Land off Northampton Road, Brixworth, Northamptonshire

Transport Statement

DTA

Transport Planning Consultants

Land off Northampton Road, Brixworth, Northamptonshire

Transport Statement

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DN/SC/25316-01 Transport Statement

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Table of Contents

Page

Drawings

25316-01a	Proposed Site Access
25316-02	Swept-path Analysis (16.5m Articulated Lorry: Site Access and Service Road)

Appendices

Appendix A	Site Layout Plan
Appendix B	PIC Data
Appendix C	DTA Technical Note 25317-01
Appendix D	TRICS Output
Appendix E	Capacity Assessment Outputs

1.0 INTRODUCTION

1.1 Overview

1.1.1 This Transport Statement (TS) has been prepared by DTA Transportation (DTA) on behalf of Dallas Burston Property Ltd to accompany a planning application for the proposed mixed-use development on land off Northampton Road, Brixworth, Northamptonshire.

1.1.2 Permission is sought for 16 residential dwellings and a Local Centre totalling approximately 2,900m², with associated access, servicing, landscaping and parking.

1.1.3 **Appendix A** contains the site layout plan.

1.2 Background

1.2.1 Planning permission for a local services centre at the site for mixed-use was refused in January 2021 (West Northamptonshire Council (WNC) reference WND/2021/0746). In relation to transport matters, WNC, as County Highway Authority objected to the development proposal as insufficient information has been submitted to demonstrate the impact on highway safety and the road network.

1.3 Report Purpose and Scope

1.3.1 This TS seeks to address the previous reason for refusal and consider the transport impacts that are likely to arise from the proposed development against the relevant transport planning policy considerations.

1.3.2 Following post application discussions with WNC on the previous application, the applicant proposed a new toucan crossing on Northampton Road immediately to the north of the doctor's surgery access. A Stage 1 Road safety Audit (RSA1) brief had been agreed for the access and crossing arrangement. However, no further progression was made beyond this stage.

1.3.3 This TS includes all aspects that were submitted as part of the previous application, updated where to more recent baseline data, and covers the same geographic extent.

1.4 Report Structure

1.4.1 Following this introduction, the report continues as follows:

Chapter 2 provides a review of national, regional and local development and transport policy relevant to the location and proposal;

Chapter 3 details of the existing conditions and local traffic flows;

Chapter 4 outlines the development proposals, including proposed access arrangements, internal site layout and parking and servicing arrangements;

Chapter 5 considers the likely trip generation;

Chapter 6 assesses the impacts of the development proposals on the local road network; and

Chapter 7 presents a summary of all the findings.

2.0 POLICY AND GUIDANCE REVIEW

2.1 Overview

2.1.1 This chapter considers the adopted transport and land use policies that relate to the development proposals, and how the proposals respond to and accord with these policies.

2.2 National Planning Policy Framework (Revised December 2023)

2.2.1 Sustainable development is a core aim on the NPPF. This guidance requires transport issues to be considered at the very beginning of the development and planning process. This means that active travel shall be given priority from the earliest stage. It is advised that opportunities from existing or proposed transport infrastructure are maximised, while, at the same time, promoting public transport use and active travel.

2.2.2 NPPF emphasises that development sites under consideration shall ensure they provide opportunities to promote sustainable transport modes, safe and suitable access for all users, and any network capacity or safety impacts can be cost effectively mitigated to an adequate degree.

2.2.3 It requires that sustainable modes of transport shall be promoted in order to mitigate against and avoid the negative effects of transport such as congestion and environmental impact. As a key example, Paragraph 116 a) requires that developments shall:

'give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use.'

2.2.4 Additional key matters that applications shall address include (i) the needs of people with disabilities and reduced mobility; (ii) creating safe, secure and attractive spaces, allowing for efficient delivery of goods and access by service and emergency vehicles and (iii) providing the ability for charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

2.3 Planning Practice Guidance

2.3.1 Planning Practice Guidance (PPG) was published by the Department for Communities and

Local Government on 6 March 2014. PPG provides advice on when Transport Assessments and Transport Statements are required, and what they should contain:

'Transport Assessments are thorough assessments of the transport implications of development, and Transport Statements are a 'lighter-touch' evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts).'

2.3.2 Furthermore, it states that:

'Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be "severe", which may be a reason for refusal, in accordance with the National Planning Policy Framework.'

2.3.3 And:

'The Transport Assessment or Transport Statement may propose mitigation measures where these are necessary to avoid unacceptable or "severe" impacts'.

2.4 West Northamptonshire Joint Core Strategy Local Plan (Part 1) (December 2014)

2.4.1 The West Northamptonshire Joint Core Strategy (JCS) sets out the long-term vision and objectives for the whole of the West Northamptonshire area for the plan period up to 2029, including strategic policies for steering and shaping development. It identifies specific locations for new strategic housing and employment and changes to transport infrastructure and other supporting community facilities, as well as defining areas where development will be limited. It helps to ensure the co-ordination and delivery of other services and related strategies.

2.4.2 Key policies in relation to transport planning policy include:

Policy SA: Presumption in Favour of Sustainable Development

'When considering development proposals, the relevant council will take a positive approach that reflects the presumption in favour of sustainable development contained in the national planning policy framework. It will always work proactively with applicants jointly to find solutions which mean that proposals for sustainable development will be

approved and to secure development that improves the economic, social and environmental conditions in the area.

Planning applications that accord with the policies in this local plan (and, where relevant, with policies in other local plans and neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise. Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the appropriate council will grant permission unless material considerations indicate otherwise, taking into account whether:

- Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the national planning policy framework taken as a whole;
- Specific policies in that framework indicate that development should be restricted.'

Policy C2: New Developments

'New housing, employment, commercial and retail development in the four towns of Northampton, Daventry, Towcester and Brackley and primary service villages will be expected to achieve the modal shift targets (in paragraph 6.13) by maximising travel choice from non-car modes.

Development will be required to mitigate its effects on the highway network and be supported by a transport assessment and travel plan prepared in accordance with current best practice guidelines as issued by the department for transport or the relevant local authority.'

Policy C5: Enhancing Local and Neighbourhood Connections

'The connections within urban areas, between neighbourhoods and town and district centres and the rural hinterlands of West Northamptonshire with their most accessible service centre, will be strengthened by the following measures:

b) Personalised travel planning and voluntary travel plans;
c) Improvements to cycling networks and cycle parking.'

Policy H1: Housing Density and Mix and Type of Dwellings

"Across West Northamptonshire new housing development will provide for a mix of house types, sizes and tenures to cater for different accommodation needs including the needs of older people and vulnerable groups. Housing developments will be expected to make the most efficient use of land having regard to the following considerations:

c) Accessibility to services and facilities;
d) Proximity to public transport routes.

2.5 Northamptonshire Transportation Plan (March 2012)

2.5.1 The Northamptonshire Transportation Plan sets out six objectives which provide a basis for guiding the overall aim of the plan, the objectives are as follows:

- Fit for the future
- Fit for the community
- Fit to choose
- Fit for economic growth
- Fit for the environment
- Fit for best value

2.5.2 Strategic Policy 2 set out within the document states that NCC will:

'Support the introduction of effective and attractive sustainable transport options that will encourage lasting modal shift in Northamptonshire. We have set two targets for modal shift, based on 2001 Census journey to work data, to achieve by 2031:

- *A reduction of 5% in single occupancy car journeys to work from the existing built up areas of the towns*
- *A reduction of 20% in single occupancy car journeys to work from new developments."*

2.5.3 Strategic Policy 3 states that Northamptonshire County Council will:

'ensure that all new developments are well connected by public transport and walking, cycling and motor vehicle routes, to the existing transport network or one that can be reasonably expected to be created – this will allow ease of movement between the

development and existing built up areas and provide access to employment and key services.'

2.5.4 Strategic Policy 22 states that Northamptonshire County Council will:

'seek to reduce the impact that motor vehicles have on the local environment in Northamptonshire by minimising the effects of severance, noise and the emissions from transport.'

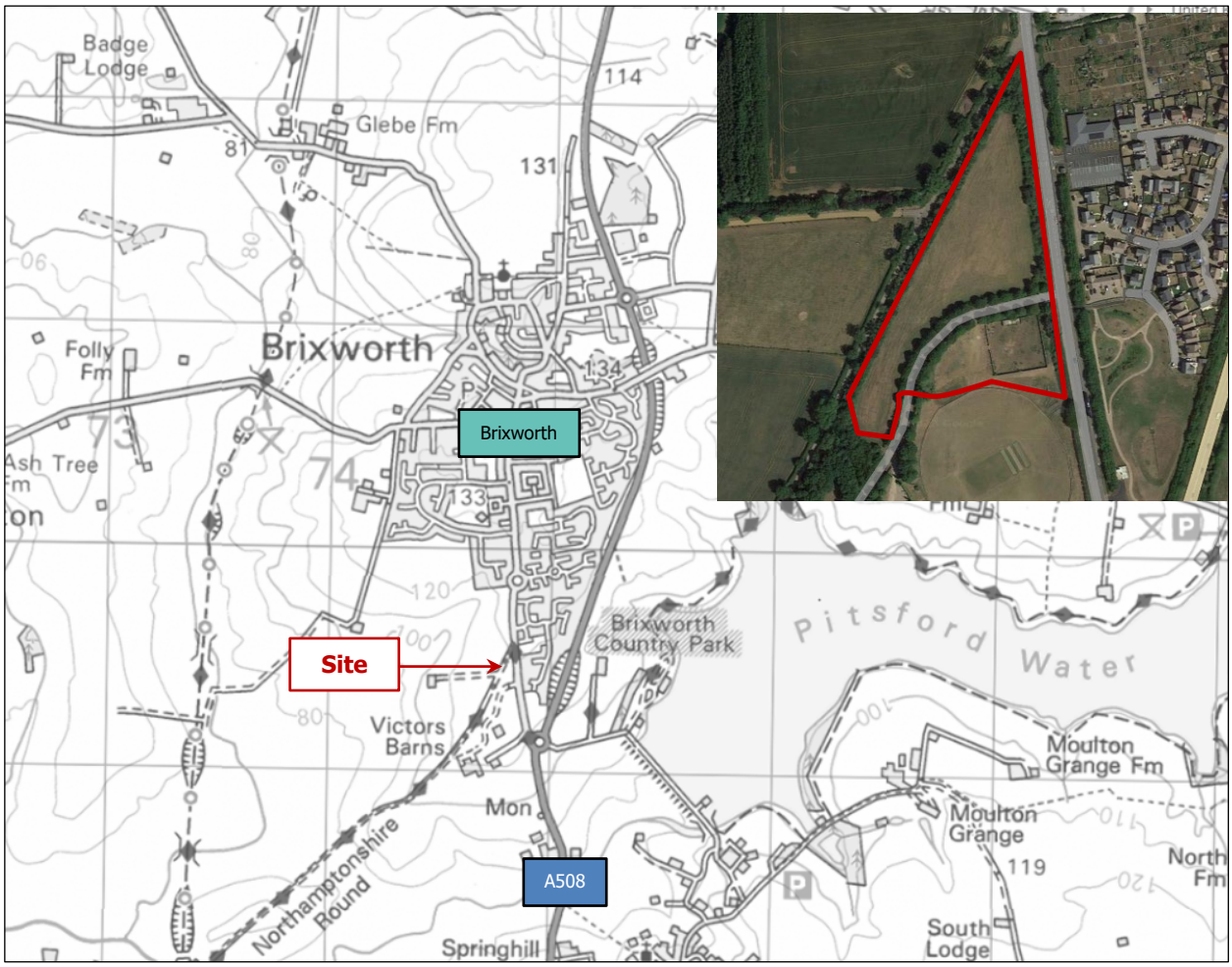
3.0 EXISTING CONDITIONS

3.1 Site Location & Description

3.1.1 Brixworth is located in central Northamptonshire, approximately 11km north of Northampton. By road Brixworth is accessible from all directions. The A508, which connects Northampton to the A14 and Market Harborough, bypasses the village to the east.

3.1.2 **Figure 1** indicates the location of the site.

Figure 1: Site Location



3.1.3 The development site is located approximately 1.2km south from the centre of Brixworth village. The east of the site is bound by Northampton Road, the south is bound by the private access road which serves Brixworth cricket ground and tennis court, Manor House, and Victors Barns. The north and west of the site is bound by Merry Tom Lane.

3.1.4 Several developments have been approved within the vicinity of the site, including outline planning application DA/2013/0510 at Victors Barn and a number of planning applications at Land to East of Northampton Road.

3.1.5 Application DA/2013/0510 was approved in April 2015 for the construction of a 60- bed nursing home, 25 x close care apartments, and 7 x close care cottages. The site is located to the south-west of the development site, at the end of the private road that will also serve the proposed development.

3.1.6 Outline permission was approved in 2013, for application DA/2012/0370, which consisted of the development of 150 houses and bungalows at Land East of Northampton Road. The reserved matters application DA/2013/0334 was also approved in 2013.

3.1.7 Outline application DA/2014/0900 was approved in July 2015 for a residential development of up to 90 dwellings and a Doctors Surgery at Land to East of Northampton Road. The subsequent reserved matters application DA/2015/0800 was in January 2016, providing a detailed site layout. As part of the development (now complete and occupied), Northampton Road was widened to provide 2 ghost island accesses into the site.

3.1.8 A footway was also installed along the eastern side of Northampton Road, adjoining the footway to the north and extending to the bus stop lay-by to the south.

3.2 Highway Network

3.2.1 Access to the site is via an existing entry which bears south west off the Northampton Road in the form of a bellmouth priority T-junction. The internal access road measures approximately 6.0m in width, is lit and tree lined.

3.2.2 Northampton Road is rural in nature across the site frontage and becomes increasingly residential at around 280m north where it runs through the village of Brixworth. The carriageway measures approximately 7m in width and is subject to the national speed limit (60mph) past the site. At approximately 150m north of the site access the speed limit reduces to 30mph as the carriageway passes through Brixworth.

3.2.3 North of the proposed site access a number of 3-arm mini roundabout junctions are located along Northampton Road throughout Brixworth village. The first is approximately 500m north from the site access where The Ashway meets Northampton Road, the second is approximately 1.0km north of the site access where Froxhill Crescent meets Northampton Road from the east. Northampton Road continues north through the northern border of Brixworth, joining Harborough Road. The A508, Harborough Road can be followed north to Market- Harborough or provides a direct link onto the A14 which runs west to southeast between Rugby and Cambridge respectively.

3.2.4 In Brixworth village itself, there is a junction with Brixworth Road (for part of the distance known as Holcot Road) which links with the A5199 Northampton – Leicester road at Spratton and with the A43 Northampton – Kettering Road north of Sywell. This road crosses Pitsford Water by a causeway.

3.2.5 South of the proposed site access the Northampton Road meets Harborough Road and forms a 4-arm roundabout junction. Following Harborough Road south from this junction, the A508 Harborough Road provides a direct link through Pitsford and Boughton villages and into the centre of Northampton approximately 9km from the site.

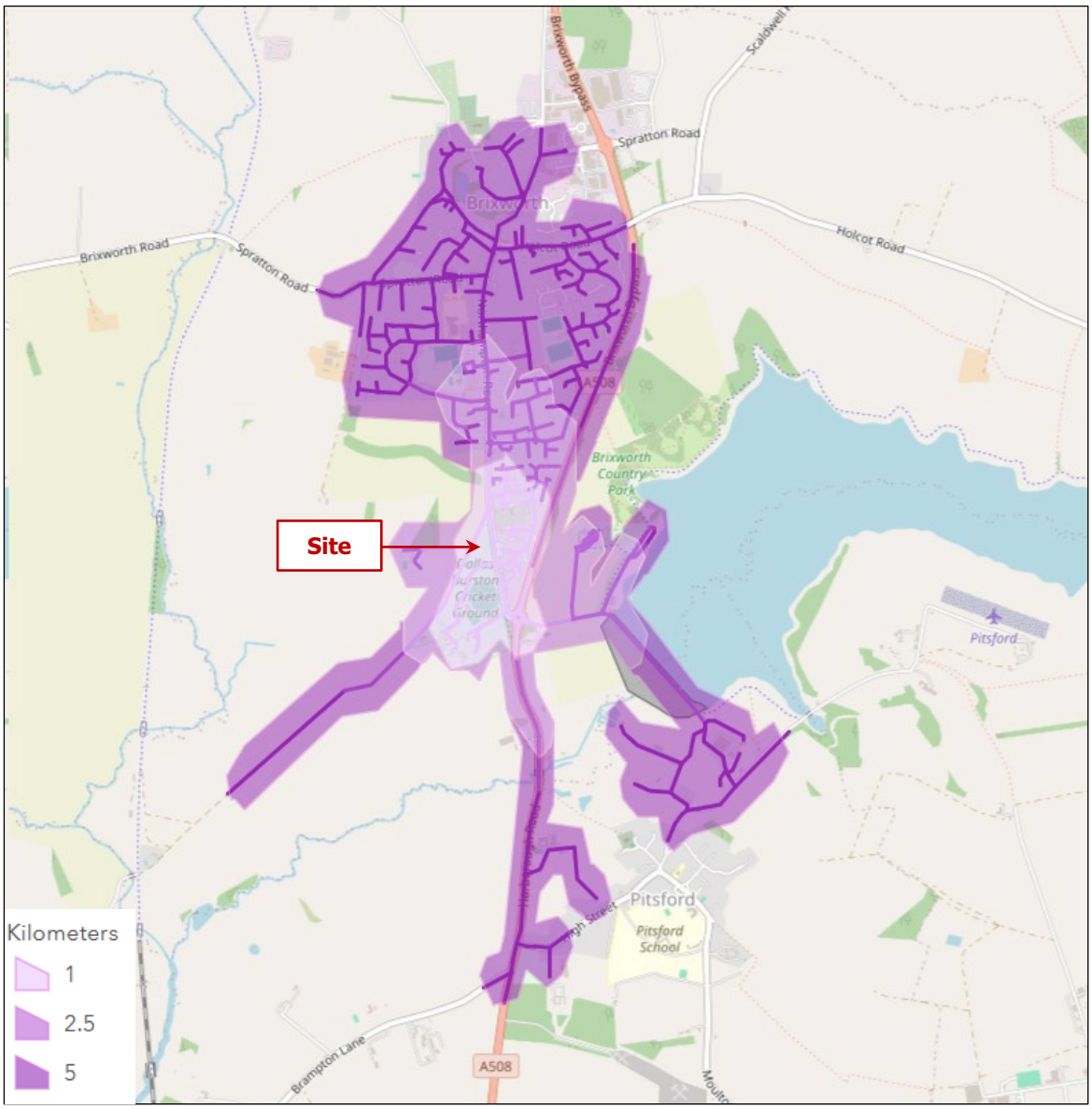
3.2.6 The A508, which connects Northampton to the A14 and Market Harborough, bypasses the village to the east.

