



Proof of Evidence

Land at North of Possingham Farmhouse, Ashford, Great Chart, Kent

Outline application for development of up to 655 residential dwellings (including 30% affordable dwellings) to consider access only (excluding internal circulation routes), with all other matters reserved.

LPA Ref: 22/00571/AS

Appeal Ref: APP/E2205/W/24/3345454

Hodson Development Ltd

Prepared by:

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SLR Project No.: 425.001542.00001

10 September 2024

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1.0 Introduction

Witness Introduction

- 1.1 My name is Ian Gordon Dix. I have a degree in Geography with Computing from Lancashire Polytechnic (now the University of Central Lancashire) and a Master of Science degree in Transport Planning and Management from the University of Westminster. I am a Chartered Member of the Chartered Institute of Logistics and Transport and a member of the Institution of Highways and Transportation. I have around 34 years' experience in the design and assessment of highway and transport schemes.
- 1.2 I am a Director in Transport Planning at SLR Consulting Limited where have worked since 2021. Prior to this I was one of the Founding Directors of Vectos, consultants in traffic and transport, where I have worked since the company was established in October 2011. Before this I was a Director of Savell Bird & Axon, consultants in traffic and transport, where I worked for approximately 10 years. Prior to this I worked for Hertfordshire County Council, for over 11 years, with my final post as a Principal Engineer responsible for considering the highway and transportation aspects of major planning applications and local plans.
- 1.3 I have experience of working on a wide variety of development projects in both the public and private sectors including a large number of new residential areas which have been successfully implemented, three examples of which are set out below.
- 1.4 Chilmington Green: This scheme is under construction and will provide 5,750 new homes in three neighbourhoods, as well as retail, community, social and recreational facilities. Following the submission of the planning application a consortium of housebuilders commissioned Vectos to address transport planning concerns. Vectos' Supplementary Transport Assessment considered timing of major highway improvement works, implementation of site-specific traffic calming measures, bus priority, procurement of a dedicated bus service, and pedestrian and cycle connection to Ashford. The project received a resolution to grant planning permission by Ashford Borough Council's Planning Committee in October 2014, subject to finalising a Section 106 Agreement,. This scheme is now under construction with various phases of development coming forward as Reserved Matters applications.
- 1.5 **Former TRL Site, Bracknell**: Preparation of a Transport Assessment Report and Travel Plan in support of a planning application for 1,000 residential units on the site with ancillary facilities. This also included the preparation of representations to the Local Development Framework to ensure that the site was allocated as a strategic housing site. This scheme now has the benefit of planning consent and Vectos prepared the detailed designs of the offsite highway works. This scheme is now within the implementation phase with several areas of new houses being occupied.
- 1.6 Land East of Marshgate, Hertford: This scheme is under construction with the benefit of planning consent for 375 residential dwellings and ancillary use including 2,220 sq m of employment. Planning consent was granted following a successful appeal in 2019. A Transport Assessment and Travel Plan were prepared to support the planning application and Evidence was prepared and given to the public inquiry.



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1.7 I understand my duty to the Inquiry to help the Inspector on matters within my expertise and that this duty overrides any obligation to the person from whom I have received instructions or by whom I am paid. I have complied, and will continue to comply, with that duty. I confirm that the evidence in this note identifies all facts which I regard as being relevant to the opinions that I have expressed and that the Inquiry's attention has been drawn to any matter which would affect the validity of that opinion. I believe that the facts stated within this proof are true and that the opinions expressed are correct.

Involvement in the Project

I was commissioned in June 2022 to prepare a Transport Assessment (TA) (CD2/22) to support the submitted planning application. This was submitted to Ashford Borough Council (ABC) as the local planning authority in July 2022. Comments were received from National Highways (NH) (as the strategic highway authority responsible for trunk roads in the area including the M20 and A2070) and from Kent County Council (KCC) (as the local highway authority) in August 2022. A Transport Assessment Addendum (TAA) (CD2/27) was prepared and submitted in June 2023.

Reasons for Refusal

- 1.9 The Decision Notice (**CD1/3**) issued in December 2023 contained nine Reasons for Refusal (RfR). Three (RfR 2,3 and 9) relate to transport, as follows:
 - 2. The development would be located in a presently unsustainable location where future residents of the development would not have access to appropriate local services and facilities that are convenient and accessible by sustainable modes of transport.
 - 3. In the absence of a comprehensive and robust assessment of the impact of the development on the strategic and local highway network and highway safety, the applicant has failed to demonstrate that the development would not have a severe impact on the highway network and/or an unacceptable impact on highway safety, and/or a requirement to contribute to the repayment of forward-funding secured and used by the Council to provide highway capacity at Drovers roundabout and/or M20 Junction 9.
 - 9. In the absence of a legal agreement to secure planning obligations, including affordable housing provision, Building Regulations M4(2) and M4(3) compliant dwellings, custom and self-build housing, and financial contributions to mitigate the impact of the development on local services and infrastructure, together with the costs of monitoring and reporting, the application fails to secure the infrastructure and facilities required to meet the needs generated by the development.
- 1.10 RfR9 relates to transport in terms of transport infrastructure provision.
- 1.11 My evidence considers these reasons for refusal in detail including the transport related policies referred to.

Case Management Conference

1.12 Following the Case Management Conference on 20 July 2023 there were 5 main issues identified by the Inspector, 2 of which relate to transport:



- c. Whether the future residents of the development would be able to access local services with genuine alternatives to car-based travel
- d. Whether traffic from the proposed development would have an unacceptable effect on the safe operation and capacity of the local highway network.
- 1.13 These identified main issues are considered in my evidence.

Statement of Common Ground

- 1.14 Prior to the submission of my evidence, there were discussions with both NH and KCC to seek Statements of Common Ground to submit to the Inspector in order to identify areas of agreement and disagreement between the parties.
- 1.15 The matters that were under discussion were as follows:
 - Transport Vision for the Proposed Development in line with DfT circular 01/2022 (CD9/1) as requested by NH in their Holding Direction.
 - Site Layout
 - Access Design
 - Accessibility
 - Location of Facilities
 - Trip Generation
 - Traffic Distribution and Assignment
 - Draft Residential Travel Plan
 - Road Safety Audits
 - Accident Analysis
 - Car and cycle parking provision
 - Implications for the A28
 - Implications for the SRN including J9 and J10 M20 and A2070
 - Proposed Mitigation
 - Chronology of Key Documents
- 1.16 It was hoped to reduce the matters of disagreement as far as possible.

Planning Obligations and Conditions

- 1.17 My evidence sets out a package of transport related improvements proposed as a combination of improvement measures and financial contributions that would be secured through planning conditions and obligations, as appropriate.
- 1.18 At the time of writing this evidence, the draft list of conditions is still under discussion with ABC. The draft planning obligation is also under discussion with ABC and KCC.



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Structure of Evidence

- 1.19 My evidence undertakes a short review of the transport aspects of the proposed development, considers the accessibility of the development site in detail and then considers the implications of traffic associated with the Appeal Scheme.
- 1.20 The remainder of my evidence is structured as follows:
 - Section 2 Background
 - Section 3 Transport Polices
 - Section 4 Sustainable Location of the Appeal Site
 - Section 5 Highway Assessment Methodology
 - Section 6 Local Highway Network
 - Section 7 A28
 - Section 8 Strategic Road Network
 - Section 9 Summary and Conclusions



2.0 Background

2.1 This section of my evidence sets out the responses of KCC and NH to the planning application and the discussions that have been held following the decision of ABC to refuse planning consent.

Responses to the Planning Application

Kent County Council

- 2.2 KCC as the local highway authority provided formal responses to the planning application on 25th April and 23rd August 2022 and on 21st July 2023. The final response in July 2023 being in response to the TAA (**CD2/27**).
- 2.3 The key points of this response being:

Local Facilities

- The site is not accessible to local facilities by walking, cycling and by public transport.
- It will be accessible when the facilities within the Chilmington Green development are provided.
- The existing primary which is not currently accessible by walking or cycling.
- The new secondary school will be accessible by walking and cycling when it opens.

Public Transport

- The site is not accessible by bus.
- It is implied that a half hourly service is needed between the town centre.

Road Safety

• An update to data analysis of road traffic accident data is required.

Development Proposal – Site Accesses

- A Stage 1 Road Safety Audit needs to be undertaken of the proposed Site Access designs.
- A right turn lane is required on the primary site access.

Trip Generation

- The trip rates proposed are incorrect.
- An up to date TRICS assessment is needed which should not include Suburban area and Population range of between 125,000 and 250,000 within 5 miles.

Journey Purpose

 The 2021 National Travel Survey (NTS) should not be use due to the impacts of COVID which affected those working at home. The 2011 Census Data should be used.



Trip Distribution

- Due to the Grammer School system in Kent, it should be assumed only 65% of secondary school children will go to the proposed secondary school.
- 100% of food retail trips should be external to the site as the foodstore in the District Centre of Chilmington Green has not been provided.

Assessment of the Proposed Development

- A 2% impact on the A28 junctions may lead to significantly more queuing and delays, not 5%.
- The following junctions need to be re-assessed given the comments above on journey purpose and trip distributions
 - o Junction D: Sandy Lane / Ashford Road / New Road
 - Junction 1: Great Chart Bypass / Chilmington Avenue
 - Junction 2: Ashford Road / Great Chart Bypass
 - o Junction 3: Great Chart Bypass / Tithe Barn Lane; and
 - VISSIM Model of the whole A28 Chart Road corridor between the Matalan and Drovers Roundabouts. This needs to include the A28 in its current arrangement and then the A28 improvement scheme that will be delivered between Matalan and Tank Roundabouts.
 - o Junction 5: The Avenue / Chilmington Green Road.
- Although KCC did not agree with the traffic impact assessment, KCC believe it is clear there is a severe impact at the Matalan roundabout.

A28 - C&A Traffic Impact Assessment

- 2.4 On 22nd August 2024, KCC sent SLR a copy of a detailed technical note that had been undertaken by Charles & Associates (C&A) which considers the implications of traffic associated with the Appeal Scheme on the key A28 junctions identified by KCC:
 - Matalan roundabout
 - · Loudon Way traffic signal junction; and
 - Tank roundabout.
- 2.5 This is the first time that SLR were aware that this work was being undertaken; it had not been mentioned during previous discussions.
- 2.6 The first heading in the assessment work was trip generation and C&A surprisingly adopted the original trip rates for their work despite KCC having stated they were incorrect in their responses to the planning applications for the Appeal Scheme.
- 2.7 Journey purpose was the next matter considered and it was correctly pointed out by C&A that this was not the approach taken in the original Transport Assessment. However, it was omitted that this is consistent with the approach taken in the Transport Assessment Addendum when more detailed work was undertaken. It should be not that KCC have accepted the use of journey purpose in relation to the assessment of other development



proposals across Kent by KCC. C&A criticised the use of the 2021 NTS data due to potential impacts associated with COVID lockdowns. This has now been superseded by subsequent discussions.

- 2.8 C&A did not understand the traffic distribution for each journey purpose, but more details have now been provided on this.
- 2.9 C&A were not fully aware of the facilities for new residents that will be provided on the site and those existing and future facilities in the Chilmington Green development where connections will be in place before the Appeal Scheme is occupied.
- 2.10 This led C&A to the wrong conclusion that the TAA underestimated the wider implications of traffic associated with the proposed scheme.
- 2.11 C&A considered background traffic growth which I will not comment on in this section of my evidence but will address in Section 5.
- 2.12 C&A commented on the Junction Assessment Criteria used in the TAA. Their comments have been superseded by further discussions with KCC.
- 2.13 C&A were critical of the assessment undertaken in the TAA at Matalan roundabout. Again, this work has been superseded.
- 2.14 C&A then prepared traffic model for the 3 key junctions on the A28 identified by KCC. Firstly, they calibrated their 2023 model against existing queuing which is not questioned. However, this was done using entry capacity adjustments which is not the appropriate primary method for reflecting existing reduced performance at the Matalan roundabout where the constraint is the blocking of the northbound exit. This should have been assessed using the Exit Blocking facility. This feature allows exactly what happens at Matalan Roundabout to be modelled more accurately. This has been undertaken in Section 7 of my evidence.
- 2.15 Given the assumptions on traffic generation and distribution are not up to date and not all of the correct tools have been used in the modelling software I will not comment on the results or conclusions of this C&A review as they are flawed. In Section 7 of my evidence a robust assessment of the implications of the Appeal Scheme as these junctions is undertaken.

National Highways

- 2.16 NH as the strategic highway authority provided formal responses to the planning application 25th August 2022 and 4th August and 3rd November 2023. The 2023 responses being in response to the Transport Assessment Addendum.
- 2.17 The key points of the response on 3rd November being:

Transport Vision

- There is a need for reference to DfT Circular 01/22
- A Transport Vision is needed



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An assessment is needed of the impacts on the SRN when the Vision has been agreed

Other Matters

- Highway Capacity Analysis is needed
- Consideration is needed of Committed/Local Plan developments
- Collision Analysis

Post Resolution Discussions

Kent County Council

2.18 Using the same headings where appropriate, the following discussions have been held with KCC:

Development Proposal - Site Accesses

- A Stage 1 Road Safey Audit has been undertaken of the proposed Site Access
 designs and a Designer's Response has been prepared. This is detailed in Section 5
 of my evidence.
- At the primary site access, KCC suggested the inclusion of a passing bay in line with the guidance in DMRB [CD123] Geometric design of at-grade priority and signal-controlled junctions for a car and an HGV, rather than a full right turn lane. This is a very minor amendment to the site access design.

Trip Generation

- A revised TRICS assessment has been undertaken as requested by KCC and removing the criteria KCC requested to be removed from the site selection. The TRICS output is contained in **Appendix ID1**.
- KCC have only agreed to these trip rates if they are used in one assessment scenario and the original trip rates, which KCC had stated are incorrect, are used in a second scenario. It is unclear why the second scenario is required given that KCC have stated they believe the trip rates to be incorrect as a result of the selection criteria used. Nevertheless, both scenarios have been assessed in an attempt to move discussions along with main scenario tested using the updated trip rates and the sensitivity the original trip rates.

Journey Purpose

• The 2019 National Travel Survey (2019 NTS) has been used a requested by KCC. This was undertaken before any implications for travel behaviour of COVID and gives a robust proportion of travel to work as it pre-dates the more flexible working arrangements that many employers now offer.

Internalisation (previously incorrectly titled Trip Distribution by KCC in their response)

• For Secondary Schools trips, the adopted approach is 65% internal traffic and 35% external traffic as requested by KCC to reflect the Grammer School system in Kent.



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• For both food retail and leisure uses, the adopted approach is 33% internal traffic and 67% external traffic as requested by KCC.

Assessment of the Proposed Development

 While it is understood that the A28 between the site and Tank Roundabout, especially the three junctions of Matalan roundabout, Loudon Way traffic signal junction and Tank roundabout, are the key focus of KCC the assessment undertaken in the TAA has been repeated for all of the junctions where it was previously undertaken. The results of this assessment at set out in detail in Section 6 of my evidence.

A28

2.19 As stated above, a detailed assessment of the 3 junctions identified by KCC as the key A28 junctions has been undertaken and is set out in detail in Section 7 of my evidence.

National Highways

- 2.20 In the discussions with NH post the determination of the planning application they confirmed:
 - That they wished to see a Transport Vision for the site. This has been prepared and is set out in Section 5 of my evidence. A draft Residential Travel Plan has also been prepared and is contained in **Appendix ID2**.
 - A new TRICS assessment needed to be undertaken to include surveys as up to date as possible. This has been undertaken and again is set out in Section 5 of my evidence.
 - A revised assessment needs to be undertaken of the SRN including M20 J9 as mentioned before by NH, but also M20 J10 and J10a plus the A2070. This has been undertaken and once again has been set out in section 8 of my evidence.
- 2.21 On 4th September 2024, NH confirmed to ABC that, in light of the additional information provided to them, they have no objection to the appeal scheme (i.e. planning application 22/00571/AS for the proposed development of the Land North of Possingham Farm which is the subject of this appeal) (**CD4/10**). NH also confirmed that this response had been sent to the Planning Inspectorate.

Section Summary

- 2.22 A significant amount of additional work has been undertaken to try to seek agreement on some areas of the work with both KCC as the local highway authority and NH as the strategic highway authority. However, this has not been possible with KCC. The additional work has resulted in NH no longer objecting to the Appeal Scheme.
- 2.23 All the additional work is set out in my evidence to enable full consideration of the revised assessment work.



3.0 Transport Policies

3.1 This section of my evidence will consider each of the relevant transport related policies and why the appeal scheme is consistent with them. This will be done in the form of tables with two columns which identify the relevant policies and then set out why the scheme is consistent with them.

National Policy

NPPF

- 3.2 The National Planning Policy Framework (NPPF) (**CD6/1**) is a central government planning document produced by the Department for Communities and Local Government. The revised NPPF was updated in December 2023 and sets out the government's planning policies for England and how these are expected to be applied.
- 3.3 **Table ID3.1** below considers the Appeal Scheme in the context of the guidance in the NPPF:

Table ID3.1: NPPF

| POLICY (RELEVANT EXTRACTS RELATING TO TRANSPORT) | HOW THE APPEAL SCHEME COMPLIES WITH THE REQUIREMENTS OF THE POLICY |
|---|---|
| Section 9 of the NPPF deals with 'Promoting sustainable transport.' Paragraph 109 states that: | |
| "Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This is with the initiative to reduce congestion and emissions, and to improve air quality and public health. Opportunities to maximise sustainable transport solutions will vary between urban and rural areas, which should be considered in both plan-making and decision making". | As set out in detail in Section 4 of my evidence the Appeal Scheme is in a location that can be made sustainable and genuine choices for transport will be offered. |



Paragraph 114 states:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that: sets out the transport issues which should be addressed within Development Plans and decisions. These are:

- 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; 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 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." As detailed in Section 4 of my evidence sustainable transport modes – walking, cycling and public transport would be integral elements of the development of the Appeal Site.

Section 6 of my evidence demonstrates that safe and suitable access to the Appeal Site will be provided.

The Appeal Site is the subject of an outline application and Reserved Matters applications would be submitted and would be in line with relevant design guidance.

As detailed in Sections 6 to 8 of my evidence there would not be any significant impacts on the capacity or safety of the surrounding highway network due to the mitigation package proposed.

As the Appeal Scheme would not give rise to any impact on highway safety or a severe residual cumulative impact on the road network it should not be refused on transport grounds.

NPPF Consultation Draft

- 3.4 Proposed reforms to the NPPF were published for consultation in August 2024, with the consultation period closing on 24 September 2024. This consultation was accompanied by a Written Ministerial Statement. The content of that Statement and the draft NPPF will have material weight, even before adoption (as a direction of policy travel) and have therefore been considered in my evidence for their relevance to this case.
- 3.5 **Table ID3.2** below considers the Appeal Scheme in the context of the guidance in the NPPF Consultation Draft:



Table ID3.2: NPPF Consultation Draft

| POLICY (RELEVANT EXTRACTS RELATING TO TRANSPORT) | HOW THE APPEAL SCHEME COMPLIES WITH THE REQUIREMENTS OF THE POLICY |
|--|--|
| Draft Paragraph 112 places additional emphasis on a Vision led approach to considering the transport implication of new developments stating that: | |
| "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that: | |
| a) A vision led approach to promoting sustainable transport modes is taken, taking account of the type of the development and its location; | As set out in Section 4 of my evidence, a Vision for the site has been prepared to demonstrate how the Appeal Scheme will promote sustainable modes of transport. |
| 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 through a vision led approach." | As detailed in Sections 6 to 8 of my evidence, there would not be any significant impacts on the capacity or safety of the surrounding highway network due to the mitigation package proposed which is within the context of the Vision for the Appeal Scheme. |
| Draft Paragraph 113 of the 2024 consultation draft of the Framework goes on to state that: | |
| "Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe, in all tested scenarios" | As the Appeal Scheme would not give rise to any impact on highway safety or a severe residual cumulative impact on the road network it should not be refused on transport grounds. This is the case in all of the test scenarios. |

NPPG

- 3.6 The National Planning Policy Guidance (NPPG) (**CD6/2**) supports the NPPF. The guidance on Travel Plans, Transport Assessments and Statements dates from March 2014.
- 3.7 **Table ID3.3** considers the Appeal Scheme in the context of the NPPG:



Table ID3.3: NPPG

| POLICY (RELEVANT EXTRACTS RELATING TO TRANSPORT) | HOW THE APPEAL SCHEME COMPLIES WITH THE REQUIREMENTS OF THE POLICY |
|--|---|
| TRAVEL PLANS When is a Travel Plan required? (Para 9) | |
| In determining whether a Travel Plan will be needed for a proposed development the local planning authorities should take into account the following considerations: | A draft Residential Travel Plan has been prepared for the Appeal Scheme and is contained in Appendix ID2 of my evidence. |
| the Travel Plan policies (if any) of the Local Plan; | |
| the scale of the proposed development and its potential for additional trip generation (smaller applications with limited impacts may not need a Travel Plan); | |
| existing intensity of transport use and the availability of public transport; | |
| proximity to nearby environmental designations or sensitive areas; | |
| impact on other priorities/ strategies (such as promoting walking and cycling); | |
| the cumulative impacts of multiple developments within a particular area; | |
| whether there are particular types of impacts around which to focus the Travel Plan (e.g. minimising traffic generated at peak times); and | |
| relevant national policies, including the decision to abolish maximum parking standards for both residential and non- residential development. | |



TRANSPORT ASSESSMENTS AND STATEMENTS

When are Transport Assessments and Travel Plan required? (Para 13)

In determining whether a Transport Assessment or Statement will be needed for a proposed development local planning authorities should take into account the following considerations:

- the Transport Assessment and Statement policies (if any) of the Local Plan;
- the scale of the proposed development and its potential for additional trip generation (smaller applications with limited impacts may not need a Transport Assessment or Statement);
- existing intensity of transport use and the availability of public transport;
- proximity to nearby environmental designations or sensitive areas;
- impact on other priorities/strategies (such as promoting walking and cycling);
- the cumulative impacts of multiple developments within a particular area; and
- whether there are particular types of impacts around which to focus the Transport Assessment or Statement (eg assessing traffic generated at peak times).

A Transport Assessment and Transport Assessment Addendum were prepared in support of the Appeal Scheme.

Following post determination discussions with KCC and NH, a revised assessment of the transport implications of the Appeal Scheme has been undertaken and is set out in detail in Sections 5 to 8 of my evidence.

DfT Circular 01/22

3.8 This policy document (**CD9/1**) sets out the approach that NH will take towards new developments in England. It was referred to in NH's response to the planning application.



Table ID3.4: DfT Circular 01/22

POLICY (RELEVANT EXTRACTS RELATING

TO TRANSPORT)

HOW THE APPEAL SCHEME COMPLIES WITH THE REQUIREMENTS OF THE POLICY

Para 15 of this guidance states:

"The Transport Decarbonisation Plan and the Future of Freight Plan also recognise that local planning and highway authorities need help when planning for sustainable transport and developing innovative policies to reduce car dependency. This includes moving away from transport planning based on predicting future demand to provide capacity ('predict and provide') to planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes (vision-led approaches including 'vision and validate,' 'decide and provide' or 'monitor and manage'). The company will support local authorities in achieving this aim through its engagement with their plan-making and decision-taking stages, while recognising the varying challenges that will be presented by certain sites based on their land use, scale and/or location."

A Transport Vision for the Appeal Scheme has been prepared and is set out in Section 5 of my evidence. This ensures that a Vision-led approach is being taken rather than a Predict & Provide approach.

Para 48 of this guidance states:

"Where a transport assessment is required, this should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum design and transport infrastructure to realise this vision. Where such development has not been identified in an up-to-date development plan (or an emerging plan that is at an advanced stage), developers should demonstrate that the development would be located in an area of high accessibility by sustainable transport modes and would not create a significant constraint to the delivery of any planned improvements to the transport network or allocated sites."

As stated above, a Transport Vision for the Appeal Scheme is set out in Section 5 of my evidence. This is together with an updated assessment of the junctions included in the TAA and the key A28 junctions identified by KCC in Section 7 of my evidence.

Local Policy

Ashford Local Plan 2030 (adopted 2019) (CD7/1)

3.9 **Table ID3.5** consider the relevant transport related policies to the Appeal Scheme.

Table ID3.5: Ashford Borough Council Local Plan



POLICY (RELEVANT EXTRACTS RELATING TO TRANSPORT)

HOW THE APPEAL SCHEME COMPLIES WITH THE REQUIREMENTS OF THE POLICY

Policy SP1 - Strategic Objectives To deliver the 'Vision', a number of strategic objectives have been identified. They form the basis of this Local Plan's policy framework, as well as providing the core principles that planning applications are expected to adhere to.

- a. To focus development at accessible and sustainable locations which utilise existing infrastructure, facilities and services wherever possible and makes best use of suitable brownfield opportunities;
- e. To ensure development is supported by the necessary social, community, physical and etechnology infrastructure, facilities and services with any necessary improvements brought forward in a co-ordinated and timely manner;
- f. To promote access to a wide choice of easy to use forms of sustainable transport modes including bus, train, cycling and walking to encourage as much non-car based travel as possible and to promote healthier lifestyles;

As set out in detail in Section 4 of my evidence, the Appeal Scheme is in a sustainable location that will be accessible to a variety of facilities both within and close to the site by activity modes (walking and cycling) and by bus.

Where there are additional facilities and services to be provided those that are

services to be provided those that are necessary in order for the Appeal Scheme to be sustainable will be provided prior to the occupations of any units on the site.

The Appeal Site will be accessible by walking and cycling from the outset and by bus at an early stage. The proposed bus services will provide access to Ashford train station.



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Policy HOU5 - Residential Windfall Development in the Countryside Proposals for residential development adjoining or close to the existing built up confines of the following settlements will be acceptable: Ashford Providing that each of the following criteria is met:

- a) The scale of development proposed is proportionate to the size of the settlement and the level, type and quality of day to day service provision currently available and commensurate with the ability of those services to absorb the level of development in combination with any planned allocations in this Local Plan and committed development in liaison with service providers;
- b) The site is within easy walking distance of basic day to day services in the nearest settlement, and/or has access to sustainable methods of transport to access a range of services;
- c) The development is able to be safely accessed from the local road network and the traffic generated can be accommodated on the local and wider road network without adversely affecting the character of the surrounding area; d) The development is located where it is possible to maximise the use of public transport,

As set out in detail in Section 4 of my evidence, the Appeal Scheme is in a sustainable location that will be accessible to a variety of existing and proposed facilities both within the site and within the Chilmington Green Development.

The Appeal Site will be accessible by walking and cycling from the outset and by bus at an early stage. The proposed bus services will provide access to Ashford train station.

As set out in detail in Section 4 of my evidence, the Appeal Scheme can be safely accessed and the traffic associated with the development can be accommodated on the surrounding highway network.

As set out in detail in Section 4 of my evidence the Appeal Scheme will be served by a new bus service that passes through it and provides a connection to Ashford town centre and railway station.



Policy TRA3 (a) - Parking Standards for Residential Development

Proposals for residential development within the town centre area identified on the Policies Map or within 'central areas' of larger developments shall deliver a minimum parking standard of 1 space per residential unit on average. It is expected that all of this provision should be delivered on-site.

Proposals for residential development elsewhere shall achieve the following minimum parking standards:

Suburban and Rural locations

1-bed dwelling
2-bed dwelling
3-bed dwelling
4-bed house
1 space per unit
2 spaces per unit
3 spaces per unit
3 spaces per unit

Visitor parking should be provided primarily offplot in short stay car parks where available OR on-plot at 0.2 spaces per dwelling in major residential schemes where layout permits.

Parking to support residential development within the Borough shall follow the design, layout and accessibility guidance contained within the Council's Residential Parking and Design Guidance SPD

Parking provision within the Appeal Scheme will be in line with the standards set out in the Adopted Local Plan unless otherwise agreed with ABC during Reserved Matters application(s).

The proposed parking will be provided in line with the SPD again unless otherwise agreed with ABC during Reserved Matters application(s).

Policy TRA4 - Promoting the Local Bus Network The potential for bus patronage should be considered as part of any proposal for new residential or commercial development. Applications should demonstrate whether modal shift in favour of public transport can be achieved through existing bus services or improvements to the network as a key determinant of the scheme's sustainability. This should be demonstrated through a Travel Plan, Assessment or Statement (submitted under Policy TRA8). Enhancements could include the delivery of bus priority measures, the provision of a new service or the alteration/expansion of an existing service, contributions towards bus related infrastructure and operational subsidy for the service in the early years of occupation of the development. Where S106 contributions are sought, their scale and timing shall be agreed by the Borough and County Councils following consultation with relevant bus operators, prior to the granting of planning permission.

As set out in detail in Section 4 of my evidence, a new bus service is proposed in association with the Appeal Scheme. This new service will operate through the site and provide a connection to Ashford Town Centre and Railway Station. As well as being detailed in my evidence, this service is also detailed in the Draft Residential Travel Plan that has been prepared in association with the Appeal Scheme.

In addition to the new bus service, two pairs of bus stops are proposed within the Appeal Scheme to ensure that all new residents would be within 400m (a 5 minute walk) of the new bus service.

The proposed bus service would be funded by a contribution that is suggested for inclusion in the S106 Agreement should permission be granted on appeal. The provision of the bus stop can be secured through conditions and Reserved Matters applications.



Policy TRA5 - Planning for Pedestrians

Development proposals shall demonstrate how safe and accessible pedestrian access and movement routes will be delivered and how they will connect to the wider movement network. Opportunities should be proactively taken to connect with and enhance Public Rights of Way whenever possible, encouraging journeys on foot.

As set out in Section 4 of my evidence, the Appeal Scheme will include pedestrian routes within the proposed development that will provide links to new and emerging offsite routes to provide onwards connections to local facilities and other destinations.

Policy TRA6 - Provision for Cycling

The Council will seek to improve conditions for cyclists through the following measures:

Promoting and developing a Borough-wide network of cycle routes;

Developments should, where opportunities arise, include safe, convenient and attractively designed cycle routes, including, where possible, connection to the Borough-wide cycle network.

