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Strategic Movement and Access Strategy

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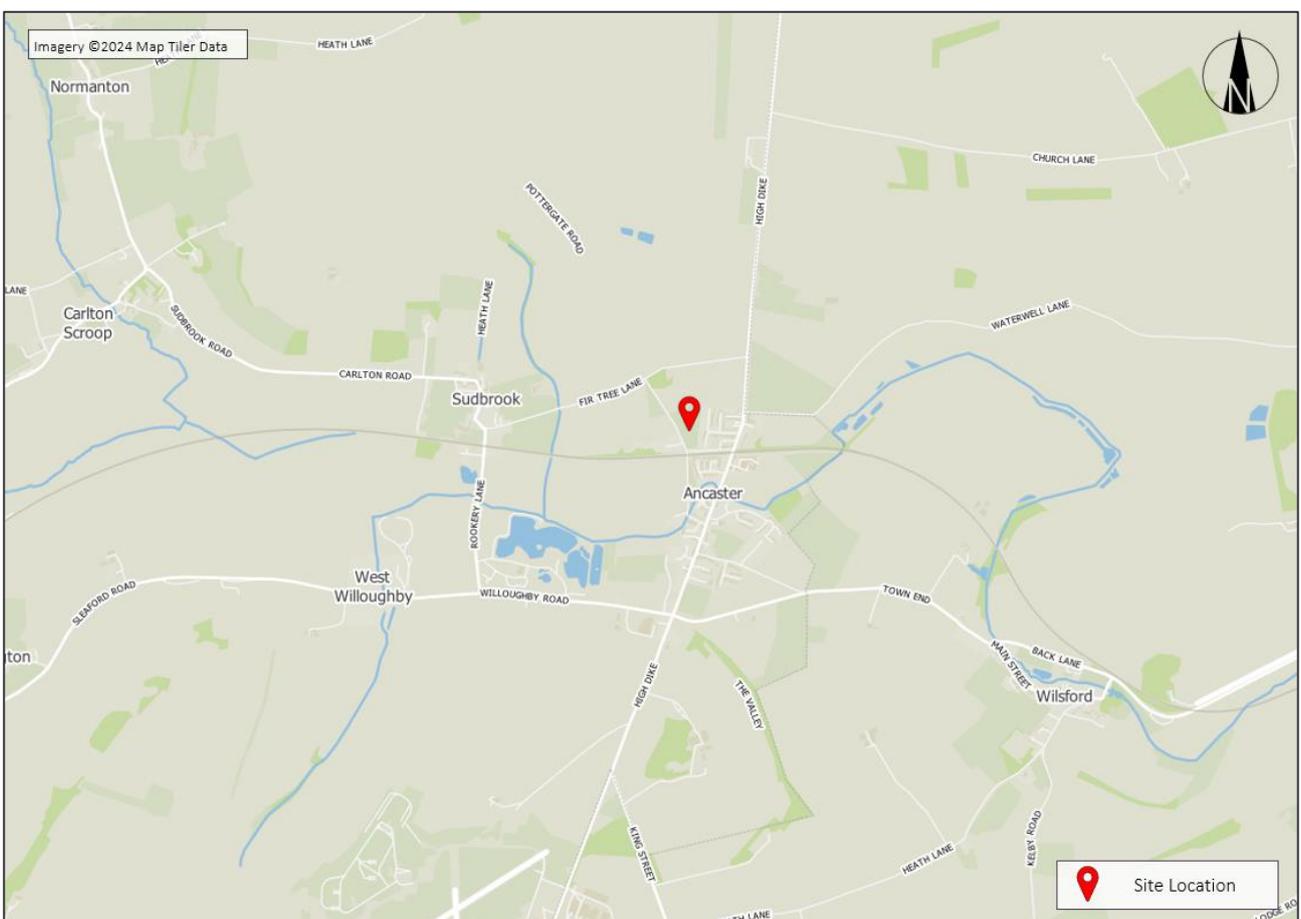
1. Introduction

1.1 Overview

This Strategic Movement and Access Strategy (SMAS) has been prepared by The Transportation Consultancy Ltd ('ttc') to assess the development viability of a site with a residential scheme of approximately 65no. dwellings.

The location of the potential development site can be seen in **Figure 1.1** below.

Figure 1.1 Site Location



1.2 Planning Background

The potential development site has been allocated in the South Kesteven District Regulation 18 – Draft Local Plan as 'SKPR-283 – Land off St Martin's Way'. The allocated land has an indicative number of dwellings totalling 65no. units, and must adhere to the following development principles:

- a) *'Pedestrian links, such as footway and cycleway connections into the village from the site to station approach should be incorporated in the development proposal.'*
- b) *'Vehicular access shall be served from St Martin's Way only.'*

- c) *Development should be set back from Pottergate Road to preserve its rural character and sensitivity.*
- d) *Potential landscape impacts should be mitigated through high quality design and landscaping.*
- e) *There is the potential for archaeological remains on this site and the appropriate pre-commencement investigations should be carried out.*
- f) *This site is within or includes a Green Infrastructure Area. Proposals on this site should incorporate the relevant principles for development within Green Infrastructure Areas set out in Policy EN3 Green Infrastructure.*
- g) *This site is situated within a Limestone Mineral Safeguarding Area. Before considering a planning application for this site a Minerals Assessment will be required.'*

1.3 Purpose of Report

This SMAS has been prepared to assess the development viability of the allocated site (**SKPR-283**) in Ancaster, Lincolnshire.

The SMAS will assess the sustainability credentials of the potential development site, with consideration for the connectivity of pedestrians, cyclists, and public transport users within the local area and further afield. The report will outline a series of audits, reviews, and strategies to promote the site and its potential development characterises.

1.4 Structure of Report

This SMAS is structured as follows:

- **Chapter 2:** Outlines the relevant local and national policies.
- **Chapter 3:** Describes the existing situation and the surrounding local highway network as well as identifying the sustainable transport options through an accessibility audit.
- **Chapter 4:** Outlines the site access strategy and identifies mitigation measures that show linkages between the site and local amenities.
- **Chapter 5:** Provides a summary of the person trips generated by the potential development and local mode share and journey purpose information to determine a likely distribution of person trips to and from the site.
- **Chapter 6:** Presents a summary and conclusion of the report.

2. Policy Context

2.1 Introduction

This chapter of the SMAS outlines the relevant national and local policy guidance that the potential development contributes to. This chapters will focus on the following documents:

- National Planning Policy Framework (2023).
- South Kesteven District Council Local Plan (2011-2036).

2.2 National Planning Policy Framework (December 2023)

In December 2023 the Ministry of Housing, Communities and Local Government published the revised National Planning Policy Framework (NPPF), which sets out the Government’s planning policies for England and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. The NPPF must be considered in the preparation of local and neighbourhood plans and is a material consideration in planning decisions.

At the heart of the NPPF is a presumption in favour of sustainable development, an approach which should be followed by local planning authorities in their plan making and decision taking. Decision takers at every level are encouraged, where appropriate, to consider favourably applications for sustainable development and an emphasis is also made within the NPPF on local planning authorities working proactively with applicants at pre-application stage to secure this.

One of the core land-use planning principles, underpinning plan-making, and decision-taking, is that *‘opportunities to promote walking, cycling and public transport use are identified and pursued.’*

The NPPF sets out how sustainable development will be delivered, which includes promoting sustainable transport (Paragraphs 108 - 117). Within this section of the NPPF it is recognised that transport policies have an important role to play in facilitating sustainable development and contribute to wider sustainability and health objectives. The NPPF identifies the need to favour sustainable transport modes to enhance travel choice, and to locate developments that generate significant movement where the need to travel will be minimised and the use of sustainable transport modes can be maximised. The NPPF sets out that all developments that generate significant amounts of movement should be supported by a Transport Statement or a Transport Assessment and a Travel Plan, the latter being identified as a key tool to deliver sustainable transport objectives. Paragraph 109 also recognises *‘opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making’.*

Paragraph 114 identifies that plans and decisions should take account of whether:

- *a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *b) safe and suitable access to the site can be achieved for all users;*
- *c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and*

- *d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'*

Paragraph 116, identifies those developments should be located and designed where practical to:

- *'a) 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;*
- *b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible, and convenient locations.'*

With regards to impacts on highways, Paragraph 115, states:

'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.'

Paragraph 117 concludes that all developments expected to generate significant amounts of movement should provide a travel plan, and applications should also be supported by a Transport Statement or Transport Assessment to assess the likely impacts of the proposals.

2.3 Local Planning Policy

Lincolnshire County Council Local Transport Plan 5 (2011-2036)

The Lincolnshire County Council Local Transport Plan 5 (LTP5) is a statutory planning document which outlines the role of transport in creating and sustaining growth in the County. The LTP5 is designed to cover 3 distinct temporal periods which have different focuses based on the future issues, trends, and opportunities. The periods are as follows:

- *'The **short-term** horizon is for the period **2022-26** and focuses on what is needed to continue to support the sustainable growth agenda of delivering new houses and jobs, whilst reducing carbon emissions and supporting the recovery from the COVID-19 pandemic. It will also need to take account of the changes to accessibility and mobility that have taken place in the short-term but that may become permanent changes in the longer-term; the growth of home working and home shopping being two key examples.*
- *In the **medium-term** this plan is designed to support the Local Plans all with time lines running until **2034**. Whilst there is less detail for this time frame, the plan looks at infrastructure requirements for all modes but notably for rail where planning horizons are often extended due to the complexity of the rail industry.*
- *Finally, the plan has a short section on the **longer-term** future and what issues, trends and opportunities await the county up until **2050**.'*

The LTP5 is underpinned by a suite of objectives and adjoining policies which tailor to the future transport issues, trends, and opportunities in Lincolnshire. Examples of a joint objective and policy related to the potential development is as follows:

Objective 2c

‘Deliver sustainable development by ensuring that new developments are designed to reduce the need to travel, minimise car use and support the use of more sustainable modes.’

Why is this important?

‘Influencing travel behaviour is easier at key points in people’s lives and moving house is one of those critical times. Utilising good quality planning and ensuring that new development is designed and delivered with sustainable travel in mind will make a significant contribution to reducing carbon emissions moving forward. These same issues can be applied to new commercial development and the creation of more sustainable travel patterns for both employees, visitors and deliveries needs to be considered as part of new offices, shops and factories too.’

Policy GREEN4: *We will use the local and strategic development management processes to ensure that development is planned, delivered, and managed to reduce the need to travel and support the delivery of sustainable transport modes. We will support the provision of improved walking, cycling and public transport services and facilities as part of new developments and actively encourage innovative solutions such as car clubs, mobility hubs, active travel plans and other sustainable solutions as opposed to single occupancy car use.’*

How will we do this?