3.3 Sustainable Transport Accessibility

Walking

3.3.1 Walking is widely considered to be the most important mode of travel at a local level. **Figure 2** shows the 0.5km 1km and 2km isochrones from the site access. From the catchment plan, it can be appreciated that the majority of Brixworth lies within 2km of the site, making the site easily accessible by foot for most people.

Figure 2: Walking Catchment- 2km



3.3.2 Despite its rural setting, the site benefits from adequate walking and cycling access. A shared foot and cycleway, measuring approximately 1.7m wide, extends along the

western side of Northampton Road. At approximately 300m north of the site access there is a designated crossing point with dropped tactile paving and a central relief, at this point the shared foot and cycleway continues on the eastern side of the Northampton Road. Similar provision extends throughout Brixworth village where the 30mph speed limit ensures cyclists and pedestrians can travel safely.

3.3.3 Approximately 200m north of the proposed site access an off-road access extends south west and provides a direct link to the A5199 Welford Road. This is a designated Public Right of Way (PROW) Bridleway and also forms part of the National Cycle Route (NCR) 6. NR 6 provides a direct link into the centre of Northampton. The route also extends east from the Northampton Road where it runs from Brixworth Country Park and around Pitsford Water.

Bus

3.3.4 The nearest bus stops are conveniently located on Northampton Road, approximately 170m south-east of the site centre, and 185m north of the site centre (a walk of approximately 2 minutes). The bus stops to the south-east of the site are flag-and-pole stops, with a bus lay-by on the eastern side of the Northampton Road. The bus stop to the north of the site is also a flag-and-pole stop, with timetable information and shelter provision.

3.3.5 The X7 bus service is run by Stagecoach and operates Monday to Sunday on an hourly frequency along Northampton Road, between Northampton and Leicester. The 60 bus service differs, as it only operates three services per day (from the nearest stops), between Northampton and Welford.

3.3.6 A summary of the bus services operating in close proximity to the site can be found within **Table 1** below.

Table 1: Summary of Local Bus Services

Service	Route	Typical Frequency
X7	Northampton- Leicester	Hourly (Mon-Sun)
60	Northampton- Welford	3 per day Mon - Fri: NB-11:22, 14:52 and 17:57 SB- 08:37, 10:31, 12:44

3.3.7 The above demonstrate that the application site is served by a number of frequent bus services throughout the week It is therefore considered that residents, staff and visitors would be able to use public transport throughout the day to access the site.

Rail

3.3.8 The closest train station is south of the site in Northampton city centre and therefore the bus is more practical.

3.4 Highway Safety (Personal Injury Collision Data)

3.4.1 In order to establish whether there are any safety concerns on the local highway network that could be exacerbated by travel demand associated with the proposed development, collision records for the period between 1st October 2018 to 30th September 2023 has been obtained from WNC.

3.4.2 Below, analysis has been undertaken to determine if there any trends in the types or location of PIC's on the highway network. Further information about the PIC study area and full PIC outputs are contained within **Appendix B**.

3.4.3 The results show a total of four PICs consisting of three 'slight' PICs and 1 'serious' PICs within the 5-year search period. There were no collisions recorded at the proposed site access junction.

3.4.4 The serious collision was recorded on the A508/ Northampton roundabout in 2022. The single incident occurred during daylight hours involved a cyclist falling from his bike. No other vehicles were involved.

3.4.5 The causation factor for the slight collisions were recorded as driver error/ driver losing control.

3.4.6 From this analysis, it is clear that there are no identifiable highway safety issues within the local area that would warrant mitigation as part of the development proposals.

3.5 Local Amenities and Services

3.5.1 The proximity of local amenities to the site and the ability to reach such facilities by foot and cycle are a key consideration when determining the sustainability of a development.

3.5.2 It is generally considered that for distances under 2km, walking offers the greatest potential to replace short car trips. This is confirmed in paragraph 4.4.1 of the Manual for Streets (DfT 2007) which states that:

> *"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to approximately 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not defined as an upper limit and PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2km. MfS encourages a reduction in the need to travel by car through the creation of mix-use neighbourhoods with interconnected street patterns, where daily needs are within walking distance for most residents"*

3.5.3 Furthermore, it is generally accepted that cycling has the potential to substitute for short car trips, particularly those less than 5km.

3.5.4 An accessibility study has been undertaken to establish which key facilities and amenities are available in the local area. This is presented in **Table 2**.

Table 2: Local Facilities

Amenity	Location	Distance from Site	Walking Target	Cycle Target
Education				
Brixworth Primary School	Froxhill Crescent	1.3km	✓	✓
Brixworth Day Nursery	Northampton Road	1.0km	✓	✓
Health				
Saxon Spires Practice (Brixworth Surgery)	Northampton Road	0.3km	✓	✓
Brixworth Dental Practice	Spratton Road	1.6km	✓	✓
Shops/ Food/ Recreation				
Brixworth Cricket and Tennis Club	Northampton Road	0.1km	✓	✓
Brixworth Park	Hornbeam Road	0.3km	✓	✓
Brixworth Country Park	Northampton Road	1.1km	✓	✓
Brixworth Library	Spratton Road	1.6km	✓	✓
Brixworth Post Office	Spratton Road	1.6km	✓	✓
Co-op Brixworth	Harborough Road	1.7km	✓	✓
Transport				
Local bus stops	Northampton Road	0.3km	✓	✓

3.5.5 **Table 3** demonstrates that the site is close to existing services and amenities that are typically required by residents on a daily basis.

3.5.6 The proposed local centre will provide a range of local retail, food and drink, business and community uses which will serve future residents and the wider community. As such the proposed local centre presents an opportunity to encourage a high level of containment of trips within the area and it would be anticipated that the majority of the trips to the development will be from the surrounding homes.

3.6 Summary

3.6.1 Overall, the site represents an excellent location for development. The proposed development is shown to be well served for pedestrian, cyclist and public transport infrastructure.

3.6.2 The footway provision between the development and neighbouring dwellings is adequate for purpose and would allow pedestrians of the development to access the local facilities.

3.6.3 There is a range of local facilities located within walking and cycling distance from the site. Furthermore, there will be a comprehensive range of facilities and amenities provided as part of the development itself, which will be available to all site users and the surrounding community.

4.0 DEVELOPMENT PROPOSALS

4.1 Description of Development

4.1.1 The development is formally described in the application as follows:

"Mixed use development (Local Services Centre) comprising commercial, business and service uses, and the provision of Spa and Wellbeing Centre within Class E; mixed use restaurant and takeaway use (sui generis); and the provision of up to 16 Affordable Houses (Class C3). All matters reserved except for Access"

4.2 Development Schedule

4.2.1 The proposals for development are illustrated on the Proposed Site Plan, contained within **Appendix A** and indicates provision for the following:

Table 3: Local Centre Development Schedule

Land Use	Floorspace
Gymnasium / Dance School	316m²
Offices	702m²
National Supermarket Operator	418m²
Pharmacy	140m²
Drive-thru Facility	358m²
Spa & Wellness Centre	990m²
Total	2,924m²

4.2.2 The development will also contain up to 16 dwellings, (8 blocks of semi-detached units) situated at the southwestern corner of the site.

4.3 Access

4.3.1 The proposed development will be accessed by vehicles via the existing private road which serves the cricket ground, several dwellings, a vineyard and agricultural uses. This private road has a width of circa 6m. The current simple priority junction will be upgraded to provide a right turning land ghost island junction, as shown in **DTA Drawing 25316-01a**.

4.3.2 Internally, a number of vehicular accesses will be provided. This will improve safety for all users and minimising conflict and risk. The residential dwellings are proposed at the

southwestern end of the site and will have its own access fronting onto the private road.

4.3.3 Pedestrian access is provided directly off Northampton Road via the creation of four new pedestrian access, two of these provide general access, one provides access to the pharmacy and a further provides access to the convenience store, these can be seen on the proposed layout.

4.3.4 It is anticipated that the site access road will be lit and ultimately offered up for formal adoption as public highway.

4.4 Internal Layout and Servicing Arrangements

4.4.1 The access road and its suitability has been detailed by DTA under a separate cover in Technical Note 25317-01, contained within **Appendix C**. It demonstrates that that the current general arrangement of the site access road meets the requirements of the Local Highway Authority.

4.4.2 The access junction and internal road network have been designed to accommodate a 7.5T delivery truck and a small articulated vehicle, with these typically used for deliveries to a drive-thru and smaller sized supermarkets.

4.4.3 Vehicle tracking assessments have been undertaken at the site access and along the internal layout using both a 7.5T delivery truck and a small articulated vehicle (10.7m long). The tracking assessments for the site accesses and internal turning head are shown in drawings **DTA Drawing 24121-01** and **24121-01-1** and demonstrate that the design vehicles can negotiate the site layout.

4.4.4 Technical Note 25317-01 also presents vehicle tracking information for a refuse collection vehicle. This shows that the turning area at the southern end of the access road provides adequate turning and that the road can accommodate the tracking envelope of the vehicle.

4.5 Road Safety Audit

4.5.1 An independent Stage 1 Road Safety Audit of the proposed access arrangements will be commissioned following any comments received from WNC. The audit report, together with the Designer's Response to the Audit and potential revised drawings shall be

submitted to WNC in due course under a separate cover.

4.5.2 It is envisaged that any safety concerns regarding the site access can be fully resolved at the detailed design stage.

4.6 Parking

4.6.1 Chapter 9 of The Northamptonshire Parking Standards Document (September 2016) provides parking standards which developments are required to adhere to. The parking requirements for the development are set out below.

Local Centre and Spa and Wellness & Spa Centre

Table 4: Parking Requirements - Local Centre & Spa and Wellness & Spa Centre

Land Use	Floorspace	Car Parking		Cycle Parking	
		Ratio	Spaces	Ratio	Spaces
Gymnasium / Dance School	316m²	10	16*	10+1/10	12
Offices	702m²	30	23	100 + 1/200	11
National Supermarket Operator	418m²	20	21	200+1/200	4
Pharmacy	140m²	25	6	200	1
Drive-thru Facility	358m²	14	26	60+1/60	12
Spa & Wellness Centre	990m²	10	*50**	10+1/10	15

**the parking requirement is based on the public accessible areas which will comprise 50% of the total area.*

4.6.2 With regards to the Local Services Centre and including the Spa and Wellbeing Centre, provision has been made for 104 car parking spaces, 10 accessible parking spaces and 59 electric vehicle charging spaces. The parking proposals for the local centre and spa & wellness centre are therefore compliant with the standards set out within the local parking standards.

Residential Site

4.6.3 The final provision, design, and layout of parking spaces for the residential element of the site is yet to be determined. However, it is proposed that car parking for the dwellings will be based on NCC's parking standards.

4.6.4 The relevant car parking standards for the proposed residential land use have been extracted and are summarised in **Table 5**.

Table 5: NCC Parking Requirements – Residential (C3)

Land Use	Parking Standard	
	Car	Cycle
1 bed	1	1 per bedroom
2 /3bed	2	
4+ beds	3	

4.6.5 On-plot cycle parking will be provided for each dwelling. This will be sheltered and secure, and in the form of private garages or sheds where appropriate.

4.6.6 With regard to electrical vehicle charging, ducting will be provided allowing each resident to choose whether they wish to connect up to and implement an electric charging point.

4.7 Promoting Sustainable Travel

4.7.1 A Travel Plan guide will be issued to all residents and staff. This Travel Plan measure would provide awareness to all new staff of the proposed development of the transport opportunities and nearby local facilities to the site to further encourage travel by sustainable modes. The Travel Plan guide will be prepared (secured through a Planning Condition) and distributed prior to occupation/ commencement of employment.

4.8 Off-site Works

4.8.1 An off-site proposed enhancement comprises of a new formal crossing on Northampton Road, as shown in **DTA Drawing 25316-01a**. This proposed enhancements will improve the overall permeability of the site and increase opportunities for residents and staff to walk between the site and the village centre, NCR 6 as well as the Country Park (Pittsford Water). At the time of writing, the proposed pedestrian crossing is subject to a Stage 1 Road Safety Audit.

4.9 Public Transport Strategy

4.9.1 It is considered that the existing bus routes serving the development are acceptable to support modal shift.

4.9.2 The highways consultation response to the previous application TA requested that the stops would be required to be upgraded to bus shelters with a commuted sum secured via a Section 106 agreement for the ongoing maintenance.

4.9.3 The applicant is committed to upgrading the existing bus stops by providing bus stop shelters to replace the existing flag and pole stops at the 'Hill top' stops on Northampton Road. Therefore, discussions will be held with WNC and the company that owns and maintain the bus stop. On initial inspection, there does appear to be the opportunity to deliver the bus shelters as requested and, on that basis, it is suggested the Section 106 can include a provision for the delivery of upgraded bus shelters.

5.0 TRAVEL DEMAND

5.1 Forecasted Traffic Demand

5.1.1 To predict the level of traffic generation for the proposed development, information on vehicle arrival/departures from TRICS (version 7.10.3) has been interrogated to find suitable data to assist in projecting the trip generation of the proposed uses. TRICS is a nationally accepted database, containing observed generated traffic data at a large number of different development sites, and such can produce reliable trip rate information.

Local Centre and Wellness & Spa Centre

5.1.2 The vehicle trip selection criteria for the local centre and wellness & spa centre is set out in **Table 6** below. The full TRICS data is enclosed in **Appendix D**.

Table 6: TRICS Parameters- Local Centre and Wellness & Spa Centre

Land Use	Land Use Selection	
	Main Land Use	Sub Land Use
Gymnasium / Dance School	07 – Leisure	K – Fitness Club (Private)
Offices	02 – Employment	A - Office
National Supermarket Operator	01 - Retail	O – Convenience Store
Pharmacy	01 - Retail	I – Local Shops
Drive-thru Facility	06 – Hotel, Food and Drink	J - Drive Through Coffee Shop
Spa & Wellness Centre	07 – Leisure	K – Fitness Club (Private)
Residential Dwellings	03 - Residential	B - Affordable/Local Authority Houses

5.1.3 From the TRICS database, the predicted vehicle rip rates are set out in **Table 7** below.

5.1.4 Based on the selection criteria applied to inform the trip rate of the development, **Table 7** summarises the predicted vehicular trip rate and of the development at the typical network peak hours of 08:00 – 09:00 and 17:00 – 18:00.

Table 7: TRICS Vehicular Trip Rates

Land Use	AM			PM		
	Arr	Dep	Total	Arr	Dep	Total
Gymnasium / Dance School	1.238	0.990	2.228	2.723	0.743	3.446
B1 Offices	2.782	0.253	3.035	0.000	2.951	2.951

National Supermarket Operator	9.277	9.482	18.759	8.663	8.731	17.394
Pharmacy	8.138	7.632	15.770	12.782	13.05	25.839
Drive-thru Facility	16.344	14.194	30.538	9.247	10.860	20.107
Spa & Wellness Centre	1.238	0.990	2.228	2.723	0.743	3.446
Residential Dwellings	0.196	0.307	0.503	0.386	0.302	0.688

5.1.5 The trip rates presented in Table 8 have been used to calculate the number of trips that may be generated by the Local Centre, Spa & Wellness centre and residential dwellings, the results of which are shown in **Table 8**.

Table 8: Vehicular Trip Generation- Proposed Development

Land Use	AM			PM		
	Arr	Dep	Total	Arr	Dep	Total
Gymnasium / Dance School	4	3	7	9	2	11
B1 Offices	20	2	21	0	21	21
National Supermarket Operator	39	40	78	36	36	73
Pharmacy	11	11	22	18	18	36
Drive-thru Facility	59	51	109	33	39	72
Spa & Wellness Centre	12	10	22	27	7	34
Dwellings	3	5	8	6	5	11
Total	148	121	268	129	129	258

5.1.6 As indicated in **Table 8**, application of the trip rates derived from TRICS suggests that the proposed development may generate broadly 250 two way vehicle trips in the peak periods.

5.1.7 During the peak periods, a significant proportion of the vehicle trips associated with the supermarket, pharmacy, drive thru and gym will be either pass-by trips or diverted trips in that they will already exist on the highway network.

5.1.8 In the case of pass-by trips, these are likely to be users already heading on a southwards journey out of Brixworth and stop before continuing their journey or vehicles making the return journey. These users of the local services centre would not generate new vehicle trips on the highway network.

