(b) office space. It is evident that a proportion of the full development proposals could come forward without significant effect on the highway network and in advance of the delivery of the proposed highway works. To this extent a threshold analysis will be undertaken separately to establish the level of B1(a)/B1(b) office space that can come forward in advance of the delivery of the highway mitigation works and without material effect on the highway network.

7.0 Summary and Conclusions

7.1 Motion has been appointed by Scenic Land Developments Ltd to prepare this Transport Assessment in relation to development proposals on land to the east of the A41 Oxford Road, Bicester within the administrative boundary of Cherwell District Council (CDC).

7.2 The site is currently undeveloped and is bound by the A41 Oxford Road to the west and Lakeview Drive to the north whilst Wyevale Garden Centre is located to the immediate south. The Bicester – Oxford railway line operates to the east and is separated from the site by undeveloped land.

7.3 Outline planning permission was granted in 2010 for the construction of a 60,000-square metre office park comprising 53,000 square metres of B1(a)/B1(b) office space and a 7,000-square metre C1 hotel, served by circa 1,837 car parking spaces (Planning Ref: 07/01106/OUT).

7.4 Detailed planning consent was subsequently granted in November 2013 for the construction of a Tesco food store of 8,135 square metres and petrol filling station on part of the consented office park site (Planning Ref: 12/01193/F). That planning application was supported by a Transport Assessment which considered the effect of the development proposals on the highway network local to the site. The Tesco store has since been constructed and opened in April 2016.

7.5 The S106 Deed of Variation in relation to the consented Tesco store and office park allows for the construction of up to 45,000 square metres of the B1(a)/B1(b) office space being delivered on the remainder of the site, as part of the previous outline planning consent for an office park.

7.6 The current planning application seeks outline planning consent, with all matters reserved except access, for the development of up to 60,000 square metres (GEA) of B1(a)/B1(b) office space. Vehicle access to the site would be via the two existing roundabout junctions on Lakeview Drive.

7.7 The current development proposals would supersede and replace the previous outline consent for an office park on the site. In comparison with the previous outline planning consent for an office park on the site, the current site area excludes the portion of the site, north of Lakeview Drive, which has since been developed for a Tesco store. However, the site area now includes a parcel of land along the frontage of the A41 Oxford Road, south of Lakeview Drive, which was previously not within the applicant's ownership and was not part of the previous outline planning consent for an office park.

7.8 This Transport Assessment has been prepared in accordance with national and local guidance and has considered the highways and transport matters associated with the current development proposals and, in particular, the effect of the development proposals on the highway network local to the site.

7.9 This Transport Assessment has demonstrated that:

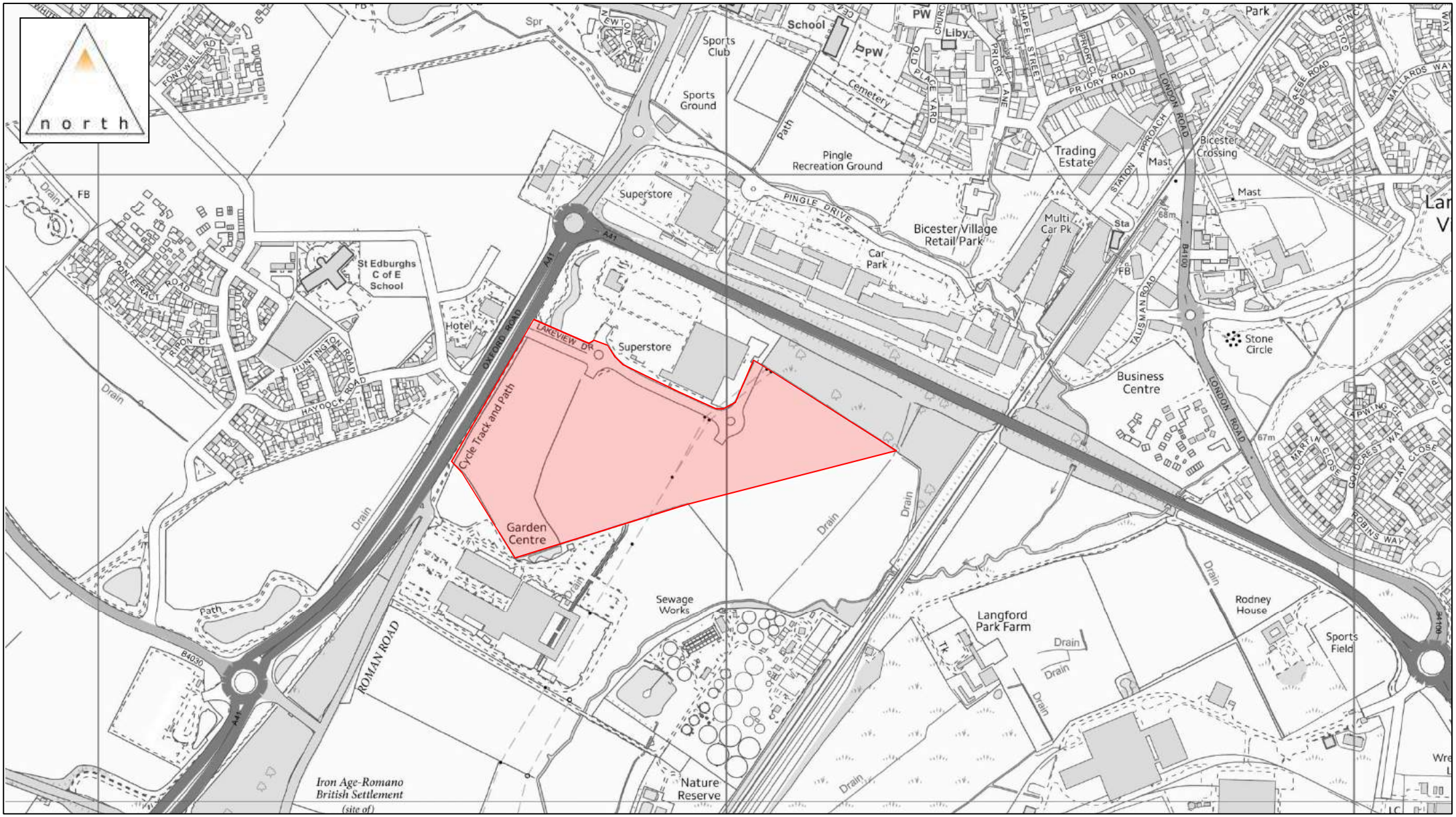
- The application site is accessible by foot, cycle and by public transport;
- The application is allocated under Bicester Policy 4 of the Cherwell Local Plan for development of a high-quality office park;
- Outline planning permission was previously granted in 2010 for the construction of a 60,000-square metre office park comprising 53,000 square metres of B1(a)/B1(b) office space and a 7,000-square metre C1 hotel, served by circa 1,837 car parking spaces (Planning Ref: 07/01106/OUT).
- The development proposals would be accessed from Lakeview Drive via two existing roundabout junctions;
- Car parking and cycle parking will be provided in accordance with local parking standards;
- The effect of the development proposals on the local highway network has been assessed based on parameters agreed with OCC.
- Highway mitigation works have been identified at the junction between the A41 Oxford Road/ Lakeview drive and at the junction between Oxford Road/ Middleton Stoney Road.

- The results of detailed junction capacity analysis demonstrate that, subject to highway mitigation works identified, the development proposals would not result in a material effect in the operation of the highway network local to the site; and
- A Framework Workplace Travel Plan has been developed in order to promote sustainable travel choices amongst staff and visitors to the proposed development and is submitted under separate cover.

7.10 It is concluded that the proposed highway works, as presented within this Transport Assessment, are sufficient to mitigate the effect of the development on the local highway network. To this extent no further assessment, mitigation measures or Section 106 obligation towards further transport schemes, such as the South Eastern Perimeter Rad (SEPR), are considered necessary or justified in planning terms.

7.11 On that basis, it is concluded that the development proposals would not result in a material effect on the operation of the highway network local to the site. The development proposals are in accordance with national and local transport related planning policy and, as such, should not be resisted on highways or transportation grounds.

Figures



Legend:

Site Location

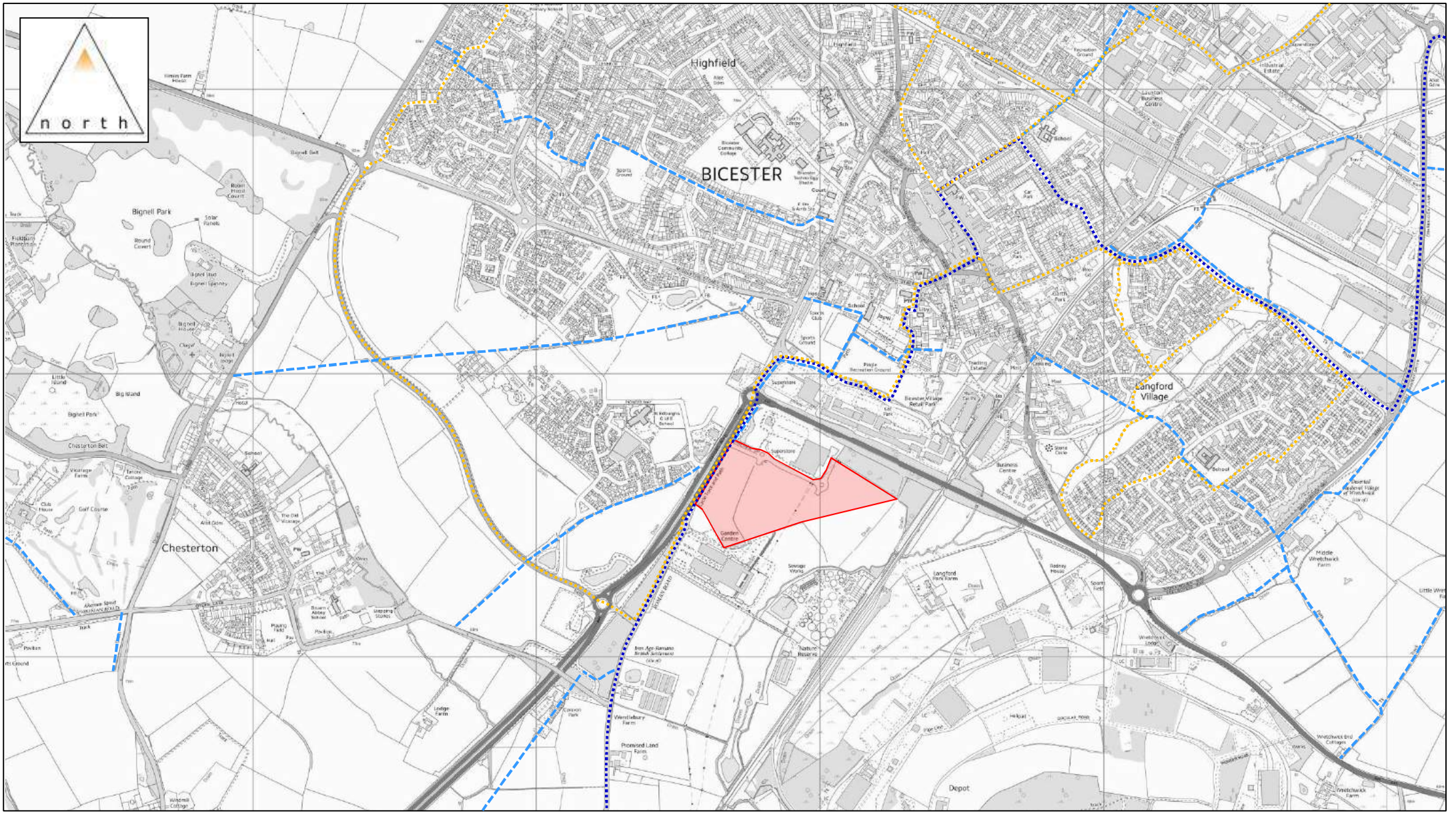
Bicester Office Park,

Bicester

Figure 3.1 Site Location Plan

Not to Scale

motion



Legend:

- Local Footpath
- Local Signed Cycle Route
- National Cycle Network Route 51
- Site Location