‘Influence the planning system as a statutory consultee to adopt and implement sustainable transport policies. We will seek improvements to new developments to ensure that adequate and appropriate provision is made to both reduce the need to travel and support measures that encourage active travel and public transport when travel is required. Key projects that we will support include:

- *Provision of comprehensive, high-quality, safe, and direct networks for walking, cycling and public transport that includes priority for cyclists and public transport.*
- *Creation of walkable neighbourhoods, so that a range of services and facilities are within easy walking distance and access to them is unimpeded and straightforward.*
- *Provision of high-quality interchanges to improve connectivity between transport modes including local mobility hubs that have facilities to enabling EV recharging, reverse park and ride, car clubs and other innovative solutions.*
- *Implementation and monitoring of travel plans.’*

South Kesteven District Council Local Plan (2011-2036)

The South Kesteven District Council Local Plan (SKDCLP) is a statutory planning document which sets out how South Kesteven District Council will seek to encourage sustainable growth to ensure South Kesteven remains a prosperous, safe, and attractive District. The SKDCLP consists of a long-term sustainable vision with lasting until 2036 underpinned by a suite of key principles which will guide the location, use and form of new developments.

The SKDCLP states that potential development should consider how they can proactively minimise:

- a) *‘The effects of climate change and include measures to take account of future changes in the climate;*

-
- b) *The need to travel, and wherever possible be located where services and facilities can be accessed more easily through walking, cycling or public transport;*
 - c) *The use of resources, and meet high environmental standards in terms of design and construction with particular regard to energy and water efficiency; and*
 - d) *The production of waste both during construction and occupation.'*

3. Existing Situation

3.1 Overview

This section of the SMAS describes the existing situation and the surrounding local highway network as well as identifying the sustainable transport options through an accessibility audit.

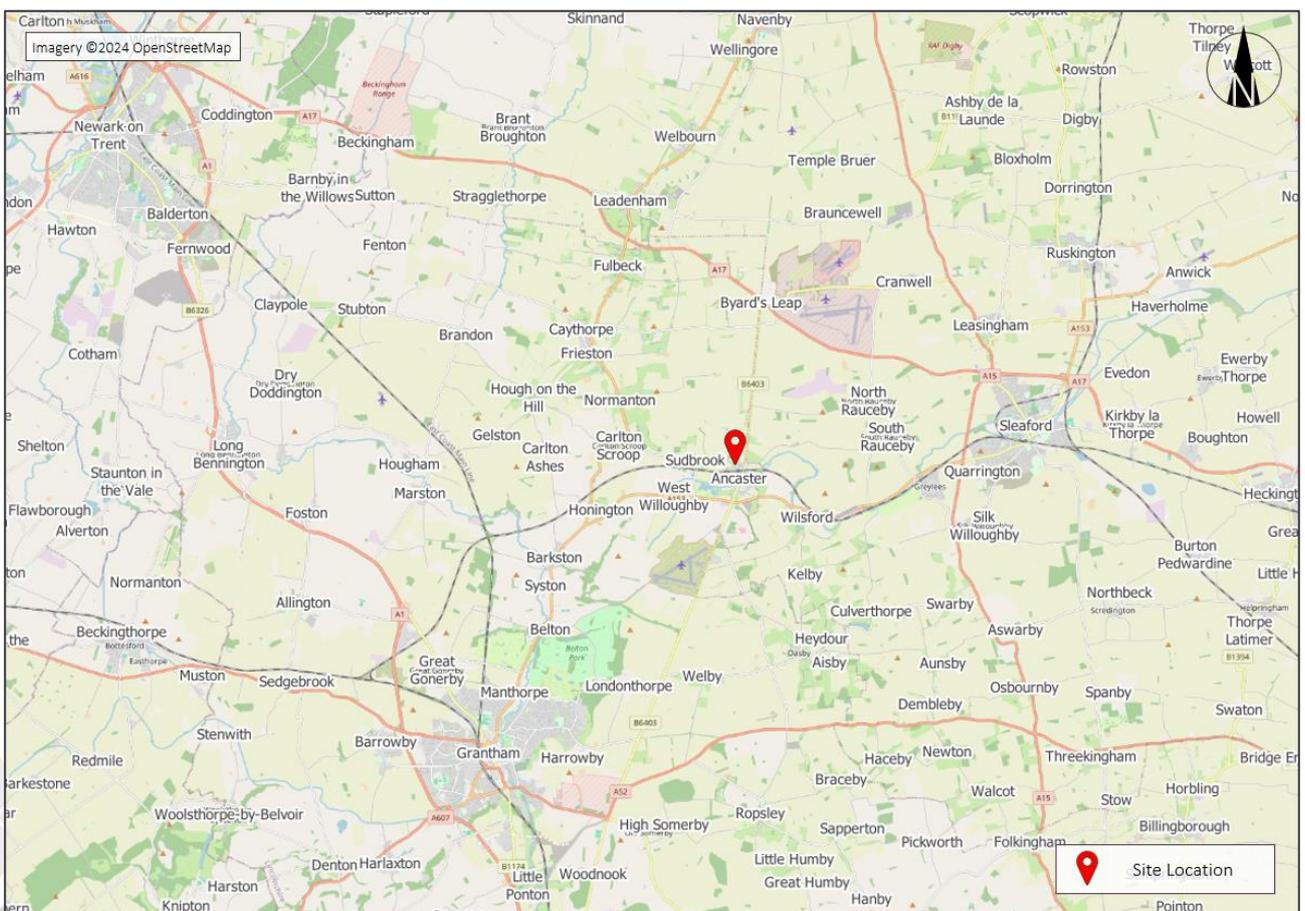
3.2 Site Location

Strategic

In the strategic context, the potential development site is located in the village of Ancaster within the District of South Kesteven, Lincolnshire. The village of Ancaster is strategically well positioned between the larger settlements of Sleaford (8.6km to the east), Grantham (10.6km to the southwest) and Newark-on-Trent (20.9km to the northwest).

Figure 3.1 illustrates the potential development site in the strategic context.

Figure 3.1 Site Location in Strategic Context



Strategic access to and from Ancaster in relation to the aforementioned regional centres is facilitated via a comprehensive highway quality road (see Section 3.3) and rail network (see Section 3.5).

Local

In the local context, the potential development site is situated c.590m north of Ancaster village centre. **Figure 3.2** illustrates the potential development in the local context.

Figure 3.2 Site Location in Local Context



The parcel of land on which the potential development site lies is currently occupied by agricultural pasture.

The potential development site is bounded by agricultural fields to the north, residential dwellings to the east, Station Approach to the south and Pottergate Road to the west, and forms part of the northwestern extremity of the Ancaster settlement form.

3.3 Local Highway Network

The local highway network is managed and maintained by Lincolnshire County Council (LCC) and consists of the following links.

St Martin's Way

St Martin's Way is a two-way highway routing along an east to west alignment towards the eastern boundary of the potential development site. The highway is a cul-de-sac and routes from its junction with the B6403 (Ermine Street).

St Martin's Way is predominantly residential in nature with frequent and numerous direct accesses to properties.

Within the vicinity of the potential development site, St Martin's Way has a carriageway width measuring c.5.4m and is subject to a 30mph speed limit. The highway is lit and affords pedestrian footways along both sides of the carriageway measuring c.1.9m in width.

St Martin's Way affords access to the wider highway network for the potential development site.

Pottergate Road

Pottergate Road is a rural two-way highway routing along a north to south alignment which forms the western boundary of the potential development site. Whilst accommodating for vehicular use, the highway also forms part of a PRow and operates as a restricted byway, routing from its junction with Fir Tree Lane in the north to Water Lane in the south. Pottergate Road is intersected by the railway tracks of the Poacher Line, where a level crossing exists.

Pottergate Road is predominantly rural in nature, with the highway routing through numerous agricultural fields, however there are infrequent direct accesses to residential estates and properties.

Within the vicinity of the potential development site, Pottergate Road has a carriageway width measuring c.2.7m and is subject to the national speed limit. The highway is unlit and does not afford pedestrian footways along either side of the carriageway.

Station Approach

Station Approach is a private two-way road routing along an east to west alignment which forms the southern boundary of the potential development site. The road routes from its junction with the B6403 (Ermine Street) in the east to Pottergate Road in the west. Station Approach operates as the exclusive access for Ancaster train station for all mode types.

Within the vicinity of the potential development site, Station Approach has a carriageway width measuring c.5.3m, is unlit and does not afford pedestrian footways along either side of the carriageway.

B6403 Ermine Street

The B6403 is a two-way B-road routing on a north to south alignment between its junction with the A17 by RAF Cranwell in the north and the A52 in the south. The highway, alongside the A153 which intersects the B6403 to the south of Ancaster, acts as a key link to the wider highway network, which connects with neighbouring regional settlements surrounding the potential development site.

The section of the B6403, named Ermine Street, in proximity to the potential development site forms the main arterial thoroughfare through Ancaster, with key services and amenities positioned alongside its carriageway.

Within the vicinity of the potential development site, the carriageway width measures c.5.9m and is subject to a 30mph speed limit. The B6403 provides street lighting at regular intervals and contains pedestrian footways along both sides of the carriageway measuring between 1.4-1.7m in width.

The B6403, via St Martin's Way affords access to the wider highway network for the potential development site.

3.4 Local Facilities and Amenities

The potential development site is well situated to benefit from access to a number of local services and facilities which can be accessed by sustainable modes of transport. The potential development site's accessibility has been judged against the Institute of Highways and Transportation (IHT) 'Guidelines for providing for Journeys on Foot' (2000) in relation to acceptable walking distances to services and facilities.

Table 3.1 summarises the desirable, acceptable, and preferred maximum walking distance to local community facilities and services.

Table 3.1 Recommended Accessibility Thresholds

Threshold Classification	Town Centre	Community / School	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1,000m	800m
Preferred Maximum	800m	2,000m	1,200m

Source: IHT (2000), *Guidelines for Providing Journeys on Foot*, IHT, London

Given the site's relative proximity to Ancaster centre, a number of services and facilities used on a regular basis could be accessed by future residents of the potential development site and are situated within walking distance. **Table 3.2** highlights the accessible services and amenities with their walking distance and journey time.