5.1.9 Diverted trips could include several different user types including those making trips to similar facilities which already exist in Brixworth or further afield choosing to use these facilities instead. With a significant number of new properties recently constructed to the

east of the site, this development could significantly reduce their journey distance on the highway network thus resulting in an overall improvement and reduction in vehicular impact from these journeys.

5.1.10 Several services on the site will see users visiting multiple uses on the site. These are known as linked trips, where one trip to a site replaces several trips if the uses were in different locations. Most linked trips have not been considered in this impact assessment. This would also include users of the Doctors' Surgery opposite making linked trips with the pharmacy on the proposed development site.

5.1.11 Therefore, the vehicle trip calculation, shown in **Table 8**, is a worst-case assessment. Due to various reasons the actual number of new vehicle trips likely to be generated by the proposed development will be significantly less than that shown in **Table 8**. A summation of the anticipated reductions in vehicle trips due to linked, pass-by and diversions is set out below in **Table 9**. These are in accordance with the previously accepted reduction rates.

Table 9: Percentage Reduction in Vehicle Trips due to Linked, Pass-by and Diversions

Land Use	Percentage Reduction	
	AM Peak	PM Peak
Gymnasium / Dance School	40%	20%
Offices	0%	0%
National Supermarket Operator	60%	60%
Pharmacy	35%	35%
Drive-thru Facility	90%	90%
Spa & Wellness Centre	40%	40%

5.1.12 Using these reduction factors, the vehicle trips in **Table 8** have been adjusted to generate new predicted peak hour vehicle trip movements.

Table 10: Revised Vehicular Trip Generation (Pass by & Diverted Trip Reduction)

Land Use	AM			PM		
	Arr	Dep	Total	Arr	Dep	Total
Gymnasium / Dance School	2	3	5	5	2	7
B1 Offices	20	2	21	0	21	21
National Supermarket Operator	16	16	31	31	15	46
Pharmacy	7	7	14	12	12	24
Drive-thru Facility	6	5	11	3	4	7
Spa & Wellness Centre	7	6	13	16	4	21
Dwellings	3	5	8	6	5	11
Total	61	43	104	74	62	136

5.1.13 The reduction in vehicle trips due to linked, pass-by and diversions is shown to be broadly 50%-60% across the whole development. With or without this reduction, the impact of this development is this location is considered to be insignificant.

6.0 TRAFFIC IMPACT

6.1 Junction Capacity Assessment

6.1.1 Notwithstanding the conclusion above, a detailed review of junction operational capacity has been carried out for the proposed site access junction and the A508/Northampton Road roundabout. The assessment methodology, parameters and results are presented in the following subsections.

6.2 Assessment Years & Scenarios

6.2.1 The traffic impact of the development has been considered for a 2033 (10 years from application) forecast year, with two scenarios tested: linked, pass-by and diversions and the second without reduction as a sensitivity test representing the worst-case scenario. Consequently, the following scenarios have been modelled:

- 2023 Base;
- 2033 linked and pass-by; and
- 2033 with 100% development traffic

6.3 Background Network Traffic

6.3.1 To account for background growth on the local road network, the 2023 base traffic flows were factored to the future assessment years using rates obtained from DfT's TEMPro 8.1 computer programme using the National Trip End Model (NTEM) dataset 'NRTP 2022 Core'.

6.3.2 Based on the Daventry 002 (MSOA E02005620) sub area, the traffic growth factors applied to the 2023 base scenario are shown below:

Table 11: TEMPro Growth Factors

Area	Road Type	Period	AM Peak	PM Peak
Daventry 002	A Road	2023-2033	1.096	1.103

6.4 Model Outcomes

6.4.1 The junction capacity assessment has been undertaken using industry standard software Junctions 10. The outputs provide a Ratio to Flow Capacity (RFC) and maximum queue lengths associated with each arm of the junction. RFC values exceeding 0.85 signify a point at which capacity is being approached and the potential to improve capacity at the junction should be explored.

6.4.2 The geometric parameters entered into the models have been taken from the TS prepared in support of the previous application. As part of WNC's TS review, the geometric parameters were approved.

6.4.3 The results of the modelling scenarios are summarised in the tables below, with the full outputs also contained within **Appendix E**.

Site Access/ Northampton Road

Table 12: Site Access/ Northampton Road Assessment Summary Results

Arm	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
	2023			
Site Access	0.00	0	0.00	0
Northampton Road North	0.00	0	0.00	0
	2033 + Development (Pass by/ Diverted Trips)			
Site Access	0.11	0	0.13	0
Northampton Road North	0.06	0	0.06	0
	2033 + Development (100%)			
Site Access	0.30	0	0.35	1
Northampton Road North	0.16	0	0.17	0

6.4.4 The results show that the site access junction is forecast to operate without measurable impact on Northampton Road in both scenarios.

J1: A508/Northampton Road Roundabout Junction

Table 13: Site Access/ Northampton Road Assessment Summary Results

Arm	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
	2023			
A508 North	0.40	1	0.33	1
Country Park Access	0.00	0	0.01	0
A508 South	0.46	1	0.54	1
Northampton Road	0.27	0	0.15	0
	2033 + Development (Pass by/ Diverted Trips)			
A508 North	0.45	1	0.37	1
Country Park Access	0.00	0	0.01	0
A508 South	0.52	1	0.60	2
Northampton Road	0.32	0	0.19	0
	2033 + Development (100%)			
A508 North	0.46	1	0.38	1
Country Park Access	0.00	0	0.01	0
A508 South	0.54	1	0.61	1
Northampton Road	0.34	1	0.21	0

6.4.5 The results indicate that the junction operates with reserve capacity in both scenarios, with the proposed development having a negligible impact on the performance of the junction.

7.0 SUMMARY AND CONCLUSION

7.1 This Transport Statement has been produced in relation to the proposed mixed-use development is located at land off Northampton Road, Brixworth.

7.2 This report has assessed the impact of the development on the local transport network, and demonstrates the following:

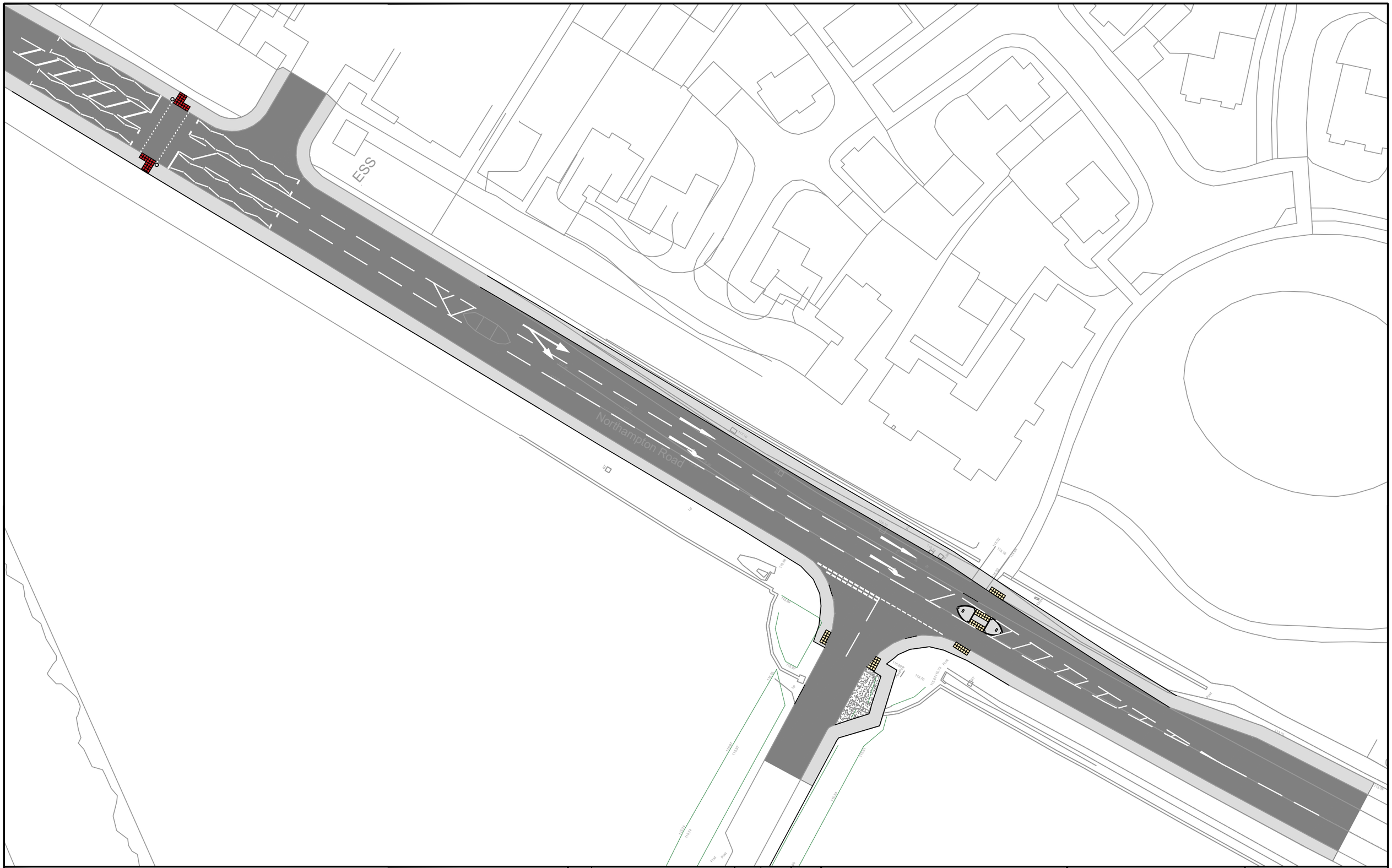
- The proposed development is shown to be well served for pedestrian, cyclist and public transport infrastructure.
- The sites' location benefits from easy access to walking and cycling facilities, as well as public transport provision by bus;
- Key amenities are accessible within the recommended walking and cycling distances;
- A review of the latest five-year personal injury collision data for the surrounding area does not indicate any existing highway safety issues that would warrant mitigation as part of the development;
- The site access arrangements are considered to be safe and suitable to accommodate the proposed development;
- Predicted trip generation will be negligible during peak periods and there will be no discernible impact on the local road network as a result of the development; and
- A Travel Plan Guide will be issued to all tenants in order to promote sustainable travel to from the site.

7.3 Paragraph 115 of the NPPF states that:

'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'

7.4 This report has demonstrated that the impacts of the application site are not deemed severe. Based on the information provided; there are no transport reasons why the development should not be granted planning permission.

Drawings



REV	DESCRIPTION	DRAWN	INITIALS	DATE

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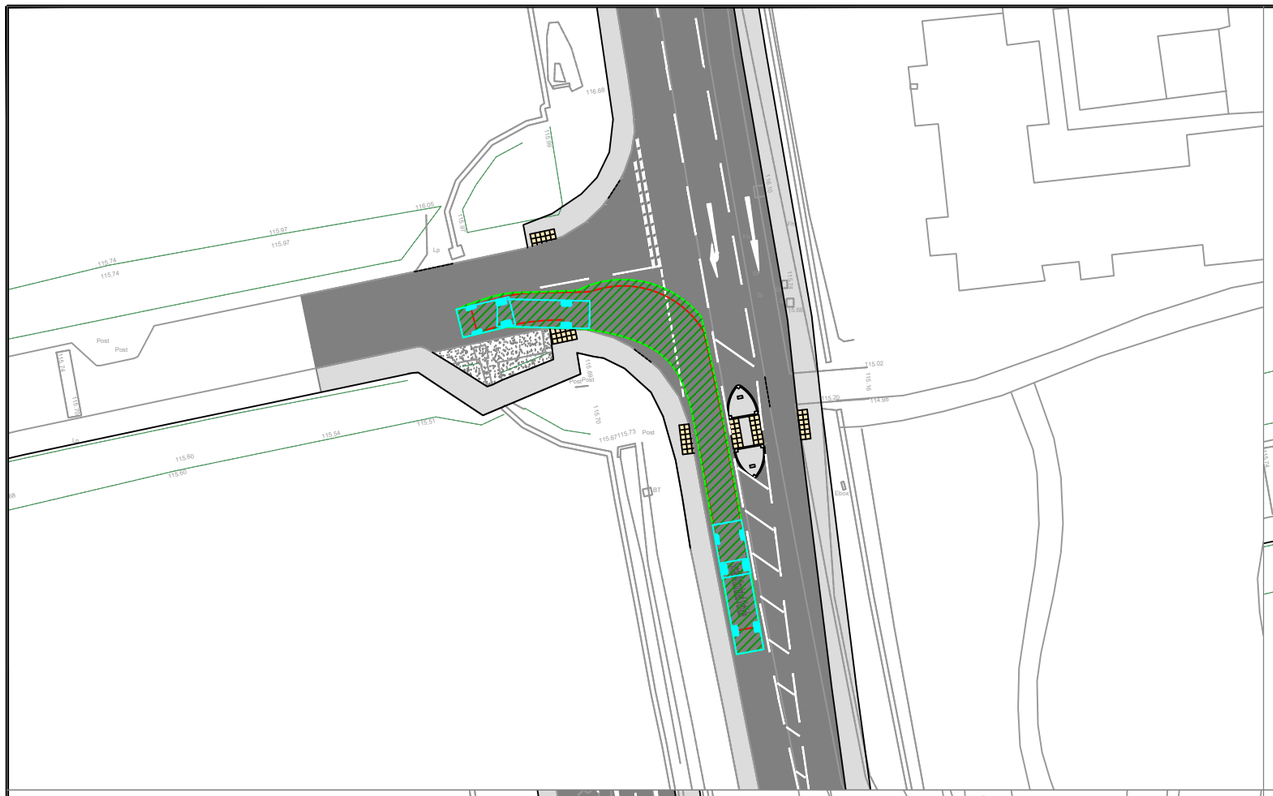
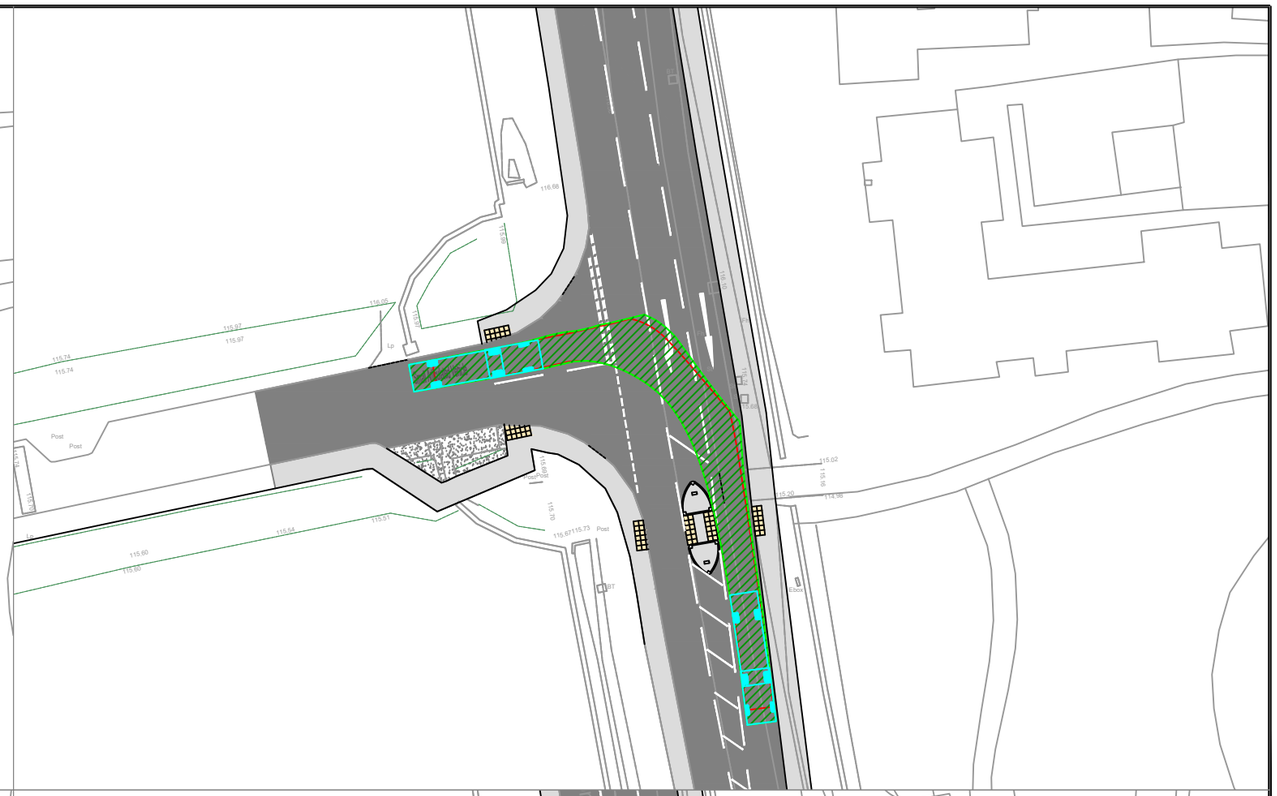
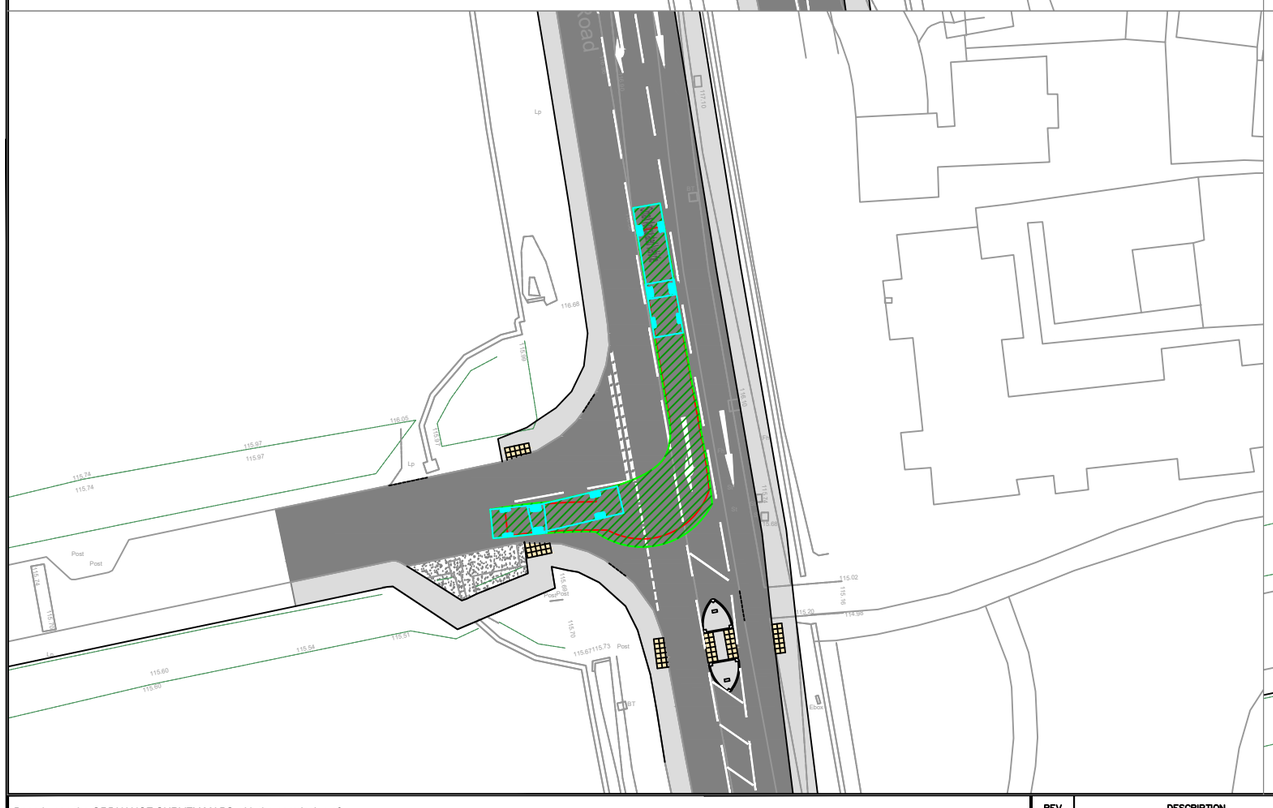
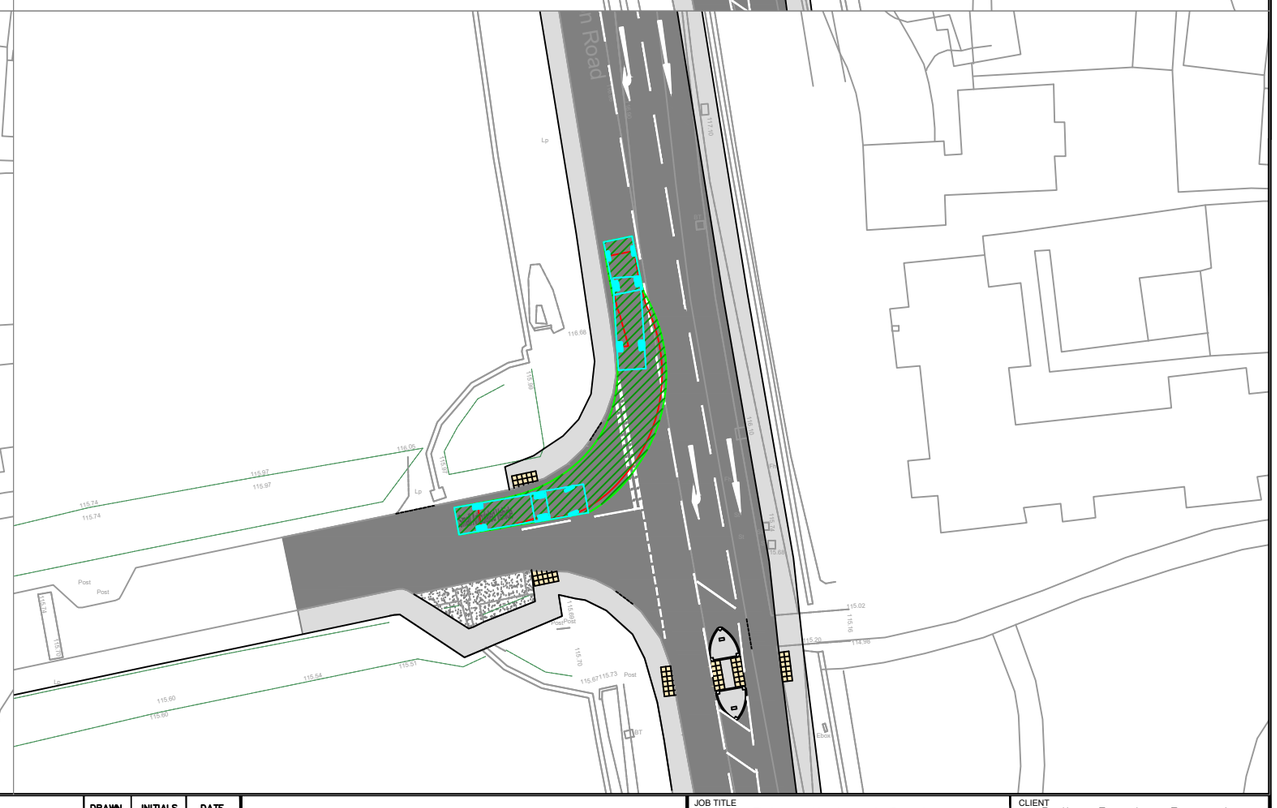
JOB TITLE: Brixworth Local Centre				CLIENT: Dr D Burston	
DRAWING TITLE: Proposed Junction Improvements & Signalised Crossing					
SCALE: 1:500@A3	DRAWN BY: DN	DATE: Dec 23	DRAWING No: 25316–01		REVISION: A