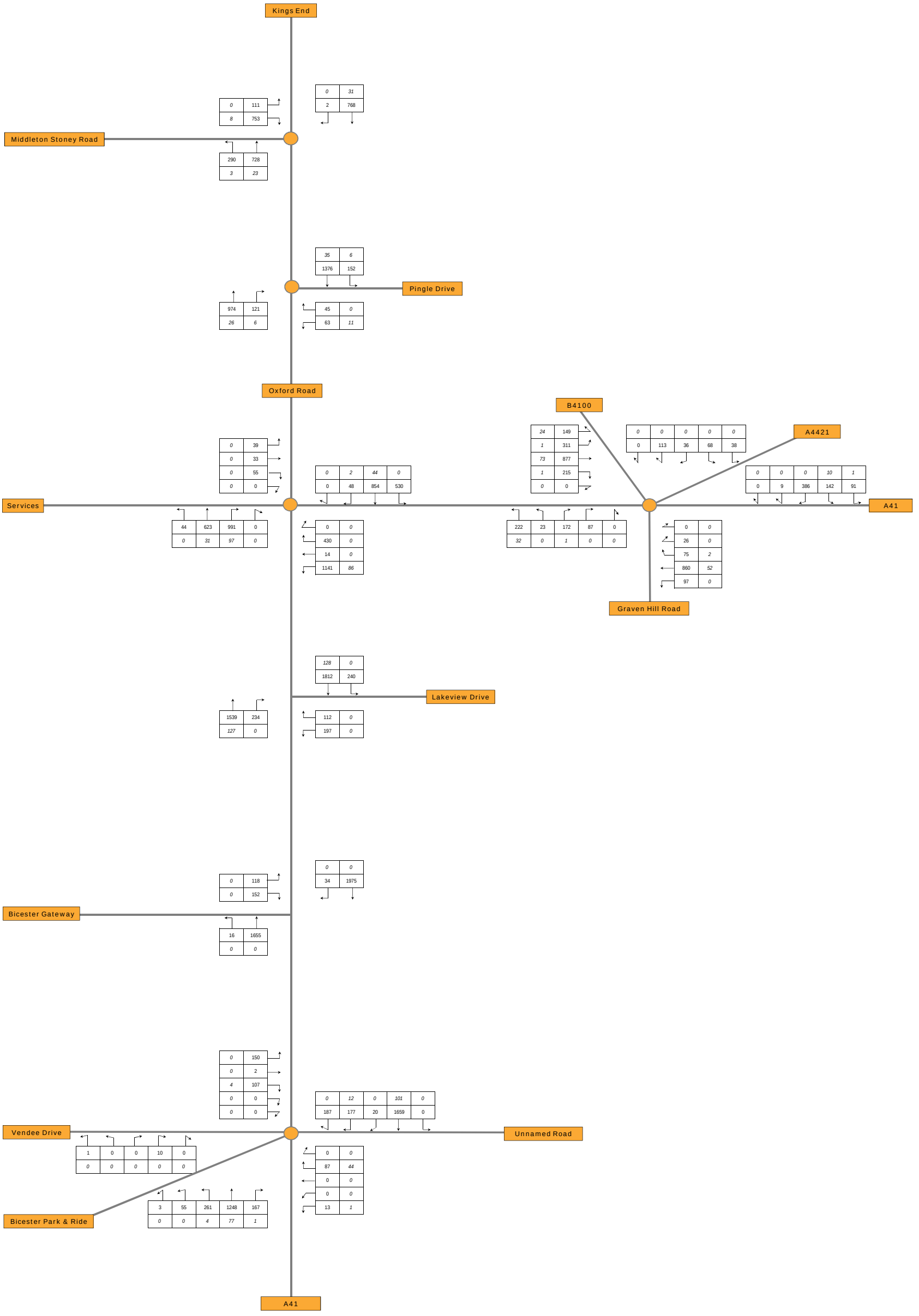
Bicester Office Park,

Bicester

Figure 3.2 Local Footpaths and Cycle Routes

Not to Scale

motion

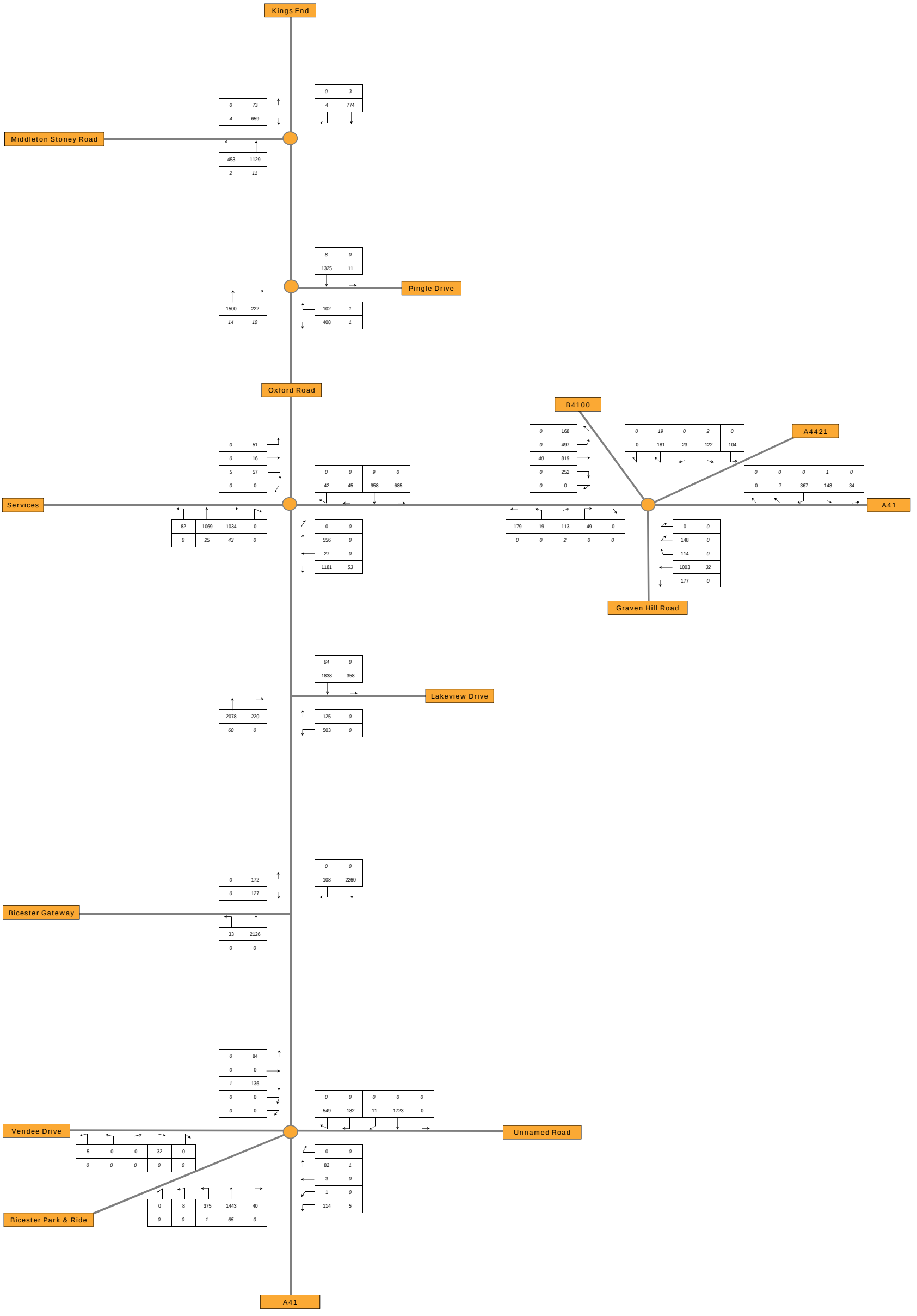


motion

Bicester Office Park

2026 Bicester Traffic Model Baseline Flows - AM Peak

Figure 5.1

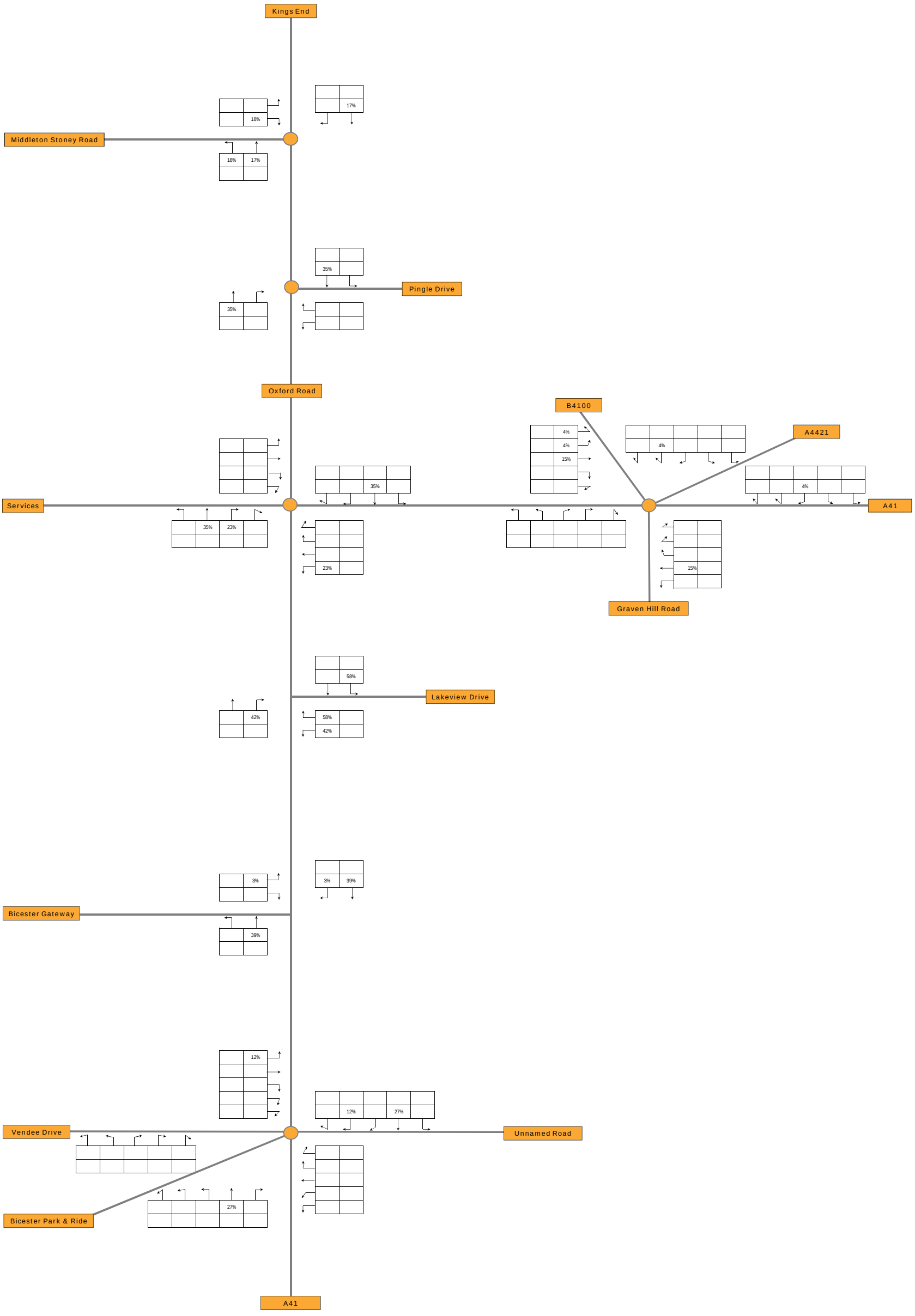


motion

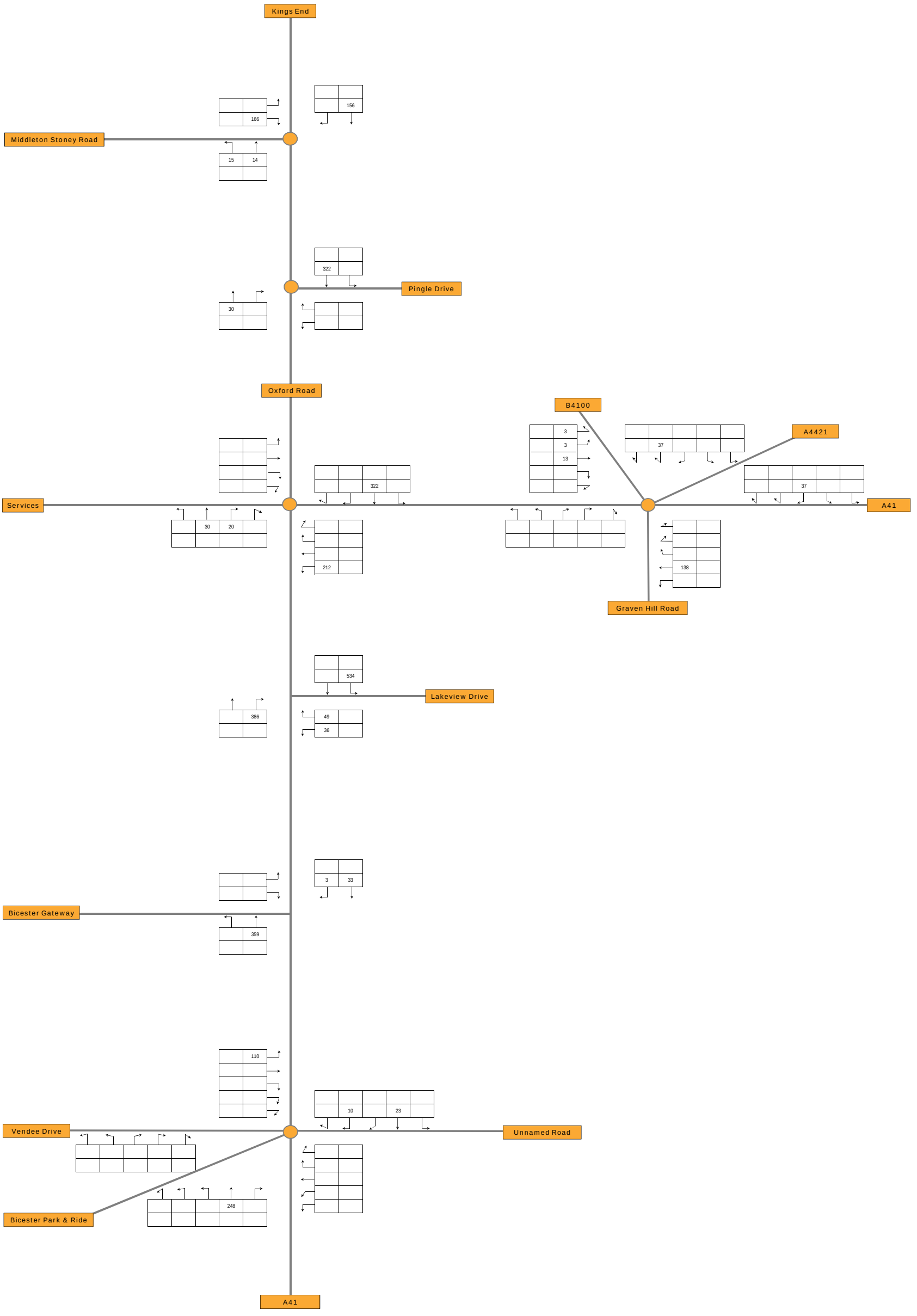
Bicester Office Park

2026 Bicester Traffic Model Baseline Flows - PM Peak

Figure 5.2

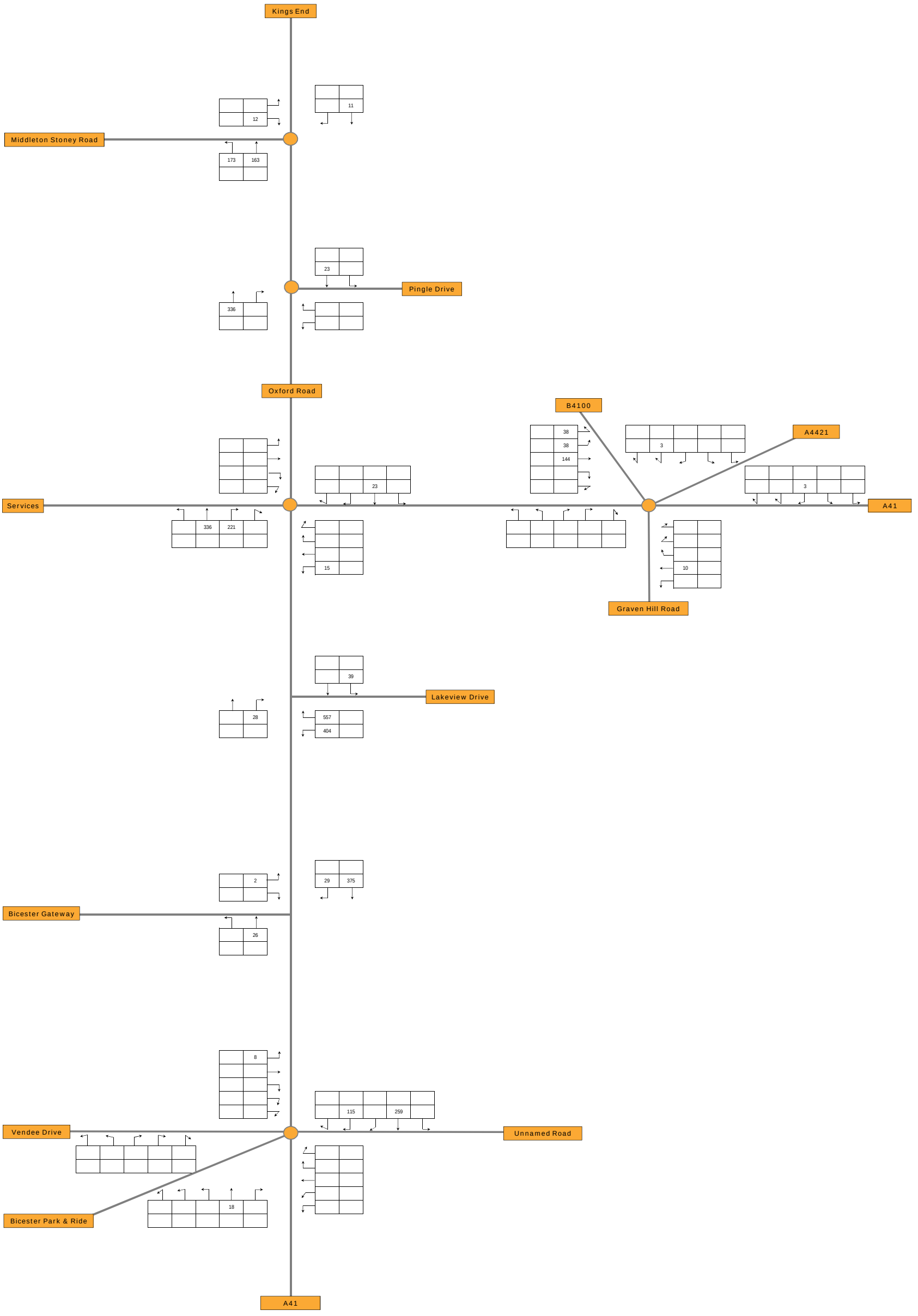


Bicester Office Park
Vehicle Trip Distribution
Figure 5.3



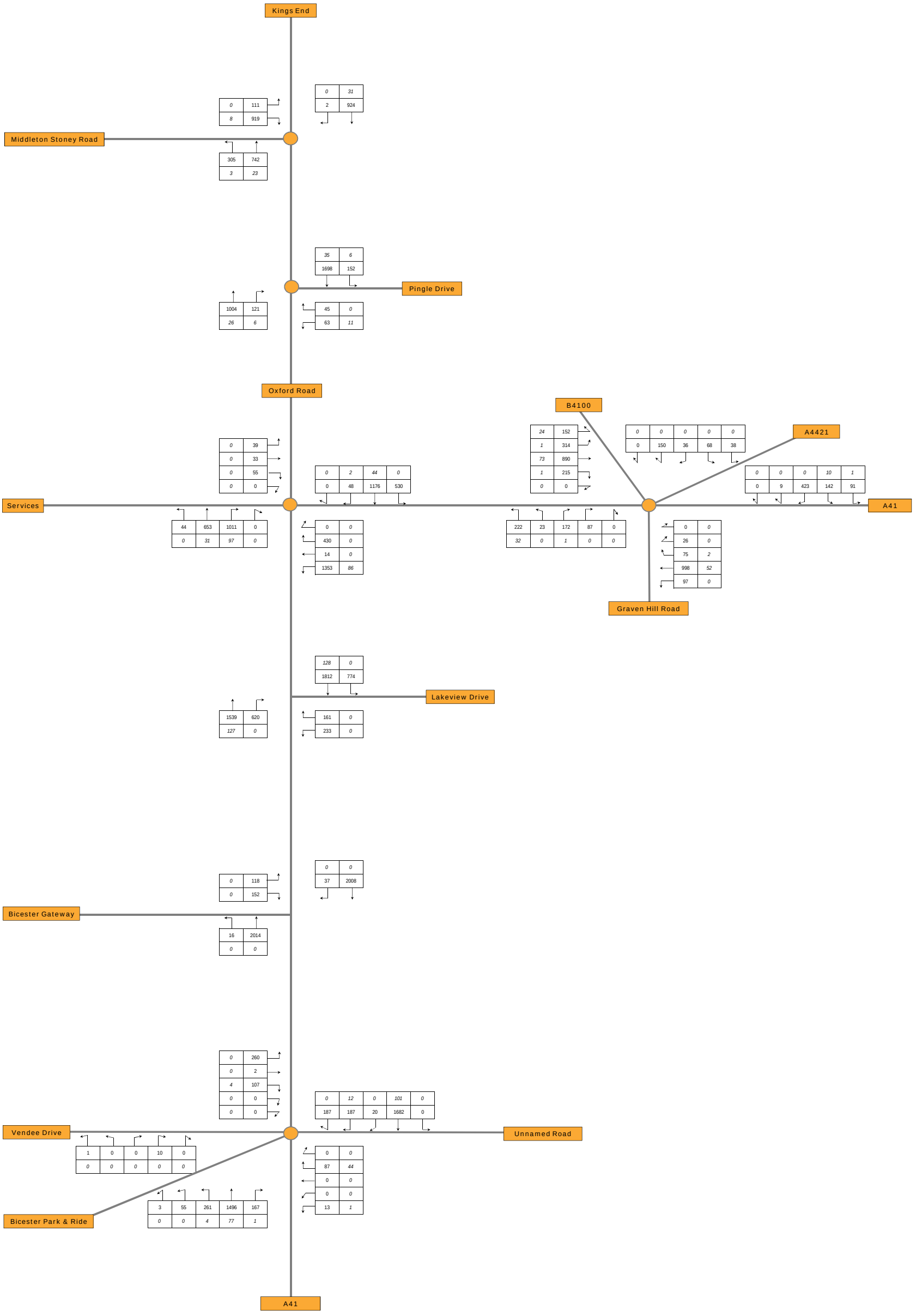
in	920
out	85

Bicester Office Park
Development Vehicle Trips - AM Peak Period
Figure 5.4



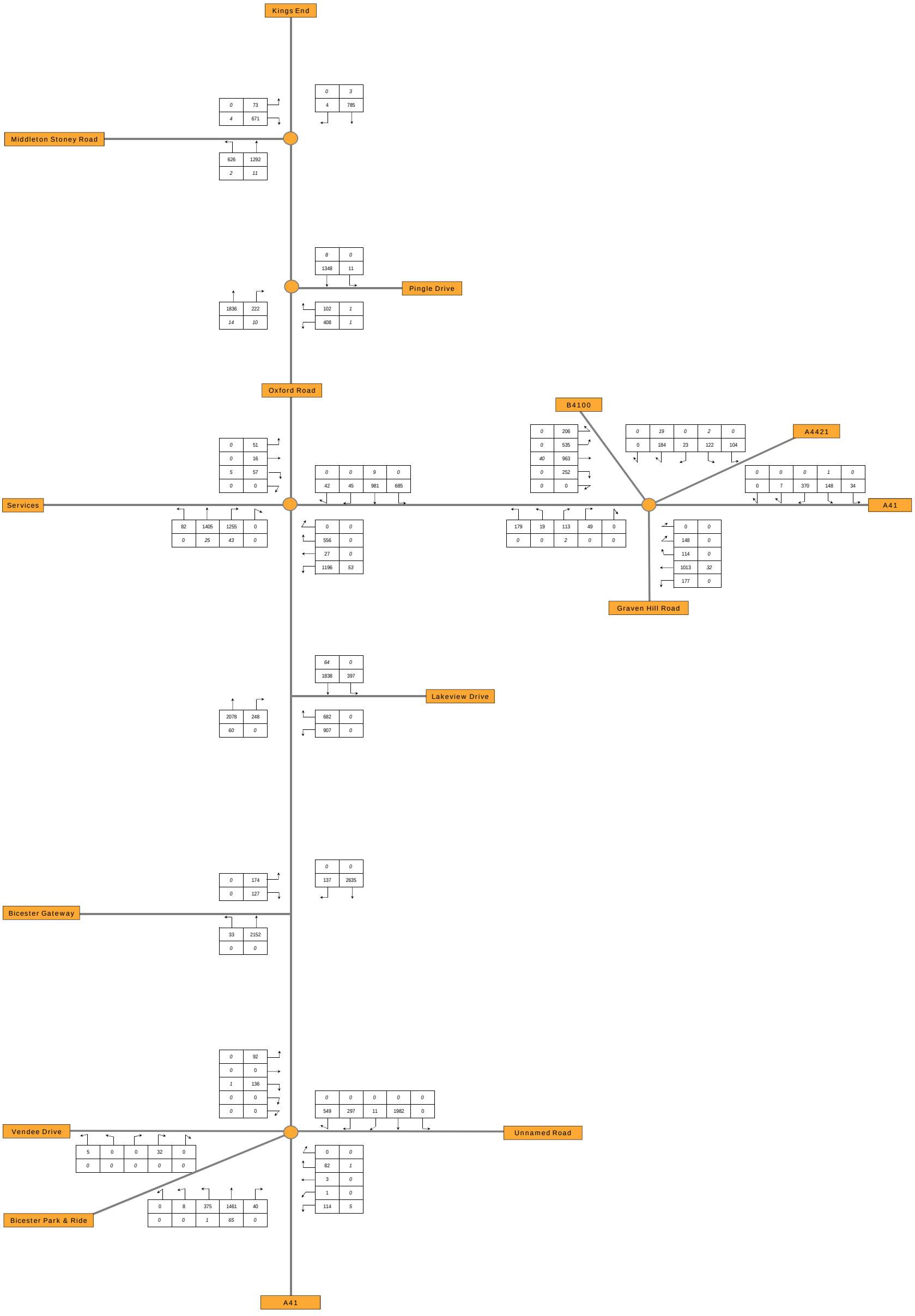
in	67
out	961

Bicester Office Park
Development Vehicle Trips - PM Peak Period
Figure 5.5



motion

Bicester Office Park
2026 With Development - AM Peak Period
Figure 5.6



motion

Bicester Office Park
2026 With Development - PM Peak Period
Figure 5.7

Appendix A

Oxfordshire County Council Pre-Application Response

District: Cherwell
Application No: **17/CH0005/PREAPP**
Proposal: The construction of an office park providing up to 57,000 square metres of B1 office space.
Location: Bicester Office Park. Land To South And East Of The A41 Oxford Road, Bicester, Oxfordshire

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Transport

Oxfordshire County Council is a consultee of the local planning authority and provides advice on the likely transport and highways impact of development where necessary.

It should be noted that the advice below 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. Nevertheless the comments are given in good faith and fairly reflect an opinion at the time of drafting given the information submitted.

Key issues:

- Strategic contribution towards the South Eastern Perimeter Road

Legal agreement required to secure:

If a planning application were to be submitted and approved a S278 would be required to deliver any highway improvements that it was decided would be needed to make the development acceptable e.g. new site access junction, footway improvements.

A new S106 agreement would be needed to secure the S278 works and also a financial contribution towards

(i) Public transport improvements and
(ii) Strategic contribution towards the delivery of the South East Link Road- required to mitigate the development's impact on the A41 junctions

Travel Plan monitoring fees shall be required

Informatives:

Please note the Advance Payments Code (APC), Sections 219 -225 of the Highways Act, is in force in the county to ensure financial security from the developer to off-set the frontage owners' liability for private street works, typically in the form of a cash deposit or bond. Should a developer wish for a street or estate to remain private then to secure exemption from the APC procedure a 'Private Road Agreement' must be

entered into with the County Council to protect the interests of prospective frontage owners. For guidance and information on road adoptions etc. please email the County's Road Agreements Team at roadagreements@oxfordshire.gov.uk

Detailed comments:

The A41 from which the site is accessed is heavily trafficked and will be put under further pressure from Cherwell Local Plan growth allocations, including the allocation on this site (Bicester 4).

This was recognised by Bicester Village in their application for Phase 4 of their development, where they are now delivering major highway improvements at and between the Esso roundabout and Pingle Drive junctions, having also provided a Bicester Park and Ride facility.

The highway works which are currently underway on the A41 (and related to the expansion of Bicester Village) will deliver a new bus layby on the northbound side of the A41. The highway works which are related to the construction and use of the permitted Bicester Business Park would, once they are triggered (i.e. once construction begins), also provide a northbound and southbound bus layby. Clearly as the Bicester Village works are already underway, once construction of any permission granted for the business park begins, its corresponding remaining liability would be to provide the southbound layby (as the northbound will have by then been delivered).

Scoping Note
Having had a chance to look at the Scoping Note dated 19th April 2017 for a Transport Assessment, I wish to make the following comments.

Policy Consideration
Various Policies that should be considered relevant to this development are:

National Policies
- National Planning Policy Framework (NPPF)
- National Planning Practice Guidance (NPPG)

Local Policy Context include
- Connecting Oxfordshire 2015-2031 (LTP4)
- The Cherwell Local Plan (Adopted July 2015) from which the Policy Bicester 4 requires;
    - Layout that enables a high degree of integration and connectivity between new and existing development particularly the mixed use urban extension at South West Bicester to the west, the garden centre to the south, and, to the north, Bicester town centre and Bicester Village retail outlet.
    - Provision for safe pedestrian access from the A41 including facilitating the crossing of the A41 to the north and west, and the provision and upgrading of footpaths and cycleways that link to existing networks to improve connectivity generally and to develop

links between this site, nearby development sites and the town centre.
- Good accessibility to public transport services should be provided for, including the accommodation of new bus stops to link the development to the wider town.
- A Transport Assessment and Travel Plan to accompany development proposals.

Area of Impact and Junction Modelling

The scoping note accompanying this pre-application enquiry proposes to consider the following junctions for assessment

- Oxford Road / Pingle Drive Roundabout
- Oxford Road / A41 signalised roundabout
- Site Access (Oxford Road / A41 Lakeview Drive signalised junction)
- Oxford Road (A41) / Kingsmere signalised junction.

As previously mentioned in our telephone conversation on 26th April, in addition to the above junctions, the Transport Assessment will need to look at a wider study area to include;

- A41 / Vendee Drive / Oxford Road (A41) roundabout and
- Oxford Road / Middleton Stoney Road / Kings End roundabout
- Rodney House roundabout junction.

These junctions further afield are critical, likely to be impacted by the whole of Bicester 10 when it comes forward and Bicester 4 and the TA shall be expected to carry out capacity tests demonstrating the effect of the development on the highway network.

The scoping note under section 4.4 mentions that traffic surveys shall be undertaken during a weekday morning and evening peak period. The weekend peaks on the A41 approaching Bicester are very high. Owing to the adjacent land use particularly Bicester Village and Tesco superstore, in terms of the effect of the proposal on traffic at the Saturday and Sunday peak times, it would add to the already high volume of retail development traffic in the area. I would like to see further justification of not including a weekend assessment.

Future Years

Paragraph 4.5 of the Scoping Note sets a future year assessment to the fifth year after submission of the Transport Assessment – which puts it down to 2022. In my view, I feel this period should be extended to cover 2026 in line with the Bicester Transport Model which includes 2024 interim year and also includes the committed development expected to come forward at that time. We would like this to be the forecast year rather than 2022.

Committed development – Use of the Bicester Transport Model 2026 would include all development expected to come forward by that time. Consideration also needs to be given to two pending planning applications close by to the site, which are both proposing highway mitigation works along the A41. These are;

- 16-02505-OUT – Bicester Gateway (Kingsmere Retail)

- 16-02586-OUT – Bicester Gateway (Bicester 10)

The model includes significant committed developments expected to come forward and including the growth trips. Should the model be used, TEMPRO shall not be required in this case.

We shall however like to see the network tested using the flows from the model.

Trip Generation

The scoping note accompanying this pre-application enquiry proposes to use TRICS database to establish an estimate of the number of vehicles that the proposed development might generate when it is fully occupied.

I appreciate that the scoping note submitted attempts to estimate the likely number of trips generated that shall be generated by the development. However, the trip rates used appear rather low especially in the PM peak. I would further appreciate that a trip rates commensurate to the developments close by to be considered, such as ones used in planning ref: 16-02586-OUT.

Characteristics of business parks are likely to have very high levels of car use and very peaky demand for travel. The Oxford Business Park (Garsington Road) certainly displays these characteristics, which results in very long queues and delays when employees decide to leave at the same time (at 1705, for example). Arguably, similar characteristics could be expected on this site, especially when combined with the late Friday afternoon flow from the Tesco store. Will these characteristics be reflected in a TA – what mitigation can be provided – to spread the peak for example.

Other scoping matters

Public Transport - The applicant will need to robustly assess public transport accessibility between the development site and the wider network. The original application included a requirement to provide a pair of bus stops on the A41 and an agreement to provide some S106 funding to provide a bus service into the site.

The bus stops have not been fully delivered, with a new bus stop having recently been installed on the western side of the A41, to the north of the Premier Inn hotel. I guess the bus stop on the eastern side of the A41 is tied up with the Bicester Business Park Legal Agreement. In any event, it is absolutely essential that this is provided.

That being said, the walking distance to these bus stops along the A41 from some of these workplace units could be around 750 metres. I would like to see how the applicant addresses the distance in the TA.

South Eastern Perimeter Road (SEPR)

The Local Transport Plan 4 Bicester Area Strategy proposes a South East Perimeter Road in Bicester, which will ease congestion on the A41 and also mitigate the development's impact on the A41 junctions. It is partly funded, but currently requires contributions to fund the western section proposed, so contributions towards this are likely to be a consideration in terms of mitigating the Bicester Business Park

proposals. Other future developments in the area would also be expected to contribute.

The cumulative impact of development in Bicester will be severe if appropriate contributions are not secured from all development sites towards the strategic transport infrastructure required to mitigate the increased transport movements.

Strategic transport modelling demonstrates the benefits that the SEPR will bring to the A41 (Oxford Road):

- The A41 Oxford Road is a key corridor in Bicester where junctions along its length are impacted significantly as a result of the growth of Bicester, including Bicester 10. The Application Site is estimated to increase the proportion of peak hour traffic at the A41/ Vendee Drive junction by between 7% and 8% in 2024.

- The SEPR has been identified as a key piece of strategic infrastructure that will bring direct relief to the A41 corridor, thereby facilitating improved operation of junctions directly impacted by Bicester 10.

- Modelling has demonstrated the benefits that the SEPR would bring to the A41. In the AM peak:
    - Over 1000 vehicles (pcu's) that would otherwise use the A41 Oxford Rd northbound through Vendee Dve would route via SEPR (eastbound)
    - Around 930 vehicles (pcu's) that would otherwise use A41 Boundary Way and turn left on A41 Oxford Rd southbound past Bic 10, would route via SEPR (westbound)
    - Therefore, over 1930 vehicles (pcu's) would use the SEPR that would otherwise route along A41 past the Bicester 10 site.

It is acknowledged however, that the capacity released on the A41 by the SEPR will itself encourage some traffic that might otherwise choose NOT to use the A41, to divert along the corridor. When taking diverted traffic into account, the net reduction in traffic on the A41 in the vicinity of the Bicester 10 site would be around 1130 pcu's.

Car parking

Sufficient car parking will need to be provided to ensure that there is no overspill onto surrounding roads or inappropriate use of the Park and Ride site. Designs and provision should take into account areas within the development that may be subject to inappropriate parking such as on green verge areas or turning heads. OCC requires 2.4m x 4.8m parking bays and 6m width of manoeuvrable space between parking rows. OCC parking standards for B1 Office developments also require 1 parking space per 30sqm GFA, to include about 6% of DDA per development unit.

Consideration of the interaction of car parking with other sites in the area e.g. acting as an overspill car parking area for Bicester Village (rather than Bicester Village visitors using the P&R) must also be made. A robust car parking management plan should be included in the Travel Plan.

Cycle parking
The county's cycle parking standards sets out how developers should provide sufficient secure and covered cycle parking for staff and visitors. Cycle parking should be easy to locate and as close to the buildings as possible, not only to make it as attractive to potential users as possible but also to allow natural surveillance from the building itself.