Table 3.2 Walkable Services and Amenities from Potential Development Site

Service / Amenity	Distance*	Walking Time	Threshold Classification
Ancaster Train Station	200m	2-minutes	Desirable
Co-op Food	400m	5-minutes	Desirable
The Railway Inn (PH)	400m	5-minutes	Desirable
Railway Inn Bus Stops	400m	5-minutes	Desirable
Ancaster Post Office	600m	7-minutes	Acceptable
Ancaster Primary School	700m	9-minutes	Acceptable
Ancaster Playing Field	700m	9-minutes	Acceptable
Ancaster Butcher	750m	10-minutes	Acceptable
Ancaster Parish Hall	850m	11-minutes	Acceptable
Village Hall Bus Stops	850m	11-minutes	Preferred Maximum
Ancaster Nursery	1km	13-minutes	Acceptable
Ancaster Medical Practice	1km	13-minutes	Preferred Maximum
St Martin's Church	1km	14-minutes	Preferred Maximum
Maddocks Park	1.4km	20-minutes	Above Threshold
Ancaster Service Station	1.7km	23-minutes	Above Threshold

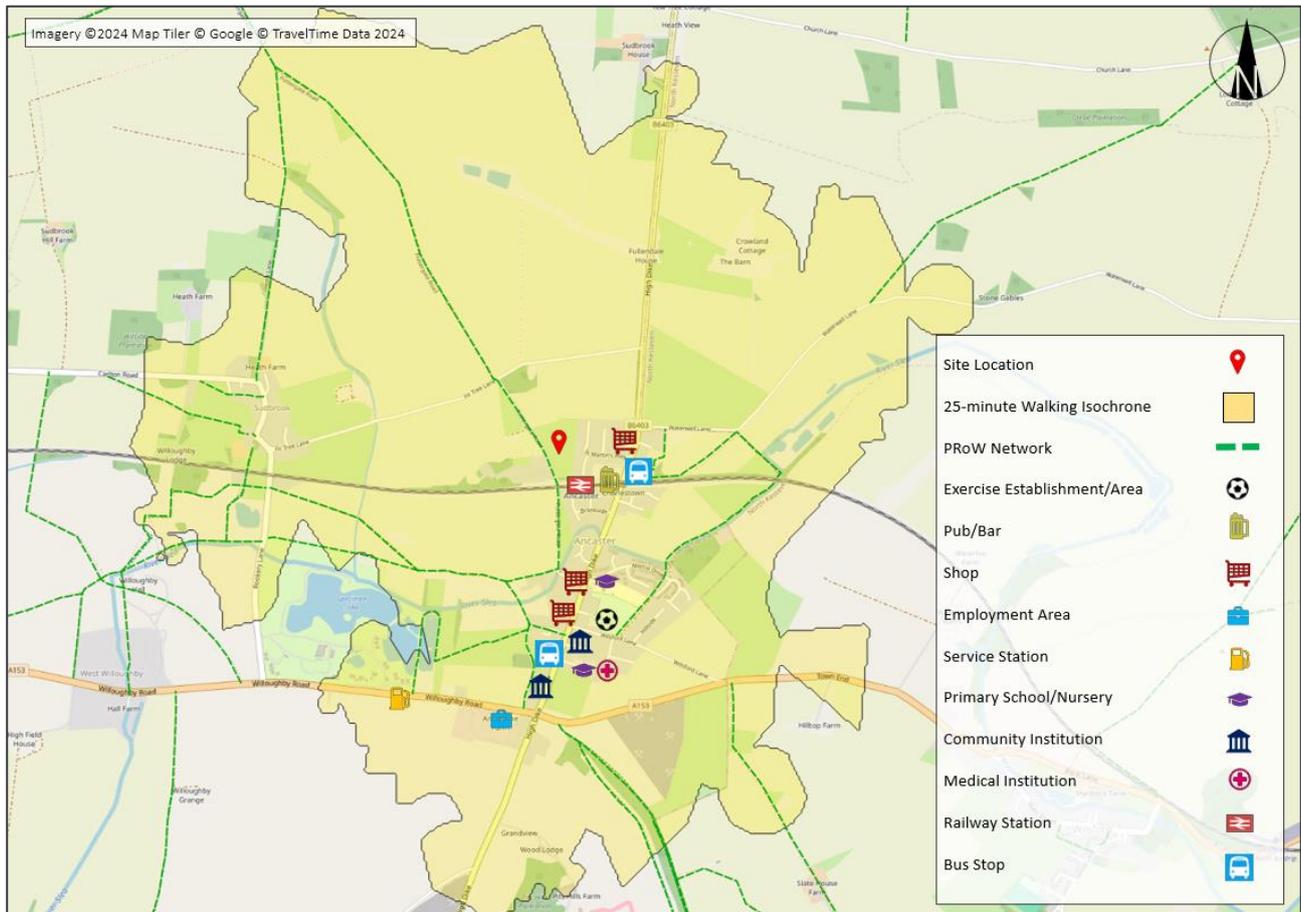
*This table represents a worst-case scenario, and it should be noted that the distances and travel times for many amenities could be reduced and improved, subject to the future permeable pedestrian and cyclist access options outlined in **Chapter 4**.

It can be seen from **Table 3.2** that the potential development site is well located to benefit from a number of services and facilities which are within an acceptable walking distance. This will reduce the dependence on car

journeys to access key services and facilities and promotes the sustainable nature of the potential development site.

Figure 3.3 also illustrates a 2km, 25-minute walking isochrone and the locations of the services and facilities highlighted in Table 3.2.

Figure 3.3 2km, 25-Minute Walking Isochrone including Facilities and PRoWs



It is evident from Table 3.2 and Figure 3.3 above that the potential development site is well situated to benefit from proximity to a range of services and facilities within a suitable walking distance. In the following section, consideration will be given to the existing active travel connections which make the potential development site accessible to the services and facilities identified.

3.5 Active Transportation

Walking

The potential development site is well situated to benefit from local walking infrastructure which connects the site to local services and facilities outlined in Section 3.4. It is considered that the location of the potential development site in relation to the corresponding local services and facilities creates pedestrian desire lines which future residents are likely to utilise. Local pedestrian desire lines are concentrated on accessing services and facilities such as Ancaster train station, the ‘Railway Inn’ bus stops and the Co-op supermarket in the potential development sites immediate vicinity which were identified in Section 3.4.

Figure 3.4 below outlines the recognised pedestrian desire lines to local facilities along Pottergate Road, St Martin’s Way and the B6403 (Ermine Street).

Figure 3.4 Local Desire Line



Pedestrians utilising the desire lines identified in **Figure 3.4** above benefit from an established footway network, with St Martin’s Way and the B6403 (Ermine Street) affording footways along both sides of the carriageway, which measure between 1.7-1.9m and dropped kerb crossings at key junctions. Pedestrian movements on Pottergate Road and Station Approach are aided by low levels of traffic, with the former operating as a byway.

Broader pedestrian desire lines are concentrated on accessing the services and facilities towards the centre of Ancaster, which were identified in **Section 3.4**.

Figure 3.5 below outlines the recognised pedestrian desire lines along Pottergate Road, Water Lane, St Martin’s Way, Station Approach and the B6403 (Ermine Street).

Figure 3.5 Village Centre Desire Line



As previously mentioned, pedestrians utilising the primary desire lines identified in **Figure 3.5** above benefit from an established footway network along St Martin’s Way and the B6403 (Ermine Street). The footway provision along the B6403 (Ermine Street) continues southward past the railway bridge and towards the centre of Ancaster where, despite narrowing beneath the bridge, the footway width increases to between 2.7-3.2m. Pedestrians leaving the site from the west could access this desire line using Pottergate Road and Station Approach which both operate as allow traffic routes, promoting safe and direct movements.

Additionally, Pottergate Road affords a secondary desire line towards the centre of Ancaster as the highway continues to operate as a byway southward past the level crossing, with low traffic, paved surfacing and a 2.2m width. To access the centre of Ancaster via Pottergate Road, pedestrians would use Water Lane which provides a continuous footway along the southern side of its carriageway measuring between 1.0-1.1m in width.

More broadly, the potential development site is situated in proximity to numerous Public Rights of Way (PRoW) which provide connections across Ancaster and further afield to neighbouring settlements as well as offering the opportunity for leisure walks. The potential development site in particular benefits from its proximity, and connection, to the Pottergate Road byway and connects into the wider local network.

An illustration of the local PRoW network in relation to 25-minute (2km distance) walking isochrones is displayed within **Figure 3.3**.

Cycling

The potential development site is well situated to benefit Pottergate Road as a safe cycle route, serving as a restricted byway with extremely low levels of traffic.

Figure 3.6 below outlines the recognised cyclist desire lines along Pottergate Road, Water Lane, Station Approach and the B6403 (Ermine Street).

Figure 3.6 Cycling Desire Line



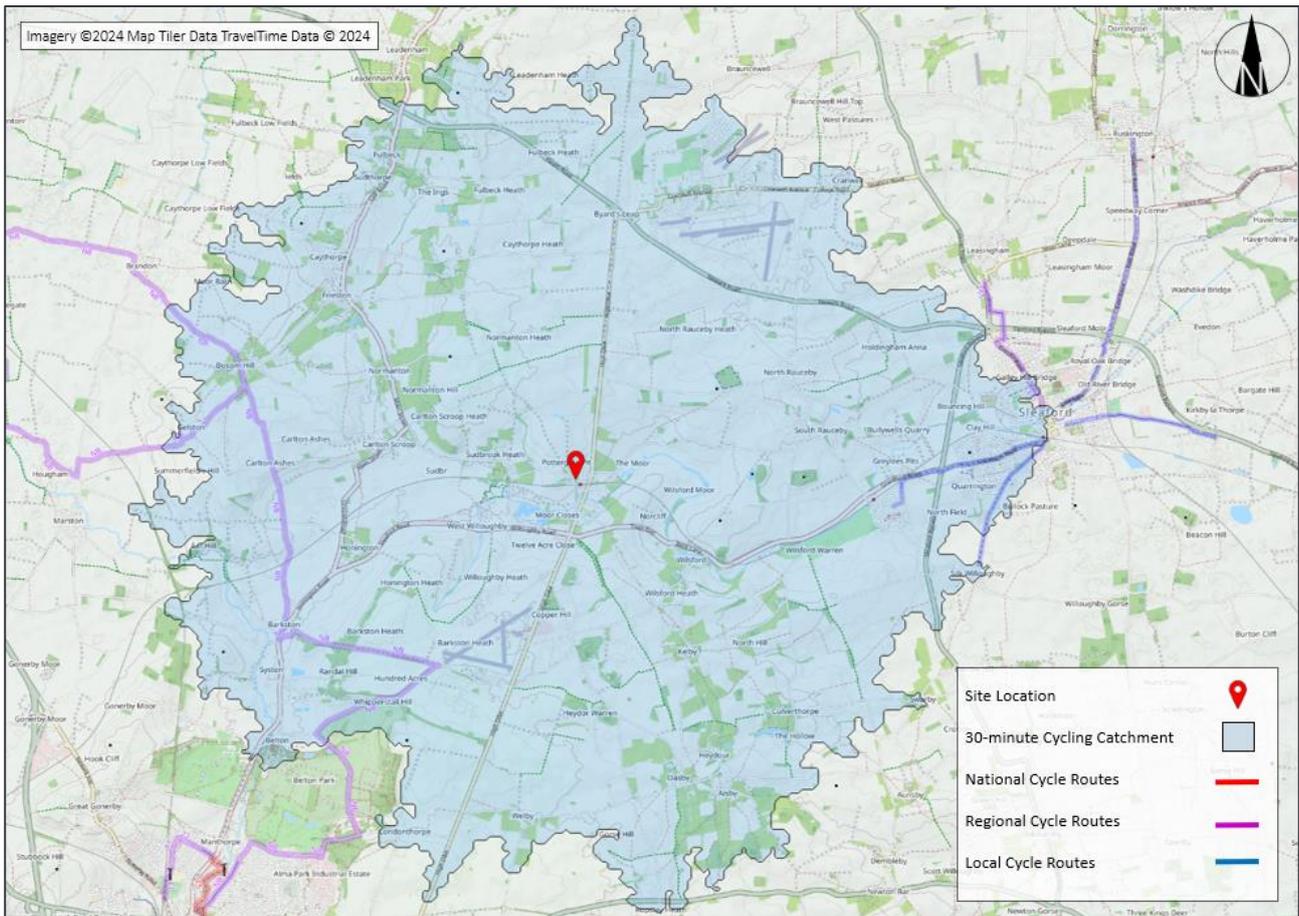
Pottergate Road is a likely desire line that future residents of the potential development site would use to access the services and facilities outlined in **Section 3.4** via bicycle due to its direct route and current operation as an established byway. Pottergate Road is hard surfaced and in generally good condition with consistent widths of between 2.2-2.4m.