REV	DESCRIPTION	DRAWN	INITIALS	DATE

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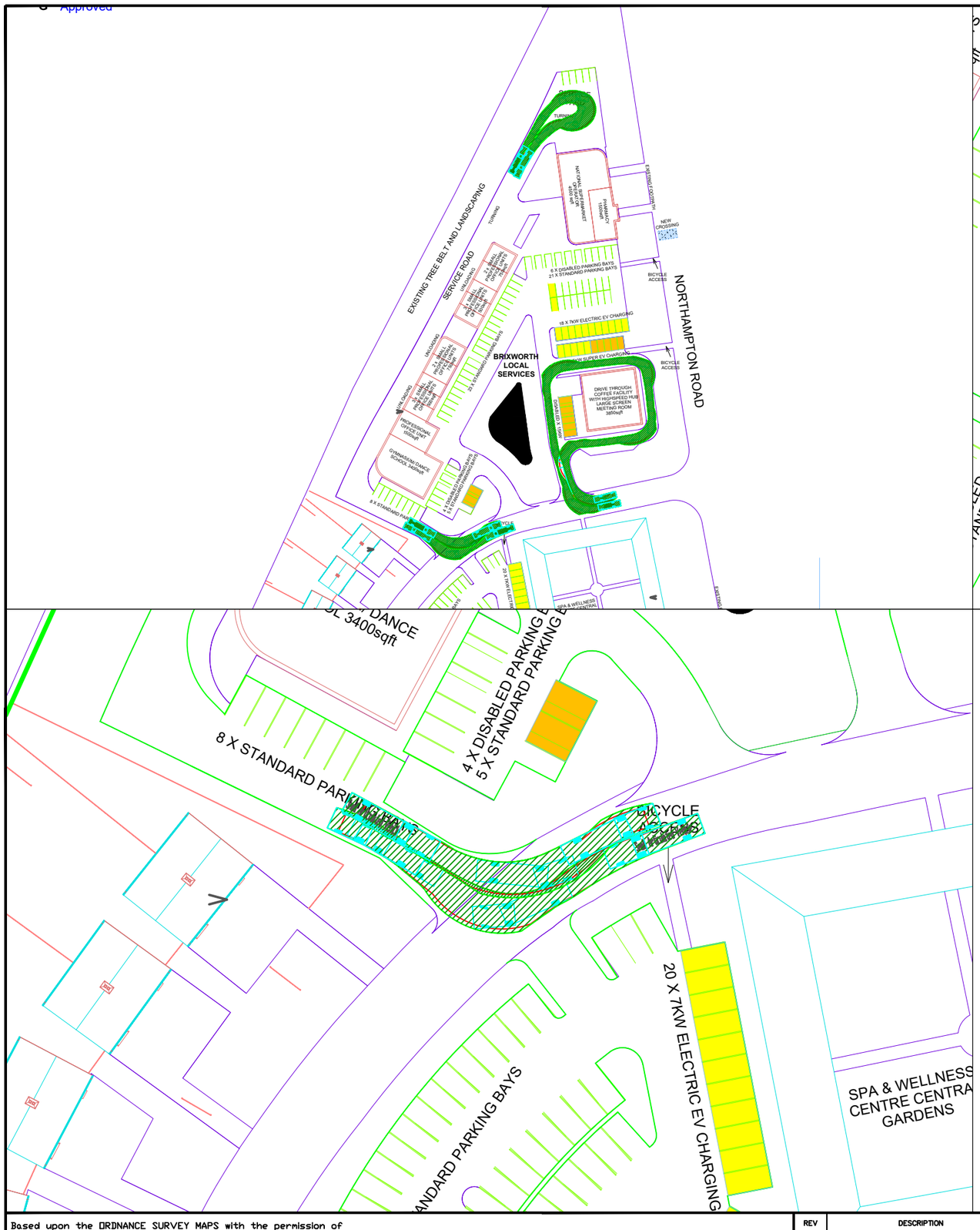
JOB TITLE: Brixworth Local Services

CLIENT: Dallas Burston Property

DRAWING TITLE: Swept-path Analysis
Site Access

SCALE	DRAWN BY	DATE	DRAWING No	REVISION
1:500 @A3	SC	Feb 2024	25316-01-1	a

Approved



REV	DESCRIPTION	DRAWN	INITIALS	DATE

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JOB TITLE	CLIENT
Brixworth Local Services	Dallas Burston Property

DRAWING TITLE
Swept Path Analysis
Internal Layout

SCALE	DRAWN BY	DATE	DRAWING No	REVISION
1:500 @A3	SC	Feb 2024	25316-02	

Appendix A

KEY

A Existing Vineyard

B Existing Farm Land

C Approved Trekking Centre & Parking
Proposed Best of British Wine & Food Building &
Proposed Central Viticulture Academy

D Proposed Existing Barn Conversion to 5 Dwellings

E Approved 25 Extra Care Cottages

F Existing & Built 14 Houses & Manor House

G Approved 60 Bed Care Home (2023/6277/MAR)
with 78 parking spaces (13 EV spaces)

H Existing Cricket & Tennis Club

I Proposed Spa & Wellness Centre
74 parking spaces (29 EV spaces)

J Proposed 16 Affordable Houses

K Proposed Brixworth Local Services
100 parking spaces (30 EV spaces)

L Proposed 2 Extracare Bungalows (WND/2023/0010)

M Approved & Built 7 Care Cottages

0m 13m 26m 39m 52m 65m

VISUAL SCALE 1:650 @ A1

KEY

7KW ELECTRIC EV CHARGING

15KW SUPER EV CHARGING

STANDARD PARKING	104
DISABLED PARKING	10
EV PARKING	55
EV DISABLED PARKING	4

BRIXWORTH LOCAL SERVICES (K)
100 Parcking Spaces (30 EV Spaces)

16 x SEMI DETACHED AFFORDABLE HOMES (J)

APPROVED 60 BED CARE HOME (G)
78 Parcking Spaces (13 EV Spaces)

SPA & WELLNESS CENTRE (I)
Single storey building built on footprint of existing structure.
74 parking spaces (29 EV spaces)

EXISTING CRICKET & TENNIS CLUB (H)

EXISTING CRICKET & TENNIS CLUB (H)

Recreation Facility To Be Transferred As A Brixworth Community Assest

EXISTING TREE BELT AND LANDSCAPING
SERVICE ROAD
EXISTING FOOTPATH
SERVICE YARD
TURNING
NATIONAL SUPERMARKET OPERATOR 4500 sqft
PHARMACY 1500sqft
NEW CROSSING
BICYCLE ACCESS
NORTHAMPTON ROAD
6 X DISABLED PARKING BAYS
21 X STANDARD PARKING BAYS
18 X 7KW ELECTRIC EV CHARGING
10 X 15KW SUPER EV CHARGING
UNLOADING
2 X SMALL PROFESSIONAL OFFICE UNITS 705sqft
3 X SMALL PROFESSIONAL OFFICE UNITS 500sqft
23 X STANDARD PARKING BAYS
BRIXWORTH LOCAL SERVICES
SUDs
DISABLED X 15KW SUPER EV CHARGING
DRIVE THROUGH COFFEE FACILITY WITH HIGHSPEED HUB LARGE SCREEN MEETING ROOM 3850sqft
PROFESSIONAL OFFICE UNIT 1500sqft
GYMNASIUM/ DANCE SCHOOL 3400sqft
8 X STANDARD PARKING BAYS
4 X DISABLED PARKING BAYS
5 X STANDARD PARKING BAYS
16 X STANDARD PARKING BAYS
20 X 7KW ELECTRIC EV CHARGING
9 X 15KW SUPER EV CHARGING
SPA & WELLNESS CENTRE CENTRAL GARDENS
EXISTING FOOTPATH

1 Site Plan (NORTH)
1 : 625

Revision	Description	Drawn	Date	Checked
1	Site plan updated following arboricultural survey	NS	19.12.2023	NS

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Client's Name: DR. DALLAS BURSTON

Job Title: BRIXWORTH

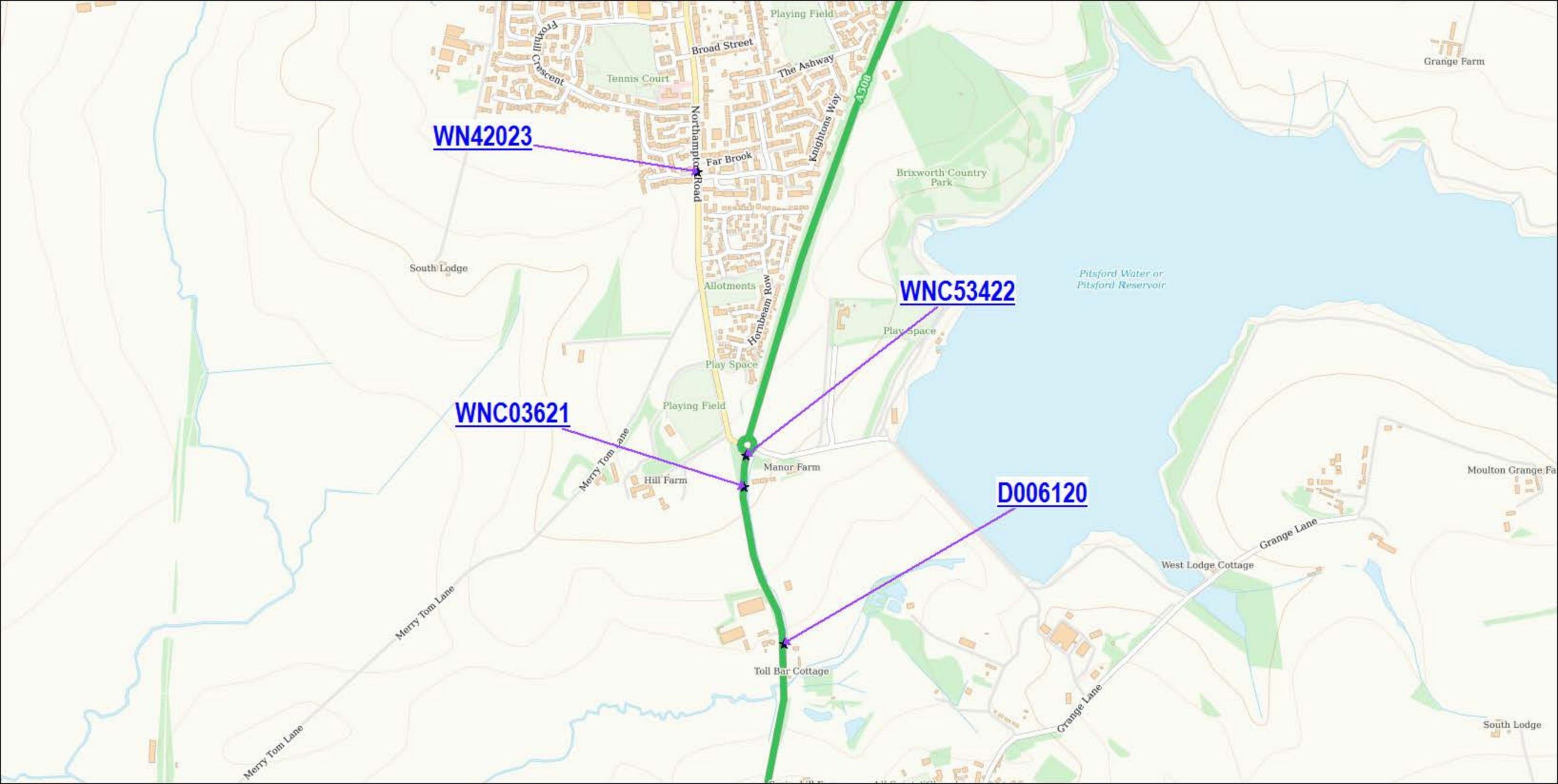
Drawing Title: PROPOSED SITE PLAN - (1 of 2) - NORTH

