

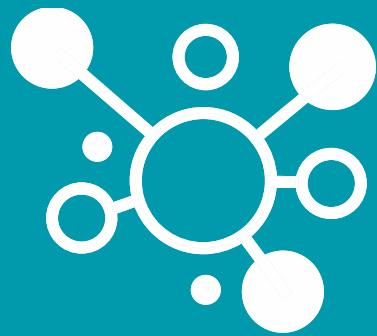
Client:  
**Richborough**

Project:  
**Land East of Wrotham Road  
Meopham**

Project No:  
**T25512**  
Report Title:  
**Transport Assessment**

Prepared by: MJ  
Authorised by: GM  
Rev: B  
Date: 23/09/2025

**Hub Transport Planning Ltd**  
Floor 1B  
4 Temple Row  
Birmingham  
B2 5HG  
T. 0121 454 5530



## TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	PLANNING CONTEXT	2
3.0	PLANNING POLICY AND GUIDANCE	4
4.0	BACKGROUND INFORMATION	8
5.0	SUSTAINABLE TRAVEL	13
6.0	DEVELOPMENT PROPOSALS	24
7.0	TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT	31
8.0	TRAFFIC IMPACT	33
9.0	SUMMARY AND CONCLUSION	38

### FIGURES

Figure 1.1	Site Location Plan
Figure 5.1	Walking Distances
Figure 5.2	Local Facilities
Figure 5.3	Cycling Distances
Figure 5.4	ATE Audited Routes

### DRAWINGS

T25512.001 Rev F	Proposed Site Access with Visibility Splays
T25512.002 Rev E	Proposed Site Access with Swept Path Analysis
T25512.002.01 Rev A	Proposed Site Access with Swept Path Analysis 02
T25512.003	Proposed Emergency Access with Swept Path Analysis

---

T25512.004

**Junction Measurements**

**APPENDICES**

<b>Appendix A</b>	<b>KCC Pre-Application Response and Meeting Minutes</b>
<b>Appendix B</b>	<b>Personal Injury Accident Data</b>
<b>Appendix C</b>	<b>LTN 1/20 Walking and Cycling Audit</b>
<b>Appendix D</b>	<b>Illustrative Development Framework Plan</b>
<b>Appendix E</b>	<b>Highway Boundary Extent</b>
<b>Appendix F</b>	<b>Stage 1 Road Safety Audit &amp; Designers Response</b>
<b>Appendix G</b>	<b>Manual for Streets Visibility Splay Calculations</b>
<b>Appendix H</b>	<b>TRICS Output</b>
<b>Appendix I</b>	<b>Traffic Distribution</b>
<b>Appendix J</b>	<b>Traffic Survey Data</b>
<b>Appendix K</b>	<b>Network Flow Diagrams</b>
<b>Appendix L</b>	<b>TEMPro Growth Factors</b>
<b>Appendix M</b>	<b>Junction Model Outputs</b>

**THIS PAGE IS LEFT INTENTIONALLY BLANK**

## 1.0 Introduction

### Background

- 1.1 Hub Transport Planning Ltd has been commissioned by Richborough to provide transport advice for a proposed residential development on land east of Wrotham Road, Meopham, Kent.
- 1.2 The proposals will be submitted as an outline planning application for the erection of up to 350 residential dwellings, public open space and associated works. Approval is sought for the principal means of vehicular access from Wrotham Road and all other matters are reserved.
- 1.3 The site location is shown on **Figure 1.1**.

### Structure of the Report

- 1.4 This Transport Assessment (TA) is intended to present and assess the relevant highway elements of the proposed development to Kent County Council (KCC), as the Local Highway Authority, with reference to the potential level of impact on the local highway network.
- 1.5 This TA is accompanied by a Travel Plan (TP) which presents a package of measures to increase the uptake of sustainable travel from early occupation. Both documents should be read in conjunction with one another.
- 1.6 Following this introduction, the report is set out as follows:
  - Section 2.0 – Planning Context;
  - Section 3.0 – Planning Policy and Guidance;
  - Section 4.0 – Background Information;
  - Section 5.0 – Sustainable Travel;
  - Section 6.0 – Development Proposals;
  - Section 7.0 – Traffic Generation, Distribution and Assignment;
  - Section 9.0 – Summary and Conclusion.

### Limitations of the Report

- 1.7 This report has been undertaken at the request of Richborough, thus should not be entrusted to any third party without written permission from Hub Transport Planning Ltd. However, should any information contained within this report be used by any unauthorised third party, it is done so entirely at their own risk and shall not be the responsibility of Hub Transport Planning Ltd.
- 1.8 This report has been compiled using data from several external sources (such as TRICS and public transport information); these sources are considered trustworthy and therefore the data provided is considered accurate and relevant at the time of preparing this report.

## 2.0 Planning Context

### Background

- 2.1 At the time of writing, Richborough are also preparing a planning application for a proposed residential development of up to 120 dwellings on land south of Longfield Road, to the west of the proposed development, also supported by Hub.
- 2.2 Whilst both proposals are being progressed as separate planning applications, this TA considers the potential cumulative impacts of the land south of Longfield Road proposals.
- 2.3 On that basis, both planning applications will consider future scenarios where the other development comes forward (subject to planning permission), on a similar timescale and each will consider the other as a committed development for testing purposes.

### Pre-Application Engagement

- 2.4 Hub produced a Transport Assessment Scoping Report (TASR) for KCC in May 2025, outlining the principles for the proposed development and the proposed methodology for assessment.
- 2.5 KCC provided a response to the TASR on 10/06/2025 (Document Ref: PAP/2025/22). The key comments are summarised below with the full response included at **Appendix A**.
  - Unknown whether Gravesham Borough Council (GBC) have adopted the new KCC parking standards (Jan 2025). They currently use the standards in SPG4.
  - Cycle facilities should be provided in accordance with LTN 1/20 and any bus priority measures are in line with LTN 1/24. Any departure from these standards should be justified.
  - Consideration should be given to whether people are likely to drive to Ebbsfleet station for the highspeed line to St Pancras of southeast Kent.
  - Confirm bus journey times to key local facilities and whether they serve Meopham and Ebbsfleet railway stations.
  - Explore potential to improve bus service provision, and ideally a public transport strategy should be formed with other emerging sites within the area to ensure the site does not prohibit future development.
  - Provide information on major employment sites.
  - Provide a Walking and Cycling Audit of the routes to/from key local facilities. Any improvements to existing routes should be provided on a scaled plan so that they can be condition to any planning permission granted.
  - Queried the size of the access given the proposals are for residential development.
  - Consideration should be given to the proposed crossing points, as well as extending and widening the footway along the entire length of the site to accommodate both pedestrians and cyclists.
  - Proposals to be accompanied by a Stage 1 Road Safety Audit report and designers' response.
  - Further consideration needs to be given to on-site parking proposals for Camer Parade/local schools to discourage further driving.

- Trip distribution and modelling should be undertaken in line with the Kent Transport Model (KTM)/Gravesham Transport Model (GTM).
- Whilst the application is outline, the principles of the site in regard to parking should be set out in the TA.

2.6 A pre-application meeting was undertaken with KCC on 26/06/2025. Key supplemental points to those raised in the initial pre-application response are summarised below, with the agreed minutes from the meeting provided at **Appendix A**.

- Proposals should be based on a 'vision-led' approach as opposed to a 'predict and provide' approach in accordance with the latest National Planning Policy Framework.
- Make reference to both the SPG4 parking standards, and new KCC standards.
- Emphasised the importance of engaging with applicants/consultants from forthcoming local developments to create an aligned approach to off-site mitigation works and contributions.
- Confirmed it would be acceptable to provide smaller junction radii of 6m, however the width of the road should be maintained at 6.75m to 'future proof' the site.

2.7 This TA seeks to address the comments received from KCC during the pre-application stage, although it should be noted that given the submission timescales, some of these requests will be provided as part of a forthcoming Transport Assessment Addendum (TAA), detailed later in this report.

## 3.0 Planning Policy and Guidance

### Introduction

3.1 A review of key, national and local policy and guidance that is relevant to the proposed development has been undertaken and is presented within this chapter.

### National Planning Policy Framework

3.2 The latest National Planning Policy Framework (NPPF) was published in December 2024 and sets out the Government's planning policies and how these are expected to be applied.

3.3 The most relevant paragraphs to the proposed development are 109, 112, 115, 116, 117 and 118, which are detailed in **Table 1**.

**Table 1: Relevant paragraphs from the NPPF**

Paragraph Ref	Description
109	<p>Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places. This should involve:</p> <ul style="list-style-type: none"> <li>making transport considerations an important part of early engagement with local communities;</li> <li>ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places;</li> <li>understanding and addressing the potential impacts of development on transport networks;</li> <li>realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;</li> <li>identifying and pursuing opportunities to promote walking, cycling and public transport use; and</li> <li>identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.</li> </ul>
112	<p>If setting local parking standards for residential and non-residential development, policies should take into account:</p> <ul style="list-style-type: none"> <li>the accessibility of the development;</li> <li>the type, mix and use of development;</li> <li>the availability of and opportunities for public transport;</li> <li>local car ownership levels; and</li> <li>the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.</li> </ul>
115	<p>In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:</p> <ul style="list-style-type: none"> <li>sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;</li> <li>safe and suitable access to the site can be achieved for all users;</li> <li>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</li> <li>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.</li> </ul>

**T25512**

## Land East of Wrotham Road, Meopham

Paragraph Ref	Description
116	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, following mitigation, would be severe, taking into account all reasonable future scenarios.
117	Within this context [related to paragraph 116], applications for development should: <ul style="list-style-type: none"> <li>give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;</li> <li>address the needs of people with disabilities and reduced mobility in relation to all modes of transport;</li> <li>create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;</li> <li>allow for the efficient delivery of goods, and access by service and emergency vehicles; and</li> <li>be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.</li> </ul>
118	All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.

3.4 This report is consistent with the statutory obligations outlined within the NPPF. This assessment considers how residents will be able to access the site safely and sets out the existing opportunities around the site to travel via alternative modes to the private car.

3.5 Notwithstanding this, the assessment also considers the level of vehicular trips to the site, and the potential level of impact this could have on the local highway network.

### KCC Local Transport Plan

3.6 KCC's Local Transport Plan (LTP5), adopted in December 2024, sets out the strategic long-term vision for transport and accessibility within the county over the plan period (2024-2037).

3.7 The LTP5 document focuses on the following ambitions:

*"We want to improve the health, wellbeing, and economic prosperity of lives in Kent by delivering a safe, reliable, efficient and affordable transport network across the country and as an international gateway..."*

*"We will do this by delivering emission-free travel by getting dedicated infrastructure to electrify vehicles, increase public transport use and make walking and cycling attractive."*

3.8 The key transportation and highway policies that are most applicable to the proposed development are outlined in **Table 2**.

**Table 2: Relevant paragraphs and policies from Kent Local Transport Plan 5**

Policy Ref	Description
Policy Objective 2	<p>A) Achieve a fall over time in the volume of people killed or very seriously injured on KCC's managed road network, working towards the trajectory set by Vision Zero for 2050.</p> <p>Outcome: Deliver our Vision Zero road safety strategy through all the work that we do.</p>

Policy Ref	Description
Policy Objective 5	<p>B) Reduce the amount of forecast future congestion and crowding on highways and public transport that is associated with demand from development by securing funding and delivery of our Local Transport Plan.</p> <p>Outcome: Deliver a transport network that is quick to recover from disruptions and future-proofed for growth and innovation, aiming for an infrastructure-first approach to reduce the risk of highway and public transport congestion due to development.</p>
Policy Objective 8	<p>A) We will aim to obtain further funding to deliver the outcomes of our Bus Services Improvement Plan (or its successor) beyond its current horizon of 2024/25. We will ensure that our Local Transport Plan proposals are clearly evidenced in terms of their contribution towards achieving our Bus Service Improvement Plan.</p> <p>Outcome: A growing public transport system supported by dedicated infrastructure to attract increased ridership, helping operators to invest in and provide better services.</p>
Policy Objective 9	<p>A) We will aim to deliver walking and cycling improvements at prioritised locations in Kent to increase activity levels and support Kent's diverse economy, presented in a Kent Cycling and Walking Infrastructure Plan.</p> <p>Outcome: Health, air quality, public transport use, congestion and the prosperity of Kent's high streets and communities will be improved by supporting increasing numbers of people to use a growing network of dedicated walking and cycling routes.</p>

### KCC Design Guide

- 3.9 The KCC Design Guide (HDG), adopted in 2006, is the leading guidance document for highways design in Kent for new developments.
- 3.10 Considering the proposals are for outline permission, except for details of access, the design guide has been used to inform the access arrangements, detailed and referenced to later in this report.
- 3.11 Further use of (and reference to) the HDG will be undertaken as the proposals evolve to the detailed planning stage. The final proposals will be designed in accordance with the technical specifications presented in the HDG, including but not limited to, internal road layout, and serving and delivery arrangements.

### KCC Parking Standards

- 3.12 The KCC Parking Standards document was formally adopted in January 2025 and replaces the previously used standards adopted in 2006.
- 3.13 The guidance sets out the parking standards for new developments in Kent and seeks to balance the need to provide an appropriate parking provision, ensure the safe operation of the local highway and encourage sustainable travel.
- 3.14 It is not yet clear whether Gravesham Borough Council (GBC) has adopted the new parking standards, or whether they continue to utilise the superseded KCC standards from 2006.
- 3.15 Considering this, and from pre-application discussions with KCC, both documents will be reviewed as part of this TA to set out the principles for parking on site, however it is considered likely that the Gravesham standards will be used for assessment.
- 3.16 The detailed schedule of accommodation remains to be detailed as part of a reserved matters planning application. Once the detailed schedule of accommodation is known, as well as the formal parking standards adopted by GBC, the finalised level and type of parking will be provided.

**T25512**

## Land East of Wrotham Road, Meopham

### Gravesham Local Plan Core Strategy

3.17 The GBC Local Plan Core Strategy was formally adopted in September 2014 and sets out the long-term spatial vision for the Borough during its plan period (April 2011-March 2028).

3.18 The document outlines the strategic objectives for the borough based on the characteristics of the area and the key issues to be addressed.

3.19 Whilst the Local Plan Core Strategy is an overarching spatial document, it does include policies relating to transport.

3.20 The key policies relating to transport that are considered within this report are summarised in **Table 3**.

**Table 3: Relevant paragraphs and policies from Gravesham Local Plan Core Strategy**

Policy Ref	Description
Policy CS11 - Transport	New developments should mitigate their impact on the highway and public transport networks as required. As appropriate, transport assessments and travel plans should be provided and implemented to ensure the delivery of travel choice and sustainable opportunities for travel.
	Sufficient parking in new development will be provided in accordance with adopted parking standards which reflect the availability of alternative means of transport and accessibility to services and facilities.
	The council will support proposals which improve public transport provision and facilities in the Borough.
	The Council will seek improvements to walking and cycling facilities and networks in the Borough including provision in new development as appropriate.

### Gravesham Local Cycle and Walking Infrastructure Plan (LCWIP)

3.21 The Gravesham LCWIP, formally adopted in November 2022, identifies and prioritises investment for new infrastructure to support and encourage people to walk and cycle.

3.22 The LCWIP identifies infrastructure for a short, medium and long terms horizon to meet the active travel objectives of Gravesham.

3.23 The LCWIP identified the following schemes within the vicinity of the site.

- Route 6 – Higham – Meopham via Cobham and Sole Street: Primarily identified as a Leisure connection which utilises a number of rural routes and existing PRoW routes. The route commences in Meopham via Wrotham Road near to the junction with Norwood Lane.

3.24 It is acknowledged within the LCWIP that the route is inherently constrained by narrow rural roads with no existing infrastructure and unsurfaced PRoWs, and therefore several alignments are proposed.

3.25 As part of this TA, consideration is given to how future users of the site could either link to the route, or whether contributions can be provided to help progress the LCWIP proposals.