Furthermore, future residents of the potential development site would use the desire line across Station Approach and the B6403 (Ermine Street) to access the centre of Ancaster. Station Approach and the B6403 (Ermine Street) are subject to a 30mph speed limit and lightly trafficked, with a Manual Traffic Count conducted by the Department for Transport in 2009 recording an AADT of 3,346 which is considered low. Therefore, the desire line is considered safe and suitable for cyclists of varying abilities.

The potential development site is also within proximity of established cycling infrastructure particularly towards the regional centre of Sleaford.

Figure 3.7 illustrates the national, regional, and local cycle routes within a 30-minute cycling catchment from the proposed development site.

Figure 3.7 Cycle Routes & 30-minute Isochrone



3.6 Public Transport

Bus Services

The nearest bus stops to the potential development site are situated along the B6403 (Ermine Street), c.290m east of the potential development site (6-minute walk) and are referred to locally as ‘The Railway Inn’. The bus stops operate as hail and ride stops where a singular school service (serving Sir William Robertson Academy) calls on request during the school term time.

More regularly serviced and strategically important bus stops known as ‘Village Hall’ are situated along the B6403 (Ermine Street), c.760m south of the potential development site (11-minute walk). The bus stops consist of shelters, seating, timetable information, raised kerbs and bins.

A summary of the service and frequencies is presented in **Table 3.3**.

Table 3.3 Summary of Local Bus Services

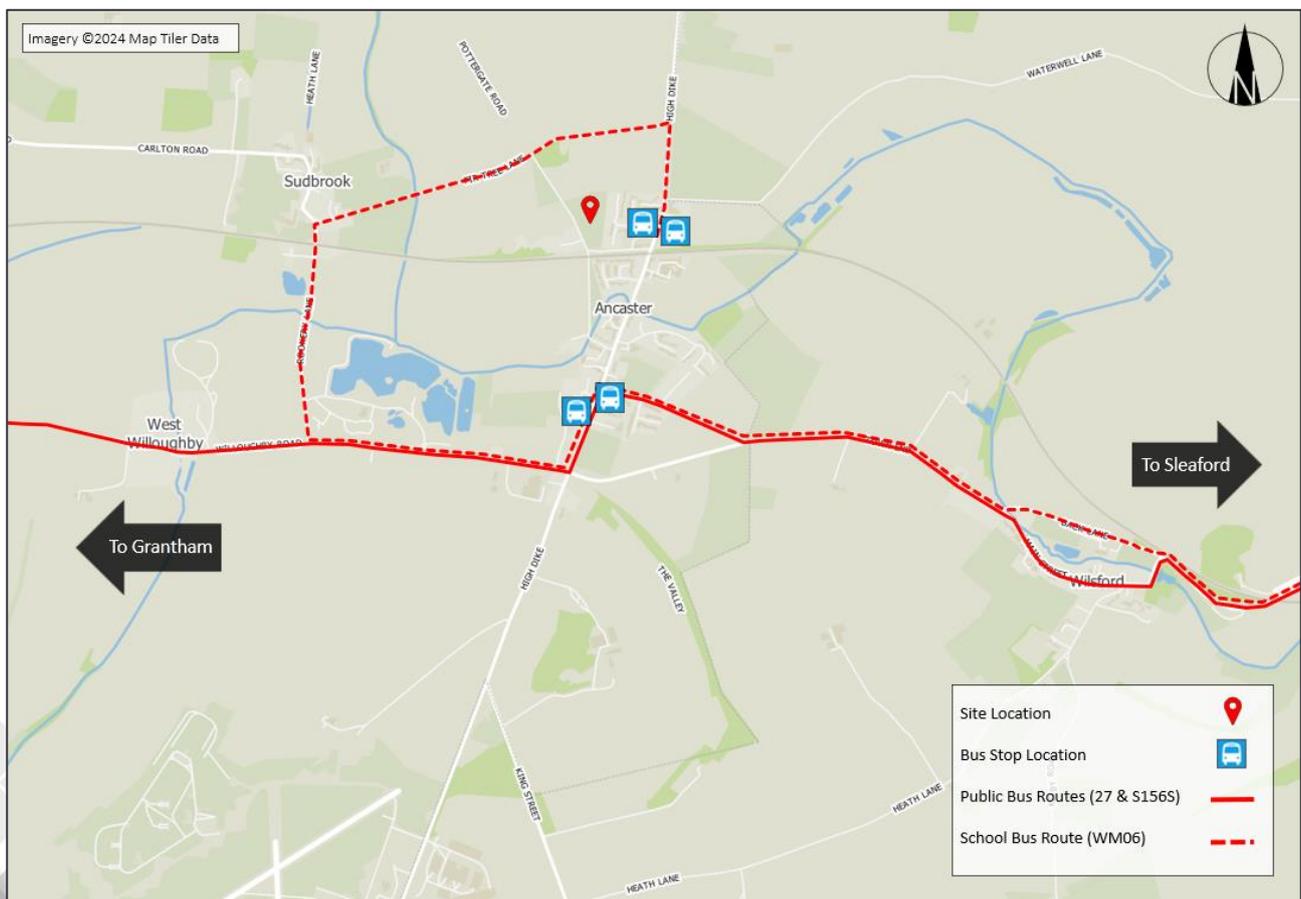
Stop	Service	Route	Monday-Saturday Frequency		Sunday Frequency
			Daytime	Evening	
Village Hall (stop ID: linamadm))	27	Grantham – Sleaford	4 per day	Once (17:54)	No Service
	S156S	Grantham – Sleaford	Twice a day	No Service	No Service

Stop	Service	Route	Monday-Saturday Frequency		Sunday Frequency
			Daytime	Evening	
Village Hall (stop ID: lingpwga)	27	Sleaford – Grantham	4 per day	No Service	No Service
	S156S	Sleaford – Grantham	Twice a day	No Service	No Service
The Railway Inn (stop ID: linajptw)	WM06	Ancaster – Welbourn	Once (07:33)	No Service	No Service
The Railway Inn (stop ID: linajpwa)	WM06	Welbourn – Ancaster	Once (16:27)	No Service	No Service

As outlined in **Table 3.3** above, the potential development site is well situated to benefit from access to local bus stops which serve important local destinations, particularly the regional centres of Grantham and Sleaford as well as Sir William Robertson Academy in Welbourn. This places the potential development site within the regional strategic bus network where opportunities to access services and facilities not accessible by the aforementioned active transportation can be accessed.

An illustration of the regional strategic bus network is presented in **Figure 3.8** below.

Figure 3.8 Regional Strategic Bus Network



For the bus services towards Grantham, the earliest service departs Village Hall at 07:58 (27), with the latest returning service arriving back at 17:54 (S156S). Alternatively, the earliest service towards Sleaford departs at 08:00 (27), with the last returning services arriving back at 16:20 (27).

Rail Services

Ancaster train station is situated immediately south of the potential development site’s southern boundary across Station Approach (see **Section 3.3**). The station is unstaffed; however, it provides shelters, bicycle storage and timetabling information.

Ancaster station is operated by East Midlands Railway and is situated on the Poacher Line, providing services to and between Skegness and Nottingham, including Grantham, Sleaford, Boston, and Bingham as well as numerous smaller settlements.

Table 3.4 below summarises the key services that Ancaster train station provides with frequencies and operational hours.

Table 3.4 Ancaster Railway Services

Destination	Journey Time	Peak Frequency	Operational Hours
Grantham	18-minutes	4 per day	06:45-16:24
Sleaford	10-minutes	4 per day	08:46-19:45
Nottingham	1-hour	4 per day	06:45-16:24
Boston	34-minutes	4 per day	08:46-19:45
Skegness	1-hour 10-minutes	4 per day	08:46-19:45
Bingham	45-minutes	4 per day	06:45-16:24

As outlined in **Table 3.4** above, the potential development site is connected to Grantham station via an 18-minute train journey. Grantham station is situated on the East Coast Main Line and thus provides further onward services towards central London (King’s Cross), with some services taking as little as 1-hour 5-minutes to complete the journey.

As a result, the potential development is well situated within the regional, as well as national, strategic rail network where opportunities to access services and facilities not accessible by the aforementioned bus routes or active transportation can be accessed.

An illustration of the regional strategic rail network in relation to Ancaster station is presented in **Figure 3.9** below.