Scale: As indicated @A1

Job No: **2023028** Drawing No: **A101**

Status: Rev: **P1**

Appendix B


WN42023
WNC53422
WNC03621
D006120
Playing Field
Broad Street
Tennis Court
The Ashway
Frothill Crescent
Northampton Road
Far Brook
Knightons Way
A508
Grange Farm
Brixworth Country Park
Pitsford Water or Pitsford Reservoir
South Lodge
Allotments
Hornbeam Row
Play Space
Playing Field
Merry Tom Lane
Hill Farm
Manor Farm
West Lodge Cottage
Grange Lane
Toll Bar Cottage
Moulton Grange Fa
South Lodge

Date	Police_ref	Easting	Northing	Severity	Road_cond	Visibility	Casualties	Time	Vehicles	Roadclass1	Roadnum1	Road_type	Speed_lim	Junct_det	Junct_ctrl	Roadclass2	Roadnum2	Weather
23/01/2020	D006120	475052	268587	3. Slight	2. Wet/Damp	1. Daylight	1	08:27:00	2	3. A	508	6. Single carriageway	50	0. Not within 20m of junction	. Not applicable	. Not applicable		8. Other
01/02/2021	WNC03621	474941	269018	3. Slight	2. Wet/Damp	6. Darkness: no street lighting	3	18:40:00	2	3. A	508	6. Single carriageway	60	0. Not within 20m of junction	. Not applicable	. Not applicable		1. Fine (without high wind)
04/08/2022	WNC53422	474946	269106	2. Serious	1. Dry	1. Daylight	1	15:43:00	1	3. A	508	6. Single carriageway	50	1. Roundabout	4. Give way or Uncontrolled	5. C	191	1. Fine (without high wind)
29/07/2023	WN42023	474813	269887	3. Slight	1. Dry	1. Daylight	1	17:40:00	1	5. C	191	1. Roundabout	30	1. Roundabout	4. Give way or Uncontrolled	6. Unclassified		1. Fine (without high wind)

Appendix C

1.0 INTRODUCTION

1.1 This Transport Note has been prepared by DTA on Dr Dallas Burston to provide additional information in order to discharge planning conditions imposed on developments at Victors Barns, off Northampton Road in Brixworth.

1.2 Furthermore, it assists in responding to concerns raised by West Northants Council Highways Team regarding application WND/2021/0746 on land north of the cricket ground for a new local centre.

1.3 The imposed conditions on application DA/2018/1046 and DA/2015/1009 state:

No development shall commence until full details of the access arrangements to serve the development, including the provision for a minimum road width of 5.5m; adequate turning facilities to accommodate the 11.320m in length 4 axle refuse vehicle; and a 1.8m footpath on one side of the access road and a 1.0m service strip on the other side of the carriageway has been submitted to and approved by the LPA. The approved works shall be implemented in full prior to the first occupation of the development.

1.4 The Highway Authority's objection to WND/2021/0746 states:

Beyond the access junction with Northampton Road, the carriageway must continue at a width of 5.5m with 2.0m wide footpaths on both sides of the carriageway. This section of carriageway must extend to a suitable length past the proposed service access into the land parcel proposed for the development, to terminate in a conventional turning head, the footpaths must continue around all sides of the turning head. Ideally the carriageway to an adoptable standard should continue to serve developments already built out in the wider site that takes access from this carriageway, however that may be harder to achieve and is likely to remain private. Following amendment of this section of carriageway, and the installation of the turning head, the applicant will be required to undertake a series of swept path analysis exercises using an HGV and also the four axle refuse vehicle, currently in use countywide, in all in and out movements of this section of carriageway.

2.0 SITE ACCESS ROAD

2.1 **Drawing 25317-01** presents a fully dimensioned drawing of the site access carriageway, footway and verge utilising topographical survey information and measurements taken from a recent site meeting.

2.2 This shows the carriageway is a minimum of 6m in width, there is a continuous 2m footway along the southern side of the carriageway and a 1.2m service strip along the northern side.

2.3 This exceeds the minimum requirements imposed by the proposed condition.

2.4 The objection to the local centre requires the same carriageway and footway widths. However, it also requires a 2m footway along the northern side of the carriageway. Whilst DTA query whether this is necessary, the required land to provide this is within the control of the applicant and fully deliverable.

2.5 To assist, **Drawing 25317-01-1** provides recent photos of various sections of the route showing the carriageway, footway and service margin.

2.6 The condition goes on to request turning facilities for a 11.320m refuse vehicle.

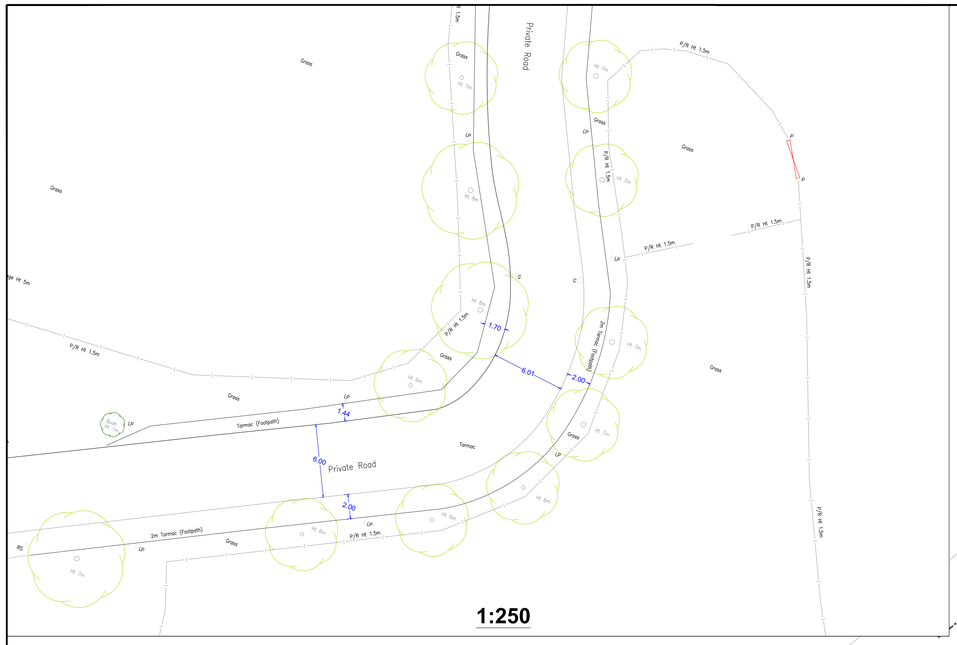
2.7 **Drawing 25317-01** presents vehicle tracking information for the requested refuse collection vehicle. This shows that the turning area at the southern end of the access road provides adequate turning and the road can accommodate the tracking envelope of the vehicle.

2.8 The objection also requires the swept path analysis of the refuse vehicle. Any HGV swept paths will be provided in due course, in association with site layout plans.

3.0 SUMMARY AND CONCLUSION

3.1 It has been demonstrated above that the current general arrangement of the site access road meets the requirements of the Local Highway Authority, to enable the discharge of condition and to address those concerns regarding the recent local centre application.

Drawings



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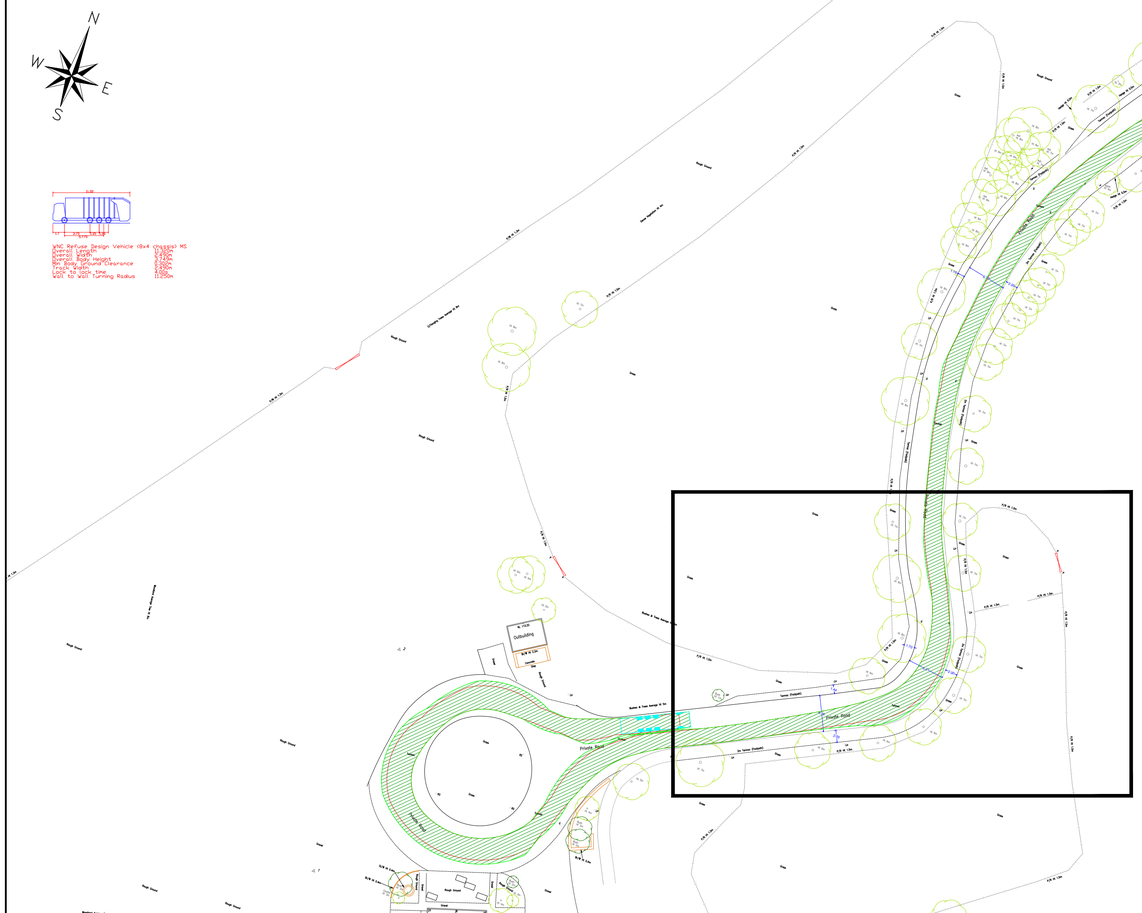

WNC Refuse Design Vehicle (8x4 chassis) MS

Overall Length	11.300m
Overall Width	2.490m
Overall Body Height	3.430m
Min Body Ground Clearance	0.300m
Track Width	2.500m
Lock to lock time	4.00s
Wall to Wall Turning Radius	11.000m

REV	DESCRIPTION	DRAWN	INITIALS	DATE

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JOB TITLE	Brixworth
CLIENT	Dr D Burston
DRAWING TITLE	Brixworth Development Access Road Existing Geometry and Refuse Vehicle Tracking
SCALE	@A1
DRAWN BY	DN
DATE	Aug 23
DRAWING No	25317–01
REVISION	

1

2

3

4

5

6

7

8

REV	DESCRIPTION	DRAWN	INITIALS	DATE

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JOB TITLE: Brixworth
CLIENT: Dr D Burston

DRAWING TITLE: Brixworth Development Access Road

Site Visit Images

SCALE	DRAWN BY	DATE	DRAWING No	REVISION
1:500@A1	DN	Aug 23	25317-01-1	

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Appendix D

DTA Transportation Ltd Doctors Lane Henley in Arden Licence No: 623801

Calculation Reference: AUDIT-623801-231220-1231

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 404 to 404 (units: sqm)
Range Selected by User: 404 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 15/10/16

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

Selected survey days:
Tuesday 1 days

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

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:
Edge of Town 1

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

Selected Location Sub Categories:
No Sub Category 1

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

Inclusion of Servicing Vehicles Counts:
Servicing vehicles Included X days - Selected
Servicing vehicles Excluded 1 days - Selected

Secondary Filtering selection:

Use Class:
E(d) 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included
Population within 1 mile:
5,001 to 10,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:
5,001 to 25,000 1 days

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

Car ownership within 5 miles:
0.6 to 1.0 1 days

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

Travel Plan:
No 1 days

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

PTAL Rating:
No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1 NY-07-K-01 FITNESS CLUB NORTH YORKSHIRE
RIVER VIEW ROAD
RIPON

Edge of Town
No Sub Category
Total Gross floor area: 404 sqm
Survey date: TUESDAY *27/09/16* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	404	0.495	1	404	0.000	1	404	0.495
07:00 - 08:00	1	404	0.990	1	404	0.248	1	404	1.238
08:00 - 09:00	1	404	0.743	1	404	0.743	1	404	1.486
09:00 - 10:00	1	404	1.238	1	404	0.990	1	404	2.228
10:00 - 11:00	1	404	1.238	1	404	1.733	1	404	2.971
11:00 - 12:00	1	404	0.495	1	404	0.000	1	404	0.495
12:00 - 13:00	1	404	0.990	1	404	0.495	1	404	1.485
13:00 - 14:00	1	404	1.238	1	404	1.733	1	404	2.971
14:00 - 15:00	1	404	0.990	1	404	0.495	1	404	1.485
15:00 - 16:00	1	404	0.495	1	404	0.990	1	404	1.485
16:00 - 17:00	1	404	0.743	1	404	0.248	1	404	0.991
17:00 - 18:00	1	404	2.723	1	404	0.743	1	404	3.466
18:00 - 19:00	1	404	1.485	1	404	2.970	1	404	4.455
19:00 - 20:00	1	404	1.485	1	404	1.980	1	404	3.465
20:00 - 21:00	1	404	0.248	1	404	1.238	1	404	1.486
21:00 - 22:00	1	404	0.000	1	404	0.743	1	404	0.743
22:00 - 23:00	1	404	0.000	1	404	0.000	1	404	0.000
23:00 - 24:00									
Total Rates:			15.596			15.349			30.945

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

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

Parameter summary

Trip rate parameter range selected:	404 - 404 (units: sqm)
Survey date date range:	01/01/15 - 15/10/16
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-623801-231220-1238

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	186 to 500 (units: sqm)
Range Selected by User:	118 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 23/11/22

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	1

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

Selected Location Sub Categories:

Commercial Zone	1
Residential Zone	2

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	2 days - Selected
Servicing vehicles Excluded	1 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

15,001 to 20,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days

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

Travel Plan:

Yes	1 days
No	2 days

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

PTAL Rating:

No PTAL Present	3 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	ES-02-A-11	HOUSING COMPANY		EAST SUSSEX
	THE SIDINGS			
	HASTINGS			
	ORE VALLEY			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		186 sqm	
	Survey date: TUESDAY		*17/11/15*	*Survey Type: MANUAL*
2	GM-02-A-10	ACCOUNTANTS		GREATER MANCHESTER
	CHORLEY NEW ROAD			
	BOLTON			
	HEATON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		500 sqm	
	Survey date: MONDAY		*19/04/21*	*Survey Type: MANUAL*
3	NF-02-A-04	BUILDING CONSULTANT		NORFOLK
	WHITING ROAD			
	NORWICH			
	Edge of Town			
	Commercial Zone			
	Total Gross floor area:		500 sqm	
	Survey date: WEDNESDAY		*13/11/19*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	395	1.012	3	395	0.000	3	395	1.012
08:00 - 09:00	3	395	2.782	3	395	0.253	3	395	3.035
09:00 - 10:00	3	395	2.108	3	395	0.169	3	395	2.277
10:00 - 11:00	3	395	0.337	3	395	0.337	3	395	0.674
11:00 - 12:00	3	395	0.422	3	395	0.337	3	395	0.759
12:00 - 13:00	3	395	1.012	3	395	1.012	3	395	2.024
13:00 - 14:00	3	395	0.337	3	395	0.590	3	395	0.927
14:00 - 15:00	3	395	0.590	3	395	0.675	3	395	1.265
15:00 - 16:00	3	395	0.253	3	395	0.506	3	395	0.759
16:00 - 17:00	3	395	0.506	3	395	1.855	3	395	2.361
17:00 - 18:00	3	395	0.000	3	395	2.951	3	395	2.951
18:00 - 19:00	3	395	0.253	3	395	0.927	3	395	1.180
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			9.612			9.612			19.224

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

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

Parameter summary

Trip rate parameter range selected:	186 - 500 (units: sqm)
Survey date date range:	01/01/15 - 23/11/22
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

DTA Transportation Ltd Doctors Lane Henley in Arden Licence No: 623801

Calculation Reference: AUDIT-623801-231219-1207

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : O - CONVENIENCE STORE
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	SD	SWINDON	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	LS	LEEDS	1 days
	NY	NORTH YORKSHIRE	1 days
09	NORTH		
	TW	TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	292 to 539 (units: sqm)
Range Selected by User:	70 to 1056 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 29/09/22

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

Selected survey days:

Monday	2 days
Friday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	4

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:

E(a)	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included
Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	2 days
25,001 to 50,000	1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
125,001 to 250,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	1 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	4 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	4 days

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

PTAL Rating:

No PTAL Present	4 days

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

LIST OF SITES relevant to selection parameters

1 LS-01-O-01 CO-OPERATIVE LEEDS
AINSTY ROAD
WETHERBY

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 539 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

2 NY-01-O-03 CO-OPERATIVE NORTH YORKSHIRE
FOREST ROAD
NORTHALLERTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 305 sqm
Survey date: MONDAY *19/09/16* *Survey Type: MANUAL*

3 SD-01-O-01 ONE STOP SWINDON
THE CIRCLE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 292 sqm
Survey date: FRIDAY *23/09/16* *Survey Type: MANUAL*

4 TW-01-O-02 CO-OPERATIVE TYNE & WEAR
ETHEL TERRACE
SUNDERLAND
CASTLETOWN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 330 sqm
Survey date: FRIDAY *07/04/17* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	422	4.265	2	422	4.265	2	422	8.530
07:00 - 08:00	4	367	7.299	4	367	7.094	4	367	14.393
08:00 - 09:00	4	367	9.277	4	367	9.482	4	367	18.759
09:00 - 10:00	4	367	6.276	4	367	5.866	4	367	12.142
10:00 - 11:00	4	367	5.798	4	367	5.525	4	367	11.323
11:00 - 12:00	4	367	4.911	4	367	5.389	4	367	10.300
12:00 - 13:00	4	367	7.162	4	367	6.958	4	367	14.120
13:00 - 14:00	4	367	5.457	4	367	5.321	4	367	10.778
14:00 - 15:00	4	367	5.662	4	367	5.866	4	367	11.528
15:00 - 16:00	4	367	6.548	4	367	6.276	4	367	12.824
16:00 - 17:00	4	367	6.685	4	367	6.617	4	367	13.302
17:00 - 18:00	4	367	8.663	4	367	8.731	4	367	17.394
18:00 - 19:00	4	367	9.891	4	367	9.618	4	367	19.509
19:00 - 20:00	4	367	8.458	4	367	8.254	4	367	16.712
20:00 - 21:00	3	391	3.237	3	391	3.578	3	391	6.815
21:00 - 22:00	3	391	2.215	3	391	2.385	3	391	4.600
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			101.804			101.225			203.029

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

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

Parameter summary

Trip rate parameter range selected:	292 - 539 (units: sqm)
Survey date date range:	01/01/15 - 29/09/22
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-623801-231219-1246

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : I - SHOPPING CENTRE - LOCAL SHOPS
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	EX	ESSEX	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
06	WEST MIDLANDS		
	WM	WEST MIDLANDS	2 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	375 to 770 (units: sqm)
Range Selected by User:	210 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 18/10/22

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

Selected survey days:

Tuesday	3 days
Friday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	3
Retail Zone	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:

n/a	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

20,001 to 25,000	2 days
25,001 to 50,000	2 days

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

Population within 5 miles:

75,001 to 100,000	1 days
250,001 to 500,000	2 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	3 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	4 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	4 days

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

PTAL Rating:

No PTAL Present	4 days

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

LIST OF SITES relevant to selection parameters

1	BR-01-I-01	LOCAL SHOPS		BRISTOL CITY
	BELLAND DRIVE			
	BRISTOL			
	WHITCHURCH			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Gross floor area:		770 sqm	
	Survey date: TUESDAY		*22/09/15*	*Survey Type: MANUAL*
2	EX-01-I-02	LOCAL SHOPS		ESSEX
	QUEENS ROAD			
	BRAINTREE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		375 sqm	
	Survey date: FRIDAY		*08/07/16*	*Survey Type: MANUAL*
3	WM-01-I-03	LOCAL SHOPS		WEST MIDLANDS
	BRISTOL ROAD SOUTH			
	BIRMINGHAM			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:		450 sqm	
	Survey date: TUESDAY		*10/11/15*	*Survey Type: MANUAL*
4	WM-01-I-04	LOCAL SHOPS		WEST MIDLANDS
	SUTHERLAND AVENUE			
	COVENTRY			
	UPPER EASTERN GREEN			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		580 sqm	
	Survey date: TUESDAY		*18/10/22*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	580	0.172	1	580	0.000	1	580	0.172
07:00 - 08:00	4	544	7.448	4	544	7.310	4	544	14.758
08:00 - 09:00	4	544	8.138	4	544	7.632	4	544	15.770
09:00 - 10:00	4	544	9.333	4	544	9.149	4	544	18.482
10:00 - 11:00	4	544	9.287	4	544	9.057	4	544	18.344
11:00 - 12:00	4	544	7.954	4	544	8.092	4	544	16.046
12:00 - 13:00	4	544	9.609	4	544	9.011	4	544	18.620
13:00 - 14:00	4	544	8.920	4	544	9.471	4	544	18.391
14:00 - 15:00	4	544	8.782	4	544	8.782	4	544	17.564
15:00 - 16:00	4	544	9.701	4	544	10.437	4	544	20.138
16:00 - 17:00	4	544	12.782	4	544	11.586	4	544	24.368
17:00 - 18:00	4	544	12.782	4	544	13.057	4	544	25.839
18:00 - 19:00	4	544	11.540	4	544	11.908	4	544	23.448
19:00 - 20:00	4	544	10.483	4	544	10.529	4	544	21.012
20:00 - 21:00	4	544	6.161	4	544	6.989	4	544	13.150
21:00 - 22:00	4	544	3.172	4	544	3.448	4	544	6.620
22:00 - 23:00	1	580	0.000	1	580	0.172	1	580	0.172
23:00 - 24:00									
Total Rates:			136.264			136.630			272.894

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

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

Parameter summary

Trip rate parameter range selected:	375 - 770 (units: sqm)
Survey date date range:	01/01/15 - 18/10/22
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

DTA Transportation Ltd Doctors Lane Henley in Arden Licence No: 623801

Calculation Reference: AUDIT-623801-231220-1230

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
	WO	WORCESTERSHIRE	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	185 to 305 (units: sqm)
Range Selected by User:	125 to 420 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 15/05/22

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Friday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	2

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

Selected Location Sub Categories:

Residential Zone	1
Retail Zone	2
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:
Not Known 4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
100,001 to 125,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days

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

Travel Plan:

No	4 days

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

PTAL Rating:

No PTAL Present	4 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	HC-06-J-01 COTSWORTH ROAD GOSPORT	COSTA COFFEE		HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Retail Zone Total Gross floor area:		185 sqm	
	Survey date: MONDAY		*27/09/21*	*Survey Type: MANUAL*
2	HE-06-J-01 LEDBURY ROAD ROSS-ON-WYE	STARBUCKS		HEREFORDSHIRE
	Edge of Town Retail Zone Total Gross floor area:		305 sqm	
	Survey date: TUESDAY		*24/11/20*	*Survey Type: MANUAL*
3	SF-06-J-01 THORNEY WAY STOWMARKET	COSTA COFFEE		SUFFOLK
	Edge of Town No Sub Category Total Gross floor area:		200 sqm	
	Survey date: FRIDAY		*25/09/20*	*Survey Type: MANUAL*
4	WO-06-J-01 STOURPORT ROAD KIDDERMINSTER	STARBUCKS		WORCESTERSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area:		240 sqm	
	Survey date: FRIDAY		*09/10/20*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	200	0.000	1	200	0.000	1	200	0.000
06:00 - 07:00	3	230	3.623	3	230	3.333	3	230	6.956
07:00 - 08:00	4	233	12.151	4	233	10.323	4	233	22.474
08:00 - 09:00	4	233	16.344	4	233	14.194	4	233	30.538
09:00 - 10:00	4	233	19.677	4	233	18.817	4	233	38.494
10:00 - 11:00	4	233	14.516	4	233	15.161	4	233	29.677
11:00 - 12:00	4	233	13.656	4	233	13.656	4	233	27.312
12:00 - 13:00	4	233	15.269	4	233	14.946	4	233	30.215
13:00 - 14:00	4	233	13.226	4	233	14.409	4	233	27.635
14:00 - 15:00	4	233	12.581	4	233	13.011	4	233	25.592
15:00 - 16:00	4	233	11.935	4	233	10.645	4	233	22.580
16:00 - 17:00	4	233	12.151	4	233	13.548	4	233	25.699
17:00 - 18:00	4	233	9.247	4	233	10.860	4	233	20.107
18:00 - 19:00	4	233	6.452	4	233	7.527	4	233	13.979
19:00 - 20:00	3	230	3.478	3	230	3.913	3	230	7.391
20:00 - 21:00	3	230	2.174	3	230	2.464	3	230	4.638
21:00 - 22:00	1	185	1.081	1	185	1.622	1	185	2.703
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			167.561			168.429			335.990

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

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

Parameter summary

Trip rate parameter range selected:	185 - 305 (units: sqm)
Survey date date range:	01/01/15 - 15/05/22
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

DTA Transportation Ltd Doctors Lane Henley in Arden Licence No: 623801

Calculation Reference: AUDIT-623801-231220-1231

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 404 to 404 (units: sqm)
Range Selected by User: 404 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 15/10/16

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

Selected survey days:
Tuesday 1 days

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

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:
Edge of Town 1

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

Selected Location Sub Categories:
No Sub Category 1

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

Inclusion of Servicing Vehicles Counts:
Servicing vehicles Included X days - Selected
Servicing vehicles Excluded 1 days - Selected

Secondary Filtering selection:

Use Class:
E(d) 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included
Population within 1 mile:
5,001 to 10,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:
5,001 to 25,000 1 days

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

Car ownership within 5 miles:
0.6 to 1.0 1 days

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

Travel Plan:
No 1 days

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

PTAL Rating:
No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1 NY-07-K-01 FITNESS CLUB NORTH YORKSHIRE
RIVER VIEW ROAD
RIPON

Edge of Town
No Sub Category
Total Gross floor area: 404 sqm
Survey date: TUESDAY *27/09/16* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	404	0.495	1	404	0.000	1	404	0.495
07:00 - 08:00	1	404	0.990	1	404	0.248	1	404	1.238
08:00 - 09:00	1	404	0.743	1	404	0.743	1	404	1.486
09:00 - 10:00	1	404	1.238	1	404	0.990	1	404	2.228
10:00 - 11:00	1	404	1.238	1	404	1.733	1	404	2.971
11:00 - 12:00	1	404	0.495	1	404	0.000	1	404	0.495
12:00 - 13:00	1	404	0.990	1	404	0.495	1	404	1.485
13:00 - 14:00	1	404	1.238	1	404	1.733	1	404	2.971
14:00 - 15:00	1	404	0.990	1	404	0.495	1	404	1.485
15:00 - 16:00	1	404	0.495	1	404	0.990	1	404	1.485
16:00 - 17:00	1	404	0.743	1	404	0.248	1	404	0.991
17:00 - 18:00	1	404	2.723	1	404	0.743	1	404	3.466
18:00 - 19:00	1	404	1.485	1	404	2.970	1	404	4.455
19:00 - 20:00	1	404	1.485	1	404	1.980	1	404	3.465
20:00 - 21:00	1	404	0.248	1	404	1.238	1	404	1.486
21:00 - 22:00	1	404	0.000	1	404	0.743	1	404	0.743
22:00 - 23:00	1	404	0.000	1	404	0.000	1	404	0.000
23:00 - 24:00									
Total Rates:			15.596			15.349			30.945

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

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

Parameter summary

Trip rate parameter range selected:	404 - 404 (units: sqm)
Survey date date range:	01/01/15 - 15/10/16
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-623801-231220-1225

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : B - AFFORDABLE/LOCAL AUTHORITY HOUSES
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	WL	WILTSHIRE	1 days
05	EAST MIDLANDS		
	LR	LEICESTER	1 days
	NN	NORTH NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	KS	KIRKLEES	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 16 to 54 (units:)
Range Selected by User: 14 to 60 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 22/10/21

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Friday	2 days

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	1
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	5
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	6 days - Selected

Secondary Filtering selection:

Use Class:

C3	6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	2 days
25,001 to 50,000	3 days
50,001 to 100,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	3 days

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

Travel Plan:

No	6 days

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

PTAL Rating:

No PTAL Present	6 days

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

LIST OF SITES relevant to selection parameters

1 GM-03-B-01 TERRACED HOUSES GREATER MANCHESTER
NEWBOLD
ROCHDALE

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 43
Survey date: WEDNESDAY *21/10/15* *Survey Type: MANUAL*

2 KS-03-B-02 TERRACED HOUSES KIRKLEES
SYKES CLOSE
BATLEY

Edge of Town
Residential Zone
Total No of Dwellings: 17
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

3 LR-03-B-01 SEMI-DETACHED & TERRACED LEICESTER
COLEMAN ROAD
LEICESTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 38
Survey date: FRIDAY *22/10/21* *Survey Type: MANUAL*

4 NN-03-B-01 SEMI-DETACHED HOUSES NORTH NORTHAMPTONSHIRE
OCCUPATION ROAD
CORBY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 21
Survey date: WEDNESDAY *13/10/21* *Survey Type: MANUAL*

5 WL-03-B-01 TERRACED HOUSES WILTSHIRE
BUTTERFIELD DRIVE
AMESBURY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 54
Survey date: TUESDAY *18/09/18* *Survey Type: MANUAL*

6 WO-03-B-02 TERRACED HOUSES WORCESTERSHIRE
GOODREST WALK
WORCESTER
MERRIMANS HILL
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 16
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	32	0.032	6	32	0.206	6	32	0.238
08:00 - 09:00	6	32	0.196	6	32	0.307	6	32	0.503
09:00 - 10:00	6	32	0.180	6	32	0.233	6	32	0.413
10:00 - 11:00	6	32	0.180	6	32	0.206	6	32	0.386
11:00 - 12:00	6	32	0.148	6	32	0.132	6	32	0.280
12:00 - 13:00	6	32	0.138	6	32	0.148	6	32	0.286
13:00 - 14:00	6	32	0.185	6	32	0.153	6	32	0.338
14:00 - 15:00	6	32	0.169	6	32	0.222	6	32	0.391
15:00 - 16:00	6	32	0.402	6	32	0.243	6	32	0.645
16:00 - 17:00	6	32	0.360	6	32	0.206	6	32	0.566
17:00 - 18:00	6	32	0.386	6	32	0.302	6	32	0.688
18:00 - 19:00	6	32	0.228	6	32	0.190	6	32	0.418
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.604			2.548			5.152

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

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

Parameter summary

Trip rate parameter range selected:	16 - 54 (units:)
Survey date date range:	01/01/15 - 22/10/21
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix E

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: Site Access.j10
Path: P:\25000's\25316\Junction Assessment
Report generation date: 09/02/2024 10:17:51

Summary of junction performance

	AM							PM						
	Set ID	Q (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Res Cap	Set ID	Q (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Res Cap
	2023													
Stream B-AC	D1	0.0	0.00	0.00	A	0.01	900 %	D2	0.0	0.00	0.00	A	0.00	900 %
Stream C-AB		0.0	5.54	0.00	A		[]		0.0	0.00	0.00	A		[]
	2033 + dev passby & diverted													
Stream B-AC	D3	0.1	8.71	0.11	A	0.90	176 %	D4	0.1	9.77	0.13	A	0.88	125 %
Stream C-AB		0.1	6.03	0.06	A		[Stream B-AC]		0.1	6.73	0.06	A		[Stream B-AC]
	2033 + dev 100%													
Stream B-AC	D5	0.4	11.41	0.30	B	2.33	79 %	D6	0.5	13.46	0.35	B	2.57	53 %
Stream C-AB		0.2	6.81	0.16	A		[Stream B-AC]		0.2	7.75	0.17	A		[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of Av. delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted Av.s. Res Cap 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	
Location	
Site number	
Date	20/12/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	08:00	09:30	15	✓
D2	2023	PM	ONE HOUR	17:00	18:30	15	✓
D3	2033 + dev passby & diverted	AM	ONE HOUR	08:00	09:30	15	✓
D4	2033 + dev passby & diverted	PM	ONE HOUR	17:00	18:30	15	✓
D5	2033 + dev 100%	AM	ONE HOUR	08:00	09:30	15	✓
D6	2033 + dev 100%	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

2023, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.01	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	900		0.01	A

Arms

Arms

Arm	Name	Description	Arm type
A	Northamton Road North		Major
B	Site Access		Minor
C	Northamton Road North		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Northamton Road North	6.40		✓	3.00	125.0	✓	11.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	3.00	10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	486	0.087	0.220	0.138	0.314
B-C	630	0.095	0.240	-	-
C-B	703	0.268	0.268	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	08:00	09:30	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Northamton Road North		ONE HOUR	✓	177	100.000
B - Site Access		ONE HOUR	✓	4	100.000
C - Northamton Road North		ONE HOUR	✓	376	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	0	177
	B - Site Access	3	0	1
	C - Northamton Road North	375	1	0

Vehicle Mix

HV %s

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	0	4
	B - Site Access	0	0	0
	C - Northamton Road North	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	5.54	0.0	A	0.92	1
C-A					344	516
A-B					0	0
A-C					162	244

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0.75	0.19	667	0.001	0.75	0.0	0.0	5.402	A
C-A	282	71			282				
A-B	0	0			0				
A-C	133	33			133				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	0.90	0.22	660	0.001	0.90	0.0	0.0	5.460	A
C-A	337	84			337				
A-B	0	0			0				
A-C	159	40			159				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	1	0.28	650	0.002	1	0.0	0.0	5.543	A
C-A	413	103			413				
A-B	0	0			0				
A-C	195	49			195				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	1	0.28	650	0.002	1	0.0	0.0	5.543	A
C-A	413	103			413				
A-B	0	0			0				
A-C	195	49			195				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	0.90	0.22	660	0.001	0.90	0.0	0.0	5.463	A
C-A	337	84			337				
A-B	0	0			0				
A-C	159	40			159				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0.75	0.19	667	0.001	0.75	0.0	0.0	5.405	A
C-A	282	71			282				
A-B	0	0			0				
A-C	133	33			133				