**T25512**

**Land East of Wrotham Road, Meopham**

## 4.0 Background Information

### Site Location

4.1 The site is situated c.7.5km to the south of Gravesend (as the crow flies), on land east of Wrotham Road, Meopham, and is bound by Green Lane to the north, agricultural land to the east, a private lane and residential properties to the south, and the A227 Wrotham Road to the west.

### Local Highway Network

#### *A227 Wrotham Road*

4.2 The A227 Wrotham Road is a single carriageway road and provides a strategic function by connecting to the M20 at Junction 2 in the south, and the A2 and Gravesend in the north. More locally, Wrotham Road provides access to a variety of land uses including residential and commercial properties.

4.3 Wrotham Road is c.8.0m wide with footways present on either side of the carriageway. Footways are of variable widths along its length; however, they are generally c.2.0m wide within the vicinity of the site.

4.4 Pedestrians are facilitated crossing over Wrotham Road to the south of the junction with Longfield Road via a dropped kerb facility and pedestrian refuge area in the middle of the carriageway.

4.5 Wrotham Road forms a priority junction with the B260 Longfield Road as well as Camer Parade. The junction benefits from the provision of a ghost-island right turn lane on Wrotham Road southbound which measures c.50m in length.

4.6 A 30mph speed limit is in operation along Wrotham Road directly adjacent the site. It is also noted that a central reserve strip has been installed in recent years adjacent Camer Parade prior to the ghost-island right turn.

4.7 Traffic Regulation Orders (TROs) in the form of double yellow lines are marked on either side of Wrotham Road along the entire length of the site frontage and signed as 'No stopping at any time on verge or footway'. This is likely to discourage stopping and parking associated with school drop off and pick up periods for schools on Longfield Road, and for people accessing local facilities on Camer Parade.

#### *B260 Longfield Road*

4.8 Longfield Road is a single carriageway road with a c.6.0m width, along with c.1.5m-2.0m footways either side, which reduces to a provision of one footway on the southern side of the carriageway once it becomes more rural.

4.9 The B260 provides a continuous connection to Dartford in the northwest. Within the vicinity of the site, Longfield Road, operates a 30mph speed limit to the east before transitioning into a 60mph speed limit to the west. Along its length, it provides direct access to Meopham Community Academy, a pre-school and the National Autistic Society Helen Allison School, as well as several residential dwellings.

4.10 Many of the dwellings between Meopham Community Academy and the Helen Allison School do not have designated off-street parking facilities, meaning residents rely on on-street parking availability.

4.11 'No Stopping' TROs are situated outside of the schools within the vicinity of their accesses, on the westbound side of Longfield Road. This prohibits vehicles stopping, waiting and parking between the periods of 08:00-

**T25512**

## Land East of Wrotham Road, Meopham

09:30 and 14:30-16:00, coinciding with the school drop-off and pick-up times. Double yellow lines are also provided on the eastbound side of the carriageway outside of Meopham Community Academy.

4.12 There is a zebra crossing facility adjacent Meopham Community Academy to facilitate pedestrian crossing. It is noted that a dropped kerb facility has previously been provided over Longfield Road at the junction with Wrotham Road, however this has now been removed, with guard rail installed to guide pedestrians towards the zebra crossing.

### *Green Lane*

4.13 Green Lane forms a priority T-Junction with Wrotham Road immediately north of the site and provides a primarily local function by providing access to nearby rural settlements.

4.14 The junction benefits from the provision of a ghost-island right turn lane for vehicles traveling northbound on Wrotham Road and turning right to Green Lane. The carriageway is c.8.0m in width with a footway of variable width situated on its northern side.

4.15 Green Lane is limited to a 30mph speed limit within the vicinity of the site, before transitioning to national speed limit (60mph for cars) further east.

4.16 At the junction with Wrotham Road, Green Lane is signed as 'Unsuitable for Heavy Goods Vehicles'.

### *Huntingfield Road*

4.17 Huntingfield Road is a residential access road connecting Longfield Road at its southern extent, between Meopham Community Academy and the Helen Allison School, to Wrotham Road at its eastern extent.

4.18 The carriageway measures c.5.0m in width with footways c.1.5-2.0m in width either side to facilitate pedestrian access.

4.19 Huntingfield Road provides access to several residential properties along its length, the majority of which benefit from off-street parking facilities.

### *School Close*

4.20 School Close is a minor access way leading to a cul-de-sac of several bungalows and is solely accessible for vehicles from Longfield Road. The carriageway measures c.4.5m in width and contains c.2.0m footways either side.

4.21 The entirety of School Close has double yellow lines marked on either side of the carriageway, likely to discourage parking associated with school pick up and drop off at the local schools and parking associated with the shops situated directly adjacent on Longfield Road. Wooden bollards are also present to discourage parking on the verges adjacent the carriageway.

4.22 A dedicated footway connection is provided from School Close at its northern extent to the local facilities provided on Camer Parade.

4.23 At the northern end of School Close, a turning head is provided in the form of a roundabout and gives access to Camer Parade car park which serves the local facilities on Camer Parade. On-site observations estimate that there is capacity in the region of 20 vehicles, although there are no marked bays.

**T25512**

## Land East of Wrotham Road, Meopham

4.24 Camer Parade itself has designated parking bays that are signed as a maximum 2-hour stay Mon-Sat 08:00-18:30pm with no return within 1 hour. On-site observations estimate that there is capacity in the region of 28 vehicles.

### On Site Observations

4.25 Engagement was undertaken with the Parish Council during the initial site promotion phase in 2019 and 2020. From this, concerns were raised regarding local traffic and parking issues associated within the school pick-up and drop-off periods on local roads, as well as on Camer Parade.

4.26 A site visit was undertaken of local roads surrounding the site, as well as the schools located on Longfield Road on 5<sup>th</sup> March and 6<sup>th</sup> March 2025, with a view to observing the existing situation on the highway network.

### Pre and Post School Pick-up and Drop-off

4.27 According to their websites, the start and finish times for the schools on Longfield Road are between 08:45-08:50 and 15:00-15:15, respectively. To understand local parking accumulation on surrounding roads associated with school pick-up and drop-off, a spot parking survey was undertaken which accounted for the school gates opening and closing prior to and following the start and finish times. Table 5 summarise the parking accumulation during the school drop-off and pick-up periods, respectively. The surveys were undertaken along a circular route at 15-minute intervals.

**Table 4: School Drop-Off Parking Accumulation (08:00-09:15)**

Road	Time periods observed				
	08:00-08:15	08:15-08:30	08:30-08:45	08:45-09:00	09:00-09:15
Wrotham Road	0	6	8	20	4
Longfield Road	12	13	25	16	12
School Close (dropping off)	0	1	2	7	0
Camer Car Park (off School Close)	10	10	13	20	12
Huntingfield Road (NB/SB)	7	7	18	16	9
Huntingfield Road (EB/WB)	7	8	8	11	6
Camer Parade	18	18	21	22	20
<b>Total</b>	<b>54</b>	<b>63</b>	<b>95</b>	<b>112</b>	<b>63</b>

**Table 5: School Pick-Up Parking Accumulation (14:30-15:45)**

Road	Time periods observed				
	14:30-14:45	14:45-15:00	15:00-15:15	15:15-15:30	15:30-15:45
Wrotham Road	3	10	30	3	1
Longfield Road	13	14	26	19	15
School Close	0	0	6	5	1
Camer Car Park (off School Close)	18	18	16	16	12
Huntingfield Road (NB/SB)	13	15	19	17	11
Huntingfield Road (EB/WB)	7	7	8	9	9
Camer Parade	26	26	23	20	19

**T25512**

## Land East of Wrotham Road, Meopham

Road	Time periods observed				
	14:30-14:45	14:45-15:00	15:00-15:15	15:15-15:30	15:30-15:45
Total	80	90	128	89	68

4.28 Obviously, the spot parking survey demonstrates that across the school drop-off and pick-up periods, parking on the local road network and parking areas increases closer to the school start/finish times before dropping back to a 'typical' level.

4.29 Parking accumulation was observed to be more intense on roads closer to the schools, as would be expected. It was observed that vehicles that park closer to the school dwell for a much shorter period than those parked further away, which again would be expected given the shorter walking distance.

### *Local Highway Network Operation*

4.30 It was observed that parking accumulation on Wrotham Road occurs predominantly south of the junction with Longfield Road on the northbound side of the carriageway. Most of the parking is largely attributed to school pick-up and drop-off with parents observed to be walking between the school and their vehicles.

4.31 The majority of Wrotham Road south of Longfield Road is marked with single yellow lines; however, it was observed that vehicles were also parking unlawfully on the double-yellow lined section closer to the junction with Longfield Road, both partially and fully on the verge which contravenes the TROs currently in place.

4.32 On Longfield Road, inconsiderate kerbside parking was observed further west near to the Helen Allison school, past the existing TROs adjacent the school access. This severely restricts the useable width of the footway for pedestrians and pedestrians with pushchairs.

4.33 However, some vehicles were also observed to be stopping in front of the schools either very briefly or for up to five minutes which contravenes the TROs currently in place. In some instances, this was on either side of the carriageway (including partial kerbside parking) which made it difficult for both pedestrian access and for vehicles on the main carriageway to manoeuvre.

4.34 Despite the TROs in place on School Close, vehicles were observed to be parking and dropping children off on the double yellow lines on the southbound side of the carriageway, as well as on the mini-roundabout circulatory. Some vehicles were observed to dwell for up to five minutes which seemed to cause some issues for vehicles accessing/egressing Camer Car Park.

4.35 Vehicles were observed to mainly be parking on Huntingfield Road on the northbound side of the carriageway close to the junction with Longfield Road and in some instances within the bellmouth.

### **Highway Safety**

4.36 A review of Personal Injury Accident Data (PIA) on the local highway network surrounding the site has been undertaken using data obtained directly from KCC for the most recent five years of available data from October 2019 to September 2024.

4.37 The PIA results are summarised in **Table 6** and included at **Appendix B**.

**T25512**

## Land East of Wrotham Road, Meopham

**Table 6: Personal Injury Accident Data (Oct 2019 – Sep 2024)**

Year	Slight	Serious	Fatal	Total
Longfield Road	1	1	0	2
Wrotham Road / Longfield Road / Camer Parade access	3	1	0	4
Wrotham Road / Camer Parade exit	1	1	0	2
Wrotham Road / Green Lane	0	1	0	1
Green Lane / Tradescant Drive	1	0	0	1
<b>Total</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>10</b>

### *Wrotham Road / Longfield Road / Camer Parade Access*

4.38 There is a cluster of four PIAs at the Wrotham Road/Longfield Road junction and Wrotham Road/Camer Parade access junction. Three PIAs have been classified as 'Slight', and one has been classified as 'Serious'.

4.39 According to the PIA report, PIA 4 was as a result of a driver hitting an object on the left side of their vehicle which caused the driver to oversteer when correcting and driving into the railing on the pedestrian refuge on Wrotham Road. Conditions were described as 'Dry' and 'Fine' which indicates that the PIA was not necessarily as a result of the existing highway arrangement or external conditions.

4.40 Additionally, PIA 5, which was recorded in December 2019, was as a result of a speeding vehicle heading northbound on Wrotham Road, with the driver of the other vehicle failing to give way turning left from Longfield Road.

4.41 PIA 3 and 6 were as a result of drivers failing to give way when egressing from Longfield Road to a cyclist and vehicle, respectively, traveling northbound on Wrotham Road. These both occurred in 2020 and 2019, respectively.

### *Wrotham Road / Camer Parade exit*

4.42 PIA 7 and 9 were as a result of vehicles egressing Camer Parade to turn right and failing to give way to vehicles heading southbound on Wrotham Road. Both PIAs occurred in 2019 and 2020.

4.43 It should be noted that PIA 8 occurred at 08:39 during the peak school drop-off period, although no further information is available within the report to suggest it was related to vehicles associated with the schools.

### *Longfield Road*

4.44 Two PIAs have been recorded on Longfield Road, one classified as 'Slight' and one classified as 'Serious'.

4.45 PIA 1 occurred as a result of a parked vehicle pulling out into the central carriageway colliding with a vehicle heading westbound on Longfield Road. PIA 2 was as a result of failing to stop when egressing Huntingfield Road and colliding with a vehicle on Longfield Road. Both accidents occurred outside of the school drop-off and pick-up periods.

### *Summary*

4.46 Whilst all PIAs are regrettable, the volume and pattern of accidents observed does not suggest any particular inherent highway safety issue and does not give any undue cause for concern.

## 5.0 Sustainable Travel

### Accessibility by Active Travel

#### Accessibility by Walking

5.1 Walking and cycling provide important alternatives to cars and should also be encouraged to form part of longer trips via public transport. The Chartered Institute of Highways and Transportation (CIHT) has prepared several guidance documents that provide advice for sustainable travel infrastructure provision within new developments. The suggested walking distances to key facilities (e.g. healthcare, shops) are presented in **Table 7**.

**Table 7: Suggested Walking Distances (CIHT Guidelines)**

	Town Centre (m)	Commuting/Schools/ Sightseeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

5.2 In addition to the CIHT guidance, MfS and the National Design Guide (2021) states that 'walkable neighbourhoods' are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which may be accessed comfortably on foot.

5.3 MfS also states that the 800m walking distance is not an upper limit and references the former Planning Policy Note 13: Transport (PPG13) guidance in respect of walking replacing short car trips, particularly those under 2km.

5.4 Table NTS0303 from the 2023 National Travel Survey (released August 2024) indicates that the national average walking trip distance in 2023 was 0.7 miles or 1.12km.

5.5 The 2023 National Travel Survey (Table NTS0308) also shows that walking was the most frequent mode used for short trips, with 81% of trips under one mile (1.6km) being completed by foot in 2023, which is very similar to 2022 (83%) and 2021 (82%).

#### Local Facilities and Accessibility

5.6 Footways are present on either side of Wrotham Road as previously discussed with crossing facilities provided in the form of a dropped kerb facility with pedestrian refuge to the south of the site, and a recently installed dropped kerb crossover adjacent the Camer Parade egress.

5.7 To the north, footways generally measuring c.2.0m and above are provided either side of the carriageway towards Meopham railway station, with multiple dropped kerb facilities and pedestrian refuges along its length to facilitate crossing.

5.8 The walking distances from the site are presented in **Figure 5.1** which accounts for local footways and crossing facilities as well as the Public Rights of Way (PRoW) network within the vicinity of the site, including promoted walking routes such as along Camer Road and through Camer Park.

5.9 The walking distances are inclusive of the distance from the developable area of the site to all of the proposed access points.

**T25512**

## Land East of Wrotham Road, Meopham

5.10 The local facilities situated within the vicinity of the site are presented in **Figure 5.2** and summarised in **Table 8**.

**Table 8: Local Facilities**

Local Facility (Figure Reference)	Distance
<b>Community Facilities</b>	
St Pauls Catholic Church (C1)	560m
St John the Baptist (C2)	560m
Meopham Library (C3)	1.0km
Meopham Station Post Office (C4)	1.1km
Meopham Village Hall (C5)	1.3km
Southdown Shaw Allotments (C6)	1.7km
Meopham Green Baptist Church (C7)	1.9km
<b>Education</b>	
Meopham Community Academy (E1)	350m
Helen Allison School (E2)	510m
Meopham Secondary School (E3)	1.0km
<b>Employment</b>	
Bowes Industrial Centre (EMP1)	1.8km
Gravesend Town Centre (EMP2)	7.9km
<b>Healthcare</b>	
Meopham Medical Centre (H1)	1.0km
Meopham Pharmacy (H2)	1.1km
Meopham Dental Care (H3)	1.8km
<b>Leisure</b>	
Judsons Recreation Ground (L1)	900m
Camer Park Country Park (L2)	1.0km
Meopham Leisure Centre (L3)	1.0km
The Lab Performance UK (L4)	1.3km
Frank Mulley Combat Academy (L5)	1.3km
Royal Hounds Dog Park (L6)	1.5km
Meopham Cricket Club (L7)	1.8km
<b>Retail</b>	
Sir Male Grooming (Barber Shop) (R1)	150m
Tesco Express – including EVRI Parcel Drop off (R2)	200m
Meopham Shish Grill and Restaurant (R3)	200m
Café Lounge (R4)	200m
Costa Coffee (R5)	200m
The Salon (R6)	200m
McCoy's Fish Shop (R7)	250m
Meopham Tandoori (R8)	250m
Bartellas Mediterranean Restaurant (R9)	600m

**T25512**

## Land East of Wrotham Road, Meopham

Local Facility (Figure Reference)	Distance
George Inn Public House (R10)	700m
Valeries Sandwich and Coffee Shop (R11)	1.1km
Morrisons Daily (R12)	1.1km
Railway Tavern Public House (R13)	1.2km
The Cricketers Inn (R14)	1.7km
Minel Meze & Grill Restaurant / Bar (R15)	1.7km

5.11 Collectively, **Figure 5.1** and **Figure 5.2** demonstrate that there is a large variety of local facilities that are likely to be used on a day-to-day basis by future residents of the site that are all reachable within the preferred maximum 2.0km walking distance.