Figure 3.9 Regional Strategic Rail Network



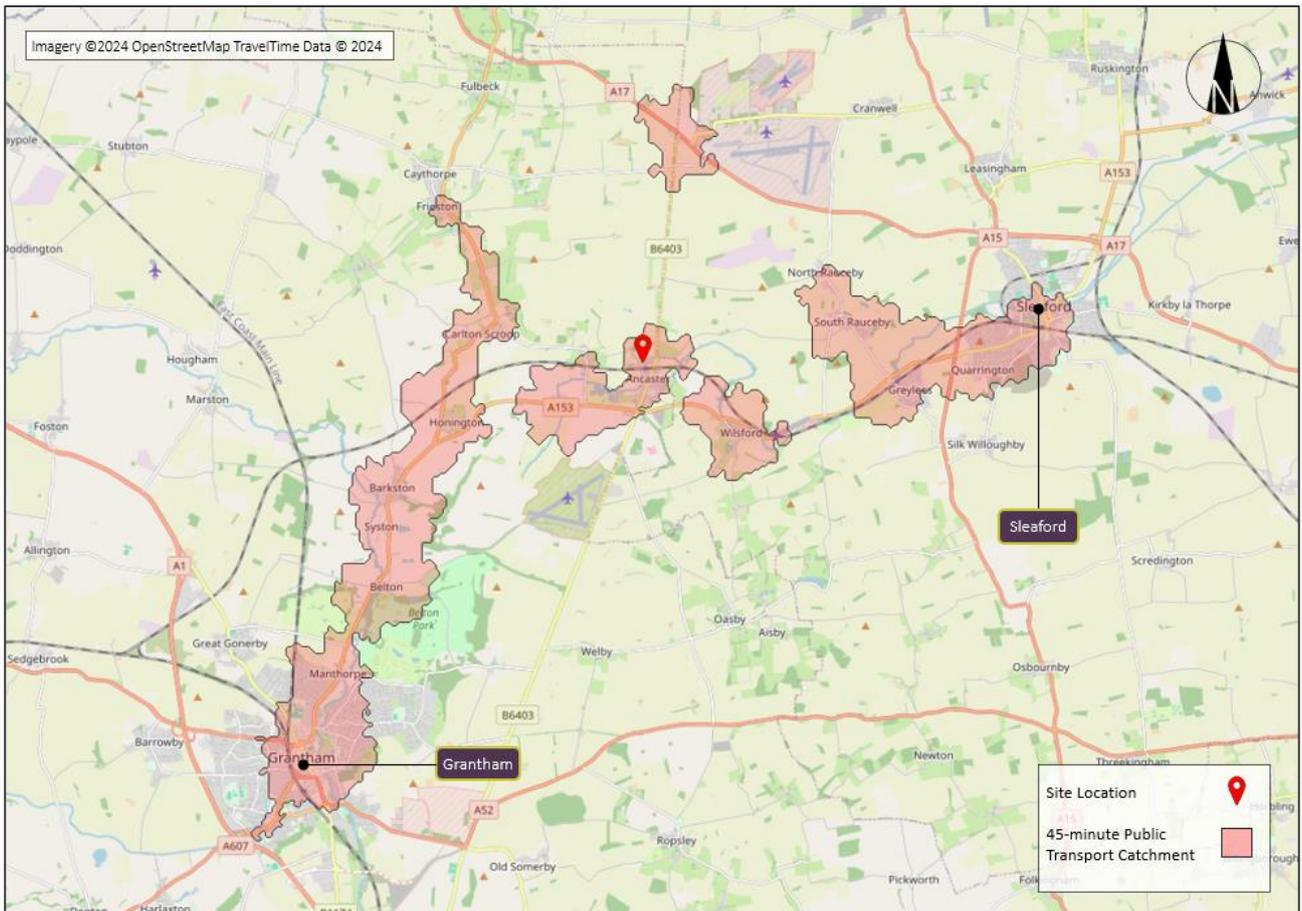
Further consideration to timed intervals within the wider strategic public transport network is provided in the following section.

Strategic Overview

It is considered that future site users would utilise the strategic bus and rail networks outlined above at key time intervals to access services and facilities.

Figure 3.10 below illustrates a 45-minute public transport isochrone from the potential development site between 07:30-08:30, when residents would most likely be leaving to access their place of work.

Figure 3.10 Public Transport 45-minute Isochrone 07:30-08:30

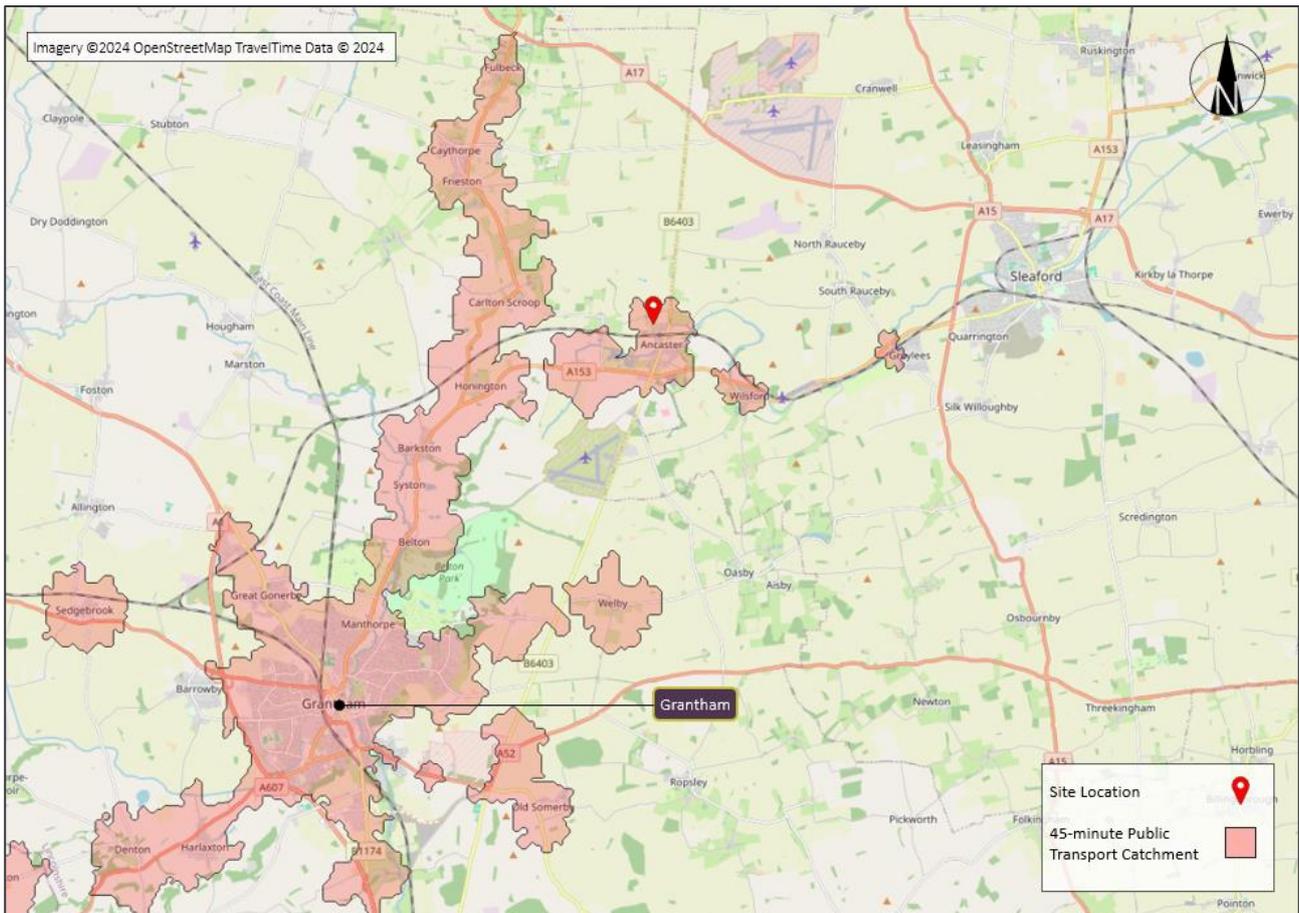


As illustrated in **Figure 3.10** above, the regional centres of Grantham and Sleaford are accessible via public transport from the potential development site between the key time interval of 07:30-08:30.

For the return journey, residents would most likely be leaving a place of work to arrive home between 17:00-18:00. Upon initial analysis, the potential development site is inaccessible from the centre of Sleaford during this period as the last bus leaves at 15:55 (27) and the last train departs at 16:14. Nevertheless, the better connected and more economically important regional centre of Grantham can access the potential development site during the key evening interval of 17:00-18:00.

Figure 3.11 below illustrates a 45-minute public transport isochrone from the regional centre of Grantham between 17:00-18:00.

Figure 3.11 Public Transport 45-minute Isochrone 17:00-18:00



As a result of the above, it is considered that future users of the potential development site could access workplaces, services, and facilities in the regional centre of Grantham between the key morning and evening departure times of 07:30-08:30 and 17:00-18:00.

Further consideration regarding the workplace location and public transport connections from the potential development site is provided in **Section 5.3**.

3.7 Personal Injury Accident (PIA) Data

Personal Injury Accident (PIA) data has been extracted from Crashmap (<https://www.crashmap.co.uk/>), the data is collected by the police and is approved by the National Statistics Authority and audited by the Department for Transport (DfT) each year.

PIA data has been obtained from Crashmap for the latest 5-years period (2018-2022). The collision data only includes collisions that meet the Department for Transport STATS19 criteria:

“Involves personal injury occurring on the public highway (including footways) in which at least one road vehicle or a vehicle in collision with a pedestrian is involved and which becomes known to the police within 30 days of its occurrence. Damage-only accidents, with no human casualties or accidents on private roadways or car parks are not included.”

The purpose of assessing recorded PIAs is to determine whether there is a history of accidents in proximity to the potential development site and to investigate whether there are any patterns or contributing factors to the accidents recorded.

The impact of casualties differs according to the severity of the injuries sustained. Three groups are usually differentiated as follows:

- **Fatal:** any death that occurs within 30 days from causes arising out of the accident.
- **Serious:** records casualties who require hospital treatment and have lasting injuries, but who do not die within the recording period for a fatality.
- **Slight:** where casualties have injuries that do not require hospital treatment, or, if they do, the effects of the injuries quickly subside.

The search area included the entirety of Ancaster and is illustrated below in **Figure 3.12**:

Figure 3.12 PIA Search Area (2018 – 2022)



Following a review of the PIA data from Crashmap, it is noted that 8no. accidents have been recorded within the vicinity of Ancaster, 7no. of which were categorised as being ‘slight’ in severity, with the remaining recorded PIA being categorised as ‘severe’.

As outlined in **Figure 3.13** above, there are no recorded PIAs within the immediate vicinity of the potential development site and no obvious patterns or clusters. Whilst all accidents are regrettable, there is no evidence to suggest that safety on the local highway network is an issue.

3.8 Summary

Following a review of the existing situation, it can be concluded that the site is:

- Connected to the surrounding highway network.
- Situated within proximity to a wide variety local services and facilities, despite its rural location. The available services and facilities will cater for day-to-day requirements without the need to use a private vehicle.
- Situated to benefit from existing pedestrian infrastructure and PRowS which afford access to local services and facilities in Ancaster.
- Situated to benefit from local cycle friendly routes which connect to important local centres, but with specific emphasis on local connectivity within Ancaster.
- In proximity to bus services which provide access to local towns where a broader range of services and facilities reside.
- In proximity to rail services which afford the opportunity to work in the regional centre of Grantham and travel to further afield cities.
- Not situated in proximity to any recorded PIA clusters or patterns which suggests there are no highway safety issues within the vicinity of the site.

4. Access Strategy

4.1 Overview

This section of the SMAS outlines the site access strategy and identifies potential integration measures to enhance local connectivity between the potential development site and local amenities.

4.2 Development Proposals

At this stage in the process, the development is proposed to comprise:

- Approximately 65no. units;
- Single vehicular access to the site from St Martin’s Way; and,
- Numerous walking and cycling access points from Station Approach and Pottergate Road.

It is a future aspiration to improve accessibility to and from the potential development site for pedestrians, cyclists, and public transport users, which is outlined in **Section 4.3** below. However, it should be acknowledged that the existing site already benefits from good accessibility to the surrounding area, as demonstrated within **Chapter 3**.

A plan illustrating the concept layout of the site is provided in **Appendix A**.