Taking opportunities to consider active travel when designing new routes and establishing connections with existing routes, encouraging journeys by bicycle.

Cycle Parking shall be provided at a minimum as per the following:

C3 1 space per unit (flats/maisonettes) (it is expected that sufficient accommodation will be provided in any case for houses)

As set out in Section 4 of my evidence, the Appeal Scheme will include cycle routes within the proposed development that will provide links to new and emerging offsite routes to provide onwards connections to local facilities and other destinations.

Cycle parking will be provided within the Appeal Scheme in line with ABC's adopted standards

Policy TRA7 - The Road Network and Development

Developments that would generate significant traffic movements must be well related to the primary and secondary road network. New accesses and intensified use of existing accesses onto the road network will not be permitted if a clear risk of road traffic accidents or significant traffic delays would be likely to result.

Applicants must demonstrate that traffic movements to and from the development can be accommodated, resolved, or mitigated to avoid severe cumulative residual impacts. In some cases, this may require exploring the delivery of mitigation measures prior to the occupation of a development. Consideration of mitigation and impact will be assessed through the fulfilment of the requirements of Policy TRA8.

The Appeal Scheme would have direct access to a major distributor road.

As set out in Sections 6 to 8 of my evidence, where the need has been identified mitigation measures are proposed to ensure that traffic associated with the Appeal Scheme does not create a severe cumulative residual impact.



Policy TRA8 - Travel Plans, Assessments and Statements

Planning applications will be supported by either a Transport Statement, or a Transport Assessment depending on the nature and scale of the proposal and the level of significant transport movements generated. Where appropriate, the Council will liaise with the relevant authority in relation to what sort of evidence is required. The recommendations of these studies, including Travel Plans, will be required to be delivered prior to or as part of the development and will be secured through condition or S106 agreement.

The planning application was supported by a Transport Assessment and a Transport Assessment Addendum. These assessments have been updated in my evidence following comments from KCC and NH.

A draft Residential Travel Plan for the Appeal Scheme has been prepared and is contained in **Appendix ID2** of my evidence.

Policy ENV12 - Air Quality

All major development proposals should promote a shift to the use of sustainable low emission transport to minimise the impact of vehicle emissions on air quality.

Development should be located where it is accessible to support the use of public transport, walking and cycling.

As set out in Section 4 of my evidence, a strategy is in place to ensure that the site is accessible by walking, cycling and by bus.

Policy IMP1 - Infrastructure Provision

The Council will continue to work with relevant service providers to identify and deliver the infrastructure that is needed to support the development set out in this Plan.

Development shall make provision to meet the additional requirements for infrastructure arising from the development, where it is justified to do so in line with the NPPF and CIL regulations. The infrastructure should be provided at a time that is required to support the needs generated by the development.

Provision should be made either by delivery of the infrastructure or by financial contributions towards the cost of the delivery. This shall normally be secured through section 106 agreements, section 278 Agreements, and/or Community Infrastructure Levy contributions.

The Council will take a flexible approach where it is justified to do so for reasons of development viability

A package of mitigation measures associated with the Appeal Scheme has been identified and is proposed in line with the NPPF guidance and the CIL regulations, which can be secured by conditions and by planning obligations in a S106 Agreement.

Chilmington Green Area Action Plan (adopted July 2013)

3.10 **Table ID3.6** sets out the transport related policies within the Chilmington Green AAP (CD7/3).



Table ID3.6: Chilmington Green Area Action Plan

| POLICY (RELEVANT EXTRACTS RELATING TO TRANSPORT) | HOW THE APPEAL SCHEME COMPLIES WITH THE REQUIREMENTS OF THE POLICY |
|--|--|
| POLICY CG1 - CHILMINGTON GREEN DEVELOPMENT PRINCIPLES | |
| Chilmington Green will become a major new, sustainable, development in line with the aims and objectives of the Core Strategy, the vision of the AAP, and the following key development principles: | |
| a) A well designed, safe and accessible, high quality, sustainable development which supports a viable public transport network, walkable neighbourhoods and a vibrant District Centre and two local centres, alongside a development which generates community cohesion (see Policies CG2, CG3, CG4, CG10 and CG11 – CG22); | The Appeal Scheme will be well designed and will be accessible by both bus and walking which connects to the facilities within the Chilmington Green development as set out in Section 4 of my evidence. |
| e) The creation of an integrated and connected network of green spaces and natural habitats, including part of Discovery Park, to help meet the recreational and sporting needs of the development but also to encourage walking and cycling, generate an attractive setting to the built form, and act as linkages and dispersal routes for ecology and wildlife (see Policies CG2, CG8, CG9, CG20 and CG21); | New residents on the Appeal Scheme will be connected to Discovery Park by pedestrian and cycle routes at an early stage in the development. |

Section Summary

- 3.11 The Appeal Scheme is consistent with both national and local policies.
- 3.12 As demonstrated in Section 4 of my evidence, the site will be accessible by walking, cycling and public transport to a variety of local facilities. A draft Residential Travel Plan has been prepared for the Appeal Scheme.
- 3.13 As demonstrated in Sections 6 to 8 of my evidence, the highway implications of the traffic associated the Appeal Scheme have been considered in detail and suitable site access can be provided and following the proposed mitigation measures there would be no severe residual cumulative impact on the surrounding highway network.



4.0 Sustainable Location of the Appeal Site

- 4.1 This section of my evidence considers the sustainable location of the site in the context of the existing and proposed local facilities and services and the connections to them from the site for Active Travel Modes, walking and cycling, and by public transport.
- 4.2 The location of the site is shown on **Figure ID4.1** below in the context of the south of Ashford and the Chilmington Green Development.

Key
Site Outline
Chilmington Green
Development

0 400 800 m

Figure ID4.1 Site Location

Transport Vision

- 4.3 The transport vision for the proposed residential development on the Land North of Possingham Farm was initially prepared in line with the request made by National Highways NH in their final response to the planning application on 3rd November 2023 for a Transport Vision in line with the guidance in DfT Circular 01/22 (**CD9/1**).
- 4.4 The Vision has been refined in line with the comments made during discussions with KCC and NH.
- 4.5 NH provided the following diagram as guidance which is a useful overview of the process:



·

Figure 4.2: Process for a Transport Vision (NH)



Adopted and Emerging Policy

- 4.6 The policy background to both the setting of the Vision and the aims of the Vision is set out in Section 3 of my evidence. The proposed Vision demonstrates the deliverability of moving away from car dependency by investing in design and infrastructure to limit car use and encourage movements sustainable modes.
- 4.7 It is clear from the adopted national policies that the approach taken to the transport assessment of new developments should be a Vision and Validate approach and not Predict and Provide.
- 4.8 The NPPF consultation draft shows the Government's commitment to this approach by further emphasising its importance.
- 4.9 In the light of this guidance and the request from National Highways a Transport Vision has been prepared for the proposed residential development for the Land North of Possingham Farm.

Vision and Validate (Decide and Provide)

- 4.10 Vision and Validate is a modern land use and transport planning method. It is applied by SLR Consulting and supports the net zero carbon policies of Local Planning Authorities and the UK Government. It can also promote the Environmental, Social and Governance (ESG) objectives of developers and masterplanners.
- 4.11 It firstly imagines the vision or desired conditions of a new community, then identifies mobility and placemaking interventions to help realise those conditions. These interventions and broader policies are validated by calculating their impact and applying transport modelling.
- 4.12 The **Vision** for a new settlement might include the objectives (with quantified targets) of healthy, safe, quiet, clean, resilient, low carbon, vibrant communities, with good air quality and green spaces. This can be realised through 15/20 minute neighbourhood principles, provision of local amenities, shared mobility options and street design that affords space to people rather than vehicles.
- 4.13 The **Validate** element calculates and models the vision's impact on travel demand, mode share and carbon emissions resulting from such new street designs, prioritising active travel, shared mobility and local living. This ensures that from the masterplanning stages, the development is designed in a way which will achieve its vision objectives and associated targets.



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4.14 Vision and Validate is distinguished from the now discredited Predict and Provide approach which placed road capacity and facilitating convenience by car above all else.

4.15 Vision and Validate does not support a situation where future traffic demand is thought of as a demand that must be provided come what may. Research has shown that the volume of traffic is a function of available road space. It is therefore more and more important to design the active and public/shared travel systems to accommodate the overall mobility demand conveniently, and to consider this across the full day. Adherence to a Vision and Validate approach places local living and car trip avoidance at the forefront of new development design through virtual working and active travel prioritisation.

Transport Vision for the Land North of Possingham Farm

Vision

- 4.16 The Transport Vision for the Appeal Site is to provide new homes in a sustainable environment with access to a variety of local services by a choice of transport modes thus reducing the demand for travel into the wider area and offering new residents a choice of mode of transport to the private car.
- 4.17 There will be high quality pedestrian and cycle routes within the site which will connect to similar facilities in the wider area and bus stops will be provided to allow bus services to pass through the site.
- 4.18 New residents on the site would be provided with broadband infrastructure to allow for home working. Safe and secure cycle parking and EV charging points will be available for all of the new homes to facilitate the cycling and the use of electric vehicles.
- 4.19 The Appeal Site is immediately adjacent to the consented Chilmington Green sustainable urban extension which was approved by Ashford Borough Council in 2017 and is being implemented. Both National Highways as the strategic highway authority for the M20 and A2070 strategic road and Kent Council County as the local highway authority did not object to this planning consent being granted.
- 4.20 Within Chilmington Green there are wider variety of local services and facilities that are either existing or will be in place by the time there are new residents on the Land at Possingham Farm.
- 4.21 The Appeal Site would become an extension to the Chilmington Green with access for pedestrians and cyclists to the facilities provided including primary and secondary schools, shop, employment opportunities and community facilities in the District Centre and to leisure facilities and to open space. Good quality pedestrian and cycle routes to these facilities will be provided.
- 4.22 In addition to this, a bus service will be provided to pass through the Appeal Site in order to provide a connection to Ashford railway station and town centre connecting to other facilities within the town and employment opportunities across a wider area.
- 4.23 A Residential Travel Plan will be prepared for the Appeal Site which sets out how residents will be encouraged to use sustainable modes of transport. The Travel Plan will also set out



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the targets for the Vision and the future monitoring that would take place to allow the Vision to be Validated. A Draft Residential Travel Plan is contained in **Appendix ID2**.

Validate

- 4.24 To achieve the proposed Vision the following measures would be implemented:
- 4.25 There will be a network of pedestrian and cycle routes designed in accordance with the appropriate national and local design standards within the proposed scheme to provide routes to the following facilities that will be provided on the site:
 - Bus Stops (to ensure as far as is feasible that all the new dwellings are within 400m (5 minute) walk of a bus stop
 - Play Areas
 - Open Space
 - Provision of a route through the site between the site accesses to accommodate buses designed in line with KCC's Design Guidance.
- 4.26 The following pedestrian and cycle routes to existing (or proposed) facilities that will be in place prior to the first occupation of any residential unit on the Appeal Site:
 - Primary School
 - Secondary School
 - Foodstore in the District Centre
 - Temporary Community Facilities.
- 4.27 The provision of the pedestrian and cycle routes to these facilities can be secured by planning conditions as they are either on land owned by the Appellant or they are on the public highway.
- 4.28 A bus service will be provided through the Appeal site prior to the occupation of the 100th residential unit to connect the Appeal site to Ashford town centre and railway station.
- 4.29 The provision of a bus service is offered and can be secured by a planning obligation in a S106 Agreement.
- 4.30 The provision of a Residential Travel Plan for the site is offered. The objectives of this are described above and this could either be secured by planning condition or obligation.
- 4.31 Longer Term as the Chilmington Green scheme progresses, additional facilities will become available with pedestrian and cycle routes to them including:
 - · The remainder of the District Centre
 - CMO and permanent Community Facilities
 - Doctor Surgery
 - Allotments
 - Additional Green Space



- Additional Play Areas
- Discovery Park
- Cricket Pitch
- 4.32 Access to these facilities will further enhance the sustainability of the site.
- 4.33 To provide certainty that the Vision would be achieved, the pedestrian and cycle connections to local services both within and outside the Appeal Site, the provision of bus services and the supporting infrastructure and the completion of the Travel Plan are offered in association with the Appeal Scheme and can be secured through a combination of future approval of Reserved Matters planning applications on the site and by planning conditions and obligations.
- 4.34 More details of the proposed links for pedestrians and cyclists and for the proposed bus service are set out in my evidence later in this section.

Vision Summary

- 4.35 The Transport Vision for the proposed residential units at the Appeal Site demonstrates how this would be a sustainable development with access to a variety of services including schools, shops, employment opportunities and leisure facilities.
- 4.36 The Transport Vision would be Validated by the identified services and facilities to be provided either on the site or the pedestrian and cycle routes to services and facilities close to the site or the bus service to those further afield within Ashford. The Travel Plan will provide monitoring of the Transport Vision.
- 4.37 The Vision would be a key element of the Vision and Validate approach for the proposed development, which is consistent with adopted and emerging national policy.

Local Facilities

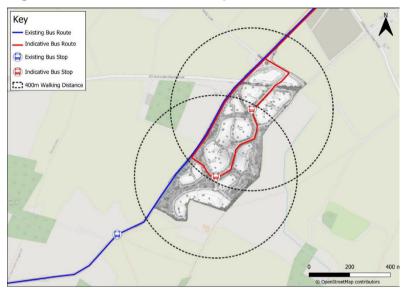
Onsite

- 4.38 The planning application for the Appeal Scheme is an outline application and assuming consent is granted before any development could be undertaken on the Appeal Site, there would be a need to obtain Reserved Matters consents and during this process more details would be provided. This would be the proposed detailed layout for the Appeal Scheme, including the roads, pedestrians and cycle routes and details of facilities to be provided on the site.
- 4.39 At this stage, the following facilities for new residents would be provided:
 - Bus Stops
 - Play Areas
 - Green Space
 - Bus Route



4.40 **Figure ID4.3** shows the indicative layout for two pairs of bus stops on the site to serve the proposed bus route which would operate across the site on a main route. The provision of two pairs of bus stops would mean that all of the site is within 400m (a 5 minute) walking distance from the bus route.

Figure ID4.3 Indicative Bus Stops Locations on the Site



- 4.41 The route used by the bus service would be a connection between the site accesses and would be designed in accordance with KCC's design guidance. The route would also have footways on both sides and a segregated cycle route.
- 4.42 The proposed bus service is a key element of the accessible transport strategy to provide a connection to employment opportunities and other services.
- 4.43 The bus service would be in place prior to the occupation of the 100th unit which is finding the balance between providing the bus service as early as possible while ensuring there would be some patronage for the bus service to ensure that it becomes a viable service.
- 4.44 The bus service would operate with a half hourly service at peak times and connect the site to Ashford town centre and railway station. An indicative route is shown for the bus service in **Figure ID4.4** below.



Key Indicative Bus Rout Existing Bus Stop Indicative Bus Ston

Figure ID4.4 Indicative Bus Route

- 4.45 As an example of how a bus service has been secured in relation to a bus service in Ashford there is the S106 Unilateral Undertaking that was prepared in association with the Kingsnorth Development. This consented scheme is for 550 residential units. The details of the provision of this service are:
 - 1) A total contribution of £400,000 towards bus services improvements to Ashford Town Centre which was index linked to BCIS. I believe we should add to the railway station as well
 - 2) The payment of the contribution being:
 - 30% (£120,000 plus index linking) prior to the occupation of the 100th unit
 - 25% (£100,000 plus index linking) on the 1st anniversary of the occupation of the 100th unit
 - 20% (£80,000 plus index linking) on the 2nd anniversary of the occupation of the 100th unit
 - 15% (£60,000 plus index linking) on the 3rd anniversary of the occupation of the 100th unit
 - 10% (£60,000 plus index linking) on the 4th anniversary of the occupation of the 100th unit
- 4.46 The same approach can be taken in association with the Appeal Scheme. Further consideration is needed to the actual level of contribution needed as due to the Appeal Scheme being larger than the Kingsnorth development there is the opportunity for more revenue to be generated and therefore the level of subsidy needed may be less.
- 4.47 This is a matter that will be finalise in the S106 Agreement that at the time of writing my evidence was under discussion.
- 4.48 There is likely to be a need for the provision of temporary bus stops and a turning area to allow the bus service to be provided in advance of completion of the route between the two



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sites accesses. This can be secured by condition requiring the submission for agreement of designs for temporary bus stops and turning area and the provision of the agreed works prior to the bus service coming into operation.

Prior to First Occupation

- 4.49 Prior to the first occupation of any dwellings on the Appeal Scheme, the following facilities within the Chilmington Green will be in place with pedestrians and cycle links provided to them.
 - Primary School Chilmington Green Primary School is already open. Pedestrian
 and cycle links would be provided to the school on land with is with control of the
 Appellant.
 - Secondary School Chilmington Green Secondary School will be open in 2025. The
 improvement of a PROW will be undertaken to provide pedestrian and cycle links to
 the school. In discussions, KCC have accepted the secondary school will be
 accessible from the Appeal Scheme.
 - District Centre Foodstore a Reserved Matters planning application has been submitted for the District Centre and includes the foodstore. Pedestrian and cycle links would be provided to the school on land within the control of the Appellant.
 - Community Facilities the temporary Community Management Offices (CMO) are in place and available for community uses. Pedestrian and cycle links would be provided to the school on land within the control of the Appellant.
- 4.50 Planning conditions could be used to secure both the provision of these facilities and the pedestrian and cycle routes to them prior to the occupation of the first dwellings on the scheme.
- 4.51 **Appendix ID3** contains plans showing the pedestrian and cycle routes between the Appeal Site and the proposed facilities and the walking and cycling distances between the centre of the Appeal Scheme and these facilities. **Table ID4.1** provides a summary of these plans with the walking and cycling distances and times set out.

Table ID4.1: Facilities available Prior to First Occupation

| Facility | Drg no | Walking | | Cycling | |
|-----------------------------|------------|----------|------|----------|------|
| | | Distance | Time | Distance | Time |
| Primary School | SK03.1 | 1732 | 22 | 1435 | 6 |
| Secondary School | SK04 Rev D | 1090 | 14 | 1090 | 4 |
| District Centre - Foodstore | SK05.1 | 1753 | 22 | 1440 | 6 |
| Community Facilities | SK01.1 | 2085 | 26 | 1758 | 7 |

4.52 As it can be seen these facilities would be within walking and cycling distance of the Appeal Scheme.

Chilmington Green

4.53 Additional facilities will be provided as part of the Chilmington Green development and additional pedestrian and cycle routes will be provided as the Appeal Scheme progresses which will further enhance the accessibility of the Appeal Site.



4.54 **Appendix ID4** contains plans showing the pedestrian and cycle routes between the site and the proposed facilities and the walking and cycling distances between the centre of the Appeal Scheme and these additional facilities. **Table ID4.2** provides a summary of these plans with the walking and cycling distances and times set out.

Table ID4.2: Additional Facilities available through Chilmington Green Development

| Facility | Drg no | Walking | | Cycling | |
|-------------------------|------------|----------|------|----------|------|
| | | Distance | Time | Distance | Time |
| Primary School - First | SK03 Rev D | 1435 | 18 | 1435 | 6 |
| Primary School - Second | SK03 Rev D | 1376 | 17 | 1376 | 6 |
| Secondary School | SK04 Rev D | 1090 | 14 | 1090 | 4 |
| Distric Centre | SK05 Rev D | 1440 | 18 | 1440 | 6 |
| Local Centre | SK05 Rev D | 1157 | 14 | 1157 | 5 |
| Community Facilities | SK01 Rev D | 1758 | 22 | 1758 | 7 |
| Community Hub - GP | SK12 | 1300 | 16 | 1300 | 5 |
| Allotments | SK07 Rev D | 821 | 10 | 821 | 3 |
| Discovery Park | SK10 Rev D | 2418 | 30 | 2418 | 10 |
| Cricket Pitch | SK06 Rev D | 1567 | 20 | 1567 | 6 |

4.55 There are a wide range of facilities that will come forward as part of the Chilmington Green development. While the delivery of these is not linked to the Appeal Scheme, it shows how the accessibility of the Appeal Site will improve over time as both additional facilities are available. Additional pedestrian and cycle routes will reduce the times and distances to reach these facilities.

Summary of the Timing of the Provision of Local Facilities

- 4.56 When considering the local facilities and connections to them, it is important to also consider the likely buildout rate of the Appeal Scheme. If outline planning consent is granted, Reserved Matters planning consents would be needed before construction could commence. It is likely that it would be 2025-26 before first occupation. Assuming a 7 year build out (65 occupations in the first year and then 100 occupations in each subsequent year), the Appeal Scheme would be completed in 2032-2033.
- 4.57 By 2032-33, it is expected that 2,623 homes will be delivered at Chilmington Green. **Table ID4.3** shows the triggers for when land uses at Chilmington Green are required to be delivered.



Table ID4.3 - Provision of Local Facilities

| Planning Land Use Applicatio Status | | Anticipated Opening Year | Distance from Centre of Site (meters) | Walking Time (mins) | Cycling Time (mins) | |
|--|---------------------------------|---|---|---------------------------|------------------------|--|
| Primary School 1 School 1 - Ope Consented Primary Sc | | Primary School 1 - Open Primary School 2 - 2028–2029 | 1732/1435 1376 | 22 17 | 6 | |
| Secondary School Secondary School Septem | | September 2025 | 1090 | 14 | 4 | |
| District Centre Application submitted for District Centre Centre OTH/2023/00 30 | | Supermarket and Café 2025-2026 | | | 6 | |
| Local Centre | Local Centre Phase 3N 2031-2033 | | 1157 | 14 | 5 | |
| Community Submitted for building ope | | Temporary CMO building open Play Space 1 2024/25 | 2085/1758 | 26 | 7 | |
| Community Hub (including CMO with GP Surgeries) | No application yet | 2029-2030 | 1,300 | 16 | 5 | |
| Allotments - 2029-2030 | | 821 | 10 | 3 | | |
| Discovery Park Application submitted for the first 1 hectare OTH/2023/00 35 | | 2026 | 2418 | 30 | 10 | |
| Application submitted for Cricket Pitch Cricket Pitch OTH/2023/00 | | 1567 | 20 | 6 | | |

Note: Based on walking speed of 80m a minute and cycling speed of 250m a minute.

4.58 Based on the above, the following land uses are expected to be in place by 2032-33:



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 - The District and Local Centres (including a supermarket, retail unit, office building, public house and a day nursery);
- Chilmington Hamlet (including a cricket pitch, community pavilion, batting cage, bowling green and tennis court);
- The Community Hub (including a community leisure building, family and social care facility, youth facility, community learning facility, police space, outdoor multi-use games centre and a health centre);
- 2 Primary Schools (one of which is already open)
- A Secondary School, due to open for 2025
- Discovery Park
- Allotments; and
- Bus Stops.
- 4.59 As set out in ABC's Statement of Case (SoC) (CD1/7) at paragraph 6.3, when the Appeal Site was considered in ABC's Strategic Housing and Economic Land Availability Assessment (SHELAA) it was commented that once development has commenced on the Chilmington Green site that there is the potential for the Site to be developed. The Chilmington Green development has commenced and as demonstrated above, connections to key local facilities can be made.

Accessibility

Active Travel Modes

- 4.60 For pedestrian and cyclists, there will be a network of route provided within the Appeal Site that provide connections to the facilities on the Site and then to the wider network of pedestrian and cycle routes. These will be set out in detail in Reserved Matters applications before the commencement of development on the Site.
- 4.61 As set out above, there will be pedestrian and cycle routes available to connect the site to local facilities which will be enhanced over time. Some of these routes have been identified for provision prior first occupation of any dwelling within the Appeal Scheme to ensure that the Site is accessible to key local facilities from the outset.
- 4.62 This is not disputed in ABC's SoC (CD1/7) at paragraph 6.7 where it is stated that the Appeal Scheme could be designed to promote walking and cycling and that connections could be made to the Chilmington Green development.

Public Transport

4.63 The Appeal Scheme will be served by a new bus service that provides a connection to the Ashford Town Centre and Railway Station which will provide a connection to facilities and services across the town and to employment opportunities. The provision of this bus service is offered in association with the Appeal Scheme and can be secured through planning obligations in the S106 Agreement.



Draft Residential Travel Plan

4.64 As stated above, a draft Residential Travel Plan and is contained in **Appendix ID2** has been prepared to set out how the site will be accessible. The submission of a final Residential Travel Plan for the approval of ABC in consultation with KCC prior to first occupation of any dwellings with the Appeal Scheme and the implementation of the approved Travel Plan can be the subject of a planning condition.

Section Summary

- 4.65 The Appeal Site is in a sustainable location where provision can be made for walking and cycling to both existing and emerging local facilities.
- 4.66 A bus service would be provided between the Appeal Site and Ashford town centre and railway station, providing access to facilities and services in the wider area and to employment opportunities.



5.0 Highway Assessment Methodology

5.1 Before setting out the assessment undertaken it is necessary to set out the methodology that has been used within the assessment which has been the subject of comments from both KCC and NH and to subsequent discussions as set out in Section 2 of my evidence.

Traffic Generation

- 5.2 In light of the discussion with KCC and NH summarised in Section 2 above, an up to date trip rate assessment was undertaken. This assessment excluded the following criteria as stated in KCC in their responses to the planning application:
 - 1) Suburban area
 - 2) Population range of between 125,000 and 250,000 within 5 miles.
- 5.3 The resulting TRICS output from this exercise is contained in **Appendix ID1**. The trip rates for the weekday hours of 0730-0830 and 1630-1730 are set out in **Table ID5**.1 below which also includes the trip rates from the TAA.

Table ID5.1: Residential Vehicle Trip Rates (Trip Rate Per Dwelling)

| SITE | AM PEAK HOUR (07:30-08:30) | | | PM PEAK HOUR (16:30-17:30) | | |
|-----------------------|-----------------------------|------|----------|----------------------------|---------|------|
| | Arrivals Departures Two-Way | | Arrivals | Departures | Two-Way | |
| TAA Trip Rates | 0.16 | 0.46 | 0.62 | 0.36 | 0.18 | 0.54 |
| Updated Trip Rates | 0.15 | 0.36 | 0.50 | 0.34 | 0.16 | 0.50 |

As it can be seen the Updated Trip Rates are lower than those presented in the TAA. This is not surprising given that some of the surveys now included in the analysis are from the period post the COVID lockdown where companies offering more flexible working arrangements have had an impact on the trip generation of residential areas.

Comparison

5.5 A comparison to the trip rates agreed for other comparable housing sites around Ashford has been undertaken as set out in **Table ID5.2**.



Table ID5.2: Trip Rates Comparison

| DEVELOPMENT | TRICS LAND USE | 08:00-09:00 17:00-18:00 | | | 00 | | |
|---|--|-------------------------|-------|-------|-------|-------|-------|
| | | In | Out | Total | In | Out | Total |
| Court Lodge - 18/01822 | Houses Privately Owned - per unit | 0.135 | 0.357 | 0.492 | 0.315 | 0.181 | 0.496 |
| Kingsnorth Green - 15/00856 | Houses Privately Owned - per unit | 0.130 | 0.375 | 0.505 | 0.329 | 0.180 | 0.509 |
| 15/00856 | Affordable Homes - per unit | 0.153 | 0.287 | 0.440 | 0.260 | 0.185 | 0.445 |
| Chilmington Green 12/00400 | Houses Privately Owned - per unit | 0.150 | 0.290 | 0.440 | 0.270 | 0.160 | 0.430 |
| Possingham Farm - 22/00571 – TAA Trip Rates | Houses Privately Owned - per unit | 0.16 | 0.46 | 0.62 | 0.36 | 0.18 | 0.54 |
| Possingham Farm - 22/00571 – Updated Trip Rates | Houses Privately Owned - per unit | 0.15 | 0.36 | 0.50 | 0.34 | 0.16 | 0.50 |

5.6 **Figure ID5.1** show the locations of all of the sites included in the above table



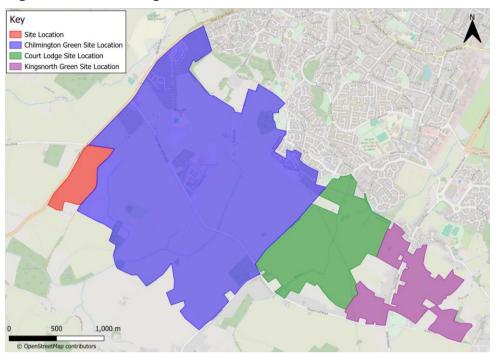


Figure ID5.1: Housing Schemes South of Ashford

- 5.7 The proposed vehicular trip rates are comparable to those agreed for the assessment of both Court Lodge and Kingsnorth Green. It should be noted that the Kingsnorth Green assessment was not as robust as proposed as it included separate lower trip rates for affordable units. This approach is not proposed for the Appeal Scheme where 30% affordable units are proposed
- 5.8 The trip rates are higher than those used for the Chilmington Green development which is immediately adjusted to the proposed development. This is especially pertinent when considering the facilities that the proposed development would benefit from at Chilmington Green. Therefore, the proposed forecast vehicle trips for the Appeal Scheme are very robust.
- 5.9 This comparison shows that a robust and consistent approach is being taken to the trip rates for use in the assessment of the Appeal Scheme.

Journey Purpose

- 5.10 It is necessary to identify how the total person trips are split by each journey purpose, for example shopping, work or education, to provide the basis for a more accurate estimation of distribution of these trips across the transport network.
- 5.11 Using National Travel Survey (NTS) dataset NTS0503 'Trip purpose by trip start time' from 2019 (the most up to date data available before the COVID lockdowns) as requested by KCC, a breakdown of the journey purpose for the peak hours is shown in **Table ID5.3**.
- 5.12 Business trips have been removed as these do not have an origin or destination from a residential unit and 'Holiday/Day Trip/Other' journey purpose has been removed from the



calculation as these do not represent regular trips and are a small proportion of the overall level of trips. This does not remove any trips. Instead, it adjusts the journey purpose split accordingly.