5.12 Notably, there are a significant number of facilities situated on Camer Parade opposite the site, and along Wrotham Road and Longfield Road, all within an 800m, and 1.2km walking distance of the developable area of the site.

5.13 Within their response, KCC stated:

*"It would be useful to understand where major employment centres are in relation to the site, and how access to them can be achieved by sustainable modes"*

5.14 Whilst there are a number of datasets that outline where people are traveling to, i.e. Census Method of Travel to Work, there is a limitation on being able to identify the specific employment locations within the datasets lower than the Major Super Output Area level (MSOA).

5.15 Census 2011 Method of Travel to Work at the MSOA level indicates that the top five destinations people travel to work using all methods of travel from the MSOA Gravesham 012 is Gravesend, Dartford, Westminster (City of London, Medway (i.e. Rochester, Chatham), and Sevenoaks.

5.16 As is demonstrated later in this section, public transport opportunities are available to travel to each of these areas, from the site.

### Accessibility by Cycling

5.17 There is potential for short car trips to be substituted for cycle trips, and for longer trips to be substituted by a combination of cycle and public transport trips.

5.18 The CIHT Planning for Cycling document (2014) states that "The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (DfT, 2014a)."

5.19 The Department for Transportation (DfT) Cycling and Walking Investment Strategy (2017) also refers to the threshold of five miles (or 8km), stating that "two out of every three personal trips are within five miles – an achievable distance to cycle for most people, with many shorter journeys also suitable for walking."

5.20 The second Cycling and Walking Investment Strategy published DfT in 2022 does not specifically reference the statement in Paragraph 5.19, however one of the main objectives is to increase the percentage of short journeys (i.e. those under five miles) in towns and cities that are walked or cycled from 41% in 2018/19 to 46% in 2025.

**T25512**

## Land East of Wrotham Road, Meopham

5.21 The 2023 National Travel Survey also shows that the average cycle trip distance (for all purposes) was three miles (or 4.8km). Therefore, it is reasonable to consider cycling as a viable mode of travel for distances up to 8km.

5.22 The site is situated c.5.0km to the south of National Cycle Network (NCN) Route 177 which provides an east-west traffic-free route to Gravesend via NCN Route 1 and to Stroud.

5.23 As previously noted, Gravesham LCWIP cycle route 6 is situated to the north of the site on Wrotham Road/Norwood Lane. This route is proposed to link Meopham and Higham via Cobham and Sole Street.

5.24 The cycling distances from the site are presented within **Figure 5.3** and are inclusive of the distance from the developable area of the site to all proposed access points. This also includes the proximity of the site to promoted NCN routes and identified LCWIP schemes.

5.25 This shows that cyclists can reach key locations such as Gravesend, which provides a large variety of facilities typical of a large town centre.

5.26 Although there is no designated cycle infrastructure within the vicinity of the site, given the 30mph speed limit between the site and surrounding facilities, it is considered that the local network is generally suitable for cyclists of all abilities, although it is acknowledged that some routes may be catered towards more experienced cyclists.

### *Walking and Cycling Audit*

5.27 A Local Transport Note (LTN) 1/20 route audit has been undertaken using an adaption of the assessment framework provided in Appendix A of LTN 1/20. The scope of the route audit was:

- Route 1 – Wrotham Road between Green Lane and Longfield Road (Incl. Camer Parade).
- Route 2 – Longfield Road between Wrotham Road and National Autistic Society Helen Alison School.
- Route 3 – Wrotham Road between Green Lane and Station Road.
- Route 4 – Wrotham Road between Longfield Road and Ifield Road.

5.28 In LTN 1/20, a route comprises “street checks” (on road) and “path checks” (off-road). Therefore, in this instance, all routes are considered as “street checks” given off-road facilities such as footways follow a road, and are not completely segregated, they have interactions with motor vehicles at junctions.

5.29 Where bus stops are not present along a route, these have been removed from the total score and the score has been recorded as a “-” in the full assessment.

5.30 Whilst the audit provides a scoring system, there is no set threshold for what determines a ‘good’ route or a ‘bad’ route as this is often relative to the context of the site. The tool acts as a framework to identify any potential off-site measures to improve active travel within an area and as part of a development proposal.

5.31 A summary of the route audit is provided in **Table 9** with the full assessment provided at **Appendix C**.

**T25512**

## Land East of Wrotham Road, Meopham

**Table 9: LTN 1/20 Route Audit**

Key Requirement	Score	Key Comments
<b>Route 1: Wrotham Road between Green Lane and Longfield Road (Incl. Camer Parade)</b>		
Accessibility	7	<ul style="list-style-type: none"> <li>Gradient is less than 3%.</li> <li>Tactile paving is available but not entirely compliant with Guidance i.e. on Camer Parade where two tactiles are not provided on dropped kerbs.</li> <li>Cyclists are required to wait behind buses with limited overtaking opportunities given the central reserve strip on Wrotham Road.</li> <li>Toilet facilities provided within local shops.</li> </ul>
Comfort	3	<ul style="list-style-type: none"> <li>Consistent, good quality surface material along Wrotham Road.</li> <li>Inconsistent footway surfacing on footways along Wrotham Road and on Camer Parade.</li> </ul>
Directness	7	<ul style="list-style-type: none"> <li>Route follows road and is very direct.</li> <li>Pedestrians and cyclists give way at minor arm junctions; however, delay is low.</li> </ul>
Attractiveness	3	<ul style="list-style-type: none"> <li>No wayfinding signs, places to rest and shelter, and no cycle parking available.</li> <li>Route is partially lit along Camer Parade.</li> <li>There are no shared use cycle tracks.</li> </ul>
Cohesion	3	<ul style="list-style-type: none"> <li>No transitions are provided for cyclists as there is currently no designated cycle infrastructure.</li> <li>Infrastructure provision for pedestrians is generally consistent but could be improved with regards to widths.</li> </ul>
<b>Overall Score</b>	<b>25</b>	
<b>Route 2: Longfield Road between Wrotham Road and National Autistic Helen Alison School</b>		
Accessibility	4	<ul style="list-style-type: none"> <li>Gradient is between 3-5%.</li> <li>Tactiles provided across Huntingfield Road, however no dropped kerb crossover is provided from southern footway prior to section of vehicles observed to be parking half-on/half-off the kerb which impedes wheelchair users and prams.</li> </ul>
Comfort	2	<ul style="list-style-type: none"> <li>Sections of good quality surface material on Longfield Road but not for the entire route.</li> </ul>
Directness	7	<ul style="list-style-type: none"> <li>Route follows road and is very direct.</li> <li>Pedestrians and cyclists give way at the Longfield Road/Wrotham Road junction (pedestrians facilitated by pedestrian refuge); Delay is likely to be low for pedestrians whilst cyclists are generally likely to have similar delay to motor vehicles.</li> </ul>
Attractiveness	3	<ul style="list-style-type: none"> <li>No wayfinding signs, places to rest and shelter, and no cycle parking available.</li> <li>Route is partially lit, although could be improved.</li> </ul>
Cohesion	3	<ul style="list-style-type: none"> <li>No transitions are provided for cyclists as there is currently no designated cycle infrastructure.</li> <li>Infrastructure provision is generally consistent, but the location of parked vehicles could require some users to cross the road prematurely without the presence of a dropped kerb crossover.</li> </ul>
<b>Overall Score</b>	<b>19</b>	

**T25512****Land East of Wrotham Road, Meopham**

Key Requirement	Score	Key Comments
<b>Route 3: Wrotham Road between Green Lane and Meopham railway station</b>		
Accessibility	8	<ul style="list-style-type: none"> <li>Gradient is less than 3%.</li> <li>Some tactiles provided although there are some locations where they are not provided at dropped kerbs, such as Pine Rise at the junction with Wrotham Road.</li> <li>Bus stops situated within laybys help to reduce cyclist delay.</li> <li>No step-free access to Platform 2 at Meopham railway station.</li> </ul>
Comfort	3	<ul style="list-style-type: none"> <li>Consistent, good quality surface material along Wrotham Road.</li> </ul>
Directness	8	<ul style="list-style-type: none"> <li>Route follows road and is very direct.</li> <li>Pedestrians and cyclists give way at minor arm junctions; however, delay is low.</li> </ul>
Attractiveness	4	<ul style="list-style-type: none"> <li>No wayfinding signs, places to rest and shelter.</li> <li>Some cycle parking available at Meopham railway station that is sheltered.</li> <li>Route is partially lit along sections of Wrotham Road and on Station Road.</li> </ul>
Cohesion	3	<ul style="list-style-type: none"> <li>No transitions are provided for cyclists as there is currently no designated cycle infrastructure.</li> <li>Infrastructure provision is generally consistent.</li> </ul>
<b>Overall Score</b>	<b>26</b>	
<b>Route 4: Wrotham Road between Longfield Road and Ifield Road</b>		
Accessibility	5	<ul style="list-style-type: none"> <li>Gradient is less than 3%.</li> <li>Some tactiles provided. Width of footways in some locations could impede wheelchair access such as adjacent The George Inn.</li> </ul>
Comfort	3	<ul style="list-style-type: none"> <li>Consistent, good quality surface material along Wrotham Road for cyclists.</li> <li>Footway surface conditions on footways on western side of Wrotham Road are inconsistent.</li> </ul>
Directness	7	<ul style="list-style-type: none"> <li>Route follows road and is very direct.</li> <li>Pedestrians and cyclists give way at minor arm junctions.</li> <li>Crossing locations are generally sparse although signalised crossing is provided adjacent Meopham School. Delay is likely to be low for pedestrians.</li> </ul>
Attractiveness	2	<ul style="list-style-type: none"> <li>No wayfinding signs, places to rest and shelter.</li> <li>Long sections of Wrotham Road are not lit.</li> </ul>
Cohesion	2	<ul style="list-style-type: none"> <li>No transitions are provided for cyclists as there is currently no designated cycle infrastructure.</li> <li>Infrastructure provision is generally consistent.</li> </ul>
<b>Overall Score</b>	<b>19</b>	

5.32 Based on the audit, the following aspects of local routes identified as the most appropriate to improve are:

- Signage towards interchanges and facilities; and,
- Improvement of crossing facilities towards local facilities.

**T25512**

## Land East of Wrotham Road, Meopham

- Potential cycle priority at busy points on the network.

5.33 These have been identified on the basis of likely residents of the site using this infrastructure, and the general benefit to existing residents of the local area. These aspects deliver the largest improvements in a manner which is proportional with the impact of the proposed development, supporting the genuine modal choice for all and reducing private car dependency.

5.34 Proposed measures to improve active travel from the site are detailed within Section 6.0.

### Accessibility by Bus

5.35 The closest bus stops to the site are situated along Wrotham Road directly adjacent the primary access, c.180-220m, from the developable area of the site.

5.36 Pedestrians are facilitated crossing over Wrotham Road to the northbound bus stop by a dropped kerb pedestrian crossing with a guarded pedestrian refuge.

5.37 **Table 10** presents the nearest local bus stops and their level of service. Bus service frequency has been taken from [bustimes.org](http://bustimes.org).

5.38 It should be noted that residents will also be able to use the additional northbound and southbound bus stops on Wrotham Road, north of Green Lane, which is served by the same bus services but may be more attractive to walk to for residents who live to the north of the site.

**Table 10: Local Bus Services**

Bus Stop (code)	Route (Operator)	Frequency (approx.)		
		Mon – Fri	Sat	Sun
Wrotham Road Northbound (kntapmga)	306 – Vigo – Gravesend (1st Bus Stops Ltd)	Two services per day (08:28, 15:49)	No Service	No Service
	308 – Sevenoaks – Gravesend (Redroute Buses)	Seven services per day (10:09, 11:34, 13:04, 14:34, 16:38, 17:36, 18:36)	Seven services per day (08:33, 10:04, 11:34, 13:04, 15:04, 16:36, 18:36)	No Service
	416 – Meopham – Gravesend (Redroute Buses)	Five services per day (07:18, 09:31, 11:01, 12:26, 16:36)	Three services per day (08:06, 11:01, 15:21)	No Service
Wrotham Road Southbound (kntapmtd)	306 – Gravesend – Vigo (Redroute Buses)	Two services per day (07:54, 15:18)	No Service	No Service
	308 – Gravesend – Sevenoaks (Redroute Buses)	Seven services per day (07:06, 09:35, 11:05, 12:35, 14:25, 17:07, 18:07)	Six services per day (09:35, 11:05, 12:35, 14:35, 16:08, 18:08)	No Service
	416 – Gravesend – Meopham (Redroute Buses)	Four Services per day (10:53, 12:18, 14:38, 16:18)	Two services per day (10:53, 15:13)	No Service

**T25512**

## Land East of Wrotham Road, Meopham

5.39 **Table 10** shows that there are several local bus services providing connections to Meopham railway station and into Gravesend and local surrounding villages.

5.40 As requested by KCC, it can be confirmed that the 306, 308 and 416 bus services provide access to Meopham railway station, calling on Wrotham Road (north of New Road) adjacent Station Road. Both northbound and southbound bus stops comprise of bus shelters, and flag and pole signs.

5.41 In total, there are four morning peak hour services, two during the morning peak, and two during the afternoon peak hour across both bus stops.

5.42 As requested by KCC, journey times via bus to key destinations along the routes are summarised as follows:

- Meopham to Gravesend – 23 Minutes (via 308)
- Meopham to Sevenoaks – 56 Minutes (via 308)
- Meopham to Vigo – 15 Minutes (via 306)

5.43 In total, there are eight dedicated bus services providing connections to local schools, including but not limited to, Dartford Boys Grammar School, Wilmington Grammar School for Girls, Meopham Secondary School and Wrotham School.

### Accessibility by Rail

5.44 Meopham railway station is situated within the preferred maximum 2.0km walking distance from the site, and within a 5.0km cycle distance.

5.45 The station provides 167 vehicle parking spaces (6 accessible) and 20 cycle parking spaces (stands).

5.46 **Table 11** presents the key direct rail services from Meopham railway station and their frequency. Rail service frequency has been taken from [Trainline](#).

**Table 11: Meopham Railway Station Services**

Destination (Key stops)	Average Frequency	Approx. Journey Time	First and Last Direct Services					
			Monday to Friday		Saturday		Sunday	
			Departures	Arrivals*	Departures	Arrivals*	Departures	Arrivals*
London Victoria (Longfield, Bromley South)	2 per hour (Mon – Sat)  2 per hour (Sun)	0 Hours, 56 Minutes (Maximum)	First Service: 05:20  Last Service: 23:40	First Service: 00:40  Last Service: 23:40	First Service: 00:13  Last Service: 23:47	First Service: 00:10  Last Service: 23:42	First Service: 07:02  Last Service: 23:32	First Service: 00:40  Last Service: 23:40
Gillingham (Kent) (Sole Street, Rochester, Chatham)	2 per hour (Mon-Sat)  2 per hour (Sun)	0 Hours, 19 Minutes (Maximum)	First Service: 06:31  Last Service: 23:43	First Service: 05:00  Last Service: 23:20	First Service: 00:13  Last Service: 23:43	First Service: 05:00  Last Service: 23:28	First Service: 00:29  Last Service: 23:59	First Service: 06:46  Last Service: 23:11
Dover Priory (Rochester, Gillingham)	1 per hour (Mon-Sat)  1 per hour (Sun)	1 Hour, 31 Minutes (Maximum)	First Service: 06:31  Last Service: 22:43	First Service: 07:45  Last Service: 17:48	First Service: 06:29  Last Service: 22:43	First Service: 05:12**  Last Service: 22:17**	First Service: 09:00  Last Service: 22:00	First Service: 06:50  Last Service: 21:50

**T25512**

## Land East of Wrotham Road, Meopham

\*Arrival services are the departure times to Meopham from destination.