4.3 Access Arrangements

Walking

Pedestrian access to the potential development site will be afforded via footways connecting to the existing infrastructure on St Martin’s Way as well as pedestrian permeable points connecting to Pottergate Road. As outlined in **Section 3.5**, pedestrian access towards the local services and facilities in Ancaster will likely concentrate movements along the B6403 (Ermine Street) via St Martin’s Way. To aid pedestrian movements, it would be appropriate to provide uncontrolled pedestrian crossing facilities at key points to facilitate access and accommodate likely desire lines. The proposal involves provision of dropped kerb crossings, with tactile paving, at numerous points along St Martin’s Way and across the B6403 (Ermine Street) at its junction with St Martin’s Way and Station Approach. Illustrative designs of the suggested improvements are indicated on **Drawing 210963-01** and **Drawing 210963-02** contained in **Appendix B**.

In addition to this, it is considered that the width of the footway along the eastern side of the B6403 (Ermine Street) underneath the railway bridge is particularly narrow, and less accessible to vulnerable users i.e. wheelchair users and/or pedestrians with pushchairs. It is therefore suggested that the footway is widened from 0.7m to c1.7-2.0m and accompanied by dedicated crossing facilities and tactile paving either side of the bridge to facilitate safe pedestrian movements. Illustrative designs of the suggested improvements are indicated on **Drawing 210963-03** contained in **Appendix B**.

It should be noted that an adjacent residential development (application ref: S21/1045) is providing improved crossing facilities along the desire line for the potential development site. This application has been approved by LCC and proposes a dropped kerb arrangement with tactile paving across its site access.

The locations of the suggested and approved improvements to crossing facilities in relation to the potential development site are illustrated in **Figure 4.1** below, along with the corresponding drawing number for designs.

Figure 4.1 Location of Crossing Facility Improvements



Cycling

As outlined in **Section 3.5**, cycle access to the potential development site is currently aided by the presence of the Pottergate Road restricted byway and Station Approach, which provide reasonable widths, low traffic levels and a good quality surface. To aid cycle access to the potential development site, cyclist permeable points are to be installed at various points along the Pottergate Road site boundary which lead to Station Approach. The access points would serve to accommodate cycle movements on the recognised desire line outlined in **Section 3.5** and provide future residents with direct access to the centre of Ancaster and destinations beyond.

It is further suggested that cycle access to the potential development site could also be improved by the installation of way finding signage to improve route awareness and promote Pottergate Road, Station Approach and the B6403 (Ermine Street) as a cycle friendly route to key destination junctions within Ancaster. The way finding signage would be located at the geographical extremities of the desire line from the northwestern corner of the potential development site to the centre of Ancaster in the south, as well as key junctures along Station Approach and the B6403 (Ermine Street).

The locations of the suggested signage improvements in relation to the potential development site are illustrated in **Figure 4.2** below, with existing examples also noted which could provide inspiration for future designs.

Figure 4.2 Location of Suggested Way Finding Signs and Existing Example



Improved way finding signage will offer significant benefits to cycle access to and from the site as it makes use of existing infrastructure and ensures that suitable routes are adequately promoted, as it is likely user numbers would increase due to the potential development.

Public Transport

Access to the potential development site via public transport connections is aided by the close proximity of bus stops and Ancaster railway station. As outlined in **Section 3.6**, the closest bus stops to the site named ‘The Railway Inn’ along the B6403 (Ermine Street) (c.290m east of the potential development site) operate as hail and ride stops. This means that, whilst buses serve riders at the location, the actual stops are non-existent. It is therefore suggested that the bus stops are formalised as flagpoles to improve awareness, practicality, and safety of prospective patrons.

The suggested positions of the new bus stop flagpoles are illustrated in **Drawing 210963-02** contained within **Appendix B**.

The introduction of flagpoles would be important in facilitating improved public transport access to the potential development site as the route which serves the stops is a school service (WM06) that is used by children, who can be regarded as more vulnerable users. Therefore, any improvement in safety and practicality is significant in improving general access to the potential development site.

The offsite works could be secured through an appropriate mechanism such as a S106 agreement or planning condition.

4.4 Servicing Arrangements

Servicing will be afforded within the curtilage of the site boundary, via kerbside collection for each dwelling. It is considered that any future access design would be able to accommodate the swept path of the appropriately sized refuse vehicle to enter and leave the site in forward gear.

5. Traffic Generation & Traffic Impact

5.1 Overview

This section of the SMAS provides a summary of the person trips generated by the potential development and local mode share and journey purpose information to determine likely distribution patterns to and from the site.

5.2 Person Trip Generation

To determine the person trips that could be generated from the potential development, trip rate data has been extracted from TRICS for 03 'Residential' – A 'Houses Privately Owned'.

The following survey selection parameters were utilised:

- Greater London, Scotland, Wales, Northern Ireland, Republic of Ireland removed;
- Surveys conducted for sites between 40-99 units; and
- Surveys conducted in 'Suburban Area' and 'Edge of Town' locations.

Full and detailed TRICS outputs are provided in **Appendix D** with a summary of the trip rates and likely person trip generation outlined in **Table 5.1** below.

Table 5.1 Person Trip Rates and Trip Generation – Proposed Residential Dwellings

Time Range	Arrive	Depart	Two-way
Person Trip Rates – Houses Privately Owned			
AM Peak Period (08:00 – 09:00)	0.229	0.832	1.061
PM Peak Period (17:00 – 18:00)	0.614	0.283	0.897
Person Trip Generation – Houses Privately Owned (65no. units)			
AM Peak Period (08:00 – 09:00)	15	24	69
PM Peak Period (17:00 – 18:00)	40	18	58

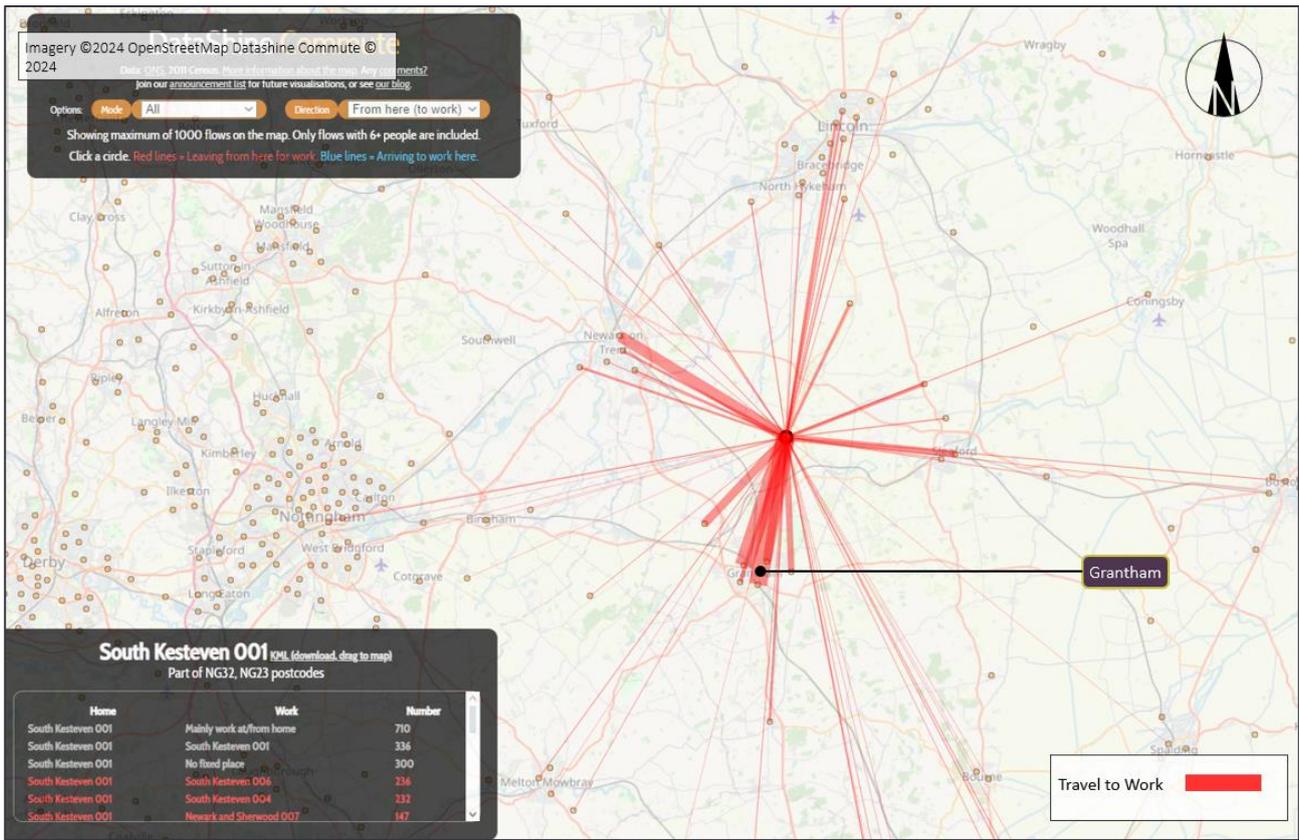
As shown in **Table 5.1**, the potential development is forecast to generate 69 two-way person trip rates in the AM peak hour and 58 two-way person trip rates in the PM peak hour.

5.3 Journey Purpose

Census data from 2011 for Office for National Statistics Dataset WF01BEW 'Location of usual residence and place of work' has been reviewed to determine likely commuter patterns for future residents. The dataset considers Middle Super Output Area (MSOA) South Kesteven 001 as the 'location of usual residence' and all other MSOAs as the 'place of work'.

Figure 5.1 illustrates the commuting pattern:

Figure 5.1 Location and Extent of Assessed Output Areas



As can be gauged from Figure 5.1, a significant proportion of resident’s travel to Grantham for work purposes. Given the availability of train services between Ancaster and Grantham, it is highly likely a number of commuter trips could be made sustainably.

6. Summary & Conclusion

6.1 Summary

This SMAS has been prepared by 'ttc' to assess the development viability of a site with a residential scheme of approximately 65no. dwellings.

The SMAS demonstrates that:

- The potential development site is located in an accessible location with a range of local facilities within a short walk of the site;
- Access to frequent bus services is available within the immediate vicinity of the potential development site, connecting to local and regional destinations;
- The potential development site is in proximity to rail services which afford the opportunity to work in the regional centre of Grantham and travel to further afield cities;
- The potential development is situated within an area with no existing highway safety issues;
- Access arrangements for pedestrians could be enhanced via the improvement of pedestrian crossing facilities across local highways and the widening of the footway along the B6403 (Ermine Street) under the Poacher Line bridge;
- Access arrangements for cyclists could be enhanced with improved signage from the potential development site to the centre of Ancaster;
- Access arrangements for public transport users could be enhanced by upgrading the 'The Railway Inn' bus stops to flagpoles;
- The potential development site development is forecast to generate 69 two-way person trip rates in the AM peak hour and 58 two-way person trip rates in the PM peak hour;
- It is highly likely that future residents would travel to their place of work sustainably, given the high levels of existing commuters travelling to Grantham which accessible by the available train services; and,
- The potential development is supportive of both national and local planning policy.