Table ID5.3: NTS Peak Hour Journey Purpose

| Time | Journey Purpose (%) | | | | | | | |
|--------------|---------------------|-----------|----------|-------------------|---------|--|--|--|
| Time | Commuting | Education | Shopping | Personal Business | Leisure | | | |
| AM Peak Hour | 21% | 64% | 3% | 10% | 3% | | | |
| PM Peak Hour | 28% | 19% | 15% | 20% | 19% | | | |

5.13 Education trips were then split 50-50 between primary and secondary education. Based on the proportions presented in **Table ID5.3** above, the resulting breakdown of vehicle trips across the peak hours is shown in **Table ID5.4** below.

Table ID5.4: Peak Hour Forecast Vehicle Trips by Journey Purpose

| Jaurnay Durnaga | AM P | eak (08:00-0 | 09:00) | PM Peak (17:00-18:00) | | | |
|----------------------------|------|--------------|--------|-----------------------|------|-------|--|
| Journey Purpose | Arr. | Dep. | Total | Arr. | Dep. | Total | |
| Commuting | 14 | 41 | 55 | 54 | 29 | 83 | |
| Primary Education | 23 | 67 | 90 | 18 | 10 | 28 | |
| Secondary Education | 23 | 67 | 90 | 18 | 10 | 28 | |
| Shopping (Food Retail) | 1 | 3 | 4 | 15 | 8 | 22 | |
| Shopping (Non-Food Retail) | 1 | 3 | 4 | 15 | 8 | 22 | |
| Personal Business | 8 | 21 | 29 | 39 | 21 | 60 | |
| Leisure | 2 | 6 | 8 | 38 | 20 | 58 | |
| Total | 73 | 209 | 282 | 197 | 105 | 303 | |

- 5.14 **Table ID5.4** shows that most trips undertaken in the AM peak hour are expected to be education-based trips, with 180 two-way vehicle trips forecast. In the PM peak hour, most trips are expected to be undertaken for commuting, with a forecast of 83 two-way vehicle trips.
- 5.15 It should be noted that in **Table ID5.4** no amendment to the Secondary Education vehicular trips has been made. Given the close proximity of the school to the Appeal Scheme it is highly trips to the school would be undertaken by car with the vast majority of these trips being by walking or cycling. This has been accepted by KCC. By not making an allowance for this means the assessment of the capacity of the site accesses which this traffic passes through is very robust.

Traffic Distribution

5.16 For the purposes of assessment, it has not been assumed that there would be any trips that are wholly internal to the Appeal Site. However, given the close proximity of the facilities within Chilmington Green is has been assumed that some trips would only be between the



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Appeal Site and these facilities. These trips would only use the local roads within the Appeal Site and within the Chilmington Green development.

5.17 Based on the facilities that are expected to be built out at Chilmington Green by the time the Appeal Scheme is complete, the following proportions, presented in **Table ID5.5**, have been applied for each journey purpose.

Table ID5.5: Proportion of Vehicle Trips Associated with Chilmington Green

| Journey Purpose | Chilmington Green | Other External Destinations |
|-------------------------|-------------------|-----------------------------|
| Commuting (+) | 0% | 100% |
| Primary Education (+) | 90% | 10% |
| Secondary Education (*) | 65% | 35% |
| Food Retail (*) | 33% | 67% |
| Non-Food Retail (+) | 25% | 75% |
| Personal Business (+) | 25% | 75% |
| Leisure (*) | 33% | 67% |

Note: Those marked with a "*" are as requested by KCC and with a "+" have not been commented on by KCC

- 5.18 The rationale for the proportions presented in **Table ID5.5** is set out below:
 - Commuting: For robustness, it is assumed that no residents of Possingham Farm would be employed at Chilmington Green. This is unchanged from the distribution presented in the original TA, derived from 'Travel to Work' 2011 Census data for MSOA 'Ashford 012'. The raw data is contained at Appendix H of the TAA. This is a robust assumption as there will be employment opportunities in the Chilmington Green District Centre including the foodstore and in the local schools.
 - Education: It is assumed that primary and secondary education trips will be split 50/50. The TA submitted in support of the Chilmington Green outline application suggested that of the 1,200-pupil capacity secondary school (including sixth form), 735 of the places would be filled by pupils from Chilmington Green. This leaves 465 spaces free for pupils outside of the development. Based on the same pupil yield assessed in the Chilmington Green TA (0.15 pupils per household), the proposed development would expect to generate 98 secondary school pupils. The Chilmington Green secondary school would therefore have sufficient capacity for all 98 pupils. These figures having been used in the assessment of transport demand. However, accounting for the fact that some pupils may go elsewhere (e.g, private schools), it was proposed that that 90% of trips will go to Chilmington Green. KCC proposed that 65% of vehicle trips would be internal to Chilmington Green, with the remaining going to external destinations in Ashford to take account of the Grammer School system in Kent. As described in Section 2 of my evidence, the proportion requested by KCC has been taken forward.
 - **Food Retail:** As Chilmington Green will have a supermarket, the Chilmington Green TA assumed that 75% of food retail trips would be internal to the site. The foodstore forms part of the District Centre and a commitment has been made to providing this prior to the first occupation of any dwelling on the Appeal Scheme. KCC have



requested that the split of internal to external trips is 33% and 67% respectively and this has been adopted.

- Non-Food Retail: The Chilmington Green TA recognised that most non-food retail
 trips would likely be external towards Ashford. This has been reflected in the
 proportions above. This is considered to be a robust assumption, given the facilities
 within the Chilmington Green development. KCC have not commented on this trip
 purpose to date.
- Personal Business: The same proportions for non-food retail have been applied for personal business. This is considered to be a robust assumption, given the facilities within the Chilmington Green development. KCC have not commented on this trip purpose to date.
- **Leisure:** In the TA it was assumed that 75% of leisure trips would be undertaken within Chilmington Green. KCC have requested that 33% of trips are to be assumed and this has been taken forward.
- 5.19 It is also important to note the development trips will be distributed across both site accesses. The assumptions utilised for each access are shown in **Table ID5.6**.

Table ID5.6: Site Access Trip Distribution Assumptions

| Distribution of trips by access | Primary Site Access | Secondary Site Access | Total |
|---------------------------------|---------------------|-----------------------|-------|
| Northbound Journeys | 80% | 20% | 100% |
| Southbound Journeys | 15% | 85% | 100% |
| Eastbound Journeys | 100% | 0% | 100% |

5.20 These assumptions are considered to be robust as the majority of drivers will use the first access to travel to/from the Appeal Site. This has not been questioned by KCC in any discussions to date.

Traffic Assignment

- 5.21 Based on the above, the forecast distribution and vehicle trips for each journey purpose is shown on Traffic Flow Diagrams contained at **Appendix ID5**. This covers all junctions requested by KCC, including the junctions in the A28 corridor between the Matalan and Drovers Roundabout.
- 5.22 The approach that has been taken to assigning the traffic associated with the Appeal Scheme is to use Google Journey Times at peak periods which takes into account existing congestion. Where there are routes with the same or similar journey times then a judgement has been made on the proportion of vehicles that would use each route. This reflects the fact that drivers' routes are affected by many factors including journey times and avoiding delays.
- 5.23 For example, to reach Ashford town centre and railway station there is a choice of using the A28 and travelling to the Tank roundabout and then Chart Road into the town centre or turning off the A28 at the Matalan roundabout to use Brookfield Road and Leacon Road. Anecdotally, the latter is the route taken by taxi drivers to travel to/from the site which is an indication of those with local knowledge would use this route.



Traffic Growth

5.24 New TEMPRO growth rates have been obtained based on the revised assessment year of 2032 based on the following selections:

Area: Ashford 012;

• Transport Mode: Car Driver;

• Trip End Type: Origin/Destination;

Area Type: All;

Road Type: All; and

Area: Region.

- 5.25 As mentioned above, it is expected that 2,623 homes will be delivered at Chilmington Green by 203-33. The Employment and Economic Benefits Report (dated July 2012) submitted in support of the outline application (ABC Ref: 12/00400/AS) refers to Chilmington Green delivering circa 1,215 jobs. However, it is acknowledged that this is the total number of jobs that the development is likely to generate, which may not all be delivered by the 2032 assessment year. Planning policy CS5 of the ABC Core Strategy sets a target of at least 600 jobs at Chilmington Green by the time 3,350 homes are completed. Assuming a linear relationship, it is reasonable to assume that 437 jobs will be delivered by the time 2,623 homes are completed in 2032-33.
- 5.26 Based on the above, the alternative assumptions presented in **Table ID5.7** below have been applied in TEMPRO.

Table ID5.7: TEMPRO Alternative Assumptions

| ASSUMPTIONS | HOUSEHOLDS | | JO | BS |
|-------------|------------|--------|-------|--------|
| | Base | Future | Base | Future |
| Current | 3,992 | 4,337 | 2,947 | 3,056 |
| Alternative | 3,992 | 3,992 | 2,947 | 2,927 |

5.27 As both the number of homes and jobs expected to be delivered by Chilmington Green are above the predicted growth in TEMPRO, the number of homes and jobs have been reduced to the base. The resulting growth rates are presented in **Table ID5.8**

Table ID5.8: 2023-2032 TEMPRO Growth Rates

| GROWTH FACTORS | AM PEAK PERIOD | PM PEAK PERIOD |
|----------------|----------------|----------------|
| Unadjusted | 1.1038 | 1.1065 |
| Adjusted | 1.0391 | 1.0369 |



5.28 The adjusted growth rates will be applied to the observed traffic survey data for the proposed scope of detailed junction modelling, outlined below, for the local junction modelling.



6.0 Local Highway Network

6.1 This section of my evidence considers the offsite highway implications of the traffic associated with the Appeal Scheme.

Site Accesses

- 6.2 The proposed site access designs that form part of the planning application are contained in **Appendix ID6** for ease of reference.
- As set out in Section 2 of my evidence, KCC suggested the inclusion of a passing bay at the primary site access in line with the guidance in DMRB CD123 Geometric design of at-grade priority and signal-controlled junctions for a car and an HGV rather than a full right turn lane. This is a very minor amendment to the site access design which is shown on the plan contained in **Appendix ID7**.
- 6.4 The amendment to the site access are minor and are not considered to be material. They can be dealt with through a suitably worded planning condition.

Site Accesses - Safety

- As set out in Section 2 of my evidence, both the site accesses have been subject to a Stage 1 Road Safety Audit and this is contained in **Appendix ID8** together with the Designer's Response.
- 6.6 There are no recommendations made in respect of the Primary Site Access including the passing bay at this stage in the design process.
- 6.7 There is one minor recommendation made on the Secondary Site Access and this is to increase the flare lengths of the minor arm of the access to ensure that buses and other large vehicles can turn without entering the ghost right turn island. As set out in the Designer's Response, this is considered to be a minor amendment that can be conditioned and dealt with at the next stage of the design process should planning consent be granted. The minor changes to the junction being wholly within the Appeal Site. If it is felt to be necessary this could be dealt with through a planning condition.

Site Accesses - Capacity

6.8 The capacity of the proposed site accesses to accommodate future levels of traffic is considered in the following section of my evidence.

Local Junctions

- 6.9 This section reports on the effects of the proposed development on the highway network including the proposed site accesses and the identified offsite highway junctions.
- 6.10 KCC requested highway capacity assessments of the following local highway network junctions to assess the impact of the likely traffic flows from the development:



- Junction 1: A28 Great Chart Bypass / 'Access A' Roundabout
- Junction 2: A28 Great Chart Bypass / Ashford Road priority junction
- Junction 3: A28 Great Chart Bypass / Tithe Barn Lane Roundabout
- Junction(s) 4: A28 corridor between the Matalan and Drovers Roundabout
- Junction 5: The Avenue / Chilmington Green Road crossroads junction
- Junction 6: A28 Ashford Road / Old Surrender Manor Road priority junction
- Junction 7: Chilmington Green Road / Tally Ho Road priority junction (taking into account the proposed roundabout junction being promoted by the Court Lodge site);
- Junction 8: Chilmington Green Road / Ashford Road, Kingsnorth priority junction (taking into account the proposed staggering of the junction being promoted by the Kingsnorth Green site).
- 6.11 It is noted that KCC requested a VISSIM model to assess journey times and delay at the junctions on the A28 corridor between the Matalan and Drovers roundabouts, with and without the A28 improvement works. This corridor includes the following junctions which form part of Junction 4 above:
 - Junction 4a: Chart Road / Brookfield Road / Great Chart Bypass
 - Junction 4b: Chart Road / Great Chart Bypass / Loudon Way
 - Junction 4c: Sir Henry Brackenbury Road / A28 Templer Way / Chart Road / Carlton Road
 - Junction 4d: A28 Templer Way / A20 / A20 Fougeres Way / A28 Simone Weil Avenue / A292.
- 6.12 A VISSIM model is not considered necessary in order to assess the implications of traffic associated with the Appeal Scheme at these junctions. The C&A assessment work undertaken on behalf of KCC to consider the potential implications of the traffic associated with the Appeal Scheme (reported in Section 2 of my evidence) used individual junction models. It is therefore considered that this must be accepted to KCC as they commissioned this work and therefore individual junction models have been used in my evidence.
- 6.13 In addition, NH outlined that, dependent on the degree of traffic impact on the SRN, capacity analysis of may be required. These are referred to as follows for the remainder of the report:
 - Junction 9: Junction 9 of the M20
 - Junction 10: Ashford Road / Forestall Meadow Roundabout
 - Junction 11: Flanders Field Roundabout
 - Junction 12: A2070 / The Boulevard / Waterbrook Avenue Junction
 - Junction 13: A2070 Roundabout
 - Junction 14: Junction 10 of the M20
 - Junction 15: Junction 10A of the M20
- 6.14 It should be noted that junctions 10 and 11 were not matters of concern raised by KCC, but they are on the route between the site and the A2070 and have therefore been included in the traffic distribution and assignment. No consideration of the implications of traffic



associated with the Appeal Scheme at these junctions has been undertaken because the increase in traffic passing through them is relatively low and no concerns have been raised by KCC.

- 6.15 Within the study area, SLR have also included the following junctions outside of KCC and NH's requested scope which were included in the assessment in the TAA:
 - Junction A: Secondary Site Access;
 - Junction B: Primary Site Access;
 - Junction C: Ashford Road / Chilmington Green Road; and
 - Junction D: Ashford Road / Sandy Lane Roundabout.
- 6.16 The junctions listed above are shown on **Figure ID6.1**.

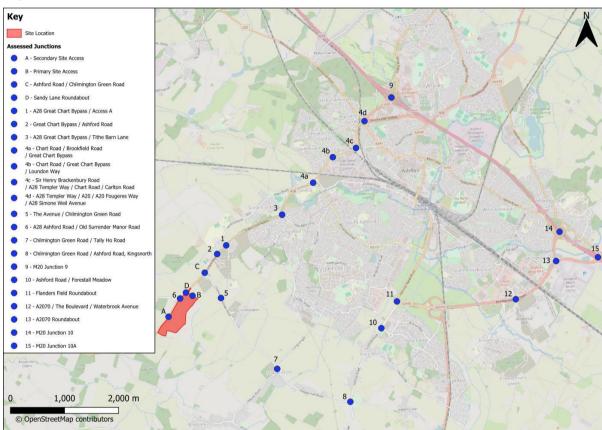


Figure ID6.1: Junction Assessment Scope

Transport Vision and Travel Plan

- 6.17 In the light of the Vision-led approach and the Transport Vision set out in my evidence in Section 3 when assessing the residual highway implications of the traffic associated with the Appeal Scheme in any highway capacity assessment work account should be taken of the measures to reduce vehicular traffic demand including the Draft Residential Travel Plan.
- 6.18 Taking this approach is in line with the guidance in DfT Circular 01/22 and in the NPPF Consultation Draft. This is illustrated by the diagram that NH prepared which is Figure ID4.2 in Section 4 of my evidence.



- 6.19 To take account of the improvements for pedestrians and cyclists, the proposed bus service and the draft Residential Travel Plan, the predicted traffic levels of local roads could be reduced by 10% in line with the targets in the draft Travel Plan.
- 6.20 However, it is important to note that this reduction has not been applied so as to ensure that a robust assessment is undertaken.

Percentage Impact Assessment

- 6.21 To determine which junctions from KCC and NH's requested scope need to be assessed further, a percentage impact assessment has been undertaken to determine the impact of the forecast proposed development traffic. It was considered that any junction within the study area with an impact of 5% or greater in either the AM or PM peak at a junction, should be assessed further through modelling in either Junctions 10 or LinSig as appropriate.
- 6.22 Furthermore, the impact of the development on the further junctions requested by NH (Junctions 12, 13, 14 and 15) is small and is not considered to be material, with no more than 3 two-way vehicle movements on any one of these junctions. As such, these junctions have not been included in the percentage impact assessment and have not been further assessed. Comments are made below on the implications of the traffic associated with the Appeal Site on the junctions on the SRN in Section 8 of my evidence.
- 6.23 The percentage impact for each junction is provided within **Table ID6.1**. This has been undertaken for the 2032 Future Year scenarios. Modelling of the primary and secondary site accesses has been undertaken, but these are not included in this percentage impact assessment as they have only been assessed with the proposed development in place.



| Table | ID6.1: 2032 Future Yea | Garioti | AM P | | impaci | | PM I | PEAK | |
|-------|---|-----------|--------------------|-----|----------|-----------|--------------------|------|----------|
| NO. | JUNCTION | Base Case | Base + Dev Case | Dev | % Impact | Base Case | Base + Dev Case | Dev | % Impact |
| С | Ashford Road / Chilmington Green Road | 1524 | 1627 | 103 | 7% | 1185 | 1359 | 174 | 15% |
| D | Sandy Lane / Ashford Road / New Road | 1999 | 2103 | 104 | 5.2% | 1875 | 2052 | 177 | 9.4% |
| 1 | Great Chart Bypass / Chilmington Avenue | 2161 | 2264 | 103 | 5% | 1917 | 2086 | 169 | 9% |
| 2 | Ashford Road / Great Chart Bypass | 1866 | 1968 | 103 | 6% | 1586 | 1761 | 174 | 11% |
| 3 | Great Chart Bypass / Tithe Barn Lane | 2589 | 2686 | 97 | 4% | 2518 | 2669 | 150 | 6% |
| 4a | Chart Road / Brookfield Road / Great Chart Bypass | 3971 | 4046 | 75 | 2% | 3898 | 4028 | 130 | 3% |
| 4b | Chart Road / Great Chart Bypass / Loudon Way | 3678 | 3744 | 66 | 2% | 3555 | 3655 | 100 | 3% |
| 4c | Sir Henry Brackenbury Road / A28 Templer Way / Chart Road / Carlton Road | 3997 | 4061 | 64 | 2% | 3711 | 3809 | 98 | 3% |
| 4d | A28 Templer Way / Repton Avenue | 3448 | 3473 | 6 | 0% | 3364 | 3404 | 27 | 1% |
| 4e | A28 Templer Way / A20 / A20 Fougeres Way / A28 Simone Weil Avenue / A292 | 5951 | 5974 | 23 | 0% | 5521 | 5555 | 33 | 1% |
| 5 | The Avenue / Chilmington Green Road | 745 | 910 | 165 | 22% | 733 | 822 | 89 | 12% |
| 6 | Old Surrender Manor Road / Ashford Road | 1299 | 1311 | 12 | 1% | 1178 | 1195 | 17 | 1% |
| 7 | Chilmington Green Road / Long Length / Tally Ho Road | 1160 | 1170 | 10 | 1% | 1076 | 1097 | 21 | 2% |
| 8 | Magpie Hall Road / Ashford Road / Steeds Lane | 1334 | 1345 | 10 | 1% | 1231 | 1252 | 21 | 2% |
| 9 | A251 Trinity Road / M20 / A20 Fougeres Road | 5202 | 5220 | 19 | 0% | 4757 | 4784 | 27 | 1% |

- 6.24 As shown in **Table ID6.1** above, there is a 5% impact or greater in either the AM or PM peak hour at the following junctions:
 - Junction C: Ashford Road / Chilmington Green Road
 - Junction D: Sandy Lane / Ashford Road / New Road
 - Junction 1: Great Chart Bypass / Chilmington Avenue



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- Junction 2: Ashford Road / Great Chart Bypass
- Junction 3: Great Chart Bypass / Tithe Barn Lane; and
- Junction 5: The Avenue / Chilmington Green Road.
- 6.25 As part of the Chilmington Green development, Chilmington Green Road will become a nothrough road for traffic near the junction with Ashford Road. As such, it is not necessary to assess Junction C further.
- 6.26 It is recognised that Junctions 4a-4c are close to a 5% impact in the PM peak hour, so additional analysis has been undertaken to assess the traffic impact by arm. This is presented in **Table ID6.2.**

Table ID6.2: 2032 Future Year Junction Percentage Impact by Arm

| | | | AM P | | | | | PEAK | |
|-----|-----------------------------|-----------|--------------------|-----|----------|-----------|--------------------|-----------------------------|----------|
| NO. | JUNCTION | Base Case | Base + Dev Case | лөд | % Impact | Base Case | Base + Dev Case | \odersign{align*} \text{OF} | % Impact |
| | Chart Road (N) | 1694 | 1711 | 17 | 1% | 1908 | 1973 | 65 | 3% |
| 4a | Brookfield Road | 918 | 920 | 2 | 0% | 878 | 893 | 15 | 2% |
| 4a | Great Chart Bypass | 1048 | 1104 | 56 | 5% | 933 | 983 | 50 | 5% |
| | Chart Road (W) | 311 | 311 | 0 | 0% | 178 | 178 | 0 | 0% |
| | Chart Road (N) | 1534 | 1551 | 17 | 1% | 1680 | 1743 | 64 | 4% |
| 4b | Chart Road (S) | 1760 | 1809 | 49 | 3% | 1576 | 1611 | 35 | 2% |
| | Loudon Way | 384 | 385 | 0 | 0% | 299 | 301 | 2 | 1% |
| | A28 Templar Way | 1474 | 1480 | 6 | 0% | 1518 | 1544 | 27 | 2% |
| | Chart Road (E) | 457 | 467 | 10 | 2% | 334 | 371 | 37 | 11% |
| 4c | Carlton Road | 141 | 141 | 0 | 0% | 221 | 221 | 0 | 0% |
| | Chart Road (S) | 1816 | 1863 | 47 | 3% | 1576 | 1610 | 34 | 2% |
| | Sir Henry Brackenbury Rd | 111 | 111 | 0 | 0% | 63 | 63 | 0 | 0% |



- 6.27 Given the discussions with KCC and the work commissioned from C&A separately, more detailed assessments have been undertaken of these junctions and this is set out in section 7 of my evidence.
- 6.28 Based on the above, it is proposed to assess the following junctions further through detailed junction modelling:
 - 1) Junction A: Secondary Site Access
 - 2) Junction B: Primary Site Access
 - 3) Junction D: Sandy Lane / Ashford Road / New Road
 - 4) Junction 1: Great Chart Bypass / Chilmington Avenue
 - 5) Junction 2: Ashford Road / Great Chart Bypass
 - 6) Junction 3: Great Chart Bypass / Tithe Barn Lane; and
 - 7) Junction 5: The Avenue / Chilmington Green Road.
- 6.29 This is in addition to the following junctions which are assessed separately.
 - 8) Junction 4a: Chart Road / Brookfield Road / Great Chart Bypass
 - 9) Junction 4b: Chart Road / Great Chart Bypass / Loudon Way
 - 10) Junction 4c: Sir Henry Brackenbury Road / A28 Templer Way / Chart Road / Carlton Road;
- 6.30 Given the low traffic impact, it is not necessary to model the remaining junctions for the existing or future layouts.

Junction Modelling

- 6.31 The Junctions suite of programmes published by the Transport Research Laboratory (TRL) calculates the capacity of traffic arms at roundabouts and priority junctions. The results of analysis are expressed as a ratio, referred to as the Ratio of Flow to Capacity (RFC). Based upon these results it also predicts the anticipated queue lengths (Q) and delays that are likely to occur at the junction.
- 6.32 The results of the standalone junction modelling are summarised in the subsequent text. All junction modelling outputs can be found at **Appendix ID9.**

Junction A: Secondary Site Access

6.33 The results of the secondary site access junction modelling are presented in **Table ID6.3**.



Table ID6.3: Secondary Site Access Modelling (2032 Base with Development)

| | _ | AM PEAK HO | UR | PM PEAK HOUR | | | |
|---------------|----------------|------------|------|----------------|-----------|------|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | |
| Stream B – C | 0.0 | 7.95 | 0.02 | 0.0 | 6.84 | 0.01 | |
| Stream B – A | 0.1 | 13.67 | 0.06 | 0.0 | 11.61 | 0.04 | |
| Stream C – BA | 0.0 | 7.29 | 0.01 | 0.0 | 6.40 | 0.02 | |

- 6.34 The results in **Table ID6.3** show that the secondary site access is expected to operate well within capacity, with a maximum RFC of 0.06 and 0.04 in the AM and PM peak hours respectively.
- 6.35 The proposed access will safely accommodate future traffic levels.

Junction B: Primary Site Access

6.36 The results of the primary site access junction modelling are presented in **Table ID6.4** below.

Table ID6.4: Primary Site Access Modelling (2032 Base with Development)

| | • | AM PEAK HO | UR | PM PEAK HOUR | | | |
|---------------|----------------|------------|------|----------------|-----------|------|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | |
| Stream B – C | 0.2 | 8.15 | 0.13 | 0.1 | 6.38 | 0.09 | |
| Stream B – A | 0.5 | 12.93 | 0.33 | 0.1 | 11.02 | 0.12 | |
| Stream C – BA | 0.1 | 5.35 | 0.06 | 0.6 | 5.73 | 0.25 | |

- 6.37 **Table ID6.4** shows that the primary site access is expected to operate within capacity, with a maximum RFC of 0.33 and 0.25 in the AM and PM peak hours respectively. This equates to a maximum queue of less than 1 PCU in both cases. Therefore, there will be negligible queuing on the site access arm which does not suggest that traffic would block back to the approved Sandy Lane roundabout. Nevertheless, the passing bay suggested by KCC have been proposed for inclusion in the site access design as set out earlier in my evidence.
- 6.38 The proposed access will safely accommodate future traffic levels.

Junction D: Sandy Lane / Ashford Road / New Road

6.39 The 2032 Future Year modelling results for Junction D are summarised in **Table ID6.5.**



Table ID6.5:Sandy Lane / Ashford Road / New Road (2032)

| | Α | M PEAK HOU | R | PM PEAK HOUR | | | |
|---------------------|----------------|----------------|-----------------|----------------|-----------|------|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | |
| <u>.</u> | | 2032 F | uture Year Ba | seline | | | |
| Ashford Road (N) | 2.8 | 9.35 | 0.73 | 1.2 | 5.57 | 0.55 | |
| New Road | 0.6 | 5.09 | 0.38 | 0.3 | 3.43 | 0.24 | |
| Ashford Road (S) | 0.9 | 5.06 | 0.46 | 1.6 | 6.52 | 0.61 | |
| Sandy Lane | 0.0 | 7.48 | 0.04 | 0.1 | 9.45 | 0.08 | |
| <u>.</u> | 2032 Fu | uture Year Bas | seline with Pro | posed Devel | opment | | |
| Ashford Road (N) | 3.1 | 10.07 | 0.75 | 1.8 | 6.89 | 0.64 | |
| New Road | 0.8 | 5.66 | 0.44 | 0.4 | 3.68 | 0.28 | |
| Ashford Road (S) | 1.0 | 5.49 | 0.49 | 1.8 | 7.14 | 0.64 | |
| Sandy Lane | 0.0 | 8.18 | 0.04 | 0.1 | 10.37 | 0.09 | |

- 6.40 **Table ID6.5** shows that the roundabout is expected to operate well within capacity on all arms across each peak hour. In the baseline scenario, the highest RFC is 0.73 on the Great Chart Bypass (N) arm in the AM peak hour. This rises to 0.75 in the 'With Development' scenario, an increase in RFC of just 0.02. The queues and delay are minimal, at approximately 3 PCU and 10 seconds respectively in both scenarios.
- 6.41 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.

Junction 1: Great Chart Bypass / Chilmington Avenue

6.42 The Future Year modelling results for Junction 1 are summarised in **Table ID6.6.**



Table 6.6: Great Chart Bypass / Chilmington Avenue (2032)

| | Α | M PEAK HOU | R | PM PEAK HOUR | | | | | |
|---------------------------|---------------------------|----------------|-----------------|----------------|-----------|------|--|--|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | | | |
| | 2032 Future Year Baseline | | | | | | | | |
| Great Chart Bypass (N) | 1.7 | 4.44 | 0.62 | 1.0 | 3.24 | 0.49 | | | |
| Chilmington Avenue | 0.6 | 4.65 | 0.36 | 0.2 | 2.95 | 0.18 | | | |
| Great Chart Bypass (S) | 0.6 | 3.74 | 0.35 | 0.8 | 3.81 | 0.44 | | | |
| | 2032 Fu | uture Year Bas | seline with Pro | posed Devel | opment | | | | |
| Great Chart Bypass (N) | 1.8 | 4.61 | 0.63 | 1.2 | 3.59 | 0.54 | | | |
| Chilmington Avenue | 0.6 | 4.78 | 0.37 | 0.3 | 3.18 | 0.21 | | | |
| Great Chart Bypass (S) | 0.7 | 4.06 | 0.4 | 0.9 | 4.10 | 0.48 | | | |

- 6.43 As for the observed modelling results, **Table ID6.6** shows that the junction is expected to continue operating within capacity in both scenarios and peak hours. A maximum RFC of 0.63 in the 'With Development' scenario equates to a queue of less than 2 PCUs and a delay of under 5 seconds. As such, the proposed development is not anticipated to have a severe impact at this junction.
- 6.44 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.