\*\*Connection service shown. No direct service to Meopham from Dover Priory on Saturdays and Sundays.

5.47 **Table 11** shows that there are regular rail services to key regional and national destinations including London and Gillingham, therefore offering future residents of the site opportunities to commute sustainably over longer distances.

5.48 KCC requested that a review of other local stations such as Sole Street and Ebbsfleet should be undertaken to determine whether future residents may use these stations as opposed to Meopham should alternative destinations be accessible.

### *Sole Street*

5.49 Sole Street railway station is situated c.1.4km to the east of the site (as the crow flies) via Green Lane and Camer Road. There are no pedestrian or cycle facilities along Camer Road to connect to Sole Street.

5.50 The station provides 61 vehicle parking spaces (3 accessible) and no cycle parking spaces.

5.51 Sole Street provides access to the same frequency of services and range of destination as Meopham as they both operate on the same rail line. It is therefore more likely that residents will travel from Meopham given the closer proximity and better walking and cycling connection.

### *Ebbsfleet International*

5.52 Ebbsfleet International railway station is situated c.8.0km to the north of the site (as the crow flies) and a c.12-18 minute car drive.

5.53 The station provides a total of 4,945 car parking spaces (84 accessible) across four car parks and a further 280 car parking spaces (6 accessible) within a 'Premium' car park. The station also contains 44 cycle parking spaces (stands).

5.54 Parking is charged at a rate of £10.20 per day, or £1,367.20 per year according to the [National Rail](#) website.

5.55 **Table 12** presents the key direct rail services from Ebbsfleet International railway station and their frequency. Rail service frequency has been taken from [Trainline](#).

**Table 12: Ebbsfleet Railway Station Services**

Destination (Key stops)	Average Frequency	Approx. Journey Time	First and Last Direct Services					
			Monday to Friday		Saturday		Sunday	
			Departures	Arrivals*	Departures	Arrivals*	Departures	Arrivals*
<b>London St Pancras International</b> (Stratford International)	4 per hour (Mon – Sat)	0 Hours, 20 Minutes (Maximum)	First Service: 05:29	First Service: 06:20	First Service: 05:59	First Service: 06:40	First Service: 07:50	First Service: 08:20
	3 per hour (Sun)		Last Service: 23:35	Last Service: 00:12**	Last Service: 23:35	Last Service: 00:12**	Last Service: 22:59	Last Service: 23:40
<b>Ramsgate</b> (Gravesend, Stood, Gillingham, Faversham, Margate)	3 per hour (Mon-Sat)	1 Hour, 32 Minutes (Maximum)	First Service: 06:56	First Service: 04:55	First Service: 06:59	First Service: 06:02	First Service: 08:59	First Service: 07:05
	1 per hour (Sun)		Last Service: 23:59	Last Service: 22:08	Last Service: 23:59	Last Service: 22:08	Last Service: 22:59	Last Service: 22:02

**T25512**

## Land East of Wrotham Road, Meopham

Destination (Key stops)	Average Frequency	Approx. Journey Time	First and Last Direct Services					
			Monday to Friday		Saturday		Sunday	
			Departures	Arrivals*	Departures	Arrivals*	Departures	Arrivals*
<b>Margate</b> (Ashford International, Canterbury West, Ramsgate, Broadstairs)	3 per hour (Mon-Sat) 1-2 per hour (Sun)	1 Hour, 21 Minutes (Maximum)	First Service: 06:56 Last Service: 23:58	First Service: 05:25 Last Service: 21:49	First Service: 06:59 Last Service: 23:59	First Service: 05:49 Last Service: 21:49	First Service: 08:59 Last Service: 22:59	First Service: 07:49 Last Service: 21:49
<b>Faversham</b> (Strood, Gillingham)	2 per hour (Mon-Sat) 1 per hour (Sun)	0 Hours, 51 Minutes (Maximum)	First Service: 06:39 Last Service: 00:18**	First Service: 05:00 Last Service: 22:00	First Service: 07:39 Last Service: 00:09**	First Service: 05:32 Last Service: 22:00	First Service: 08:39 Last Service: 23:39	First Service: 07:00 Last Service: 22:00

\*Arrival services are the departure times to Ebbsfleet from destination.

\*\*Final service operates the following morning.

5.56 Table 13 presents a comparison between journey times via rail should residents choose to drive to Ebbsfleet International, or should residents choose to walk to Meopham.

5.57 Journey times have been taken from Google Maps route planner to arrive at each destination prior to 09:00 during a typical weekday to represent a representative commuting journey time.

5.58 All journey times from Meopham are inclusive of walk time and connections via other stations.

**Table 13: Meopham and Ebbsfleet Journey Time Comparison**

Destination	Approx. Journey Time Via Ebbsfleet	Approx. Journey Time Via Meopham	Difference
<b>London St Pancras International</b>	Drive: 12-18 Minutes Rail Journey Time: 20-Minutes <b>Total Journey Time: 32-38 Minute</b>	Walk: 18-Minutes Rail Journey Time: 1 Hour, 6-Minutes <b>Total Journey Time: 1 Hour, 24-Minutes</b>	<b>+46 Minutes</b>
<b>Ramsgate</b>	Drive: 12-18 Minutes Rail Journey Time: 1 Hour, 32 Minutes <b>Total Journey Time: 1 Hour, 42-50 Minutes</b>	Walk: 18-Minutes Rail Journey Time: 1 Hour, 37-Minutes <b>Total Journey Time: 1 Hour, 55-Minutes</b>	<b>+5 Minutes</b>
<b>Margate</b>	Drive: 12-18 Minutes Rail Journey Time: 1 Hour, 21 Minutes <b>Total Journey Time: 1 Hour, 33-39 Minutes</b>	Walk: 18-Minutes Rail Journey Time: 1 Hour, 23-Minutes <b>Total Journey Time: 1 Hour, 41-Minutes</b>	<b>+2 Minutes</b>
<b>Faversham</b>	Drive: 12-18 Minutes Rail Journey Time: 51 Minutes <b>Total Journey Time: 1 Hour, 1-7 Minutes</b>	Walk: 18-Minutes Rail Journey Time: 52-Minutes <b>Total Journey Time: 1 Hour, 10-Minutes</b>	<b>+3 Minutes</b>

5.59 From the analysis, other than London St Pancras International railway station, journey times to all destinations are similar regardless of whether users decide to drive to Ebbsfleet or walk to Meopham and catch connecting services. Journey times from Meopham will be lower than what is shown if future residents choose to cycle.

5.60 It should be iterated that Meopham provides direct rail services to London Victoria, which is situated within Westminster, City of London, which was identified as one of the top five employment areas for people residing within the area.

---

- 5.61 Unless future residents specifically require access to the area around London St Pancras railway station, it is likely that residents will use Meopham railway station instead of Ebbsfleet for the majority of railway journeys, especially for journeys into major employment areas such as within London, or Gravesend.
- 5.62 Parking charges at Ebbsfleet as well as fuel costs are likely to be considered by future residents when planning their journey. These costs would be avoided should residents choose to walk/cycle to Meopham.

#### **Summary**

- 5.63 This access appraisal demonstrates that there are several local facilities that can, and are likely, to be used on a day-to-day basis by local residents that can be accessed by active travel modes within recommended walking and cycling distances.
- 5.64 Additionally, there are local public transport opportunities for future residents to travel further afield to key regional and national destinations such as Gravesend, Gillingham and London, sustainably.
- 5.65 A walking and cycling audit has been undertaken that has identified several off-site measures that can potentially be implemented to improve the uptake of active travel to local facilities and public transport interchanges. These are detailed later in this report.

## 6.0 Development Proposals

- 6.1 The forthcoming outline planning application is for up to 350 residential dwellings with all matters reserved except for details of access.
- 6.2 The illustrative development framework plan is presented at **Appendix D**.

### Vehicular Access

- 6.3 Primary vehicular access is proposed to be taken from Wrotham Road to the north of the site via a priority access, along with an emergency access from Wrotham Road to the south.
- 6.4 KCC's design guide – 'Step 3: Designing for movement' document, sets out the relevant design parameters for new development access roads. The proposals for 350 dwellings exceed KCC's guidance for a 'Major Access Road' which typically serves between 50 and 300 dwellings from a single point of access and emergency link.
- 6.5 Access designs for proposals comprising 300+ dwellings fall under a 'Local Distributor Road'. The typical parameters for such a road are:
  - Either two connected points of access or a single point of access with a short link to a looped layout and an emergency access.
  - A typical carriageway width of 6.75m with a typical footway width of 3m.
  - Kerbed radii of 10m.
  - Suitable for use by a fire tender.
- 6.6 It was confirmed by KCC during pre-application engagement that given the scale of the proposals only slightly exceed the 'Major Access Road' thresholds, the junction kerbed radii could be reduced to 6m.
- 6.7 Additionally, it was confirmed by KCC that the width of the access road should be designed at 6.75m to 'future proof' the site should it ever be used as a bus route.
- 6.8 A ghost-island right turn lane is proposed on Wrotham Road given the volume of vehicles recorded along Wrotham Road within the vicinity of the site access. This has been designed in accordance with DMRB for a 30mph road, with hatching tying into the existing ghost-island right turn for Green Lane.
- 6.9 The proposed site access is presented in Drawing **T25512.001 Rev F**.
- 6.10 The indicative emergency access has been designed to a width of 3.7m in accordance with Building Regulations 'Document B – Fire Safety' and is included in Drawing **T25512.001 Rev F**.
- 6.11 The Highway Boundary extent is included at **Appendix E**.
- 6.12 An RSA1 and designers' response has been undertaken, as requested by KCC, and is included at **Appendix F**.
- 6.13 A letter from the RSA officer is also included at **Appendix F** which confirms that the designers' response and changes are acceptable.

**T25512**

## Land East of Wrotham Road, Meopham

### Vehicular Access Location

6.14 In response to KCC's comment on the location of the junction to Green Lane, the Kent Design Guide, 'Making It Happen' document states on page 8:

*"Where a residential road joins a distributor road, a road width of 5.5m should be maintained for at least 20m from the junction, with footways provided on both sides of the non-priority road. No other access or road junction should be provided within the 20m distance".*

6.15 The proposals include footways on either side of the access (non-priority), and the junction is situated c.50m south of the Green Lane junction. This is considered in accordance with the KCC Design Guide.

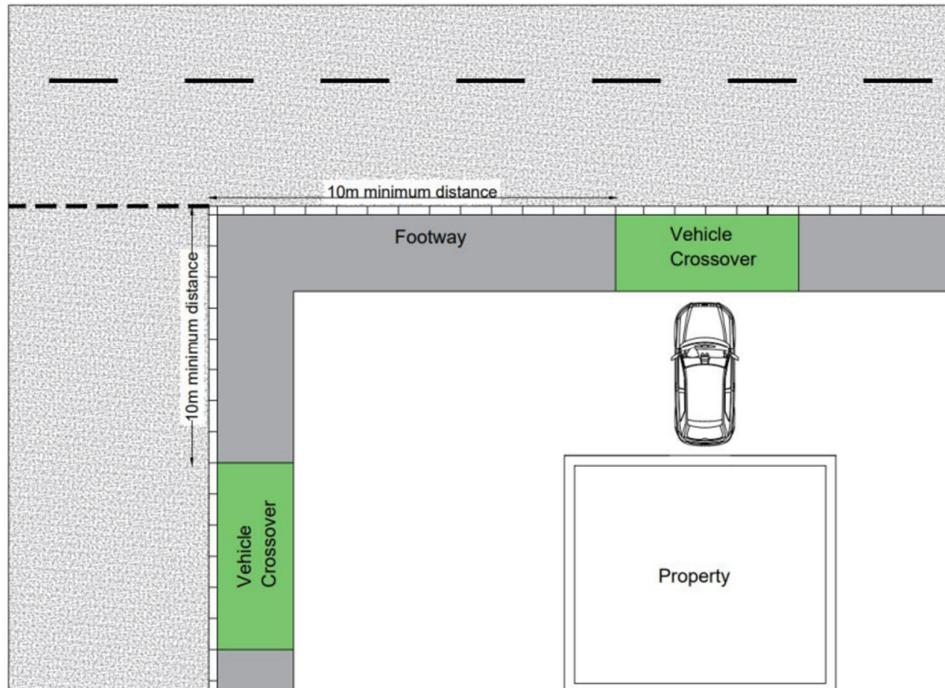
6.16 KCC stated within their pre-application response:

*"There are driveways located along the western side of Wrotham Road within proximity to the proposed access. In line with the KCC guidance, driveways should not be located within 10m of a junction. This should be referenced on the plan how the access meets this standard."*

6.17 The KCC guidance document 'Dropped Kerb Application Guidance' (April 2025) states within section 5:

*"If the location of the proposed crossing is closer than 10 metres to a road junction and creates a major hazard, the application will be refused."*

6.18 The guidance indicates that this is only applicable for driveways on the same side of the access junction as indicated on the extract below.



6.19 There is a total of three driveways opposite the access road and ghost-island right turn lane.

**T25512**

## Land East of Wrotham Road, Meopham

6.20 Considering the most onerous manoeuvre from the driveways will be the right turn onto Wrotham Road south across three lanes of traffic. A distribution exercise shows that a total of 8 vehicles will use the ghost-island right turn lane during the AM Peak and 18 vehicles during the PM peak. In addition, 19 and 10 vehicles are likely to turn left to Wrotham Road south from the access during each peak, respectively.

6.21 This equates to a total of roughly 1 vehicle every two minutes for vehicles egressing driveways to give-way to. Given full visibility will be achievable of the junction, from the driveways, this is unlikely to cause significant delay or highway safety concerns.

6.22 It should also be noted that similar configurations are present within the immediate area, notably at the Wrotham Road/Green Lane junction directly c.50m north of the proposed access location. This also incorporates a ghost-island right turn lane.

6.23 Here, three driveways are situated directly opposite the junction with traffic surveys indicating that a total of 180 vehicle movements from Wrotham Road south are using the existing ghost-island right turn lane into Green Lane in the AM peak, and 281 vehicles are using it during the PM peak. In addition, 208 and 155 total vehicle movements are tuning left out of Green Lane to Wrotham Road south in each respective peak hour.

6.24 These flows are in excess of what is predicted to use the proposed site access, and PIA data indicates that only one PIA was recorded at this junction over the most recent five years of available data. This was due to a vehicle turning right into Green Lane and colliding with a cyclist heading southbound and not including vehicle movements from the adjacent driveways.

6.25 It should also be noted that no comments were raised within the RSA1 regarding this matter.

6.26 On that basis, there is no evidence to suggest that the proposed access location is likely to cause an unacceptable impact on highway safety, especially in relation to proximity to adjacent driveways.

### *Swept Path Analysis*

6.27 A swept path analysis of the largest likely vehicle to require access to the site on a regular basis, i.e. a refuse vehicle has been undertaken. This is presented in **Drawing T25512.002 Rev E**.

6.28 In addition, a swept path analysis of a fire tender has been undertaken through the emergency access. This is presented in **Drawing T25512.003**.

6.29 The analysis demonstrates that vehicles of this nature can access and egress the site safely, in a forward gear.

6.30 Further swept path analysis has been undertaken following comments raised within the RSA1. This is presented in **Drawing T25512.002.01 Rev A**.

