# Employment Development, Skimmingdish Lane, Bicester, Oxfordshire

*Transport Assessment*

david tucker associates
transport planning consultants

# Employment Development

# Skimmingdish Lane, Bicester, Oxfordshire

## *Transport Assessment*

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***Prepared by:***

**David Tucker Associates**
Forester House
Doctor's Lane
Henley in Arden
Warwickshire B95 5AW

Tel: 01564 793598
Fax: 01564 793983
inmail@dtatransportation.co.uk
www.dtatransportation.co.uk


***Prepared for:***

**Albion Land**
The Stables,
Holdenby House,
Holdenby,
Northampton
NN6 8DJ

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## 1.0 INTRODUCTION

1.1 David Tucker Associates (DTA) have been commissioned by Albion Land to review traffic and access implications of a proposed employment facility development on a site with a draft allocation within the emerging Local Plan to the north of the A4421 Skimmingdish Lane in Bicester, Oxfordshire. The site has been identified within the Draft Local Plan as being appropriate to accommodate up to 15,500 sqm of B1/B2/B8 employment floorspace.

1.2 The planning application is in outline informed by parameters plans. An illustrative masterplan is shown at **Appendix A**. Access is to be determined as part of the outline application. Pre-applications discussions have been undertaken with Oxfordshire County Council (OCC) prior to submission of the application.

1.3 The methodology used for this Transport Assessment (TA) in support of the application takes account of Planning Practice Guidance issued by Department for Communities and Local Government (DCLG) in October 2014.

1.4 The development consists of the construction of employment facilities and associated parking on a site which is currently an area of open space on the north eastern edge of Bicester. The site is allocated for employment use in the draft Local Plan and the site is known as 'Bicester 11'. The application is for up to 48,308 sqm, with no more than 30% B1(c)/B2 content. B1 office would only be ancillary. It can readily be concluded that given the application reflects a lower floorspace than has been acknowledged within the Local Plan to be appropriate, that the corresponding reduced transport impact would by conclusion also be appropriate and hence acceptable.

1.5 The Government's sustainability objectives were embodied in updated Planning Policy Guidance. The National Planning Policy Framework (March 2012) confirms 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."*

1.6 It goes onto say;

*"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:*

*• the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;*

*• Safe and suitable access to the site can be achieved for all people; and*

*• Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

1.7 It is proposed that the site be served via a new access junction on the A4421 Skimmingdish Lane. Footways connections will be provided from the site access to link with the existing provision on the A4421. The site access has been designed to accommodate access to the proposed residential scheme on the southern side of Skimmingdish Lane within the immediate vicinity of the site.

1.8 A crossing will either be provided via a dropped kerb/refuge or signalised pedestrian crossing depending on OCC feedback as to whether they would require a reduction in speed limit from 50 mph to 40 mph.

1.9 The site benefits from high frequency bus services within the close proximity to/from Oxford and Langford which stop at Bicester Town and Bicester North railway stations.

1.10 A review of personal injury accident data has demonstrated that there are no significant road safety issues and there is no evidence to suggest that the development proposals will be detrimental to highway safety.

1.11 Trip generation has been assumed using the TRICS database. Traffic distribution and assignment for light vehicles has been based on Census 2011 data for Bicester. Heavy goods traffic has been assigned based on the likely route of lorries to and from the site for the wider network taking into account weight/height restrictions and Oxfordshire County Council's Lorry Route Map.

1.12 The off-site junction assessment model work has been undertaken based on OCC model traffic flows for the future year of 2024.

1.13 In conclusion, the proposals will not result in any material impact on the adjacent transport or highway networks and it is considered that there are no highway or transport reasons to refuse planning permission.

# 2.0 EXISTING CONDITIONS

## 2.1 Site Location

2.1.1 The proposed site is located on the north eastern edge of Bicester immediately to the north east of the A4421. Access to the site is via the A4421 Skimmingdish Lane. The location of the site is shown in **Figure 1**.

2.1.2 The site is bound to the south by a new care home which is currently under construction. The A4421 forms the south western site boundary. The site is located in close proximity to Launton Industrial estate to the south and the built up edge of the residential area of Bicester to the West.

## 2.2 Local Highway Network

2.2.1 Skimmingdish Lane functions as a local distributor road and is typically 7.3m wide. The speed limit is 50mph and street lighting is present. The road forms the north eastern edge of Bicester and forms a roundabout junction with Launton Road to the south of the site. To the south east and north west of Launton Road, the A4421 links with Charbridge Lane and the A4095 Buckingham Road respectively via roundabout junctions. Buckingham Road routes south to the centre of Bicester.

2.2.2 Charbridge Lane continues forming the eastern edge of Bicester linking with the A41 for access to Bicester Village, Bicester town railway station and the strategic road network at Junction 9 of the M40.

2.2.3 Shared cycleway/footways are provided on Launton Road and Charbridge Lane. There are no footways on the site frontage. Dropped kerb crossings with tactile paving are provided on all three arms of the Launton Road roundabout. A shared cycleway/footway is provided immediately to the south of the A4421 running parallel and providing off-road cycle access. An accessibility plan is shown in **Figure 2**.

2.2.4 Launton Road connects to Skimmingdish Lane via a 4-arm roundabout junction at the southern boundary of the site. The fourth arm is currently gated and will provide access to the care home adjacent to the site which is currently undergoing construction. Dropped crossings with tactile paving are provided on all arms of the roundabout. Launton Road is also 7.3 metres wide with footways on either side.

2.2.5 Launton Road provides access to Boston Road, a residential estate road. The nearest bus stops are located on Boston Road around a 450m walking distance from the site entrance.

## 2.3 Highway Safety

2.3.1 A review of road safety in the area over the past five years (01/01/09-30/09/14) shows there have been a total of 12 reported accidents on the road network. The data was acquired from Oxfordshire County Council, and includes the stretch of Skimmingdish Lane within the proximity of the site access and the roundabout junction of Launton Road and Charbridge Lane. The accident data and location plan are included in **Appendix B**.

2.3.2 8 of the accidents have been classed as “slight”, 3 as “serious”, and one “fatal”. In proportional terms the number of “serious” and “fatal” accidents recorded in relatively high.

2.3.3 The fatal accident involved an intoxicated motorcyclist who had no MOT or insurance. The rider hit the kerb of the AA421/Charbridge Lane/Launton Road roundabout while avoiding cars, before hitting the signs on the roundabout and sustaining fatal injuries.

2.3.4 A serious accident occurred when a motorcyclist lost control of his/her vehicle when entering the AA421/Charbridge Lane/Launton Road roundabout. This accident was cited as the result of a poor turn/manoeuvre. The remaining serious accidents took place on the A4421 Skimmingdish Lane to the north west of the Launton Road roundabout. One of the “serious” accidents involved a driver under the influence of drugs/medication. The other involved a single vehicle, a motorcyclist, approaching the roundabout junction then

lost control and skidded, then fell off the bike.

2.3.5 Of the remaining slight accidents none occurred due to deficiencies in the highway layout or physical constraints on the road network. The "slight" accident occurring to the north west of the proposed access was the result of an overtaking manoeuvre.

2.3.6 The quantum of the accidents in reflective of the type of road and of the traffic volumes and speed limit in place. With due regard to the causation factors, the record does not give rise to specific concern or warrant mitigation measures as part of the development proposals. There were no recorded accidents within this time period after December 2013.

## 2.4 Local Traffic Flows

2.4.1 An ATC (Automatic Traffic Count) was undertaken on the A4421 Skimmingdish Lane within the vicinity of the proposed site access. The count was for a period of 7 days starting Saturday 15th November 2014. The results are summarised in **Table 1** and the data included in full in **Appendix C**. The 85th percentile speeds are well within the 50mph posted speed limit.

**Table 1** – ATC Data for A4421 Skimmingdish Lane

| Direction | AM Peak | PM Peak | 5 Day Average | 85th Percentile Speeds | Average Speeds |
|---|---|---|---|---|---|
| Northbound | 543 | 1,105 | 9,022 | 41.7 | 36.9 |
| Southbound | 1,080 | 592 | 8,649 | 41.6 | 35.5 |

2.4.2 A further speed survey was undertaken on the A4421 Skimmingdish Lane within closer proximity to the Launton Road roundabout. The purpose of this count was to assist with providing speed data for the detailed design of the proposed site access junction. The speed data are also included in **Appendix C**. The speed data indicate lower 85th percentile speeds of around 31mph.

2.4.3 Manual classified traffic counts and queue length surveys were undertaken at the roundabout junctions of the A4421 with Launton Road and Bicester Road on Tuesday 19th November 2014. The data are included in **Appendix D** and are summarised in section 6 of this report.

2.4.4 Traffic flow data from the OCC Bicester Traffic Model has been provided by OCC for a number of junctions within the immediate vicinity of the site for the future year of 2024. This data includes all known committed development traffic in Bicester and allocated future development schemes in the area. The flows also include the traffic for the site subject of this TA (i.e. Bicester 11). The data is included in **Appendix E**.