Drainage
A surface water drainage scheme for the site will need to be submitted with a planning application. This will be based on sustainable drainage principles and an assessment of the hydrological and hydro-geological context of the development, The scheme will need to include:

- Discharge Rates
- Discharge Volumes
- Maintenance and management of SUDS features (including details of who will be responsible maintaining the SUDS & landowner details)
- Sizing of features – attenuation volume
- Infiltration tests to be undertaken in accordance with BRE365
- Detailed drainage layout with pipe numbers (to include direction of flow)
- SUDS (list the suds features mentioned within the FRA to ensure they are carried forward into the detailed drainage strategy)
- Network drainage calculations (to prove that the proposals will work)
- Phasing plans
- Flood Risk Assessment

Travel Plan
A Travel Plan Statement meeting the requirements set out in the Oxfordshire County Council guidance document, Transport for New Developments; Transport Assessments and Travel Plans will be required for this application. It would need to be produced and agreed prior to first occupation.

Additionally, a Travel Information Pack would need to be submitted to and approved by the Local Planning Authority prior to first occupation. The first occupants of each development unit shall be provided with a copy of the approved Travel Information Pack.

Officer's Name: Rashid Bbosa
Officer's Title: Transport Engineer
Date: 09 May 2017

Appendix B

Traffic Accident Data

Thames Valley Police
Chief Constable Francis Habgood QPM

Headquarters
Oxford Road
Kidlington
Oxfordshire
OX5 2NX

Ms K Lewis
motion
8 Duncannon Street,
LONDON
WC2N 4JF

Telephone: 101
Direct dial: 01865 542051
Email: publicaccess@thamesvalley.pnn.police.uk

Our ref: HQ/PA/001870/17
Your ref:

7 July 2017

Dear Ms Lewis

I write in response to the above-referenced Freedom of Information Act (FOIA) request submitted on 5 July 2017. Thames Valley Police has now considered this request, which for clarity, has been repeated below:

Request	**Response**
I am after the total number of slight, serious and fatal accidents over the most recent five year period to include causation factors. The area I require this for is as follows: Oxford Road between the Park & Ride/Vendee Drive roundabout and the Kings End/Middleton Stoney roundabout; A41 between the Esso Roundabout and Rodney House Roundabout; and, Lakeview Drive.	Slight – 40 Serious – 5 Fatal – 2 Please see the attached data sheet for causation factors. The causation factors listed are the initial opinion of attending officers. These may be disproven in following investigations.

Complaint Rights

If you are dissatisfied with the handling procedures or the decision made by Thames Valley Police, you can lodge a complaint with the force to have the decision reviewed within two months of the date of this response. Complaints should be made in writing to the FOI inbox; publicaccess@thamesvalley.pnn.police.uk.

If, after lodging a complaint with Thames Valley Police, you are still unhappy with the outcome, you may make application to the Information Commissioner at the Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF.

Thames Valley Police
Chief Constable Francis Habgood QPM

If you require any further assistance, please do not hesitate to contact this office.

Yours sincerely

Darren Humphries
Public Access
Joint Information Management Unit


Whitelands
Fm
Hospl
PH
Cemy
A100
B
51
A41
66
esterton
Wks
Rodney
Ho
hesterton Lodge
Fm
65
57
58
LCs
Depot

CF1	CF2	CF3	CF4	CF5	CF6
405. Failed to look properly	509. Distraction in vehicle	. Not coded	. Not coded	. Not coded	. Not coded
501. Impaired by alcohol	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
406. Failed to judge other persons path or speed	310. Cyclist entering road from pavement	. Not coded	. Not coded	. Not coded	. Not coded
410. Loss of control	103. Slippery road (due to weather)	503. Fatigue	. Not coded	. Not coded	. Not coded
405. Failed to look properly	406. Failed to judge other persons path or speed	. Not coded	. Not coded	. Not coded	. Not coded
602. Careless/Reckless/In a hurry	707. Rain, sleet, snow, or fog	509. Distraction in vehicle	306. Exceeding speed limit	. Not coded	. Not coded
405. Failed to look properly	509. Distraction in vehicle	602. Careless/Reckless/In a hurry	306. Exceeding speed limit	. Not coded	. Not coded
406. Failed to judge other persons path or speed	602. Careless/Reckless/In a hurry	405. Failed to look properly	308. Following too close	. Not coded	. Not coded
307. Travelling too fast for conditions	406. Failed to judge other persons path or speed	. Not coded	. Not coded	. Not coded	. Not coded
306. Exceeding speed limit	408. Sudden braking	401. Junction overshoot	. Not coded	. Not coded	. Not coded
505. Illness or disability, mental or physical	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
405. Failed to look properly	308. Following too close	. Not coded	. Not coded	. Not coded	. Not coded
405. Failed to look properly	406. Failed to judge other persons path or speed	308. Following too close	. Not coded	. Not coded	. Not coded
406. Failed to judge other persons path or speed	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
103. Slippery road (due to weather)	405. Failed to look properly	406. Failed to judge other persons path or spee	308. Following too close	. Not coded	. Not coded
405. Failed to look properly	406. Failed to judge other persons path or speed	402. Junction restart	509. Distraction in vehicle	. Not coded	. Not coded
308. Following too close	308. Following too close	406. Failed to judge other persons path or spee	406. Failed to judge other persons pat	. Not coded	. Not coded
999. Other	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
308. Following too close	406. Failed to judge other persons path or speed	707. Rain, sleet, snow, or fog	103. Slippery road (due to weather)	607. Inexperience with type of vehicl	408. Sudden braking
308. Following too close	408. Sudden braking	602. Careless/Reckless/In a hurry	406. Failed to judge other persons pat	. Not coded	. Not coded
902. Vehicle in course of crime	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
407. Too close to cyclist, horse or pedestrian	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
501. Impaired by alcohol	410. Loss of control	408. Sudden braking	. Not coded	. Not coded	. Not coded
408. Sudden braking	406. Failed to judge other persons path or speed	405. Failed to look properly	. Not coded	. Not coded	. Not coded
405. Failed to look properly	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
405. Failed to look properly	406. Failed to judge other persons path or speed	308. Following too close	. Not coded	. Not coded	. Not coded
606. Inexperience of driving on the left	403. Poor turn or manoeuvre	. Not coded	. Not coded	. Not coded	. Not coded
109. Animal or object in carriageway	306. Exceeding speed limit	409. Swerved	503. Fatigue	. Not coded	. Not coded
405. Failed to look properly	406. Failed to judge other persons path or speed	308. Following too close	. Not coded	. Not coded	. Not coded
407. Too close to cyclist, horse or pedestrian	602. Careless/Reckless/In a hurry	. Not coded	. Not coded	. Not coded	. Not coded
405. Failed to look properly	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
501. Impaired by alcohol	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
405. Failed to look properly	406. Failed to judge other persons path or speed	308. Following too close	602. Careless/Reckless/In a hurry	509. Distraction in vehicle	306. Exceeding speed limit
505. Illness or disability, mental or physical	410. Loss of control	. Not coded	. Not coded	. Not coded	. Not coded
203. Defective brakes	202. Defective lights or indicators	405. Failed to look properly	406. Failed to judge other persons pat	506. Not displaying lights at night or i	310. Cyclist entering road from pavement
508. Driver using mobile phone	. Not coded	. Not coded	. Not coded	. Not coded	. Not coded
602. Careless/Reckless/In a hurry	503. Fatigue	. Not coded	. Not coded	. Not coded	. Not coded
503. Fatigue	509. Distraction in vehicle	405. Failed to look properly	. Not coded	. Not coded	. Not coded
405. Failed to look properly	406. Failed to judge other persons path or speed	509. Distraction in vehicle	. Not coded	. Not coded	. Not coded
405. Failed to look properly	403. Poor turn or manoeuvre	710. Vehicle blind spot	. Not coded	. Not coded	. Not coded
403. Poor turn or manoeuvre	410. Loss of control	. Not coded	. Not coded	. Not coded	. Not coded
302. Disobeyed Give Way or Stop sign or markings	601. Aggressive driving	602. Careless/Reckless/In a hurry	. Not coded	. Not coded	. Not coded
301. Disobeyed automatic traffic signal	406. Failed to judge other persons path or speed	403. Poor turn or manoeuvre	. Not coded	. Not coded	. Not coded
405. Failed to look properly	403. Poor turn or manoeuvre	. Not coded	. Not coded	. Not coded	. Not coded
302. Disobeyed Give Way or Stop sign or markings	405. Failed to look properly	406. Failed to judge other persons path or spee	408. Sudden braking	602. Careless/Reckless/In a hurry	. Not coded
405. Failed to look properly	403. Poor turn or manoeuvre	603. Nervous/Uncertain/Panic	308. Following too close	. Not coded	. Not coded
502. Impaired by drugs (illicit or medicinal)	602. Careless/Reckless/In a hurry	. Not coded	. Not coded	. Not coded	. Not coded

Appendix C

Parameters Plan

Zone A
4 Storeys
+ Plant

Zone B
3 Storeys
+ Plant

Zone C
3 Storeys
+ Plant

Zone D
3 to 4 Storeys
+ Plant

Zone E
3 Storeys
+ Plant

Zone F
4 Storeys
+ Plant

Drainage ditch. Refer to Section 4.1 of the Flood Risk Assessment for details on this feature

A 41

OXFORD ROAD

LAKEVIEW DRIVE

PINGLE DRIVE

Bicester Village Retail Park

Superstore

Revisions	By	Chk
\ 170809 Issued for Comment	TP	DW
A 170814 Development Zones Amended	DW	LS
B 170815 Hatch Amended	DW	TP
C 170925 Title Block amended	DW	LS
D 171129 Flood line amended	DW	TP
E 171130 Flood lines amended	DW	TP

Key

- Development Zone
- Zone in which B1(a) / B1(b) class buildings can be built
- Site Application Area
- 1 in 100 year flood + 35%

Notes

Area Summary (GEA)

Zone A		
	Development Area	10,875
	Building Area	10,875
	Maximum floor area	5,460
Zone B		
	Development Area	10,745
	Building Area	10,745
	Maximum floor area	7,740
Zone C		
	Development Area	11,650
	Building Area	11,650
	Maximum floor area	7,740
Zone D		
	Development Area	27,730
	Building Area	20,180
	Maximum floor area	14,390
Zone E		
	Development Area	25,000
	Building Area	19,750
	Maximum floor area	11,610
Zone F		
	Development Area	22,470
	Building Area	20,900
	Maximum floor area	13,060
Total		
	Site Area	13.1 Ha
	Development Area	108,470 sq.m
	Building Area	94,100 sq.m
	Maximum Floor Area	60,000 sq.m

Please Note:
The areas included here are for guidance only and should be re-measured by a Chartered Surveyor prior to any valuation or feasibility exercise.

BENNETTS ASSOCIATES
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E mail@bennettsassociates.com

Project
Bicester Office Park
Scenic Land Developments Limited

Project No. 1105

Drawing Title
Parameters Plan

Drawing Number
1105_P_005

Revision/Suitability
E

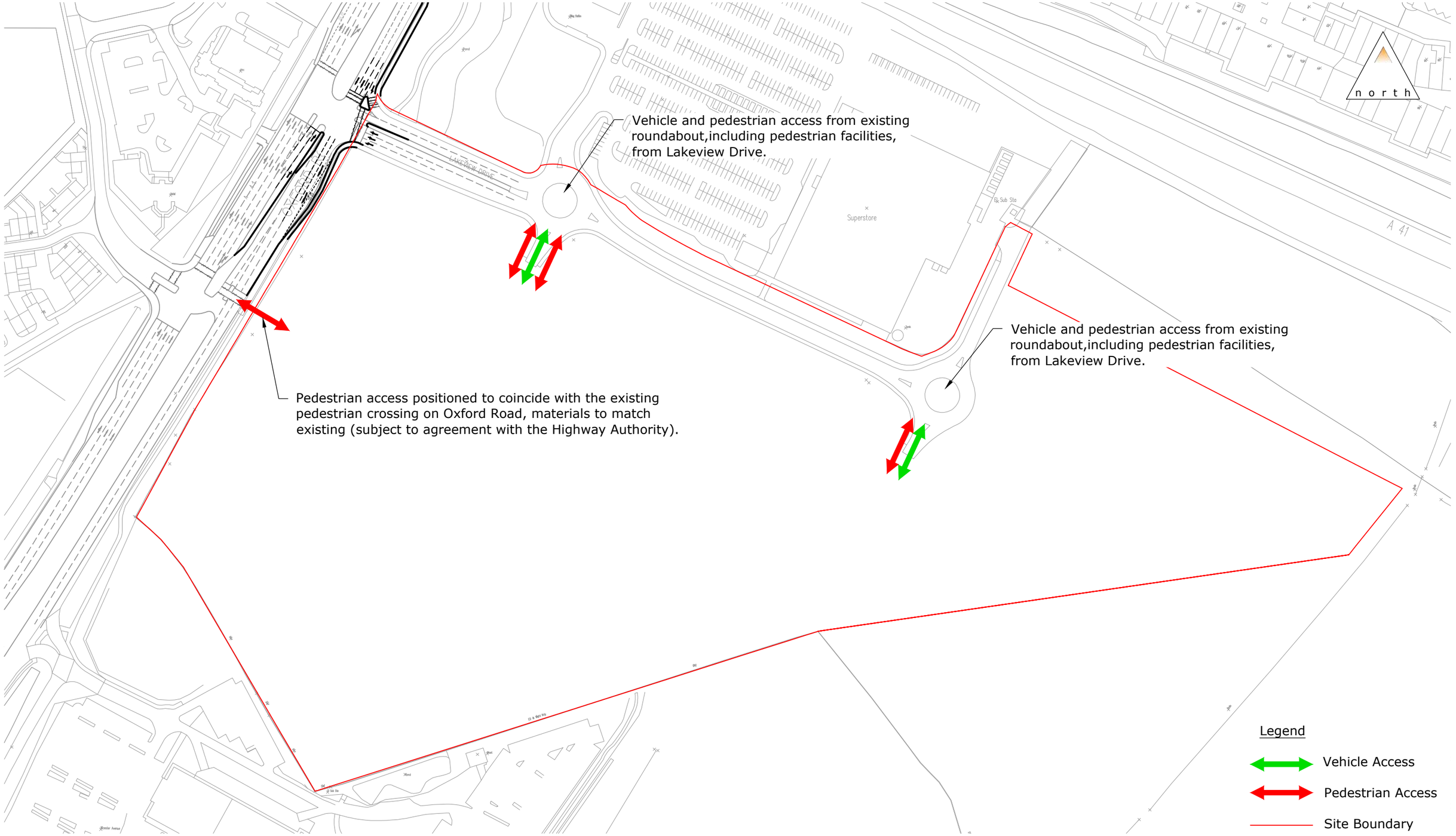
Scale @ A3
1 : 2500

Scale @A1
1 : 1250

Revision Date
171130
YY MM DD

Appendix D

Highways Access Plan



N:\Projects\mbic2 170211\Drawings\170211-06.dwg

motion

84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Golden Cross House
8 Duncannon Street
London
WC2N 4JF

T: 020 7031 8141

www.motion.co.uk

Project:
Bicester Office Park

Title:
Highway Access Plan

Scale: 1:2000 (@ A3)

Notes:

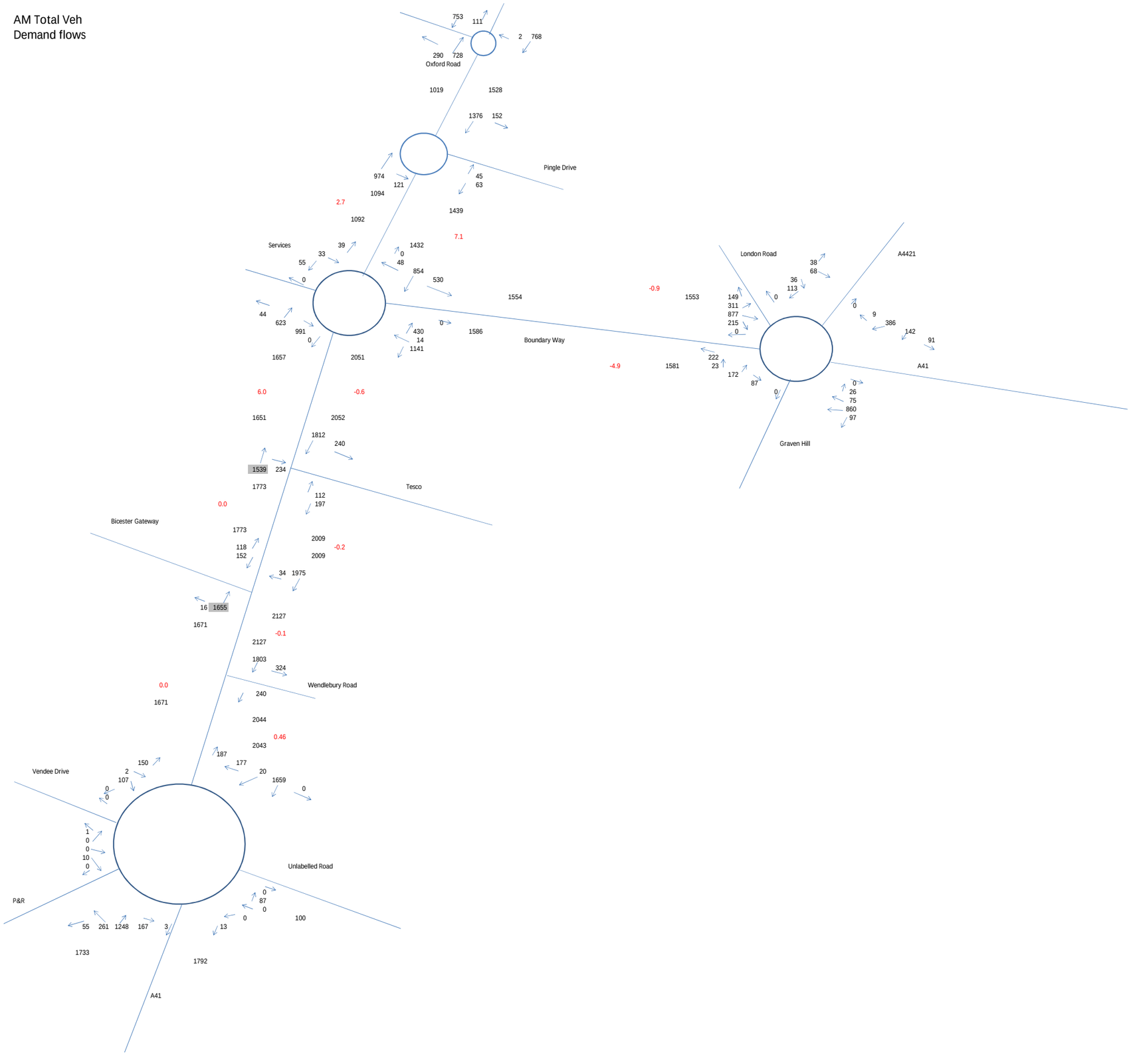
Drawing:
170211-06

Revision:
-

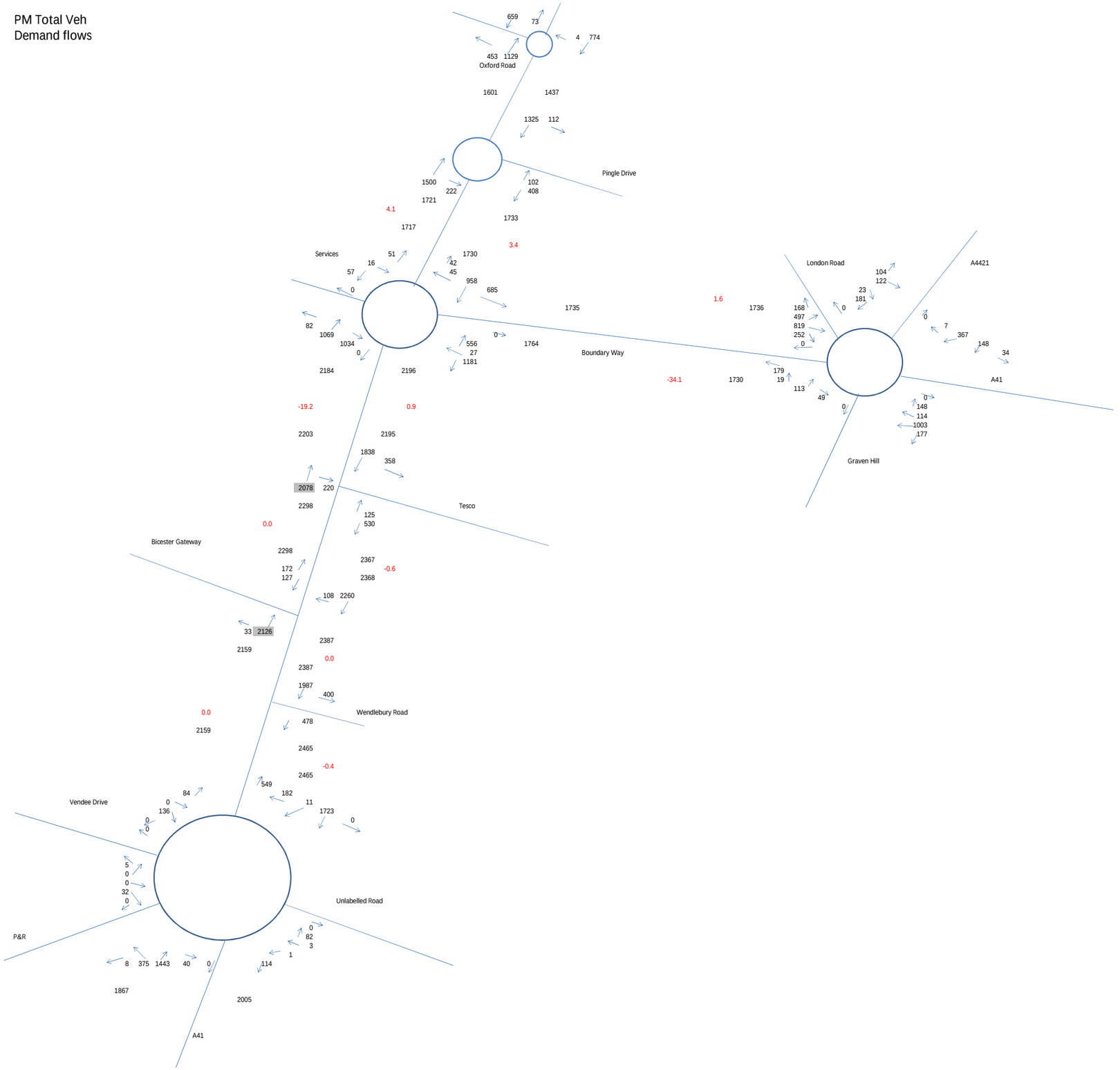
Appendix E

Bicester Traffic Model Outputs

AM Total Veh
Demand flows



PM Total Veh
Demand flows



Appendix F

Model Output Files

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Middleton Stoney - Kings End - Oxford Road - 2017-08-01 (Base).j9
Path: N:\Projects\lmbic2 170211\Analysis\Modelling\Middleton Stoney
Report generation date: 23/08/2017 09:46:21

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2026 BTM													
Arm 1	2.6	10.18	0.73	B	50.90	F	-12 % [Arm 2]	3.8	17.76	0.80	C	24.86	C	-5 % [Arm 2]
Arm 2	39.9	156.81	1.08	F				14.8	64.74	0.97	F			
Arm 3	1.1	3.60	0.53	A				4.1	8.67	0.81	A			

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Middleton Stoney - Kings End - Oxford Road
Location	Bicester
Site number	
Date	15/06/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTION\klewis
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 BTM	AM	ONE HOUR	07:45	09:15	15	✓
D8	2026 BTM	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2026 BTM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3	50.90	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	Arm 2

Arms

Arms

Arm	Name	Description
1	Middleton Stoney	
2	Kings End	
3	Oxford Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.50	7.50	32.0	20.0	19.0	35.0	
2	3.50	4.50	10.0	80.0	19.0	35.0	
3	7.50	7.50	0.0	17.0	19.0	40.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.699	1893
2	0.591	1315
3	0.749	2174

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 BTM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	864	100.000
2		ONE HOUR	✓	770	100.000
3		ONE HOUR	✓	1018	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	111	753
	2	2	0	768
	3	290	728	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	1
	2	0	0	4
	3	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.73	10.18	2.6	B	793	1189
2	1.08	156.81	39.9	F	707	1060
3	0.53	3.60	1.1	A	934	1401