### *Visibility Splay Assessment*

6.31 Visibility splays from the access junction are provided within **Drawing T25512.001 Rev F** and are informed by 85<sup>th</sup> percentile speeds recorded as part of a seven-day Automatic Traffic Count (ATC) on Wrotham Road within the vicinity of the site access.

6.32 The visibility splays have been calculated using the Manual for Streets (MfS) visibility calculator and 85<sup>th</sup> percentile speeds/traffic volumes from the ATC. The 85<sup>th</sup> percentile speeds recorded are as follows:

- Northbound: 33mph

**T25512**

**Land East of Wrotham Road, Meopham**

- Southbound: 34mph

6.33 This results in the requirement for splays measuring 2.4m x 52.2m to the north, and 2.4m x 49.3m to the south in accordance with Manual for Streets for speeds up to 37mph (60kph).

6.34 The visibility splay calculations are provided at **Appendix G**.

### **Pedestrian and Cycling Access**

6.35 The main form of pedestrian/cycle access will be provided from the primary vehicular access point via a 3.0m shared footway/cycleway across the site frontage. Consideration has been given to LTN 1/20 design guidance including level of provision, and priority sections where interaction with motor vehicles are likely.

6.36 The emergency access point will serve as an additional pedestrian/cyclist access point, providing a link to the proposed shared footway/cycleway.

6.37 Further pedestrian/cyclist access points are to be provided at the northern, eastern, and southern boundaries of the site, providing access to the proposed on-site active travel routes, as well as access to Green Lane and Camer Park (via an existing PRoW).

### **Parking Arrangements**

6.38 Although the schedule of accommodation remains to be detailed as part of a full planning application, the principles for on-site parking have been considered within this report.

6.39 As part of the pre-application process, it was agreed with KCC that the SPG4 standards should be used, alongside a comparison with the new KCC standards.

6.40 The parking standards from both documents for use class C3 Dwellings are summarised in **Table 14**. The parking standards under the new KCC guidance is based on a residential development situated within a 'Suburban' area.

**Table 14: Parking Standards Comparison – C3 Dwellings**

Parking Type	Parking Requirements			
	No. Bedrooms	KCC Parking Standards (2006) (SPG4)	No. Bedrooms	KCC Parking Standards (2025)
Car Parking	1 bedroom 2 and 3 bedrooms 4+ bedrooms	1 space per dwelling 2 spaces per dwelling 3 spaces per dwelling	1 and 2 bedrooms 3 bedrooms 4+ bedrooms	1 space per unit 2 spaces per unit* 2 spaces per unit**
Cycle Parking	All Dwellings	1 space per bedroom	All Dwellings	1 space per bedroom

\*Allocation of one space per unit possible.

\*\*Allocation of both spaces possible.

6.41 **Table 14** demonstrates that there is a greater flexibility under the new parking standards to not only provide a lower number of vehicle parking spaces, but also in terms of how they are allocated either within curtilage or unallocated on local roads within the site.

**T25512**

## Land East of Wrotham Road, Meopham

6.42 The vehicular parking requirements will align with the standards presented within SPG4; however, it is recommended that this is reviewed as part of the reserved matters planning application should GBC adopt the latest KCC parking standards, or otherwise.

### *Cycle Parking*

6.43 The standards for cycle parking remain consistent between both documents with 1 space per bedroom (including flats and maisonettes). On that basis, cycle parking at the proposed development will align with the following standards:

- Cycle parking provision will be provided within the curtilage of a dwelling, including secure rear gardens. Garages will be of a suitable size to accommodate the required cycle parking provision.
- A secure, sheltered, communal parking facility will be provided should suitable provision not be provided within the curtilage of a dwelling.

### *Electric Vehicle Parking*

6.44 Given the advances in Electric Vehicle (EV) parking requirements since the production of the superseded standards, no mention of EV parking was previously included.

6.45 It is envisaged that the proposed development will utilise the current guidance and principles presented within the new KCC parking standards. This includes:

- Each dwelling with on-plot parking will provide an electric vehicle charging-point within proximity to the parking space.
- Where communal residential parking areas are present, a mix of 'active' charging spaces with charging infrastructure in place from occupation, and 'passive' charging spaces with wiring and ducting in place for future conversion.

### **Proposed Mitigation Measures**

6.46 In addition to the proposals, the following additional measures are proposed based on comments raised by KCC as well the results of the Waling and Cycling Audit.

6.47 KCC stated that they are aware of forthcoming proposals within the area and recommended that contact is made with the applicants/consultants to discuss potential off-site mitigation measures to ensure they align, where possible.

6.48 It is the preference of the applicant to present a package of proposed mitigation measures for this proposed development and assessed on their own merits as opposed to being restricted to external measures from sites that may not be draft allocated or refused locally.

### *Active Travel*

6.49 In response to the access proposals as part of the TASR, KCC stated within their pre-application response:

*“...as the site boundary continues further south, consideration must be given to widening the route to serve both pedestrians and cyclists along the entire boundary. This would assist with walking and cycling to the school and also for cyclists who currently need to travel on the carriageway and who are likely to be traveling at a slow speed given the uphill gradient.”*

**T25512**

## Land East of Wrotham Road, Meopham

6.50 On that basis, a 3.0m shared footway/cycleway is proposed along the entire length of the frontage with pedestrian/cycle priority provided over the site access. Cycle transitions are provided from/onto Wrotham Road and Green Lane.

6.51 To the south of the access, the footway/cycleway will connect to a new dropped kerb crossover facility with pedestrian refuge (2.0m x 2.0m) to access local facilities on Camer Parade via the existing footway between Camer Parade and Wrotham Road. The crossing will be facilitated by a section of build out on Camer Parade through the removal of a single section of parking to allow for pedestrians, pedestrians with pushchairs and wheelchair users, to wait to cross the road.

6.52 An additional shared footway/cycleway crossover will be provided to the north of the access with a refuge (3.0m x 3.0m) located within the central hatching to facilitate cyclists travelling northbound and transitioning into the carriageway. This requires a short section of shared footway/cycleway on the western side of Wrotham Road.

6.53 New tactiles are proposed and guard railing moved on the existing crossing facility on Wrotham Road (south of Longfield Road) to accommodate crossing for cyclists heading northbound, to access the shared facility.

6.54 Following the Walking and Cycling Audit, the following mitigation measures are proposed to assist with and potentially encourage active travel:

- The existing footway between Camer Parade and Wrotham Road is currently c.1.5m in width. This is proposed to be widened to 2.0m to allow for more suitable pedestrian access to the northbound bus stop which will tie into the proposed dropped kerb crossover facility.
- General vegetation clearance along Wrotham Road south (Route 4) to increase useable width of footways.
- Contributions towards cycle parking capacity and infrastructure improvements are proposed at Meopham railway station to make cycling a more attractive method of travel to the station.

### *LCWIP Connection*

6.55 Contributions are proposed to progress the LCWIP route 6, which runs from Wrotham Road to Norwood Lane to the north of the site

6.56 It is proposed that cyclists who use the active travel link to the north of the site, will be signed to utilise Trandescant Drive, opposite, to connect to Norwood Lane. Cyclists will be advised to dismount at the end of the drive through an alley which connects to Norwood Lane (Rowan Close).

6.57 This would provide a quiet route for cyclists away from Wrotham Road to connect to route 6, and to access Meopham railway station, should cyclists wish to do so.

### *Travel Plan Measures*

6.58 As previously stated, a TP has been produced in support of this TA to encourage uptake of sustainable transport modes. The following potential measures are proposed as part of the TP:

- Car Club (including one year's free membership for residents and driving credit to encourage take up).
- Public transport seasons tickets.
- Parcel lockers (drop-off/pick-up).
- Public transport timetable and route information.

- Active Travel events and promotion.

6.59 The purpose of the TP will be to promote the sustainable transport options within and around the site to encourage sustainable travel from initial occupation.

#### *Signage*

6.60 Contribution towards additional signage is proposed along the length of Wrotham Road between the site and Meopham railway station.

6.61 It was identified as part of the Walking and Cycling Audit that no existing signage to the station is present along the route, however this could encourage existing residents and future residents of the site to walk/cycle to the station as part of a multi-modal journey.

#### *Public Transport*

6.62 New bus stop infrastructure is proposed to the northbound and southbound bus stops including new bus shelter, flag and pole sign, and real-time journey information following existing footway widening.

6.63 As part of the application, we proposed to engage with KCC's public transport team to discuss the existing level of provision and explore any potential improvements.

6.64 As part of the proposals, season tickets will be provided to each household upon initial occupation to promote the use of local bus services and help develop a culture of sustainable travel from the outset.

#### *Parking*

6.65 Following the on-site observations which indicate an existing issue of unlawful and inconsiderate parking, and its subsequent impact on the local highway network, it is proposed that parking will be provided within the site close to the site frontage as part of the TASR. This would either be solely allocated to facilities on Camer Parade or unallocated parking for general use.

6.66 Whilst this was also an issue raised by the local Parish Councils, KCC stated that ideally the site should not be encouraging additional driving as less parking could discourage car travel.

6.67 We welcome confirmation on KCC's preference regarding this measure.

## 7.0 Trip Generation, Distribution and Assignment

### Background

7.1 As previously stated, KCC have requested the use of the Kent Transport Model (KTM)/Gravesham Transport Model (GTM) which will distribute and assign the proposed development traffic.

7.2 At the time of writing, the modelling work is being scoped with KCC and therefore the outputs, and subsequent distribution and assignment will be presented within a TAA.

### Traffic Generation

7.3 This report considers a proposed development of up to 350 residential dwellings.

7.4 The TRICS 7.11.4 database has been used to determine the potential vehicle trip generation for the proposed development. The output is provided at **Appendix H** of this report and summarised in **Table 15**.

7.5 The following parameters have been used within the TRICS assessment:

- Land Use – Residential, Houses Privately Owned.
- Regions – United Kingdom (Excl. Greater London and Ireland).
- Unit Range – 100-140 (Selected Average: 121).
- Date Range – 01/01/2016 – 23/05/2024.
- Locations – Suburban Area, Edge of Town.
- Surveys undertaken during the Covid-19 pandemic were removed.

**Table 15: TRICS Trip Generation Assessment**

Peak Period	Trip Rate (per dwelling)		Vehicle Trips (350 dwellings)		Total
	In	Out	In	Out	
AM	0.156	0.355	55	124	179
PM	0.332	0.187	116	65	182

N.B. Figures subject to rounding.

7.6 The trip generation summarised in **Table 15** indicates that the proposed development is forecast to generate 179 two-way vehicular trips in the AM peak, and 182 two-way vehicle trips in the PM peak.

### Distribution and Assignment

7.7 Notwithstanding the use of the KTM/GTM, an initial distribution exercise has been undertaken to understand where future residents are likely to travel to.

7.8 The distribution exercise was undertaken using Census 2011 Method of Travel to Work data for MSOA Gravesham 012, where the site is situated. It is considered that this data remains suitable to use given the more up to date Census 2021 data was undertaken during Covid-19 when more people were working from home and hence can be considered unrepresentative of true travel patterns.

**T25512**

## Land East of Wrotham Road, Meopham

7.9 The distribution exercise is included at **Appendix I** and summarised in **Table 16**.

**Table 16: Trip Distribution**

Route	Trip Distribution (%)
A2 West	60%
A227 North	18%
A227 South	14%
A2 East	6%
B260 Longfield Road	2%
Sole Street (Via Green Lane)	1%
<b>Total</b>	<b>100%</b>

N.B. Figures subject to rounding to avoid error.

7.10 The results of the distribution and assignment exercise shows that most of the proposed development traffic is likely to assign along Wrotham Road north towards the A2 and to Gravesend, with the remainder of traffic likely to assign south along Wrotham Road towards the M20/M26, and east/north along Sole Street via Green Lane.

7.11 Following the results of the modelling work, the full traffic distribution and assignment will be presented as part of the forthcoming TAA report.

## 8.0 Traffic Impact

- 8.1 As previously stated, all modelling work will be provided as part of a forthcoming TAA report following a review of the KTM/GTM model outputs which will also identify any off-site junctions that require assessment.
- 8.2 However, as part of this TA, an initial assessment has been undertaken of the following junctions:
  - Site Access; and
  - Wrotham Road/Longfield Road.
- 8.3 The site access has been modelled to understand whether the design can accommodate the proposed development traffic.
- 8.4 The Wrotham Road/Longfield Road junction has been observed to have queuing and delay during the AM and PM peak periods and given its close proximity to the proposed development and the Land South of Longfield Road proposals, it is likely to be further impacted should planning approval be granted.
- 8.5 Both models will be updated following review of the KTM/GTM modelling outputs.

### Traffic Data

- 8.6 To underpin the junction assessments, the following traffic survey data was obtained during a neutral traffic period (i.e. during term time):
  - Automatic Traffic Count (ATC) within the vicinity of the site access to identify speeds and vehicle volumes by direction. This was undertaken from 15/03/25 - 21/03/25.
  - Manual Classified Counts (MCC) at the Wrotham Road/Longfield Road junction on 12/03/25 during the AM (07:00-10:00) and PM (15:00-19:00) periods to identify queueing and vehicle turning proportions.
- 8.7 The ATC Survey on Wrotham Road demonstrates that, based on the midweek average two-way flows, the local highway network AM Peak hour is 08:00-0900 and the PM Peak hour is 15:00-16:00.
- 8.8 Given there is little difference between the 15:00-16:00 and 17:00-18:00 flows on the local highway network, the modelled AM and PM base peak hours are based on the proposed development peak hours (08:00-09:00 and 17:00-18:00) to account for the full impact of the proposed development traffic, for the purpose of this initial modelling exercise.
- 8.9 The raw traffic data is included at **Appendix J**.

### *Committed Development Traffic*

- 8.10 As previously stated, the proposed development and Land South of Longfield Road will progress through the relevant planning stages simultaneously and, subject to approval, are likely to open at the same time.
- 8.11 Although the Longfield Road proposal is not a committed development, it has been treated as such for the purposes of the junction assessments.

### Assessment Scenarios

- 8.12 It should be noted that within their pre-application response, KCC stated:

**T25512**

## Land East of Wrotham Road, Meopham

*"The development should assess a future year of 2039, in line with the developing Gravesham Local Plan."*

8.13 On that basis, this has been included within the initial assessments as part of this TA, with the final assessment scenarios to be confirmed following review of the modelling outputs and included within the junction model scenarios as part of the TAA report.

8.14 To create a robust assessment, the following assessment scenarios have been tested:

- 2025 Base Year (For Validation)
- 2030 Base Year (Assumed Opening Year)
- 2030 Base Year + Committed Development
- 2030 Base Year + Committed Development + Proposed Development
- 2039 Base Year (Local Plan Year)
- 2039 Base Year + Committed Development
- 2039 Base Year + Committed Development + Proposed Development

8.15 The Network Flow Diagrams are presented at **Appendix K**.

### *TEMPro Growth Factors*

8.16 The 2025 baseline flows recorded from the ATC survey have been uplifted to a 2030 assumed opening year, and 2039 Local Plan year using NTM adjusted growth factors obtained from the industry recognised TEMPro databased for MSOA Gravesham 012.

8.17 The growth factors are summarised below with the detailed outputs included at **Appendix L**.

- 2025 to 2030 (AM Peak): 1.0542
- 2025 to 2030 (PM Peak): 1.0545
- 2025 to 2039 (AM Peak): 1.1245
- 2025 to 2039 (PM Peak): 1.1240

### **Validation and Calibration**

8.18 To determine the accuracy of the Wrotham Road/Longfield Road junction model, observed queue data from the MCC counts have been compared to the modelled 2025 base assessment scenario queues to understand whether any calibration adjustments to the base model were required.

8.19 The Junctions 11 user manual states that where significant differences between observed queueing and modelled queueing occurs, calibration of the model should be undertaken so that the model is more representative of the observed conditions.

8.20 It should be noted that there is no definition of 'significant' within the user guide, and therefore professional judgement has been applied as to whether calibration of the models is required, noting that queuing at junctions can fluctuate on a day-to-day basis.