## 2.5 Public Transport

*Bus*

2.5.1 The nearest bus stops to the site are located on Boston Road approximately 450m south of the site. The bus stops are served by the S5 and 18. Footways are provided from the Launton Road roundabout junction to the bus stops. The developer will be providing continued footway access from the site to link with existing provision. A pedestrian crossing on Skimmingdish Lane within the immediate vicinity of the site access will be provided in the form of a dropped kerb or signalised arrangement.

2.5.2 The bus stops and routes are shown on **Figure 2. Table 2** summaries the bus services on Boston Road. The full bus route maps and timetables are included in **Appendix F**. There are currently no shelters at the nearest bus stops on Launton Road. The Applicant is willing to fund the provision of bus shelters.

**Table 2 –** Summary of Bus Services on Boston Road

| Service | Operator | Route | Frequency | |
|---|---|---|---|---|
| | | | Mon-Sat | Sunday |
| 18 | Langston & Tasker | Buckingham - Steeple Claydon - Bicester | 2 -3 hours (Mon-Fri only) | No Service |
| S5 | Stagecoach | Oxford - Gosford - Bicester - Glory Farm / Launton / Arncott / Langford | 15 mins | 30 mins |

2.5.3 The frequency of the S5 bus service, together with the route through the main residential areas and stops at both train stations in the town mean the S5 is an attractive opportunity for local employees to travel to the site. Services start prior to 06:00 and run throughout the day into the late evening.

*Rail*

2.5.4 The closest railway station to the site is Bicester North situated approximately 2.5km to the west of the site.

2.5.5 This station offers services to Birmingham, London and Banbury. It also has facilities such as the internet, refreshments, seating, public toilets, ramp for disabled access, customer help points, on site staff and CCTV security. **Table 3** summarises the train services.

**Table 3 -** Summary of Rail Services from North Bicester Station.

| Operator | Route | Frequency |
|---|---|---|
| Chiltern Railways | Birmingham, Snow Hill | 1 hour |
| Chiltern Railways | London, Marylebone | 15-30 mins |
| Chiltern Railways | Banbury | 30 mins |

2.5.6 There are plans to revamp Bicester Town station to provide a new Bicester Village station in October 2015. The new station will provide additional trains to/from London, cycle parking and new bus stops.

*Walking and Cycling*

2.5.7 There is a walkable 2.4 - 2.6m wide grass verge on either side of the carriageway from the current site access heading northbound and southbound there is a 1.1m wide footway with grass verges. A footway is present on the northern side of Skimmingdish Lane which extends from the existing site access gate and continues south to the roundabout with Launton Road. A parallel footway/cycleway to the southern side of the A4421 provides excellent local access.

2.5.8 Dropped kerb crossing points with tactile paving are provided at each of the arms of the roundabout at Launton Road. The cycleway/footway on the southern side of the A4421 links with Launton Road at the roundabout. The cycleway continues forming a footway/cycleway on the western side of Launton Road until the junction of Boston Road where dropped kerb crossing points with tactile paving are provided and the footway/cycleway continues south of the junction. A continuous footway/cycleway link is therefore provided from the site on the southern side of the A4421 to the bus stops.

2.5.9 The footway/cycleway continues until the junction with Churchill Road approximately 300m to the south of Boston Road. The footway/cycleway continues on Churchill Road and continuous footway provision is present on both Launton Road and Churchill Road for direct access to Bicester town centre.

2.5.10 The footway/cycleway running parallel to the A4421 on the southern side joins the A4421 to provide an edge of carriageway route in advance of the Buckingham Road/A4095 roundabout junction. The footway/cycleway continues on the southern side of the A4421 linking footways on Buckingham Road. Dropped kerb crossing points are provided at the Buckingham Road approach. The footway/cycleway continues on the southern side of the road to the west of the junction on the A4095. A signalised pedestrian crossing is provided on the A4095 immediately to the west of the Buckingham Road roundabout junction.

2.5.11 The site is well linked for both pedestrians and cyclists with continuous links to the town

centre and nearby residential areas.

# 3.0 DEVELOPMENT, PARKING AND ACCESS PROPOSALS

## 3.1 Introduction

The site is allocated in the draft Local Plan for employment use and therefore the broad principles of the use of the site have already been established. The site is known as 'Bicester 11'. The application is an informed outline application with a parameters led approach.

## 3.2 Site Layout and Access

3.2.1 The proposals involve the erection of a mix of B1/B2/B8. This will comprise B1c/B2 and B8 development with ancillary B1a land uses within the total floor space not to exceed 48,308 sq metres. The planning application seeks consent for flexible content, but with a maximum provision of 30% B1(c)/B2 floorspace. A B1c/B2:B8 split of 30% to 70% corresponds to maximum floor area of 14,492 sqm B1(c)/B2 which would in turn leave 33,816 sqm B8 floorspace. The site occupier(s) is unknown at this stage. An illustrative masterplan for the site is included in **Appendix A**.

3.2.2 Vehicular access will be at the southern site boundary from Skimmingdish Lane via a priority junction with a designated right turn lane. The point of access is fixed and is to be determined as part of the application. The access has been designed so as not to prejudice a proposed Taylor Wimpey site access on the opposite side of Skimmingdish Lane. The proposed access design is included in **Figure 3**. A 3.5m wide footway/cycleway is to be provided into the site from the site access junction.

3.2.3 A swept path analysis for the site access has been undertaken with a 16.5m articulated lorry. This is shown in **Figure 4**.

3.2.4 A Road Safety Audit (RSA) was carried out by Mott Macdonald in March 2015 for the proposed site access design including the pedestrian crossing. The RSA is included in **Appendix G**. The Auditor did not raise any specific safety issues with the scheme proposals. Since the audit was undertaken OCC have suggested that a deceleration lane

be added to the design. This has been duly incorporated.

3.2.5 A dropped kerb crossing will be provided to the north west of the proposed access junction to facilitate access to the cycleway/footway located on the southern side of Skimmingdish Lane. A formal signal controlled crossing is also proposed. The design reflects a crossing installed on the northern part of the Bicester Ring Road, on the A4095 to the west of the B4100, where the speed limit is also 50 mph.

3.2.6 Traffic speeds on Skimmingdish Lane were measured as summarised in Section 2.4. Observed 85$^{th}$ percentile speeds in the vicinity of the proposed crossing were recorded at around 31 mph, with averages around 26-27 mph. Even further to the north, close to the proposed access 85$^{th}$ percentile speeds only reach 41.7 mph.

3.2.7 The crossing can therefore be accommodated within the existing speed limit regime. In addition to serving staff at the proposed application site, the crossing will provide wider betterment by introducing safe crossing opportunity for the staff/occupants of the adjacent care home building. It is located on the pedestrian desire line for the bus stops on Boston Road. Comprehensive footway/cycleway enhancements will also form part of the sustainable routes to and from the site. These are discussed further at Section 5.

## 3.3 Car Parking

3.3.1 The application seeks flexibility in employment land use class. As such the specific car parking quantum will only be established at the reserved matters stage for each eventual unit. The application limits the quantum of B1(c)/B2 to no more than 30% of floorspace. B1 office will only be ancillary.

3.3.2 The car parking standards for Cherwell District are set out in the interactive Local Plan Appendix B which shows maximum parking standards for B2 and B8 uses as follows:

- B2 – 1 space per 50 sqm;
- B8 – 1 space per 200 sqm.

3.3.3 To illustrate how the site might evolve, an Illustrative Masterplan included at **Appendix A**. A total of 467 car parking spaces are shown where this layout equates to 47,517 sqm. The application seeks consent for up to 48,308 sqm. Were this illustrated floor space to be delivered in a 30:70 split, this would equate to a total of 459 spaces (based on 30% B2 at 290 spaces and 70% B8 at 169 spaces). However to re-iterate, the flexibility sought means that only at the reserved matters stage would the precise quantum of spaces be established. The Illustrative Masterplan demonstrates that the maximum number of spaces can be provided on site. Similarly individual units on the illustrative masterplan reflect appropriate parking levels. However, only once the individual unit sizes and land uses are confirmed can the eventual number of spaces also be confirmed. It is the expectation of the applicant that he will comply with the prevalent parking standard at the time of a reserved matters application. The Illustrative Masterplan proves that whatever quantum becomes relevant can be accommodated within the site. This can be dealt with via an appropriately worded planning condition if necessary.

3.3.4 There are no specific standards for HGV parking in the Local Plan. A note is included in the parking standards which states, "Operational parking is the level of parking to accommodate those vehicles required for the essential operation of the land use under consideration."

3.3.5 As stated in the parking standards, cycle parking will be provided in line with the County Council's Parking Strategy.