6.2 Conclusion

On the basis of the information presented in this report it is considered that the land allocation **SKPR-283** can be comfortably accommodated within the local area. As such there should be no reason why the site could not be taken forward within a forthcoming application.

Appendix A

Concept Site Layout

Appendix B

Improvement Designs



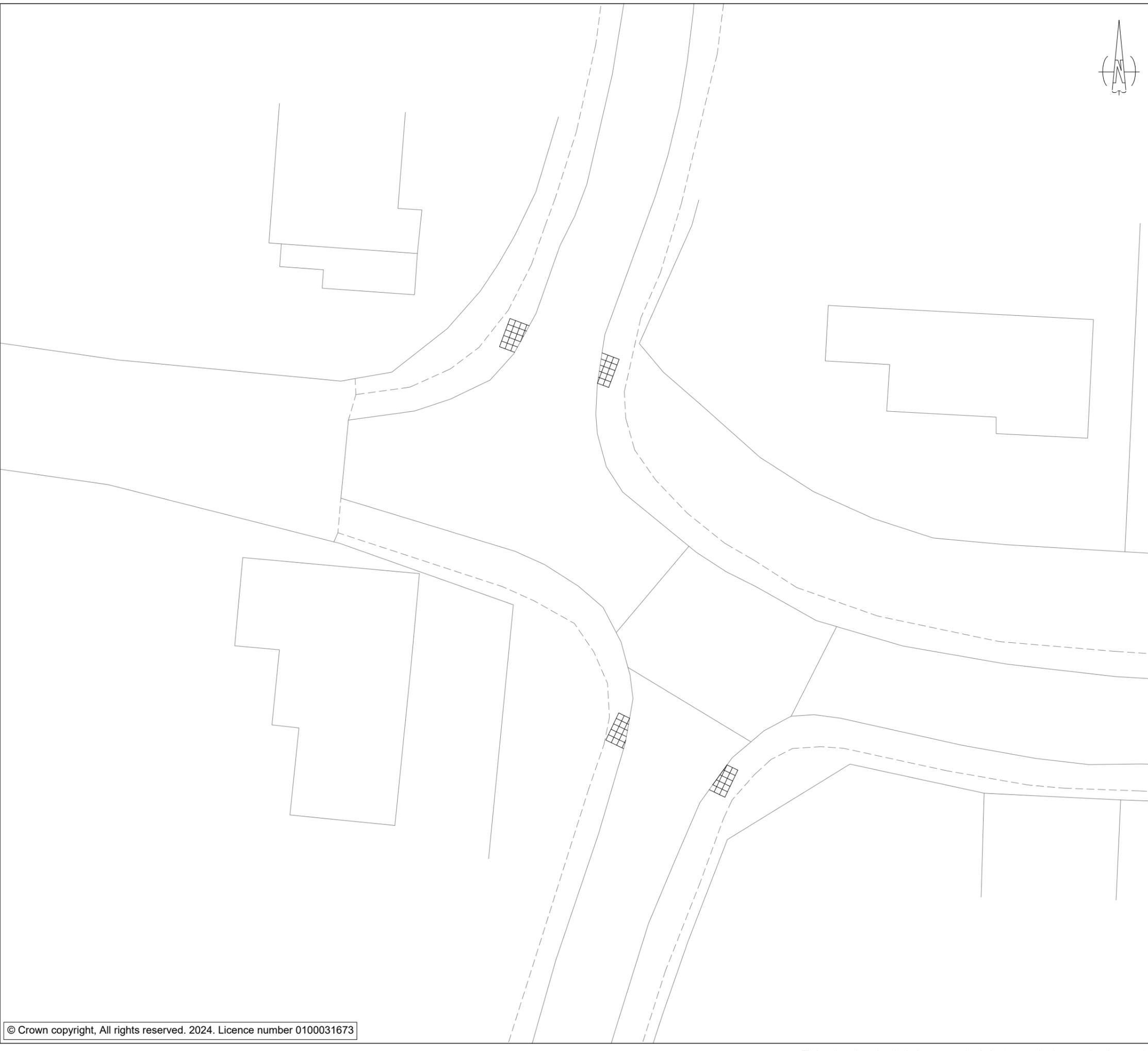
Key:

 Base Mapping

 Tactile Paving

Notes:

- Drawing units are in metres unless specified otherwise.
- Drawing is based on OS Mapping.
- Design based on guidance taken from [Guidance on the use of Tactile Paving Surfaces](#).



A3 SCALE 1:250

0 m  15 m

Scale 1:250 @ A3

Drawing Title

**St Martin's Way, Ancaster
Design Package**

Client

Persimmon Homes East Midlands

Drawing Status

Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-transportplanning.com

 the transportation consultancy

Drawing Number	210963-01	Revision	-
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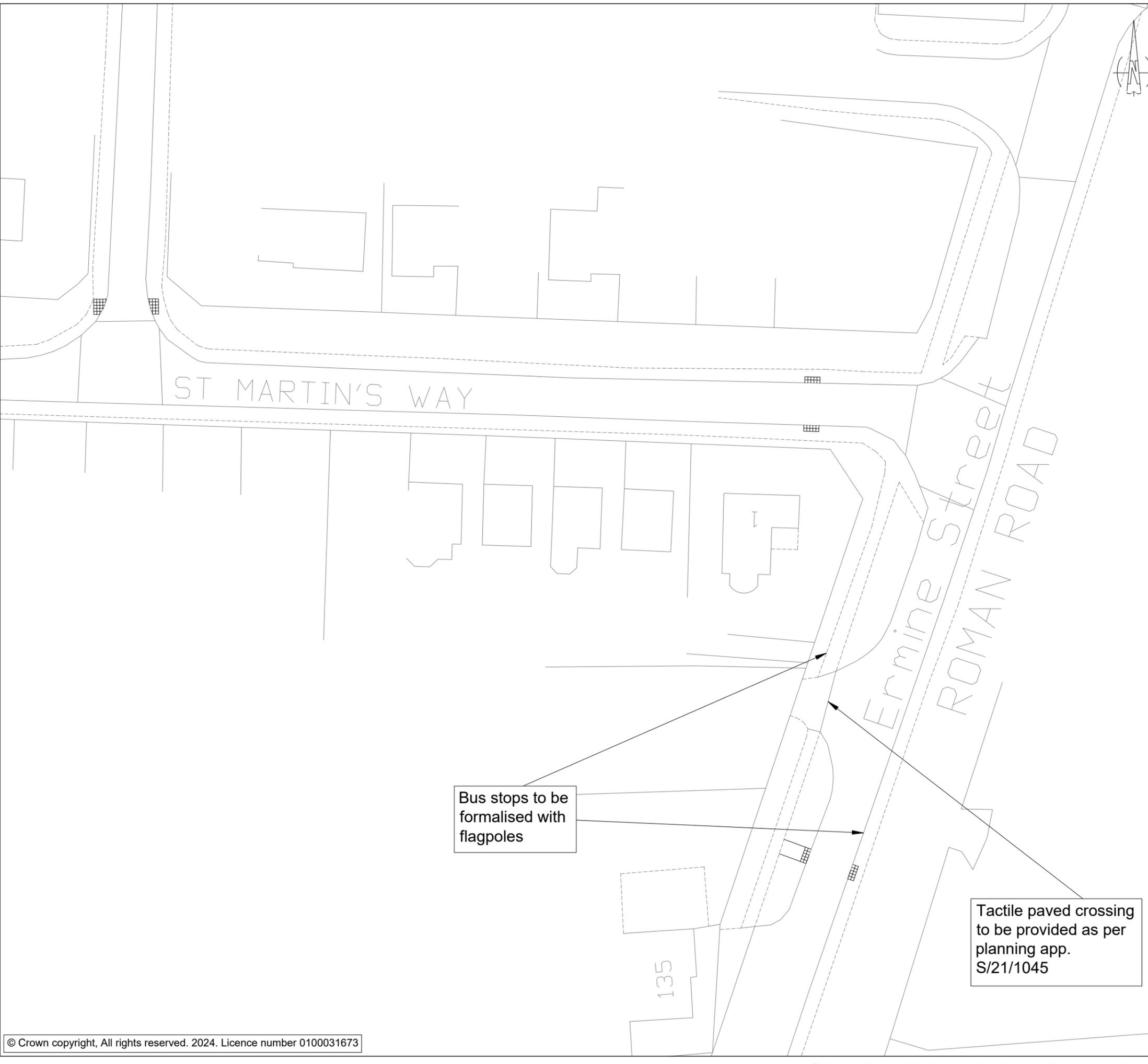
Key:

 Base Mapping

 Tactile Paving

Notes:

- Drawing units are in metres unless specified otherwise.
- Drawing is based on OS Mapping.
- Design based on guidance taken from **Guidance on the use of Tactile Paving Surfaces**.



Drawing Title
**St Martin's Way, Ancaster
Design Package**

Client
Persimmon Homes East Midlands

Drawing Status
Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-transportplanning.com



Drawing Number 210963-02	Revision -
------------------------------------	---------------

Bus stops to be formalised with flagpoles

Tactile paved crossing to be provided as per planning app. S/21/1045

Key:

-  Base Mapping
-  Dimensions
-  Tactile Paving

- Notes:**
- Drawing units are in metres unless specified otherwise.
 - Drawing is based on OS Mapping.
 - Design based on guidance taken from **Guidance on the use of Tactile Paving Surfaces**.