2023, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	900		0.00	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Northamton Road North		ONE HOUR	✓	403	100.000
B - Site Access		ONE HOUR	✓	1	100.000
C - Northamton Road North		ONE HOUR	✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	2	401
	B - Site Access	0	0	1
	C - Northamton Road North	214	0	0

Vehicle Mix

HV %s

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	0	2
	B - Site Access	0	0	0
	C - Northamton Road North	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					196	295
A-B					2	3
A-C					368	552

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1249	0.000	0	0.0	0.0	0.000	A
C-A	161	40			161				
A-B	2	0.38			2				
A-C	302	75			302				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	447	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1217	0.000	0	0.0	0.0	0.000	A
C-A	192	48			192				
A-B	2	0.45			2				
A-C	360	90			360				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	424	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1174	0.000	0	0.0	0.0	0.000	A
C-A	236	59			236				
A-B	2	0.55			2				
A-C	442	110			442				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	424	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1174	0.000	0	0.0	0.0	0.000	A
C-A	236	59			236				
A-B	2	0.55			2				
A-C	442	110			442				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	447	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1217	0.000	0	0.0	0.0	0.000	A
C-A	192	48			192				
A-B	2	0.45			2				
A-C	360	90			360				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1249	0.000	0	0.0	0.0	0.000	A
C-A	161	40			161				
A-B	2	0.38			2				
A-C	302	75			302				

2033 + dev passby & diverted, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

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

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	176	Stream B-AC	0.90	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 + dev passby & diverted	AM	ONE HOUR	08:00	09:30	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Northamton Road North		ONE HOUR	✓	220	100.000
B - Site Access		ONE HOUR	✓	48	100.000
C - Northamton Road North		ONE HOUR	✓	448	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	26	194
	B - Site Access	19	0	29
	C - Northamton Road North	411	37	0

Vehicle Mix

HV %s

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	0	4
	B - Site Access	0	0	0
	C - Northamton Road North	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	8.71	0.1	A	44	66
C-AB	0.06	6.03	0.1	A	34	51
C-A					377	566
A-B					24	36
A-C					178	267

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	498	0.073	36	0.0	0.1	7.778	A
C-AB	28	7	658	0.042	28	0.0	0.0	5.707	A
C-A	309	77			309				
A-B	20	5			20				
A-C	146	37			146				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	485	0.089	43	0.1	0.1	8.145	A
C-AB	33	8	650	0.051	33	0.0	0.1	5.839	A
C-A	369	92			369				
A-B	23	6			23				
A-C	174	44			174				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	466	0.113	53	0.1	0.1	8.703	A
C-AB	41	10	638	0.064	41	0.1	0.1	6.028	A
C-A	453	113			453				
A-B	29	7			29				
A-C	214	53			214				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	466	0.113	53	0.1	0.1	8.708	A
C-AB	41	10	638	0.064	41	0.1	0.1	6.028	A
C-A	453	113			453				
A-B	29	7			29				
A-C	214	53			214				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	11	485	0.089	43	0.1	0.1	8.153	A
C-AB	33	8	650	0.051	33	0.1	0.1	5.840	A
C-A	369	92			369				
A-B	23	6			23				
A-C	174	44			174				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	498	0.073	36	0.1	0.1	7.792	A
C-AB	28	7	658	0.042	28	0.1	0.0	5.712	A
C-A	309	77			309				
A-B	20	5			20				
A-C	146	37			146				

2033 + dev passby & diverted, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.88	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	125	Stream B-AC	0.88	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2033 + dev passby & diverted	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Northamton Road North		ONE HOUR	✓	457	100.000
B - Site Access		ONE HOUR	✓	49	100.000
C - Northamton Road North		ONE HOUR	✓	266	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	15	442
	B - Site Access	19	0	30
	C - Northamton Road North	236	30	0

Vehicle Mix

HV %s

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	0	2
	B - Site Access	0	0	0
	C - Northamton Road North	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.13	9.77	0.1	A	45	67
C-AB	0.06	6.73	0.1	A	28	41
C-A					217	325
A-B					14	21
A-C					406	608

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	468	0.079	37	0.0	0.1	8.335	A
C-AB	23	6	611	0.037	22	0.0	0.0	6.119	A
C-A	178	44			178				
A-B	11	3			11				
A-C	333	83			333				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	11	449	0.098	44	0.1	0.1	8.880	A
C-AB	27	7	593	0.046	27	0.0	0.0	6.362	A
C-A	212	53			212				
A-B	13	3			13				
A-C	397	99			397				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	13	422	0.128	54	0.1	0.1	9.761	A
C-AB	33	8	568	0.058	33	0.0	0.1	6.728	A
C-A	260	65			260				
A-B	17	4			17				
A-C	487	122			487				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	13	422	0.128	54	0.1	0.1	9.769	A
C-AB	33	8	568	0.058	33	0.1	0.1	6.728	A
C-A	260	65			260				
A-B	17	4			17				
A-C	487	122			487				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	11	449	0.098	44	0.1	0.1	8.890	A
C-AB	27	7	593	0.046	27	0.1	0.0	6.366	A
C-A	212	53			212				
A-B	13	3			13				
A-C	397	99			397				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	9	468	0.079	37	0.1	0.1	8.346	A
C-AB	23	6	611	0.037	23	0.0	0.0	6.124	A
C-A	178	44			178				
A-B	11	3			11				
A-C	333	83			333				

2033 + dev 100%, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.33	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	79	Stream B-AC	2.33	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2033 + dev 100%	AM	ONE HOUR	08:00	09:30	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Northamton Road North		ONE HOUR	✓	252	100.000
B - Site Access		ONE HOUR	✓	125	100.000
C - Northamton Road North		ONE HOUR	✓	502	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	58	194
	B - Site Access	48	0	77
	C - Northamton Road North	411	91	0

Vehicle Mix

HV %s

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	0	4
	B - Site Access	0	0	0
	C - Northamton Road North	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.30	11.41	0.4	B	115	172
C-AB	0.16	6.81	0.2	A	84	125
C-A					377	566
A-B					53	80
A-C					178	267

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	24	491	0.192	93	0.0	0.2	9.036	A
C-AB	69	17	652	0.105	68	0.0	0.1	6.160	A
C-A	309	77			309				
A-B	44	11			44				
A-C	146	37			146				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	28	475	0.237	112	0.2	0.3	9.908	A
C-AB	82	20	642	0.127	82	0.1	0.1	6.422	A
C-A	369	92			369				
A-B	52	13			52				
A-C	174	44			174				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	34	453	0.304	137	0.3	0.4	11.378	B
C-AB	100	25	628	0.159	100	0.1	0.2	6.811	A
C-A	453	113			453				
A-B	64	16			64				
A-C	214	53			214				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	34	453	0.304	138	0.4	0.4	11.415	B
C-AB	100	25	628	0.159	100	0.2	0.2	6.814	A
C-A	453	113			453				
A-B	64	16			64				
A-C	214	53			214				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	28	475	0.237	113	0.4	0.3	9.953	A
C-AB	82	20	642	0.127	82	0.2	0.1	6.431	A
C-A	369	92			369				
A-B	52	13			52				
A-C	174	44			174				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	24	491	0.192	94	0.3	0.2	9.095	A
C-AB	69	17	652	0.105	69	0.1	0.1	6.175	A
C-A	309	77			309				
A-B	44	11			44				
A-C	146	37			146				

2033 + dev 100%, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.57	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	53	Stream B-AC	2.57	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2033 + dev 100%	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Northamton Road North		ONE HOUR	✓	487	100.000
B - Site Access		ONE HOUR	✓	130	100.000
C - Northamton Road North		ONE HOUR	✓	322	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	45	442
	B - Site Access	48	0	82
	C - Northamton Road North	236	86	0

Vehicle Mix

HV %s

		To		
		A - Northamton Road North	B - Site Access	C - Northamton Road North
From	A - Northamton Road North	0	0	2
	B - Site Access	0	0	0
	C - Northamton Road North	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.35	13.46	0.5	B	119	179
C-AB	0.17	7.75	0.2	A	79	118
C-A					217	325
A-B					41	62
A-C					406	608

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	98	24	462	0.212	97	0.0	0.3	9.831	A
C-AB	65	16	605	0.107	64	0.0	0.1	6.657	A
C-A	178	44			178				
A-B	34	8			34				
A-C	333	83			333				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	117	29	441	0.265	117	0.3	0.4	11.096	B
C-AB	77	19	586	0.132	77	0.1	0.2	7.080	A
C-A	212	53			212				
A-B	40	10			40				
A-C	397	99			397				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	143	36	411	0.349	142	0.4	0.5	13.392	B
C-AB	95	24	559	0.169	94	0.2	0.2	7.743	A
C-A	260	65			260				
A-B	50	12			50				
A-C	487	122			487				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	143	36	411	0.349	143	0.5	0.5	13.460	B
C-AB	95	24	559	0.169	95	0.2	0.2	7.749	A
C-A	260	65			260				
A-B	50	12			50				
A-C	487	122			487				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	117	29	441	0.265	118	0.5	0.4	11.167	B
C-AB	77	19	586	0.132	78	0.2	0.2	7.088	A
C-A	212	53			212				
A-B	40	10			40				
A-C	397	99			397				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	98	24	462	0.212	98	0.4	0.3	9.913	A
C-AB	65	16	605	0.107	65	0.2	0.1	6.671	A
C-A	178	44			178				
A-B	34	8			34				
A-C	333	83			333				

Junctions 10

ARCADY 10 - Roundabout Module

Filename: A508 Northampton Rd.j10
Path: P:\25000's\25316\Junction Assessment
Report generation date: 09/02/2024 10:19:09

Summary of junction performance

	AM							PM						
	Set ID	Q (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Res Cap	Set ID	Q (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Res Cap
	2023													
A - A508 North	D1	0.7	3.65	0.40	A	3.66	99 % [A - A508 North]	D2	0.5	2.92	0.33	A	3.62	76 % [C - A508 South]
B - Country Park Access		0.0	0.00	0.00	A				0.0	4.67	0.01	A		
C - A508 South		0.9	3.71	0.46	A				1.2	4.20	0.54	A		
D - Northampton Road		0.4	3.60	0.27	A				0.2	2.93	0.15	A		
	2033 + dev passby & diverted													
A - A508 North	D3	0.9	4.07	0.45	A	4.09	79 % [A - A508 North]	D4	0.6	3.14	0.37	A	4.05	59 % [C - A508 South]
B - Country Park Access		0.0	0.00	0.00	A				0.0	5.01	0.01	A		
C - A508 South		1.1	4.15	0.52	A				1.5	4.82	0.60	A		
D - Northampton Road		0.5	3.98	0.32	A				0.2	3.14	0.19	A		
	2033 + dev 100%													
A - A508 North	D5	0.9	4.18	0.46	A	4.22	75 % [A - A508 North]	D6	0.6	3.20	0.38	A	4.20	55 % [C - A508 South]
B - Country Park Access		0.0	0.00	0.00	A				0.0	5.13	0.01	A		
C - A508 South		1.2	4.30	0.54	A				1.6	5.04	0.61	A		
D - Northampton Road		0.5	4.12	0.34	A				0.3	3.23	0.21	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 Av. delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted Av.s. Res Cap indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

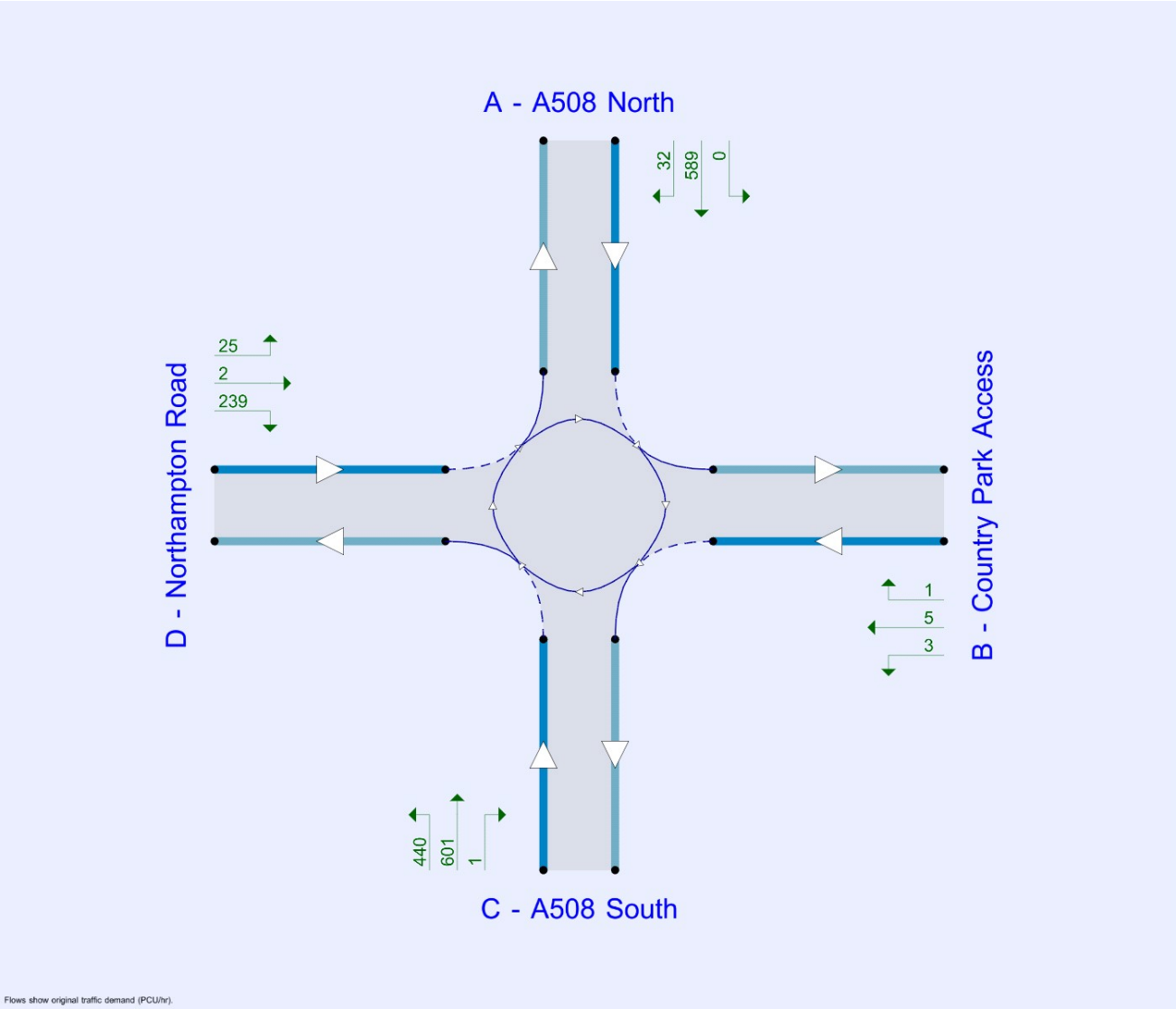
File summary

File Description

Title	
Location	
Site number	
Date	22/12/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	08:00	09:30	15	✓
D2	2023	PM	ONE HOUR	17:00	18:30	15	✓
D3	2033 + dev passby & diverted	AM	ONE HOUR	08:00	09:30	15	✓
D4	2033 + dev passby & diverted	PM	ONE HOUR	17:00	18:30	15	✓
D5	2033 + dev 100%	AM	ONE HOUR	08:00	09:30	15	✓
D6	2033 + dev 100%	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

2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A508 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.66	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	99	A - A508 North	3.66	A

Arms

Arms

Arm	Name	Description	No give-way line
A	A508 North		
B	Country Park Access		
C	A508 South		
D	Northampton Road		

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
A - A508 North	3.53	7.53	26.4	29.0	49.5	11.8		
B - Country Park Access	2.78	4.21	25.9	15.4	49.5	25.7		
C - A508 South	3.53	6.98	34.5	19.1	49.5	20.8		
D - Northampton Road	3.55	6.97	25.4	21.0	49.5	20.4		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A508 North	0.697	2034
B - Country Park Access	0.518	1211
C - A508 South	0.660	1917
D - Northampton Road	0.652	1864

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2023	AM	ONE HOUR	08:00	09:30	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A508 North		ONE HOUR	✓	652	100.000
B - Country Park Access		ONE HOUR	✓	2	100.000
C - A508 South		ONE HOUR	✓	801	100.000
D - Northampton Road		ONE HOUR	✓	339	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	2	3	637	10
	B - Country Park Access	0	0	0	2
	C - A508 South	640	3	12	146
	D - Northampton Road	15	2	321	1

Vehicle Mix

HV %s

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	0	0	7	11
	B - Country Park Access	0	0	0	0
	C - A508 South	6	0	100	0
	D - Northampton Road	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A508 North	0.40	3.65	0.7	A	598	897
B - Country Park Access	0.00	0.00	0.0	A	0	0
C - A508 South	0.46	3.71	0.9	A	735	1103
D - Northampton Road	0.27	3.60	0.4	A	311	467