Junction 2: Ashford Road / Great Chart Bypass

6.45 The 2032 Future Year modelling results for Junction 2 are summarised in **Table ID6.7**.

Table ID6.7: Ashford Road / Great Chart Bypass (2032)

| | А | M PEAK HOU | R | PM PEAK HOUR | | | | | |
|------------|---------------------------|----------------|-----------------|----------------|-----------|------|--|--|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | | | |
| | 2032 Future Year Baseline | | | | | | | | |
| Stream B-C | 0.1 | 6.92 | 0.06 | 0.1 | 7.27 | 0.09 | | | |
| Stream B-A | 0.2 | 13.25 | 0.15 | 0.3 | 11.78 | 0.20 | | | |
| Stream C-B | 0.5 | 9.52 | 0.34 | 0.1 | 7.48 | 0.09 | | | |
| | 2032 Fu | uture Year Bas | seline with Pro | posed Devel | opment | | | | |
| Stream B-C | 0.1 | 7.18 | 0.07 | 0.1 | 7.54 | 0.10 | | | |
| Stream B-A | 0.2 | 14.56 | 0.16 | 0.3 | 13.30 | 0.22 | | | |
| Stream C-B | 0.5 | 10.01 | 0.35 | 0.1 | 7.70 | 0.09 | | | |



- 6.46 **Table ID6.7** shows that in the Future Year scenarios, the roundabout is still expected to operate well within capacity across both peak hours. In the baseline scenario, the highest RFCs are 0.34 and 0.20 in the AM and PM peak hours respectively, which rise to 0.35 and 0.22 in the 'With Development' scenario. This is an increase in RFC of just 0.01 and 0.02 in the respective peak hours. The resulting queues and delays are minimal, with a maximum queue of under 1 PCU and a maximum delay of circa 15 seconds in the 'With Development' scenario. As such, the proposed development is not anticipated to have a severe impact at this junction.
- 6.47 There is no material impact at this junction arising from traffic associated with the Appeal Scheme

Junction 3: Great Chart Bypass / Tithe Barn Lane

6.48 The 2032 Future Year modelling results for Junction 3 are summarised in **Table ID6.8**.

Table ID6.8: Great Chart Bypass / Tithe Barn Lane (2032)

| | Α | M PEAK HOU | R | PM PEAK HOUR | | | | | |
|---------------------------|----------------|----------------|----------------|----------------|-----------|------|--|--|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | | | |
| 2032 Future Year Baseline | | | | | | | | | |
| Great Chart Bypass (N) | 1.8 | 5.64 | 0.63 | 4.8 | 11.98 | 0.83 | | | |
| Tithe Barn Lane | 1.6 | 7.78 | 0.62 | 0.4 | 4.10 | 0.27 | | | |
| Great Chart Bypass (S) | 1.5 | 5.82 | 0.57 | 1.4 | 5.11 | 0.57 | | | |
| | 2032 Ft | uture Year Bas | eline with Pro | posed Devel | opment | | | | |
| Great Chart Bypass (N) | 1.9 | 5.94 | 0.65 | 7.5 | 17.94 | 0.89 | | | |
| Tithe Barn Lane | 1.7 | 8.17 | 0.63 | 0.4 | 4.5 | 0.29 | | | |
| Great Chart Bypass (S) | 1.8 | 6.56 | 0.62 | 1.6 | 5.56 | 0.61 | | | |

- Table ID6.8 shows that in the Future Year scenarios, the roundabout is still expected to operate within theoretical capacity across both peak hours. In the AM peak hour, the maximum RFC in the baseline and 'With Development' scenario is 0.63 and 0.65 respectively, an increase in RFC of just 0.02. In the PM peak hour, the maximum RFC in the baseline and 'With Development' scenario is 0.83 and 0.89 respectively, an increase in RFC of just 0.06. Whilst the RFC in the PM peak hour is higher, the maximum queue and delay is expected to be under 8 PCUs and circa 18 seconds. As such, the proposed development is not anticipated to have a severe impact at this junction.
- 6.50 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.



Junction 5: The Avenue / Chilmington Green Road

6.51 The 2032 Future Year modelling results for Junction 5 are summarised in **Table ID6.9**.

Table ID6.9: The Avenue / Chilmington Green Road (2032)

| | | M PEAK HOU | | | M PEAK HOU | R |
|------------------|----------------|----------------|-----------------|----------------|------------|------|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| | | 2032 F | uture Year Ba | seline | | |
| Stream B- CD | 1.1 | 10.79 | 0.53 | 0.7 | 8.41 | 0.41 |
| Stream B- AD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 |
| Stream A- BCD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 |
| Stream D- AB | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 |
| Stream D- BC | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 |
| Stream C- ABD | 1.1 | 12.33 | 0.52 | 2.2 | 18.22 | 0.68 |
| | 2032 Fi | uture Year Bas | seline with Pro | posed Devel | opment | |
| Stream B- CD | 1.2 | 11.31 | 0.55 | 0.8 | 9.06 | 0.44 |
| Stream B- AD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 |
| Stream A- BCD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 |
| Stream D- AB | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 |
| Stream D- BC | 0.1 | 11.20 | 0.06 | 0.0 | 10.70 | 0.04 |
| Stream C- ABD | 1.9 | 14.86 | 0.63 | 2.6 | 20.51 | 0.72 |

- 6.52 **Table ID6.9** shows that in the Future Year scenario, the junction is forecast to operate well within capacity with a maximum RFC of 0.63 and 0.72 in 'With Development scenario in the AM and PM peak hours respectively. As such, the proposed development is not anticipated to have a severe impact at this junction.
- 6.53 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.

Assessment Summary

6.54 Both of the site accesses would have sufficient capacity to accommodate future traffic flows.



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6.55 The assessments at the offsite junctions show that the traffic associated with the Appeal Scheme would not have a material impact on the operation of the local junctions assessed. There is no requirement for any mitigation at these junctions as there is certainly no residual cumulative impact that needs to be mitigated.

Sensitivity Assessment of the Effect of the Development

6.56 This part of my evidence reports on the effects of the proposed development on the highway network using the originally submitted trip rates within the TAA as requested by KCC as a sensitivity test. The same methods of assessment as described above has been replicated below.

Sensitivity Test Percentage Impact Assessment

6.57 The percentage impact for each junction is provided within **Table ID6.10**. This has been undertaken for the 2032 Future Year scenarios. Modelling of the primary and secondary site accesses has been undertaken, but these are not included in this percentage impact assessment as they have only been assessed with the proposed development in place.



| lable | ID6.10: 2032 Future Ye | AM PE | | Centag | је шіра | PM PE | | rest | |
|-------|---|-----------|--------------------|--------|----------|-----------|--------------------|-------|----------|
| NO. | JUNCTION | Base Case | Base + Dev Case | Dev | % Impact | Base Case | Base + Dev Case | Dev | % Impact |
| С | Ashford Road / Chilmington Green Road | 1524 | 1672 | 148 | 10% | 1389 | 204 | 17% | 1389 |
| D | Sandy Lane / Ashford Road / New Road | 1999 | 2149 | 151 | 7.5% | 2082 | 207 | 11.0% | 2082 |
| 1 | Great Chart Bypass / Chilmington Avenue | 2161 | 2309 | 148 | 7% | 2114 | 197 | 10% | 2114 |
| 2 | Ashford Road / Great Chart Bypass | 1866 | 2014 | 148 | 8% | 1790 | 204 | 13% | 1790 |
| 3 | Great Chart Bypass / Tithe Barn Lane | 2589 | 2729 | 140 | 5% | 2694 | 176 | 7% | 2694 |
| 4a | Chart Road / Brookfield Road / Great Chart Bypass | 3971 | 4079 | 108 | 3% | 4049 | 152 | 4% | 4049 |
| 4b | Chart Road / Great Chart Bypass / Loudon Way | 3678 | 3773 | 95 | 3% | 3672 | 117 | 3% | 3672 |
| 4c | Sir Henry Brackenbury Road / A28 Templer Way / Chart Road / Carlton Road | 3997 | 4090 | 92 | 2% | 3825 | 114 | 3% | 3825 |
| 4d | A28 Templer Way / Repton Avenue | 3448 | 3483 | 9 | 0% | 3411 | 32 | 1% | 3411 |
| 4e | A28 Templer Way / A20 / A20 Fougeres Way / A28 Simone Weil Avenue / A292 | 5951 | 5984 | 33 | 1% | 5560 | 39 | 1% | 5560 |
| 5 | The Avenue / Chilmington Green Road | 745 | 983 | 237 | 32% | 837 | 104 | 14% | 837 |
| 6 | Old Surrender Manor Road / Ashford Road | 1299 | 1316 | 17 | 1% | 1198 | 19 | 2% | 1198 |
| 7 | Chilmington Green Road / Long Length / Tally Ho Road | 1160 | 1175 | 15 | 1% | 1100 | 25 | 2% | 1100 |
| 8 | Magpie Hall Road / Ashford Road / Steeds Lane | 1334 | 1349 | 15 | 1% | 1255 | 25 | 2% | 1255 |
| 9 | A251 Trinity Road / M20 / A20 Fougeres Road | 5202 | 5229 | 27 | 1% | 4789 | 31 | 1% | 4789 |



- 6.58 As shown in **Table ID6.10** above, there is a 5% impact or greater in either the AM or PM peak hour at the following junctions:
 - Junction C: Ashford Road / Chilmington Green Road
 - Junction D: Sandy Lane / Ashford Road / New Road
 - Junction 1: Great Chart Bypass / Chilmington Avenue
 - Junction 2: Ashford Road / Great Chart Bypass
 - Junction 3: Great Chart Bypass / Tithe Barn Lane; and
 - Junction 5: The Avenue / Chilmington Green Road.
- 6.59 As part of the Chilmington Green development, Chilmington Green Road will become a nothrough road for traffic near the junction with Ashford Road. As such, it is not necessary to assess Junction C further.
- 6.60 This is the same conclusions as those for the main assessment scenario.
- 6.61 As before, it is recognised that Junctions 4a-4c are close to a 5% impact in the PM peak hour, so additional analysis has been undertaken to assess the traffic impact by arm. This is presented in **Table ID6.11**.

Table ID6.11: 2032 Future Year Junction Percentage Impact by Arm – Sensitivity Test

| | | | AM P | EAK | | | PM I | PEAK | |
|-----|-----------------------------|-----------|--------------------|-----|----------|-----------|--------------------|------|----------|
| NO. | JUNCTION | Base Case | Base + Dev Case | Dev | % Impact | Base Case | Base + Dev Case | Dev | % Impact |
| 4a | Chart Road (N) | 1694 | 1718 | 25 | 1% | 1908 | 1986 | 78 | 4% |
| | Brookfield Road | 918 | 921 | 3 | 0% | 878 | 896 | 18 | 2% |
| | Great Chart Bypass | 1048 | 1129 | 81 | 8% | 933 | 989 | 56 | 6% |
| | Chart Road (W) | 311 | 311 | 0 | 0% | 178 | 178 | 0 | 0% |
| 4b | Chart Road (N) | 1534 | 1558 | 24 | 2% | 1680 | 1756 | 76 | 5% |
| | Chart Road (S) | 1760 | 1830 | 71 | 4% | 1576 | 1615 | 39 | 2% |
| | Loudon Way | 384 | 385 | 1 | 0% | 299 | 301 | 2 | 1% |
| 4e | A28 Templar Way | 1474 | 1483 | 9 | 1% | 1518 | 1549 | 32 | 2% |
| | Chart Road (E) | 457 | 472 | 15 | 3% | 334 | 378 | 44 | 13% |
| | Carlton Road | 141 | 141 | 0 | 0% | 221 | 221 | 0 | 0% |
| | Chart Road (S) | 1816 | 1884 | 68 | 4% | 1576 | 1614 | 38 | 2% |
| | Sir Henry Brackenbury Rd | 111 | 111 | 0 | 0% | 63 | 63 | 0 | 0% |



- 6.62 As with the main assessment, given the discussions with KCC and the work commissioned from C&A separately more detailed assessments have been undertaken of these junctions and this is set out later in the section of my evidence.
- 6.63 Based on the above, it is proposed to assess the following junctions further through detailed junction modelling:
 - 1) Junction A: Secondary Site Access
 - 2) Junction B: Primary Site Access
 - 3) Junction D: Sandy Lane / Ashford Road / New Road
 - 4) Junction 1: Great Chart Bypass / Chilmington Avenue
 - 5) Junction 2: Ashford Road / Great Chart Bypass
 - 6) Junction 3: Great Chart Bypass / Tithe Barn Lane; and
 - 7) Junction 5: The Avenue / Chilmington Green Road.
- 6.64 This is in addition to the following junctions which are assessed separately.
 - 8) Junction 4a: Chart Road / Brookfield Road / Great Chart Bypass
 - 9) Junction 4b: Chart Road / Great Chart Bypass / Loudon Way
 - Junction 4c: Sir Henry Brackenbury Road / A28 Templer Way / Chart Road / Carlton Road;
- 6.65 Given the low traffic impact, it is not necessary to model the remaining junctions for the existing or future layouts.
- 6.66 This is the same conclusion for the main assessment scenario.

Junction Modelling

6.67 The results of the sensitivity test standalone junction modelling are summarised in the subsequent text. All junction modelling outputs can be found at **Appendix ID10**.

Junction A: Secondary Site Access

6.68 The results of the secondary site access junction modelling are presented in **Table ID6.12**.



Table ID6.12: Secondary Site Access Modelling (2032) - Sensitivity Test

| | | AM PEAK HO | UR | PM PEAK HOUR | | | |
|---------------|----------------|------------|------|----------------|-----------|------|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | |
| Stream B – C | 0.0 | 8.06 | 0.03 | 0.0 | 6.92 | 0.01 | |
| Stream B – A | 0.1 | 14.15 | 0.09 | 0.0 | 11.70 | 0.05 | |
| Stream C – BA | 0.0 | 7.32 | 0.01 | 0.0 | 6.44 | 0.02 | |

- 6.69 The results in **Table ID6.12** show that the secondary site access is expected to operate well within capacity, with a maximum RFC of 0.09 and 0.05 in the AM and PM peak hours respectively.
- 6.70 As with the main assessment scenario, the proposed access will safely accommodate future traffic levels.

Junction B: Primary Site Access

6.71 The results of the primary site access junction modelling are presented in **Table ID6.13** below.

Table ID6.13: Primary Site Access Modelling (2032)

| Table ID0.13.1 | Table 100.13. I Timary Ofte Access Moderning (2002) | | | | | | | | | |
|----------------|---|-----------|------|----------------|-----------|------|--|--|--|--|
| | AM PEAK HOUR | | | PM PEAK HOUR | | | | | | |
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | | | | |
| Stream B – C | 0.3 | 10.25 | 0.22 | 0.1 | 6.52 | 0.10 | | | | |
| Stream B – A | 0.9 | 17.40 | 0.49 | 0.2 | 11.54 | 0.13 | | | | |
| Stream C – BA | 0.2 | 5.45 | 0.08 | 0.7 | 6.21 | 0.31 | | | | |

- 6.72 **Table ID6.13** shows that the primary site access is expected to operate within capacity, with a maximum RFC of 0.49 and 0.31 in the AM and PM peak hours respectively. This equates to a maximum queue of less than 1 PCU in both cases. Therefore, there will be negligible queuing on the site access arm which does not suggest that traffic would block back to the approved Sandy Lane roundabout. As a result, the proposed access arrangement is expected to operate well, without the need for a right turn lane.
- 6.73 As with the main assessment scenario, the proposed access will safely accommodate future traffic levels.

Junction D: Sandy Lane / Ashford Road / New Road

6.74 The 2032 Future Year modelling results for Junction D are summarised in **Table ID6.14**.



Table ID6.14: Sandy Lane / Ashford Road / New Road (2032) - Sensitivty Test

| | Α | M PEAK HOU | R | PM PEAK HOUR | | | | | |
|---------------------------|----------------|----------------|-----------------|----------------|-----------|------|--|--|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | | | |
| 2032 Future Year Baseline | | | | | | | | | |
| Ashford Road (N) | 2.8 | 9.35 | 0.73 | 1.2 | 5.57 | 0.55 | | | |
| New Road | 0.6 | 5.09 | 0.38 | 0.3 | 3.43 | 0.24 | | | |
| Ashford Road (S) | 0.9 | 5.06 | 0.46 | 1.6 | 6.52 | 0.61 | | | |
| Sandy Lane | 0.0 | 7.48 | 0.04 | 0.1 | 9.45 | 0.08 | | | |
| | 2032 Fı | uture Year Bas | seline with Pro | posed Devel | opment | | | | |
| Ashford Road (N) | 3.2 | 10.46 | 0.76 | 1.9 | 7.2 | 0.65 | | | |
| New Road | 0.9 | 5.97 | 0.47 | 0.4 | 3.71 | 0.29 | | | |
| Ashford Road (S) | 1.1 | 5.72 | 0.5 | 1.8 | 7.22 | 0.64 | | | |
| Sandy Lane | 0.0 | 8.54 | 0.04 | 0.1 | 10.48 | 0.09 | | | |

- 6.75 **Table ID6.14** shows that the roundabout is expected to operate well within capacity on all arms across each peak hour. In the baseline scenario, the highest RFC is 0.73 on the Great Chart Bypass (N) arm in the AM peak hour. This rises to 0.76 in the 'With Development' scenario, an increase in RFC of just 0.03. The queues and delay are minimal, at approximately 3 PCU and 10 seconds respectively in both scenarios.
- 6.76 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.

Junction 1: Great Chart Bypass / Chilmington Avenue

6.77 The Future Year modelling results for Junction 1 are summarised in **Table ID6.15**.



Table ID6.15: Great Chart Bypass / Chilmington Avenue (2032) - Sensitivty Test

| | Α | M PEAK HOU | R | PM PEAK HOUR | | |
|---------------------------|----------------|----------------|-----------------|----------------|-----------|------|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| | | 2032 F | uture Year Ba | seline | | |
| Great Chart Bypass (N) | 1.7 | 4.44 | 0.62 | 1.0 | 3.24 | 0.49 |
| Chilmington Avenue | 0.6 | 4.65 | 0.36 | 0.2 | 2.95 | 0.18 |
| Great Chart Bypass (S) | 0.6 | 3.74 | 0.35 | 0.8 | 3.81 | 0.44 |
| | 2032 Fu | uture Year Bas | seline with Pro | posed Devel | opment | |
| Great Chart Bypass (N) | 1.8 | 4.69 | 0.64 | 1.2 | 3.66 | 0.55 |
| Chilmington Avenue | 0.6 | 4.84 | 0.37 | 0.3 | 3.23 | 0.21 |
| Great Chart Bypass (S) | 0.8 | 4.22 | 0.42 | 0.9 | 4.13 | 0.48 |

- 6.78 **Table ID6.15** indicates that the junction is expected to continue operating within capacity in both scenarios and peak hours. A maximum RFC of 0.64 in the 'With Development' scenario equates to a queue of less than 2 PCUs and a delay of under 5 seconds. As such, the proposed development is not anticipated to have a severe impact at this junction.
- 6.79 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.

Junction 2: Ashford Road / Great Chart Bypass

6.80 The 2032 Future Year modelling results for Junction 2 are summarised in **Table 6.16.**

Table ID6.16: Ashford Road / Great Chart Bypass 2032 Future Year Modelling Results – Sensitivity Test

| | А | M PEAK HOU | R | PM PEAK HOUR | | | | | |
|------------|---------------------------|----------------|-----------------|----------------|-----------|------|--|--|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | | | |
| | 2032 Future Year Baseline | | | | | | | | |
| Stream B-C | 0.1 | 6.92 | 0.06 | 0.1 | 7.59 | 0.10 | | | |
| Stream B-A | 0.2 | 13.25 | 0.15 | 0.3 | 13.60 | 0.23 | | | |
| Stream C-B | 0.5 | 9.52 | 0.34 | 0.1 | 7.73 | 0.09 | | | |
| | 2032 Fu | uture Year Bas | seline with Pro | posed Devel | opment | | | | |
| Stream B-C | 0.1 | 7.31 | 0.07 | 0.3 | 13.60 | 0.23 | | | |
| Stream B-A | 0.2 | 15.23 | 0.17 | 0.1 | 7.73 | 0.09 | | | |
| Stream C-B | 0.5 | 10.24 | 0.35 | 0.1 | 7.59 | 0.10 | | | |



- 6.81 **Table ID6.16** shows that in the Future Year scenarios, the roundabout is still expected to operate well within capacity across both peak hours. In the baseline scenario, the highest RFCs are 0.34 and 0.20 in the AM and PM peak hours respectively, which rise to 0.35 and 0.23 in the 'With Development' scenario. This is an increase in RFC of just 0.01 and 0.02 in the respective peak hours. The resulting queues and delays are minimal, with a maximum queue of under 1 PCU and a maximum delay of circa 15 seconds in the 'With Development' scenario. As such, the proposed development is not anticipated to have a severe impact at this junction.
- 6.82 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.

Junction 3: Great Chart Bypass / Tithe Barn Lane

6.83 The 2032 Future Year modelling results for Junction 3 are summarised in **Table ID6.17**.

Table ID6.17: Great Chart Bypass / Tithe Barn Lane (2032) - Sensitivity Test

| | Α | M PEAK HOU | R | PM PEAK HOUR | | | | |
|---------------------------|----------------|----------------|-----------------|----------------|-----------|------|--|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | | |
| 2032 Future Year Baseline | | | | | | | | |
| Great Chart Bypass (N) | 1.8 | 5.64 | 0.63 | 4.8 | 11.98 | 0.83 | | |
| Tithe Barn Lane | 1.6 | 7.78 | 0.62 | 0.4 | 4.10 | 0.27 | | |
| Great Chart Bypass (S) | 1.5 | 5.82 | 0.57 | 1.4 | 5.11 | 0.57 | | |
| | 2032 Fu | uture Year Bas | seline with Pro | posed Devel | opment | | | |
| Great Chart Bypass (N) | 2.0 | 6.08 | 0.65 | 8.3 | 19.69 | 0.90 | | |
| Tithe Barn Lane | 1.7 | 8.32 | 0.63 | 0.4 | 4.59 | 0.29 | | |
| Great Chart Bypass (S) | 2.0 | 6.95 | 0.64 | 1.6 | 5.62 | 0.61 | | |

- 6.84 **Table ID6.17** shows that in the Future Year scenarios, the roundabout is still expected to operate within theoretical capacity across both peak hours. In the AM peak hour, the maximum RFC in the baseline and 'With Development' scenario is 0.63 and 0.65 respectively, an increase in RFC of just 0.02. In the PM peak hour, the maximum RFC in the baseline and 'With Development' scenario is 0.83 and 0.90 respectively, an increase in RFC of just 0.07. Whilst the RFC in the PM peak hour is higher, the maximum queue and delay is expected to be circa 8 PCUs and circa 20 seconds. As such, the proposed development is not anticipated to have a severe impact at this junction.
- 6.85 There is no material impact at this junction arising from traffic associated with the Appeal Scheme.



Junction 5: The Avenue / Chilmington Green Road

6.86 The 2032 Future Year modelling results for Junction 5 are summarised in **Table ID6.18**.

Table ID6.18: The Avenue / Chilmington Green Road (2032) - Sensetivity Test

| | - | M PEAK HOU | R | PM PEAK HOUR | | | |
|------------------|----------------|----------------|-----------------|----------------|-----------|------|--|
| ARM | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC | |
| | | 2032 F | uture Year Ba | seline | | | |
| Stream B- CD | 1.1 | 10.79 | 0.53 | 0.7 | 8.41 | 0.41 | |
| Stream B- AD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | |
| Stream A- BCD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | |
| Stream D- AB | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | |
| Stream D- BC | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | |
| Stream C- ABD | 1.1 | 12.33 | 0.52 | 2.2 | 18.22 | 0.68 | |
| | 2032 F | uture Year Bas | seline with Pro | posed Devel | opment | | |
| Stream B- CD | 1.3 | 11.56 | 0.56 | 0.8 | 9.19 | 0.45 | |
| Stream B- AD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | |
| Stream A- BCD | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | |
| Stream D- AB | 0.0 | 0.00 | 0.00 | 0.0 | 0.00 | 0.00 | |
| Stream D- BC | 0.1 | 12.08 | 0.09 | 0.1 | 10.87 | 0.05 | |
| Stream C- ABD | 2.5 | 16.85 | 0.69 | 2.7 | 20.82 | 0.73 | |

6.87 **Table ID6.18** shows that in the Future Year scenario, the junction is forecast to operate well within capacity with a maximum RFC of 0.69 and 0.73 in 'With Development scenario in the AM and PM peak hours respectively. As such, the proposed development is not anticipated to have a severe impact at this junction

Sensitivity Test Summary

- 6.88 As for the main assessment scenario, both the site accesses would have sufficient capacity to accommodate future traffic flows.
- 6.89 Again, as for the main assessment scenario, the assessments at the offsite junctions show that the traffic associated with the Appeal Scheme would not have a material impact on the



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operation of the local junctions assessed. There is no requirement for any mitigation at these junctions as there is certainly no residual cumulative impact that needs to be mitigated.

Collision Data Review

- 6.90 At the request of KCC, Personal Injury Collision (PIC) data for the most recent 5-year period available (22/04/2019 16/03/2024) has been obtained for the full junction assessment scope KCC and NH requested.
- 6.91 100 collisions were recorded within the study area for the most recent 5-year period. Of the 100 collisions reported, 85 were classified as 'slight' severity, 14 as 'serious' and 1 was a fatal collision.
- 6.92 The location of each collision is shown on the collision plot, contained at **Appendix ID11**. The confidential collision report has not been appended. As shown at **Appendix ID11**, the majority of collisions are located a distance from the site (between the Matalan roundabout and M20 Junction 9).
- 6.93 Based on the forecast traffic impact of the proposed development, SLR have undertaken analysis of the collisions that occurred where there is more than a 5% increase in traffic at a junction and where detailed modelling has been undertaken. These locations are where the proposed development traffic impact is expected to be the highest.
- 6.94 Within this scope, the collision data has been analysed and any clusters identified. For the purpose of this assessment, an area of 5 or more collisions has been regarded as a cluster. Analysis of these clusters is provided below, as well as analysis of the A28 Ashford Road, within the proximity of the site, as this is where the secondary site access will be located.

A28 Ashford Road (Nearby Secondary Site Access)

6.95 3 collisions were recorded on the A28 Ashford Road within the immediate vicinity of where the secondary site access will be located. These are summarised in **Table ID6.19** below.

Table ID6.19 Ashford Road Collision Analysis

| Map Reference | Severity | Date | Time | Description |
|------------------|----------|------------|-------|---|
| 2 | Serious | 16/06/2020 | 15:00 | A lorry pulling out of Old Surrenden Manor Road turning right on A28 did not see a motorbike. |
| 3 | Slight | 13/02/2023 | 08:40 | Vehicle travelling south on the A28 collided with another vehicle while overtaking, causing a third vehicle to be impacted. |
| 6 | Serious | 10/11/2021 | 16:21 | Vehicle travelling northeast on Ashford Road lost control and left the carriageway. |



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6.96 Based on the above, there is no clear pattern between the recorded collisions at this junction and the road layout is not considered to be a contributing factor for these collisions.

Chart Road / Brookfield Road / Great Chart Bypass

6.97 9 collisions were recorded on or within the immediate vicinity of the Chart Road / Brookfield Road / Great Chart Bypass roundabout. These are summarised in **Table ID6.20** below.

Table ID6.20: Matalan Roundabout Collision Analysis

| Map Reference | Severity | Date | Time | Description |
|------------------|----------|------------|-------|---|
| 16 | Slight | 28/01/2022 | 09:05 | Vehicle pulled out of the school junction (signposted no right turn) into the path of another vehicle travelling towards Ashford. |
| 17 | Slight | 21/10/2022 | 03:32 | Police vehicle turning around to make after another vehicle struck roundabout kerb. |
| 18 | Serious | 03/05/2020 | 12:58 | Motorcyclist collided with vehicle slowing down to make a U-turn as A28 was temporarily closed for road works. |
| 19 | Serious | 29/01/2020 | 16:19 | Vehicle veered into opposing lane and collided head on with another vehicle. |
| 20 | Slight | 12/08/2022 | 17:00 | Vehicle collided with pedal cyclist. |
| 21 | Slight | 28/11/2021 | 16:32 | Vehicle pulled into path of a motorcyclist, causing a collision. |
| 22 | Slight | 22/08/2023 | 14:00 | Vehicle collided with a pedestrian while they were crossing the carriageway. |
| 23 | Slight | 07/09/2023 | 08:20 | Vehicle overtook another vehicle with no space for a safe movement, causing a slight collision. |
| 24 | Slight | 31/03/2022 | 16:50 | Vehicle drove into the pack of a stationary vehicle on the A28 approaching the roundabout. |

6.98 Based on **Table ID6.20** above, there is no clear pattern between the recorded collisions at this junction and the road layout is not considered to be an attributing factor for these collisions. In addition, it is expected that the KCC improvement scheme for the A28 Chart Road will be implemented by the time the proposed development is completed, so the road layout will change compared to what is currently built.

Collision Analysis Summary

- 6.99 A review of the most recent 5-year period of collision data, where the proposed development traffic impact is expected to be the highest, has not identified significant issues associated with the local highway network that are detrimental to road safety level; and
- 6.100 This analysis has been presented to KCC who confirmed that none of the junctions along the A28 corridor up to Tank roundabout (the key area of KCC's concern) from the site are



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currently subject to crash remedial measures. KCC are therefore satisfied that no further crash mitigation measures are required.