**T25512**

## Land East of Wrotham Road, Meopham

8.21 Generally, where there is a difference of an average of one or two vehicles queuing on an arm, this is not considered to be significant and therefore calibration would not be undertaken given adjustment factors could potentially create unrealistic model outputs.

8.22 The average observed and average modelled queues during the AM and PM peak hours are summarised in **Table 17**.

**Table 17: Average Observed and Modelled Queues**

Approach	AM Peak 07:45-09:15			PM Peak 16:45-18:15		
	Observed Queue	Modelled Queue	Difference	Observed Queue	Modelled Queue	Difference
Wrotham Road/Longfield Road						
Longfield Road – Left Turners	1	0	-1	2	0	-2
Longfield Road – Right Turners	5	1	-4	3	0	-3
Wrotham Road	3	0	-3	1	0	-1

8.23 From observations of the queue data, vehicles turning right out of Longfield Road have the highest average observed queues across all arms of the junction, with the highest queue observed to be 12 vehicles in the AM Peak and 6 in the PM peak.

8.24 Considering Junctions 11 applies calibration adjustment factors for the model as a whole; stream intercept adjustments have been applied to the right turn movements on Longfield Road and Wrotham Road based on the AM peak for robustness to bring the average modelled queues as close to the average observed queues as possible without creating unrealistic model outputs.

### Junction Assessment

8.25 All junction assessments have been undertaken using the Junctions 11 software for priority junctions.

8.26 The junction measurements have been based on Topographical survey mapping within the AutoCAD software. As requested by KCC, these measurements are provided in **Drawing T25512.004**.

### Site Access

8.27 The site access has been modelled using a PICADY assessment, with the full junction model outputs included at **Appendix M** and summarised in **Table 18**.

8.28 Given the site access will be new to the local highway network, the proposed development traffic has only been assessed against the 2030 and 2039 future years, with committed development traffic.

**Table 18: Site Access PICADY Results**

Approach	AM Peak 08:00 – 09:00			PM Peak 17:00-18:00		
	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)
2030 Base + Committed Development + Proposed Development						
Site Access	0.62	2	43	0.31	0	23
Wrotham Road	0.02	0	8	0.04	0	8

**T25512****Land East of Wrotham Road, Meopham**

Approach	AM Peak 08:00 – 09:00			PM Peak 17:00-18:00		
	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)
<b>2039 Base + Committed Development + Proposed Development</b>						
Site Access	0.70	2	60	0.34	1	26
Wrotham Road	0.02	0	9	0.04	0	8

8.29 **Table 18** demonstrates that the proposed site access will operate with an RFC of 0.62 and 0.70 during the AM Peak period in the 2030 and 2039 future years, respectively.

8.30 The junction assessment also shows that there could be a maximum queue of 2 vehicles during the AM Peak period during both the 2030 and 2039 future years, along with a maximum delay of 43 and 60 seconds, respectively.

8.31 Overall, the modelling results demonstrate that the proposed site access will operate with plenty of spare capacity during both the AM and PM peak periods across both the 2030 and 2039 future years, along with committed development.

*Wrotham Road/Longfield Road*

8.32 The Wrotham Road/Longfield Road junction has been modelled using a PICADY assessment with the full junction model outputs included at **Appendix M** and summarised in **Table 19**.

**Table 19: Wrotham Road/Longfield Road PICADY Results**

Approach	AM Peak 08:00 – 09:00			PM Peak 17:00-18:00		
	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)
<b>2025 Base</b>						
Longfield Road – Left Turners	0.42	1	28	0.21	1	8
Longfield Road – Right Turners	0.75	3	80	0.33	1	16
Wrotham Road	0.59	1	34	0.18	0	11
<b>2030 Base</b>						
Longfield Road – Left Turners	0.95	4	151	0.39	1	19
Longfield Road – Right Turners	0.91	5	146	0.63	2	51
Wrotham Road	0.66	2	40	0.31	0	20
<b>2030 Base + Committed Development</b>						
Longfield Road – Left Turners	0.98	5	174	0.41	1	21
Longfield Road – Right Turners	0.94	6	170	0.65	2	57
Wrotham Road	0.67	2	42	0.32	1	21

Approach	AM Peak 08:00 – 09:00			PM Peak 17:00-18:00		
	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)
<b>2030 Base + Committed Development + Proposed Development</b>						
Longfield Road – Left Turners	1.09	10	276	0.55	1	31
Longfield Road – Right Turners	1.09	11	281	0.74	3	81
Wrotham Road	0.74	3	47	0.44	1	26
<b>2039 Base + Committed Development + Proposed Development</b>						
Longfield Road – Left Turners	1.35	20	534	0.98	6	153
Longfield Road – Right Turners	1.35	22	529	0.95	6	176
Wrotham Road	0.85	6	56	0.49	1	30

8.33 **Table 19** demonstrates that the Wrotham Road/Longfield junction currently operates within practical capacity during both peak periods, although Longfield Road is approaching the 0.85 RFC practical threshold during the AM peak.

8.34 In the future 2030 year, the junction is likely to operate marginally within theoretical capacity with a max RFC of 0.95 on Longfield Road during the AM peak, although delays could reach 151 seconds.

8.35 The addition of committed development traffic in the 2030 future year slightly increases the RFC values to marginally within the 1.0 threshold during the AM peak on Longfield Road.

8.36 The junction exceeds its practical capacity during the 2039 Base + Committed Development + Proposed Development scenario in the PM peak with RFC values exceeding the 0.85 threshold on Longfield Road.

8.37 The cumulation of both background traffic, committed development traffic and the proposed development traffic in the 2030 and 2039 future years significantly pushes the RFC values beyond the 1.0 RFC threshold during the AM peak with Longfield Road marginally within the 1.0 threshold in the PM peak.

8.38 It should be iterated that model results should be treated with caution given the model will be more sensitive to slight increases in traffic once any approach arm reaches an RFC of 1.0.

### Summary

8.39 The initial junction assessments presented as part of this TA will be updated to reflect the model outputs from the KTC/GTM. These assessments will be included as part of the forthcoming TAA report.

8.40 At this stage, given the initial modelling work undertaken at the Wrotham Road/Longfield Road junction, it is likely that mitigation will be required to improve the operation of the junction. This will be confirmed as part of the TAA following the inclusion of KTM/GTM data.

## 9.0 Summary and Conclusion

- 9.1 Hub Transport Planning Ltd has been commissioned by Richborough to provide transport advice for a proposed residential development on Land East of Wrotham Road, Meopham.
- 9.2 This Transport Assessment has been prepared in support of an outline planning application for the erection of up to 350 residential dwellings, public open space and associated works. Approval is sought for the principal means of vehicular access from Wrotham Road and all other matters are reserved.
- 9.3 The site is situated near to facilities that are likely to be used by residents on a day-to-day basis within suitable walking and cycling distances. For trips further afield, residents are able to travel to key regional and national destinations by public transport, with Meopham railway station offering a relatively frequent services towards Gravesend and London Victoria.
- 9.4 A review of Personal Injury Accident Data (PIA) on the local highway network demonstrates that 10 PIAs have been recorded within the most recent five years of available data from October 2019 to September 2024. Whilst all PIAs are regrettable, the volume and pattern of accidents observed does not suggest any inherent highway safety issue and does not give any undue cause for concern.
- 9.5 The primary vehicular access will be taken from Wrotham Road to the north of the site via a priority junction with a dedicated ghost-island right turn lane. The access comprises a 6m kerbed radii and 6.75m carriageway width, whilst the right turn lane has been designed in accordance with the Design Manual for Roads and Bridges CD123 document.
- 9.6 Several mitigation measures have been proposed in response to comments raised by KCC as part of pre-application engagement. These mainly comprise of active travel improvements to increase the uptake of walking and cycling from initial occupation.
- 9.7 The proposed development is forecast to generate 179 two-way vehicle trips in the AM peak hour, and 181 two-way vehicle trips during the PM peak hour. Initial modelling of the access indicates that the proposed site access will operate with spare capacity in a future 2030 assumed opening year, and 2039 local plan year, along with minimal queuing.
- 9.8 KCC have requested the use of the Kent Transport Model/Gravesend Transport Model to distribute traffic through the local highway network. Following this, local junction modelling will be undertaken of junctions that could be affected by the proposed development traffic. This modelling work will be provided within a subsequent Transport Assessment Addendum.

### Conclusion

- 9.9 The National Planning Policy Framework (NPPF) states that opportunities to promote sustainable transport modes should be taken up and that safe and suitable access to the site is achieved for all users.
- 9.10 The development is located to make use of existing infrastructure and services and is suitable in transport terms; it will promote the use of sustainable modes of transport, and the site will provide safe and suitable access for all users, in accordance with Paragraph 115.
- 9.11 An addendum report will be submitted in due course to present the modelling work, update the site access assessment work and set out the impacts of the proposed development across the local highway network.

**T25512**

**Land East of Wrotham Road, Meopham**

---



**THIS PAGE IS LEFT INTENTIONALLY BLANK**

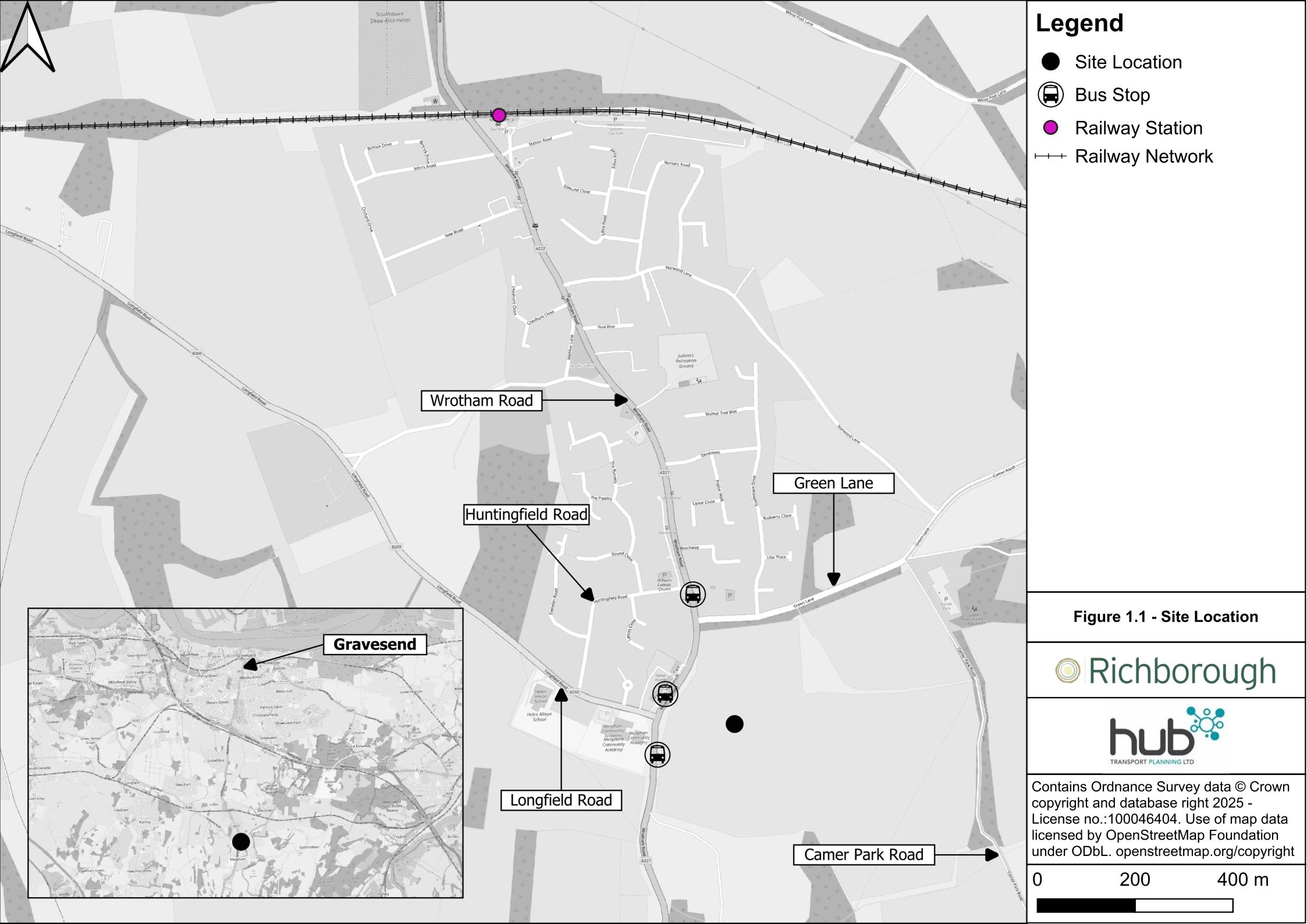
**T25512**

**Land East of Wrotham Road, Meopham**



---

## Figures





## Legend

● Site Location

Walking Distances

800m

1.2km

2.0km

PRoW

++ Byway open to all traffic

- - - Public Bridleway

- - - - Public Footpath

— KCC Promoted Walking Route

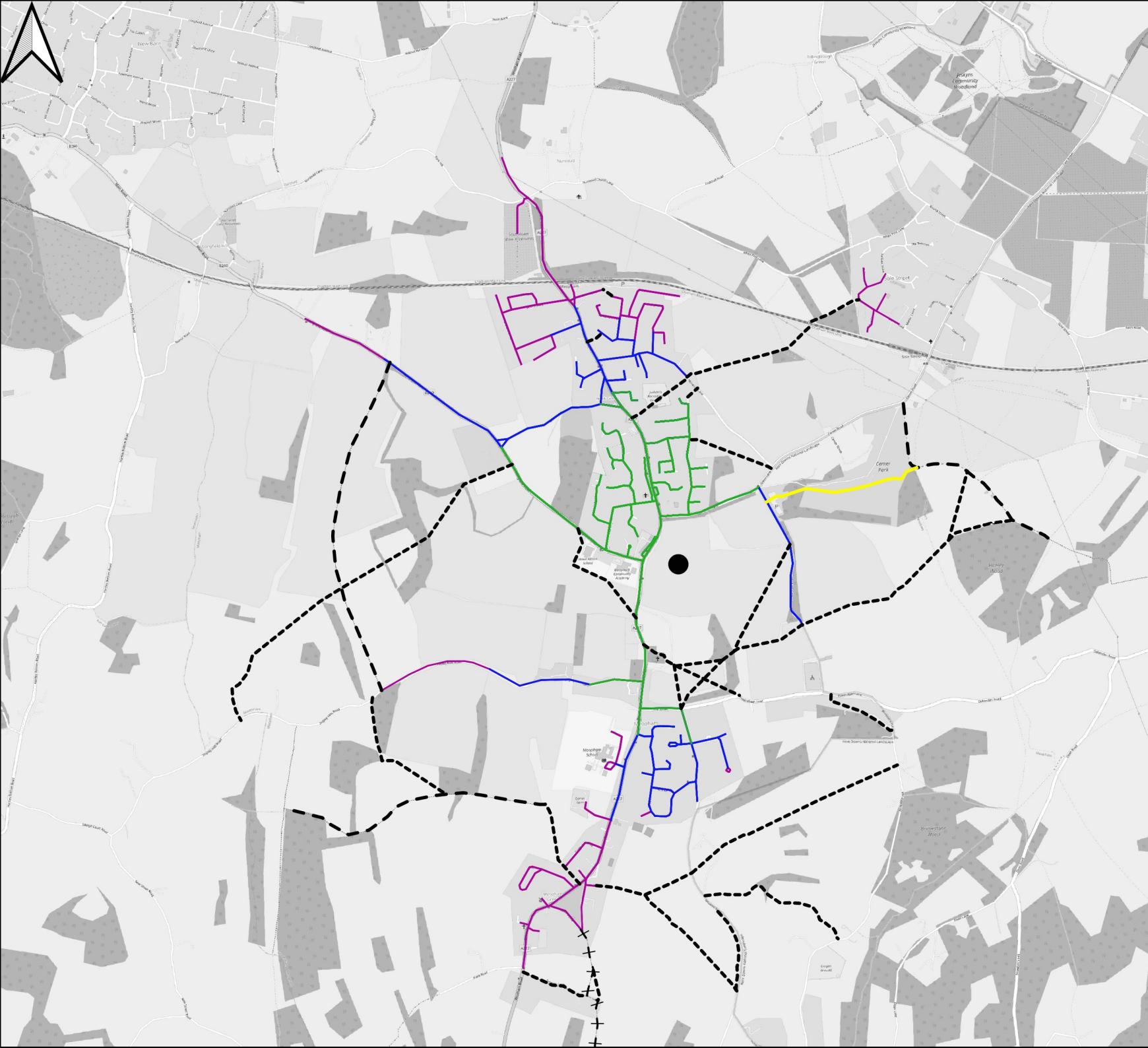


Figure 5.1 - Walking Distances

 Richborough

  
hub  
TRANSPORT PLANNING LTD

Contains Ordnance Survey data © Crown  
copyright and database right 2025 -  
License no.:100046404. Use of map data  
licensed by OpenStreetMap Foundation  
under ODbL. [openstreetmap.org/copyright](http://openstreetmap.org/copyright)