# 4.0 TRANSPORT PLANNING POLICY CONTEXT

## 4.1 National Policy

*White Paper: A New Deal for Transport (1998)*

4.1.1 In July 1998 the Government set out its policy for the future of transport in the White Paper 'A New Deal for Transport: Better for Everyone'. The document sets out a guideline to integrate planning and transport at a national, strategic, regional and local level, to ensure that the continual growth in road traffic does not affect quality of life. The objective of the document is defined as being:

*'to increase personal choice by improving the alternatives and to secure mobility that is sustainable in the long term.'*

4.1.2 The White Paper outlines the Government's commitment to create a more integrated transport system to address the problems of congestion and pollution. The objectives of the Government's integrated transport policy set out below underpin the transport philosophy for the proposed development of land at NWB:

- Integration within and between different types of transport – so that each contributes its full potential and people can move easily between them;
- Integration with the environment – so that our transport choices support a better environment;
- Integration with land use planning – at national, regional and local level, so that transport and planning work together to support more sustainable travel choices and reduce the need to travel; and
- Integration with policies for education and wealth creation – so that transport helps to make a fairer, more inclusive society.

*National Planning Policy Framework*

4.1.3 The Government's sustainability objectives were embodied in updated Planning Policy Guidance. The 'National Planning Policy Framework' (March 2012) confirms 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.

4.1.4 More fundamentally the guidance has changed the test of development impacts in transport terms from being one of nil detriment. The guidance states at Para 32 that:

"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
- safe and suitable access to the site can be achieved for all people; and

"…improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."

4.1.5 An on-going transport planning process at the site will be required, in line with Government Policy to ensure the efficient operation of the site. Therefore a Travel Plan (TP) will be implemented at the site. The TP will include incentives to encourage sustainable travel from the onset of occupation. This will be secured through a planning condition prior to occupation. The TP has been provided as a separate stand-alone

document as part of the application.

*Planning Policy Guidance – Transport Evidence Bases in Plan Making and Decision Taking*

4.1.6 Guidance on Transport Assessment issued by the DfT in March 2007 was superseded in October 2014 and replaced by the above document which states that any transport evidence base should identify the opportunities for encouraging a shift to more sustainable transport usage, where reasonable to do so; and highlight the infrastructure requirements for inclusion in infrastructure spending plans linked to the Community Infrastructure Levy, section 106 provisions and other funding sources.

## 4.2 Local Policy

*Oxfordshire Local Transport Plan 3 2011-2030 (LTP) (2011)*

4.2.1 The County Council adopted the third LTP in April 2011 and focuses on attracting and supporting economic investment and growth, delivering transport infrastructure, tackling congestion and improving quality of life. Oxfordshire has significant plans for future economic and housing growth, with a focus on the Local Enterprise Partnership hubs – the Science Vale UK area, Bicester and Oxford City.

4.2.2 The LTP identified Bicester as a growth area and the Plan includes reference to a number of transport improvements at and around Bicester which will be required to cope with the potential future growth. The erection of 5,500 houses is planned in Bicester between 2006 and 2026, as a result of population increase. This is one of the highest projected numbers for all areas in Oxfordshire, with the highest identified in Oxford at 8,000 houses.

4.2.3 The plan also identifies the significant imbalance between houses and jobs in Bicester, with over 60% of residents leaving the town to work; 15% of these outgoing trips are into Oxford. Five thousand new jobs will also be provided for Bicester, redressing the current imbalance with so many residents who commute out to work. Contributions towards transport and highway schemes and travel choice initiatives in this strategy will also be secured from new developments.

*Cherwell Local Plan – Proposed Submission*

4.2.4 The Proposed Submission Local Plan was submitted to the Secretary of State for Communities and Local Government for formal Examination on 31 January 2014. It sets out the broad planning framework for meeting the future needs of Cherwell and would replace the Cherwell Local Plan 1996.

4.2.5 Within the draft Local Plan, the site is allocated for employment land, and the area is known as "Bicester 11" and is allocated for B1/B2/B8 development creating up to 1,000 jobs for Bicester.

4.2.6 In transport terms, Bicester 11 requires good accessibility to public transport services; provision of new footways and cycleways to connect with the existing footpath/cycleway links around the site; and the preparation of a Transport Assessment Report and Travel Plan focussing on maximising access by means other than the private. Each of these items is dealt with in this report.

# 5.0 TRANSPORT STRATEGY

## 5.1 Pedestrians and Cyclists

5.1.1 Secure, convenient cycle parking will be provided on site in accordance with prevailing parking standards. A footway/cycleway will be provided on the northern side of Skimmingdish Lane which links with the site access and will extend to link with the existing provision at the Launton Road/ Skimmingdish Lane roundabout junction to the south east. The links are shown in **Figure 2**. Within the site, a 3.5m footway/cycleway is provided to connect with the adjacent network.

5.1.2 As part of the access design proposals there will be the potential to provide a dropped kerb crossing to the north west of the proposed access into the Bicester 11 site. This is shown in **Figure 3**. This would allow for access to the cycleway located immediately to the south of Skimmingdish Lane. On this basis, the site will be directly linked on foot and by cycle to the wider network.

5.1.3 As set out at Section 3.2.4 a signalised pedestrian/cyclist crossing is also proposed. The crossing sits on the desire line for staff accessing the closest bus stops. It also provides a cohesive link to the nearby cycle lanes and footway networks. It also provides betterment in the form of serving the adjacent care home. The design is incorporated into two potential outcomes (**Figures 3 and 5**). These relate to whether or not the Taylor Wimpey housing scheme comes forward on the opposite side of Skimmingdish Lane. **Figure 5** shows the crossing design on the basis that the Bicester 11 site comes forward before the Taylor Wimpey site. **Figure 3** assumes the Taylor Wimpey access is already constructed.

## 5.2 Bus Access

5.2.1 The nearest bus stops are located on Boston Road to the south of the site. Improvements to the bus stops are proposed with seating and bus shelters provided. The location of the stops are shown in **Figure 2**.

5.2.2 The site benefits from excellent bus services. The S5 operates every 15 minutes to Oxford within stops located in walking distances of the site. Services are every 30 minutes on a Sunday. Buses stop at both train stations in the town centre.

## 5.3 Travel Plan

5.3.1 The development will be supported by a framework Travel Plan which includes a number of measures and initiatives that will be implemented by a Travel Plan co-ordinator to encourage users of the site to reduce travel by private car.

5.3.2 Measures to encourage car sharing will be included in the Plan and will involve setting up a car share database for all employees and potentially designating spaces for car shares nearest to the building entrances.

## 5.4 Lorry Routeing

5.4.1 The Travel Plan will also include measures to ensure lorry drivers associated with the site use the designated lorry routes and route to and from the site to the south at all times. The designated lorry route is via the A4421 Charbridge Lane and the A41 to the south which will allow access to the A43 and M40 at Junction 9 for the wider network. The end user(s) will seek to ensure no lorry movements are routed through the village of Launton.

5.4.2 The Travel Plan will include a Route Management section which will set a protocol for avoiding the risk of HGVs routing through the village of Launton.

## 5.5 Vehicular Access

5.5.1 The site access junction will take the form of a ghost island right turn lane from Skimmingdish Lane which has been subject to a Road Safety Audit. The internal road layout will take the form of a typical industrial estate type road with a width of 7.3m. This sits within a 16 m infrastructure corridor as defined on the Access and Circulation Parameters Plan submitted with the application. This provides sufficient width for 3.5 m footway/cycleway and additional 2 m footway to provide dedicated, convenient linkage throughout the site for non-car journeys. Appropriate car parking provision will be

provided on site to support the proposed uses in accordance with prevailing local standards at the point of reserved matters applications. Appropriate lorry parking and turning areas will also be provided.

## 5.6 Construction Traffic

5.6.1 Based on experience at similar sites, the construction phase is expected to generate a maximum of 60 HGV movements a day (assuming 30 arrivals and 30 departures). Assuming 10% of trips take place during the peak hours around 6 movements would be generated over an hour. This equates to around 1 HGV movement every 10 minutes on the local roads. During this period lorry drivers will be instructed not to route through the village of Launton.

5.6.2 It is assumed a maximum of 20-30 staff will be on site at any one time during this period.

# 6.0 TRIP GENERATION AND DISTRIBUTION

## 6.1 Trip Generation

6.1.1 In order to assess the likely traffic movements from the development the TRICS database was interrogated. This database contains surveys of the vehicle and multimodal trip rates of a wide variety of sites which are classified by land use and various other attributes. DTA recently prepared a Transport Assessment for employment floorspace on Howes Lane to the west of Bicester. The trip rates have been agreed in principle with the Local Highway Authority as an approximate for a stand-alone site and, given that this forms a broadly comparable site location, have therefore been used for the purposes of this assessment.