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	650	163	546	1486	0.438	647	219	0.0	0.8	4.276	A
2	580	145	564	941	0.616	573	630	0.0	1.6	9.651	A
3	766	192	1	2121	0.361	764	1136	0.0	0.6	2.648	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	777	194	654	1410	0.551	775	262	0.8	1.2	5.657	A
2	692	173	675	877	0.790	685	753	1.6	3.4	18.076	C
3	915	229	2	2121	0.431	914	1358	0.6	0.8	2.982	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	951	238	801	1305	0.729	946	321	1.2	2.6	9.877	A

2	848	212	824	791	1.072	767	922	3.4	23.5	78.498	F
3	1121	280	2	2121	0.528	1119	1590	0.8	1.1	3.590	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	951	238	802	1304	0.729	951	321	2.6	2.6	10.180	B
2	848	212	829	789	1.075	782	924	23.5	39.9	156.806	F
3	1121	280	2	2121	0.528	1121	1609	1.1	1.1	3.598	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	777	194	655	1408	0.551	782	263	2.6	1.2	5.801	A
2	692	173	682	873	0.793	832	756	39.9	5.0	94.847	F
3	915	229	2	2121	0.432	917	1511	1.1	0.8	2.994	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	650	163	549	1485	0.438	652	220	1.2	0.8	4.335	A
2	580	145	569	938	0.618	593	632	5.0	1.7	10.808	B
3	766	192	2	2121	0.361	767	1160	0.8	0.6	2.659	A

2026 BTM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3	24.86	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	Arm 2

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 BTM	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	732	100.000
2		ONE HOUR	✓	778	100.000
3		ONE HOUR	✓	1582	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	73	659
	2	4	0	774
	3	453	1129	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	1
	2	0	0	0
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.80	17.76	3.8	C	672	1008
2	0.97	64.74	14.8	F	714	1071
3	0.81	8.67	4.1	A	1452	2177

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	551	138	846	1283	0.429	548	343	0.0	0.7	4.877	A
2	586	146	493	1020	0.574	580	901	0.0	1.3	8.091	A
3	1191	298	3	2156	0.552	1186	1071	0.0	1.2	3.693	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	658	165	1013	1167	0.564	656	410	0.7	1.3	7.016	A
2	699	175	591	962	0.727	695	1078	1.3	2.5	13.207	B
3	1422	356	4	2156	0.660	1419	1282	1.2	1.9	4.869	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	806	201	1237	1010	0.798	797	501	1.3	3.6	16.197	C
2	857	214	717	887	0.966	822	1316	2.5	11.2	42.258	E
3	1742	435	4	2155	0.808	1733	1535	1.9	4.0	8.363	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	806	201	1243	1006	0.801	805	503	3.6	3.8	17.757	C
2	857	214	725	882	0.971	842	1323	11.2	14.8	64.744	F
3	1742	435	4	2155	0.808	1741	1563	4.0	4.1	8.674	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	658	165	1021	1161	0.567	668	414	3.8	1.3	7.441	A
2	699	175	601	956	0.732	747	1088	14.8	2.9	20.691	C
3	1422	356	4	2156	0.660	1431	1345	4.1	2.0	5.024	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	551	138	852	1280	0.431	553	345	1.3	0.8	4.974	A
2	586	146	498	1017	0.576	592	907	2.9	1.4	8.572	A
3	1191	298	3	2156	0.552	1194	1087	2.0	1.2	3.753	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Middleton Stoney - Kings End - Oxford Road - 2017-08-01 (BTM With Mitgation).j9
Path: N:\Projects\lmbic2 170211\Analysis\Modelling\Middleton Stoney
Report generation date: 23/08/2017 10:14:02

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2026 BTM + Development													
Arm 1	4.5	15.63	0.82	C	16.11	C	0 % [Arm 2]	5.0	23.29	0.84	C	15.31	C	3 % [Arm 1]
Arm 2	7.6	32.16	0.90	D				2.6	11.01	0.73	B			
Arm 3	1.1	3.65	0.54	A				7.0	13.82	0.88	B			

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Middleton Stoney - Kings End - Oxford Road
Location	Bicester
Site number	
Date	15/06/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTION\klewis
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2026 BTM + Development	AM	ONE HOUR	07:45	09:15	15	✓
D10	2026 BTM + Development	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2026 BTM + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3	16.11	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	0	Arm 2

Arms

Arms

Arm	Name	Description
1	Middleton Stoney	
2	Kings End	
3	Oxford Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.50	7.50	32.0	20.0	19.0	35.0	
2	3.50	7.50	12.0	80.0	19.0	35.0	
3	7.50	7.50	0.0	17.0	19.0	40.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.699	1893
2	0.667	1679
3	0.749	2174

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2026 BTM + Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	974	100.000
2		ONE HOUR	✓	825	100.000
3		ONE HOUR	✓	1031	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	111	863
	2	2	0	823
	3	298	733	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	1
	2	0	0	3
	3	1	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.82	15.63	4.5	C	894	1341
2	0.90	32.16	7.6	D	757	1136
3	0.54	3.65	1.1	A	946	1419

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	733	183	550	1483	0.494	729	225	0.0	1.0	4.752	A
2	621	155	646	1208	0.514	617	633	0.0	1.0	6.053	A
3	776	194	1	2122	0.366	774	1262	0.0	0.6	2.666	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	876	219	658	1406	0.623	873	269	1.0	1.6	6.718	A
2	742	185	774	1124	0.660	738	758	1.0	1.9	9.243	A
3	927	232	2	2121	0.437	926	1510	0.6	0.8	3.010	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	1072	268	806	1301	0.824	1062	330	1.6	4.3	14.448	B

2	908	227	941	1015	0.895	889	927	1.9	6.7	25.484	D
3	1135	284	2	2121	0.535	1134	1828	0.8	1.1	3.642	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	1072	268	807	1300	0.825	1072	330	4.3	4.5	15.630	C
2	908	227	950	1009	0.900	905	929	6.7	7.6	32.155	D
3	1135	284	2	2121	0.535	1135	1852	1.1	1.1	3.650	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	876	219	660	1405	0.623	887	270	4.5	1.7	7.094	A
2	742	185	786	1116	0.664	764	761	7.6	2.0	10.816	B
3	927	232	2	2121	0.437	928	1548	1.1	0.8	3.020	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	733	183	552	1482	0.495	736	226	1.7	1.0	4.844	A
2	621	155	652	1204	0.516	625	636	2.0	1.1	6.259	A
3	776	194	2	2122	0.366	777	1276	0.8	0.6	2.680	A

2026 BTM + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3	15.31	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2026 BTM + Development	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	738	100.000
2		ONE HOUR	✓	782	100.000
3		ONE HOUR	✓	1726	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		1	2	3
From	1	0	73	665
	2	4	0	778
	3	539	1187	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	1
	2	0	0	0
	3	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.84	23.29	5.0	C	677	1016
2	0.73	11.01	2.6	B	718	1076
3	0.88	13.82	7.0	B	1584	2376

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	556	139	890	1253	0.443	552	407	0.0	0.8	5.115	A
2	589	147	498	1344	0.438	586	944	0.0	0.8	4.730	A
3	1299	325	3	2157	0.602	1293	1080	0.0	1.5	4.142	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	663	166	1064	1131	0.587	661	487	0.8	1.4	7.622	A
2	703	176	596	1278	0.550	701	1130	0.8	1.2	6.225	A
3	1552	388	4	2157	0.720	1548	1293	1.5	2.5	5.871	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	813	203	1295	969	0.838	800	593	1.4	4.6	19.956	C
2	861	215	721	1194	0.721	856	1375	1.2	2.5	10.502	B
3	1900	475	4	2156	0.881	1884	1572	2.5	6.7	12.522	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	813	203	1306	962	0.845	811	597	4.6	5.0	23.295	C
2	861	215	731	1187	0.725	861	1386	2.5	2.6	11.007	B
3	1900	475	4	2156	0.881	1899	1587	6.7	7.0	13.819	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	663	166	1079	1121	0.592	677	494	5.0	1.5	8.371	A
2	703	176	610	1268	0.554	708	1146	2.6	1.3	6.493	A
3	1552	388	4	2156	0.720	1569	1315	7.0	2.6	6.303	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	556	139	897	1248	0.445	558	410	1.5	0.8	5.237	A
2	589	147	503	1340	0.439	591	952	1.3	0.8	4.814	A
3	1299	325	3	2157	0.602	1304	1091	2.6	1.5	4.242	A

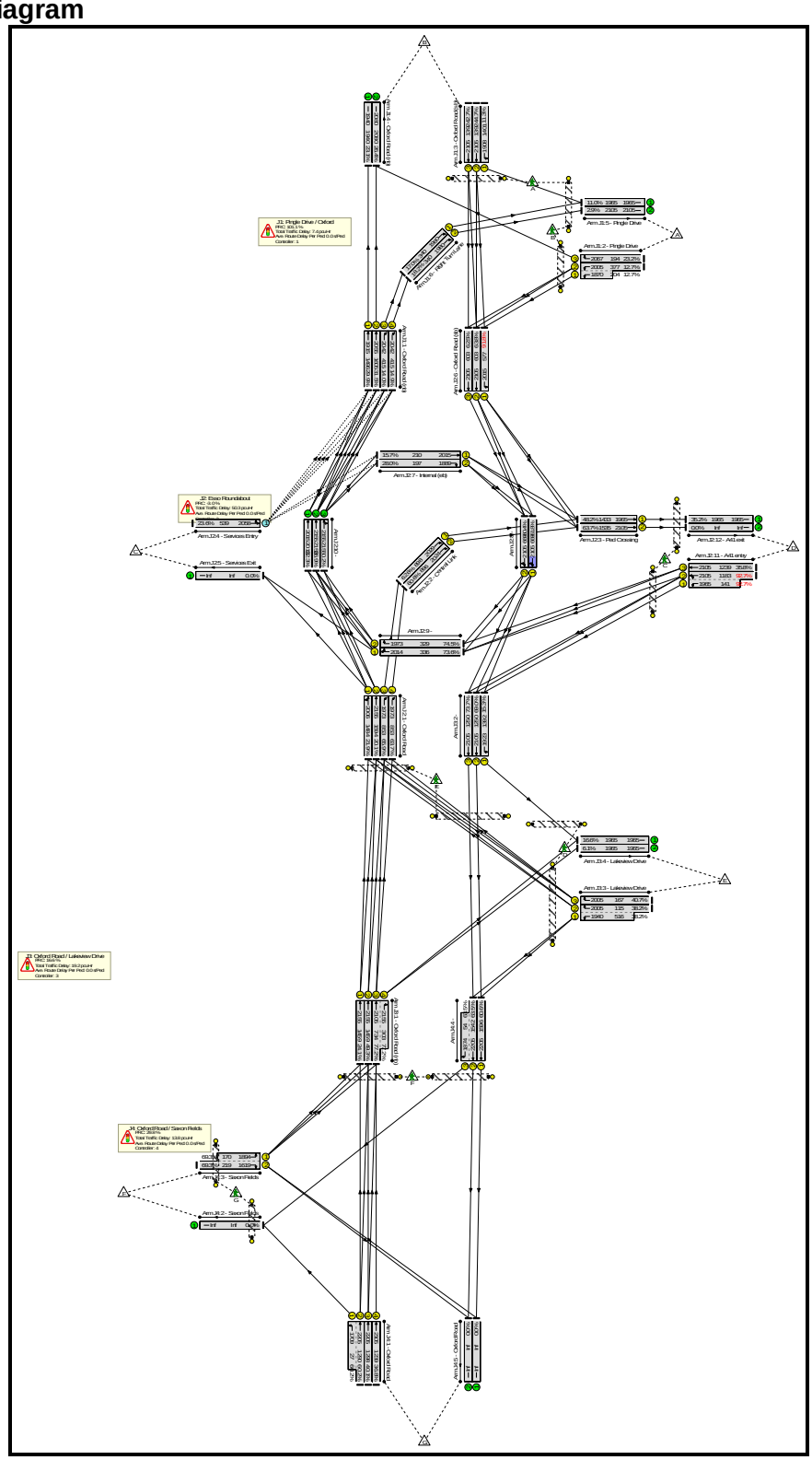
Basic Results Summary

User and Project Details

Project:	**Bicester Office Park**
Title:	**Oxford Road Corridor**
Location:	Bicester
File name:	Oxford Road Model (inc BG Improvements) - 2017-08-01 Base.lsg3x
Author:	
Company:	Motion
Address:	
Notes:	

Basic Results Summary

Scenario 1: '2026 AM BTM' (FG1: '2026 AM BTM', Plan 1: 'AM Peak')
Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**92.7%**	**117**	**10**	**0**	**90.7**	-	-
J1: Pingle Drive / Oxford	-	-	-		-	-	-	-	-	-	**44.7%**	**0**	**0**	**0**	**7.4**	-	-
1/1	Oxford Road (nb) Ahead	U	C1:A		2	148	-	448	1915	1496	29.9%	-	-	-	0.3	2.2	1.1
1/2	Oxford Road (nb) Ahead	U	C1:A		2	148	-	505	2055	1605	31.5%	-	-	-	0.4	3.1	2.6
1/3	Oxford Road (nb) Right	U	C1:F		2	37	-	58	2042	415	14.0%	-	-	-	0.4	25.8	1.4
1/4	Oxford Road (nb) Right	U	C1:F		2	37	-	62	2042	415	14.9%	-	-	-	0.6	35.5	1.5
2/2+2/1	Pingle Drive Left	U	C1:E		2	43	-	74	2005:1870	377+204	12.7 : 12.7%	-	-	-	0.7	32.3	1.1
2/3	Pingle Drive Right	U	C1:D		2	16	-	45	2067	194	23.2%	-	-	-	0.7	52.4	1.3
3/1	Oxford Road (sb) Left	U	C1:C		2	139	-	158	1908	1401	11.3%	-	-	-	0.2	5.2	1.4
3/2	Oxford Road (sb) Ahead	U	C1:B		2	125	-	623	2105	1392	44.7%	-	-	-	1.8	10.2	8.9
3/3	Oxford Road (sb) Ahead	U	C1:B		2	125	-	595	2105	1392	42.7%	-	-	-	1.6	10.0	8.3
4/1	Oxford Road (nb)	U	-		-	-	-	448	1940	1940	23.1%	-	-	-	0.2	1.2	0.2
4/2	Oxford Road (nb)	U	-		-	-	-	550	2080	2080	26.4%	-	-	-	0.2	1.2	0.2
5/1	Pingle Drive	U	-		-	-	-	216	1965	1965	11.0%	-	-	-	0.1	1.0	0.1
5/2	Pingle Drive	U	-		-	-	-	62	2105	2105	2.9%	-	-	-	0.0	0.9	0.0
6/1	Right Turn Lane Right	U	C1:G		2	31	-	58	1980	340	17.0%	-	-	-	0.1	8.0	0.1
6/2	Right Turn Lane Right	U	C1:G		2	31	-	62	1980	340	18.2%	-	-	-	0.2	9.6	0.2
Ped Link: P1	Unnamed Ped Link	-	C1:H		2	19	-	0	-	0	0.0%	-	-	-	-	-	-

Basic Results Summary

Ped Link: P2	Unnamed Ped Link	-	C1:I		2	125	-	0	-	46875	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	Unnamed Ped Link	-	C1:J		2	113	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Esso Roundabout	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**92.7%**	**117**	**10**	**0**	**50.3**	**-**	**-**
1/1	Oxford Road Left Ahead	U	C2:A		2	140	-	325	2006	1484	21.9%	-	-	-	0.4	4.0	1.8
1/2	Oxford Road Ahead	U	C2:A		2	140	-	320	2155	1594	20.1%	-	-	-	0.3	3.9	2.1
1/3	Oxford Road Right	U	C2:F		2	81	-	562	1973	853	65.9%	-	-	-	2.6	16.9	11.5
1/4	Oxford Road Right	U	C2:F		2	81	-	543	1973	853	63.7%	-	-	-	2.4	16.0	10.3
2/1	Central Link Right	U	C2:G		2	83	-	562	2029	898	62.6%	-	-	-	0.9	5.6	1.5
2/2	Central Link Right	U	C2:G		2	83	-	543	2024	896	60.6%	-	-	-	0.8	5.3	1.4
3/1	Ped Crossing Ahead	U	C2:J		2	138	-	691	1965	1433	48.2%	-	-	-	1.1	5.7	3.6
3/2	Ped Crossing Ahead	U	C2:J		2	138	-	977	2105	1535	63.7%	-	-	-	1.6	5.7	4.7
4/1	Services Entry Left Ahead	O	-		-	-	-	127	2058	539	23.6%	117	10	0	0.2	4.5	0.4
6/1	Oxford Road (sb) Left	U	C2:B		2	53	-	530	2015	577	91.8%	-	-	-	8.7	59.1	18.7
6/2	Oxford Road (sb) Ahead	U	C2:B		2	53	-	385	2105	603	63.8%	-	-	-	3.5	33.1	10.1
6/3	Oxford Road (sb) Ahead	U	C2:B		2	53	-	377	2105	603	62.5%	-	-	-	3.4	32.3	9.8
7/1	Internal (eb) Ahead	U	C2:C		2	18	-	33	2015	210	15.7%	-	-	-	0.5	49.3	0.9
7/2	Internal (eb) Right	U	C2:C		2	18	-	55	1889	197	28.0%	-	-	-	0.8	52.2	1.6
8/1	Right Ahead	U	C2:E		2	59	-	413	2105	669	61.8%	-	-	-	1.5	12.7	2.6
8/2	Right Ahead	U	C2:E		2	59	-	404	2105	669	60.4%	-	-	-	1.4	12.4	2.3
9/1	Ahead Right	U	C2:H		2	30	-	247	2014	336	73.6%	-	-	-	3.6	52.3	7.8

Basic Results Summary

9/2	Right	U	C2:H		2	30	-	245	1973	329	74.5%	-	-	-	3.3	48.5	7.7
10/1	Ahead	U	-		-	-	-	449	2015	2015	22.3%	-	-	-	0.1	1.1	0.1
10/2	Ahead	U	-		-	-	-	580	2155	2155	26.9%	-	-	-	0.2	1.1	0.2
10/3	Ahead Right	U	-		-	-	-	5	2155	2155	0.2%	-	-	-	0.0	0.8	0.0
11/2+11/1	A41 entry Ahead Left	U	C2:D		2	111	-	1228	2105:1965	1183+141	92.7 : 92.7%	-	-	-	11.3	33.1	33.8
11/3	A41 entry Ahead	U	C2:D		2	111	-	444	2105	1239	35.8%	-	-	-	1.6	12.6	6.6
12/1	A41 exit	U	-		-	-	-	691	1965	1965	35.2%	-	-	-	0.3	1.4	0.3
Ped Link: P1	Unnamed Ped Link	-	C2:K		2	30	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C2:I		2	53	-	0	-	0	0.0%	-	-	-	-	-	-
J3: Oxford Road / Lakeview Drive	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.2%**	**0**	**0**	**0**	**19.2**	**-**	**-**
1/1	Oxford Road (nb) Ahead	U	C3:A		2	128	-	352	2155	1459	24.1%	-	-	-	0.3	3.2	1.2
1/2	Oxford Road (nb) Ahead	U	C3:A		2	128	-	719	2155	1459	49.3%	-	-	-	0.9	4.6	3.8
1/3+1/4	Oxford Road (nb) Ahead Right	U	C3:A C3:E		2	128:25	-	801	2105:2155	734+303	77.2 : 77.2%	-	-	-	4.7	21.1	28.9
2/1	Left	U	C3:C		2	137	-	213	1923	1392	15.3%	-	-	-	0.2	3.6	1.3
2/2	Ahead	U	C3:B		2	112	-	863	2105	1250	69.0%	-	-	-	4.8	20.2	17.5
2/3	Ahead	U	C3:B		2	112	-	921	2105	1250	73.7%	-	-	-	4.6	18.0	16.2
3/2+3/1	Lakeview Drive Right Left	U	C3:D	C3:F	2	14:53	39	241	2005:1940	115+516	38.2 : 38.2%	-	-	-	2.3	34.5	4.7
3/3	Lakeview Drive Right	U	C3:D		2	14	-	68	2005	167	40.7%	-	-	-	1.1	59.9	2.2
4/1	Lakeview Drive	U	-		-	-	-	327	1965	1965	16.6%	-	-	-	0.1	1.1	0.1
4/2	Lakeview Drive	U	-		-	-	-	120	1965	1965	6.1%	-	-	-	0.0	1.0	0.0

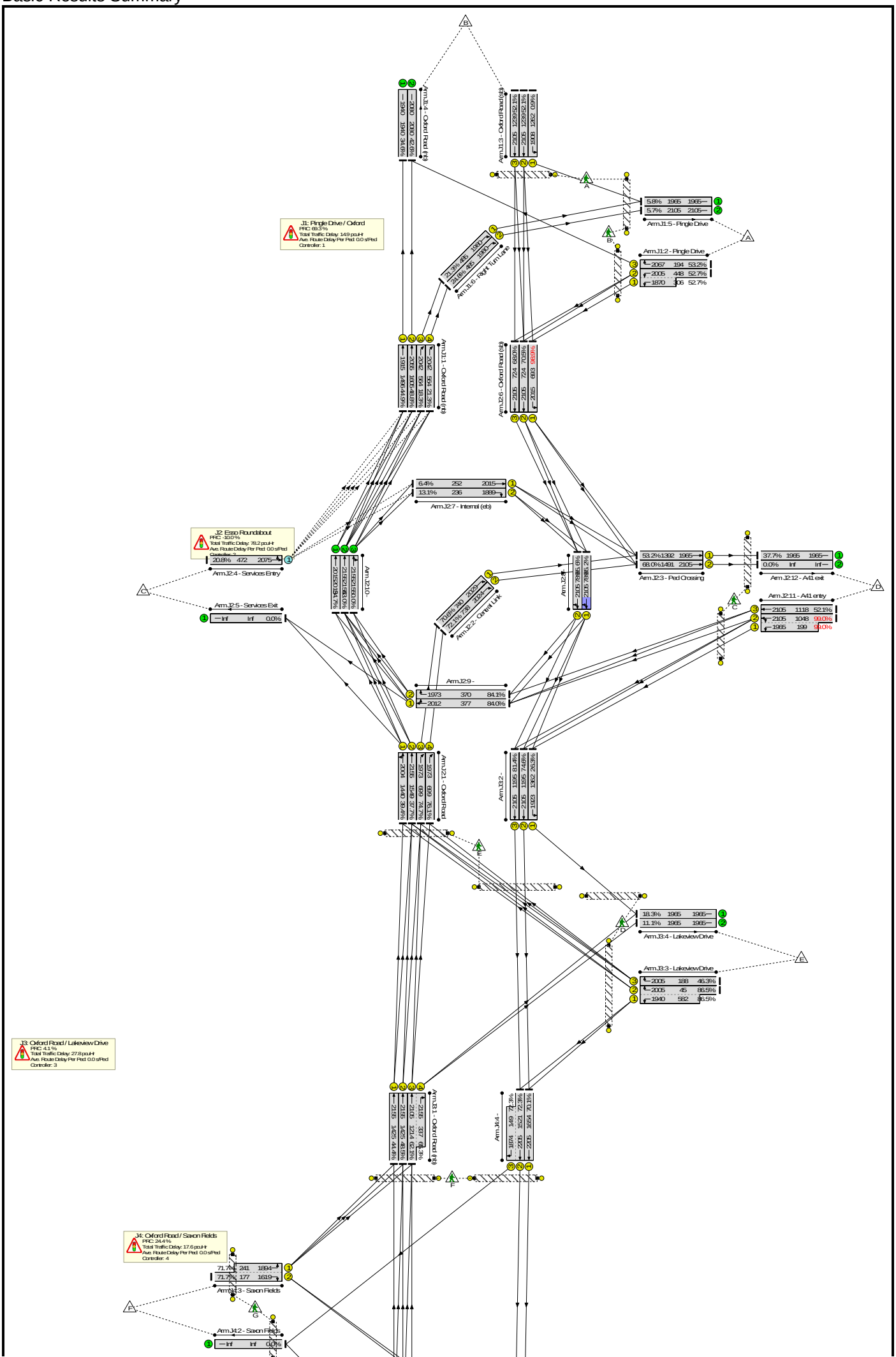
Basic Results Summary

Ped Link: P1	Unnamed Ped Link	-	C3:G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C3:H		2	25	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C3:I		2	25	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C3:K		2	107	-	0	-	0	0.0%	-	-	-	-	-	-
J4: Oxford Road / Saxon Fields	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.3%**	**0**	**0**	**0**	**13.8**	**-**	**-**
1/2+1/1	Oxford Road Ahead Left	U	C4:C	C4:J	2	111:134	23	793	2205:1709	1290+27	60.2 : 60.2%	-	-	-	3.5	16.0	15.2
1/3	Oxford Road Ahead	U	C4:C		2	111	-	521	2205	1298	40.1%	-	-	-	1.9	13.1	8.6
1/4	Oxford Road Ahead	U	C4:C		2	111	-	456	2105	1239	36.8%	-	-	-	1.6	12.8	7.4
3/2+3/1	Saxon Fields Left Right	U	C4:D	C4:I	2	24:43	19	270	1619:1894	219+170	69.3 : 69.3%	-	-	-	3.8	50.6	5.1
4/1	Ahead	U	C4:A		2	137	-	967	2205	1596	60.6%	-	-	-	1.3	5.0	4.0
4/2+4/3	Right Ahead	U	C4:A C4:B		2	137:21	-	1014	2205:1874	1542+54	63.5 : 63.5%	-	-	-	1.6	5.9	3.4
Ped Link: P1	Unnamed Ped Link	-	C4:G		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C4:H		2	23	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C4:F		2	126	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C4:E		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1	PRC for Signalled Lanes (%):	101.1	Total Delay for Signalled Lanes (pcuHr):	7.00	Cycle Time (s): 192
C2	PRC for Signalled Lanes (%):	-3.0	Total Delay for Signalled Lanes (pcuHr):	49.58	Cycle Time (s): 192
C3	PRC for Signalled Lanes (%):	16.6	Total Delay for Signalled Lanes (pcuHr):	19.04	Cycle Time (s): 192
C4	PRC for Signalled Lanes (%):	29.8	Total Delay for Signalled Lanes (pcuHr):	13.83	Cycle Time (s): 192
	PRC Over All Lanes (%):	-3.0	Total Delay Over All Lanes(pcuHr):	90.74	