7.0 A28 Junctions

- 7.1 This section of my evidence considers the implications of the traffic associated with the Appeal Scheme at the following junctions:
 - 1) Junction 4a: Chart Road / Brookfield Road / Great Chart Bypass
 - 2) Junction 4b: Chart Road / Great Chart Bypass / Loudon Way; and
 - 3) Junction 4c: Sir Henry Brackenbury Road / A28 Templer Way / Chart Road / Carlton Road

Traffic Generation, Distribution and Assignment

7.2 The assessment of these junctions has been undertaken using the same assumptions set out above.

Traffic Growth on the A28

- 7.3 Detailed consideration has been given to traffic growth on the section of the A28 between these junctions. It is acknowledged that there is some peak period congestion on this section of the A28 which can affect traffic growth.
- 7.4 There is a permanent traffic counting site on the A28 immediately to the south of the junction of Loudon Way and data from this site has been considered from 2004 to 2023.
- 7.5 **Table ID7.1** below sets out the daily traffic levels at the site across the period and the overall level of traffic growth:



Table ID7.1 A28 Daily Traffic Growth

| Table ID1. | I AZO Daliy | Traffic Growth | |
|------------|------------------|--------------------------|---|
| Year | Total Traffic | Traffic Growth from 2004 | Variation to Average from 2004-2023 |
| 2004 | 26469 | N/A | 486 |
| 2005 | 25971 | -1.88% | -13 |
| 2006 | 26101 | -1.39% | 118 |
| 2007 | 27292 | 3.11% | 1309 |
| 2008 | 26968 | 1.89% | 985 |
| 2009 | 27657 | 4.49% | 1674 |
| 2010 | 27152 | 2.58% | 1169 |
| 2011 | 27171 | 2.65% | 1188 |
| 2012 | 26857 | 1.47% | 874 |
| 2013 | 26261 | -0.79% | 278 |
| 2014 | 26549 | 0.30% | 566 |
| 2015 | 26342 | -0.48% | 359 |
| 2016 | 27031 | 2.12% | 1048 |
| 2017 | 28012 | 5.83% | 2029 |
| 2018 | 27814 | 5.08% | 1831 |
| 2019 | 28071 | 6.05% | 2088 |
| 2020 | 21826 | -17.54% | -4158 |
| 2021 | 24506 | -7.42% | -1478 |
| 2022 | 26217 | -0.95% | 234 |
| 2023 | 26676 | 0.78% | 693 |

- 7.6 The level of traffic growth has been low at only 0.78% which is an increase of only 207 vehicles across the day.
- 7.7 There was a peak in traffic in 2009, but this reduced in subsequent years. During this period there has been the COVID pandemic, but this is not the only reason for no traffic growth as this only affected traffic levels from 2020 to 2021 as illustrated in the table above.
- 7.8 There has been a post COVID effect on traffic flows with more companies offering more flexible working and this has reduced traffic demand as shown by the 2023 traffic flows.
- 7.9 To consider this further, where data is available a comparison has been made of weekday peak period traffic flows on the A28. The weekday peak period being assumed as being 0800-0900 and 1700-1800. This is presented in **Table ID7.2** below.



Table ID7.2: A28 Peak Period Traffic Growth

| | | AM Peal | K | PM Peak | | | |
|------|---------|------------------------|---|---------|------------------------|---|--|
| Year | Traffic | Growth from 2004 | Variation to Average from 2004-2023 | Traffic | Growth from 2004 | Variation to Average from 2004-2023 | |
| 2004 | 2180 | N/A | -55 | 2286 | N/A | -35 | |
| 2005 | 2288 | 4.95% | 53 | 2372 | 3.76% | 51 | |
| 2007 | 2491 | 14.27% | 256 | 2429 | 6.26% | 108 | |
| 2009 | 2299 | 5.46% | 64 | 2354 | 2.97% | 33 | |
| 2013 | 2318 | 6.33% | 83 | 2176 | -4.81% | -145 | |
| 2017 | 2110 | -3.21% | -125 | 2513 | 9.93% | 192 | |
| 2021 | 2013 | -7.66% | -222 | 2102 | -8.05% | -219 | |
| 2023 | 2123 | -2.63% | -113 | 2338 | 2.27% | 17 | |

- 7.10 Again, as it can be seen there has been a reduction in traffic during the AM peak period and a small increase in the PM peak period. There has not been traffic growth despite some of the units at Chilmington Green being occupied.
- 7.11 This evidence shows that taking account of future traffic growth on the A28 would lead to an overprediction of future traffic levels and would not be consistent with a "Vision led approach" but would be a "Predict and Provide" approach which would lead to an overprovision of infrastructure for motorised vehicles.
- 7.12 Therefore, when considering the peak period traffic capacity at the junctions on this section of the A28, no general traffic growth factor has been applied. Traffic associated with the identified committed developments has been added so as to be consistent with the TAA. No comments have been received from KCC or NH on these committed developments or the assumptions on traffic to date.

Journey Times on the A28

- 7.13 Data has been acquired from TomTom in order to consider the journey times on the A28 from the south of Matalan Roundabout, through the Loudon Way traffic signals and to the north of Tank and in the opposite direction. This data is taken from mobile phones and tracks drivers as they pass through the highway network. This is a recognised data source for validating traffic models.
- 7.14 Data for the same 3 weeks in June within the school summer term for 2019 and 2024 was obtained. This was for Tuesdays, Wednesday and Thursday which are typical weekdays.
- 7.15 The data has been analysed and is summarised in **Table ID7.3** below with the journey times expressed in minutes:seconds. For comparison purposes, an average Inter Peak journey time has been calculated after the AM peak period ends at 10am and in advance of school



traffic starting at 3pm as the differences between this and higher journey times are a measure of delays due to peak period congestion.

Table ID7.3: A28 Peak Period Journey Times

| | 2 | 019 | 20 | 024 | Diff | |
|--------------------------------------|--------|----------|--------|----------|--------|----------|
| | | | | | | |
| Time | To M20 | From M20 | To M20 | From M20 | To M20 | From M20 |
| 0000-0100 | 2:10 | 2:11 | 2:09 | 2:12 | -0:01 | +0:01 |
| 0100-0200 | 2:10 | 2:15 | 2:08 | 2:08 | -0:02 | -0:07 |
| 0200-0300 | 2:02 | 2:11 | 2:01 | 2:13 | -0:01 | +0:02 |
| 0300-0400 | 2:16 | 2:04 | 1:56 | 2:07 | -0:20 | +0:03 |
| 0400-0500 | 2:16 | 2:05 | 1:57 | 2:05 | -0:19 | 0:00 |
| 0500-0600 | 2:13 | 2:09 | 2:04 | 2:10 | -0:09 | +0:01 |
| 0600-0700 | 2:30 | 2:17 | 2:22 | 2:19 | -0:08 | +0:02 |
| 0700-0800 | 4:31 | 2:44 | 4:13 | 2:56 | -0:18 | +0:12 |
| 0800-0900 | 9:53 | 3:14 | 6:49 | 3:32 | -3:04 | +0:18 |
| 0900-1000 | 3:04 | 2:50 | 3:23 | 2:53 | +0:19 | +0:03 |
| 1000-1100 | 3:17 | 2:40 | 3:03 | 2:46 | -0:14 | +0:06 |
| 1100-1200 | 3:26 | 2:45 | 2:54 | 2:45 | -0:30 | +0:00 |
| 1200-1300 | 3:12 | 2:45 | 2:55 | 2:53 | -0:17 | +0:08 |
| 1300-1400 | 3:34 | 2:44 | 2:56 | 2:47 | -0:38 | +0:03 |
| 1400-1500 | 3:20 | 3:14 | 3:16 | 3:22 | -0:04 | +0:08 |
| 1500-1600 | 5:38 | 3:36 | 5:53 | 4:11 | -0:05 | +0:35 |
| 1600-1700 | 5:29 | 4:05 | 4:27 | 4:27 | -1:02 | +0:22 |
| 1700-1800 | 5:50 | 5:52 | 3:47 | 4:07 | -2:03 | -1:45 |
| 1800-1900 | 3:37 | 3:24 | 2:44 | 2:43 | -0:53 | +0:41 |
| 1900-2000 | 2:41 | 2:25 | 2:27 | 2:27 | -0:14 | +0:02 |
| 2000-2100 | 2:30 | 2:16 | 2:20 | 2:21 | -0:10 | +0:05 |
| 2100-2200 | 2:28 | 2:18 | 2:17 | 2:19 | -0:11 | +0:01 |
| 2200-2300 | 2:21 | 2:15 | 2:13 | 2:17 | -0:08 | +0:02 |
| 2300-2400 | 2:14 | 2:07 | 2:06 | 2:13 | -0:08 | +0:06 |
| Inter Peak Average (1000-1500) | 3:16 | 2:35 | 2:46 | 2:38 | -0:40 | +0:03 |

7.16 **Table ID7.3** reveals a lot of useful information on the existing conditions on the A28 and how they have changed since 2019 (i.e. before the COVID pandemic):



2019

- The Northbound AM peak suffers the most delays and is 6 minutes 37 seconds longer than the average Inter Peak journey time, but this only last for one hour between 0800-0900
- The Northbound PM peak lasts from 1500-1800, with the longest delays being at 1700-1800 of 2 minutes and 34 seconds.
- The Southbound AM peak hour is also 0800-0900, but the delays are only 39 seconds.
- The Southbound PM peak is higher and at 1700-1800 is 3 minutes 17 seconds higher than the Inter Peak average.

2024

- The Northbound AM peak is again 0800-0900, with delays of 4 minutes and 3 seconds.
- The Northbound PM peak has moved to 1500-1600, at the end of the school day, with delays of 3 minutes and 7 seconds.
- The Southbound AM peak remains at 0800-0900 with delays of only 54 seconds.
- The Southbound PM peak has moved an hour earlier to 1600-1700 with delays of 1 minute 49 seconds.

2019-2024

- Generally, the northbound journey times are lower in 2024 than 2019, with the most significant changes during the period hours. There is little change in the southbound journey times, with the exception of during the PM peak hour where there is a reduction of over a minute.
- The section of road with the most significant reduction in journey time is the northbound link between Loudon Way traffic signals and Tank Roundabout.
- The PM peak period have moved earlier.
- 7.17 Overall, the findings from this exercise are:
 - Journey times on the A28 have reduced from 2019 to 2024.
 - The northbound AM peak is where the most significant delays are seen, but these limited to only one hour.
 - The delays during both the northbound and southbound PM peak have reduced.
 - The southbound AM peak does not experience significant delays.
 - The congestion on this section of the A28 is not exceptional and is comparable to
 what is encountered in many towns and cities across the country (i.e. a short period
 of congestion on weekday mornings and a much lower level of congestion for a
 longer period (2-3 hours) on weekday afternoons).
- 7.18 The reasons for the changes in journey times cannot be fully determined, but are partly due to the more flexible working arrangements offered by many employers since the COVID pandemic which gives a proportion of workers more flexibility in terms of both whether they travel to work at all or whether they travel at different times to the more traditional 9am to 5pm working pattern.



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7.19 The fact that the A28 congestion is limited and that it improved over time are key elements of understanding the base position to consider the implications of the traffic associated with the Appeal Scheme.

Peak Hours

7.20 To undertake modelling of the three junctions, analysis have been undertaken of the traffic surveys are each junction to identify the weekday peak hours of demand and this is summarised in **Table 7.4**.

Table 7.4: A28 Junction Peak Hours

| | WEEKDAY AM PEAK HOUR | WEEKDAY PM PEAK HOUR |
|--------------------|----------------------|----------------------|
| Matalan Roundabout | 0815-0915 | 1630-1730 |
| Loudon Way Signals | 0730-0830 | 1645-1745 |
| Tank Roundabout | 0730-0830 | 1645-1745 |
| Whole Network | 0800-0900 | 1630-1730 |

7.21 The network peak hour has been used for the modelling to ensure consistency between the junctions and the interactions between them.

Matalan Roundabout

- 7.22 **Table ID7.5** below is the results from a traffic model for the roundabout that has been built in Junctions 10 and calibrated using existing peak period queuing. All the modelling relating to this junction is contained in **Appendix ID12**.
- 7.23 From observations of peak period traffic at the site using onsite observations and video surveys the constraints at this junction are:
 - For northbound traffic the constraint is actually the capacity at the Loudon Way traffic signals which cause queuing which affect the ability for traffic on the A28 to exit the roundabout.
 - 2) For southbound traffic the constraint is the capacity of the southbound approach onto the roundabout.
- 7.24 As stated in Section 2 of my evidence above, the benefit of using Junctions 10 to model this junction allows an exit blocking factor to be included in the model to reflect the impacts of the operation of the Loudon Way traffic signals at this junction.



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Table ID7.5: Matalan Roundabout (2023 Observed)

| 1 4510 12 | Table 157.6. Matalan Reanauseat (2526 essented) | | | | | | | | | | |
|-----------|---|----------------|------------------|------|----------------|------------------|------|--|--|--|--|
| | | AM Peak Hour | | | PM Peak Hour | | | | | | |
| | | (| 0800 - 0900 |) | , | 1630 - 1730 |) | | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | | | | |
| Α | A28 (NE) | 11.0 | 32.3 | 0.92 | 13.7 | 39.6 | 0.94 | | | | |
| В | Brookfield Road (SE) | 17.8 | 75.2 | 0.98 | 0.5 | 2.0 | 0.31 | | | | |
| С | A28 (SW) | 10.2 | 84.5 | 0.95 | 0.6 | 3.7 | 0.37 | | | | |
| D | Chart Road (NW) | 7.6 | 94.7 | 0.93 | 0.2 | 4.7 | 0.18 | | | | |

- 7.25 During the identified AM peak hour the junction is currently operating at or close to capacity with queues and delays occurring on all approaches with one arm close to capacity in the identified PM peak hour.
- 7.26 **Table ID7.6** considers the implications of committed development at this roundabout

Table ID7.6: Matalan Roundabout (2023 Observed + Committed)

| | | AM Peak Hour | | | PM Peak Hour | | | |
|-----|----------------------|----------------|------------------|------|----------------|------------------|------|--|
| | | 0800 - 0900 | | | 1630 - 1730 | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | |
| Α | A28 (NE) | 233.1 | 518.6 | 1.16 | 460.1 | 1024.1 | 1.32 | |
| В | Brookfield Road (SE) | 259.5 | 118.9 | 1.45 | 149.9 | 660.9 | 1.22 | |
| С | A28 (SW) | 429.1 | 2471.7 | 1.85 | 263.1 | 1307.9 | 1.47 | |
| D | Chart Road (NW) | 91.8 | 1405.2 | 1.50 | 16.5 | 362.4 | 1.07 | |

- 7.27 Somewhat unsurprisingly, adding additional traffic to the roundabout during the identified peak hours increases queuing and delays.
- 7.28 It should be noted that when RFC values significantly exceed 1 the actual queues and delays predicted need to be considered with care as the algorithms within the model are calibrated against junctions that operate up to capacity and start to overpredict queues and delays.
- 7.29 **Tables ID7.7 and ID7.8** considers the implications of traffic associated with the Appeal Scheme at the roundabout for the main assessment scenario and the sensitivity test.



Table ID7.7: Matalan Roundabout (2023 Observed + Committed + Dev)

| | | ΙA | M Peak Hou | r | PM Peak Hour | | | |
|-----|----------------------|----------------|------------------|------|----------------|------------------|------|--|
| | | 0800 - 0900 | | | 1630 - 1730 | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | |
| Α | A28 (NE) | 250.1 | 555.8 | 1.17 | 529.3 | 1180.7 | 1.37 | |
| В | Brookfield Road (SE) | 264.0 | 1139.1 | 1.48 | 157.5 | 684.2 | 1.24 | |
| С | A28 (SW) | 477.4 | 2721.5 | 1.93 | 301.6 | 1482.3 | 1.53 | |
| D | Chart Road (NW) | 95.8 | 1495.2 | 1.53 | 16.6 | 363.0 | 1.07 | |

Table ID7.8: Matalan Roundabout (2023 Observed + Committed + Dev Senstivity)

| | | Al | M Peak Hou | r | PM Peak Hour | | | |
|-----|----------------------|----------------|------------------|------|----------------|------------------|------|--|
| | | 0800 - 0900 | | | 1630 - 1730 | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | |
| Α | A28 (NE) | 258.0 | 573.2 | 1.18 | 542.8 | 1211.3 | 1.38 | |
| В | Brookfield Road (SE) | 265.8 | 1147.2 | 1.49 | 158.7 | 687.6 | 1.25 | |
| С | A28 (SW) | 499.3 | 2833.7 | 1.97 | 306.1 | 1501.5 | 1.54 | |
| D | Chart Road (NW) | 97.4 | 1534.3 | 1.54 | 16.6 | 362.6 | 1.07 | |

- 7.30 Adding additional traffic associated with the Appeal Scheme would exacerbate the issues that would occur in the future at the roundabout due to traffic associated with committed development. There would be a severe residual cumulative impact without any mitigation and so improvements are proposed to both the Loudon Way traffic signal junction and at the Matalan roundabout which can be implemented wholly within land that is within the public highway.
- 7.31 The proposed improvement schemes are contained in **Appendices ID13 and ID14** respectively.
- 7.32 The improvement to the Loudon Way traffic signals are discussed in this section as they affect how the Matalan Roundabout operates due to the blocking back from the traffic signals affecting traffic exiting the roundabout. The main elements of the scheme are:
 - The amendment of the traffic signals to provide 2 lanes eastbound with the inside lane being left turn and straight ahead and the outside lane being straight ahead
 - Amendments to provide a suitable 2 to 1 merge for eastbound traffic
- 7.33 The main elements of the improvement to the Matalan roundabout are:
 - The widening of the southbound approach to provide 2 full entry lanes
 - Minor widening to the northbound exit from the roundabout to assist traffic flows



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- 7.34 Both the proposed improvements at the Loudon Way Traffic Signal Junction and at Matalan Roundabout have been subject to a Stage 1 Road Safety Audit, which is contained in **Appendix ID15 and ID16**, together with the Designer's Response.
- 7.35 For both improvement schemes, there are minor recommendations made to improve the safety of the design which have been accepted in the Designer's Response. All of the recommendations are within the public highway and can be addressed during the S278 detailed design process when detailed designs would be produced.
- 7.36 **Tables ID7.9 and ID7.10** considers the implications of the proposed improvement and includes the traffic associated with the Appeal Scheme for the main assessment scenario and the sensitivity test.

Table ID7.9: Improved Matalan Roundabout (2023 Observed + Committed + Dev)

| | | ΙA | M Peak Hou | r | PM Peak Hour | | | |
|-----|----------------------|----------------|------------------|------|----------------|------------------|------|--|
| | | 0800 - 0900 | | | 1630 - 1730 | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | |
| Α | A28 (NE) | 4.8 | 10.4 | 0.82 | 20.9 | 40.8 | 0.96 | |
| В | Brookfield Road (SE) | 90.5 | 337.4 | 1.12 | 0.7 | 3.0 | 0.42 | |
| С | A28 (SW) | 190.3 | 702.6 | 1.25 | 1.7 | 6.3 | 0.63 | |
| D | Chart Road (NW) | 35.1 | 427.5 | 1.13 | 0.4 | 7.5 | 0.26 | |

Table ID7.10: Improved Matalan Roundabout (2023 Observed + Committed + Dev Sensitivity)

| | | Al | M Peak Hou | r | PM Peak Hour | | | |
|-----|----------------------|-------------------------|------------------|------|----------------|------------------|------|--|
| | | 0800 - 0900 1630 - 1730 | | | | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | |
| А | A28 (NE) | 4.9 | 10.6 | 0.83 | 23.9 | 46.3 | 0.97 | |
| В | Brookfield Road (SE) | 93.2 | 347.8 | 1.12 | 0.7 | 3.0 | 0.42 | |
| С | A28 (SW) | 210.6 | 774.5 | 1.28 | 1.7 | 6.4 | 0.63 | |
| D | Chart Road (NW) | 37.5 | 458.2 | 1.14 | 0.4 | 7.5 | 0.26 | |

7.37 While the junction remains overcapacity on some approaches, the proposed improvements provide a significant benefit for the operation of the roundabout. The improvements provide benefits above just addressing the implications of traffic associated with the Appeal Scheme.

Loudon Way Traffic Signal Junction

7.38 **Table ID7.11** below is the results from a traffic model for the roundabout that has been built in LinSig and calibrated using existing peak period queuing. All the modelling relating to this junction is contained in **Appendix ID17**.



- 7.39 From observations of peak period traffic at the site using onsite observations and video surveys the constraints at this junction are:
 - 1) As set out above, for eastbound traffic there is a constraint which affects the operation of the Matalan roundabout
 - 2) Again, as set out above the outside lane for westbound traffic is not well used with the majority of traffic using the nearside lane.

Table ID7.11: Loudon Way Traffic Signals (2023 Observed)

| | | | /I Peak Hou | r | PM Peak Hour | | | |
|-----------|----------------------------------|--------------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------|--|
| | | C | 0800 - 0900 | | | 1630 - 1730 | | |
| Practical | Reserve Capacity (PRC) | -11.1% | | | -7.0% | | | |
| Link No. | Lane | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | |
| 1/1+1/2 | Chart Road (West) | 100.0 | 72.3 | 54.8 | 96.3 | 47.8 | 45.4 | |
| 2/1+2/2 | Loudon Road | 87.3 | 66.7 | 10.2 | 77.6 | 64.7 | 7.1 | |
| 3/1 | Chart Road (East) - Lane 1 | 63.3 | 9.3 | 13.4 | 64.5 | 8.4 | 13.9 | |
| 3/2+3/3 | Chart Road (East) - Lanes 2/3 | 60.1 | 61.1 | 4.0 | 48.9 | 56.1 | 3.7 | |

- 7.40 During the identified AM and PM peak hours the junction is currently operating close to capacity with queues and delays occurring on two approaches.
- 7.41 **Table ID7.12** considers the implications of committed development at this roundabout

Table ID7.12: Loudon Way Traffic Signals (2023 Observed + Committed)

| | | AN | AM Peak Hour | | | PM Peak Hour | | | |
|-----------|----------------------------------|--------------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------|--|--|
| | | 0800 - 0900 | | | 1 | 630 - 1730 | | | |
| Practical | Reserve Capacity (PRC) | -47.4% | | | -24.9% | | | | |
| Link No. | Lane | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | | |
| 1/1+1/2 | Chart Road (West) | 132.7 | 511.9 | 308.0 | 112.4 | 246.5 | 150.1 | | |
| 2/1+2/2 | Loudon Road | 127.4 | 491.8 | 61.0 | 102.6 | 182.5 | 16.2 | | |
| 3/1 | Chart Road (East) - Lane 1 | 83.7 | 13.5 | 26.9 | 98.8 | 46.4 | 62.9 | | |
| 3/2+3/3 | Chart Road (East) - Lanes 2/3 | 89.4 | 130.3 | 6.7 | 86.9 | 123.7 | 6.1 | | |



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- 7.42 Again, somewhat unsurprisingly, adding additional traffic to the traffic signals during the identified peak hours increases queuing and delays on all approach, but most notably on the busiest approaches.
- 7.43 It should be noted that where the Degree of Saturation significantly exceeds 100% the actual queues and delays predicted need to be considered with care as the algorithms within the model are calibrated against junctions that operate up to capacity and they start to overpredict queues and delays.
- 7.44 **Tables ID7.13 and ID7.14** considers the implications of traffic associated with the Appeal Scheme at the junction for the main assessment scenario and the sensitivity test.

Table ID7.13: Loudon Way Traffic Signals (2023 Observed + Committed + Dev)

| | | AM Peak Hour | | | PM Peak Hour | | |
|-----------|----------------------------------|--------------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------|
| | | 0 | 800 - 0900 | | 1 | 630 - 1730 | |
| Practical | Reserve Capacity (PRC) | -47.4% | | | -24.9% | | |
| Link No. | Lane | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) |
| 1/1+1/2 | Chart Road (West) | 136.1 | 551.0 | 336.0 | 114.9 | 283.3 | 169.3 |
| 2/1+2/2 | Loudon Road | 127.4 | 491.8 | 61.0 | 103.8 | 196.4 | 17.5 |
| 3/1 | Chart Road (East) - Lane 1 | 84.8 | 14.2 | 28.1 | 103.0 | 93.8 | 88.3 |
| 3/2+3/3 | Chart Road (East) - Lanes 2/3 | 89.4 | 130.3 | 6.7 | 86.9 | 123.7 | 6.1 |

Table ID7.14: Loudon Way Traffic Signals (2023 Observed + Committed + Dev

Sensitivity)

| | | AN | 1 Peak Hou | r | PM Peak Hour | | | |
|-----------|----------------------------------|--------------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------|--|
| | | 0 | 800 - 0900 | | 1630 - 1730 | | | |
| Practical | Practical Reserve Capacity (PRC) | | -51.2% | | | -27.7% | | |
| Link No. | Lane | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | |
| 1/1+1/2 | Chart Road (West) | 137.7 | 568.5 | 348.9 | 115.2 | 287.4 | 171.5 | |
| 2/1+2/2 | Loudon Road | 128.0 | 498.4 | 62.0 | 103.8 | 196.4 | 17.5 | |
| 3/1 | Chart Road (East) - Lane 1 | 85.3 | 14.5 | 28.7 | 103.7 | 105.1 | 93.8 | |
| 3/2+3/3 | Chart Road (East) - Lanes 2/3 | 89.4 | 130.3 | 6.7 | 86.9 | 123.7 | 6.1 | |

7.45 Adding additional traffic associated with the Appeal Scheme would exacerbate the issues that would occur in the future at the roundabout due the traffic associated with the committed



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developments. There would be a severe residual cumulative impact on some approaches without mitigation and so improvements are proposed which can be implemented wholly within land that is within the public highway.

- 7.46 The proposed improvement scheme is contained in **Appendix ID14** and the main elements of the improvement are described earlier in my evidence.
- 7.47 **Tables ID7.15 and ID7.16** considers the implications of the proposed improvement and includes the traffic associated with the Appeal Scheme for the main assessment scenario and the sensitivity test.

Table ID7.15: Improved Loudon Way Traffic Signals (2023 Observed + Committed + Dev)

| | Devj | | | | | | | | | |
|-----------|----------------------------------|--------------------------------|-----------------------------|--------------------------------|--------------------------------|-----------------------------|--------------------------------|--|--|--|
| | | AM | 1 Peak Hou | ır | PM | PM Peak Hour | | | | |
| | | 0800 - 0900 | | | 1630 - 1730 | | | | | |
| Practical | Reserve Capacity (PRC) | | -27.1& | | -6.0% | | | | | |
| Link No. | Lane | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | | | |
| 1/1+1/2 | Chart Road (West) | 114.4 | 271.5 | 189.3 | 95.4 | 28.6 | 38.4 | | | |
| 2/1+2/2 | Loudon Road | 107.8 | 231.1 | 29.6 | 94.3 | 113.4 | 11.0 | | | |
| 3/1 | Chart Road (East) - Lane 1 | 77.9 | 11.8 | 22.0 | 95.2 | 29.4 | 47.9 | | | |
| 3/2+3/3 | Chart Road (East) - Lanes 2/3 | 89.4 | 72.7 | 7.1 | 86.9 | 64.9 | 6.4 | | | |

Table ID7.16: Improved Loudon Way Traffic Signals (2023 Observed + Committed + Dev Sensitivity)

| | | AN | 1 Peak Hou | r | PN | PM Peak Hour | | | |
|----------------------------------|-----------------------------------|-------|-------------------------------------|-------|--------------------------------|-----------------------------|--------------------------------|--|--|
| | | 0 | 800 - 0900 | | 1 | 1630 - 1730 | | | |
| Practical Reserve Capacity (PRC) | | | -28.4% | | -6.7% | | | | |
| Link No. | nk No. Lane | | Degree of Saturation (%) (s/pcu) Qu | | Degree of Saturation (%) | Average Delay (s/pcu) | Mean Max. Queue (pcu) | | |
| 1/1+1/2 | Chart Road (West) | 115.6 | 289.4 | 200.8 | 95.6 | 29.4 | 39.6 | | |
| 2/1+2/2 | Loudon Road | 108.3 | 237.7 | 30.5 | 94.3 | 113.4 | 11.0 | | |
| 3/1 | 3/1 Chart Road (East) - Lane 1 | | 12.0 | 22.5 | 96.0 | 32.2 | 50.2 | | |
| 3/2+3/3 | Chart Road (East) - Lanes 2/3 | 89.4 | 72.7 | 7.1 | 86.9 | 64.9 | 6.4 | | |



7.48 While the junction remains overcapacity on some approaches, the proposed improvements provide a significant benefit for the operation of the roundabout. The improvements provide benefits above just addressing the implications of traffic associated with the Appeal Scheme.

Tank Roundabout

- 7.49 **Table ID7.17** below contains the results from a traffic model for the roundabout that has been built in Junctions 10 and calibrated using existing peak period queuing. All of the modelling relating to this junction is contained in **Appendix ID18**.
- 7.50 From observations of peak period traffic at the site using onsite observations and video surveys, the constraints at this junction are:
 - For northbound and southbound traffic the existing crossing between Tank
 Roundabout and Loudon Way is a significant issue. This traffic signal controlled
 crossing has dated equipment.
 - 2) constraint is actually the capacity at the Loudon Way traffic signals which cause queuing which affect the ability for traffic on the A28 to exit the roundabout.
- 7.51 As stated in Section 2 above, the benefit of using Junctions 10 to model this junction allows an exit blocking factor to be included in the model to reflect the impacts of the operation of the Loudon Way traffic signals at this junction.