6.1.2 The TRICS printouts are attached at **Appendix H** and the trip rates are summarised in **Tables 4 and 5** below for vehicles and HGV's. The trip generation for the B2 and B8 elements is shown in **Tables 6 and 7** and the total trip generation is shown in **Table 8.**

**Table 4** – Trip Rates for B2 (per 100 sqm)

| | In | | | Out | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total |
| AM Peak (0800-0900) | 0.366 | 0.024 | 0.390 | 0.063 | 0.023 | 0.086 | 0.429 | 0.047 | 0.476 |
| PM Peak (1700-1800) | 0.036 | 0.005 | 0.041 | 0.302 | 0.007 | 0.309 | 0.338 | 0.012 | 0.35 |
| 12 Hour | 1.58 | 0.217 | 1.797 | 1.716 | 0.173 | 1.889 | 3.296 | 0.39 | 3.686 |

**Table 5** – Trip Rates for B8 (per 100 sqm)

| | In | | | Out | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total |
| AM Peak (0800-0900) | 0.058 | 0.013 | 0.071 | 0.032 | 0.015 | 0.047 | 0.09 | 0.028 | 0.118 |
| PM Peak (1700-1800) | 0.021 | 0.01 | 0.031 | 0.069 | 0.01 | 0.079 | 0.09 | 0.02 | 0.11 |
| 12 Hour | 0.619 | 0.283 | 0.902 | 0.661 | 0.32 | 0.981 | 1.28 | 0.603 | 1.883 |

**Table 6** – Trip Generation for B2 (14,492 sqm)

| | In | | | Out | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total |
| AM Peak (0800-0900) | 53 | 3 | 57 | 9 | 3 | 12 | 62 | 7 | 69 |
| PM Peak (1700-1800) | 5 | 1 | 6 | 44 | 1 | 45 | 49 | 2 | 51 |
| 12 Hour | 229 | 31 | 260 | 249 | 25 | 274 | 478 | 57 | 534 |

**Table 7** – Trip Generation for B8 (33,816 sqm)

| | In | | | Out | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total |
| AM Peak (0800-0900) | 20 | 4 | 24 | 11 | 5 | 16 | 30 | 9 | 40 |
| PM Peak (1700-1800) | 7 | 3 | 10 | 23 | 3 | 27 | 30 | 7 | 37 |
| 12 Hour | 209 | 96 | 305 | 224 | 108 | 332 | 433 | 204 | 637 |

**Table 8** – Trip Generation – Total (B2 and B8 combined)

| | In | | | Out | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total | Lights | OGV1 &2 | Total |
| AM Peak (0800-0900) | 73 | 8 | 81 | 20 | 8 | 28 | 93 | 16 | 109 |
| PM Peak (1700-1800) | 12 | 4 | 16 | 67 | 4 | 71 | 79 | 9 | 88 |
| 12 Hour | 438 | 127 | 565 | 472 | 133 | 605 | 911 | 260 | 1171 |

6.1.3 Based on TRICS data, the total traffic generation for the whole development is 109 movements in the AM peak and 88 movements in the PM peak. Over a 12 hour period the site will generate 1,171 movements.

## 6.2 Trip Distribution

6.2.1 The Census 2011 journey to work data provides an estimation of the main destinations for both residents and employees associated with the proposed development. The light

and heavy traffic associated with the site will also follow a different distribution on the local road network. The light traffic will include staff and visitors.

6.2.2 The 2011 Census data uses Middle Layer Super Output Areas as opposed to the Ward data available for the 2001 Census data. On this basis, Cherwell 013 has been used for the origin-destination analysis. This area includes the main existing industrial estate in Bicester and is therefore representative in terms of assessing existing employment journey patterns. An extract of the Cherwell 013 area and the journey to work assessment is included in **Appendix I**.

6.2.3 Application of the site Travel Plan will see these car driver rates targeted. The network appraisals assume the current travel patterns, but commitments will be present to seek to reduce the sole car driver proportion.

6.2.4 The end user(s) of the development are yet to be determined and therefore assuming a distribution for heavy traffic is more difficult. A number of assumptions have nevertheless been made with regards to the likely route.

6.2.5 Given the current height restriction on the railway bridge on the A4095 to the west of the site and the location of the primary routes of the A41 and M40 at Junction 9, it is likely that the majority, if not all heavy traffic will enter and leave the site via the east on the A4421 to access the A41 and the strategic road network.

6.2.6 At the A41 junction with the A4421, it has been assumed that 10% of vehicles will travel to Aylesbury and the remaining 90% will continue on the A41 towards the M40 Junction 9. The Oxfordshire County Council Lorry Freight Partnership plan indicates that the preferred lorry route for Bicester traffic is via the A41.

6.2.7 The resulting trip generation and distribution in the AM and PM peak periods for the development traffic is shown in **Figures 6 and 7** respectively**.**

6.2.8 Traffic bound for Milton Keynes and the M1 could route via the A4421 north out of Bicester to link with the A421.

## 6.3 Potential Routing through Launton Village

6.3.1 DTA have been made aware of concerns raised by Launton Parish Council regarding potential increases in traffic both through the village and on the surrounding road network.

6.3.2 No HGV traffic should route through Launton as there is a 7.5t weight restriction in the centre of the village on Blackthorn Road. Notwithstanding this, the Route Management Plan within the Travel Plan will be used to ensure that lorry drivers visiting the site will be advised to use the A4421 Charbridge Lane to access the site and will therefore not be permitted to route through the village. This can be covered by a planning condition if necessary.

6.3.3 In terms of light vehicle traffic, there could be a limited number of cars who choose to 'rat run' through Launton to/from the A41. This relates primarily to traffic routing to/from the A41 to Aylesbury. In terms of the overall trip proportions estimated using the Census 2011 journey to work data, this accounts for around 14% of all car traffic. This equates to 13 trips in the AM peak period and 11 trips in the PM peak period.

6.3.4 Assuming around 50% chose to route through Launton, this equates to a maximum of 7 trips (taking both arrivals and departures together) during the peak period which is an additional trip every 8-9 minutes through the village and will not result in a significant impact for the operation of the road network through this area. Notwithstanding this, employees will be discouraged from doing so within the Travel Plan.

# 7.0 TRAFFIC IMPACT ANALYSIS

## 7.1 Base Traffic Data

7.1.1 Base traffic data has been obtained in the form of manual turning counts for the following junctions on the local network in 2014:

- Launton Road/ A4421; and
- A4421/ Charbridge Lane/ Bicester Road.

7.1.2 The manual classified count data are included in **Appendix D** together with the queue surveys. The queue surveys show a queue of 20 or more vehicles on the A4421 southern approach for a period of 15 minutes in the morning peak period. In the afternoon peak period, a queue forms on Launton Road with a maximum of 12 vehicles at 17:05. The data shows there are currently no significant queueing concerns at the junction and when queues develop they typically dissipate relatively quickly during the peak period.

7.1.3 Traffic flow data has been provided by OCC for the future year of 2024 for the junctions within the vicinity of the site. The flow data in included in **Appendix E**. The 2024 data includes all future development schemes in the area has been used for the purposes of the assessment. The base flows also include the Bicester 11 traffic and therefore this has been deducted from the base scenario for comparison in the 'with' and 'without development' scenarios. This is what has been used in the subsequent junction assessments.

7.1.4 The 2024 flows from the OCC traffic model are higher than typical for the nature of the roads in Bicester largely in the PM peak period and to a lesser extent in the AM peak. This has been discussed with OCC and a link threshold has therefore been applied on the basis of 1,350 PCUs on a single link for the purposes of the assessments.

## 7.2 Percentage Impact Assessment

7.2.1 The percentage impact at each junction within the site vicinity has been determined using the base 2024 flows provided by OCC. The following junctions have been appraised:

- Junction A – A4421/ Launton Road Roundabout
- Junction B – A4421/ Bicester Road Roundabout
- Junction C – A4421/ Buckingham Road Roundabout
- Junction D – A4095 / B4100 Roundabout

7.2.2 The percentage impact as a result of the proposed development in 2024 is shown in **Table 9**. The results indicate the highest percentage change in traffic flows at Junctions A, B, C and therefore a full traffic capacity assessment has been undertaken at these junctions.

7.2.3 The highest percentage impact in the future year of 2024 is 2.8% at the Launton Road/A4421 roundabout junction in the AM peak period. This is well within the daily variation of traffic which is currently observed on the Skimmingdish Lane link and varies by up to 6% on a typical weekday.

**Table 9** – Percentage Impact 2024

| | Forecast 2024 | | Development | | % increase | |
|---|---|---|---|---|---|---|
| | AM | PM | AM | PM | AM | PM |
| Junction A | 3,000 | 3,084 | 83 | 60 | 2.8 | 1.9 |
| Junction B | 2,721 | 2,692 | 68 | 47 | 2.5 | 1.7 |
| Junction C | 3,396 | 3,156 | 41 | 35 | 1.2 | 1.1 |
| Junction D | 2,904 | 3,054 | 27 | 24 | 0.9 | 0.8 |

## 7.3 Operational Assessment

7.3.1 The junctions listed in this section have been modelled using the priority and roundabout junction modules of TRL's Junctions8 software. The assessment flows used are included in **Appendix J** and the assessment outputs included in **Appendix K**.