Basic Results Summary
Scenario 2: '2026 PM BTM' (FG2: '2026 PM BTM', Plan 1: 'AM Peak')
Network Layout Diagram

Basic Results Summary



Basic Results Summary

Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**99.0%**	**76**	**22**	**0**	**138.5**	-	-
J1: Pingle Drive / Oxford	-	-	-		-	-	-	-	-	-	**53.2%**	**0**	**0**	**0**	**14.9**	-	-
1/1	Oxford Road (nb) Ahead	U	C1:A		2	148	-	671	1915	1496	44.9%	-	-	-	0.8	4.3	3.6
1/2	Oxford Road (nb) Ahead	U	C1:A		2	148	-	783	2055	1605	48.8%	-	-	-	0.8	3.8	3.5
1/3	Oxford Road (nb) Right	U	C1:F		2	51	-	103	2042	564	18.3%	-	-	-	0.9	31.4	2.5
1/4	Oxford Road (nb) Right	U	C1:F		2	51	-	120	2042	564	21.3%	-	-	-	0.8	23.6	2.7
2/2+2/1	Pingle Drive Left	U	C1:E		2	57	-	397	2005:1870	448+306	52.7 : 52.7%	-	-	-	3.4	30.8	5.6
2/3	Pingle Drive Right	U	C1:D		2	16	-	103	2067	194	53.2%	-	-	-	1.7	61.1	3.2
3/1	Oxford Road (sb) Left	U	C1:C		2	125	-	11	1908	1262	0.9%	-	-	-	0.0	7.1	0.1
3/2	Oxford Road (sb) Ahead	U	C1:B		2	111	-	645	2105	1239	52.1%	-	-	-	2.6	14.7	10.8
3/3	Oxford Road (sb) Ahead	U	C1:B		2	111	-	645	2105	1239	52.1%	-	-	-	2.6	14.7	10.8
4/1	Oxford Road (nb)	U	-		-	-	-	671	1940	1940	34.6%	-	-	-	0.3	1.4	0.3
4/2	Oxford Road (nb)	U	-		-	-	-	886	2080	2080	42.6%	-	-	-	0.4	1.5	0.4
5/1	Pingle Drive	U	-		-	-	-	114	1965	1965	5.8%	-	-	-	0.0	1.0	0.0
5/2	Pingle Drive	U	-		-	-	-	120	2105	2105	5.7%	-	-	-	0.0	0.9	0.0
6/1	Right Turn Lane Right	U	C1:G		2	45	-	103	1980	485	21.3%	-	-	-	0.2	6.9	0.2
6/2	Right Turn Lane Right	U	C1:G		2	45	-	120	1980	485	24.8%	-	-	-	0.3	8.5	0.3
Ped Link: P1	Unnamed Ped Link	-	C1:H		2	33	-	0	-	0	0.0%	-	-	-	-	-	-

Basic Results Summary

Ped Link: P2	Unnamed Ped Link	-	C1:I		2	111	-	0	-	41625	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	Unnamed Ped Link	-	C1:J		2	99	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Esso Roundabout	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**99.0%**	**76**	**22**	**0**	**78.2**	**-**	**-**
1/1	Oxford Road Left Ahead	U	C2:A		2	136	-	567	2004	1440	39.4%	-	-	-	0.5	3.2	2.4
1/2	Oxford Road Ahead	U	C2:A		2	136	-	584	2155	1549	37.7%	-	-	-	0.5	3.2	2.4
1/3	Oxford Road Right	U	C2:F		2	66	-	522	1973	699	74.7%	-	-	-	4.1	28.5	14.7
1/4	Oxford Road Right	U	C2:F		2	66	-	532	1973	699	76.1%	-	-	-	4.0	27.1	14.9
2/1	Central Link Right	U	C2:G		2	68	-	522	2029	740	70.6%	-	-	-	1.2	8.4	1.8
2/2	Central Link Right	U	C2:G		2	68	-	532	2024	738	72.1%	-	-	-	1.3	8.9	1.9
3/1	Ped Crossing Ahead	U	C2:J		2	134	-	741	1965	1392	53.2%	-	-	-	1.7	8.3	5.8
3/2	Ped Crossing Ahead	U	C2:J		2	134	-	1014	2105	1491	68.0%	-	-	-	2.3	8.3	8.8
4/1	Services Entry Left Ahead	O	-		-	-	-	98	2075	472	20.8%	76	22	0	0.1	5.2	0.5
6/1	Oxford Road (sb) Left	U	C2:B		2	64	-	685	2015	693	98.9%	-	-	-	15.9	83.4	29.6
6/2	Oxford Road (sb) Ahead	U	C2:B		2	64	-	510	2105	724	70.5%	-	-	-	4.0	28.4	11.2
6/3	Oxford Road (sb) Ahead	U	C2:B		2	64	-	492	2105	724	68.0%	-	-	-	3.7	27.3	10.0
7/1	Internal (eb) Ahead	U	C2:C		2	22	-	16	2015	252	6.4%	-	-	-	0.2	44.4	0.4
7/2	Internal (eb) Right	U	C2:C		2	22	-	31	1889	236	13.1%	-	-	-	0.4	45.8	0.8
8/1	Right Ahead	U	C2:E		2	70	-	515	2105	789	65.2%	-	-	-	1.7	12.1	2.6
8/2	Right Ahead	U	C2:E		2	70	-	518	2105	789	65.6%	-	-	-	1.8	12.3	2.8
9/1	Ahead Right	U	C2:H		2	34	-	317	2012	377	84.0%	-	-	-	4.8	54.6	10.9

Basic Results Summary

9/2	Right	U	C2:H		2	34	-	311	1973	370	84.1%	-	-	-	4.4	51.3	10.7
10/1	Ahead	U	-		-	-	-	699	2015	2015	34.7%	-	-	-	0.3	1.4	0.3
10/2	Ahead	U	-		-	-	-	927	2155	2155	43.0%	-	-	-	0.4	1.5	1.6
10/3	Ahead Right	U	-		-	-	-	0	2155	2155	0.0%	-	-	-	0.0	0.0	0.0
11/2+11/1	A41 entry Ahead Left	U	C2:D		2	100	-	1234	2105:1965	1048+199	99.0 : 99.0%	-	-	-	21.6	62.9	43.8
11/3	A41 entry Ahead	U	C2:D		2	100	-	583	2105	1118	52.1%	-	-	-	2.9	17.9	10.6
12/1	A41 exit	U	-		-	-	-	741	1965	1965	37.7%	-	-	-	0.3	1.5	0.3
Ped Link: P1	Unnamed Ped Link	-	C2:K		2	34	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C2:I		2	64	-	0	-	0	0.0%	-	-	-	-	-	-
J3: Oxford Road / Lakeview Drive	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.5%**	**0**	**0**	**0**	**27.8**	**-**	**-**
1/1	Oxford Road (nb) Ahead	U	C3:A		2	125	-	633	2155	1425	44.4%	-	-	-	0.8	4.3	8.2
1/2	Oxford Road (nb) Ahead	U	C3:A		2	125	-	692	2155	1425	48.5%	-	-	-	1.1	5.5	8.3
1/3+1/4	Oxford Road (nb) Ahead Right	U	C3:A C3:E		2	125:28	-	974	2105:2155	1214+337	62.1 : 65.3%	-	-	-	4.3	16.1	30.8
2/1	Left	U	C3:C		2	134	-	358	1923	1362	26.3%	-	-	-	1.0	10.0	4.3
2/2	Ahead	U	C3:B		2	107	-	891	2105	1195	74.6%	-	-	-	5.8	23.3	19.2
2/3	Ahead	U	C3:B		2	107	-	973	2105	1195	81.4%	-	-	-	5.5	20.3	17.2
3/2+3/1	Lakeview Drive Right Left	U	C3:D	C3:F	2	16:58	42	542	2005:1940	45+582	86.5 : 86.5%	-	-	-	7.7	51.3	15.9
3/3	Lakeview Drive Right	U	C3:D		2	16	-	87	2005	188	46.3%	-	-	-	1.4	58.9	2.6
4/1	Lakeview Drive	U	-		-	-	-	359	1965	1965	18.3%	-	-	-	0.1	1.1	0.1
4/2	Lakeview Drive	U	-		-	-	-	219	1965	1965	11.1%	-	-	-	0.1	1.1	4.1

Basic Results Summary

Ped Link: P1	Unnamed Ped Link	-	C3:G		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C3:H		2	28	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C3:I		2	28	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C3:K		2	102	-	0	-	0	0.0%	-	-	-	-	-	-
J4: Oxford Road / Saxon Fields	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.3%**	**0**	**0**	**0**	**17.6**	**-**	**-**
1/2+1/1	Oxford Road Ahead Left	U	C4:C	C4:J	2	116:135	19	886	2205:1709	1328+51	64.2 : 64.2%	-	-	-	3.8	15.3	17.5
1/3	Oxford Road Ahead	U	C4:C		2	116	-	656	2205	1355	48.4%	-	-	-	2.4	13.0	11.6
1/4	Oxford Road Ahead	U	C4:C		2	116	-	617	2105	1294	47.7%	-	-	-	2.2	13.0	10.7
3/2+3/1	Saxon Fields Left Right	U	C4:D	C4:I	2	19:38	19	300	1619:1894	177+241	71.7 : 71.7%	-	-	-	4.4	52.4	6.1
4/1	Ahead	U	C4:A		2	142	-	1159	2205	1654	70.1%	-	-	-	2.0	6.1	8.7
4/2+4/3	Right Ahead	U	C4:A C4:B		2	142:21	-	1208	2205:1874	1521+149	72.3 : 72.3%	-	-	-	2.9	8.7	7.0
Ped Link: P1	Unnamed Ped Link	-	C4:G		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C4:H		2	18	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C4:F		2	131	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C4:E		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1	PRC for Signalled Lanes (%):	69.3	Total Delay for Signalled Lanes (pcuHr):	14.24	Cycle Time (s): 192
C2	PRC for Signalled Lanes (%):	-10.0	Total Delay for Signalled Lanes (pcuHr):	77.15	Cycle Time (s): 192
C3	PRC for Signalled Lanes (%):	4.1	Total Delay for Signalled Lanes (pcuHr):	27.57	Cycle Time (s): 192
C4	PRC for Signalled Lanes (%):	24.4	Total Delay for Signalled Lanes (pcuHr):	17.62	Cycle Time (s): 192
	PRC Over All Lanes (%):	-10.0	Total Delay Over All Lanes(pcuHr):	138.54	

Basic Results Summary

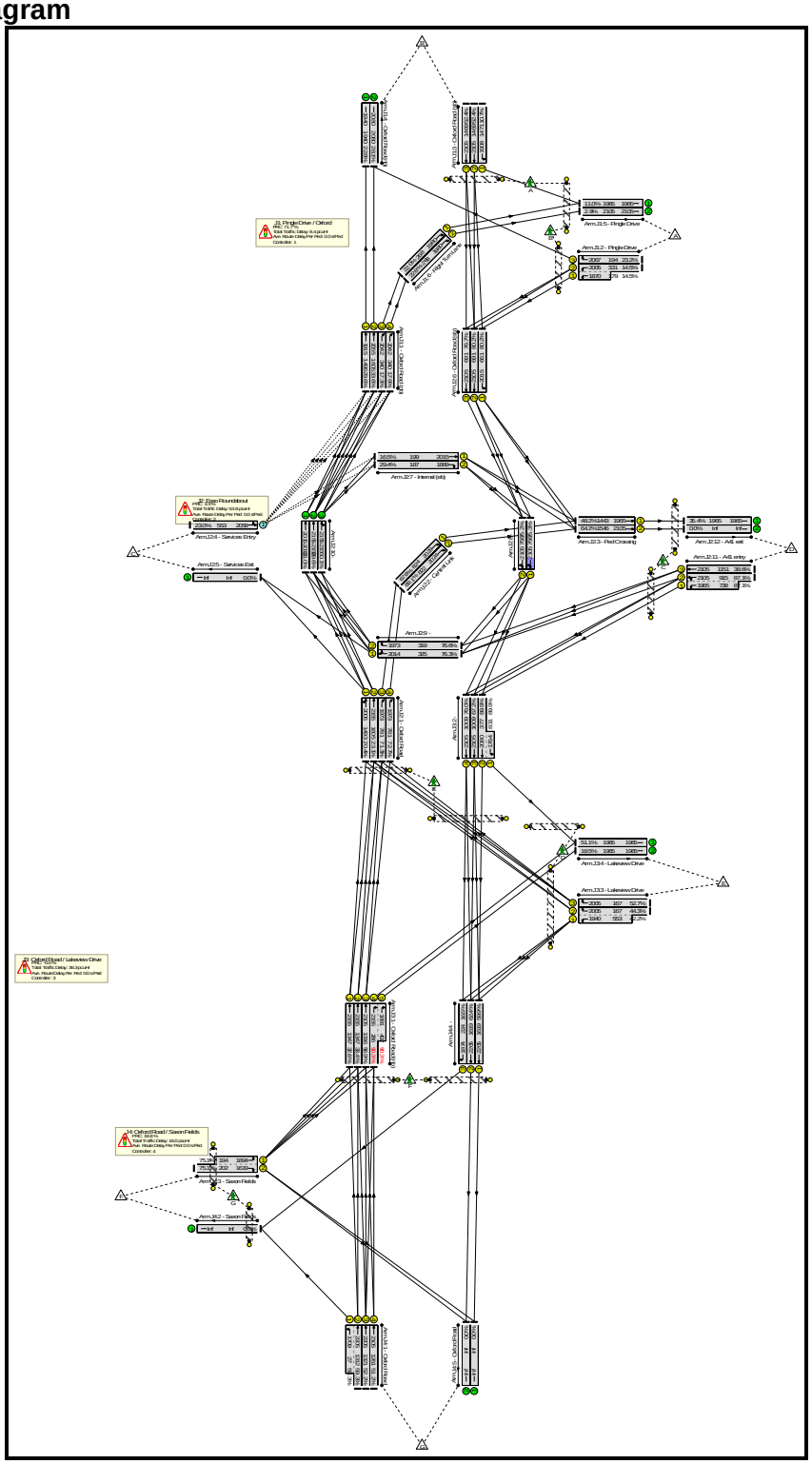
User and Project Details

Project:	**Bicester Office Park**
Title:	**Oxford Road Corridor (with Mitigation)**
Location:	Bicester
File name:	Oxford Road Model (inc BG Improvements) - 2017-08-01 Mitigation.lsg3x
Author:	
Company:	Motion
Address:	
Notes:	

Basic Results Summary

Scenario 9: '2026 BTM + Development AM' (FG3: '2026 AM BTM + Development', Plan 1: 'AM Peak')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**90.3%**	**111**	**16**	**0**	**114.5**	-	-
J1: Pingle Drive / Oxford	-	-	-		-	-	-	-	-	-	**52.4%**	**0**	**0**	**0**	**8.4**	-	-
1/1	Oxford Road (nb) Ahead	U	C1:A		2	148	-	443	1915	1496	29.6%	-	-	-	0.3	2.8	1.5
1/2	Oxford Road (nb) Ahead	U	C1:A		2	148	-	540	2055	1605	33.6%	-	-	-	0.4	2.9	2.2
1/3	Oxford Road (nb) Right	U	C1:F		2	30	-	59	2042	340	17.3%	-	-	-	0.5	32.6	1.7
1/4	Oxford Road (nb) Right	U	C1:F		2	30	-	61	2042	340	17.9%	-	-	-	0.6	37.8	1.9
2/2+2/1	Pingle Drive Left	U	C1:E		2	36	-	74	2005:1870	331+179	14.5 : 14.5%	-	-	-	0.7	35.7	1.2
2/3	Pingle Drive Right	U	C1:D		2	16	-	45	2067	194	23.2%	-	-	-	0.7	52.4	1.3
3/1	Oxford Road (sb) Left	U	C1:C		2	146	-	158	1908	1471	10.7%	-	-	-	0.2	4.1	1.1
3/2	Oxford Road (sb) Ahead	U	C1:B		2	132	-	770	2105	1469	52.4%	-	-	-	2.0	9.5	10.2
3/3	Oxford Road (sb) Ahead	U	C1:B		2	132	-	770	2105	1469	52.4%	-	-	-	2.0	9.5	10.2
4/1	Oxford Road (nb)	U	-		-	-	-	443	1940	1940	22.8%	-	-	-	0.1	1.2	0.1
4/2	Oxford Road (nb)	U	-		-	-	-	585	2080	2080	28.1%	-	-	-	0.2	1.2	0.2
5/1	Pingle Drive	U	-		-	-	-	217	1965	1965	11.0%	-	-	-	0.1	1.0	0.1
5/2	Pingle Drive	U	-		-	-	-	61	2105	2105	2.9%	-	-	-	0.0	0.9	0.0
6/1	Right Turn Lane Right	U	C1:G		2	24	-	59	1980	268	22.0%	-	-	-	0.2	11.1	0.2
6/2	Right Turn Lane Right	U	C1:G		2	24	-	61	1980	268	22.8%	-	-	-	0.2	12.5	0.3
Ped Link: P1	Unnamed Ped Link	-	C1:H		2	12	-	0	-	0	0.0%	-	-	-	-	-	-

Basic Results Summary

Ped Link: P2	Unnamed Ped Link	-	C1:I		2	132	-	0	-	49500	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	Unnamed Ped Link	-	C1:J		2	120	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Esso Roundabout	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.1%**	**111**	**16**	**0**	**53.8**	**-**	**-**
1/1	Oxford Road Left Ahead	U	C2:A		2	141	-	304	2005	1493	20.4%	-	-	-	0.3	3.8	2.0
1/2	Oxford Road Ahead	U	C2:A		2	141	-	371	2155	1605	23.1%	-	-	-	0.4	3.4	2.3
1/3	Oxford Road Right	U	C2:F		2	74	-	557	1973	781	71.3%	-	-	-	3.1	19.8	13.0
1/4	Oxford Road Right	U	C2:F		2	74	-	568	1973	781	72.7%	-	-	-	3.1	19.5	13.2
2/1	Central Link Right	U	C2:G		2	76	-	557	2029	824	67.6%	-	-	-	1.1	7.0	1.7
2/2	Central Link Right	U	C2:G		2	76	-	568	2024	822	69.1%	-	-	-	1.2	7.3	1.8
3/1	Ped Crossing Ahead	U	C2:J		2	139	-	695	1965	1443	48.2%	-	-	-	1.3	6.5	4.6
3/2	Ped Crossing Ahead	U	C2:J		2	139	-	993	2105	1546	64.2%	-	-	-	1.8	6.6	6.8
4/1	Services Entry Left Ahead	O	-		-	-	-	127	2058	553	23.0%	111	16	0	0.2	4.4	0.4
6/1	Oxford Road (sb) Left	U	C2:B		2	61	-	530	2015	661	80.2%	-	-	-	5.6	37.8	15.0
6/2	Oxford Road (sb) Ahead	U	C2:B		2	61	-	554	2105	691	80.2%	-	-	-	5.5	36.0	15.5
6/3	Oxford Road (sb) Ahead	U	C2:B		2	61	-	530	2105	691	76.7%	-	-	-	5.3	35.8	14.5
7/1	Internal (eb) Ahead	U	C2:C		2	17	-	33	2015	199	16.5%	-	-	-	0.5	50.4	0.9
7/2	Internal (eb) Right	U	C2:C		2	17	-	55	1889	187	29.4%	-	-	-	0.8	53.6	1.6
8/1	Right Ahead	U	C2:E		2	67	-	570	2105	756	75.3%	-	-	-	2.5	16.0	3.7
8/2	Right Ahead	U	C2:E		2	67	-	569	2105	756	75.2%	-	-	-	2.4	15.2	4.0
9/1	Ahead Right	U	C2:H		2	29	-	248	2014	325	76.3%	-	-	-	3.7	53.3	8.1

Basic Results Summary

9/2	Right	U	C2:H		2	29	-	244	1973	319	76.6%	-	-	-	3.3	49.2	7.9
10/1	Ahead	U	-		-	-	-	424	2015	2015	21.0%	-	-	-	0.1	1.1	0.1
10/2	Ahead	U	-		-	-	-	637	2155	2155	29.6%	-	-	-	0.2	1.2	0.2
10/3	Ahead Right	U	-		-	-	-	3	2155	2155	0.1%	-	-	-	0.0	0.8	0.0
11/2+11/1	A41 entry Ahead Left	U	C2:D		2	103	-	1440	2105:1965	915+738	87.1 : 87.1%	-	-	-	9.4	23.6	19.2
11/3	A41 entry Ahead	U	C2:D		2	103	-	444	2105	1151	38.6%	-	-	-	1.9	15.0	7.3
12/1	A41 exit	U	-		-	-	-	695	1965	1965	35.4%	-	-	-	0.3	1.4	0.3
Ped Link: P1	Unnamed Ped Link	-	C2:K		2	29	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C2:I		2	61	-	0	-	0	0.0%	-	-	-	-	-	-
J3: Oxford Road / Lakeview Drive	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**90.3%**	**0**	**0**	**0**	**36.3**	**-**	**-**
1/1	Oxford Road (nb) Ahead	U	C3:A		2	118	-	439	2155	1347	32.6%	-	-	-	0.8	6.2	2.5
1/2	Oxford Road (nb) Ahead	U	C3:A		2	118	-	450	2155	1347	33.4%	-	-	-	0.9	6.9	4.9
1/3	Oxford Road (nb) Ahead	U	C3:A		2	118	-	749	2105	1316	56.9%	-	-	-	1.6	7.8	11.2
1/4+1/5	Oxford Road (nb) Right	U	C3:E		2	47	-	621	2155:1891	286+402	90.3 : 90.3%	-	-	-	9.2	53.2	15.7
2/2+2/1	Left Ahead	U	C3:C		2	115	-	1086	2080:1764	377+831	89.9 : 89.9%	-	-	-	8.5	28.3	25.6
2/3	Ahead	U	C3:B		2	90	-	678	2105	1009	67.2%	-	-	-	7.1	37.5	18.2
2/4	Ahead	U	C3:B		2	90	-	767	2105	1009	76.0%	-	-	-	3.5	16.5	9.3
3/2+3/1	Lakeview Drive Right Left	U	C3:D	C3:F	2	14:75	61	307	2005:1940	167+553	44.3 : 42.2%	-	-	-	2.5	29.7	5.2
3/3	Lakeview Drive Right	U	C3:D		2	14	-	88	2005	167	52.7%	-	-	-	1.6	65.0	3.0
4/1	Lakeview Drive	U	-		-	-	-	1005	1965	1965	51.1%	-	-	-	0.5	1.9	3.3