Table ID7.17: Tank Roundabout (2023 Observed)

| | | Al | M Peak Ho | ur | PM Peak Hour | | | |
|-----|------------------------------------|----------------|------------------|------|----------------|------------------|------|--|
| | | (| 0800 - 0900 |) | 1630 – 1730 | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | |
| Α | A28 (NE) Templer Way | 16.8 | 60.5 | 0.96 | 8.3 | 34.0 | 0.90 | |
| В | Chart Road (East) | 13.5 | 128.7 | 0.97 | 4.8 | 56.2 | 0.84 | |
| С | Carlton Way (South) | 4.7 | 121.7 | 0.81 | 6.3 | 115.7 | 0.89 | |
| D | A28 (SW) Chart Road | 5.6 | 19.0 | 0.85 | 11.4 | 37.6 | 0.93 | |
| E | Sir Henry Brackenbury Road (NW) | 2.4 | 78.3 | 0.72 | 1.3 | 82.7 | 0.59 | |

- 7.52 During the identified AM and PM peak hours the junction is currently close to capacity with queues and delays.
- 7.53 **Table ID7.18** considers the implications of committed development at this roundabout



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Table ID7.18: Tank Roundabout (2023 Observed + Committed)

| | | А | M Peak Ho | ur | Р | PM Peak Hour | | | |
|-----|------------------------------------|----------------|------------------|------|----------------|------------------|------|--|--|
| | | | 0800 - 0900 |) | 1630 – 1730 | | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | | |
| Α | A28 (NE) Templer Way | 236.8 | 630.2 | 1.19 | 412.4 | 1215.7 | 1.38 | | |
| В | Chart Road (East) | 65.5 | 632.3 | 1.18 | 31.6 | 365.1 | 1.08 | | |
| С | Carlton Way (South) | 29.8 | 822.9 | 1.22 | 51.3 | 1030.1 | 1.32 | | |
| D | A28 (SW) Chart Road | 387.4 | 923.2 | 1.29 | 234.8 | 574.2 | 1.18 | | |
| E | Sir Henry Brackenbury Road (NW) | 74.4 | 6068.7 | 2.94 | 16.0 | 1199.8 | 1.32 | | |

- 7.54 As it can be seen unsurprisingly, adding additional traffic to the roundabout during the identified peak hours increases queuing and delays. This is significant on some arms of the roundabout.
- 7.55 **Tables ID7.19 and ID7.20** considers the implications of traffic associated with the Appeal Scheme at the roundabout for the main assessment scenario and the sensitivity test.

Table ID7.19: Tank Roundabout (2023 Observed + Committed + Dev)

| Table 107.19: Tank Roundabout (2023 Observed + Committed + Dev) | | | | | | | | | | |
|---|------------------------------------|----------------|------------------|------|----------------|------------------|------|--|--|--|
| | | A | M Peak Ho | ur | P | PM Peak Hour | | | | |
| | | (| 0800 - 0900 |) | | 1630 – 173 | 0 | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | | | |
| Α | A28 (NE) Templer Way | 253.4 | 679.8 | 1.21 | 447.4 | 1328.4 | 1.42 | | | |
| В | Chart Road (East) | 69.7 | 660.2 | 1.19 | 60.0 | 648.4 | 1.18 | | | |
| С | Carlton Way (South) | 28.9 | 793.5 | 1.20 | 52.8 | 1067.0 | 1.32 | | | |
| D | A28 (SW) Chart Road | 434.3 | 1034.4 | 1.33 | 264.5 | 643.7 | 1.20 | | | |
| Е | Sir Henry Brackenbury Road (NW) | 74.9 | 6172.5 | 2.97 | 16.8 | 1276.9 | 1.35 | | | |

Table ID7.20: Tank Roundabout (2023 Observed + Committed + Dev Sensitivity)

| T UDIC ID | 7.20. Talik Roulidabout | a i Deve | ononiny ny | | | | | |
|-----------|------------------------------------|----------------|-----------------------|------|----------------|------------------|------|--|
| | | А | M Peak Ho | ur | PM Peak Hour | | | |
| | | | 0800 - 0900 |) | 1630 – 1730 | | | |
| Arm | Approach | Queue (pcu) | Delay (s/pcu) | RFC | Queue (pcu) | Delay (s/pcu) | RFC | |
| Α | A28 (NE) Templer Way | 261.0 | 702.6 | 1.22 | 453.1 | 1346.2 | 1.42 | |
| В | Chart Road (East) | 72.2 | 677.8 | 1.20 | 66.2 | 710.6 | 1.21 | |
| С | Carlton Way (South) | 28.5 | 782.7 | 1.20 | 53.1 | 1073.8 | 1.32 | |
| D | A28 (SW) Chart Road | 455.2 | 1083.9 | 1.34 | 267.8 | 651.2 | 1.20 | |
| Е | Sir Henry Brackenbury Road (NW) | 75.1 | 6217.4 | 2.98 | 16.9 | 1289.3 | 1.36 | |



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7.56 Adding additional traffic associated with the Appeal Scheme would exacerbate the issues that would occur in the future at the roundabout due to traffic associated with the committed developments. However, this would not be significant taking into account the point made above that when RFC values are significantly above 1 then care must be taken when looking at the absolute values of predicted queues and delays.

7.57 In recognition that traffic associated with the Appeal Scheme would have implications for the operation of Tank Roundabout and based on the observations undertaken it is proposed to provide funding for the update of the traffic signal-controlled crossing to the south of the junction to upgrade the control system to MOVA and adding improved sensors to monitor pedestrian using the crossing. Improving northbound and southbound traffic flows at the crossing will offset any implications arising from the traffic associated with the Appeal Scheme at Tank Roundabout. This funding is being offered in association with the Appeal Scheme and can be secured through a planning obligation in the S106 Agreement.

A28 Longer Term Improvements

- 7.58 KCC's proposed improvement scheme for the A28 in contained in Appendix B of the TAA. The main elements of the scheme are:
 - A much larger roundabout to replace the existing Matalan Roundabout
 - Improvement of the Loudon Way traffic signals to provide two straight ahead lanes on the A28 in both directions
 - The replacement of the Tank Roundabout with a larger lozenge shaped roundabout.
 - The dualling of the A28 between the Matalan Roundabout and Tank Roundabout
- 7.59 These proposed improvements would significantly increase the capacity of the A28 and would accommodate the traffic associated with the Appeal Scheme.
- 7.60 KCC's proposed improvement scheme is extensive and is not required to mitigate the traffic associated with the Appeal Scheme which has a limited impact on the operation of this section of the A28 which can be mitigated through the proposed improvements being offered at Matalan Roundabout and Loudon Way traffic signals, together with the contribution to improve the pedestrian crossing to the south of Tank Roundabout.

Section Summary

- 7.61 The proposed site accesses would have sufficient capacity to safely accommodate future traffic flows.
- 7.62 Detailed analysis has been undertaken of the implications of traffic associated with the Appeal Scheme on the local roads around the site and there are no adverse impacts that need to be addressed. There are certainly no severe residual cumulative impacts.
- 7.63 Detailed analysis has also been undertaken of the three key junctions identified by KCC on the A28 with the following mitigation measures proposed:



- 1) Matalan Roundabout improvements at the roundabout and at the Loudon Way traffic signals to increase capacity at the junction
- 2) Loudon Way Traffic Signals improvements at the junction to increase capacity at both the Matalan Roundabout and the junction itself
- 3) Tank Roundabout a contribution to improve the crossing to the south of Tank Roundabout to increase the flow of traffic on the A28
- 7.64 In the light of the assessment work undertaken and the mitigation proposed, it is my view that the proposed development will not have an adverse impact on the operation of the local or strategic highway network, let alone the severe impact referred to in the NPPF.

 Accordingly, the proposed development is consistent with Local Plan Policy TRA7.



8.0 Strategic Road Network

- 8.1 As set out in Section 2 above, an assessment has been undertaken of the implications of the traffic associated with the Appeal Scheme on the Strategic Road Network (SRN) that is the responsibility of NH.
- 8.2 At the request of NH, this has been undertaken at J9, J10 and J10a of the M20 and on the A2070.
- 8.3 **Tables 8.1 and 8.2** show the level of traffic associated with the Appeal Scheme at these locations for the main assessment scenario and for the sensitivity test. As set out above, this is a robust assessment as it takes no account of the Vision-led approach that is proposed.

Table ID8.1: Strategic Road Network Implications - Main Assessment

| ou atog. o . | 1000 | • | | | | | |
|---------------|------|-------------------------|----------------------------|----|-----|-------|--|
| | | M Peak Ho (0730-0830 | M Peak Hour (1630-1730) | | | | |
| Junction/Road | In | Out | Total | ln | Out | Total | |
| M20 J9 | 5 | 14 | 19 | 17 | 9 | 27 | |
| M20 J10 | 0 | 1 | 2 | 1 | 1 | 2 | |
| M20 J10a | 0 | 1 | 1 | 1 | 0 | 1 | |
| A2070 | 0 | 2 | 2 | 2 | 1 | 3 | |

Table ID8.2: Strategic Road Network Implications - Sensitivity Test

| #1010 12 0121 Oli atog. 0 . | 11044 11011 | • · · · · · · · · · · · · · · · · · · · | | Constituty 1 Cot | | | |
|-----------------------------|-------------|---|-------|-----------------------------|-----|-------|--|
| | | M Peak Ho (0730-0830 | | PM Peak Hour (1630-1730) | | | |
| Junction/Road | In | Out | Total | In | Out | Total | |
| M20 J9 | 7 | 20 | 27 | 21 | 10 | 31 | |
| M20 J10 | 1 | 2 | 2 | 2 | 1 | 3 | |
| M20 J10a | 0 | 1 | 1 | 1 | 0 | 1 | |
| A2070 | 1 | 2 | 3 | 3 | 1 | 4 | |

- 8.4 The highest impacts is at M20 J9 and this is considered further below. Given the levels of predicted additional traffic at M20 J10 and J10a and on the A2070, no further assessment has been undertaken as the levels of additional traffic associated with the Appeal Scheme are negligible.
- 8.5 The 2032 total traffic at M20 J9 is 5,202 during the AM peak hour and 4,757 in the PM peak hour. The proportional impact for the main assessment being 0.37% and 0.58% respectively. For the sensitivity test the same proportional impacts are 0.52% and 0.65% respectively.
- 8.6 These are very low levels of additional traffic which would not have any impact on the operation of the junction and in any event would be offset by the measures in the Draft Residential Travel Plan.



Section Summary

8.7 There is no impact on the junctions on the SRN. As set out in Section 2 above, this is agreed by NH which has now confirmed that it has no objection to the Appeal Scheme being granted planning consent.



9.0 Summary and Conclusions

- 9.1 My evidence has considered the transport and highway issues in relation to the proposed development at Land North of Possingham Farmhouse, Ashford.
- 9.2 The Appeal Scheme is consistent with national and local transport related policies.
- 9.3 The appeal site is in a location that will be highly accessible for all modes of transport. There are a range of local facilities within reasonable walking and cycling distance of the site including primary and secondary school and the local centre in Chilmington Green. The proposed bus services provide connections to facilities further afield including the train station. There will be genuine alternative to travelling to service and facilities by car.
- 9.4 A package of transport related measures has been identified to further improve the accessibility of this sustainable site.
- 9.5 The proposed site accesses would safely accommodate traffic associated with the appeal scheme.
- 9.6 The planning application was supported by a Transport Assessment and a Transport Assessment Addendum. Further work has been undertaken which is presented in my evidence and which demonstrates that with the benefit of proposed mitigation measures offered the Appeal Scheme would not give rise to any severe highway or transport impacts.
- 9.7 Assessment have been undertaken which demonstrates that there would be no severe residual impact on the operation of the local road highway network around the Appeal Site.
- 9.8 On the A28 to the north of the Appeal Site, improvement schemes have been identified which would mitigate the implications of traffic associated with the Appeal Scheme and would provide wider benefits for all road users.
- 9.9 There would not be a material impact on the operation of the Strategic Road Network and NH has confirmed this.
- 9.10 There will be no severe residual cumulative impact arising from traffic associated with the Appeal Scheme and therefore in line with the guidance in the NPPF the proposed development should not be resisted on transport grounds.
- 9.11 I consider that planning consent for the Appeal Scheme can therefore be granted subject to appropriate conditions being included in any consent and appropriate planning obligations within a S106 Agreement.





Appendix ID1 Updated TRICS Output

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

Hodson Development Ltd

SLR Project No.: 425.001542.00001

10 September 2024



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Monday 05/08/24 Page 1

SLR Consulting Tottenham Court Road London Licence No: 529505

Calculation Reference: AUDIT-529505-240805-0832

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED MULTI-MODAL TOTAL VEHICLES

Selected regions and areas: 02 SOUTH EAST

SOUTH EAST

WS WEST SUSSEX 2 days

04 EAST ANGLIA

NORFOLK NF 4 days

06 WEST MIDLANDS

> STAFFORDSHIRE 1 days

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

SLR Consulting Tottenham Court Road London Licence No: 529505

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: 212 to 918 (units:) Range Selected by User: 200 to 1817 (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: 01/01/16 to 14/11/23

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:

Tuesday 3 days Wednesday 2 days Thursday 2 days

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

Selected survey types:

Manual count 7 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 6 Neighbourhood Centre (PPS6 Local Centre) 1

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

Selected Location Sub Categories:

Residential Zone 5
Village 1
Out of Town 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 9 days - Selected Servicing vehicles Excluded 16 days - Selected

Secondary Filtering selection:

Use Class:

C3 7 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

SLR Consulting Tottenham Court Road London Licence No: 529505

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

 75,001
 to 100,000
 2 days

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

Car ownership within 5 miles:

1.1 to 1.5 7 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 6 days 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 7 days

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

SLR Consulting Tottenham Court Road London Licence No: 529505

LIST OF SITES relevant to selection parameters

1 NF-03-A-23 MI XED HOUSES & FLATS NORFOLK

SILFIELD ROAD WYMONDHAM

Edge of Town Out of Town

Total No of Dwellings: 514

Survey date: WEDNESDAY 22/09/21 Survey Type: MANUAL

NF-03-A-30 MI XED HOUSES NORFOLK

BRANDON ROAD SWAFFHAM

Edge of Town Residential Zone

Total No of Dwellings: 266

Survey date: THURSDAY 23/09/21 Survey Type: MANUAL

B NF-03-A-39 MI XED HOUSES NORFOLK

HEATH DRIVE

HOLT

Edge of Town Residential Zone

Total No of Dwellings: 212

Survey date: TUESDAY 27/09/22 Survey Type: MANUAL

4 NF-03-A-46 MI XED HOUSES & FLATS NORFOLK

BURGH ROAD AYLSHAM

Edge of Town Residential Zone

Total No of Dwellings: 300

Survey date: TUESDAY 14/09/21 Survey Type: MANUAL

ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE

BEACONSIDE STAFFORD MARSTON GATE Edge of Town Residential Zone

Total No of Dwellings: 248

Survey date: WEDNESDAY 22/11/17 Survey Type: MANUAL

6 WS-03-A-11 MI XED HOUSES WEST SUSSEX

ELLIS ROAD
WEST HORSHAM
S BROADBRIDGE HEATH
Edge of Town
Residential Zone

Total No of Dwellings: 918

Survey date: TUESDAY 02/04/19 Survey Type: MANUAL

7 WS-03-A-21 MIXED HOUSES WEST SUSSEX

HILLAND ROAD BILLINGSHURST

Neighbourhood Centre (PPS6 Local Centre)

Village

Total No of Dwellings: 480

Survey date: THURSDAY 09/11/23 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.

MANUALLY DESELECTED SITES

| Site Ref | Reason for Deselection |
|------------|-------------------------------------|
| KC-03-A-07 | Proximity to Strategic Road Network |
| NF-03-A-38 | Distance from local amenities |

SLR Consulting Tottenham Court Road London

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): 1.67

| | ARRIVALS | | | [| DEPARTURES | , | TOTALS | | |
|---------------|----------|--------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.077 | 7 | 420 | 0.282 | 7 | 420 | 0.359 |
| 08:00 - 09:00 | 7 | 420 | 0.146 | 7 | 420 | 0.355 | 7 | 420 | 0.501 |
| 09:00 - 10:00 | 7 | 420 | 0.142 | 7 | 420 | 0.154 | 7 | 420 | 0.296 |
| 10:00 - 11:00 | 7 | 420 | 0.107 | 7 | 420 | 0.120 | 7 | 420 | 0.227 |
| 11:00 - 12:00 | 7 | 420 | 0.125 | 7 | 420 | 0.135 | 7 | 420 | 0.260 |
| 12:00 - 13:00 | 7 | 420 | 0.131 | 7 | 420 | 0.118 | 7 | 420 | 0.249 |
| 13:00 - 14:00 | 7 | 420 | 0.136 | 7 | 420 | 0.135 | 7 | 420 | 0.271 |
| 14:00 - 15:00 | 7 | 420 | 0.136 | 7 | 420 | 0.165 | 7 | 420 | 0.301 |
| 15:00 - 16:00 | 7 | 420 | 0.231 | 7 | 420 | 0.158 | 7 | 420 | 0.389 |
| 16:00 - 17:00 | 7 | 420 | 0.265 | 7 | 420 | 0.164 | 7 | 420 | 0.429 |
| 17:00 - 18:00 | 7 | 420 | 0.337 | 7 | 420 | 0.158 | 7 | 420 | 0.495 |
| 18:00 - 19:00 | 7 | 420 | 0.262 | 7 | 420 | 0.151 | 7 | 420 | 0.413 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 2.095 | | | 2.095 | | | 4.190 |

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: 212 - 918 (units:)
Survey date date range: 01/01/16 - 14/11/23

Number of weekdays (Monday-Friday): 7
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 3
Surveys manually removed from selection: 2

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.

SLR Consulting Tottenham Court Road London

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

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | I | DEPARTURES | , | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.002 | 7 | 420 | 0.003 | 7 | 420 | 0.005 |
| 08:00 - 09:00 | 7 | 420 | 0.005 | 7 | 420 | 0.005 | 7 | 420 | 0.010 |
| 09:00 - 10:00 | 7 | 420 | 0.002 | 7 | 420 | 0.001 | 7 | 420 | 0.003 |
| 10:00 - 11:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 11:00 - 12:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 12:00 - 13:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 13:00 - 14:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 14:00 - 15:00 | 7 | 420 | 0.002 | 7 | 420 | 0.001 | 7 | 420 | 0.003 |
| 15:00 - 16:00 | 7 | 420 | 0.003 | 7 | 420 | 0.003 | 7 | 420 | 0.006 |
| 16:00 - 17:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 17:00 - 18:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 18:00 - 19:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.018 | | | 0.017 | | | 0.035 |

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.

SLR Consulting Tottenham Court Road London

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

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | ARRIVALS | | | [| DEPARTURES | | TOTALS | | |
|---------------|----------|--------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.001 | 7 | 420 | 0.000 | 7 | 420 | 0.001 |
| 08:00 - 09:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 09:00 - 10:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 10:00 - 11:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 11:00 - 12:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 12:00 - 13:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 13:00 - 14:00 | 7 | 420 | 0.002 | 7 | 420 | 0.001 | 7 | 420 | 0.003 |
| 14:00 - 15:00 | 7 | 420 | 0.000 | 7 | 420 | 0.001 | 7 | 420 | 0.001 |
| 15:00 - 16:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 16:00 - 17:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 17:00 - 18:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 18:00 - 19:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.014 | | | 0.013 | | | 0.027 |

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.

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

MULTI-MODAL PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | | DEPARTURES | | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 08:00 - 09:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 09:00 - 10:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 10:00 - 11:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 11:00 - 12:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 12:00 - 13:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 13:00 - 14:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 14:00 - 15:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 15:00 - 16:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 16:00 - 17:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 17:00 - 18:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 18:00 - 19:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.001 | | | 0.001 | | | 0.002 |

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.

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

MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

| | | ARRIVALS | | [| DEPARTURES | 5 | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.003 | 7 | 420 | 0.007 | 7 | 420 | 0.010 |
| 08:00 - 09:00 | 7 | 420 | 0.003 | 7 | 420 | 0.016 | 7 | 420 | 0.019 |
| 09:00 - 10:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 10:00 - 11:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 11:00 - 12:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 12:00 - 13:00 | 7 | 420 | 0.002 | 7 | 420 | 0.002 | 7 | 420 | 0.004 |
| 13:00 - 14:00 | 7 | 420 | 0.003 | 7 | 420 | 0.001 | 7 | 420 | 0.004 |
| 14:00 - 15:00 | 7 | 420 | 0.003 | 7 | 420 | 0.003 | 7 | 420 | 0.006 |
| 15:00 - 16:00 | 7 | 420 | 0.007 | 7 | 420 | 0.002 | 7 | 420 | 0.009 |
| 16:00 - 17:00 | 7 | 420 | 0.007 | 7 | 420 | 0.004 | 7 | 420 | 0.011 |
| 17:00 - 18:00 | 7 | 420 | 0.010 | 7 | 420 | 0.009 | 7 | 420 | 0.019 |
| 18:00 - 19:00 | 7 | 420 | 0.011 | 7 | 420 | 0.006 | 7 | 420 | 0.017 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.055 | | | 0.056 | | | 0.111 |

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.

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

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | [| DEPARTURES | | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.088 | 7 | 420 | 0.387 | 7 | 420 | 0.475 |
| 08:00 - 09:00 | 7 | 420 | 0.172 | 7 | 420 | 0.588 | 7 | 420 | 0.760 |
| 09:00 - 10:00 | 7 | 420 | 0.164 | 7 | 420 | 0.198 | 7 | 420 | 0.362 |
| 10:00 - 11:00 | 7 | 420 | 0.133 | 7 | 420 | 0.155 | 7 | 420 | 0.288 |
| 11:00 - 12:00 | 7 | 420 | 0.158 | 7 | 420 | 0.174 | 7 | 420 | 0.332 |
| 12:00 - 13:00 | 7 | 420 | 0.168 | 7 | 420 | 0.149 | 7 | 420 | 0.317 |
| 13:00 - 14:00 | 7 | 420 | 0.180 | 7 | 420 | 0.168 | 7 | 420 | 0.348 |
| 14:00 - 15:00 | 7 | 420 | 0.182 | 7 | 420 | 0.210 | 7 | 420 | 0.392 |
| 15:00 - 16:00 | 7 | 420 | 0.393 | 7 | 420 | 0.211 | 7 | 420 | 0.604 |
| 16:00 - 17:00 | 7 | 420 | 0.399 | 7 | 420 | 0.230 | 7 | 420 | 0.629 |
| 17:00 - 18:00 | 7 | 420 | 0.487 | 7 | 420 | 0.223 | 7 | 420 | 0.710 |
| 18:00 - 19:00 | 7 | 420 | 0.376 | 7 | 420 | 0.216 | 7 | 420 | 0.592 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 2.900 | | | 2.909 | | | 5.809 |

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.

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

MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

| | | ARRIVALS | | I | DEPARTURES | | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.019 | 7 | 420 | 0.038 | 7 | 420 | 0.057 |
| 08:00 - 09:00 | 7 | 420 | 0.035 | 7 | 420 | 0.122 | 7 | 420 | 0.157 |
| 09:00 - 10:00 | 7 | 420 | 0.033 | 7 | 420 | 0.026 | 7 | 420 | 0.059 |
| 10:00 - 11:00 | 7 | 420 | 0.026 | 7 | 420 | 0.021 | 7 | 420 | 0.047 |
| 11:00 - 12:00 | 7 | 420 | 0.020 | 7 | 420 | 0.017 | 7 | 420 | 0.037 |
| 12:00 - 13:00 | 7 | 420 | 0.026 | 7 | 420 | 0.024 | 7 | 420 | 0.050 |
| 13:00 - 14:00 | 7 | 420 | 0.022 | 7 | 420 | 0.025 | 7 | 420 | 0.047 |
| 14:00 - 15:00 | 7 | 420 | 0.032 | 7 | 420 | 0.035 | 7 | 420 | 0.067 |
| 15:00 - 16:00 | 7 | 420 | 0.112 | 7 | 420 | 0.046 | 7 | 420 | 0.158 |
| 16:00 - 17:00 | 7 | 420 | 0.041 | 7 | 420 | 0.027 | 7 | 420 | 0.068 |
| 17:00 - 18:00 | 7 | 420 | 0.042 | 7 | 420 | 0.048 | 7 | 420 | 0.090 |
| 18:00 - 19:00 | 7 | 420 | 0.045 | 7 | 420 | 0.048 | 7 | 420 | 0.093 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.453 | | | 0.477 | | | 0.930 |

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.

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

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | [| DEPARTURES | 3 | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.001 | 7 | 420 | 0.023 | 7 | 420 | 0.024 |
| 08:00 - 09:00 | 7 | 420 | 0.000 | 7 | 420 | 0.009 | 7 | 420 | 0.009 |
| 09:00 - 10:00 | 7 | 420 | 0.001 | 7 | 420 | 0.004 | 7 | 420 | 0.005 |
| 10:00 - 11:00 | 7 | 420 | 0.001 | 7 | 420 | 0.004 | 7 | 420 | 0.005 |
| 11:00 - 12:00 | 7 | 420 | 0.002 | 7 | 420 | 0.005 | 7 | 420 | 0.007 |
| 12:00 - 13:00 | 7 | 420 | 0.002 | 7 | 420 | 0.003 | 7 | 420 | 0.005 |
| 13:00 - 14:00 | 7 | 420 | 0.003 | 7 | 420 | 0.001 | 7 | 420 | 0.004 |
| 14:00 - 15:00 | 7 | 420 | 0.004 | 7 | 420 | 0.003 | 7 | 420 | 0.007 |
| 15:00 - 16:00 | 7 | 420 | 0.014 | 7 | 420 | 0.002 | 7 | 420 | 0.016 |
| 16:00 - 17:00 | 7 | 420 | 0.011 | 7 | 420 | 0.001 | 7 | 420 | 0.012 |
| 17:00 - 18:00 | 7 | 420 | 0.009 | 7 | 420 | 0.000 | 7 | 420 | 0.009 |
| 18:00 - 19:00 | 7 | 420 | 0.005 | 7 | 420 | 0.000 | 7 | 420 | 0.005 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.053 | | | 0.055 | | | 0.108 |

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.

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

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | | DEPARTURES | 5 | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.000 | 7 | 420 | 0.008 | 7 | 420 | 0.008 |
| 08:00 - 09:00 | 7 | 420 | 0.000 | 7 | 420 | 0.006 | 7 | 420 | 0.006 |
| 09:00 - 10:00 | 7 | 420 | 0.000 | 7 | 420 | 0.003 | 7 | 420 | 0.003 |
| 10:00 - 11:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 11:00 - 12:00 | 7 | 420 | 0.000 | 7 | 420 | 0.002 | 7 | 420 | 0.002 |
| 12:00 - 13:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 13:00 - 14:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 14:00 - 15:00 | 7 | 420 | 0.001 | 7 | 420 | 0.000 | 7 | 420 | 0.001 |
| 15:00 - 16:00 | 7 | 420 | 0.003 | 7 | 420 | 0.000 | 7 | 420 | 0.003 |
| 16:00 - 17:00 | 7 | 420 | 0.004 | 7 | 420 | 0.000 | 7 | 420 | 0.004 |
| 17:00 - 18:00 | 7 | 420 | 0.006 | 7 | 420 | 0.000 | 7 | 420 | 0.006 |
| 18:00 - 19:00 | 7 | 420 | 0.005 | 7 | 420 | 0.000 | 7 | 420 | 0.005 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.020 | | | 0.020 | | | 0.040 |

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.

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

MULTI-MODAL COACH PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | I | DEPARTURES | | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 08:00 - 09:00 | 7 | 420 | 0.000 | 7 | 420 | 0.001 | 7 | 420 | 0.001 |
| 09:00 - 10:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 10:00 - 11:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 11:00 - 12:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 12:00 - 13:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 13:00 - 14:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 14:00 - 15:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 15:00 - 16:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 16:00 - 17:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 17:00 - 18:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 18:00 - 19:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.000 | | | 0.001 | | | 0.001 |

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.

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

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|------|--------|-------|--|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip | |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.001 | 7 | 420 | 0.031 | 7 | 420 | 0.032 | |
| 08:00 - 09:00 | 7 | 420 | 0.000 | 7 | 420 | 0.016 | 7 | 420 | 0.016 | |
| 09:00 - 10:00 | 7 | 420 | 0.001 | 7 | 420 | 0.007 | 7 | 420 | 0.008 | |
| 10:00 - 11:00 | 7 | 420 | 0.001 | 7 | 420 | 0.005 | 7 | 420 | 0.006 | |
| 11:00 - 12:00 | 7 | 420 | 0.002 | 7 | 420 | 0.006 | 7 | 420 | 0.008 | |
| 12:00 - 13:00 | 7 | 420 | 0.002 | 7 | 420 | 0.003 | 7 | 420 | 0.005 | |
| 13:00 - 14:00 | 7 | 420 | 0.003 | 7 | 420 | 0.001 | 7 | 420 | 0.004 | |
| 14:00 - 15:00 | 7 | 420 | 0.004 | 7 | 420 | 0.003 | 7 | 420 | 0.007 | |
| 15:00 - 16:00 | 7 | 420 | 0.018 | 7 | 420 | 0.003 | 7 | 420 | 0.021 | |
| 16:00 - 17:00 | 7 | 420 | 0.015 | 7 | 420 | 0.001 | 7 | 420 | 0.016 | |
| 17:00 - 18:00 | 7 | 420 | 0.015 | 7 | 420 | 0.001 | 7 | 420 | 0.016 | |
| 18:00 - 19:00 | 7 | 420 | 0.010 | 7 | 420 | 0.000 | 7 | 420 | 0.010 | |
| 19:00 - 20:00 | | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | | |
| Total Rates: | | | 0.072 | | | 0.077 | | | 0.149 | |

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.

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): 1.67

| | | ARRIVALS | | [| DEPARTURES | , | | TOTALS | |
|---------------|------|----------|-------|------|------------|-------|------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.111 | 7 | 420 | 0.463 | 7 | 420 | 0.574 |
| 08:00 - 09:00 | 7 | 420 | 0.210 | 7 | 420 | 0.742 | 7 | 420 | 0.952 |
| 09:00 - 10:00 | 7 | 420 | 0.200 | 7 | 420 | 0.232 | 7 | 420 | 0.432 |
| 10:00 - 11:00 | 7 | 420 | 0.162 | 7 | 420 | 0.183 | 7 | 420 | 0.345 |
| 11:00 - 12:00 | 7 | 420 | 0.182 | 7 | 420 | 0.199 | 7 | 420 | 0.381 |
| 12:00 - 13:00 | 7 | 420 | 0.198 | 7 | 420 | 0.178 | 7 | 420 | 0.376 |
| 13:00 - 14:00 | 7 | 420 | 0.208 | 7 | 420 | 0.195 | 7 | 420 | 0.403 |
| 14:00 - 15:00 | 7 | 420 | 0.221 | 7 | 420 | 0.251 | 7 | 420 | 0.472 |
| 15:00 - 16:00 | 7 | 420 | 0.530 | 7 | 420 | 0.262 | 7 | 420 | 0.792 |
| 16:00 - 17:00 | 7 | 420 | 0.462 | 7 | 420 | 0.262 | 7 | 420 | 0.724 |
| 17:00 - 18:00 | 7 | 420 | 0.554 | 7 | 420 | 0.280 | 7 | 420 | 0.834 |
| 18:00 - 19:00 | 7 | 420 | 0.442 | 7 | 420 | 0.270 | 7 | 420 | 0.712 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 3.480 | | | 3.517 | | | 6.997 |

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.