7.3.2 The geometry used for the roundabout junctions in the assessment reflect that used in other local Transport Assessment reports which have been approved by OCC. These include the MJA Transport Assessment for the proposed Taylor Wimpey site. The geometry for the Launton Road/ A4421 roundabout junction has been taken from the proposed care home TA prepared by DTA.

*Site Access/ Skimmingdish Lane*

7.3.3 The site access junction has been modelled together with the Taylor Wimpey residential access as a staggered priority crossroad junction. A summary of the results are shown in **Table 10**.

**Table 10** – Site Access/Skimmingdish Lane Assessment Results

| 2024 Base | AM Peak (0800-0900) | | PM Peak (1700-1800) | |
|---|---|---|---|---|
| | Max RFC | Queue | Max RFC | Queue |
| B-CD | 0.02 | 0 | 0.01 | 0 |
| B-A | 0.03 | 0 | 0.03 | 0 |
| AB-CD | 0.10 | 0 | 0.03 | 0 |
| D-AB | 0.04 | 0 | 0.08 | 0 |
| D-C | 0.04 | 0 | 0.12 | 0 |
| CD-AB | 0.01 | 0 | 0.02 | 0 |

(Note: A is Skimmingdish Lane S, B is Residential Access, C is Skimmingdish Lane N, D is Bicester 11)

7.3.4 The results show that the site access junction will work with ample spare capacity in the future year of 2024 with both the residential access and Bicester 11 access in place.

*A4421 Skimmingdish Lane/ Launton Road*

**Table 11** – Launton Road/A5521 Skimmingdish Lane/ Care Home Assessment Results

| 2024 Base | AM Peak (0800-0900) | | PM Peak (1700-1800) | |
|---|---|---|---|---|
| | Max RFC | Queue | Max RFC | Queue |
| A4421 S | 0.85 | 5 | 1.05 | 76 |
| Launton Road | 0.82 | 5 | 0.76 | 3 |
| A4421 N | 0.61 | 2 | 0.60 | 2 |
| Care Home | 0.01 | 0 | 0.01 | 0 |
| 2024 Base+Dev | AM Peak (0800-0900) | | PM Peak (1700-1800) | |
| | Max RFC | Queue | Max RFC | Queue |
| A4421 S | 0.88 | 7 | 1.06 | 89 |
| Launton Road | 0.85 | 6 | 0.76 | 3 |
| A4421 N | 0.64 | 2 | 0.63 | 2 |
| Care Home | 0.01 | 0 | 0.01 | 0 |

7.3.5 The results indicate that the junction will operate with a queue of 76 vehicles in the PM peak period in 2024 on the southern approach to the junction. With the addition of the development traffic the queue will increase on this arm. In terms of the overall operation of the junction the development traffic will not result in a material impact.

*A4421 Charbridge Lane/ Bicester Road*

**Table 12** – A4421 Charbridge Lane/ Bicester Road Assessment Results

| 2024 Base | AM Peak (0800-0900) | | PM Peak (1700-1800) | |
|---|---|---|---|---|
| | Max RFC | Queue | Max RFC | Queue |
| Bicester Road | 0.32 | 0 | 0.24 | 0 |
| Charbridge Lane | 0.57 | 1 | 0.60 | 2 |
| A4421 | 0.89 | 7 | 0.87 | 6 |
| 2024 Base+Dev | AM Peak (0800-0900) | | PM Peak (1700-1800) | |
| | Max RFC | Queue | Max RFC | Queue |
| Bicester Road | 0.33 | 0 | 0.24 | 0 |
| Charbridge Lane | 0.59 | 2 | 0.61 | 2 |
| A4421 | 0.90 | 8 | 0.89 | 7 |

7.3.6 The results indicate that the junction will operate within capacity during peak periods with a maximum queue of 7 vehicles in the base AM peak scenario on the A4421 approach. With the development traffic in place this queue is forecast to increase to 8 vehicles.

*A4095/ A4421/ Buckingham Road*

**Table 13** – A4095/ A4421/ Buckingham Road Assessment Results

| 2024 Base | AM Peak (0800-0900) | | PM Peak (1700-1800) | |
|---|---|---|---|---|
| | Max RFC | Queue | Max RFC | Queue |
| A4421 N | 0.88 | 6 | 0.41 | 1 |
| A4421 E | 0.35 | 1 | 0.66 | 2 |
| Buckingham Road | 0.38 | 1 | 0.49 | 1 |
| A4095 | 0.57 | 1 | 0.30 | 0 |
| 2024 Base+Dev | AM Peak (0800-0900) | | PM Peak (1700-1800) | |
| | Max RFC | Queue | Max RFC | Queue |
| A4421 N | 0.89 | 8 | 0.41 | 1 |
| A4421 E | 0.36 | 1 | 0.67 | 2 |
| Buckingham Road | 0.38 | 1 | 0.49 | 1 |
| A4095 | 0.59 | 2 | 0.30 | 1 |

7.3.7 The junction is shown to be operating within capacity during both peak periods. There is forecast to be an increase of 2 vehicles in the AM peak period with the development traffic on the A4421 northern approach.

## 7.4 Overall Traffic Impact

7.4.1 The impact of the development in junction operation terms will not be significant during the peak periods and will not exacerbate queuing to the extent that mitigation measures would be required. The overall percentage increase in traffic is well within the daily variation of background traffic flow on the local network.

7.4.2 In the context of NPPF paragraph 32 the impact of the development proposals will not be 'severe'.

## 8.0 CONCLUSIONS

8.1 The application is outline with access determined, to provide B1/B2/B8 erection employment floor space on an allocated site within the emerging Local Plan known as 'Bicester 11' on land to the north of Skimmingdish Lane, Bicester. B1 (c)/B2 will occupy no more than 30% of the floorspace. B1 (a) will only be ancillary to the main uses.

8.2 Access will be provided from the A4421 Skimmingdish Lane via a new priority T-junction with a designated right-turn lane. The access has been designed so as not to prejudice the delivery of a residential access on the opposite side of Skimmingdish Road.

8.3 The site is in a sustainable location within walking distance of local bus stops and residential areas. Bus services to Oxford are every 15 minutes with the S5 bus stopping at both Bicester railway stations. The site benefits from excellent cycle and pedestrian access within the immediate vicinity linking with nearby residential areas and the town centre of Bicester.

8.4 Pedestrian access will be provided via an extension of the existing footway network from the Launton Road roundabout adjacent to the site. A dropped kerb crossing point will be provided to the north west of the access providing direct access to the cycleway/footway on the southern side of Skimmingdish Lane. A signalised pedestrian crossing is proposed to provide safe and convenient access for the site, whilst also providing betterment for neighbouring land uses.

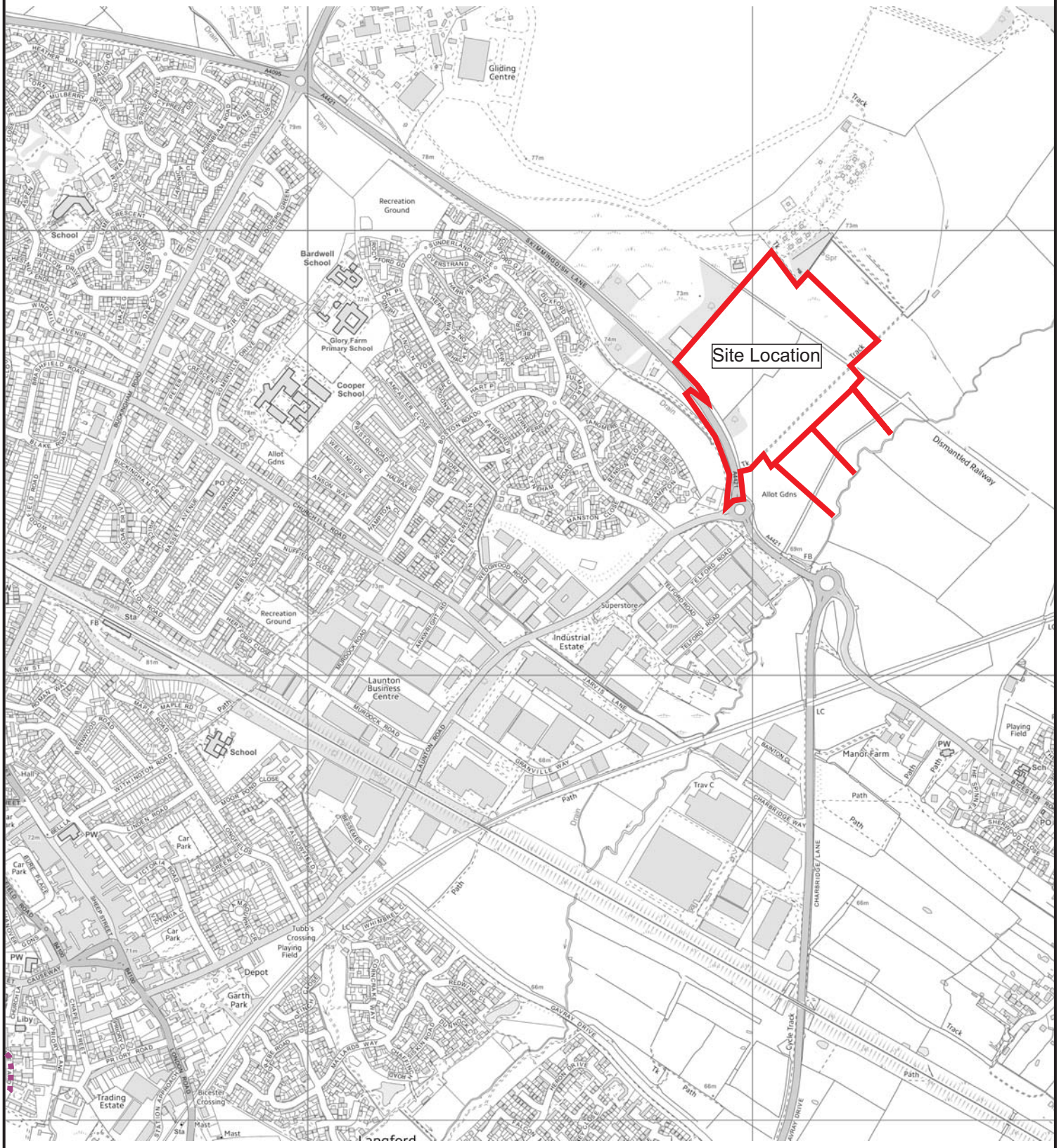
8.5 The road accident record has indicated that there are no road safety issues that would warrant mitigation measures as a result of the development proposals.