Basic Results Summary

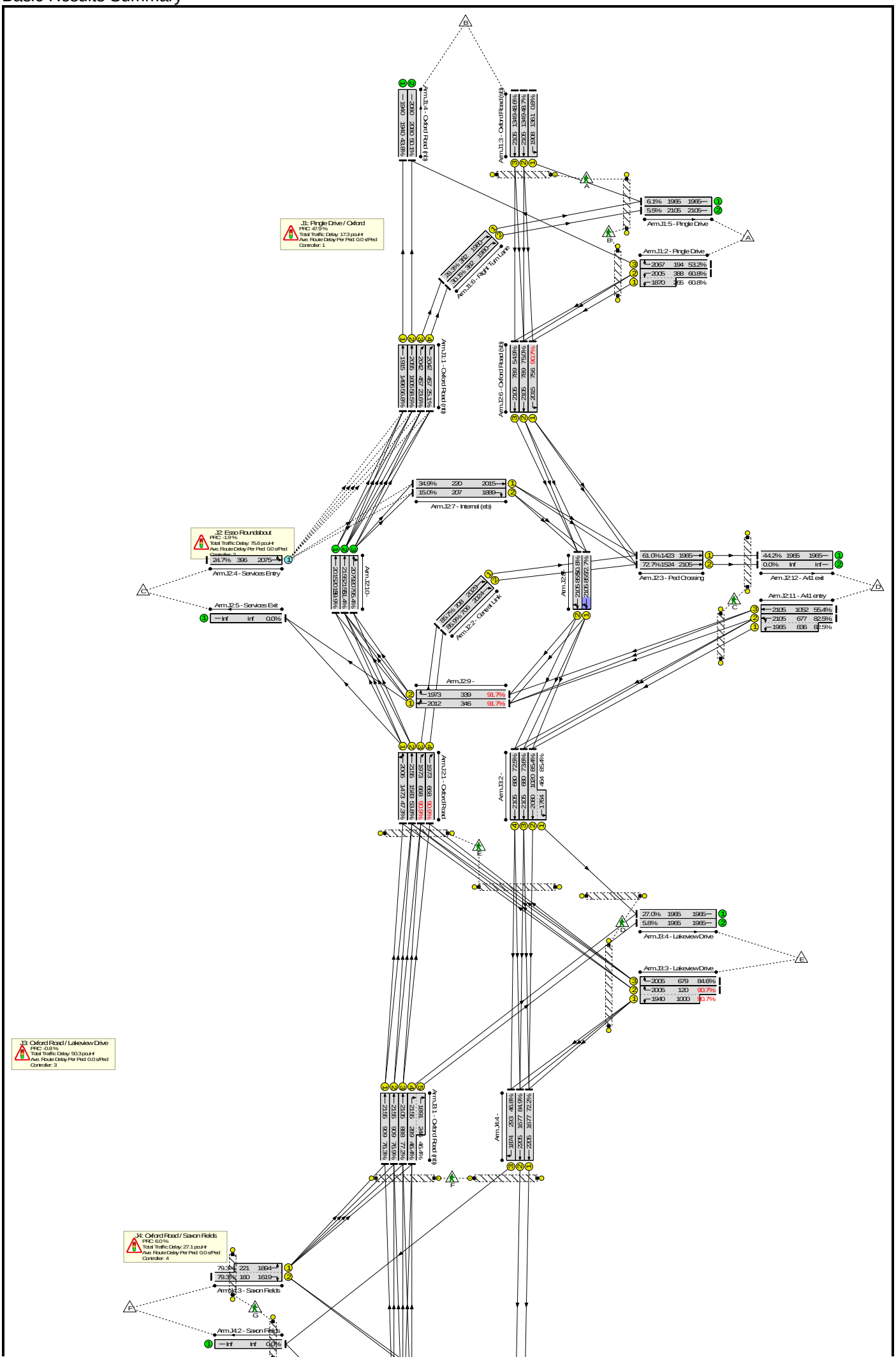
4/2	Lakeview Drive	U	-		-	-	-	363	1965	1965	18.5%	-	-	-	0.1	1.1	0.1
Ped Link: P1	Unnamed Ped Link	-	C3:G		1	16	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C3:H		2	47	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C3:I		2	47	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C3:K		2	85	-	0	-	0	0.0%	-	-	-	-	-	-
J4: Oxford Road / Saxon Fields	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.1%**	**0**	**0**	**0**	**16.0**	**-**	**-**
1/2+1/1	Oxford Road Ahead Left	U	C4:C	C4:J	2	113:135	22	794	2205:1709	1312+27	59.3 : 59.3%	-	-	-	3.4	15.3	15.0
1/3	Oxford Road Ahead	U	C4:C		2	113	-	690	2205	1321	52.2%	-	-	-	2.7	14.2	12.4
1/4	Oxford Road Ahead	U	C4:C		2	113	-	645	2105	1261	51.2%	-	-	-	2.5	14.2	11.5
3/2+3/1	Saxon Fields Left Right	U	C4:D	C4:I	2	22:41	19	298	1619:1894	202+194	75.1 : 75.1%	-	-	-	4.5	54.5	5.6
4/1	Ahead	U	C4:A		2	139	-	970	2205	1619	59.9%	-	-	-	1.3	4.9	13.6
4/2	Ahead	U	C4:A		2	139	-	1010	2205	1619	62.4%	-	-	-	1.1	3.9	16.3
4/3	Right	U	C4:B		2	21	-	37	1874	224	16.5%	-	-	-	0.5	44.9	1.1
Ped Link: P1	Unnamed Ped Link	-	C4:G		1	5	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C4:H		2	21	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C4:F		2	128	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C4:E		1	6	-	0	-	0	0.0%	-	-	-	-	-	-

C1	PRC for Signalled Lanes (%):	71.7	Total Delay for Signalled Lanes (pcuHr):	7.96
C2	PRC for Signalled Lanes (%):	3.3	Total Delay for Signalled Lanes (pcuHr):	53.02
C3	PRC for Signalled Lanes (%):	-0.3	Total Delay for Signalled Lanes (pcuHr):	35.69
C4	PRC for Signalled Lanes (%):	19.8	Total Delay for Signalled Lanes (pcuHr):	16.05
	PRC Over All Lanes (%):	-0.3	Total Delay Over All Lanes(pcuHr):	114.55

Cycle Time (s): 192
Cycle Time (s): 192
Cycle Time (s): 192
Cycle Time (s): 192

Basic Results Summary
Scenario 10: '2026 BTM + Development PM' (FG4: '2026 PM BTM + Development', Plan 1: 'AM Peak')
Network Layout Diagram

Basic Results Summary



Basic Results Summary

Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**91.7%**	**72**	**26**	**0**	**170.3**	-	-
J1: Pingle Drive / Oxford	-	-	-		-	-	-	-	-	-	**60.8%**	**0**	**0**	**0**	**17.3**	-	-
1/1	Oxford Road (nb) Ahead	U	C1:A		2	148	-	850	1915	1496	56.8%	-	-	-	1.5	6.2	7.8
1/2	Oxford Road (nb) Ahead	U	C1:A		2	148	-	940	2055	1605	58.5%	-	-	-	1.6	6.1	8.9
1/3	Oxford Road (nb) Right	U	C1:F		2	41	-	108	2042	457	23.6%	-	-	-	1.1	37.2	2.7
1/4	Oxford Road (nb) Right	U	C1:F		2	41	-	115	2042	457	25.1%	-	-	-	1.2	37.4	2.9
2/2+2/1	Pingle Drive Left	U	C1:E		2	47	-	397	2005:1870	388+265	60.8 : 60.8%	-	-	-	4.1	37.2	6.7
2/3	Pingle Drive Right	U	C1:D		2	16	-	103	2067	194	53.2%	-	-	-	1.8	61.2	3.3
3/1	Oxford Road (sb) Left	U	C1:C		2	135	-	11	1908	1361	0.8%	-	-	-	0.0	5.5	0.1
3/2	Oxford Road (sb) Ahead	U	C1:B		2	121	-	657	2105	1349	48.7%	-	-	-	2.1	11.7	10.5
3/3	Oxford Road (sb) Ahead	U	C1:B		2	121	-	656	2105	1349	48.6%	-	-	-	2.1	11.7	10.5
4/1	Oxford Road (nb)	U	-		-	-	-	850	1940	1940	43.8%	-	-	-	0.4	1.7	0.4
4/2	Oxford Road (nb)	U	-		-	-	-	1043	2080	2080	50.1%	-	-	-	0.5	1.7	0.5
5/1	Pingle Drive	U	-		-	-	-	119	1965	1965	6.1%	-	-	-	0.0	1.0	0.0
5/2	Pingle Drive	U	-		-	-	-	115	2105	2105	5.5%	-	-	-	0.0	0.9	0.0
6/1	Right Turn Lane Right	U	C1:G		2	35	-	108	1980	382	28.3%	-	-	-	0.4	14.7	0.5
6/2	Right Turn Lane Right	U	C1:G		2	35	-	115	1980	382	30.1%	-	-	-	0.4	13.8	0.5
Ped Link: P1	Unnamed Ped Link	-	C1:H		2	23	-	0	-	0	0.0%	-	-	-	-	-	-

Basic Results Summary

Ped Link: P2	Unnamed Ped Link	-	C1:I		2	121	-	0	-	45375	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P3	Unnamed Ped Link	-	C1:J		2	109	-	0	-	0	0.0%	-	-	-	-	-	-
J2: Esso Roundabout	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**91.7%**	**72**	**26**	**0**	**75.6**	**-**	**-**
1/1	Oxford Road Left Ahead	U	C2:A		2	139	-	697	2006	1473	47.3%	-	-	-	0.9	4.6	5.1
1/2	Oxford Road Ahead	U	C2:A		2	139	-	851	2155	1583	53.8%	-	-	-	1.1	4.5	8.6
1/3	Oxford Road Right	U	C2:F		2	63	-	607	1973	668	90.9%	-	-	-	7.2	42.8	21.0
1/4	Oxford Road Right	U	C2:F		2	63	-	607	1973	668	90.9%	-	-	-	7.5	44.3	21.0
2/1	Central Link Right	U	C2:G		2	65	-	607	2029	708	85.7%	-	-	-	2.9	17.2	4.0
2/2	Central Link Right	U	C2:G		2	65	-	607	2024	706	85.9%	-	-	-	2.9	17.4	4.0
3/1	Ped Crossing Ahead	U	C2:J		2	137	-	868	1965	1423	61.0%	-	-	-	3.1	12.7	11.8
3/2	Ped Crossing Ahead	U	C2:J		2	137	-	1108	2105	1524	72.7%	-	-	-	3.7	12.0	17.2
4/1	Services Entry Left Ahead	O	-		-	-	-	98	2075	396	24.7%	72	26	0	0.2	7.0	0.8
6/1	Oxford Road (sb) Left	U	C2:B		2	70	-	685	2015	756	90.7%	-	-	-	8.4	44.3	21.7
6/2	Oxford Road (sb) Ahead	U	C2:B		2	70	-	592	2105	789	75.0%	-	-	-	4.6	28.2	14.5
6/3	Oxford Road (sb) Ahead	U	C2:B		2	70	-	433	2105	789	54.9%	-	-	-	2.7	22.6	7.3
7/1	Internal (eb) Ahead	U	C2:C		2	19	-	77	2015	220	34.9%	-	-	-	0.9	42.3	2.4
7/2	Internal (eb) Right	U	C2:C		2	19	-	31	1889	207	15.0%	-	-	-	0.4	48.1	0.9
8/1	Right Ahead	U	C2:E		2	76	-	622	2105	855	72.7%	-	-	-	2.2	12.7	3.6
8/2	Right Ahead	U	C2:E		2	76	-	434	2105	855	50.8%	-	-	-	1.1	9.2	1.7
9/1	Ahead Right	U	C2:H		2	31	-	317	2012	346	91.7%	-	-	-	6.6	74.7	12.8

Basic Results Summary

9/2	Right	U	C2:H		2	31	-	311	1973	339	91.7%	-	-	-	6.2	71.7	12.6
10/1	Ahead	U	-		-	-	-	803	2015	2015	39.9%	-	-	-	0.3	1.5	0.3
10/2	Ahead	U	-		-	-	-	1108	2155	2155	51.4%	-	-	-	0.5	1.7	6.0
10/3	Ahead Right	U	-		-	-	-	112	2079	2079	5.4%	-	-	-	0.0	0.9	0.0
11/2+11/1	A41 entry Ahead Left	U	C2:D		2	94	-	1249	2105:1965	677+836	82.5 : 82.5%	-	-	-	8.4	24.2	16.7
11/3	A41 entry Ahead	U	C2:D		2	94	-	583	2105	1052	55.4%	-	-	-	3.3	20.4	11.5
12/1	A41 exit	U	-		-	-	-	868	1965	1965	44.2%	-	-	-	0.4	1.6	0.4
Ped Link: P1	Unnamed Ped Link	-	C2:K		2	31	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C2:I		2	70	-	0	-	0	0.0%	-	-	-	-	-	-
J3: Oxford Road / Lakeview Drive	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**90.7%**	**0**	**0**	**0**	**50.3**	**-**	**-**
1/1	Oxford Road (nb) Ahead	U	C3:A		2	79	-	694	2155	909	76.3%	-	-	-	4.1	21.1	15.4
1/2	Oxford Road (nb) Ahead	U	C3:A		2	79	-	699	2155	909	76.9%	-	-	-	4.2	21.8	14.6
1/3	Oxford Road (nb) Ahead	U	C3:A		2	79	-	686	2105	888	77.2%	-	-	-	4.3	22.5	19.5
1/4+1/5	Oxford Road (nb) Right	U	C3:E		2	28	-	248	2155:1891	289+246	46.4 : 46.4%	-	-	-	2.3	32.7	3.8
2/2+2/1	Left Ahead	U	C3:C		2	134	-	1267	2080:1764	1020+464	85.4 : 85.4%	-	-	-	6.6	18.8	25.2
2/3	Ahead	U	C3:B		2	60	-	500	2105	680	73.6%	-	-	-	7.8	55.8	15.0
2/4	Ahead	U	C3:B		2	60	-	493	2105	680	72.5%	-	-	-	3.7	26.8	11.4
3/2+3/1	Lakeview Drive Right Left	U	C3:D	C3:F	2	63:105	42	1016	2005:1940	120+1000	90.7 : 90.7%	-	-	-	9.9	35.1	29.3
3/3	Lakeview Drive Right	U	C3:D		2	63	-	574	2005	679	84.6%	-	-	-	7.3	45.9	17.8
4/1	Lakeview Drive	U	-		-	-	-	530	1965	1965	27.0%	-	-	-	0.2	1.3	0.7

Basic Results Summary

4/2	Lakeview Drive	U	-		-	-	-	114	1965	1965	5.8%	-	-	-	0.0	1.0	0.0
Ped Link: P1	Unnamed Ped Link	-	C3:G		1	6	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C3:H		2	28	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C3:I		2	28	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C3:K		2	55	-	0	-	0	0.0%	-	-	-	-	-	-
J4: Oxford Road / Saxon Fields	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**84.9%**	**0**	**0**	**0**	**27.1**	**-**	**-**
1/2+1/1	Oxford Road Ahead Left	U	C4:C	C4:J	2	111:130	19	891	2205:1709	1274+49	67.4 : 67.4%	-	-	-	4.4	17.8	20.0
1/3	Oxford Road Ahead	U	C4:C		2	111	-	665	2205	1298	51.2%	-	-	-	2.8	15.0	13.1
1/4	Oxford Road Ahead	U	C4:C		2	111	-	629	2105	1239	50.8%	-	-	-	2.6	15.1	12.4
3/2+3/1	Saxon Fields Left Right	U	C4:D	C4:I	2	17:36	19	302	1619:1894	160+221	79.3 : 79.3%	-	-	-	5.2	62.2	7.3
4/1	Ahead	U	C4:A		2	144	-	1210	2205	1677	72.2%	-	-	-	4.6	13.6	27.6
4/2	Ahead	U	C4:A		2	144	-	1424	2205	1677	84.9%	-	-	-	5.6	14.2	32.3
4/3	Right	U	C4:B		2	28	-	137	1874	293	46.8%	-	-	-	1.9	48.9	4.3
Ped Link: P1	Unnamed Ped Link	-	C4:G		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P2	Unnamed Ped Link	-	C4:H		2	16	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	C4:F		2	133	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	C4:E		1	4	-	0	-	0	0.0%	-	-	-	-	-	-

C1	PRC for Signalled Lanes (%):	47.9	Total Delay for Signalled Lanes (pcuHr):	16.39	Cycle Time (s):	192
C2	PRC for Signalled Lanes (%):	-1.9	Total Delay for Signalled Lanes (pcuHr):	74.14	Cycle Time (s):	192
C3	PRC for Signalled Lanes (%):	-0.8	Total Delay for Signalled Lanes (pcuHr):	50.09	Cycle Time (s):	192
C4	PRC for Signalled Lanes (%):	6.0	Total Delay for Signalled Lanes (pcuHr):	27.07	Cycle Time (s):	192
	PRC Over All Lanes (%):	-1.9	Total Delay Over All Lanes(pcuHr):	170.34		

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.1.4646 []

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: Vendee Drive - A41 (With Consented Improvements) - 2017-08-23.j9
Path: N:\Projects\lmbic2 170211\Analysis\Modelling\Vendee Drive
Report generation date: 23/08/2017 14:12:49

Summary of junction performance

	AM							PM						
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2026 BTM													
Arm 1	0.4	4.58	0.27	A	4.84	A	28 % [Arm 4]	0.4	6.16	0.29	A	8.60	A	3 % [Arm 5]
Arm 2	2.8	4.53	0.74	A				5.3	7.17	0.84	A			
Arm 3	0.2	6.94	0.18	A				0.7	11.65	0.42	B			
Arm 4	2.7	5.07	0.73	A				5.6	10.15	0.85	B			
Arm 5	0.0	8.06	0.03	A				0.3	23.70	0.21	C			
	2026 BTM + Development													
Arm 1	0.7	6.44	0.42	A	5.76	A	18 % [Arm 4]	0.4	6.35	0.31	A	20.86	C	-2 % [Arm 5]
Arm 2	3.0	4.74	0.75	A				20.5	24.98	0.97	C			
Arm 3	0.2	7.19	0.18	A				2.3	40.67	0.72	E			
Arm 4	4.0	6.63	0.80	A				7.7	13.91	0.89	B			
Arm 5	0.0	10.43	0.03	B				0.5	44.45	0.34	E			

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	Vemdee Drove / A41 - Improved
Location	Bicester
Site number	
Date	20/07/2017
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTION\klewis
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 BTM	AM	ONE HOUR	07:45	09:15	15	✓
D6	2026 BTM	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 BTM + Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2026 BTM + Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2026 BTM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	4.84	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	Arm 4

Arms

Arms

Arm	Name	Description
1	Vendee Drive	
2	A41	
3	Unnamed Road	
4	A41	
5	Park & Ride	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.75	8.20	92.0	20.0	70.0	35.0	
2	7.50	12.00	38.0	36.0	70.0	18.0	
3	3.50	10.50	32.0	20.0	70.0	22.5	
4	7.00	12.00	25.0	35.0	70.0	25.0	
5	3.50	8.00	14.0	15.0	70.0	30.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.590	2264
2	0.799	3468
3	0.617	2368
4	0.745	3161
5	0.502	1704

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 BTM	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	259	100.000
2		ONE HOUR	✓	2043	100.000
3		ONE HOUR	✓	100	100.000
4		ONE HOUR	✓	1734	100.000
5		ONE HOUR	✓	11	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	150	2	107	0
	2	177	187	0	1659	20
	3	0	87	0	13	0
	4	261	1248	167	3	55
	5	1	0	0	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	0	0	4	0
	2	6	0	0	6	0
	3	0	34	0	8	0
	4	2	6	1	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.27	4.58	0.4	A	238	356
2	0.74	4.53	2.8	A	1875	2812
3	0.18	6.94	0.2	A	92	138
4	0.73	5.07	2.7	A	1591	2387
5	0.03	8.06	0.0	A	10	15

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	195	49	1278	1439	0.135	194	330	0.0	0.2	2.890	A
2	1538	385	217	3123	0.493	1534	1255	0.0	1.0	2.260	A
3	75	19	1624	1005	0.075	75	127	0.0	0.1	3.868	A
4	1305	326	354	2746	0.475	1302	1346	0.0	0.9	2.486	A
5	8	2	1599	855	0.010	8	56	0.0	0.0	4.251	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	233	58	1528	1285	0.181	233	394	0.2	0.2	3.421	A
2	1837	459	259	3090	0.594	1835	1501	1.0	1.5	2.859	A
3	90	22	1942	847	0.106	90	152	0.1	0.1	4.751	A
4	1559	390	423	2693	0.579	1557	1609	0.9	1.4	3.164	A
5	10	2	1913	689	0.014	10	67	0.0	0.0	5.303	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	285	71	1869	1074	0.265	285	482	0.2	0.4	4.555	A
2	2249	562	317	3045	0.739	2244	1836	1.5	2.8	4.465	A
3	110	28	2376	632	0.174	110	186	0.1	0.2	6.893	A
4	1909	477	517	2620	0.729	1904	1968	1.4	2.6	4.993	A
5	12	3	2339	462	0.026	12	82	0.0	0.0	7.999	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	285	71	1874	1071	0.266	285	483	0.4	0.4	4.577	A
2	2249	562	318	3044	0.739	2249	1841	2.8	2.8	4.525	A
3	110	28	2381	629	0.175	110	186	0.2	0.2	6.937	A
4	1909	477	519	2619	0.729	1909	1973	2.6	2.7	5.069	A
5	12	3	2345	459	0.026	12	83	0.0	0.0	8.058	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	233	58	1535	1280	0.182	233	396	0.4	0.2	3.439	A
2	1837	459	261	3089	0.595	1842	1508	2.8	1.5	2.900	A
3	90	22	1950	843	0.107	90	152	0.2	0.1	4.783	A
4	1559	390	425	2691	0.579	1564	1616	2.7	1.4	3.209	A
5	10	2	1921	684	0.014	10	68	0.0	0.0	5.342	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	195	49	1283	1436	0.136	195	331	0.2	0.2	2.902	A
2	1538	385	218	3122	0.493	1540	1261	1.5	1.0	2.278	A
3	75	19	1631	1002	0.075	75	127	0.1	0.1	3.886	A
4	1305	326	355	2745	0.476	1307	1351	1.4	0.9	2.506	A
5	8	2	1606	851	0.010	8	57	0.0	0.0	4.269	A

2026 BTM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	8.60	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	3	Arm 5

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 BTM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	220	100.000
2		ONE HOUR	✓	2465	100.000
3		ONE HOUR	✓	200	100.000
4		ONE HOUR	✓	1866	100.000
5		ONE HOUR	✓	37	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	84	0	136	0
	2	182	549	0	1723	11
	3	3	82	0	114	1
	4	375	1443	40	0	8
	5	5	0	0	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	0	0	1	0
	2	1	0	0	3	0
	3	0	1	0	4	0
	4	0	4	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.29	6.16	0.4	A	202	303
2	0.84	7.17	5.3	A	2262	3393
3	0.42	11.65	0.7	B	184	275
4	0.85	10.15	5.6	B	1712	2568
5	0.21	23.70	0.3	C	34	51

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	166	41	1610	1280	0.129	165	424	0.0	0.1	3.227	A
2	1856	464	156	3272	0.567	1851	1619	0.0	1.3	2.524	A
3	151	38	1977	1094	0.138	150	30	0.0	0.2	3.811	A
4	1405	351	622	2616	0.537	1400	1505	0.0	1.2	2.950	A
5	28	7	2007	674	0.041	28	15	0.0	0.0	5.572	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	198	49	1926	1090	0.181	197	507	0.1	0.2	4.033	A
2	2216	554	187	3247	0.682	2213	1937	1.3	2.1	3.467	A
3	180	45	2363	857	0.210	179	36	0.2	0.3	5.310	A
4	1677	419	743	2528	0.664	1674	1800	1.2	1.9	4.200	A
5	33	8	2400	472	0.071	33	18	0.0	0.1	8.205	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	242	61	2348	835	0.290	241	618	0.2	0.4	6.053	A
2	2714	679	228	3215	0.844	2702	2362	2.1	5.2	6.857	A
3	220	55	2886	537	0.410	219	44	0.3	0.7	11.259	B
4	2055	514	907	2409	0.853	2041	2197	1.9	5.4	9.431	A
5	41	10	2926	201	0.202	40	22	0.1	0.2	22.239	C