SLR Consulting Tottenham Court Road London

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

MULTI-MODAL CARS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | [| DEPARTURES | 5 | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.062 | 7 | 420 | 0.247 | 7 | 420 | 0.309 |
| 08:00 - 09:00 | 7 | 420 | 0.125 | 7 | 420 | 0.324 | 7 | 420 | 0.449 |
| 09:00 - 10:00 | 7 | 420 | 0.118 | 7 | 420 | 0.132 | 7 | 420 | 0.250 |
| 10:00 - 11:00 | 7 | 420 | 0.087 | 7 | 420 | 0.102 | 7 | 420 | 0.189 |
| 11:00 - 12:00 | 7 | 420 | 0.099 | 7 | 420 | 0.109 | 7 | 420 | 0.208 |
| 12:00 - 13:00 | 7 | 420 | 0.112 | 7 | 420 | 0.102 | 7 | 420 | 0.214 |
| 13:00 - 14:00 | 7 | 420 | 0.117 | 7 | 420 | 0.108 | 7 | 420 | 0.225 |
| 14:00 - 15:00 | 7 | 420 | 0.115 | 7 | 420 | 0.145 | 7 | 420 | 0.260 |
| 15:00 - 16:00 | 7 | 420 | 0.205 | 7 | 420 | 0.131 | 7 | 420 | 0.336 |
| 16:00 - 17:00 | 7 | 420 | 0.232 | 7 | 420 | 0.141 | 7 | 420 | 0.373 |
| 17:00 - 18:00 | 7 | 420 | 0.305 | 7 | 420 | 0.144 | 7 | 420 | 0.449 |
| 18:00 - 19:00 | 7 | 420 | 0.242 | 7 | 420 | 0.140 | 7 | 420 | 0.382 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 1.819 | | | 1.825 | | | 3.644 |

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.

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

MULTI-MODAL LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

| | | ARRIVALS | | [| DEPARTURES | 5 | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.012 | 7 | 420 | 0.030 | 7 | 420 | 0.042 |
| 08:00 - 09:00 | 7 | 420 | 0.014 | 7 | 420 | 0.021 | 7 | 420 | 0.035 |
| 09:00 - 10:00 | 7 | 420 | 0.019 | 7 | 420 | 0.018 | 7 | 420 | 0.037 |
| 10:00 - 11:00 | 7 | 420 | 0.018 | 7 | 420 | 0.017 | 7 | 420 | 0.035 |
| 11:00 - 12:00 | 7 | 420 | 0.023 | 7 | 420 | 0.022 | 7 | 420 | 0.045 |
| 12:00 - 13:00 | 7 | 420 | 0.017 | 7 | 420 | 0.014 | 7 | 420 | 0.031 |
| 13:00 - 14:00 | 7 | 420 | 0.017 | 7 | 420 | 0.025 | 7 | 420 | 0.042 |
| 14:00 - 15:00 | 7 | 420 | 0.019 | 7 | 420 | 0.017 | 7 | 420 | 0.036 |
| 15:00 - 16:00 | 7 | 420 | 0.019 | 7 | 420 | 0.021 | 7 | 420 | 0.040 |
| 16:00 - 17:00 | 7 | 420 | 0.029 | 7 | 420 | 0.019 | 7 | 420 | 0.048 |
| 17:00 - 18:00 | 7 | 420 | 0.028 | 7 | 420 | 0.012 | 7 | 420 | 0.040 |
| 18:00 - 19:00 | 7 | 420 | 0.015 | 7 | 420 | 0.008 | 7 | 420 | 0.023 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.230 | | | 0.224 | | | 0.454 |

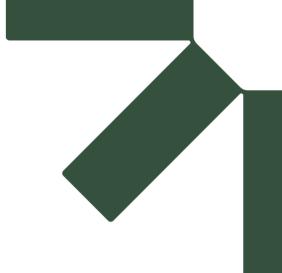
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are 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.

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

MULTI-MODAL MOTOR CYCLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

| | | ARRIVALS | | [| DEPARTURES | | TOTALS | | |
|---------------|------|----------|-------|------|------------|-------|--------|--------|-------|
| | No. | Ave. | Trip | No. | Ave. | Trip | No. | Ave. | Trip |
| Time Range | Days | DWELLS | Rate | Days | DWELLS | Rate | Days | DWELLS | 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 | 7 | 420 | 0.000 | 7 | 420 | 0.002 | 7 | 420 | 0.002 |
| 08:00 - 09:00 | 7 | 420 | 0.001 | 7 | 420 | 0.004 | 7 | 420 | 0.005 |
| 09:00 - 10:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 10:00 - 11:00 | 7 | 420 | 0.001 | 7 | 420 | 0.000 | 7 | 420 | 0.001 |
| 11:00 - 12:00 | 7 | 420 | 0.000 | 7 | 420 | 0.001 | 7 | 420 | 0.001 |
| 12:00 - 13:00 | 7 | 420 | 0.001 | 7 | 420 | 0.000 | 7 | 420 | 0.001 |
| 13:00 - 14:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 14:00 - 15:00 | 7 | 420 | 0.000 | 7 | 420 | 0.000 | 7 | 420 | 0.000 |
| 15:00 - 16:00 | 7 | 420 | 0.002 | 7 | 420 | 0.001 | 7 | 420 | 0.003 |
| 16:00 - 17:00 | 7 | 420 | 0.001 | 7 | 420 | 0.001 | 7 | 420 | 0.002 |
| 17:00 - 18:00 | 7 | 420 | 0.002 | 7 | 420 | 0.001 | 7 | 420 | 0.003 |
| 18:00 - 19:00 | 7 | 420 | 0.003 | 7 | 420 | 0.002 | 7 | 420 | 0.005 |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 0.011 | | | 0.012 | | | 0.023 |

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.



Appendix ID2 Draft Residential Travel Plan

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

Hodson Development Ltd

SLR Project No.: 425.001542.00001

10 September 2024







Framework Residential Travel Plan

Land at North of Possingham Farmhouse

Hodson Developments

Prepared by:

SLR Consulting Limited

3rd Floor, Summit House, 12 Red Lion Square, London, WC1R 4QH

SLR Project No.: 425.001542.00001

10 September 2024

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1.0 Introduction

Background

- 1.1 SLR are appointed by Hodson Developments (Applicant) to provide highways and transport advice in relation to a proposed development at Land at North of Possingham Farmhouse, Ashford Road Great Chart, Kent.
- 1.2 Ashford Borough Council (ABC) are the Local Planning Authority (LPA). Kent County Council (KCC) are the Local Highway Authority (LHA).
- 1.3 Outline planning application 22/00571/AS was submitted in April 2022 for:
 - "Outline application for the development of up to 655 residential dwellings (including 30% affordable dwellings) provision of new roads, footpaths, cycleways, installation of appropriate utilities, infrastructure (including Sustainable Drainage System (SuDS), car parking spaces, landscaping, within land north of Possingham Farmhouse, Ashford Road, Great Chart, Ashford."
- 1.4 The proposed development will create a logical and rational extension to the Chilmington Green development, completing the 'missing corner' adjacent to the A28.
- 1.5 The primary site access is proposed via a new road from the A28, opposite Old Surrenden Manor Road. A secondary site access, taken from the A28, is also proposed along the western boundary of the site.
- 1.6 This access strategy encourages sustainability by providing a link from the north of the development to the Chilmington Green development, which will include a District Centre, Local Centre as well as primary and secondary schools.

Residential Travel Plan

1.7 This Framework Residential Travel Plan (FRTP) has been prepared to set out specific aims and measures for the proposed residential development at Possingham Farm, Ashford. In due course, a Residential Travel Plan (RTP) will be prepared which adheres to the principles set out in this FRTP.

Structure of the Remainder of the Report

- 1.8 The report is structured as follows:
 - Section 2: Baseline Transport Conditions
 - Section 3: Transport Vision for Land at North of Possingham Farm
 - Section 4: Residential Travel Plan Strategic Goals
 - Section 5: Residential Travel Plan Management
 - Section 7: Measures & Initiatives
 - Section 8: Monitoring & Review



- Section 9: Action Plan; and,
- Section 10: Summary.



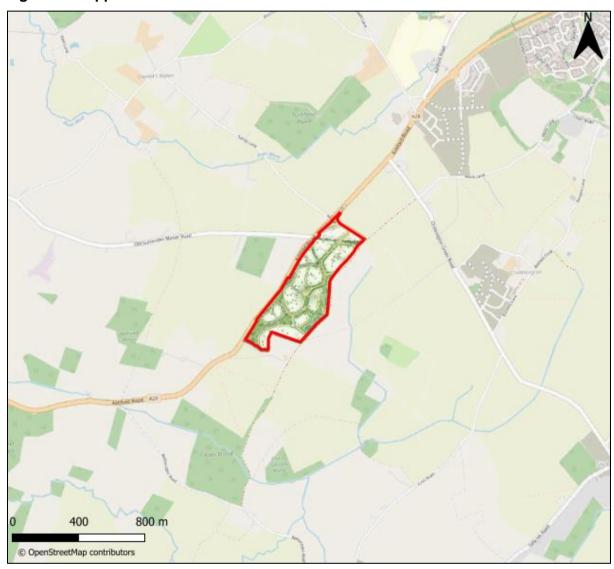
2.0 Baseline Transport Conditions

2.1 This section will set out the site location in terms of the surrounding rea, and the accessibility of the site by both car and non-car modes of transport.

Site Location

2.2 The site's location is shown in **Figure 2.1** below.

Figure 2.1: Application Site Location



- 2.3 It is important to note that the site's location is south of the Chilmington Green development (ref 12/00400/AS), which is currently under construction. This development consists of 5,750 residential units as well as commercial and educational facilities. Therefore, it can be said that this development will benefit from the access and facilities provided by the Chilmington Green development.
- 2.4 **Figure 2.2** shows the site in the context of the Chilmington Green development.



0 400 800 m

Figure 2.2: Strategic Site Location

Accessibility by Non-Car Modes

Walking and Cycling

2.5 **Figure 2.3** overleaf shows the Public Rights of Way (PROWs) within the vicinity of the site.



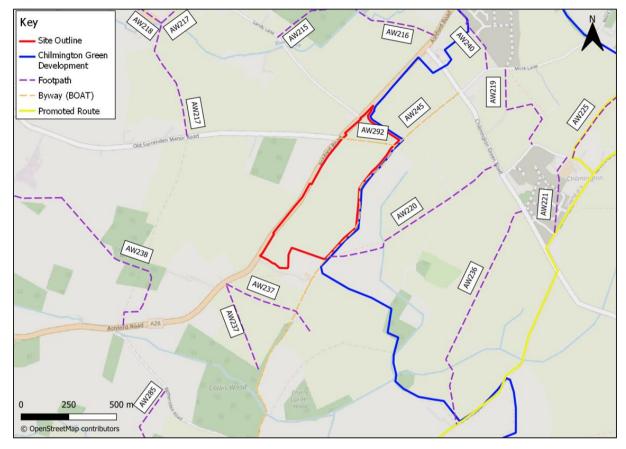


Figure 2.3: Public Rights of Way

- 2.6 As shown in **Figure 2.3** above, the site is bound by PROW AW245 to the east and PROW AW292 to the north. These are public byways which are open to all traffic, including pedestrians, cyclists and horses. These PROWs will facilitate access between the site and the Chilmington Green development.
- 2.7 Walking and cycling are considered the most suitable modes to replace short car trips particularly those under 2km for walking and 5km for cycling. More generally, 8km is widely recognised as an acceptable cycling distance.
- 2.8 In addition to the residential element of the scheme, the proposed development will deliver facilities for future residents and visitors of the site, including two proposed pairs of bus stops, play space and green areas on the site. These will be comfortably within the accepted walking distances.
- 2.9 Furthermore, the proposed development will benefit from facilities that will come forward as part of the Chilmington Green development that will be within these distances. The Land Use Plan submitted as part of the Chilmington Green application, shows the planned location of these facilities.
- 2.10 Given that Reserved Matters application(s) would have to be submitted and approved following a grant of outline planning permission, it is envisaged that the first houses at the proposed development would not be occupied before 2025-26



- 2.11 Based on a reasonable build out rate of 55 houses during the first year, following by 100 each year after that, the proposed development would then be fully built out after 7 years (2032-33).
- 2.12 By 2032-33, it is expected that 2,623 homes will be delivered at Chilmington Green. **Table 2.1** shows the triggers for when land uses at Chilmington Green are required to be delivered.

Table 2.1 – Land Use Triggers Chilmington Green

| Land Use | Planning Application Status | Anticipated Opening Year | Distance from Centre of Site (meters) | Walking Time (mins) | Cycling Time (mins) |
|--|---|---|---|---------------------------|---------------------------|
| Primary School | Primary School 1 | Primary School 1 – Open | 1732/1435 | 22 | 6 |
| Fillinary School | Consented and open | Primary School 2 – 2028–2029 | 1376 | 17 | 6 |
| Secondary School | | | 1090 | 14 | 4 |
| District Centre | Application submitted for District Centre OTH/2023/00 30 | Supermarket and Café 2025-2026 | 1753/1440 | 22 | 6 |
| Local Centre | Phase 3N | 2031-2033 | 1157 | 14 | 5 |
| Play Space 1 / Community Management Organisation (CMO) | Application submitted for Play Space 1 OTH/2023/00 20 | Temporary CMO building open Play Space 1 2024/25 | 2085/1758 | 26 | 7 |
| Community Hub (including CMO with GP Surgeries) | No application yet | 2029-2030 | 1,300 | 16 | 5 |
| Allotments | - | 2029-2030 | 821 | 10 | 3 |
| Discovery Park | Application submitted for the first 1 hectare OTH/2023/00 35 | 2026 | 2418 | 30 | 10 |



| Land Use | Planning Application Status | Anticipated Opening Year | Distance from Centre of Site (meters) | Walking Time (mins) | Cycling Time (mins) |
|---------------|--|--------------------------------|---|---------------------------|---------------------------|
| Cricket Pitch | Application submitted for Cricket Pitch OTH/2023/00 32 | 2026 | 1567 | 20 | 6 |

Note: Based on walking speed of 80m a minute and cycling speed of 250m a minute.

- 2.13 Based on the above, the following land uses are expected to be in place by 2032-33:
 - The District and Local Centres (including a supermarket, retail unit, office building, public house and a day nursery);
 - Chilmington Hamlet (including a cricket pitch, community pavilion, batting cage, bowling green and tennis court);
 - The Community Hub (including a community leisure building, family and social care facility, youth facility, community learning facility, police space, outdoor multi-use games centre and a health centre);
 - 2 Primary Schools (one of which is already open);
 - A Secondary School, due to open for 2025;
 - Discovery Park;
 - Allotments; and,
 - Bus Stops.
- 2.14 As detailed in **Table 2.1**, these amenities will be within a 2km walking distance or 5km cycling distance from the centre the site. This is illustrated within **Figures 2.4 and 2.5** below.



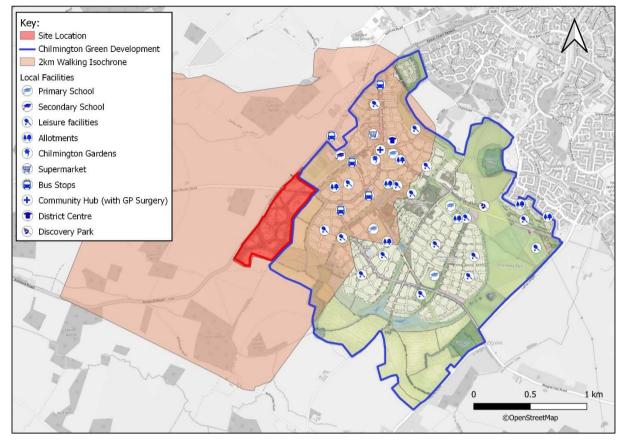


Figure 2.4: Amenities within a 2km Walking Distance

2.15 **Figure 2.4** shows that several day-to-day amenities within Chilmington Green, that are expected to be provided by the time the proposed development is fully built out, will be within walking distance.



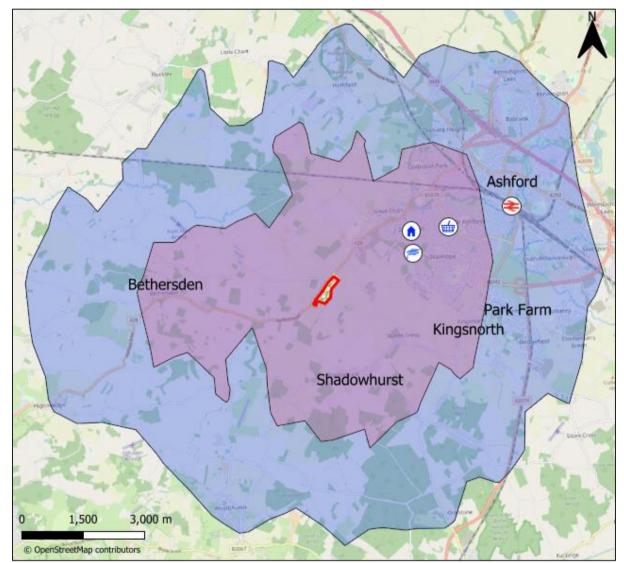


Figure 2.5: Amenities within a 5km and 8km Cycling Distance

2.16 **Figure 2.5** shows the additional facilities within Chilmington Green that are within cycling distance from the site, extending into Ashford town centre and the surrounding villages of Singleton, Bethersden, Shadowhurst and Kingsnorth and Park Farm.

Public Transport

Bus

- 2.17 The nearest bus stops are on Ashford Road. Spicer's Hill stop is 200m south of the southern edge of the site. New Street Farm stop is 630m north of the northern edge of the site. Both stops are served by bus service number two, linking the site with Ashford and Ashford International.
- 2.18 The frequency of the bus services near the site is summarised in **Table 2.2**.



Table 2.2: Frequency of Bus Services

| Bus Service | Route | Mon-Fri Times | Saturday Times |
|-------------|-----------------------------------|---|--|
| 2 | Tenterden & Rolveden – Ashford | 07:08, 07:54, 09:37, 11:52, 13:52, 16:05, 18:08, 19:13, 21:16 | 07:38, 09:37, 11:52, 13:52, 16:05, 18:08, 19:13, 21:16 |

- 2.19 The Chilmington Green development will also introduce a bus service running between Chilmington Green and Ashford International railway station and town centre. The locality of the nearest bus stops in relation to the site is detailed in **Table 2.2** above.
- 2.20 These services will extend into the proposed development, with two new pairs of bus stops proposed in the site. The location of these is shown in **Figure 2.6**.

Figure 2.6: Proposed Bus Stops (400m walking isochrones)



2.21 This service will provide regular buses to Ashford International rail station which, subject to confirmation of viability from operators, will be from two to four per hour.

Rail

2.22 The nearest railway station is Ashford International. This station is 4.8km away and is connected to the site by the number 2 bus service. However, with the development of Chilmington Green, further bus connections are expected to be completed. It is also important to note that the station is accessible by bicycle as shown in **Figure 2.6.**



2.23 This station provides frequent and direct connections with London city. The frequency of the rail services is summarised in **Table 2.3**.

Table 2.3: Frequency of Rail Services from Ashford International

| Operator | Destinations | Frequency per hour | | | |
|--------------|------------------------------------|--------------------|----------------|-------------|--|
| Operator | | Mon-Fri Times | Saturday Times | Sunday Time | |
| Southern | Eastbourne | 1 | 1 | 1 | |
| | London St Pancras International | 2 | 2 | 2 | |
| | London Charing Cross | 2 | 2 | 2 | |
| Southeastern | London Victoria | 1 | 1 | 1 | |
| | Margate | 1 | 1 | 1 | |
| | Ramsgate | 2-3 | 3 | 3 | |
| | Dover Priory | 2 | 2 | 2 | |

Local Highway Network

- 2.24 The site is bound to the west by the A28, providing direct access to Ashford and the M20, to the north. The A28 also links the site to a number of rural locations west of the site, such as Bethersden.
- 2.25 The M20 links the site with Folkestone and Dover to the south-east, and Maidstone and London to the north-west.
- 2.26 To the north of the site, the A28 links with Chilmington Green Road. This is a single carriageway road connecting the A28 to Stubbs Cross in the south. This is a rural road with a 60mph speed limit.
- 2.27 There are a further two roads linking the site with rural areas in the west, both of these roads have a junction with the A28, Old Surrender Manor Road and Sandy Lane.
- 2.28 As part of the Chilmington Green development, a new road will be constructed providing a link between the A28 and Chilmington Green Road to the east. This will be a single carriageway road with wider connections throughout the Chilmington Green development. The northern access of the site will connect to this road, to the east of the A28.
- 2.29 In addition, KCC are proposing an improvement scheme for the A28 Chart Road (between the Matalan roundabout and Tank roundabout). The scheme includes:
 - Changing the A28 into two lanes each way between the Tank and Matalan roundabouts:
 - Improvement of Tank roundabout, Matalan roundabout, Loudon Way junction and other intermediate side roads/accesses;



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- Using the existing railway bridge for the northbound carriageway with construction of a new railway bridge for the southbound carriageway
- Continuous shared footway and cycleways on both sides of the road; and,
- Additional controlled crossings, for pedestrians and cyclists, at Loudon Way/Chart Road junction and Chart Road north of Matalan roundabout
- 2.30 In association with the Chilmington Green application, a S106 contribution is to be provided towards this improvement scheme.



3.0 Transport Vision for Land at North of Possingham Farm

Vision

- 3.1 The Transport Vision for the Land North of Possingham Farm is to provide new homes in a sustainable environment with access to a variety of local services by a choice of transport modes thus reducing the demand for travel into the wider area and offering new residents a choice of mode of transport to the private car.
- 3.2 There will be high quality pedestrian and cycle routes within the site which will connect to similar facilities in the wider area and bus stops will be provided to allow bus services to pass through the site.
- 3.3 New residents on the site would be provided with broadband infrastructure to allow for home working. Safe and secure cycle parking and EV charging points will be available for all of the new homes to facilitate the cycling and the use of electric vehicles.
- 3.4 The Land North of Possingham Farm is immediately adjacent to the consented Chilmington Green sustainable urban extension which was approved by Ashford Borough Council in 2017 and is being implemented. Both National Highways as the strategic highway authority for the M20 and A2070 strategic road and Kent Council County as the local highway authority did not object to this planning consent being granted.
- 3.5 Within Chilmington Green there are wider variety of local services and facilities that are either existing or will be in place by the time there are new residents on the Land at Possingham Farm.
- 3.6 The Land North of Possingham Farm would become an extension to the Chilmington Green with access for pedestrians and cyclists to the facilities provided including primary and secondary schools, shop, employment opportunities and community facilities in the District Centre and to leisure facilities and to open space. Good quality pedestrian and cycle routes to these facilities will be provided.
- 3.7 In addition to this, a bus service will be provided to pass through the Land at North of Possingham Farm to provide a connection to Ashford railway station and town centre connecting to other facilities within the town and employment opportunities across a wider area.
- 3.8 This RTP has been prepared to set out how residents will be encouraged to use sustainable modes of transport, and how the future monitoring of this would take place to allow the Vision to be Validated.

Validate

- 3.9 To achieve the proposed Vision the following measures would be implemented:
 - 1) There will be a network of pedestrian and cycle routes designed in accordance with the appropriate national and local design standards within the proposed scheme to provide



routes to the following facilities that will be provided on the site. These would come forward in the Reserved Matters planning applications:

- Bus Stops (to ensure as far as is feasible that all the new dwellings are within 400m (5 minutes) walk of a bus stop
- Play Areas
- Open Space
- Provision of a route through the site between the site accesses to accommodate buses designed in line with KCC's Design Guidance
- 3.10 The provision of these facilities will form part of the future approval of Reserved Matters planning applications.
 - 2) The following pedestrian and cycle routes to existing facilities that will be in place prior to the first occupation of any residential unit on Possingham Farm:
 - Primary School
 - Secondary School
 - Foodstore in the District Centre
 - Temporary Community Facilities
- 3.11 The provision of the pedestrian and cycle routes to these facilities can be secured by planning conditions as they are either on land owned by the Appellant or they are on the public highway.
 - A bus service will be provided through the site prior to the occupation of the 100th
 residential unit to connect the site to Ashford town centre and railway station.
- 3.12 The provision of a bus service can be secured by a planning obligation in a S106 Agreement.
 - 4) The provision of a Residential Travel Plan for the site. The objectives of this are described above and this could either be secured by planning condition or obligation.
 - 5) Longer Term ie as the Chilmington Green scheme progresses additional facilities will become available with pedestrian and cycle routes to them including:
 - The remainder of the District Centre
 - CMO and permanent Community Facilities
 - Doctor Surgery
 - Allotments
 - Additional Green Space
 - Additional Play Areas
 - Discovery Park
 - Cricket Pitch
- 3.13 Access to these facilities will further enhance the sustainability of the site.



3.14 To provide certainty that the Vision would be achieved the pedestrian and cycle connections to local services both within and outside the site, the provision of bus services and the supporting infrastructure and the completion of the Travel Plan could be secured through a combination of future approval of Reserved Matters planning applications on the site and by planning conditions and obligations.



4.0 Residential Travel Plan Strategic Goals

- 4.1 The main aim of this FRTP is to put in place the tools necessary to enable residents to make informed decisions about travel, which minimises the adverse impacts of travel on the environment.
- 4.2 The RTP will be a working document and should be actively used and updated throughout the travel plan process.

Objectives

- 4.3 The transport principles for the proposed development reflect the following sustainable objectives:
 - Encouragement to use alternative modes of transport the single occupancy private car; and,
 - Increased awareness of the environmental and social benefits of using alternatives modes of transport including the significant health benefits.
- 4.4 The more detailed objectives of the Travel Plan are to:
 - Increase awareness of the advantages and availability of sustainable modes, but particularly active modes;
 - Actively promote sustainable transport options for travel to and from the proposed development, to enable informed decisions about how to travel is to be made;
 - Increase the use of active and sustainable travel modes (particularly for shorter trips), and to encourage people to build active travel into their everyday routines to support and contribute to wider health benefits:
 - Enhance as far as is practical, the accessibility of the proposed development by active modes at all times; and,
 - Raise awareness of the impacts of travel choices on health, the local environment etc.

Targets

- 4.5 To assess whether the RTP is successful in achieving its objectives, targets have been established. The targets set are SMART: Specific, Measurable, Achievable, Realistic and Time constrained.
- 4.6 There are two types of targets, namely: 'Action' and 'Aim' targets.
 - Action Targets: set out specific commitments to implement measures to ensure delivery.
 - Aim Targets: provide numerical goals for mode shift.



Action Targets

- 4.7 The key action targets are set out below:
 - A Travel Plan Co-ordinator (TPC) will be appointed prior to first occupation of the proposed development;
 - The first travel plan survey will be undertaken within six months of first occupation of the proposed development (to be carried out within a neutral month); and,
 - A finalised RTP, with updated modal split data, will be agreed within six months of first occupation of the proposed development.

Aim Targets

- 4.8 The aim targets are based centrally on reducing the car driver modal split proportion. In the absence of site-specific data, which will be available once the development is occupied and data can be gathered, census data is used in the interim to inform the mode split baseline and to set indicative future targets of the RTP.
- 4.9 To determine the mode share for the residential units Census 2011 Method of Travel to Work (QS701EW) data was obtained for Ashford 012. Whilst not all trips in the peak periods will be associated with employment, this represents the majority and is therefore considered appropriate. The mode share for the development is shown below in **Table 4.1**.

Table 4.1: Method of Travel to Work Modal Split

| Method of Travel | Mode Share |
|---------------------------|------------|
| Rail | 9% |
| Bus, minibus, or coach | 3% |
| Taxi | 1% |
| Motorcycle | 1% |
| Driving a car or van | 75% |
| Passenger in a car or van | 5% |
| Bicycle | 2% |
| On foot | 4% |
| Total | 100% |

Details: Mode categories 'working from home', 'other' and 'not in employment' have been removed.

- 4.10 For this Travel Plan, targets are set over a five-year period from the time of the initial baseline travel survey. The final target for this Travel Plan should be achieved by the fifth anniversary of this travel survey. There will be an interim review of the progress towards targets on the third anniversary of the initial baseline travel surveys.
- 4.11 The assumed mode split in **Table 4.1** has been used to derive the following targets set out in **Table 4.2** for the development once the RTP has been implemented. It has been determined that a 10% modal shift away from car drivers, which will bring car driver mode split to 60%, is achievable following the implementation of the travel plan. The reduction applied to car



driver mode split has been proportionally re-applied to the remaining active and shared mode splits.

Table 4.2: RTP Modal Split Aim Targets

| Method of Travel | Mode Share | Targets | | | |
|---------------------------|------------|---------|--------|--------|--------|
| Method of Travel | | Year 0 | Year 1 | Year 3 | Year 5 |
| Rail | 9% | 9% | 9% | 10% | 11% |
| Bus, minibus, or coach | 3% | 3% | 4% | 5% | 6% |
| Taxi | 1% | 0% | 0% | 0% | 0% |
| Motorcycle | 1% | 1% | 1% | 1% | 1% |
| Driving a car or van | 75% | 75% | 72% | 68% | 65% |
| Passenger in a car or van | 5% | 5% | 5% | 5% | 5% |
| Bicycle | 2% | 2% | 3% | 4% | 4% |
| On foot | 4% | 4% | 5% | 6% | 7% |
| Total | 100% | 100% | 100% | 100% | 100% |

4.12 If, after the baseline travel surveys have been carried out, it is found that the expected mode split is not appropriate, the targets will be adjusted to reflect the actual mode split.