8.6 The proposed site access junction can accommodate the proposed development traffic in the future year of 2024. The addition of the proposed development traffic will not result in a material impact on the overall operation of the local or strategic road network and on this basis there are no specific off-site junction highway works required as part of the proposals.

8.7 Overall, therefore, the proposed development is in accordance with guidance in the NPPF paragraph 32 and as such planning permission should not be declined on transport grounds.

SKP/JS/15230-01b-TA
22nd May 2015

**Figure 1**




**David Tucker Associates**
Transport Planning Consultancy
Forester House, Doctors Lane, Henley-in-Arden
Warwickshire, B95 5AW
Tel: +44(0) 1564 793598 Fax: +44(0) 1564 793983
www.dtatransportation.co.uk

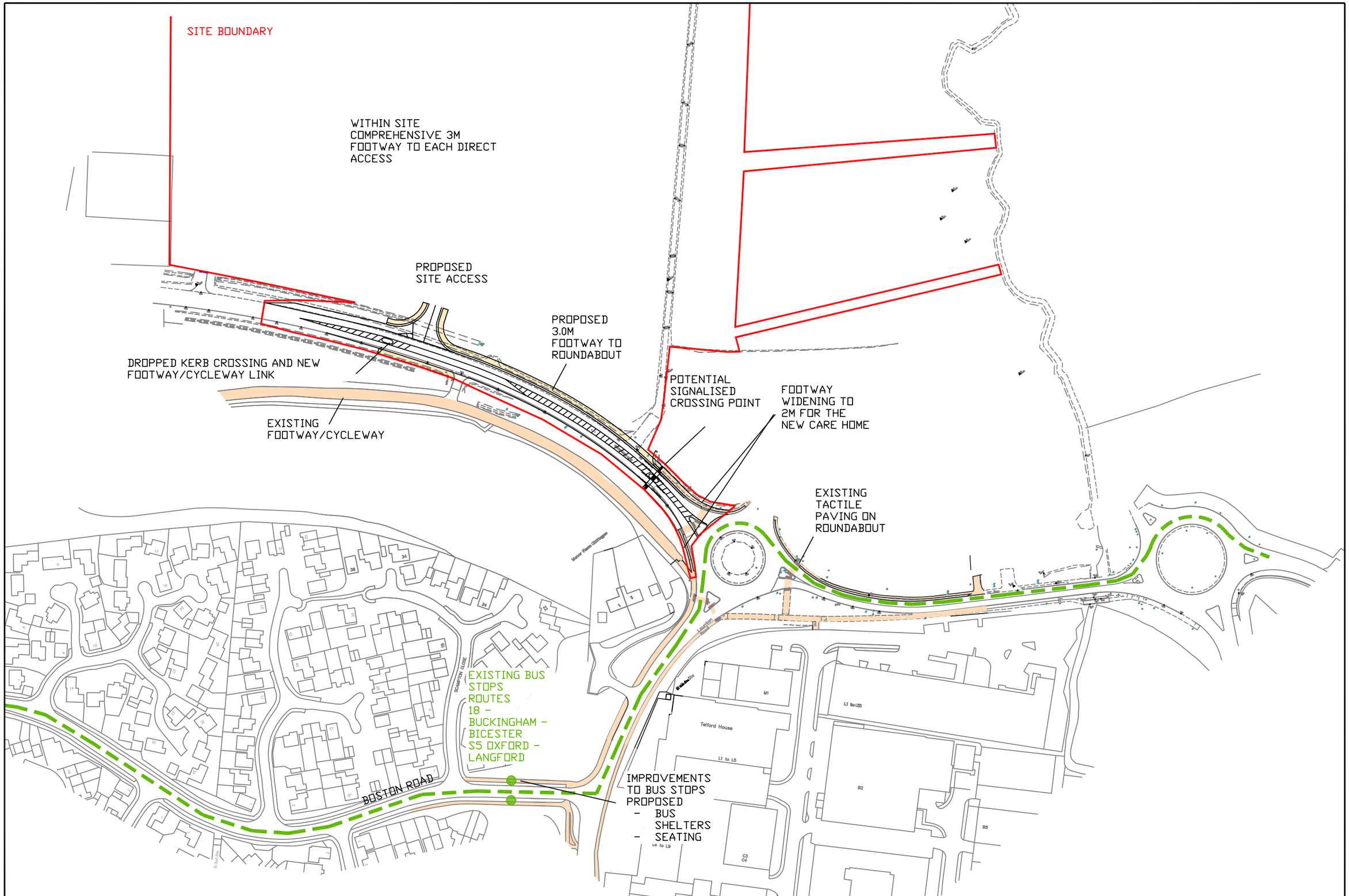
Notes:

Figure 1
Drawing Title 15230-11
Job Title Skimmingdish Lane, Bicester
Client Albion Land

Scale : NTS

NORTH

**Figure 2**



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david tucker associates
transport planning consultants
Forester House, Doctors Lane,
Henley In Arden,
Warwickshire B95 5AW
Tel: +44(0)1564 793598
Fax: +44(0)1564 793983
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DRAWING TITLE: Site Accessibility Plan

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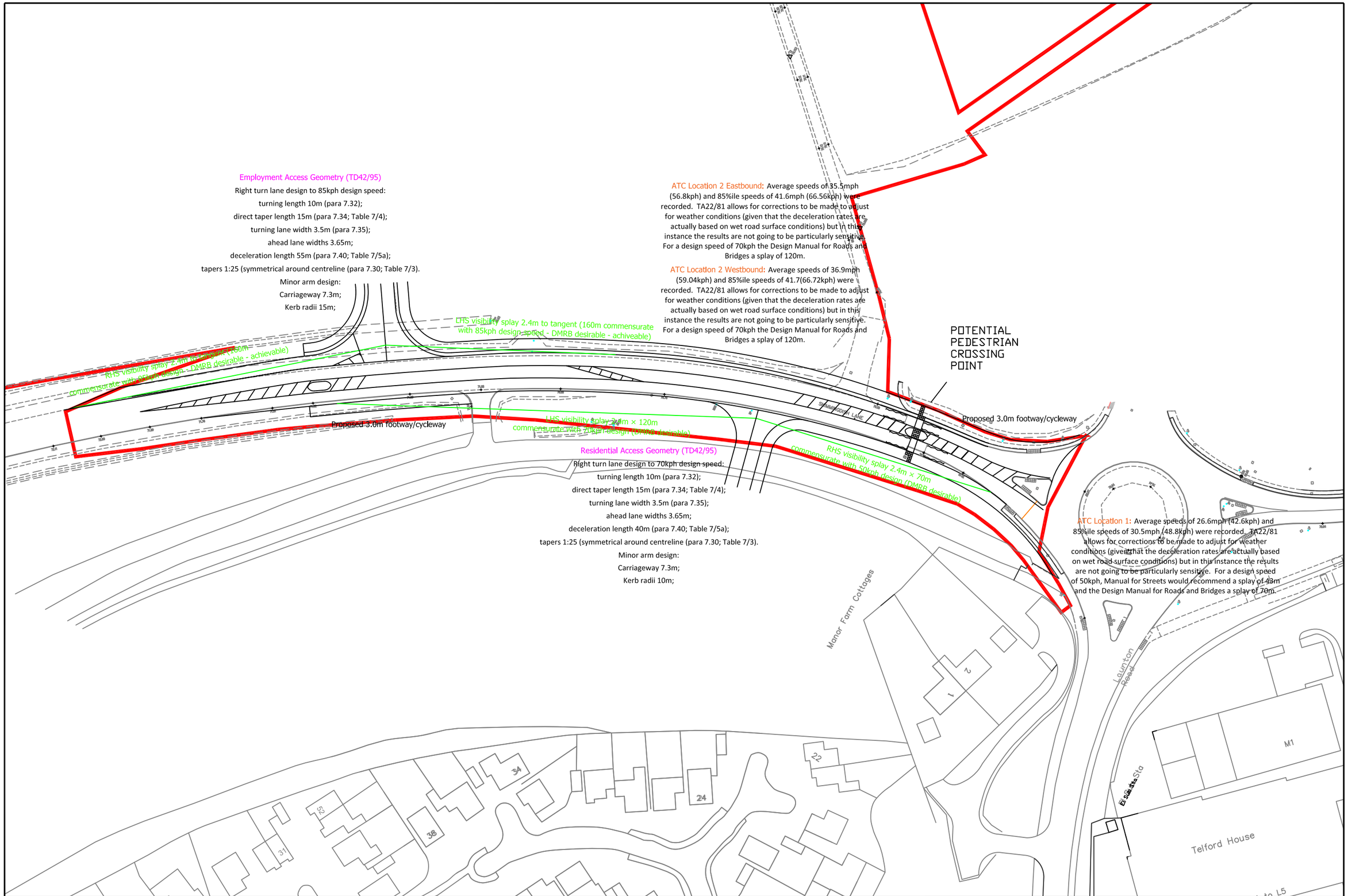
**Figure 3**