0 0.5 1 km



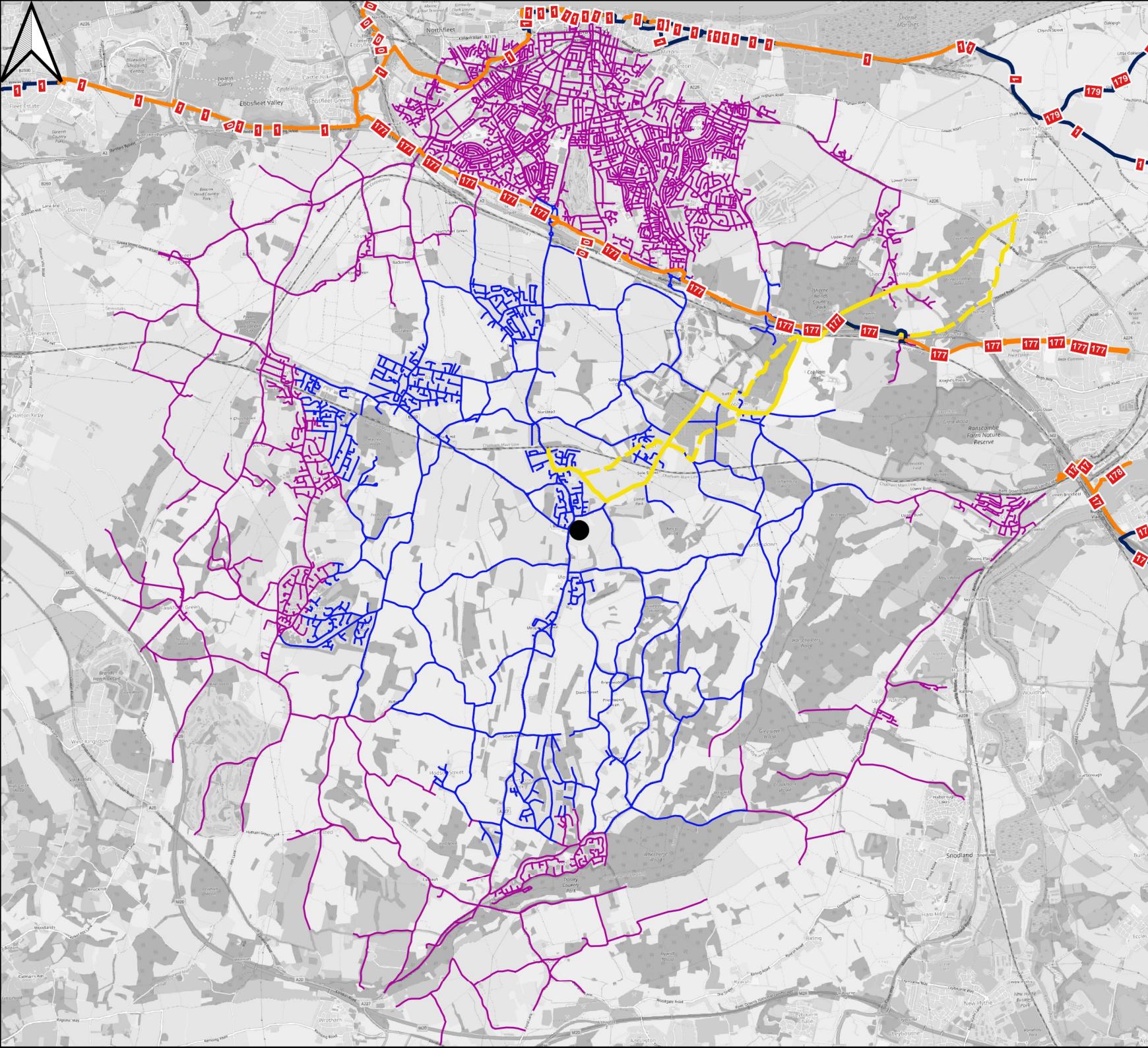
**Figure 5.2 - Local Facilities**

 **Richborough**

  
**hub**  
TRANSPORT PLANNING LTD

Contains Ordnance Survey data © Crown copyright and database right 2025 - License no.:100046404. Use of map data licensed by OpenStreetMap Foundation under ODbL. [openstreetmap.org/copyright](http://openstreetmap.org/copyright)

0 400 800 m



## Legend

- Site Location
- Cycling Distances
  - 5.0km
  - 8.0km
- National Cycle Network
  - On-Road Route on NCN
  - Traffic-Free Route on NCN
- LCWIP Routes
  - Preferred Route
  - Alternative Route

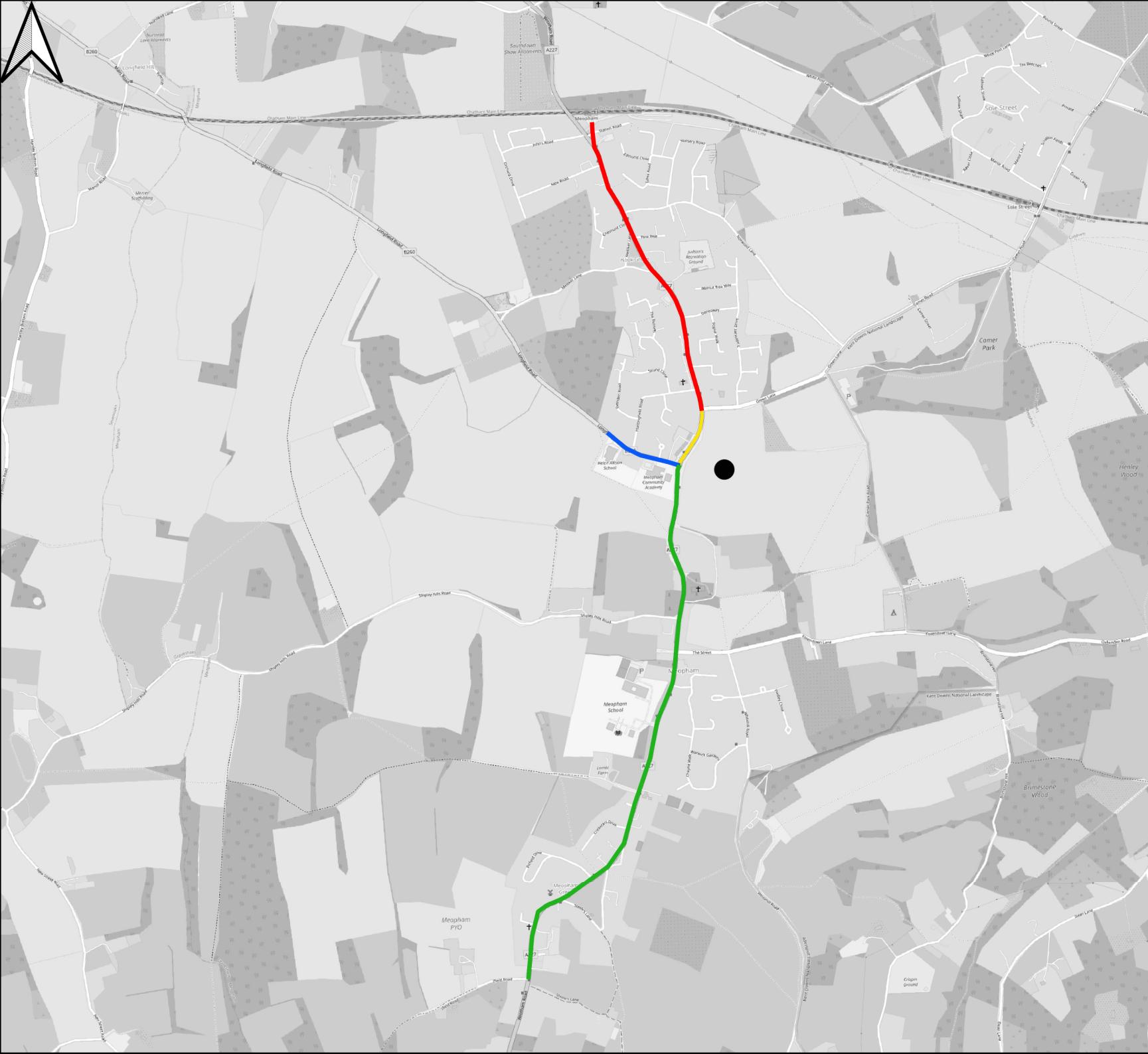
**Figure 5.3 - Cycling Distances**

 Richborough

hub  
TRANSPORT PLANNING LTD.

Contains Ordnance Survey data © Crown  
copyright and database right 2025 -  
License no.:100046404. Use of map data  
licensed by OpenStreetMap Foundation  
under ODbL. [openstreetmap.org/copyright](http://openstreetmap.org/copyright)

0 1.5 3 km



## Legend

- Site Location
- Audit Routes
  - Route 1
  - Route 2
  - Route 3
  - Route 4

Figure 5.4 - ATE Audited Routes

 Richborough

 hub  
TRANSPORT PLANNING LTD

Contains Ordnance Survey data © Crown copyright and database right 2025 - License no.:100046404. Use of map data licensed by OpenStreetMap Foundation under ODbL. [openstreetmap.org/copyright](http://openstreetmap.org/copyright)

0 400 800 m

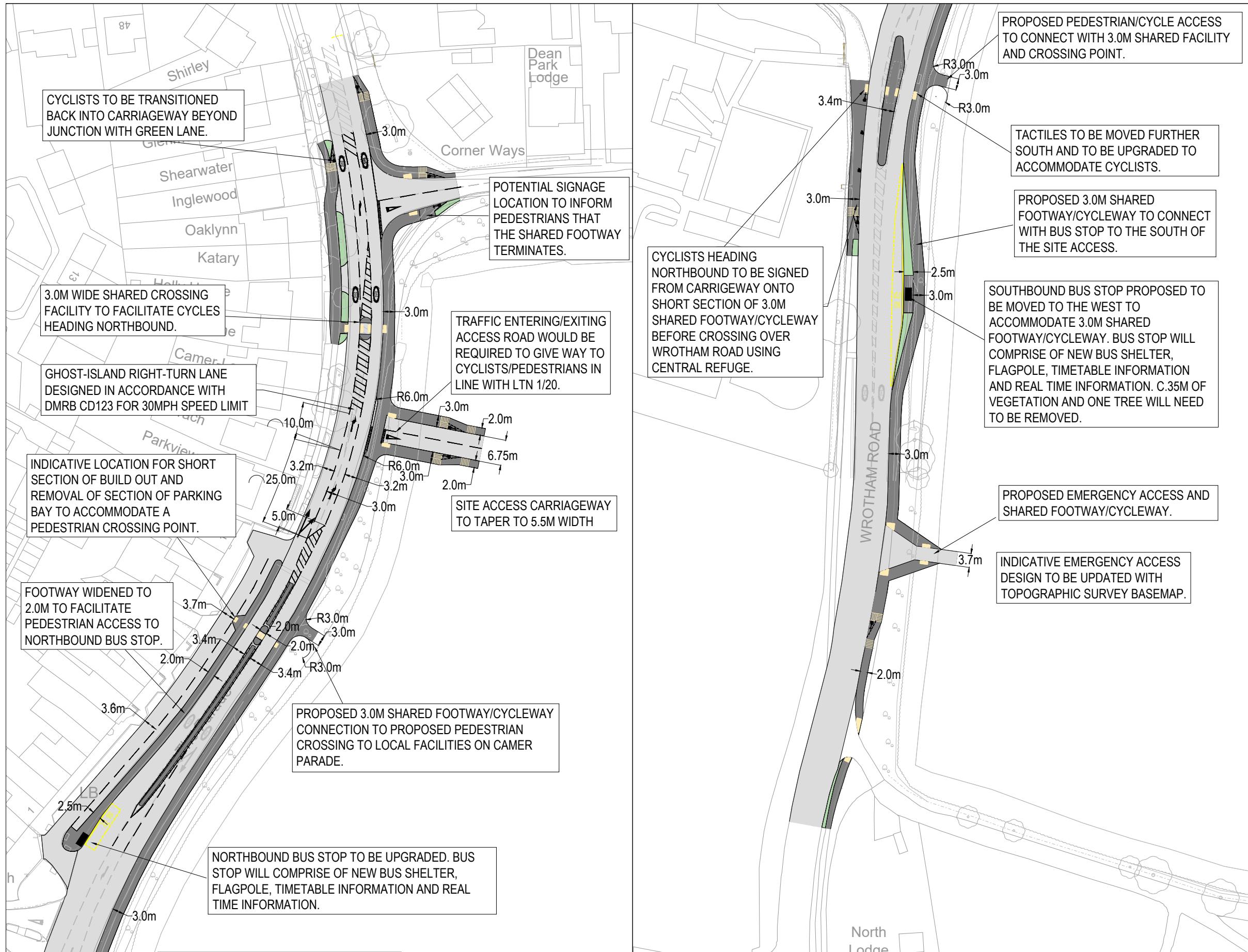
**T25512**

**Land East of Wrotham Road, Meopham**



---

## **Drawings**



1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.