17:30 - 17:45

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(s)	
1	242	61	2362	827	0.293	242	622	0.4	0.4	6.155	A
2	2714	679	229	3214	0.844	2714	2375	5.2	5.3	7.171	A
3	220	55	2898	529	0.416	220	44	0.7	0.7	11.650	B
4	2055	514	911	2406	0.854	2054	2207	5.4	5.6	10.148	B
5	41	10	2943	192	0.212	41	22	0.2	0.3	23.698	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	198	49	1945	1078	0.183	199	512	0.4	0.2	4.096	A
2	2216	554	188	3246	0.683	2228	1955	5.3	2.2	3.579	A
3	180	45	2381	846	0.212	182	36	0.7	0.3	5.429	A
4	1677	419	749	2524	0.665	1692	1813	5.6	2.0	4.399	A
5	33	8	2423	460	0.072	34	18	0.3	0.1	8.468	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	166	41	1619	1274	0.130	166	426	0.2	0.2	3.247	A
2	1856	464	157	3271	0.567	1859	1628	2.2	1.3	2.558	A
3	151	38	1986	1088	0.138	151	30	0.3	0.2	3.842	A
4	1405	351	625	2614	0.537	1408	1512	2.0	1.2	2.995	A
5	28	7	2018	668	0.042	28	15	0.1	0.0	5.626	A

2026 BTM + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	5.76	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	18	Arm 4

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 BTM + Development	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	369	100.000
2		ONE HOUR	✓	2076	100.000
3		ONE HOUR	✓	100	100.000
4		ONE HOUR	✓	1982	100.000
5		ONE HOUR	✓	11	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	260	2	107	0
	2	187	187	0	1682	20
	3	0	87	0	13	0
	4	261	1496	167	3	55
	5	1	0	0	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	0	0	4	0
	2	6	0	0	6	0
	3	0	34	0	8	0
	4	2	0	1	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.42	6.44	0.7	A	339	508
2	0.75	4.74	3.0	A	1905	2857
3	0.18	7.19	0.2	A	92	138
4	0.80	6.63	4.0	A	1819	2728
5	0.03	10.43	0.0	B	10	15

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	278	69	1464	1370	0.203	277	337	0.0	0.3	3.288	A
2	1563	391	217	3123	0.501	1559	1524	0.0	1.0	2.297	A
3	75	19	1649	993	0.076	75	127	0.0	0.1	3.920	A
4	1492	373	361	2860	0.522	1488	1363	0.0	1.1	2.615	A
5	8	2	1793	786	0.011	8	56	0.0	0.0	4.629	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	332	83	1751	1200	0.276	331	403	0.3	0.4	4.140	A
2	1866	467	259	3090	0.604	1864	1822	1.0	1.5	2.932	A
3	90	22	1972	832	0.108	90	152	0.1	0.1	4.845	A
4	1782	445	432	2803	0.636	1779	1630	1.1	1.7	3.508	A
5	10	2	2144	606	0.016	10	67	0.0	0.0	6.039	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	406	102	2139	970	0.419	405	493	0.4	0.7	6.348	A
2	2286	571	317	3045	0.751	2280	2227	1.5	2.9	4.669	A
3	110	28	2412	614	0.179	110	185	0.1	0.2	7.138	A
4	2182	546	528	2725	0.801	2174	1993	1.7	3.9	6.425	A
5	12	3	2619	362	0.033	12	82	0.0	0.0	10.279	B

08:30 - 08:45

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(s)	
1	406	102	2147	966	0.421	406	494	0.7	0.7	6.435	A
2	2286	571	318	3044	0.751	2286	2235	2.9	3.0	4.744	A
3	110	28	2418	611	0.180	110	186	0.2	0.2	7.189	A
4	2182	546	530	2724	0.801	2182	1998	3.9	4.0	6.628	A
5	12	3	2629	357	0.034	12	83	0.0	0.0	10.428	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	332	83	1761	1194	0.278	333	405	0.7	0.4	4.188	A
2	1866	467	261	3088	0.604	1872	1833	3.0	1.5	2.972	A
3	90	22	1980	828	0.109	90	153	0.2	0.1	4.880	A
4	1782	445	434	2801	0.636	1791	1637	4.0	1.8	3.591	A
5	10	2	2157	599	0.017	10	68	0.0	0.0	6.110	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	278	69	1471	1366	0.203	278	339	0.4	0.3	3.309	A
2	1563	391	218	3122	0.501	1565	1531	1.5	1.0	2.317	A
3	75	19	1656	990	0.076	75	127	0.1	0.1	3.939	A
4	1492	373	363	2859	0.522	1495	1368	1.8	1.1	2.646	A
5	8	2	1801	782	0.011	8	57	0.0	0.0	4.655	A

2026 BTM + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 2 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction Type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1,2,3,4,5	20.86	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-2	Arm 5

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 BTM + Development	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		ONE HOUR	✓	228	100.000
2		ONE HOUR	✓	2839	100.000
3		ONE HOUR	✓	200	100.000
4		ONE HOUR	✓	1884	100.000
5		ONE HOUR	✓	37	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	92	0	136	0
	2	297	549	11	1982	0
	3	3	82	0	114	1
	4	375	1461	40	0	8
	5	5	0	0	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	0	0	1	0
	2	1	0	0	2	0
	3	0	1	0	4	0
	4	0	4	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1	0.31	6.35	0.4	A	209	314
2	0.97	24.98	20.5	C	2605	3908
3	0.72	40.67	2.3	E	184	275
4	0.89	13.91	7.7	B	1729	2593
5	0.34	44.45	0.5	E	34	51

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	172	43	1623	1272	0.135	171	510	0.0	0.2	3.267	A
2	2137	534	156	3293	0.649	2130	1638	0.0	1.8	3.077	A
3	151	38	2248	936	0.161	150	38	0.0	0.2	4.574	A
4	1418	355	699	2559	0.554	1413	1698	0.0	1.2	3.129	A
5	28	7	2106	623	0.045	28	7	0.0	0.0	6.045	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	205	51	1941	1081	0.190	205	610	0.2	0.2	4.108	A
2	2552	638	187	3269	0.781	2546	1959	1.8	3.5	4.932	A
3	180	45	2686	669	0.269	179	46	0.2	0.4	7.341	A
4	1694	423	836	2460	0.688	1690	2030	1.2	2.2	4.650	A
5	33	8	2517	412	0.081	33	8	0.0	0.1	9.506	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	251	63	2353	832	0.302	250	739	0.2	0.4	6.177	A
2	3126	781	227	3237	0.966	3071	2376	3.5	17.2	17.744	C
3	220	55	3243	330	0.668	214	56	0.4	1.8	29.855	D
4	2074	519	1007	2336	0.888	2055	2450	2.2	7.1	12.049	B
5	41	10	3052	137	0.297	39	10	0.1	0.4	36.506	E

17:30 - 17:45

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	LOS

	(Veh/hr)	(Veh)	(Veh/hr)	(Veh/hr)		(Veh/hr)	(Veh/hr)	(Veh)	(Veh)	(s)	
1	251	63	2377	818	0.307	251	747	0.4	0.4	6.350	A
2	3126	781	229	3236	0.966	3113	2399	17.2	20.5	24.981	C
3	220	55	3285	304	0.725	218	56	1.8	2.3	40.667	E
4	2074	519	1021	2326	0.892	2072	2482	7.1	7.7	13.911	B
5	41	10	3083	121	0.337	40	10	0.4	0.5	44.447	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	205	51	1980	1057	0.194	206	623	0.4	0.2	4.232	A
2	2552	638	189	3267	0.781	2619	1996	20.5	3.7	6.131	A
3	180	45	2762	623	0.289	188	47	2.3	0.4	8.417	A
4	1694	423	861	2442	0.694	1715	2088	7.7	2.3	5.096	A
5	33	8	2568	386	0.086	35	8	0.5	0.1	10.299	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	LOS
1	172	43	1634	1265	0.136	172	514	0.2	0.2	3.295	A
2	2137	534	157	3292	0.649	2145	1649	3.7	1.9	3.155	A
3	151	38	2263	927	0.162	151	39	0.4	0.2	4.647	A
4	1418	355	704	2556	0.555	1423	1710	2.3	1.3	3.187	A
5	28	7	2120	616	0.045	28	7	0.1	0.0	6.128	A

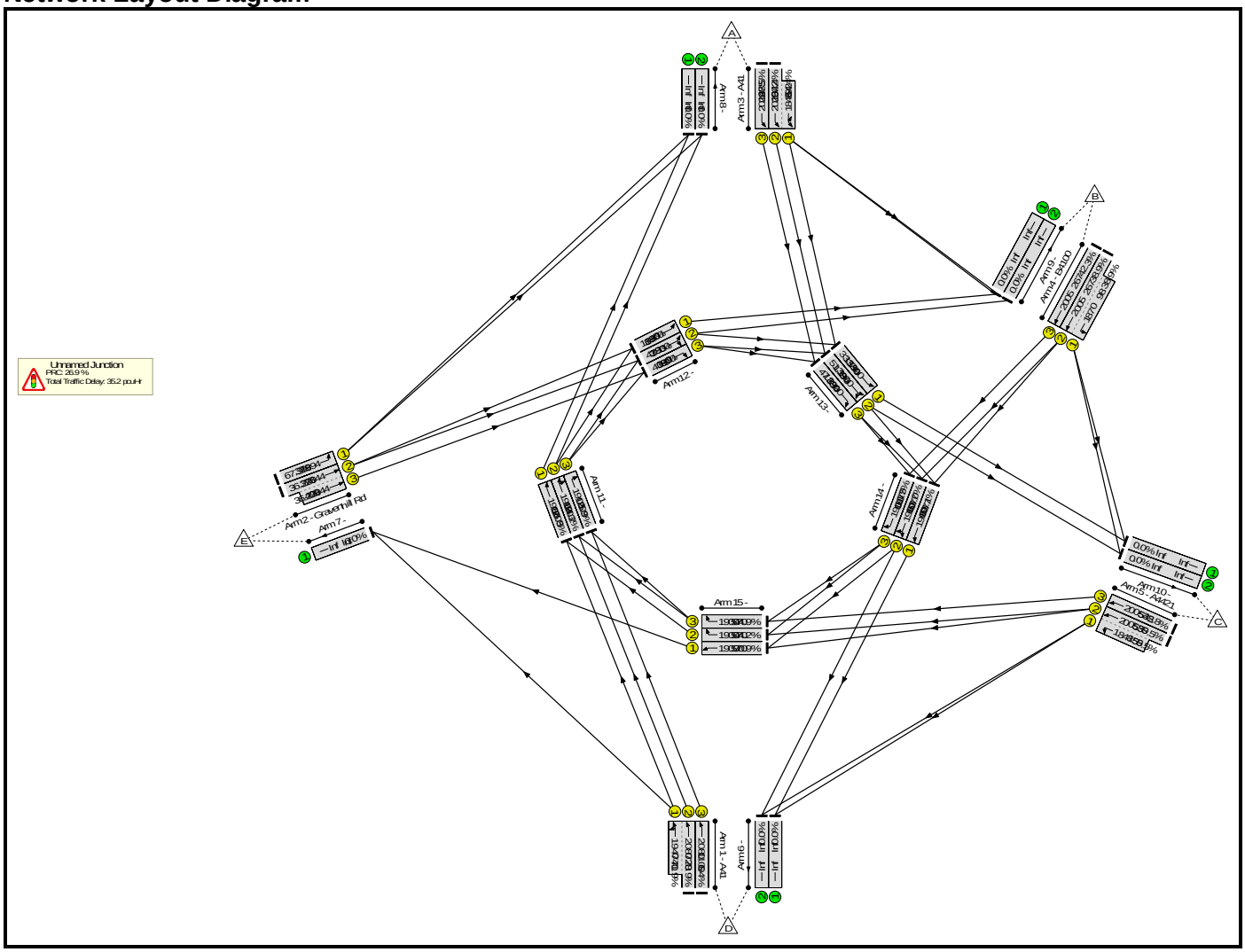
Basic Results Summary

User and Project Details

Project:	**Bicester Office Park**
Title:	**Rodney House Roundabout**
Location:	Bicester
File name:	Rodney House - Consented Junction.lsg3x
Author:	
Company:	Motion
Address:	
Notes:	

Scenario 1: '2026 AM No Development' (FG1: '2026 AM No Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.9%**	**0**	**0**	**0**	**35.2**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**70.9%**	**0**	**0**	**0**	**35.2**	**-**	**-**
1/2+1/1	A41 Left Ahead	U	J		1	31	-	1041	2080:1940	728+741	70.9 : 70.9%	-	-	-	3.8	13.0	6.8
1/3	A41 Ahead	U	J		1	31	-	71	2080	1109	6.4%	-	-	-	0.2	8.5	0.6
2/1	Gravenhill Rd Left	U	M		1	11	-	255	1894	379	67.3%	-	-	-	2.6	36.5	4.9
2/2+2/3	Gravenhill Rd Ahead	U	M		1	11	-	283	2044:2044	373+409	36.2 : 36.2%	-	-	-	1.9	24.3	2.4
3/2+3/1	A41 U-Turn Ahead	U	A		1	37	-	1041	2029:1846	1022+892	54.4 : 54.4%	-	-	-	2.2	7.6	5.2
3/3	A41 Ahead	U	A		1	37	-	610	2029	1285	47.5%	-	-	-	1.4	8.4	5.7
4/2+4/1	B4100 Left Ahead	U	D		1	7	-	142	2005:1870	267+98	38.9 : 38.9%	-	-	-	1.2	31.6	1.9
4/3	B4100 Ahead	U	D		1	7	-	113	2005	267	42.3%	-	-	-	1.1	35.5	2.1
5/2+5/1	A4421 Left Ahead	U	G		1	15	-	410	2005:1848	535+155	59.5 : 59.5%	-	-	-	2.9	25.1	5.3
5/3	A4421 Ahead	U	G		1	15	-	229	2005	535	42.8%	-	-	-	1.5	24.1	3.5
11/1	Ahead	U	N		1	37	-	680	1900	1203	56.5%	-	-	-	1.4	7.2	6.5
11/2	Ahead Right	U	N		1	37	-	772	1900	1203	64.2%	-	-	-	1.8	8.3	8.0
11/3	Right	U	N		1	37	-	71	1900	1203	5.9%	-	-	-	0.1	5.5	0.7
12/1	Ahead	U	B		1	11	-	64	1900	380	16.8%	-	-	-	0.4	22.2	0.9
12/2	Ahead Right	U	B		1	11	-	179	1900	380	47.1%	-	-	-	1.0	20.9	3.2
12/3	Right	U	B		1	11	-	152	1900	380	40.0%	-	-	-	0.8	20.1	2.8
13/1	Ahead	U	E		1	41	-	446	1900	1330	33.5%	-	-	-	0.5	4.1	3.3
13/2	Ahead Right	U	E		1	41	-	682	1900	1330	51.3%	-	-	-	1.1	5.8	6.6
13/3	Right	U	E		1	41	-	636	1900	1330	47.8%	-	-	-	1.0	5.7	7.1

Basic Results Summary

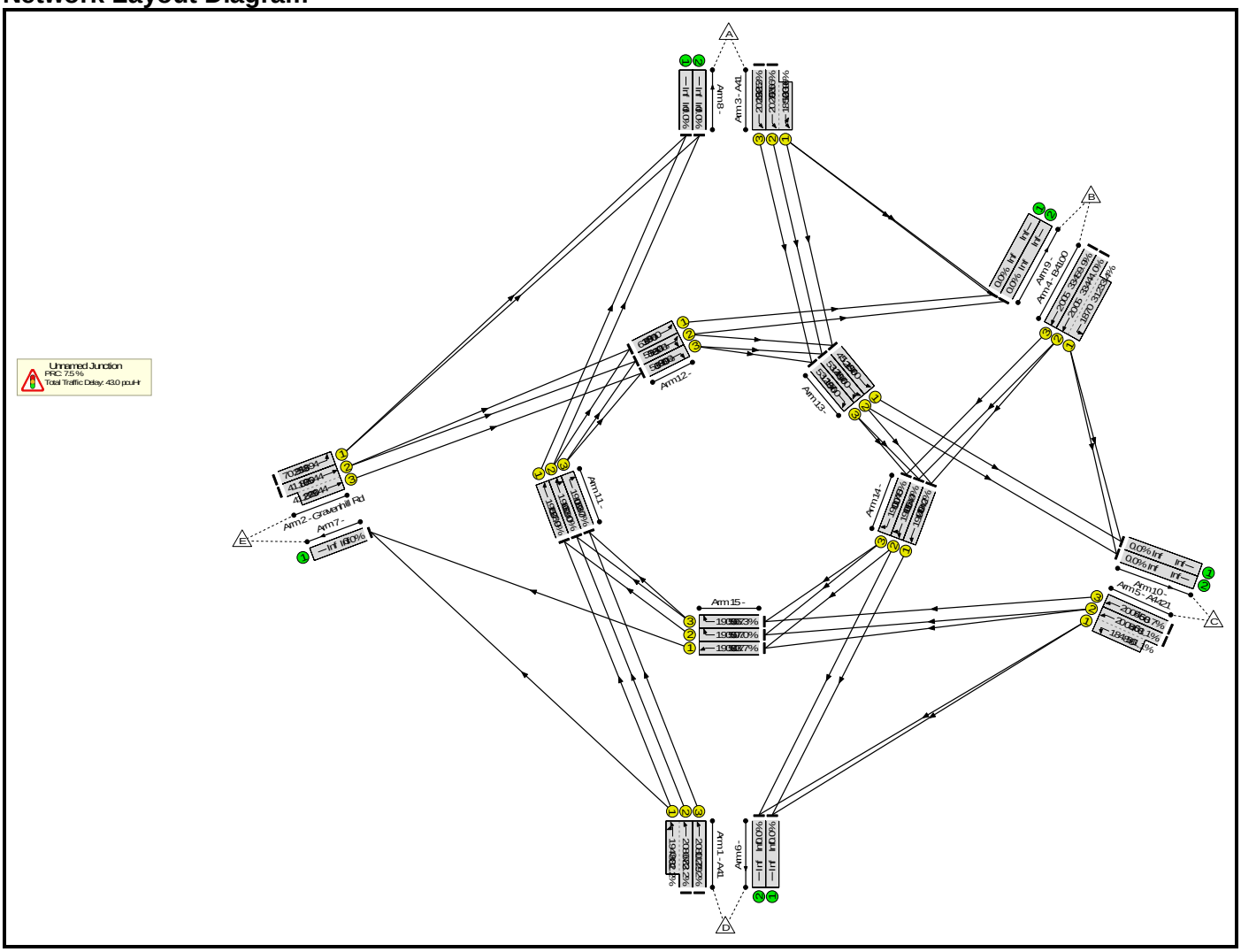
14/1	Ahead	U	H		1	33	-	679	1900	1077	63.1%	-	-	-	1.5	8.0	4.0
14/2	Ahead Right	U	H		1	33	-	678	1900	1077	63.0%	-	-	-	1.3	6.9	2.6
14/3	Right	U	H		1	33	-	113	1900	1077	10.5%	-	-	-	0.2	7.8	1.9
15/1	Ahead	U	K		1	17	-	404	1900	570	70.9%	-	-	-	3.1	27.3	6.5
15/2	Right	U	K		1	17	-	252	1900	570	44.2%	-	-	-	0.9	13.2	3.2
15/3	Right	U	K		1	17	-	256	1900	570	44.9%	-	-	-	1.3	17.7	4.4

C1	Stream: 1 PRC for Signalled Lanes (%):	65.5	Total Delay for Signalled Lanes (pcuHr):	5.91	Cycle Time (s): 60
C1	Stream: 2 PRC for Signalled Lanes (%):	75.5	Total Delay for Signalled Lanes (pcuHr):	4.97	Cycle Time (s): 60
C1	Stream: 3 PRC for Signalled Lanes (%):	42.7	Total Delay for Signalled Lanes (pcuHr):	7.44	Cycle Time (s): 60
C1	Stream: 4 PRC for Signalled Lanes (%):	26.9	Total Delay for Signalled Lanes (pcuHr):	9.18	Cycle Time (s): 60
C1	Stream: 5 PRC for Signalled Lanes (%):	33.7	Total Delay for Signalled Lanes (pcuHr):	7.73	Cycle Time (s): 60
	PRC Over All Lanes (%):	26.9	Total Delay Over All Lanes(pcuHr):	35.22	

Basic Results Summary

Scenario 2: '2026 PM No Development' (FG2: '2026 PM No Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**	**0**	**0**	**0**	**43.0**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**	**0**	**0**	**0**	**43.0**	**-**	**-**
1/2+1/1	A41 Left Ahead	U	J		1	33	-	1211	2080:1940	673+801	82.2 : 82.2%	-	-	-	5.0	14.9	9.9
1/3	A41 Ahead	U	J		1	33	-	262	2080	1179	22.2%	-	-	-	0.6	8.4	2.3
2/1	Gravenhill Rd Left	U	M		1	7	-	179	1894	253	70.9%	-	-	-	2.4	48.6	4.0
2/2+2/3	Gravenhill Rd Ahead	U	M		1	7	-	183	2044:2044	165+273	41.8 : 41.8%	-	-	-	1.6	30.7	2.1
3/2+3/1	A41 U-Turn Ahead	U	A		1	37	-	1104	2029:1852	726+1009	63.6 : 63.6%	-	-	-	2.6	8.6	6.8
3/3	A41 Ahead	U	A		1	37	-	672	2029	1285	52.3%	-	-	-	1.7	9.0	6.5
4/2+4/1	B4100 Left Ahead	U	D		1	9	-	251	2005:1870	334+312	44.0 : 33.4%	-	-	-	1.9	26.9	2.5
4/3	B4100 Ahead	U	D		1	9	-	200	2005	334	59.9%	-	-	-	2.0	36.4	3.8
5/2+5/1	A4421 Left Ahead	U	G		1	13	-	320	2005:1848	468+56	61.1 : 61.1%	-	-	-	2.6	29.1	5.0
5/3	A4421 Ahead	U	G		1	13	-	237	2005	468	50.7%	-	-	-	1.8	27.8	3.9
11/1	Ahead	U	N		1	41	-	770	1900	1330	57.9%	-	-	-	1.2	5.6	3.5
11/2	Ahead Right	U	N		1	41	-	838	1900	1330	63.0%	-	-	-	1.4	6.1	4.7
11/3	Right	U	N		1	41	-	262	1900	1330	19.7%	-	-	-	0.4	4.8	1.5
12/1	Ahead	U	B		1	11	-	26	1900	380	6.8%	-	-	-	0.1	17.2	0.4
12/2	Ahead Right	U	B		1	11	-	211	1900	380	55.5%	-	-	-	1.4	24.1	3.3
12/3	Right	U	B		1	11	-	215	1900	380	56.6%	-	-	-	1.2	20.7	3.7
13/1	Ahead	U	E		1	39	-	571	1900	1267	45.1%	-	-	-	0.8	5.0	2.6
13/2	Ahead Right	U	E		1	39	-	676	1900	1267	53.4%	-	-	-	1.8	9.4	8.6
13/3	Right	U	E		1	39	-	673	1900	1267	53.1%	-	-	-	0.6	3.4	4.8