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david tucker associates
transport planning consultants
Forester House, Doctors Lane,
Henley In Arden,
Warwickshire B95 5AW
Tel: +44(0)1564 793598
Fax: +44(0)1564 793983
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Site Access Proposals
(with Taylor Wimpey Access)

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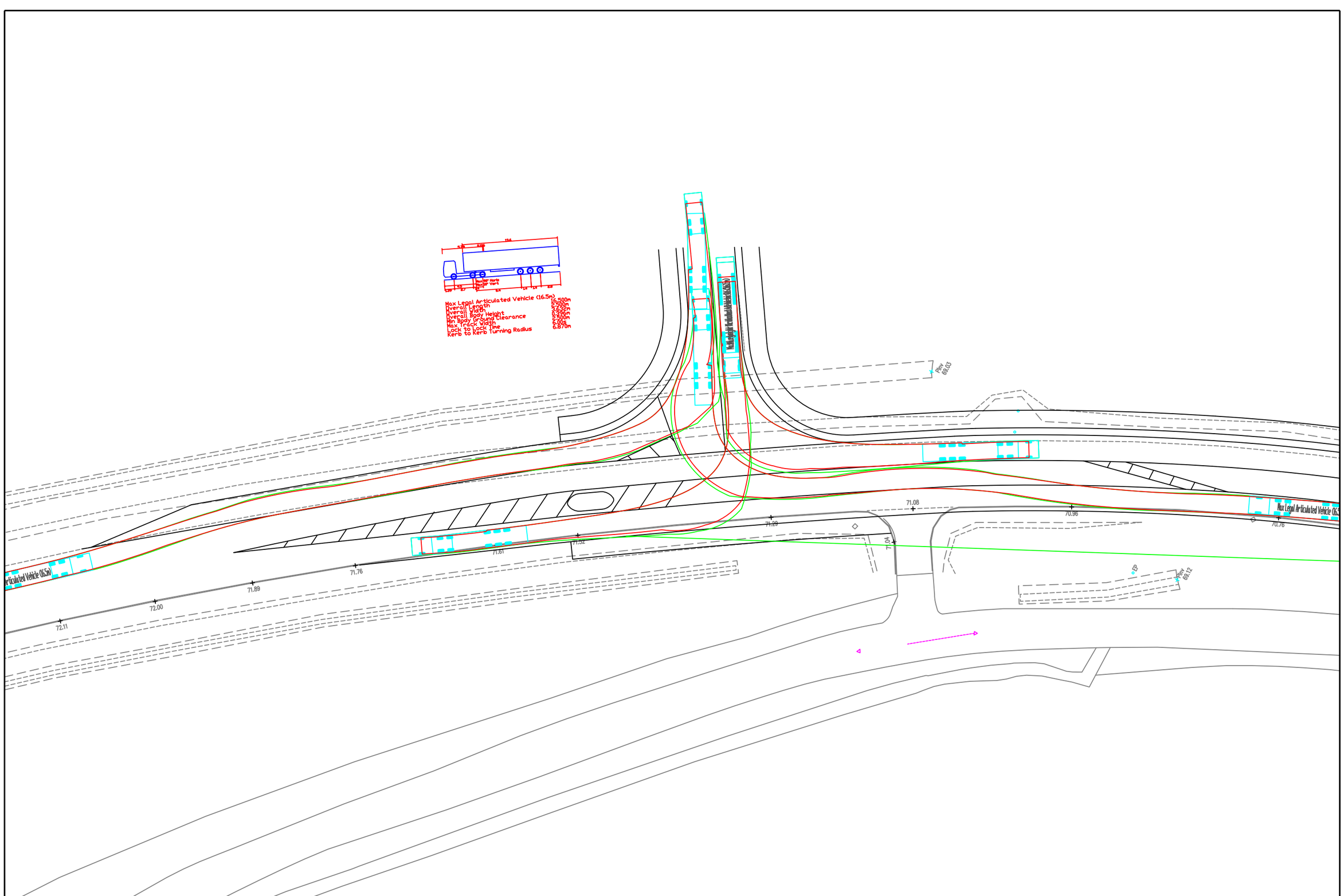
**Figure 4**



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david tucker associates
transport planning consultants
Forester House, Doctors Lane,
Henley In Arden,
Warwickshire B95 5AW
Tel: +44(0)1564 793598
Fax: +44(0)1564 793983
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DRAWING TITLE

Vehicle Tracking

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**Figure 5**

Employment Access Geometry (TD42/95)

Right turn lane design to 85kph design speed:
turning length 10m (para 7.32);
direct taper length 15m (para 7.34; Table 7/4);
turning lane width 3.5m (para 7.35);
ahead lane widths 3.65m;
deceleration length 55m (para 7.40; Table 7/5a);
tapers 1:25 (symmetrical around centreline (para 7.30; Table 7/3).
Minor arm design:
Carriageway 7.3m;
Kerb radii 15m;

ATC Location 2 Eastbound: Average speeds of 35.5mph (56.8kph) and 85%ile speeds of 41.6mph (66.56kph) were recorded. TA22/81 allows for corrections to be made to adjust for weather conditions (given that the deceleration rates are actually based on wet road surface conditions) but in this instance the results are not going to be particularly sensitive. For a design speed of 70kph the Design Manual for Roads and Bridges a splay of 120m.

ATC Location 2 Westbound: Average speeds of 36.9mph (59.04kph) and 85%ile speeds of 41.7(66.72kph) were recorded. TA22/81 allows for corrections to be made to adjust for weather conditions (given that the deceleration rates are actually based on wet road surface conditions) but in this instance the results are not going to be particularly sensitive. For a design speed of 70kph the Design Manual for Roads and Bridges a splay of 120m.

LHS visibility splay 2.4m to tangent (160m commensurate with 85kph design speed - DMRB desirable - achieveable)

RHS visibility splay 2.4m to tangent (160m commensurate with 85kph design speed - DMRB desirable - achievable)

Proposed 3.0m footway/cycleway

POTENTIAL PEDESTRIAN CROSSING POINT

Proposed 3.0m footway/cycleway

SKIMMINGDISH LANE

ATC Location 1: Average speeds of 26.6mph (42.6kph) and 85%ile speeds of 30.5mph (48.8kph) were recorded. TA22/81 allows for corrections to be made to adjust for weather conditions (given that the deceleration rates are actually based on wet road surface conditions) but in this instance the results are not going to be particularly sensitive. For a design speed of 50kph, Manual for Streets would recommend a splay of 43m and the Design Manual for Roads and Bridges a splay of 70m.