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	491	123	254	1856	0.264	489	493	0.0	0.4	2.816	A
B - Country Park Access	0	0	738	829	0.000	0	6	0.0	0.0	0.000	A
C - A508 South	603	151	10	1910	0.316	601	728	0.0	0.5	2.899	A
D - Northampton Road	255	64	493	1542	0.165	254	118	0.0	0.2	2.846	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	586	147	305	1821	0.322	586	590	0.4	0.5	3.115	A
B - Country Park Access	0	0	883	754	0.000	0	7	0.0	0.0	0.000	A
C - A508 South	720	180	12	1909	0.377	719	871	0.5	0.6	3.193	A
D - Northampton Road	305	76	590	1479	0.206	305	141	0.2	0.3	3.122	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	718	179	373	1774	0.405	717	723	0.5	0.7	3.641	A
B - Country Park Access	0	0	1081	651	0.000	0	9	0.0	0.0	0.000	A
C - A508 South	882	220	14	1907	0.462	881	1067	0.6	0.9	3.699	A
D - Northampton Road	373	93	722	1393	0.268	373	173	0.3	0.4	3.593	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	718	179	373	1774	0.405	718	723	0.7	0.7	3.647	A
B - Country Park Access	0	0	1082	650	0.000	0	9	0.0	0.0	0.000	A
C - A508 South	882	220	14	1907	0.462	882	1068	0.9	0.9	3.705	A
D - Northampton Road	373	93	723	1392	0.268	373	173	0.4	0.4	3.598	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	586	147	305	1821	0.322	587	591	0.7	0.5	3.123	A
B - Country Park Access	0	0	885	753	0.000	0	7	0.0	0.0	0.000	A
C - A508 South	720	180	12	1909	0.377	721	873	0.9	0.6	3.201	A
D - Northampton Road	305	76	591	1478	0.206	305	141	0.4	0.3	3.129	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	491	123	255	1856	0.265	491	495	0.5	0.4	2.824	A
B - Country Park Access	0	0	741	827	0.000	0	6	0.0	0.0	0.000	A
C - A508 South	603	151	10	1910	0.316	604	731	0.6	0.5	2.911	A
D - Northampton Road	255	64	495	1541	0.166	255	118	0.3	0.2	2.855	A

2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A508 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.62	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	76	C - A508 South	3.62	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2023	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A508 North		ONE HOUR	✓	572	100.000
B - Country Park Access		ONE HOUR	✓	8	100.000
C - A508 South		ONE HOUR	✓	918	100.000
D - Northampton Road		ONE HOUR	✓	202	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	8	0	537	27
	B - Country Park Access	1	0	3	4
	C - A508 South	548	1	4	365
	D - Northampton Road	20	2	177	3

Vehicle Mix

HV %s

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	0	0	2	8
	B - Country Park Access	0	0	0	0
	C - A508 South	2	0	0	2
	D - Northampton Road	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A508 North	0.33	2.92	0.5	A	525	787
B - Country Park Access	0.01	4.67	0.0	A	7	11
C - A508 South	0.54	4.20	1.2	A	842	1264
D - Northampton Road	0.15	2.93	0.2	A	185	278

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	431	108	140	1936	0.222	429	433	0.0	0.3	2.443	A
B - Country Park Access	6	2	568	917	0.007	6	2	0.0	0.0	3.951	A
C - A508 South	691	173	32	1895	0.365	689	541	0.0	0.6	3.038	A
D - Northampton Road	152	38	422	1589	0.096	152	299	0.0	0.1	2.526	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	514	129	168	1917	0.268	514	518	0.3	0.4	2.624	A
B - Country Park Access	7	2	679	859	0.008	7	3	0.0	0.0	4.225	A
C - A508 South	825	206	39	1891	0.436	824	648	0.6	0.8	3.441	A
D - Northampton Road	182	45	505	1535	0.118	181	358	0.1	0.1	2.682	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	630	157	206	1890	0.333	629	634	0.4	0.5	2.917	A
B - Country Park Access	9	2	832	780	0.011	9	3	0.0	0.0	4.666	A
C - A508 South	1011	253	47	1885	0.536	1009	793	0.8	1.2	4.182	A
D - Northampton Road	222	56	618	1461	0.152	222	439	0.1	0.2	2.931	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	630	157	206	1890	0.333	630	635	0.5	0.5	2.919	A
B - Country Park Access	9	2	832	780	0.011	9	3	0.0	0.0	4.668	A
C - A508 South	1011	253	47	1885	0.536	1011	794	1.2	1.2	4.197	A
D - Northampton Road	222	56	619	1461	0.152	222	439	0.2	0.2	2.932	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	514	129	168	1916	0.268	515	520	0.5	0.4	2.628	A
B - Country Park Access	7	2	680	859	0.008	7	3	0.0	0.0	4.229	A
C - A508 South	825	206	39	1891	0.436	827	649	1.2	0.8	3.456	A
D - Northampton Road	182	45	506	1534	0.118	182	359	0.2	0.1	2.685	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	431	108	141	1935	0.223	431	435	0.4	0.3	2.448	A
B - Country Park Access	6	2	570	916	0.007	6	2	0.0	0.0	3.957	A
C - A508 South	691	173	32	1895	0.365	692	543	0.8	0.6	3.052	A
D - Northampton Road	152	38	424	1588	0.096	152	301	0.1	0.1	2.531	A

2033 + dev passby & diverted, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A508 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.09	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	79	A - A508 North	4.09	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2033 + dev passby & diverted	AM	ONE HOUR	08:00	09:30	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A508 North		ONE HOUR	✓	718	100.000
B - Country Park Access		ONE HOUR	✓	2	100.000
C - A508 South		ONE HOUR	✓	899	100.000
D - Northampton Road		ONE HOUR	✓	387	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	2	3	698	15
	B - Country Park Access	0	0	0	2
	C - A508 South	701	3	13	182
	D - Northampton Road	17	2	367	1

Vehicle Mix

HV %s

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	0	0	7	11
	B - Country Park Access	0	0	0	0
	C - A508 South	6	0	100	0
	D - Northampton Road	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A508 North	0.45	4.07	0.9	A	659	988
B - Country Park Access	0.00	0.00	0.0	A	0	0
C - A508 South	0.52	4.15	1.1	A	825	1237
D - Northampton Road	0.32	3.98	0.5	A	355	533

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	541	135	290	1832	0.295	539	540	0.0	0.4	2.976	A
B - Country Park Access	0	0	822	785	0.000	0	6	0.0	0.0	0.000	A
C - A508 South	677	169	14	1908	0.355	675	809	0.0	0.6	3.072	A
D - Northampton Road	291	73	539	1512	0.193	290	149	0.0	0.2	2.998	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	645	161	347	1792	0.360	645	647	0.4	0.6	3.357	A
B - Country Park Access	0	0	984	701	0.000	0	7	0.0	0.0	0.000	A
C - A508 South	808	202	16	1906	0.424	807	968	0.6	0.8	3.453	A
D - Northampton Road	348	87	646	1443	0.241	348	178	0.2	0.3	3.349	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	791	198	424	1738	0.455	789	792	0.6	0.9	4.057	A
B - Country Park Access	0	0	1205	587	0.000	0	9	0.0	0.0	0.000	A
C - A508 South	990	247	20	1904	0.520	988	1185	0.8	1.1	4.139	A
D - Northampton Road	426	107	790	1349	0.316	426	218	0.3	0.5	3.971	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	791	198	425	1738	0.455	791	793	0.9	0.9	4.068	A
B - Country Park Access	0	0	1207	586	0.000	0	9	0.0	0.0	0.000	A
C - A508 South	990	247	20	1904	0.520	990	1187	1.1	1.1	4.152	A
D - Northampton Road	426	107	792	1348	0.316	426	218	0.5	0.5	3.979	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	645	161	348	1791	0.360	647	648	0.9	0.6	3.368	A
B - Country Park Access	0	0	987	700	0.000	0	7	0.0	0.0	0.000	A
C - A508 South	808	202	16	1906	0.424	810	971	1.1	0.8	3.465	A
D - Northampton Road	348	87	648	1442	0.241	348	178	0.5	0.3	3.356	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	541	135	291	1831	0.295	541	543	0.6	0.5	2.990	A
B - Country Park Access	0	0	826	783	0.000	0	6	0.0	0.0	0.000	A
C - A508 South	677	169	14	1908	0.355	678	813	0.8	0.6	3.086	A
D - Northampton Road	291	73	542	1511	0.193	292	149	0.3	0.2	3.011	A

2033 + dev passby & diverted, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A508 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.05	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	59	C - A508 South	4.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2033 + dev passby & diverted	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A508 North		ONE HOUR	✓	628	100.000
B - Country Park Access		ONE HOUR	✓	9	100.000
C - A508 South		ONE HOUR	✓	1018	100.000
D - Northampton Road		ONE HOUR	✓	240	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	9	0	589	30
	B - Country Park Access	1	0	3	5
	C - A508 South	601	1	4	412
	D - Northampton Road	23	2	212	3

Vehicle Mix

HV %s

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	0	0	2	8
	B - Country Park Access	0	0	0	0
	C - A508 South	2	0	0	2
	D - Northampton Road	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A508 North	0.37	3.14	0.6	A	576	864
B - Country Park Access	0.01	5.01	0.0	A	8	12
C - A508 South	0.60	4.82	1.5	A	934	1401
D - Northampton Road	0.19	3.14	0.2	A	220	330

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	473	118	167	1917	0.247	471	476	0.0	0.3	2.543	A
B - Country Park Access	7	2	636	882	0.008	7	2	0.0	0.0	4.114	A
C - A508 South	766	192	36	1893	0.405	764	607	0.0	0.7	3.243	A
D - Northampton Road	181	45	462	1563	0.116	180	338	0.0	0.1	2.627	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	565	141	199	1895	0.298	564	569	0.3	0.4	2.766	A
B - Country Park Access	8	2	761	817	0.010	8	3	0.0	0.0	4.450	A
C - A508 South	915	229	43	1888	0.485	914	726	0.7	1.0	3.766	A
D - Northampton Road	216	54	553	1503	0.144	216	404	0.1	0.2	2.820	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	691	173	244	1863	0.371	691	697	0.4	0.6	3.137	A
B - Country Park Access	10	2	932	728	0.014	10	3	0.0	0.0	5.009	A
C - A508 South	1121	280	53	1882	0.596	1119	889	1.0	1.5	4.798	A
D - Northampton Road	264	66	677	1423	0.186	264	495	0.2	0.2	3.134	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	691	173	244	1863	0.371	691	698	0.6	0.6	3.140	A
B - Country Park Access	10	2	933	728	0.014	10	3	0.0	0.0	5.012	A
C - A508 South	1121	280	53	1882	0.596	1121	890	1.5	1.5	4.824	A
D - Northampton Road	264	66	678	1422	0.186	264	495	0.2	0.2	3.136	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	565	141	200	1894	0.298	565	571	0.6	0.4	2.772	A
B - Country Park Access	8	2	762	816	0.010	8	3	0.0	0.0	4.456	A
C - A508 South	915	229	43	1888	0.485	917	727	1.5	1.0	3.789	A
D - Northampton Road	216	54	555	1502	0.144	216	405	0.2	0.2	2.823	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	473	118	167	1917	0.247	473	478	0.4	0.3	2.551	A
B - Country Park Access	7	2	638	880	0.008	7	2	0.0	0.0	4.120	A
C - A508 South	766	192	36	1893	0.405	767	609	1.0	0.7	3.267	A
D - Northampton Road	181	45	464	1561	0.116	181	339	0.2	0.1	2.630	A

2033 + dev 100%, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A508 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.22	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	75	A - A508 North	4.22	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2033 + dev 100%	AM	ONE HOUR	08:00	09:30	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A508 North		ONE HOUR	✓	722	100.000
B - Country Park Access		ONE HOUR	✓	2	100.000
C - A508 South		ONE HOUR	✓	927	100.000
D - Northampton Road		ONE HOUR	✓	415	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	2	3	698	19
	B - Country Park Access	0	0	0	2
	C - A508 South	701	3	13	210
	D - Northampton Road	18	2	394	1

Vehicle Mix

HV %s

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	0	0	7	11
	B - Country Park Access	0	0	0	0
	C - A508 South	6	0	100	0
	D - Northampton Road	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A508 North	0.46	4.18	0.9	A	663	994
B - Country Park Access	0.00	0.00	0.0	A	0	0
C - A508 South	0.54	4.30	1.2	A	851	1276
D - Northampton Road	0.34	4.12	0.5	A	381	571

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	544	136	310	1818	0.299	542	541	0.0	0.5	3.016	A
B - Country Park Access	0	0	846	773	0.000	0	6	0.0	0.0	0.000	A
C - A508 South	698	174	17	1906	0.366	695	829	0.0	0.6	3.123	A
D - Northampton Road	312	78	539	1512	0.207	311	173	0.0	0.3	3.051	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	649	162	371	1775	0.366	648	648	0.5	0.6	3.418	A
B - Country Park Access	0	0	1012	687	0.000	0	7	0.0	0.0	0.000	A
C - A508 South	833	208	20	1904	0.438	833	992	0.6	0.8	3.533	A
D - Northampton Road	373	93	646	1443	0.259	373	207	0.3	0.4	3.427	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	795	199	454	1717	0.463	794	793	0.6	0.9	4.168	A
B - Country Park Access	0	0	1239	569	0.000	0	9	0.0	0.0	0.000	A
C - A508 South	1021	255	24	1901	0.537	1019	1215	0.8	1.2	4.289	A
D - Northampton Road	457	114	790	1349	0.339	456	253	0.4	0.5	4.108	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	795	199	455	1717	0.463	795	794	0.9	0.9	4.180	A
B - Country Park Access	0	0	1241	568	0.000	0	9	0.0	0.0	0.000	A
C - A508 South	1021	255	24	1901	0.537	1021	1217	1.2	1.2	4.304	A
D - Northampton Road	457	114	792	1348	0.339	457	253	0.5	0.5	4.117	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	649	162	372	1774	0.366	650	649	0.9	0.6	3.430	A
B - Country Park Access	0	0	1015	685	0.000	0	7	0.0	0.0	0.000	A
C - A508 South	833	208	20	1904	0.438	835	995	1.2	0.8	3.549	A
D - Northampton Road	373	93	648	1442	0.259	374	207	0.5	0.4	3.436	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	544	136	311	1817	0.299	544	543	0.6	0.5	3.031	A
B - Country Park Access	0	0	849	771	0.000	0	6	0.0	0.0	0.000	A
C - A508 South	698	174	17	1906	0.366	699	833	0.8	0.6	3.140	A
D - Northampton Road	312	78	542	1511	0.207	313	173	0.4	0.3	3.065	A

2033 + dev 100%, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	C - A508 South - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.20	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	55	C - A508 South	4.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2033 + dev 100%	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	Av. Demand (PCU/hr)	Scaling Factor (%)
A - A508 North		ONE HOUR	✓	630	100.000
B - Country Park Access		ONE HOUR	✓	9	100.000
C - A508 South		ONE HOUR	✓	1046	100.000
D - Northampton Road		ONE HOUR	✓	269	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	9	0	589	32
	B - Country Park Access	1	0	3	5
	C - A508 South	601	1	4	440
	D - Northampton Road	25	2	239	3

Vehicle Mix

HV %s

		To			
		A - A508 North	B - Country Park Access	C - A508 South	D - Northampton Road
From	A - A508 North	0	0	2	8
	B - Country Park Access	0	0	0	0
	C - A508 South	2	0	0	2
	D - Northampton Road	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A508 North	0.38	3.20	0.6	A	578	867
B - Country Park Access	0.01	5.13	0.0	A	8	12
C - A508 South	0.61	5.04	1.6	A	960	1440
D - Northampton Road	0.21	3.23	0.3	A	247	370

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	474	119	187	1903	0.249	473	477	0.0	0.3	2.571	A
B - Country Park Access	7	2	658	870	0.008	7	2	0.0	0.0	4.168	A
C - A508 South	787	197	38	1892	0.416	785	627	0.0	0.7	3.308	A
D - Northampton Road	203	51	462	1563	0.130	202	360	0.0	0.1	2.667	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	566	142	224	1878	0.302	566	571	0.3	0.4	2.806	A
B - Country Park Access	8	2	787	803	0.010	8	3	0.0	0.0	4.526	A
C - A508 South	940	235	45	1887	0.498	939	750	0.7	1.0	3.869	A
D - Northampton Road	242	60	553	1503	0.161	242	431	0.1	0.2	2.878	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	694	173	274	1843	0.376	693	699	0.4	0.6	3.200	A
B - Country Park Access	10	2	964	712	0.014	10	3	0.0	0.0	5.127	A
C - A508 South	1152	288	55	1880	0.612	1149	918	1.0	1.6	5.006	A
D - Northampton Road	296	74	677	1423	0.208	296	527	0.2	0.3	3.223	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	694	173	274	1843	0.376	694	700	0.6	0.6	3.203	A
B - Country Park Access	10	2	964	711	0.014	10	3	0.0	0.0	5.131	A
C - A508 South	1152	288	55	1880	0.612	1152	919	1.6	1.6	5.038	A
D - Northampton Road	296	74	678	1422	0.208	296	528	0.3	0.3	3.226	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	566	142	224	1877	0.302	567	573	0.6	0.4	2.812	A
B - Country Park Access	8	2	788	803	0.010	8	3	0.0	0.0	4.532	A
C - A508 South	940	235	45	1887	0.498	943	752	1.6	1.0	3.899	A
D - Northampton Road	242	60	555	1502	0.161	242	433	0.3	0.2	2.885	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A508 North	474	119	188	1903	0.249	475	480	0.4	0.3	2.579	A
B - Country Park Access	7	2	660	869	0.008	7	2	0.0	0.0	4.174	A
C - A508 South	787	197	38	1892	0.416	789	629	1.0	0.7	3.333	A
D - Northampton Road	203	51	464	1561	0.130	203	362	0.2	0.2	2.675	A

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