F	TACTILE CROSSING ON ACCESS ROAD MOVED CLOSER TO SHARED FACILITY FOLLOWING RSA.	17.09.25	MJ	GM
E	UPDATED FOLLOWING COMMENTS RAISED WITHIN STAGE 1 RSA.	11.09.25	MJ	GM
D	INCLUSION OF PED/CYCLE ACCESS ADJACENT PEDESTRIAN CROSSING TO CAMER PARADE.	02.09.25	MJ	GM
C	UPDATED PEDESTRIAN AND CYCLE CROSSING OVER ACCESS	22.08.25	MJ	GM
B	UPDATED WITH 3.0M SHARED FOOTWAY/CYCLEWAY	30.07.25	MJ	GM
A	UPDATED WITH TOPOGRAPHICAL SURVEY	15.05.25	MJ	GM

REV DESCRIPTION DATE BY AUTH



hub  
TRANSPORT PLANNING LTD

Hub Transport Planning Ltd  
Floor 1B  
4 Temple Row  
Birmingham  
B2 5HG

T: 0121 464 5530

CLIENT  
**RICHBOROUGH**

PROJECT  
**WROTHAM ROAD MEOPHAM**

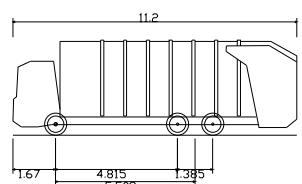
**TITLE**  
**PROPOSED SITE ACCESS WITH  
VISIBILITY SPLAYS**

DRAWN	AUTHORISED	SCALE	SHEET SIZE	DATE
MJ	GM	1:1000	A3	15.05.25

PROJECT NO.	DRAWING NO.	REV
T25512	001	E



1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.  
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)  
 Overall Length 11.200m  
 Overall Width 2.530m  
 Overall Body Height 3.751m  
 Min. Body Ground Clearance 0.304m  
 Track Width 2.500m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 9.500m

E	TACTILE CROSSING ON ACCESS ROAD MOVED CLOSER TO SHARED FACILITY FOLLOWING RSA.	17.09.25	MJ	GM
D	UPDATED FOLLOWING COMMENTS RAISED WITHIN STAGE 1 RSA.	11.09.25	MJ	GM
C	INCLUSION OF PED/CYCLE ACCESS ADJACENT PEDESTRIAN CROSSING TO CAMER PARADE.	02.09.25	MJ	GM
B	UPDATED WITH 3.0M SHARED FOOTWAY/CYCLEWAY	30.07.25	MJ	GM
A	UPDATED WITH TOPOGRAPHICAL SURVEY	15.05.25	MJ	GM

REV DESCRIPTION DATE BY AUTH



Hub Transport Planning Ltd  
Floor 1B  
4 Temple Row  
Birmingham  
B2 5HG  
T: 0121 454 5530

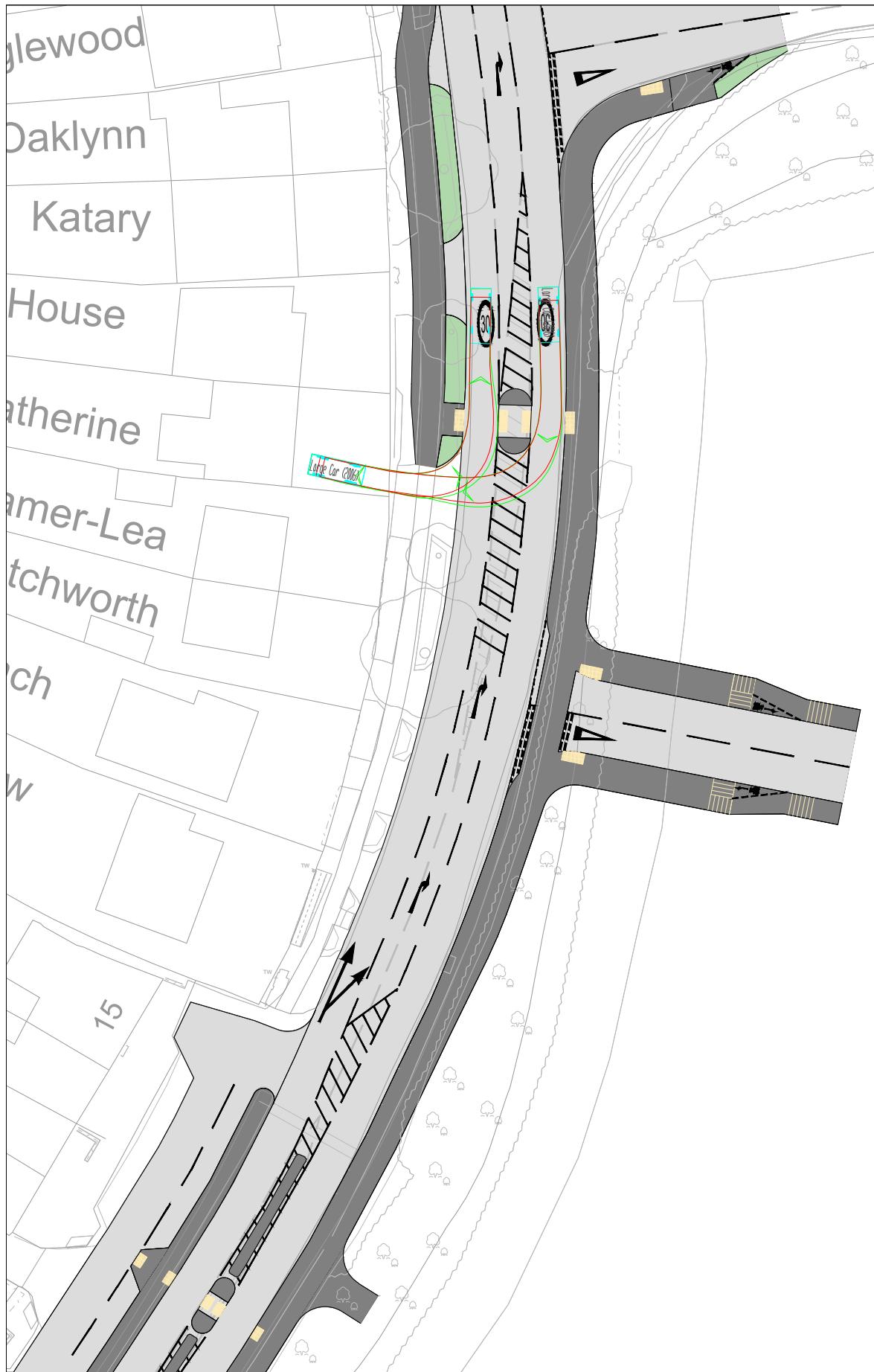
CLIENT  
RICHBOROUGH

PROJECT  
WROTHAM ROAD, MEOPHAM

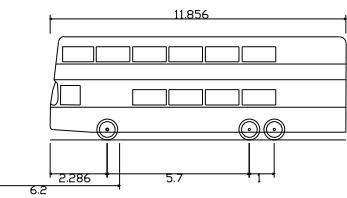
TITLE  
PROPOSED SITE ACCESS WITH  
SWEPT PATH ANALYSIS

DRAWN	AUTHORISED	SCALE	SHEET SIZE	DATE
MJ	GM	1:500	A3	15.05.25

PROJECT NO.	DRAWING NO.	REV
T25512	002	E

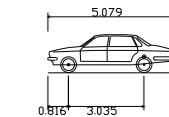


1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.  
 2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.



11.856m  
2.496m  
4.140m  
0.311m  
2.363m  
4.00s  
9.500m

Trident II - 12.00m 3-Axle  
 Overall Length  
 Overall Width  
 Overall Body Height  
 Min Body Ground Clearance  
 Track Width  
 Lock to lock time  
 Kerb to Kerb Turning Radius



5.079m  
1.872m  
1.525m  
0.310m  
1.831m  
4.00s  
5.900m

Large Car (2006)  
 Overall Length  
 Overall Width  
 Overall Body Height  
 Min Body Ground Clearance  
 Max Track Width  
 Lock to lock time  
 Kerb to Kerb Turning Radius

5.079m  
1.872m  
1.525m  
0.310m  
1.831m  
4.00s  
5.900m

A	TACTILE CROSSING ON ACCESS ROAD MOVED CLOSER TO SHARED FACILITY FOLLOWING RSA.	17.09.25	MJ	GM
---	--	----------	----	----

REV	DESCRIPTION	DATE	BY	AUTH
-----	-------------	------	----	------

**hub**  
 TRANSPORT PLANNING LTD  
 Hub Transport Planning Ltd  
 Floor 1B  
 4 Temple Row  
 Birmingham  
 B2 5HG  
 T: 0121 454 5530

Hub Transport Planning Ltd  
 Floor 1B  
 4 Temple Row  
 Birmingham  
 B2 5HG  
 T: 0121 454 5530

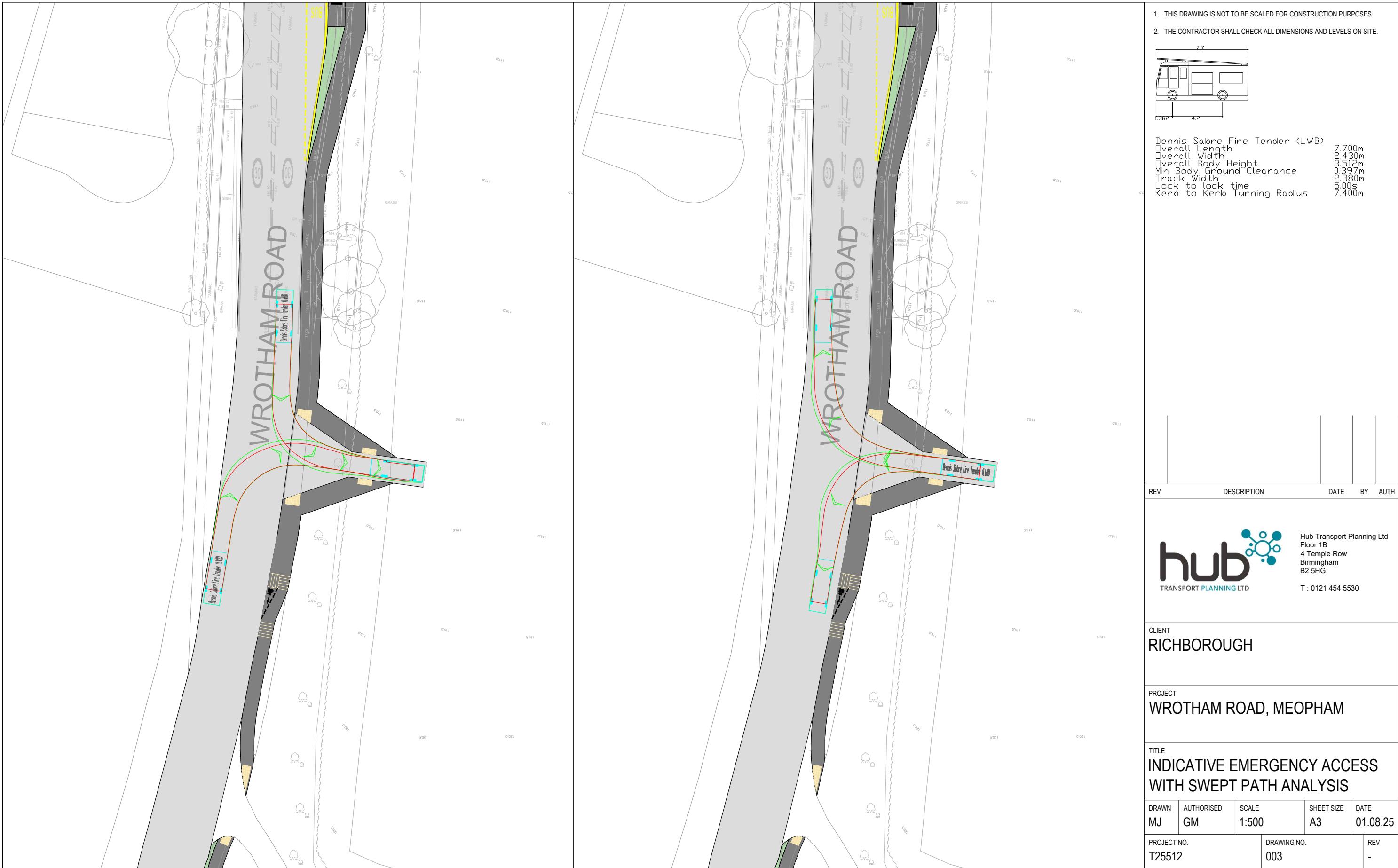
CLIENT  
**RICHBOROUGH**

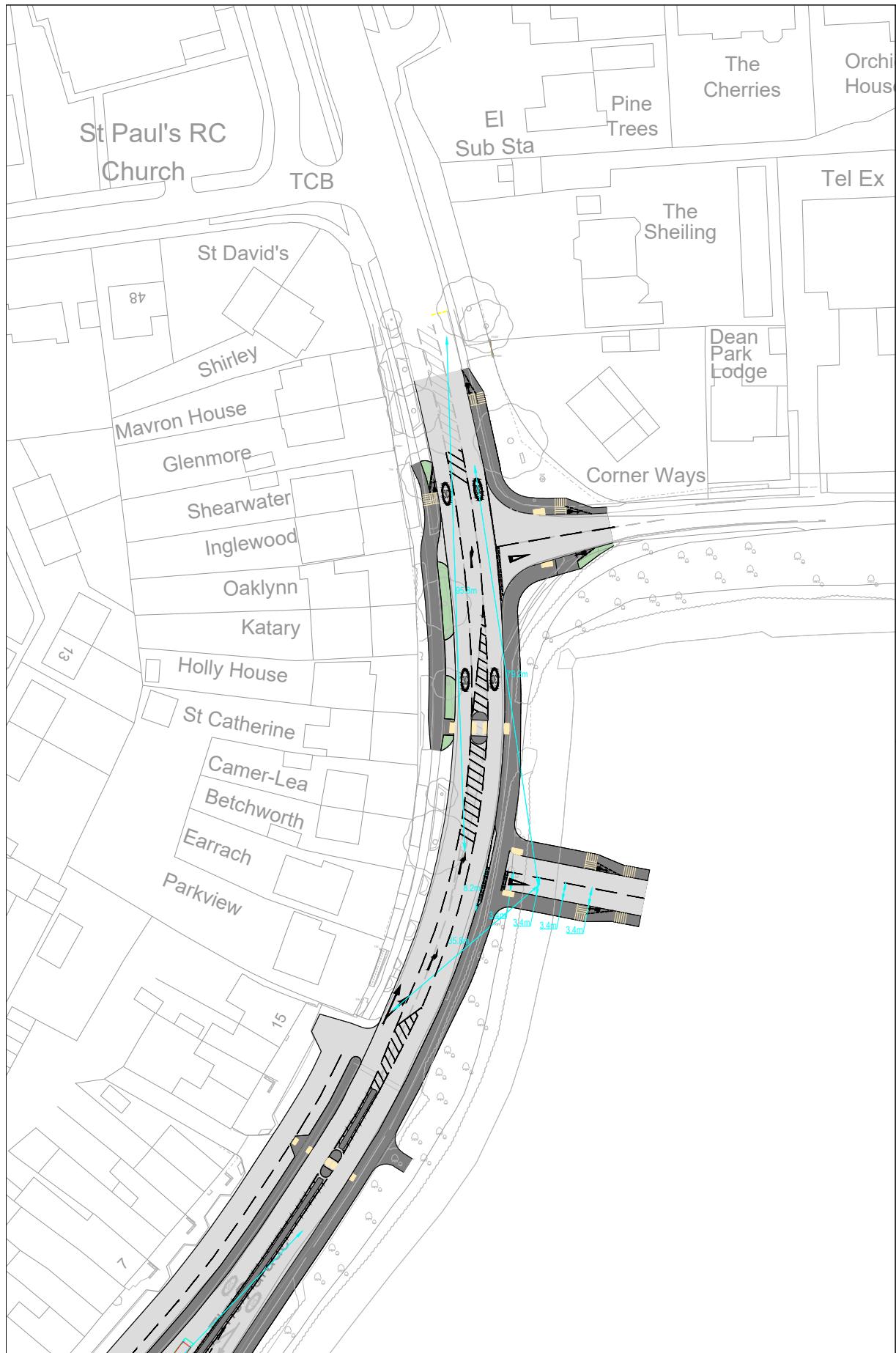
PROJECT  
**WROTHAM ROAD, MEOPHAM**

TITLE  
**PROPOSED SITE ACCESS WITH SWEPT PATH ANALYSIS 02**

DRAWN MJ	AUTHORISED GM	SCALE 1:500	SHEET SIZE A3	DATE 11.09.25
-------------	------------------	----------------	------------------	------------------

PROJECT NO. T25512	DRAWING NO. 002.01	REV A
-----------------------	-----------------------	----------





1. THIS DRAWING IS NOT TO BE SCALED FOR CONSTRUCTION PURPOSES.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND LEVELS ON SITE.

A	TA CTILE CROSSING ON ACCESS ROAD MOVED CLOSER TO SHARED FACILITY FOLLOWING RSA.	17.09.25	MJ	GM
---	---	----------	----	----



Hub Transport Planning Ltd  
Floor 1B  
4 Temple Row  
Birmingham  
B2 5HG

CLIENT  
**RICHBOROUGH**

PROJECT  
**WROTHAM ROAD, MEOPHAM**

## JUNCTION MEASUREMENTS

DRAWN	AUTHORISED	SCALE	SHEET SIZE	DATE
MJ	GM	1:1000	A3	01.08.25

PROJECT NO.	DRAWING NO.	REV
T25512	004	A