A3 SCALE
1:250



Scale 1:250 @ A3

Drawing Title
**St Martin's Way, Ancaster
Design Package**

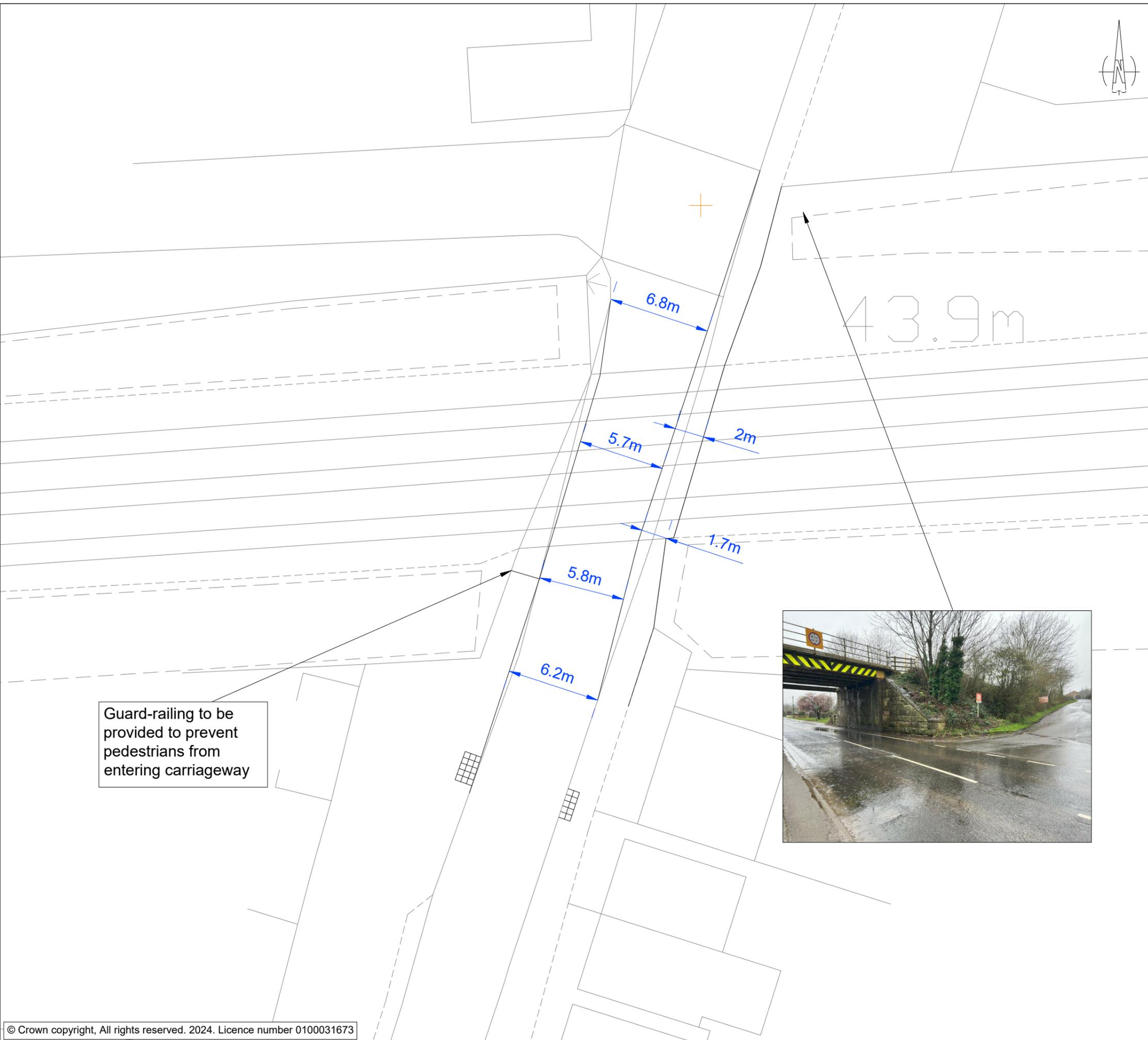
Client
Persimmon Homes East Midlands

Drawing Status
Planning

27 Park Street
Leamington Spa
CV32 4QN
E: info@ttc-transportplanning.com



Drawing Number 210963-03	Revision -
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Guard-railing to be provided to prevent pedestrians from entering carriageway



Appendix C

TRICS Outputs

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	CT CENTRAL BEDFORDSHIRE	1 days
	ES EAST SUSSEX	3 days
	HC HAMPSHIRE	4 days
	KC KENT	1 days
	SC SURREY	1 days
	WS WEST SUSSEX	3 days
03	SOUTH WEST	
	DV DEVON	1 days
04	EAST ANGLIA	
	NF NORFOLK	3 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	DH DURHAM	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: No of Dwellings
Actual Range: 40 to 99 (units:)
Range Selected by User: 40 to 100 (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 15/05/23

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	3 days
Tuesday	5 days
Wednesday	7 days
Thursday	4 days
Friday	3 days

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

Selected survey types:

Manual count	22 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	5
Edge of Town	17

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	22
------------------	----

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	10 days - Selected
Servicing vehicles Excluded	15 days - Selected

Secondary Filtering selection:Use Class:

C3	22 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:

1,001 to 5,000	1 days
5,001 to 10,000	7 days
10,001 to 15,000	8 days
15,001 to 20,000	4 days
20,001 to 25,000	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	3 days
25,001 to 50,000	2 days
50,001 to 75,000	5 days
75,001 to 100,000	4 days
100,001 to 125,000	2 days
125,001 to 250,000	5 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	18 days
1.6 to 2.0	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:

Yes	14 days
No	8 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	22 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	CT-03-A-01	MIXED HOUSES	CENTRAL BEDFORDSHIRE
	ARLESEY ROAD		
	STOTFOLD		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	46	
	Survey date: WEDNESDAY	22/06/22	Survey Type: MANUAL
2	DH-03-A-01	SEMI DETACHED	DURHAM
	GREENFIELDS ROAD		
	BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	50	
	Survey date: TUESDAY	28/03/17	Survey Type: MANUAL
3	DH-03-A-03	SEMI-DETACHED & TERRACED	DURHAM
	PILGRIMS WAY		
	DURHAM		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	57	
	Survey date: FRIDAY	19/10/18	Survey Type: MANUAL
4	DV-03-A-03	TERRACED & SEMI DETACHED	DEVON
	LOWER BRAND LANE		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL
5	ES-03-A-05	MIXED HOUSES & FLATS	EAST SUSSEX
	RATTLE ROAD		
	NEAR EASTBOURNE		
	STONE CROSS		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	99	
	Survey date: WEDNESDAY	05/06/19	Survey Type: MANUAL
6	ES-03-A-07	MIXED HOUSES & FLATS	EAST SUSSEX
	NEW ROAD		
	HAILSHAM		
	HELLINGLY		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	91	
	Survey date: THURSDAY	07/11/19	Survey Type: MANUAL
7	ES-03-A-09	DETACHED & SEMI-DETACHED	EAST SUSSEX
	THE FAIRWAY		
	NEWHAVEN		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	47	
	Survey date: MONDAY	13/03/23	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	HC-03-A-22	MIXED HOUSES	HAMPSHIRE
	BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 31/10/18		Survey Type: MANUAL
9	HC-03-A-23	HOUSES & FLATS	HAMPSHIRE
	CANADA WAY LIPHOOK Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 62 Survey date: TUESDAY 19/11/19		Survey Type: MANUAL
10	HC-03-A-27	MIXED HOUSES	HAMPSHIRE
	DAIRY ROAD ANDOVER Edge of Town Residential Zone Total No of Dwellings: 73 Survey date: TUESDAY 16/11/21		Survey Type: MANUAL
11	HC-03-A-31	MIXED HOUSES & FLATS	HAMPSHIRE
	KILN ROAD LIPHOOK Edge of Town Residential Zone Total No of Dwellings: 44 Survey date: FRIDAY 07/10/22		Survey Type: MANUAL
12	KC-03-A-03	MIXED HOUSES & FLATS	KENT
	HYTHE ROAD ASHFORD WILLESBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 51 Survey date: THURSDAY 14/07/16		Survey Type: MANUAL
13	NF-03-A-05	MIXED HOUSES	NORFOLK
	HEATH DRIVE HOLT Edge of Town Residential Zone Total No of Dwellings: 40 Survey date: THURSDAY 19/09/19		Survey Type: MANUAL
14	NF-03-A-25	MIXED HOUSES & FLATS	NORFOLK
	WOODFARM LANE GORLESTON-ON-SEA Edge of Town Residential Zone Total No of Dwellings: 55 Survey date: TUESDAY 21/09/21		Survey Type: MANUAL
15	NF-03-A-37	MIXED HOUSES	NORFOLK
	GREENFIELDS ROAD DEREHAM Edge of Town Residential Zone Total No of Dwellings: 44 Survey date: TUESDAY 27/09/22		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

16	NY-03-A-14 PALACE ROAD RIPON	DETACHED & BUNGALOWS		NORTH YORKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		45	
	Survey date: WEDNESDAY		18/05/22	Survey Type: MANUAL
17	SC-03-A-07 FOLLY HILL FARNHAM	MIXED HOUSES		SURREY
	Edge of Town Residential Zone Total No of Dwellings:		41	
	Survey date: WEDNESDAY		11/05/22	Survey Type: MANUAL
18	SF-03-A-07 FOXHALL ROAD IPSWICH	MIXED HOUSES		SUFFOLK
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		73	
	Survey date: THURSDAY		09/05/19	Survey Type: MANUAL
19	WK-03-A-04 DALEHOUSE LANE KENILWORTH	DETACHED HOUSES		WARWICKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		49	
	Survey date: FRIDAY		27/09/19	Survey Type: MANUAL
20	WS-03-A-10 TODDINGTON LANE LITTLEHAMPTON WICK	MIXED HOUSES		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		79	
	Survey date: WEDNESDAY		07/11/18	Survey Type: MANUAL
21	WS-03-A-17 SHOPWHYKE ROAD CHICHESTER	MIXED HOUSES & FLATS		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		86	
	Survey date: WEDNESDAY		01/03/23	Survey Type: MANUAL
22	WS-03-A-19 TURNERS HILL ROAD EAST GRINSTEAD	MIXED HOUSES & FLATS		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings:		92	
	Survey date: MONDAY		15/05/23	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/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.65

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	22	61	0.091	22	61	0.328	22	61	0.419
08:00 - 09:00	22	61	0.151	22	61	0.406	22	61	0.557
09:00 - 10:00	22	61	0.159	22	61	0.189	22	61	0.348
10:00 - 11:00	22	61	0.131	22	61	0.178	22	61	0.309
11:00 - 12:00	22	61	0.149	22	61	0.162	22	61	0.311
12:00 - 13:00	22	61	0.179	22	61	0.171	22	61	0.350
13:00 - 14:00	22	61	0.181	22	61	0.181	22	61	0.362
14:00 - 15:00	22	61	0.172	22	61	0.212	22	61	0.384
15:00 - 16:00	22	61	0.293	22	61	0.190	22	61	0.483
16:00 - 17:00	22	61	0.295	22	61	0.171	22	61	0.466
17:00 - 18:00	22	61	0.383	22	61	0.174	22	61	0.557
18:00 - 19:00	22	61	0.285	22	61	0.162	22	61	0.447
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.469			2.524			4.993

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

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

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Parameter summary

Trip rate parameter range selected: 40 - 99 (units:)
 Survey date date range: 01/01/15 - 15/05/23
 Number of weekdays (Monday-Friday): 22
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 3
 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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.65

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	22	61	0.126	22	61	0.535	22	61	0.661
08:00 - 09:00	22	61	0.229	22	61	0.832	22	61	1.061
09:00 - 10:00	22	61	0.236	22	61	0.310	22	61	0.546
10:00 - 11:00	22	61	0.196	22	61	0.303	22	61	0.499
11:00 - 12:00	22	61	0.237	22	61	0.244	22	61	0.481
12:00 - 13:00	22	61	0.271	22	61	0.271	22	61	0.542
13:00 - 14:00	22	61	0.277	22	61	0.260	22	61	0.537
14:00 - 15:00	22	61	0.261	22	61	0.295	22	61	0.556
15:00 - 16:00	22	61	0.621	22	61	0.312	22	61	0.933
16:00 - 17:00	22	61	0.516	22	61	0.284	22	61	0.800
17:00 - 18:00	22	61	0.614	22	61	0.283	22	61	0.897
18:00 - 19:00	22	61	0.464	22	61	0.256	22	61	0.720
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.048			4.185			8.233

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.