Basic Results Summary

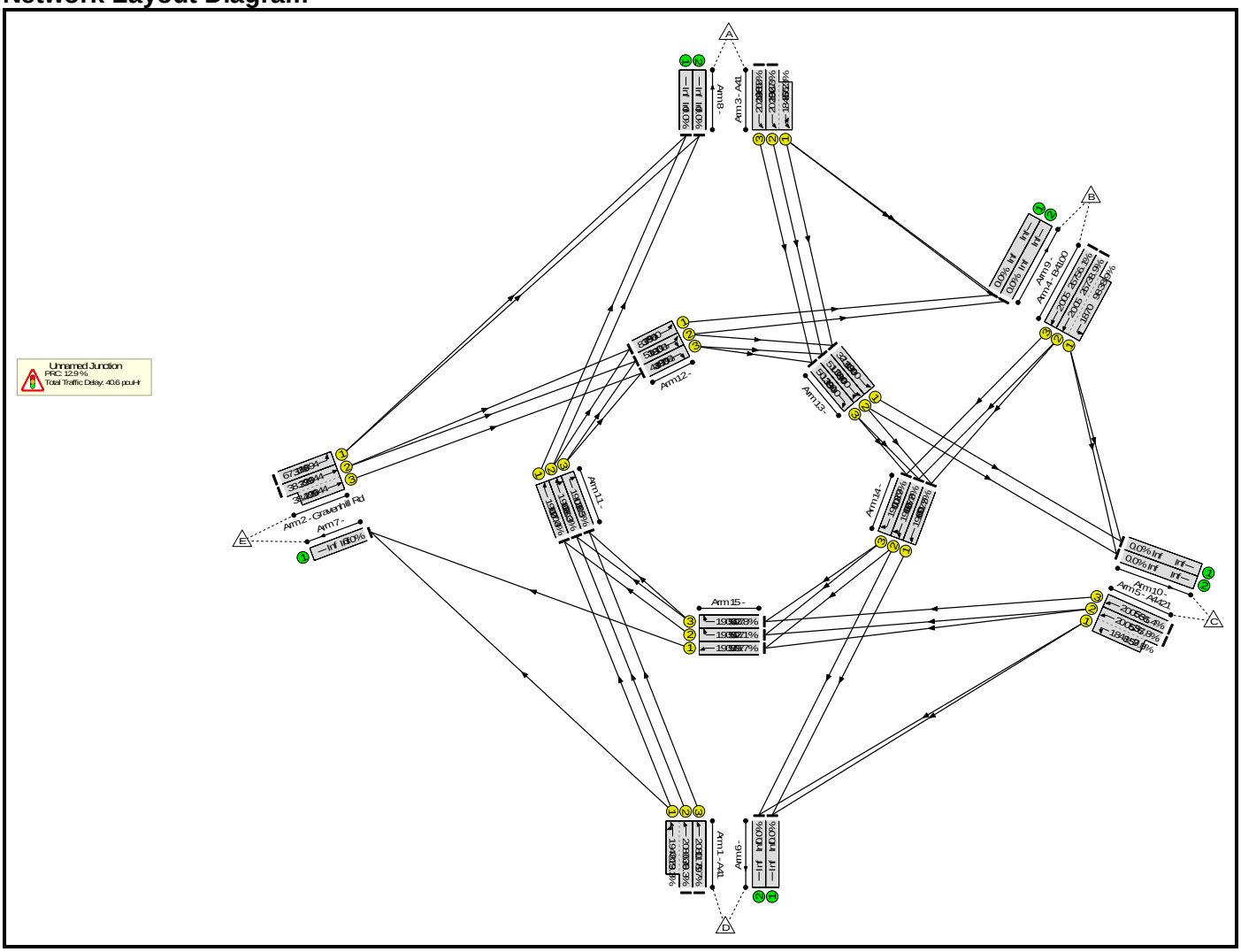
14/1	Ahead	U	H		1	35	-	561	1900	1140	49.2%	-	-	-	0.9	5.7	2.8
14/2	Ahead Right	U	H		1	35	-	746	1900	1140	65.4%	-	-	-	1.7	8.2	9.6
14/3	Right	U	H		1	35	-	200	1900	1140	17.5%	-	-	-	0.9	16.9	3.4
15/1	Ahead	U	K		1	15	-	424	1900	507	83.7%	-	-	-	4.8	40.7	9.3
15/2	Right	U	K		1	15	-	289	1900	507	57.0%	-	-	-	2.3	28.7	3.8
15/3	Right	U	K		1	15	-	285	1900	507	56.3%	-	-	-	1.2	15.4	1.7

C1	Stream: 1 PRC for Signalled Lanes (%):	41.4	Total Delay for Signalled Lanes (pcuHr):	7.09	Cycle Time (s): 60
C1	Stream: 2 PRC for Signalled Lanes (%):	50.4	Total Delay for Signalled Lanes (pcuHr):	7.11	Cycle Time (s): 60
C1	Stream: 3 PRC for Signalled Lanes (%):	37.5	Total Delay for Signalled Lanes (pcuHr):	7.93	Cycle Time (s): 60
C1	Stream: 4 PRC for Signalled Lanes (%):	7.5	Total Delay for Signalled Lanes (pcuHr):	13.94	Cycle Time (s): 60
C1	Stream: 5 PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	6.95	Cycle Time (s): 60
	PRC Over All Lanes (%):	7.5	Total Delay Over All Lanes(pcuHr):	43.01	

Basic Results Summary

Scenario 3: '2026 AM With Development' (FG3: '2026 AM With Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.7%**	**0**	**0**	**0**	**40.6**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.7%**	**0**	**0**	**0**	**40.6**	**-**	**-**
1/2+1/1	A41 Left Ahead	U	J		1	33	-	1148	2080:1940	636+813	79.3 : 79.3%	-	-	-	4.4	13.9	8.7
1/3	A41 Ahead	U	J		1	33	-	102	2080	1179	8.7%	-	-	-	0.2	7.6	0.8
2/1	Gravenhill Rd Left	U	M		1	11	-	254	1894	379	67.1%	-	-	-	2.6	36.4	4.9
2/2+2/3	Gravenhill Rd Ahead	U	M		1	11	-	283	2044:2044	333+409	38.2 : 38.2%	-	-	-	1.9	24.6	2.5
3/2+3/1	A41 U-Turn Ahead	U	A		1	37	-	1069	2029:1846	1027+872	56.3 : 56.3%	-	-	-	2.3	7.7	5.5
3/3	A41 Ahead	U	A		1	37	-	601	2029	1285	46.8%	-	-	-	1.4	8.4	5.6
4/2+4/1	B4100 Left Ahead	U	D		1	7	-	142	2005:1870	267+98	38.9 : 38.9%	-	-	-	1.2	31.6	1.9
4/3	B4100 Ahead	U	D		1	7	-	150	2005	267	56.1%	-	-	-	1.6	39.5	3.0
5/2+5/1	A4421 Left Ahead	U	G		1	15	-	401	2005:1848	535+159	57.8 : 57.8%	-	-	-	2.8	24.7	5.1
5/3	A4421 Ahead	U	G		1	15	-	275	2005	535	51.4%	-	-	-	2.0	25.6	4.3
11/1	Ahead	U	N		1	37	-	811	1900	1203	67.4%	-	-	-	2.2	9.6	6.5
11/2	Ahead Right	U	N		1	37	-	822	1900	1203	68.3%	-	-	-	2.4	10.4	12.3
11/3	Right	U	N		1	37	-	102	1900	1203	8.5%	-	-	-	0.1	3.8	0.2
12/1	Ahead	U	B		1	11	-	33	1900	380	8.7%	-	-	-	0.2	17.2	0.3
12/2	Ahead Right	U	B		1	11	-	194	1900	380	51.1%	-	-	-	1.4	25.9	3.5
12/3	Right	U	B		1	11	-	168	1900	380	44.2%	-	-	-	0.6	12.1	2.7
13/1	Ahead	U	E		1	41	-	433	1900	1330	32.6%	-	-	-	0.6	5.3	2.4
13/2	Ahead Right	U	E		1	41	-	678	1900	1330	51.0%	-	-	-	0.9	4.8	3.3
13/3	Right	U	E		1	41	-	669	1900	1330	50.3%	-	-	-	0.8	4.1	3.7

Basic Results Summary

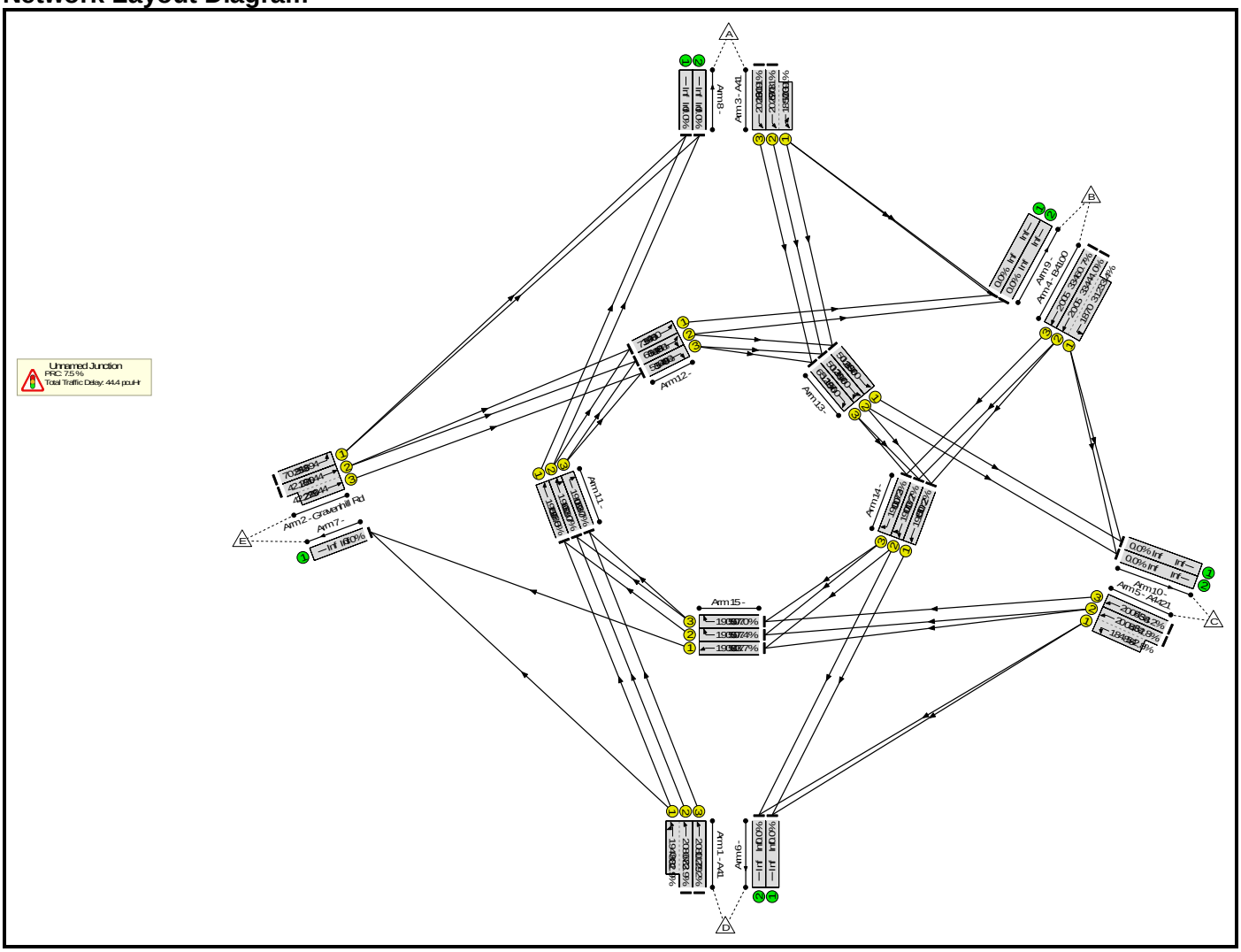
14/1	Ahead	U	H		1	33	-	662	1900	1077	61.5%	-	-	-	1.6	8.9	4.0
14/2	Ahead Right	U	H		1	33	-	708	1900	1077	65.8%	-	-	-	1.8	9.0	4.8
14/3	Right	U	H		1	33	-	150	1900	1077	13.9%	-	-	-	0.4	8.9	2.6
15/1	Ahead	U	K		1	15	-	404	1900	507	79.7%	-	-	-	3.9	35.1	7.7
15/2	Right	U	K		1	15	-	264	1900	507	52.1%	-	-	-	1.8	23.9	2.6
15/3	Right	U	K		1	15	-	318	1900	507	62.8%	-	-	-	1.6	17.8	2.5

C1	Stream: 1 PRC for Signalled Lanes (%):	59.9	Total Delay for Signalled Lanes (pcuHr):	5.81	Cycle Time (s): 60
C1	Stream: 2 PRC for Signalled Lanes (%):	60.4	Total Delay for Signalled Lanes (pcuHr):	5.20	Cycle Time (s): 60
C1	Stream: 3 PRC for Signalled Lanes (%):	36.9	Total Delay for Signalled Lanes (pcuHr):	8.49	Cycle Time (s): 60
C1	Stream: 4 PRC for Signalled Lanes (%):	12.9	Total Delay for Signalled Lanes (pcuHr):	11.92	Cycle Time (s): 60
C1	Stream: 5 PRC for Signalled Lanes (%):	31.8	Total Delay for Signalled Lanes (pcuHr):	9.17	Cycle Time (s): 60
	PRC Over All Lanes (%):	12.9	Total Delay Over All Lanes(pcuHr):	40.58	

Basic Results Summary

Scenario 4: '2026 PM With Development' (FG4: '2026 PM With Dev', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**	**0**	**0**	**0**	**44.4**	**-**	**-**
Unnamed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.7%**	**0**	**0**	**0**	**44.4**	**-**	**-**
1/2+1/1	A41 Left Ahead	U	J		1	33	-	1222	2080:1940	673+801	82.9 : 82.9%	-	-	-	5.2	15.2	10.4
1/3	A41 Ahead	U	J		1	33	-	262	2080	1179	22.2%	-	-	-	0.6	8.4	2.3
2/1	Gravenhill Rd Left	U	M		1	7	-	179	1894	253	70.9%	-	-	-	2.4	48.6	4.0
2/2+2/3	Gravenhill Rd Ahead	U	M		1	7	-	183	2044:2044	161+273	42.2 : 42.2%	-	-	-	1.6	30.8	2.1
3/2+3/1	A41 U-Turn Ahead	U	A		1	38	-	1203	2029:1851	678+1039	70.1 : 70.1%	-	-	-	3.0	9.1	8.0
3/3	A41 Ahead	U	A		1	38	-	793	2029	1319	60.1%	-	-	-	2.1	9.4	8.2
4/2+4/1	B4100 Left Ahead	U	D		1	9	-	251	2005:1870	334+312	44.0 : 33.4%	-	-	-	1.9	26.9	2.5
4/3	B4100 Ahead	U	D		1	9	-	203	2005	334	60.7%	-	-	-	2.1	36.8	3.9
5/2+5/1	A4421 Left Ahead	U	G		1	12	-	307	2005:1848	434+54	62.8 : 62.8%	-	-	-	2.6	30.9	4.9
5/3	A4421 Ahead	U	G		1	12	-	253	2005	434	58.2%	-	-	-	2.2	30.9	4.4
11/1	Ahead	U	N		1	41	-	778	1900	1330	58.5%	-	-	-	1.3	5.9	3.8
11/2	Ahead Right	U	N		1	41	-	847	1900	1330	63.7%	-	-	-	1.5	6.3	4.7
11/3	Right	U	N		1	41	-	262	1900	1330	19.7%	-	-	-	0.4	4.8	1.6
12/1	Ahead	U	B		1	10	-	26	1900	348	7.5%	-	-	-	0.1	19.2	0.4
12/2	Ahead Right	U	B		1	10	-	233	1900	348	66.9%	-	-	-	1.9	29.6	3.9
12/3	Right	U	B		1	10	-	193	1900	348	55.4%	-	-	-	1.1	20.8	3.4
13/1	Ahead	U	E		1	39	-	641	1900	1267	50.6%	-	-	-	1.1	6.0	3.4
13/2	Ahead Right	U	E		1	39	-	637	1900	1267	50.3%	-	-	-	1.2	6.9	4.3
13/3	Right	U	E		1	39	-	824	1900	1267	65.1%	-	-	-	1.4	6.3	6.8

Basic Results Summary

14/1	Ahead	U	H		1	36	-	588	1900	1172	50.2%	-	-	-	1.1	6.9	3.7
14/2	Ahead Right	U	H		1	36	-	863	1900	1172	73.7%	-	-	-	2.1	8.9	3.9
14/3	Right	U	H		1	36	-	203	1900	1172	17.3%	-	-	-	0.5	8.8	3.5
15/1	Ahead	U	K		1	15	-	424	1900	507	83.7%	-	-	-	4.8	40.6	8.8
15/2	Right	U	K		1	15	-	291	1900	507	57.4%	-	-	-	1.0	12.3	2.9
15/3	Right	U	K		1	15	-	289	1900	507	57.0%	-	-	-	1.2	15.5	4.9

C1	Stream: 1 PRC for Signalled Lanes (%):	28.4	Total Delay for Signalled Lanes (pcuHr):	8.28	Cycle Time (s): 60
C1	Stream: 2 PRC for Signalled Lanes (%):	38.3	Total Delay for Signalled Lanes (pcuHr):	7.68	Cycle Time (s): 60
C1	Stream: 3 PRC for Signalled Lanes (%):	22.2	Total Delay for Signalled Lanes (pcuHr):	8.55	Cycle Time (s): 60
C1	Stream: 4 PRC for Signalled Lanes (%):	7.5	Total Delay for Signalled Lanes (pcuHr):	12.79	Cycle Time (s): 60
C1	Stream: 5 PRC for Signalled Lanes (%):	27.0	Total Delay for Signalled Lanes (pcuHr):	7.08	Cycle Time (s): 60
	PRC Over All Lanes (%):	7.5	Total Delay Over All Lanes(pcuHr):	44.38	

Appendix G

Proposed Junction Mitigation

Legend

Highway Boundary

N:\Projects\mbic2 170211\Drawings\170211-02.dwg

motion

84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Golden Cross House
8 Duncannon Street
London
WC2N 4JF

T: 020 7031 8141

www.motion.co.uk

Project:
Bicester Office Park

Title:
A41/Lakeview Drive - Proposed Highway Arrangement

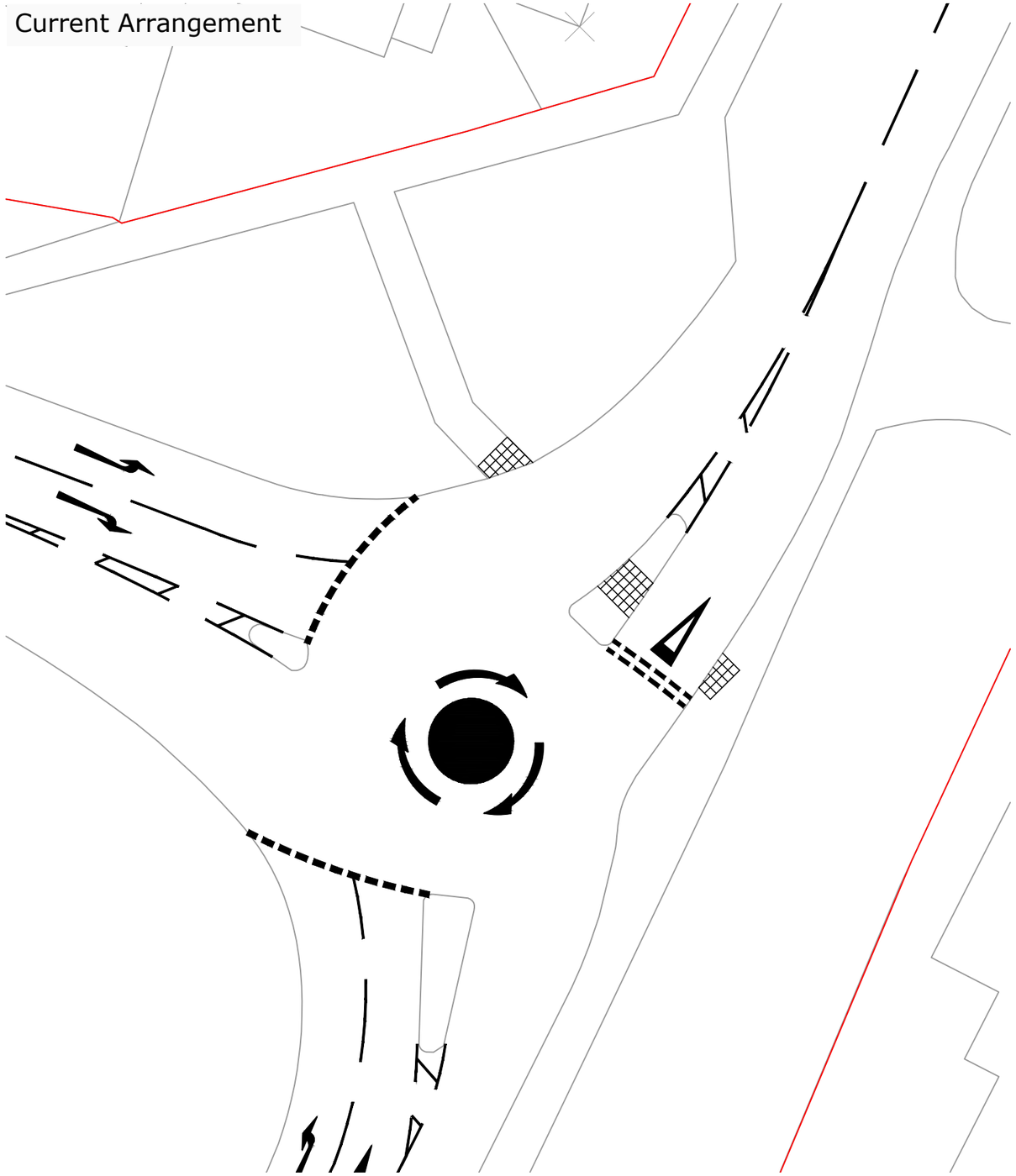
Scale: 1:1000 (@ A3)

Notes:

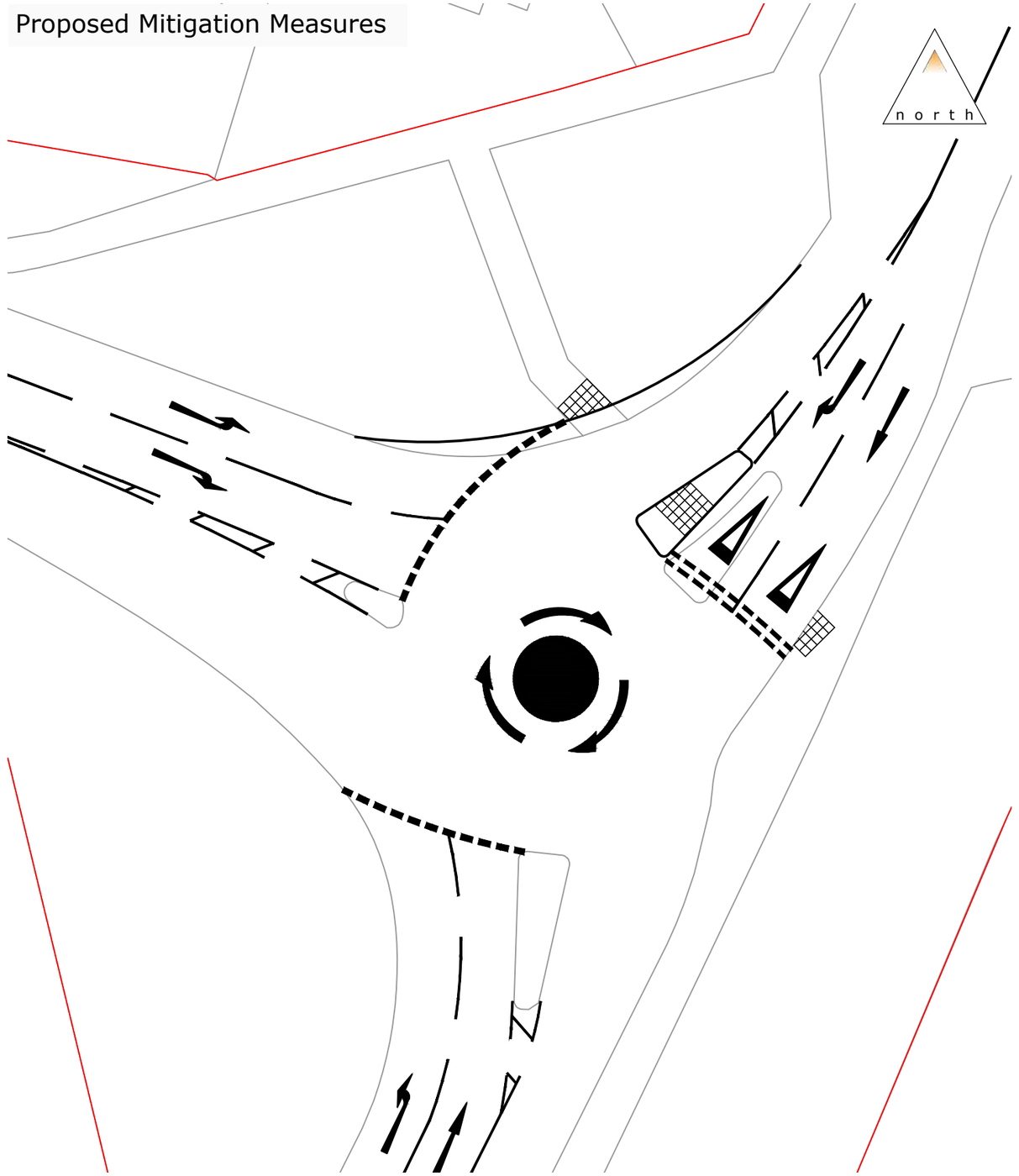
Drawing:
170211-02

Revision:
-

Current Arrangement



Proposed Mitigation Measures



Legend:

Highway Boundary

motion

84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Golden Cross House
8 Duncannon Street
London
WC2N 4JF

T: 020 7031 8141

www.motion.co.uk

Project:
Bicester Office Park

Title:
Oxford Road/Middleton Stoney Mini Roundabout
Mitigation Scheme

Scale: 1:250 (@ A3)

Notes:

Drawing:
170211-04

Revision:
-

N:\Projects\lmbic2 170211\Drawings\170211-04.dwg