Benefits

- 4.13 The achievement of the objectives will bring about a range of benefits for residents, including:
 - Health benefits associated with walking and cycling, including reduced levels of stress
 - The opportunity to save money by using alternative modes of travel to the car; and,
 - Improved quality and reliability of journeys.



5.0 Residential Travel Plan Management

5.1 This section outlines the key stakeholders for the RTP.

Travel Plan Co-ordinator

- 5.2 A TPC will be appointed to manage and implement the RTP within six months prior to occupation. The contact details of the TPC (i.e., name, address, telephone number, etc) will be provided to the appropriate contact at ABC. The TPC will be part of the site management team. Once the TPC has been appointed, the RTP will be updated to include their contact details.
- 5.3 Administration of the RTP will involve the maintenance of the necessary systems, data and paperwork, consultation and promotion associated with the implementation of the RTP. Regular updating of the RTP is part of the responsibility of the nominated TPC.
- 5.4 The TPC will establish and maintain a filing system to record all correspondence related to the RTP, the results of periodic monitoring and the results of each review.
- 5.5 The TPC will contact each resident within one month of their occupation to explain the purpose of the RTP and the opportunities on offer. The TPC's role includes:
 - Overall responsibility for delivering the RTP measures and monitoring strategy;
 - Leading the process of developing targets, implementation, and review;
 - Encouraging resident co-operation;
 - Liasing with ABC, and public transport operators;
 - Promoting the RTP to residents
 - Making travel information readily available; and,
 - Ensuring new residents are made aware of alternative travel opportunities.
- 5.6 It is anticipated that the amount of time that the TPC will spend on the RTP will vary according to the period of occupation, the organisation of activities and the extent of monitoring. It is not expected that the time dedicated will be uniform throughout the life of the RTP.
- 5.7 The TPC will act as a single point of contact for all transport, access and travel related issues for residential units within the development.

Site Management

5.8 The site management organisation post construction will have an interest in ensuring that the travel to/from the site is sustainable and that vehicular travel and parking activity at the site is effectively managed and controlled. Site management will be the first point of contact



for the TPC with regards to sustainable travel to the site, funding for marketing, other measures, and the monitoring of the RTP.

Ashford Borough Council & Kent County Council

5.9 ABC and KCC have an important role in supporting the RTP because of their duty of care and responsibility to the wider community. In addition, they have a responsibility for ensuring that the local transport network is well managed. These authorities will be consulted, where necessary, throughout the life of the RTP.

Residents

5.10 Residents are the most important stakeholders because they are the ones directly affected by the effectiveness of RTP implementation. The TPC and site management must work toward encouraging residents' interest and participation in RTP measures.



6.0 Measures and Initiatives

6.1 This section outlines the package of hard and soft measures to be implemented as part of the RTP.

Measures

Marketing & Awareness

- Residents will be made aware of the travel arrangements and the options associated with the site from the outset, as part of the sales and marketing process for the development.
- 6.3 Sales staff will be advised by the TPC on the purpose of the RTP and their roles in facilitating it through the sales department. An information pack will be provided to all potential residents at the showroom, detailing the RTP choices available to them at this development.
- The TPC will liaise with ABC, KCC and public transport operators where appropriate with regard green travel promotions.
- 6.5 Travel Plan notice boards will be located at suitable locations within the development.

 Pedestrian and cycle route information as well as timetables for walking buses and cycle trains will be provided. Public transport information such as buses and trains, and details of car free days organised either by ABC, KCC, or the TPC, will be displayed on these notice boards. These will be reviewed and updated on a regular basis by the TPC.
- 6.6 Included on the boards will be future events including but not limited to Walk to Work Week, Bike Week, and LiftShare.

Travel Welcome Pack

- 6.7 A Welcome Pack will be distributed to each household upon first occupation, and will include:
 - The name and contact details of the TPC;
 - An explanation of the purpose and benefits of the RTP;
 - Maps of walking and cycling routes to key destinations including information on discounted cycle schemes;
 - Timetables, route maps and ticketing information for public transport including information on discounted tickets;
 - Contact numbers and website details;
 - Contact details for local taxi and private hire companies;
 - Information about working from home;



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- Promotion of the benefits of home delivery; and,
- Location and contact details of nearby services.

Walking

- 6.8 The site will contain pedestrian (and cycle) links which improve the connectivity and permeability of the site to residents and the surrounding community at Chilmington Green. A network of high-quality signposted pedestrian (and cycle) routes will offer direct, safe, and convenient access around and through the site by foot (and cycle). Throughout the development, disabled access will be provided to ensure ease of access by the mobility impaired as well as people using pushchairs.
- 6.9 The TPC and site management will ensure that pedestrian routes are appropriately maintained.
- 6.10 The TPC will therefore encourage residents' participation in National Walking Month and Walk to School Month.

Cycling

- 6.11 Cycle parking will be provided to each household in accordance with local standards to encourage residents to cycle to and from the site.
- 6.12 Plans of cycle routes in the area will be made available to all residents by display on communal noticeboards, online information, and summary information in the Welcome Pack.
- 6.13 The TPC and site management will ensure that cycle routes are appropriately maintained through the site. Off-site, the TPC will liaise with KCC if a particular need for a cycle route or additional provision is identified.
- 6.14 The TPC will encourage residents to sign up to cycle training such as the Bikeability proficiency scheme promoted by the KCC. The developer will also investigate the potential to offer bicycle training vouchers to the new residents. This information will be relayed to occupants.
- 6.15 The TPC will contact local cycle shops to discuss the potential for discounts for new residents to either purchase of new bicycles or for the repair of existing bicycles. The potential for "Bike Doctor" events on the site will also be discussed with shop owners.
- 6.16 The TPC will encourage residents to find out whether their respective workplaces offer Cycle to Work incentives and take up the offer if it is available. The developer will investigate the potential for maintenance vouchers to be provided to new residents for their cycles.

Public Transport

6.17 Up-to-date details of public transport services including route information and service frequencies will be displayed on communal noticeboards throughout the site. Details of Trainline, Stagecoach, National Rail Enquiries will be provided in Welcome Packs.



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- 6.18 The TPC will hold discussions with local bus companies about the possibility of reduced "taster" tickets or similar to encourage the use of the proposed bus service to determine if this is feasible.
- 6.19 The TPC will encourage residents to ascertain whether their respective workplaces offer public transport season ticket loans and to take these up if appropriate.
- 6.20 Two bus stops will be provided within the proposed development within a 400m walk for all residents.

Cars

- 6.21 It is recognised that for some people, the car will continue to be an essential means of mobility. The Applicant will provide car parking in accordance with local parking standards to meet the needs of expected car ownership without facilitating excessive car ownership.
- 6.22 Car sharing aims to match commuting journeys allowing the individuals to benefit from the convenience of a car journey whilst reducing the cost of the journey and the number of vehicles on the network. The TPC will encourage more efficient usage of vehicles by encouraging more site-based drivers to share their journeys with passengers and other people travelling in the same direction. The TPC will encourage residents to sign up to the car sharing service, Liftshare. The developer will also investigate the potential for car clubs within the site.
- 6.23 Non-car owners may also require access to a private vehicle on occasion. The details of local taxi and private vehicle hire firms will be displayed on communal noticeboards and provided in Welcome Packs.

Other

- 6.24 There are other measures that can also reduce the need to travel. The TPC will encourage residents to take up flexible working and working from home where this is possible. This will work toward reducing peak time travel and/or overall levels of travel across a day.
- 6.25 The TPC will also encourage residents to use home delivery services provided by food retail supermarkets to avoid the need to travel.
- 6.26 Each house will be provided with a facility for broadband connection which enables communication and connectivity outside the home without the need to travel.

Funding for Measures

6.27 The site management post construction will provide the funding and resources in order for the TPC to implement the above measures.



7.0 Monitoring and Review

- 7.1 This section of the report sets out how the aim and action targets will be monitored and reviewed.
- 7.2 It is proposed that monitoring surveys in the form of questionnaires will be undertaken during neutral months to gauge the uptake of sustainable travel.

Monitoring

- 7.3 The RTP will be monitored for a period of five years. The baseline survey will be undertaken in Year 0 with monitoring surveys to follow in Years 1, 3, and 5. The baseline survey will take place within six months of first occupation.
- 7.4 The main reasons for monitoring the RTP are:
 - To measure the level of success in meeting identified targets using key performance indicators; and,
 - To provide feedback to the TPC and KCC so the RTP can be refined where necessary.

Monitoring Strategy

- 7.5 An initial baseline travel survey will be undertaken within six months of first occupation of dwellings on the site. Households and residents will be requested to complete a questionnaire to provide baseline travel data. The TPC will administer and collect the questionnaire, which will monitor the mode splits being achieved.
- 7.6 Further surveys will be carried out in Years 1, 3, and 5 to monitor progress towards the interim and final targets.
- 7.7 Further to the residential travel surveys, monitoring will also be undertaken of communal cycle parking utilisation, car parking utilisation and informal monitoring of the use of pedestrian and cycle routes within the site will be considered. The TPC will also keep records where possible of those who sign up to cycle training, engage in car sharing and report back on taking public transport ticket loans or participating in Cycle to Work schemes. This will be done informally by liaising with occupants.
- 7.8 Further to the information being collected across the selected monitoring years the collected data will be summarised into a monitoring report and given to the council for review.



8.0 Action Plan

- 8.1 The Action Plan outlined below in **Table 8.1** sets out the measures included within the RTP that are directed at influencing residents.
- 8.2 The action plan will be revised every year following each Travel Plan review.

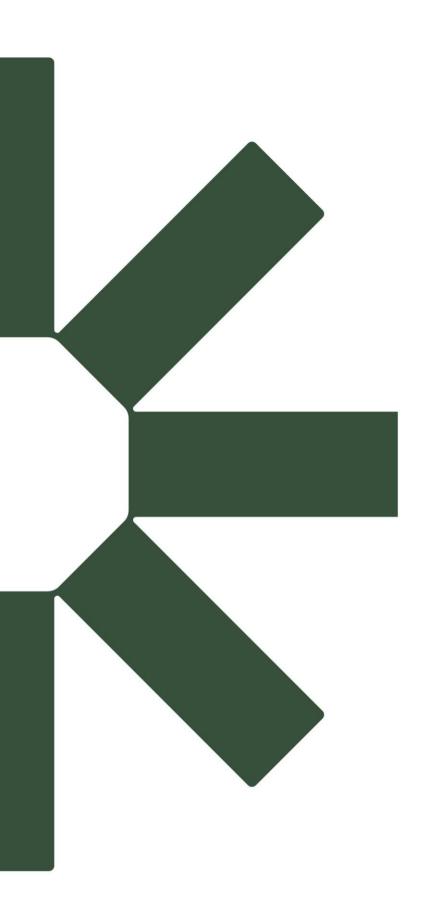


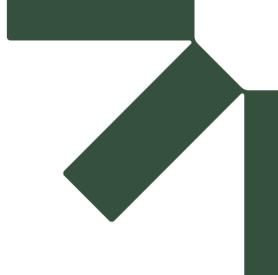
| | Table 8.1: Action Plan for Travel Plan Measures | | | | | | |
|--------------------------------|---|---|-----------------------------------|-----------------------------|--|--|--|
| Mode | Measure | Task | When | Whom | | | |
| All | Travel Plan Coordinator | Nominate a Travel Plan Coordinator | Prior to first occupation | Site Management | | | |
| All | Communal Noticeboards | Include travel information on communal noticeboards | On first occupation (and ongoing) | TPC | | | |
| All | Welcome Pack | Provide each household with a Welcome Pack | On first occupation | TPC | | | |
| Walking | Pedestrian Facilities | Ensure that walking facilities on- site remain in good condition for all site attendees | Ongoing | Site Management / TPC | | | |
| Walking | Events | Encourage participation in National Walking Month and Walk-to- School Month | Ongoing | TPC | | | |
| Cycling | Cycle Parking | Maintain cycle parking provision in good condition for residents and visitors to use | Ongoing | Site Management | | | |
| Cycling | Cycle Training | Promote cycle training initiatives offered by KCC | On first occupation / Ongoing | TPC | | | |
| Cycling | Cycle to Work Exemptions | Encourage residents to find out if their workplaces offer Cycle to Work incentives | On first occupation / Ongoing | TPC | | | |
| Cycling | Bicycle Purchase/ Repair | Contact local cycle shops to discuss the potential for discounts for new residents for either the purchase of new bicycles or the repair of existing bicycles. | On first occupation / Ongoing | TPC | | | |
| Cycling | Bicycle Maintenance | The potential for "Bike Doctor" events on the site will also be discussed with shop owners. | Ongoing | TPC | | | |
| Public Transport | Bus Stop | Provision of Bus Stops within the site to encourage travel via bus | On first occupation / Ongoing | Site Management / TPC | | | |
| Public Transport | Encouraging Use of Public Transport | Post information on public transport (e.g., timetables, mapping, etc) on communal noticeboards and on the internet | Ongoing | TPC | | | |
| Public Transport | Subsidised bus travel | Discussions with local bus companies about the possibility of reduced "taster" tickets or similar to encourage the use of the proposed bus service to determine if this is feasible | On first occupation / Ongoing | TPC | | | |
| Car | Car Sharing | Promote Liftshare.com to residents | Ongoing | TPC | | | |
| Taxi / Private Vehicle Hire | Enabling Car Mobility | Provide the details of local taxi and private hire vehicle firms for people requiring vehicular access. | Ongoing | TPC | | | |
| Taxi / Private Vehicle Hire | Car Club Vehicles | Investigate the use of car clubs. | Ongoing | TPC | | | |



| | Table 8.1: Action Plan for Travel Plan Measures | | | | | | |
|-------|---|--|---|-----|--|--|--|
| Other | Flexible Working | Encourage residents to participate in flexible working and working from home where this is possible. | Ongoing | TPC | | | |
| Other | Home Delivery | Provide the details of local retail and food retail companies that provide home delivery services. | Ongoing | TPC | | | |
| All | Monitoring & Review | Undertake the baseline and follow up surveys | As per the monitoring and review strategy | TPC | | | |
| All | Monitoring & Review | Review the effectiveness of the RTP and suggest remedial measures if appropriate | As per the monitoring and review strategy | TPC | | | |







Appendix ID3 Pedestrian and Cycle Routes – Prior to First Occupation

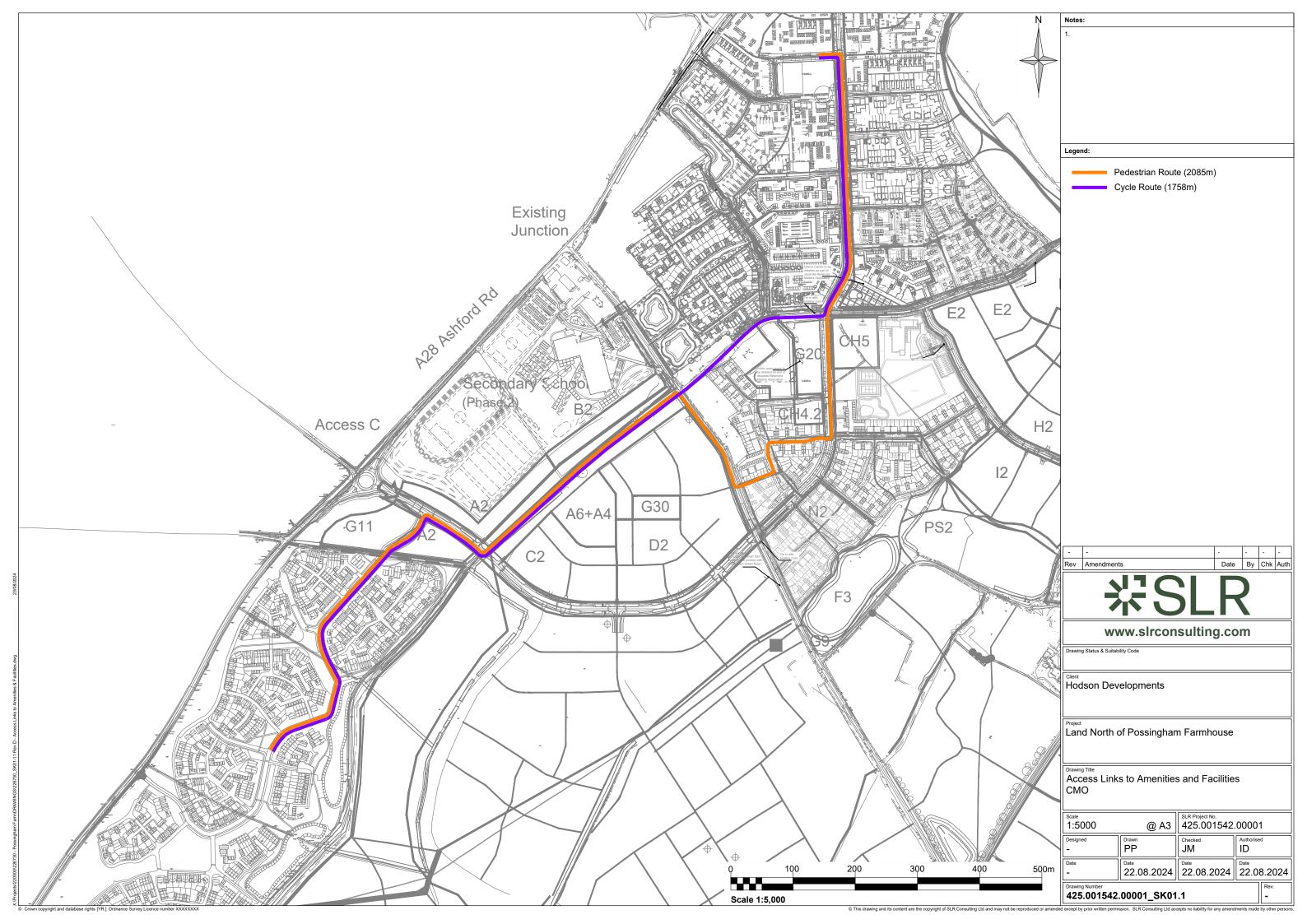
Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

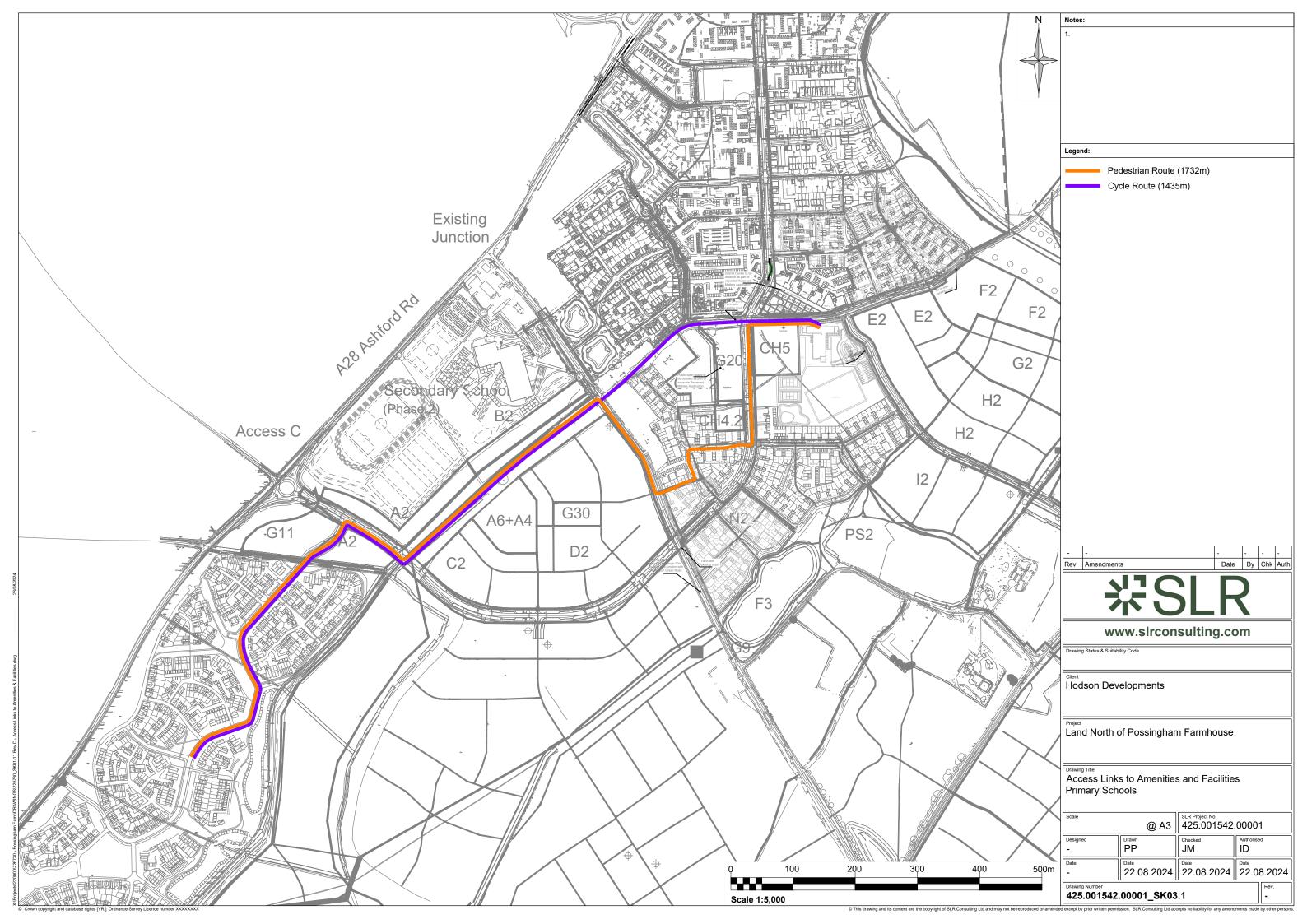
Hodson Development Ltd

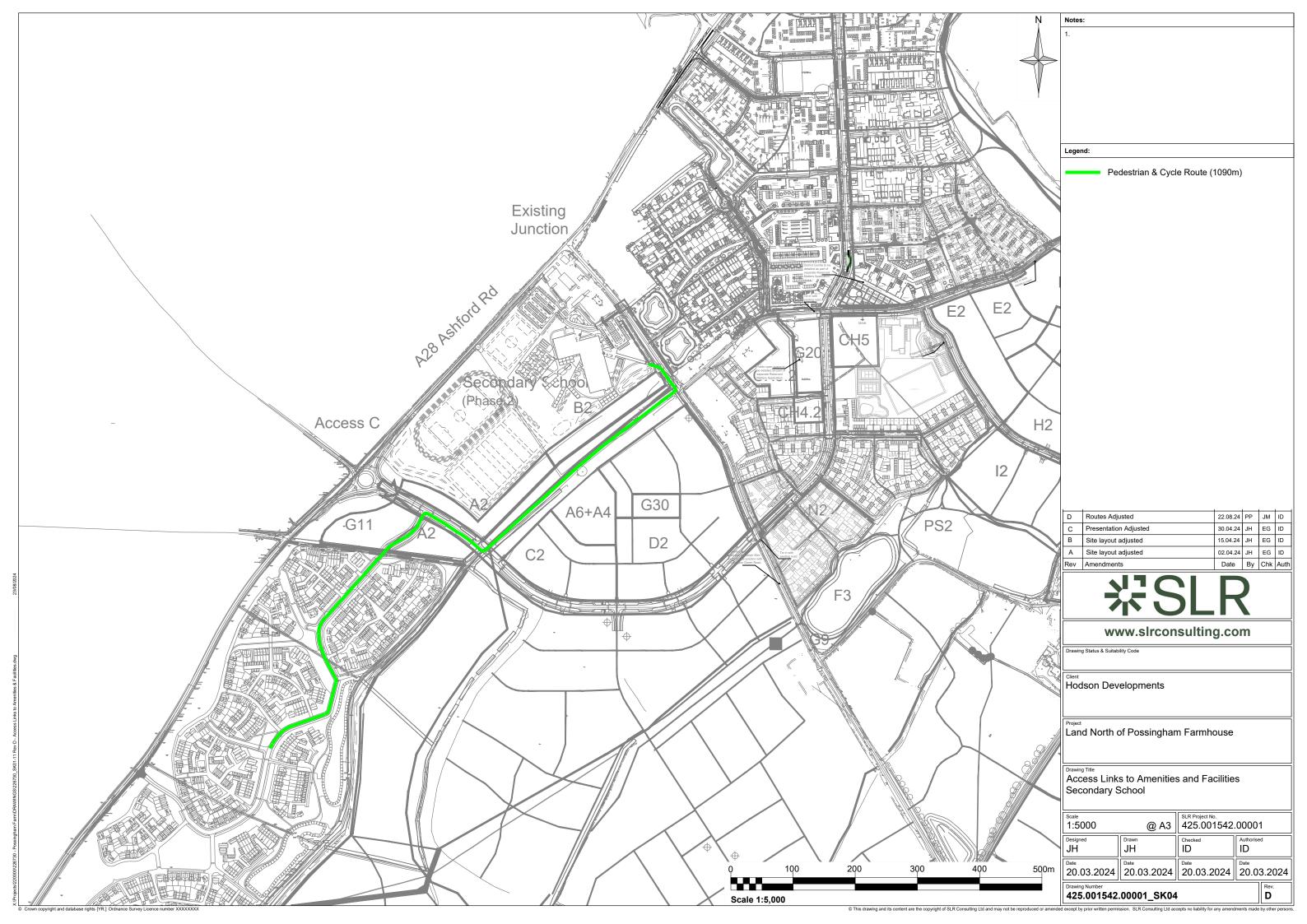
SLR Project No.: 425.001542.00001

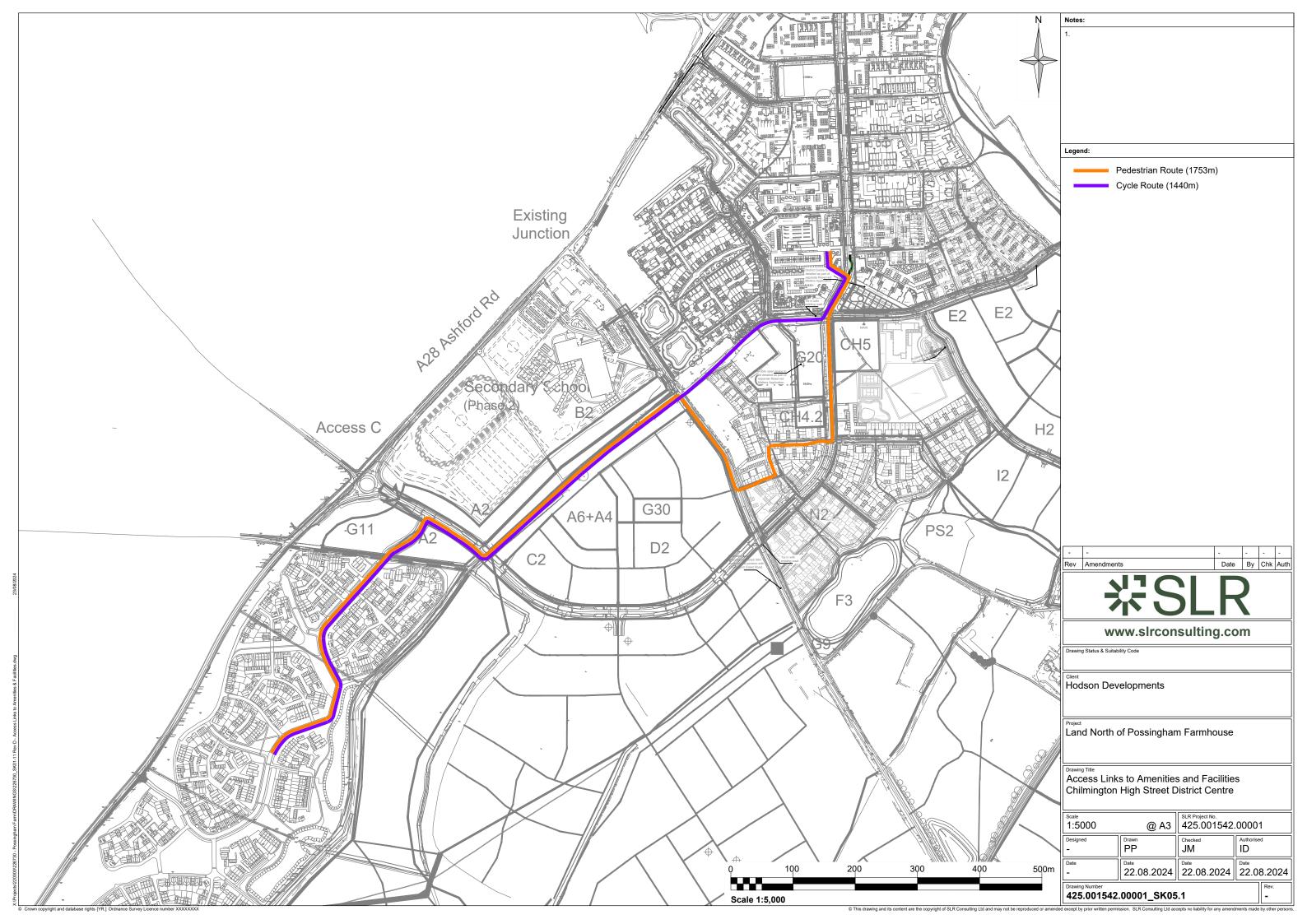
10 September 2024













Appendix ID4 Pedestrian and Cycle Routes – Chilmington Green

Land North of Possingham Farmhouse, Ashford, Great Chart, Kent

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10 September 2024