Manor Farm Cottages

Launton Road

M1

Telford House



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david tucker associates
transport planning consultants
Forester House, Doctors Lane,
Henley In Arden,
Warwickshire B95 5AW
Tel: +44(0)1564 793598
Fax: +44(0)1564 793983
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| Skimmingdish Lane, Bicester | Albion Land |

DRAWING TITLE

Site Access Proposals
(prior to Taylor Wimpey scheme)

| SCALE | DRAWN BY | DATE | DRAWING No | REVISION |
|---|---|---|---|---|
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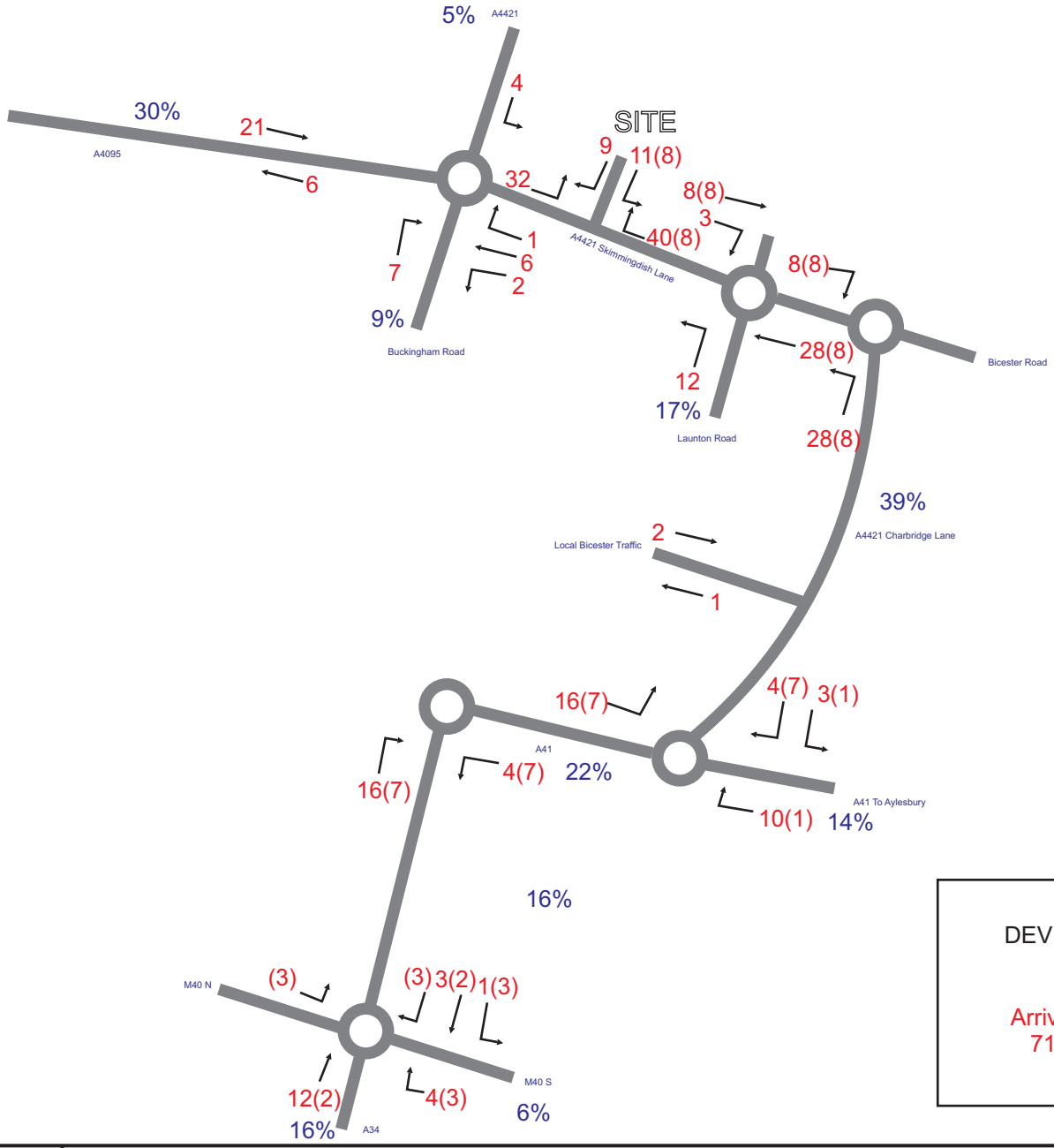
**Figure 6**

## AM Peak Trip Generation

AM Peak (08:00-09:00)
Lights (Heavies)




DEVELOPMENT TRIPS

AM Peak

| Arrivals | Departures |
|---|---|
| 71(8) | 20(8) |


**David Tucker Associates**
Transport Planning Consultancy
Forester House, Doctors Lane, Henley-in-Arden
Warwickshire, B95 5AW
Tel: +44(0) 1564 793598 Fax: +44(0) 1564 793983
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Notes:

Figure 6
Drawing Title
Job Title
Client

Drawing No : 15230-09
Development Trips AM Peak Period
Bicester 11, Skimmingdish Lane
Albion Land

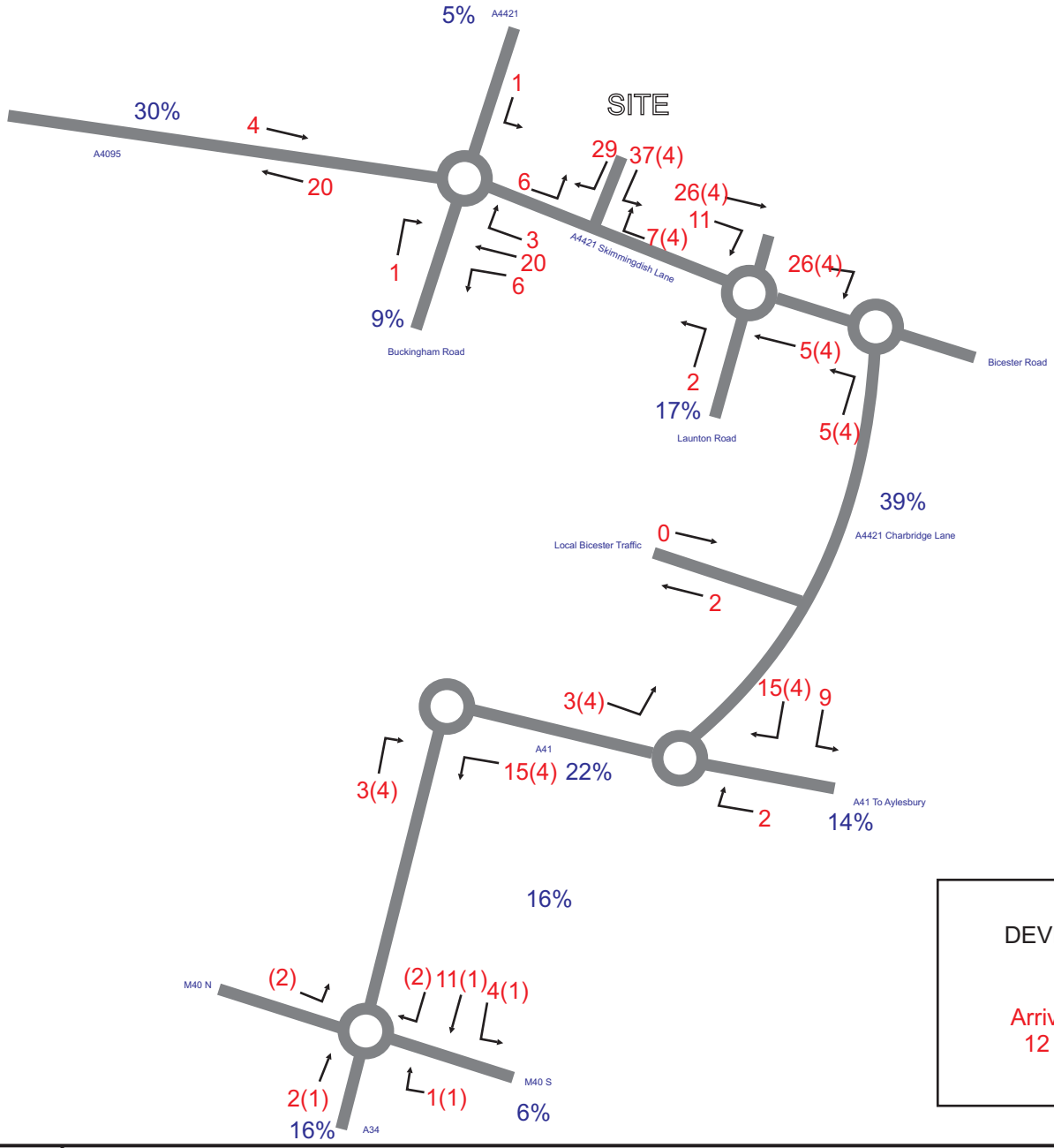
Scale : NTS

NORTH

**Figure 7**

**PM Peak Trip Generation**

PM Peak (17:00-18:00)
Lights (Heavies)




DEVELOPMENT TRIPS

PM Peak

| Arrivals | Departures |
|---|---|
| 12 (4) | 66 (4) |


**David Tucker Associates**
Transport Planning Consultancy
Forester House, Doctors Lane, Henley-in-Arden
Warwickshire, B95 5AW
Tel: +44(0) 1564 793598 Fax: +44(0) 1564 793983
www.dtatransportation.co.uk


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Figure 7
Drawing Title
Job Title
Client

Drawing No : 15230-10
Development Trips PM Peak Period
Bicester 11, Skimmingdish Lane
Albion Land

Scale : NTS

NORTH